



**Nomination of  
Hill Forts of Rajasthan  
for inclusion on World Heritage List**







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# Nomination of **Hill Forts of Rajasthan** for inclusion on World Heritage List

Submitted by:



**Archaeological Survey of India**  
Government of India

Supported by:

**Government of Rajasthan**



Executive Summary  
Key Terms

<b>1. Identification of the property</b> .....	1.1
1.a Country.....	1.2
1.b State, Province or Region .....	1.2
1.c Name of property .....	1.2
1.d Geographical coordinates to the nearest second.....	1.2
1.e Maps and plans, showing the boundaries of the nominated property and buffer zone.....	1.3
1.f Area of property proposed for inscription (ha.) and buffer zone .....	1.38
<b>2. Description</b> .....	2.1
2.a Description of property	
Chittorgarh Fort.....	2.3
Kumbhalgarh Fort.....	2.59
Ranthambore Fort .....	2.123
Gagron Fort.....	2.165
Amber Fort.....	2.201
Jaisalmer Fort.....	2.242
2.b History and Development	
Chittorgarh Fort.....	2.270
Kumbhalgarh Fort.....	2.295
Ranthambore Fort .....	2.307
Gagron Fort.....	2.319
Amber Fort.....	2.327
Jaisalmer Fort.....	2.336
<b>3. Justification for Inscription</b> .....	3.1
3.1.a Brief Synthesis.....	3.3
3.1.b Criteria under which inscription is proposed (and justification for inscription under these criteria).....	3.8
3.1.c Statement of Integrity.....	3.20
3.1.d Statement of Authenticity(for nomination under criteria(i) to (vi)).....	3.35
3.1.e Protection and management requirements.....	3.67
3.2 Comparative Analysis.....	3.70
3.3 Proposed Statement of Outstanding Universal Value.....	3.99
<b>4. State of conservation and factors affecting the property</b> .....	4.1
4.a Present state of conservation.....	4.3
4.b Factors affecting the property.....	4.13
(i) Development Pressures .....	4.13
(ii) Environmental pressures.....	4.17
(iii) Natural Disasters and risk.....	4.18
(iv) Responsible visitation at World Heritage sites.....	4.19
(v) Number of inhabitants within the property and the buffer zone.....	4.21
<b>5. Protection and management of the property</b> .....	5.1
5.a Ownership.....	5.3
5.b Protective designation.....	5.10
5.c Means of implementing protective measures.....	5.11
5.d Existing plans related to municipality and region in which the proposed property is located.....	5.14
5.e Property management plan or other management system.....	5.19
5.f Sources and levels of finance.....	5.28
5.g Sources of expertise and training in conservation and management techniques.....	5.33
5.h Visitor facilities and statistics.....	5.35
5.i Policies and programmes related to the presentation and promotion of the property.....	5.39
5.j Staffing levels.....	5.40



<b>6. Monitoring</b> .....	6.1
6.a Key indicators for measuring state of conservation .....	6.3
6.b Administrative arrangements for monitoring property .....	6.5
6.c Results of previous reporting exercises.....	6.7
<b>7. Documentation</b> .....	7.1
7.a Photographs, slides, image inventory and authorization table and other audiovisual materials.....	7.3
7.b Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the property.....	7.6
7.c Form and date of most recent records or inventory of property.....	7.6
7.d Address where inventory records and archives are held.....	7.7
7.e Bibliography.....	7.7
<b>8. Contact Information of responsible authorities</b> .....	8.1
8.a Preparer.....	8.3
8.b Official Local Institution/Agency.....	8.3
8.c Other Local Institutions.....	8.3
8.d Official Web address.....	8.3
<b>9. Signature on behalf of the State Party</b> .....	9.1
<b>APPENDICES</b>	
Appendix I : General photographs of the property	
Appendix II : Letters of authorisation for photographs	
Appendix III : Letters of support	
Appendix IV : Chronology (1206–1526 AD) (Source: Nossov & Delf 2006, p. 17)	
Appendix V : 19 <sup>th</sup> century Map of Rajasthan	
Appendix VI : Glossary	
Appendix VII :Status Report	
Appendix VIII :Minutes of consultative meeting for Amber	
Appendix IX : Scope of work and agreement for preparation of Management Plan for Jaisalmer Fort	
Appendix X :ICOMOS Advisory Mission report	
Appendix XI :Abstracts of interpretative material on Gagron Fort and Amber	





# Executive Summary

**Executive Summary**

**State Party:** Archaeological Survey of India (ASI)

**State, Province or Region:** India

**Name of Property:** Hill Forts of Rajasthan

**Geographical coordinates to the nearest second:**

S. No.	Name	Nearest City/Town	District	Geographical Coordinates	Buffer coordinates	Map reference
1	Chittorgarh Fort	Chittorgarh	Chittorgarh	N 24 °53' 00" E 74° 38' 46"	N 24 °53' 27" N 24 °54' 14" N 24 °51' 27" N 24 °51' 11" N 24 °51' 56" N 24 °53' 50" E 74° 38' 53" E 74° 39' 18" E 74° 39' 24" E 74° 39' 00" E 74° 38' 28" E 74° 38' 24"	1.2,1.8, 1.14,1.20, 1.26,1.27
2	Kumbhalgarh Fort	Kumbhalgarh	Rajsamand	N 25° 09' 00" E 73° 35' 00"	N 25° 09' 36" N 25° 09' 59" N 25° 09' 34" N 25° 08' 55" N 25° 07' 27" N 25° 09' 18" E 73° 34' 32" E 73° 35' 10" E 73° 35' 48" E 73° 35' 39" E 73° 34' 43" E 73° 34' 30"	1.3,1.9, 1.15,1.21, 1.28,1.29
3	Ranthambore Fort	Sawai Madhopur	Sawai Madhopur	N 26° 01' 6" E 76° 27' 22"	N 26° 01' 41" N 26° 02' 06" N 26° 01' 33" N 26° 00' 34" N 26° 00' 28" N 26° 01' 31" E 76° 26' 00" E 76° 28' 00" E 76° 27' 40" E 76° 28' 01" E 76° 27' 30" E 76° 26' 39"	1.4,1.10,1. 16,1.22,1. 30,1.31
4	Gagron Fort	Jhalawar	Jhalawar	N 24° 37' 35" E 76° 11' 14"	N 24° 38' 25" N 24° 37' 58" N 24° 37' 06" N 24° 37' 11" N 24° 37' 42" E 76° 10' 56" E 76° 11' 56" E 76° 12' 12" E 76° 11' 22" E 76° 10' 18"	1.5, 1.11,1.17, 1.23,1.32
5	Amber Fort	Jaipur	Jaipur	N 26° 59' 5" E 75° 51' 7"	N 26° 59' 42" N 26° 59' 36" N 26° 59' 05" N 26° 59' 02" N 26° 58' 26" N 26° 58' 47" N 26° 59' 22" N 26° 59' 33" E 75° 51' 23" E 75° 51' 53" E 75° 51' 45" E 75° 51' 22" E 75° 51' 20" E 75° 50' 34" E 75° 50' 41" E 75° 50' 56"	1.6,1.12, 1.18,1.24, 1.33
6	Jaisalmer Fort	Jaisalmer	Jaisalmer	N 26°54'45 " E 70°54'45"	N 26° 55' 11" N 26° 55' 08" N 26° 55' 01" N 26° 54' 35" N 26° 55' 33" N 26° 54' 38" N 26° 54' 47" E 70° 54' 79" E 70° 55' 02" E 70° 55' 15" E 70° 55' 02" E 70° 54' 45" E 70° 54' 34" E 70° 54' 36"	1.7,1.13,1. 19,1.25, 1.34



### **Textual description of the boundary (ies) of the nominated property**

The 'Hill Forts of Rajasthan' is a serial property formed by 6 Hill Fort sites in Rajasthan with the following boundaries for each:

- The Hill Fort of Chittorgarh comprises 305 hectares of land area with the buffer zone having an additional area of 440 hectares. It is located on the top of a high hilly outcrop of the Aravallis about 609 metres above sea level on the eastern edge of the city of Chittorgarh. The property has a perimeter of about 4.5 km. The hill that forms the boundaries of the buffer zone is about 2 km long and 155 m wide

- Kumbhalgarh Fort, located in district Rajsamand of Rajasthan State comprises approximately 268 hectares of land area with the buffer zone having an additional area of 1339 Hectares. It is situated on a hill peak of the Aravalli range at a varying altitude of about 500 -1300 m above sea level. The buffer zone comprises part of the surrounding Kumbhalgarh Wildlife Sanctuary and takes into account aspects such as the viewing points from the surrounding hills and historic watch towers in the vicinity.

- Ranthambore Fort located on the top of the Thambhor hill is on one edge of the thick dense forest of the National Park of Ranthambore. The reserve forest lies on the junction of Aravali and Vindhya range of mountains just 14 km from city of Sawai Madhopur in eastern Rajasthan and sprawls over a varying and undulating landscape. The property comprises of approximately 102 hectares of land area with the buffer zone having an additional area of 372 hectares. The buffer zone includes the entire hill on which the fort stands along with surrounding water bodies of the Padam Talav, Malik - Talav and Raj Bagh visible from the north eastern edge of the fort.

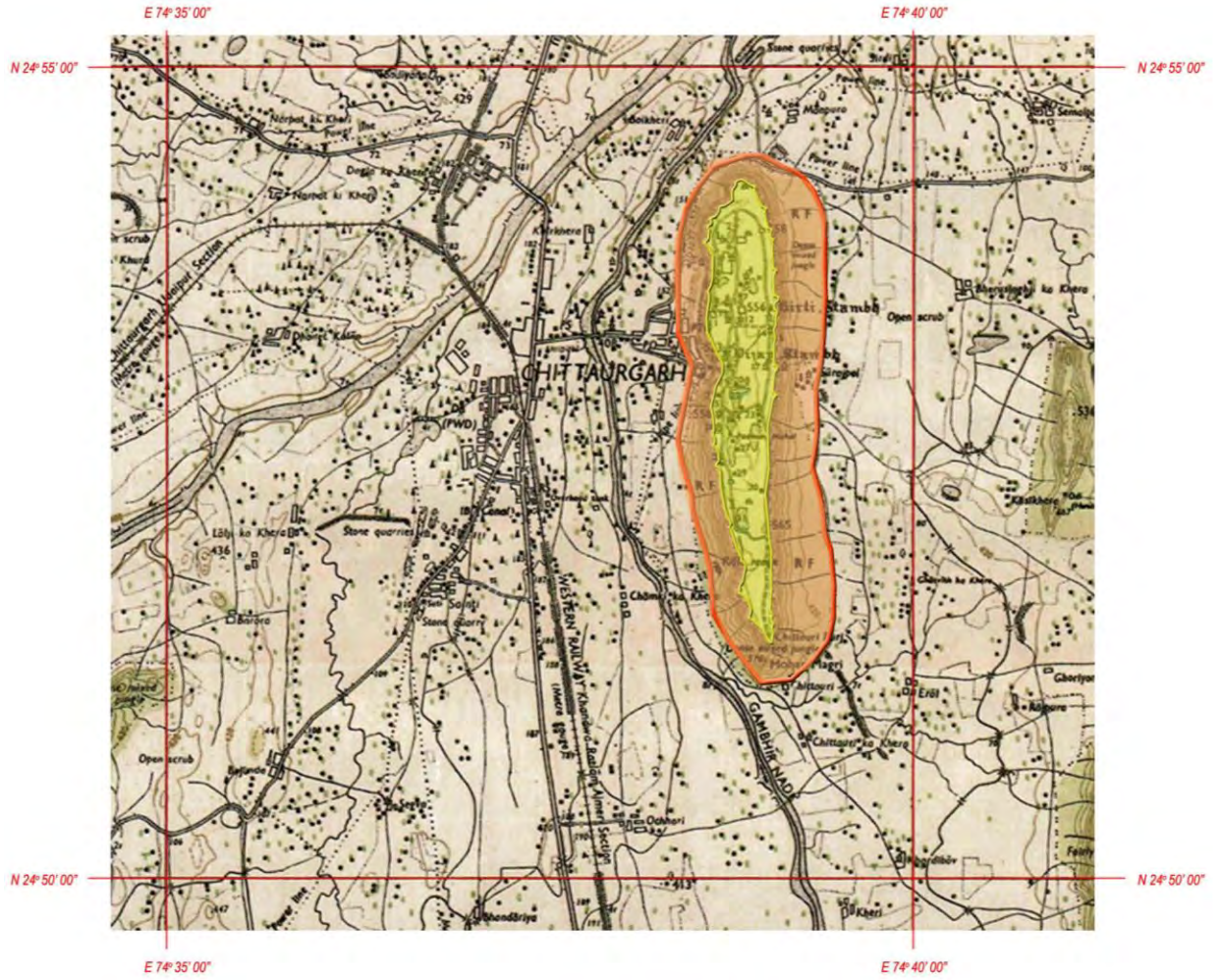
-Gagron Fort located about 10 km from the town of Jhalawar rests on the crest of the Vindhyan hill range surrounded by the waters of the Ahu and Kali Sindh rivers on three sides. The property within the fortification comprises of 23 hectares with a surrounding Buffer Zone of 722 hectares including the surroundings of the nearby hills and the river bend in the northern side of the fort.

- Amber Fort is located in a valley formed by a range of Aravallis known as Kalikho Hills and placed on the hill below the connecting fort of Jaigarh, a few kms to the north of the city of Jaipur. It comprises of approximately 30 hectares of land area with the proposed buffer zone having an additional area of 498 hectares including part of the Nahargarh Wildlife Sanctuary and the entire town of Amber located down in the valley below the Fort.

- Jaisalmer Fort, located in district Jaisalmer of Rajasthan State comprises approximately 8 hectares of land area with the buffer zone having an additional area of 89 Hectares. It is situated on Trikuta Hill rising 76 meters above the surrounding plain.

Map of the nominated property, showing boundaries and buffer zone.

Chittorgarh Fort



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



- Nominated property
- Buffer zone

Roads, metalled: according to importance: distance stone unmetalled: do. do. bridge			
Cart-track: Pack-track and pass. Foot-path with bridge			
Bridges: with piers without. Causeway. Ford or Ferry			
Stream: with track in bed undefined. Canal			
Dam: masonry or rock-filled earthen. Weir			
River banks: sloping: steep: 3 to 6 metres: deep: 6 metres			
dry: with water channels: with island & rocks Tidal river			
S-bank: led rocks. Shoal. Sandspit. Reeds			
Weir: dam: masonry tub well. Spring Tanks: perennial: dry			
Well: masonry: sand or earth tank Broken ground			
Other: masonry: masonry: masonry: masonry			
Mineral: tile: masonry: masonry: masonry			
Coast: with laboratories Rocky			

Towns or Villages: inhabited: deserted: Fort			
Rails: permanent: temporary: Tower: Antiquities			
Temple: Chhatra: Church: Mosque: Idgh: Tomb: Graves			
Lighthouse: Lights: Beacon: Lighted: unlighted: Anchorage			
Mine: Vine on trellis: Grass: Scrub			
Palms: palmyra: yucca: Plantain: Conifer: Bamboo: Other: trees			
Boundary: international: state demarcated: undemarcated			
district: sub-district: tahsil or taluk: forest			
Boundary pillars: surveyed: un-surveyed: village junction			
Heights: triangulated: station: points: approximate: 200 200 300			
Bench-mark: geodetic: tertiary: canal: BM 63.3 58.43.3 63			
Post office: Telegraph office: Combined office: Police station: PD TC PTD PS			
Bungalows: dhak or travellers: inspection: Rest-house: DB W (Coal) KH (Forest)			
Circuit house: Camping ground: Forest: reserved: protected: CH (CE) KF PF			



# Executive summary

v

## Kumbhalgarh Fort



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



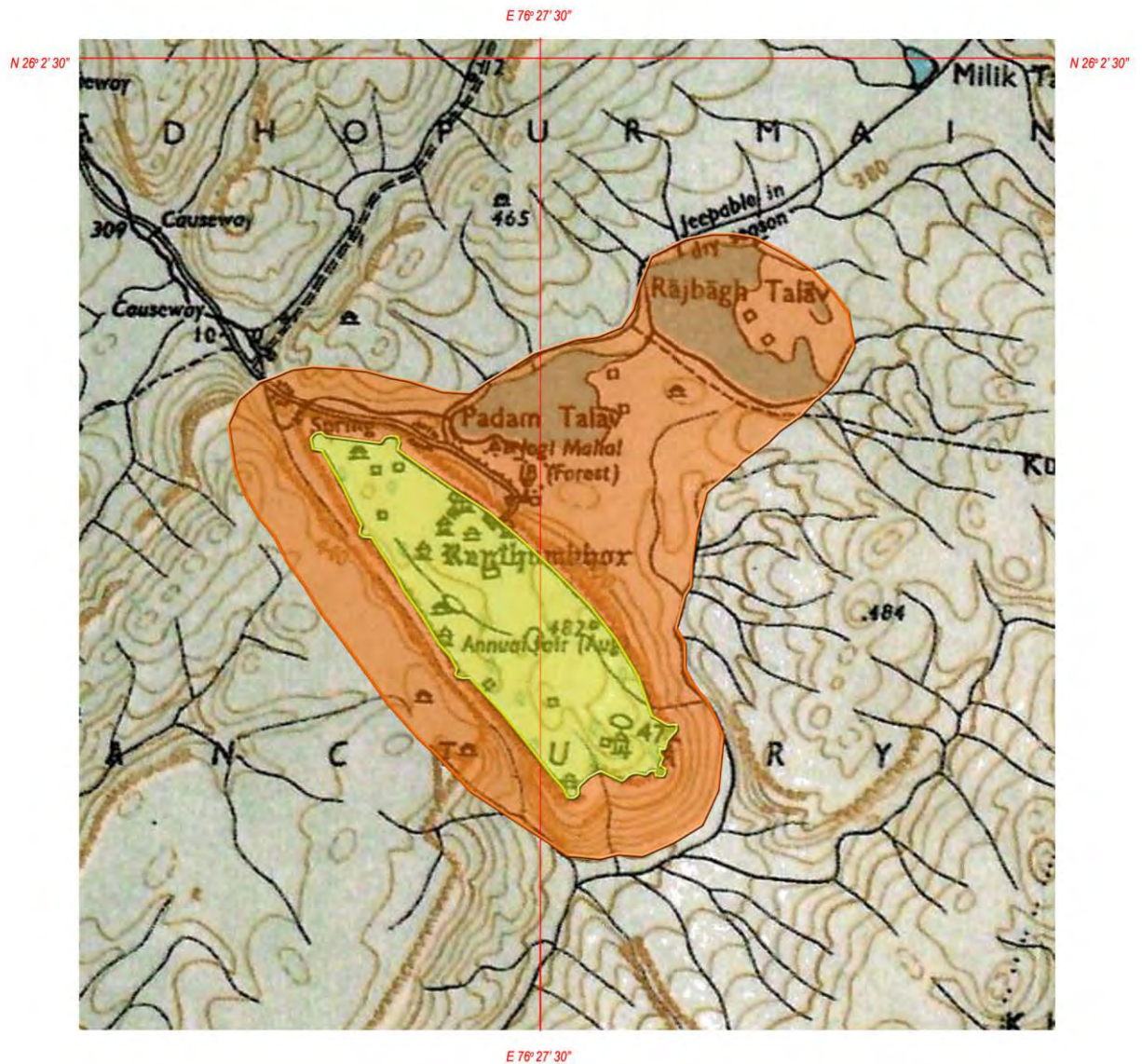
- Nominated property
- Buffer zone
- Aret Pol And Halla Pol

Roads, metalled, according to importance, distance stone		20
unmetalled, do. do. bridge		
Cart-track, Pack-track and pass, Foot-path with bridge		
Bridges, with piers, without, Causeway, Ford or Ferry		
Streams, with track in bed, undefined, Canal		
Dams, masonry or rock-filled-earthwork, Weir		
River banks, shelving, steep, 3 to 6 metres, over 6 metres		
dry with water channel, with island & rocks, Tidal river		
Submerged rocks, Shoal, Swamp, Reeds		
Wells: lined, unlined, Tube-well, Spring, Tanks: perennial, dry		
Embankments: road or rail, tank, Broken ground		
Railways, broad gauge: double, single with station, under constr.		
other gauges: do. do. with distance stone, do.		
Mineral line or tramway, Telegraph line, Cutting, with tunnel		
Contours with sub-features, Rocky slopes, Cliffs		
Sand features: dunes, hills and dunes, surveyed, shifting, dunes		

Towns or Villages: inhabited, deserted, Fort		
Huts: permanent, temporary, Tower, Antiquities		
Temple, Chhatra, Church, Mosque, Idgh, Tomb, Graves		
Lighthouse, Lightship, Buoys: lighted, unlighted, Anchorage		
Mine, Vine on trellis, Grass, Scrub		
Palms: palmyra, other, Plantain, Conifer, Bamboo, Other trees		
Boundary, international		
state: demarcated, undemarcated		
district: subdivin, tahsil or taluk, forest		
Boundary pillars: surveyed, unlocated		
Heights: triangulated: station, point, approximate		200 200
Bench-mark: geodetic, tertiary, canal		BM 63-3 BM 63-3
Post office, Telegraph office, Combined office, Police station		PO TO PTD PS
Bungalows: dak or travellers, inspection, Rest-house		DB (Canal) RH (Forest)
Circuit house, Camping ground, Forest: reserved, Botected		CH CG R F P F
Spaced names: administrative, locality or tribal		KIKRI NAGA



Ranthambore Fort



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



- Nominated property
- Buffer zone

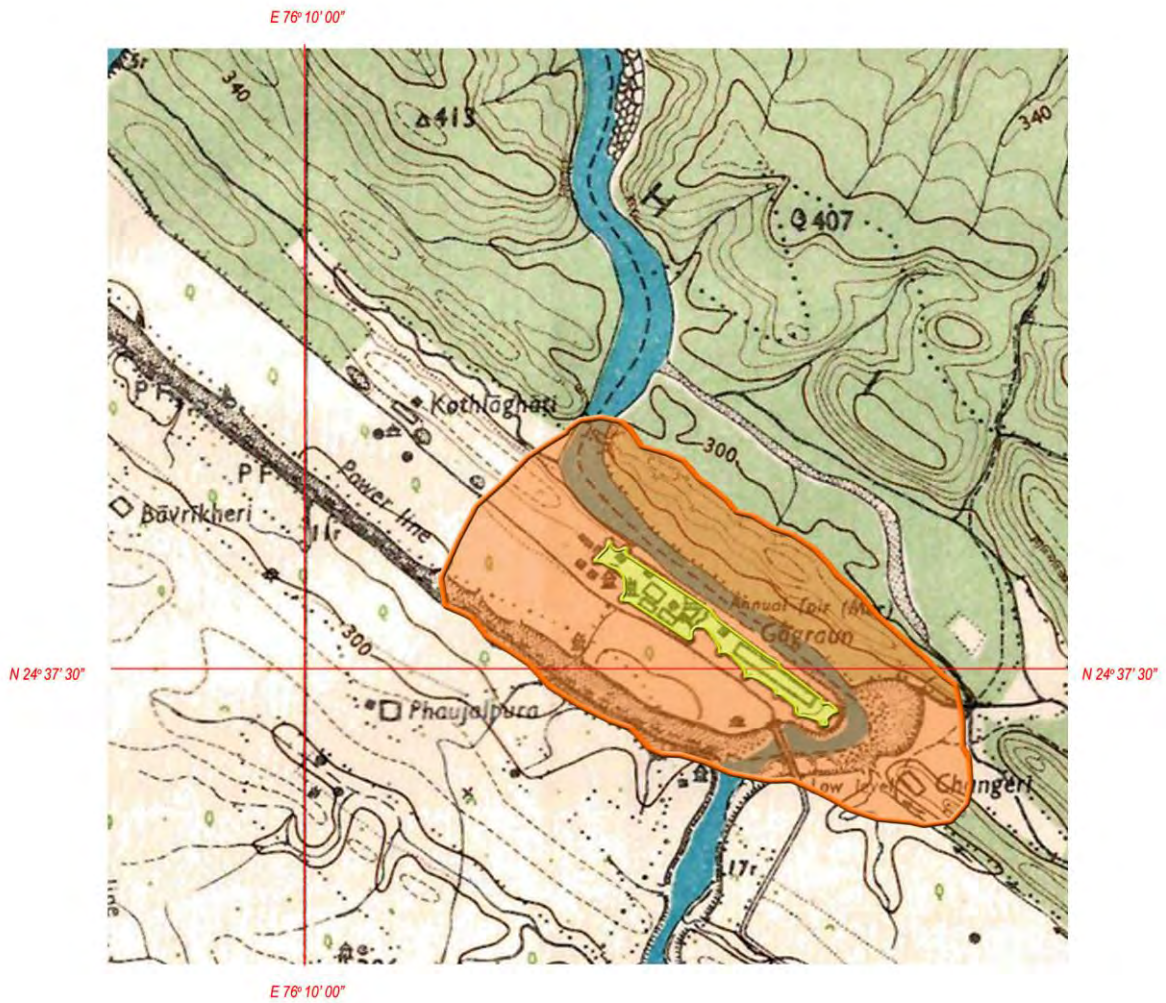
Roads, metalled: according to importance: distance stone		30
- unmetalled: do. do. : bridge		
Cart-track, Pack-track and pass. Foot-path with bridge		
Bridges: with piers: without. Causeway. Ford or Ferry		
Streams: with track in bed: undefined. Canal		
Dams: masonry or rock-filled: earthen. Weir		
River banks: shelving: steep. 3 to 6 metres: over 6 metres		
- dry with water channel: with island & rocks: Tidal river		
Submerged rocks. Shoal. Swamp. Reeds		
Wells: lined: unlined. Tube-well. Spring. Tanks: perennial: dry		
Embankments: road or rail: tank. Broken ground		
Railways: broad gauge: double: single with station: under construction		
- other gauges: do. : do. with distance stone: do.		
Mineral line or tramway. Telegraph line. Cutting with tunnel		
Contours with sub-features. Rocky slopes. Cliffs		
Sand features: dune: flat. Sand hills and dunes: surveyed: shifting dunes		

Towns or Villages: inhabited: deserted. Fort		
Huts: permanent: temporary. Tower. Antiquities		
Temple. Chhatra. Church. Mosque. Idgah. Tomb. Graves		
Lighthouse. Lightship. Buys: lighted: unlighted. Anchorage		
Mine. Vine on wells. Grass. Scrub		
Palms: palmyra: other. Plantain. Conifer. Bamboo. Other trees		
Boundary, international		
- state: demarcated: undemarcated		
- district: subdiv. tahsil or taluk: forest		
Boundary pillars: surveyed: unlocated: village trijunction		
Heights: triangulated: station: point: approximate		200 . 200 . 200
Bench-mark: geodetic: tertiary: canal		BM 63.3 . BM 63.3 . 63
Post office. Telegraph office. Combined office. Police station		PO TO PTO PS
Bungalows: dak or traveller: inspection. Rest-house		DB IB (Cooil) BH (Forest)
Circuit house. Camping ground. Forest: reserved: protected		CH CG R.P. P.P.
Spaced names: administrative: locality or tribal		KIKRI NAGA



# Executive summary

## Gagron Fort



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



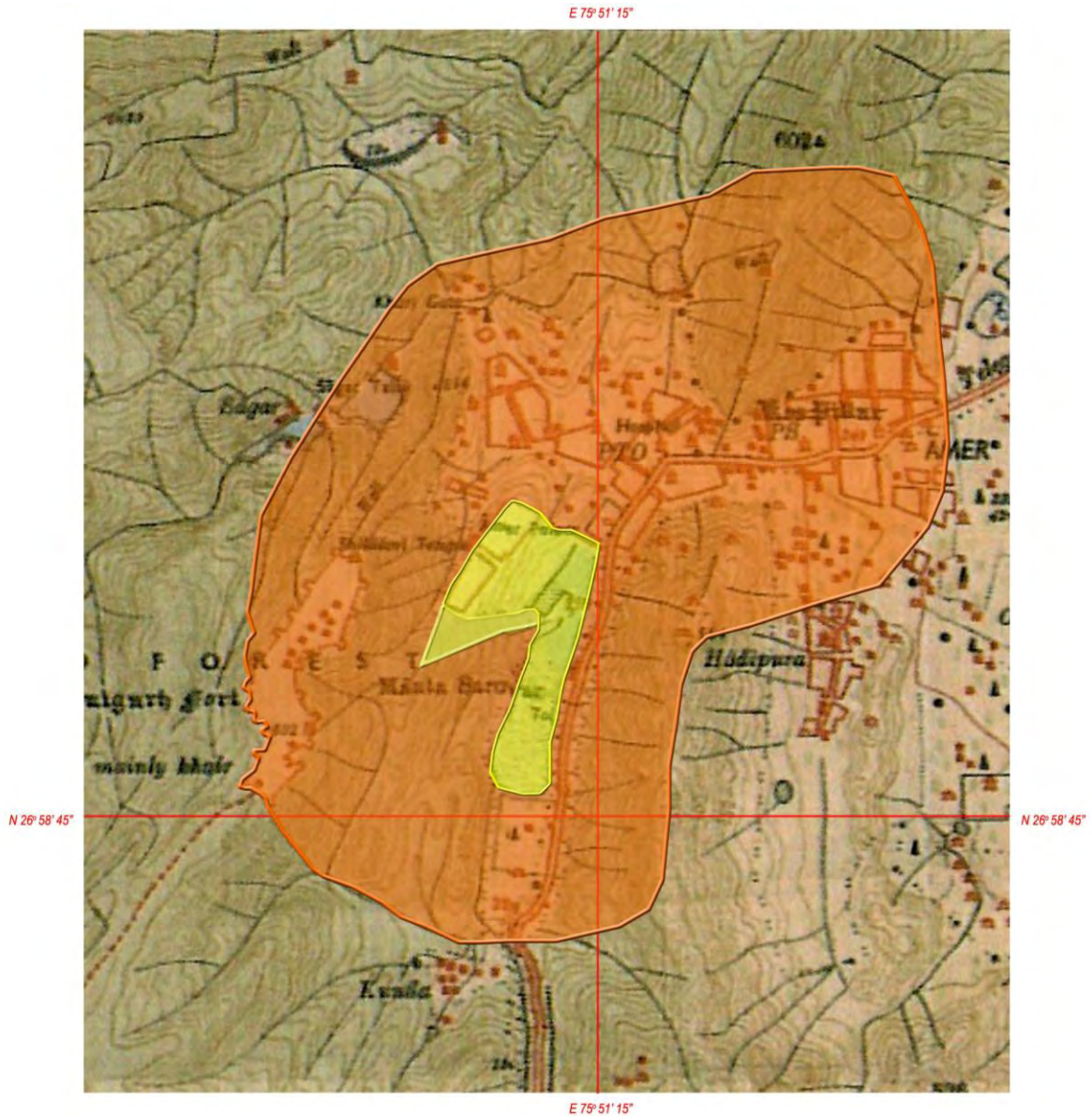
- Nominated property
- Buffer zone

Roads, metalled, according to importance; distance stone		20
unmetalled, do, do, bridge		
Cart-track, Pack-track and mss. Foot-path with bridge		
Bridges: with piers; without. Causeway. Ford or Ferry		
Streams: with track in bed; undefined. Canal		
Dams: masonry or rock-filled; earthwork. Weir		
River banks: shelving; steep, 3 to 6 metres; over 6 metres		
dry with water channel; with island & rocks; Tidal river		
Submerged rocks. Shoal. Swamp. Reeds		
Wells: lined; unlined. Tube-well. Spring. Tanks: perennial; dry		
Embankments: road or rail; tank. Broken ground		
Railways, broad gauge: double; single with station; under constm.		
other gauges: do, do with distance stone; do		
Mineral line or tramway. Telegraph line. Cutting with tunnel		
Contours with sub-features. Rocky slopes. Cliffs		
Sand features: (1) flat; (2) sand hills and dunes (surveyed); (3) shifting dunes		

Towns or Villages: inhabited; deserted; Fort	
Huts: permanent; temporary. Tower. Antiquities	
Temple. Chhatri. Church. Mosque. Idgah. Tomb. Graves	
Lighthouse. Lightship. Buoy: lighted; unlighted. Anchorage	
Mine. Vine on trellis. Graus. Scrub	
Palms: palmyra; other. Plantain. Conifer. Bamboo. Other trees	
Boundary, international	
state: demarcated; undemarcated	
district: subdivn. tahsil or taluk; forest	
Boundary pillars: surveyed; unlocated; village trijunction	
Height, triangulated; station, point; approximate	
Bench-mark: geodetic; tertiary; canal. BM 63-3. BM 63-3 .63	
Post office. Telegraph office. Combined office. Police station, PO, TO, PTO, PS	
Bungalows: dsk or travellers; inspection. Rest-house	
Circuit house. Camping ground. Forest: reserved; protected, CH, CG, RF, PF	
Spaced names: administrative; locality or tribal, KIKRI, NAGA	



Amber Fort



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



- Nominated property
- Buffer zone

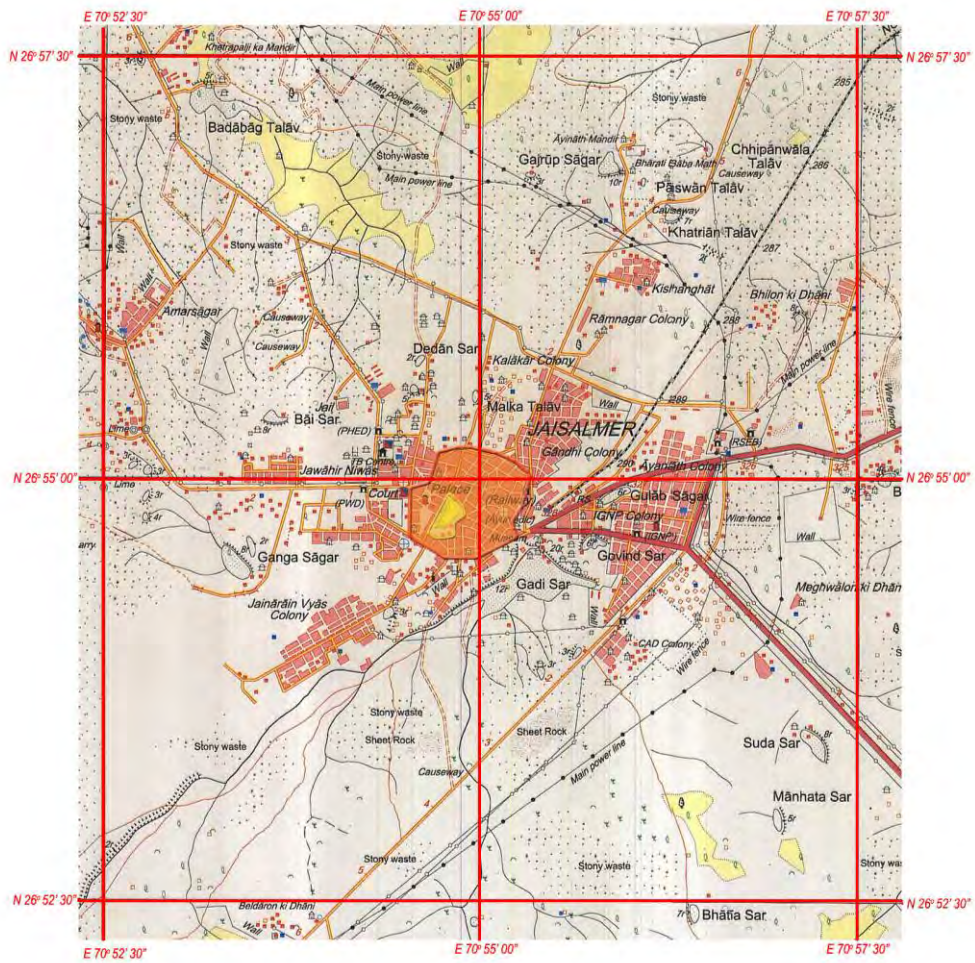
Roads metalled, according to importance, distance stone	
unmetalled do do	
Cart-track Poch-track and paths	
Foot-path with bridge	
Bridges with pier within Causeway ford or ferry	
Streams with track in bed unfilled Canal	
Dams masonry or walled earthen Weir	
River banks shelving steep 3 to 6 metres over 6 metres	
dry with water channel with island & rocks tidal river	
Submerged rocks Shoal Swamp Reeds	
Palis lined, unlined Tube well Spring Tanks perennial dry	
Embankments road or rail, tuck Broken ground	
Railways broad gauge double single with station under canopy	
other gauges do do with distance wire do	
Light railway or tramway Telegraph line Cutting with tunnel	
Contours with sub-features Rocky slopes Cliffs	
Band features (fissures) Dead hills and dunes (unpopulated) Dunes	

Towns or Villages inhabited deserted Fort	
Hut permanent temporary Tower Antiquities	
Temple Chhatra Church Mosque Idgh Tomb Graves	
Lighthouse Lightship Buoys lighted unlighted Anchorage	
Mine Vine on trellis Grass Scrub	
Palms palmyra other Plantain Conifer Bamboo Other trees	
Boundary international	
state demarcated undemarcated	
district sub-district tahsil or taluk forest	
Boundary pillars surveyed unlocated village trijunction	
Height triangulated station point approximate	
Bench mark geodetic tertiary canal	
Post office Telegraph office Combined office Police station	
Bungalows villa or travellers inspection Post-house	
Circuit house Camping ground forest reserved protected	
Special names administrative locality or tribal	



# Executive summary

## Jaisalmer Fort



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



Nominated Property  
 Buffer Zone

Express highway; with toll; with bridge; with distance stone		20
Roads, metalled; according to importance		7.5
Roads, double cartage-way; according to importance		10
Unmetalled road, Cart-track, Pack-track with pass, Foot-path		10
Streams; with track in bed; undefined; Canal		10
Dam; masonry or rock-filled; earthwork; Weir		10
River; dry with water channel; with island & rocks; Tidal river;		10
Submerged rocks, Shoal, Swamp, Reeds		10
Wells; lined; unlined; Tube-well; Spring; Tanka; perennials; dry		10
Embankments; road or rail; tank; Broken ground		10
Railways, broad gauge; double; single with station; under constn.		20
Railways, other gauges; double; single with distance stone; do.		20
Mineral line or tramway; Kin. Cutting with tunnel		20
Contours with sub-features. Rocky slopes. Cliffs		10
Sand features: (1) flat. (2) dunes-hills(permanent). (3) dunes(chifting)		10
Towns or Villages; inhabited; deserted. Fort		10
Habit permanent; temporary; Tower. Antiquities		10
Temple, Chhatr, Church, Mosque, Idgah, Tomb, Graves		10

Lighthouse, Lightship, Buoys; lighted; unlighted. Anchorage		
Mine, Vine on trellis; Grass, Scrub		
Palm; palmyra; other. Plantain, Conifer, Bamboo, Other trees		
Areas; cultivated; wooded; Surveyed tree		
Boundary, International		
state; demarcated; undemarcated		
district; subdivision; tahsil or taluk; forest		
Boundary pillars; surveyed; unlocated		
Heights, triangulated; station; point; approximate		200
Bench-mark; geodetic; tertiary; canal		BM 63-3
Post office, Telegraph office, Overhead tank		
Rest house or inspection bungalow, Circuit house, Police station		
Camping ground; Forest; reserved; protected		RF
Spaced names; administrative; locality or tribal		KIKRI
Hospital, Dispensary, Veterinary; Hospital / Dispensary		NAGA
Aerodrome, Helipad, Tourist site		
Power line; with pylons surveyed; with poles unsurveyed		

**Criteria under which property is nominated (itemise criteria)**

Cultural criteria (ii), (iii) and (vi)

**Justification: Statement of Outstanding Universal Value**

**Brief Synthesis: OUV of the series**

The six hill forts not only exhibit an important phase of development of an architectural typology based on established “traditional Indian principles” principles but also bear exceptional testimony to the cultural traditions of Rajputs. The strong living traditions and belief systems along with their associational values with the built fabric of these forts make them unique and of outstanding universal significance.

The key attributes that distinguish Rajput hill forts were deemed to fall into four main overlapping categories and to reflect different geographical areas. **(ICOMOS advisory mission recommendation)**

**Physiographical.** The forts are adapted to and optimise various kinds of hill terrain, including the summit and the slope of semi-arid hills, forested hills, desert hills and hills protected by water. There are several aspects to the adaptation and optimisation of the sites, which include military matters, strategic planning and the collection, storage and distribution of water.

**Centres of power.** The forts have strong associational values as centres of Rajput power and control, as centres of Rajput courtly culture and patronage, and as former centres of learning, art and music. The forts, together with the palaces and other buildings they contain, all embody this power and courtly culture in Rajput architecture. The vocabulary of architectural forms and of ornaments shares much common ground with other regional styles, such as Sultanate and Mughal architecture, so it might be an exaggeration to call the Rajput style ‘unique’. But the particular manner in which Rajput architecture was eclectic (drawing inspiration from antecedents and neighbours) together with its degree of influence over later regional styles (such as Maratha architecture) do make it distinctive.

**Sacred.** It was observed that many if not all the selected sites include temples or other sacred buildings, not merely as adjuncts to the palaces and other settlements but often predating them, and outlasting them in use. The fact that Rajput hill forts are also sacred sites was deemed to be another distinctive feature.



**Urban Settlements.** Most forts were designed to protect the populace and not only the court and military guard. Many were of enormous size (with walls extending to over 20km). Most had had extensive settlements within the walls, some of which have persisted to the present day. These residential and sacred elements went beyond the expected military functions of forts. In some cases there was also a mercantile element, as the forts were centres of production and of distribution and trade that formed the basis of their wealth.

**“These forts thus form a complete and coherent group that demonstrates Outstanding Universal Value as a series through representing all the essential attributes of Rajput Hill Forts in an exceptional way”.**

The 6 hill forts satisfy all the attributes and each also contributes to at least one of the five attributes in an exceptional way as follows:

1. **Chittorgarh.** As a centre of power of Rajputs, it is distinctive from the other forts. As the former capital of the Sisodia clan and the target of three famous historical sieges, the site is strongly imbued with associational values attaching to Rajput history and folk lore. Furthermore the sheer number and variety of architectural remains of early date (ranging from the 8<sup>th</sup> to the 16<sup>th</sup> centuries) mark it as an exceptional fort in its scale and monumentality comparable to very few other Indian forts.
2. **Kumbhalgarh.** Its distinctive contribution arises from it having been constructed in a single process and (apart from the palace of Fateh Singh, added later) retains its architectural coherence. Its design is attributed to an architect known by name – Mandan – who was also an author and theorist at the court of Rana Kumbha in Chittor (another fort in the series). This combination of factors is highly exceptional.
3. **Ranthambore.** Situated in the middle of forest, it is an established example of Forest Hill Fort and in addition, the remains of the palace of Hammir are among the oldest surviving structures of an Indian palace.
4. **Gagron.** Its distinctive contribution to the series arises from it being exemplary of its type of river-protected fort included in the nomination. In addition its strategic location in a pass in the hills gave it enhanced significance in the control of trade routes.
5. **Amber.** Its distinctive contribution is the representation of a key phase (17<sup>th</sup> century) in the development of a common Rajput-Mughal court style, embodied in the buildings and gardens added to Amber by Mirza Raja Jai Singh I. The immediate defence structures of

the fort are added to the nominated property which elaborates the self-defence mechanism of the fort.

6. **Jaisalmer.** It is the only example included in the nomination of a hill fort in desert terrain. The extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it an important (and in some respects even unique) example of a sacred and secular (urban) fort.

This set of medieval and post medieval Hill Forts narrates centuries of political, cultural (including religious), social and architectural evolution associated with the ruling Rajput caste in the history of India. The series stands as testimony to the formation of princely states, development of Rajput ideologies and Rajput defense architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the Sultanate period rulers and Mughal Emperors of Central India.

Each selected hill fort site is of exceptional with advanced construction techniques exploiting natural contours for defense, unique social associations with Rajput courtly life, most sophisticated and evolved examples of secular Hindu Rajput architecture and technological adaptations utilizing the wealth of natural resources in an extraordinary geographical setting within the varied physiographical terrain of Rajasthan, the land of Rajput clan.

#### **Detailed Outstanding value for each fort**

##### **Chittorgarh Fort**

The Fort exhibits fort planning and architecture with its ensemble of exemplary buildings ranging from the largest span of medieval period (8<sup>th</sup> -16<sup>th</sup> centuries) in a remarkable spread of flat hill-summit to command the surroundings.

The hill fort of Chittorgarh represents the genius of Rajput military architecture in the medieval period of Indian History. Raised in local stone masonry, on the solid rock of an Aravalli outcrop, it exemplifies a role model of hill fort typology and the evolution of the Rajput Architectural Style of Mewar cultural region in Rajasthan from the 8<sup>th</sup> century to the 16<sup>th</sup> century. The fort is an important record of the political situation of the period, marked by the alternate strife and subjugation from the western invaders, Sultanate and the Mughal Empire. The fort of Chittorgarh is an icon of the unbending streak and incomparable valour of the Guhila and Sisodia Rajputs with the story of each siege manifested in its varied architectural forms. Chittorgarh is an exceptional testimony to the Rajput cultural tradition of immense fighting spirit documented in several historic texts and paintings of the medieval and post medieval period by the local bards and artists. It is one of the largest forts in India renowned for its



indomitability in history. It constitutes monumental and impressive medieval defence settlements of the Rajput clan in Rajasthan contributing specifically to the attribute “Centre of Power”.

### **Kumbhalgarh Fort**

The fort is an ideal representation of Mandan’s designs in the most complete manner, almost a text-book manifestation of a Rajput Classical Fort built in a single phase of construction that sets it apart from other forts and highlights its contribution to the OUV.

Kumbhalgarh is a unique representative of the hill fortifications of medieval India. Conceived and built in a single significant phase in Rajput history, it epitomises the valour of Rajput clan of Sisodia rulers and their ingenuity in planning and design of hill fort architecture derived from Hindu principles. It is a testimony to the glorious era of the Rajput ruler Rana Kumbha in the 15<sup>th</sup> century AD and relates to principles and ideas in various disciplines that were borne, evolved and manifested in this important fort complex with achievements in art, crafts, music, literature and architecture.

Kumbhalgarh is a hill fort site exhibiting advanced construction techniques exploiting natural terrain and contours for defence with extraordinary design of fort walls (said to be the third largest after Great Wall of China and great wall of Gogran in Iran), unique bastions integrating sloping talus.

### **Ranthambore Fort**

Ranthambore fort embodies the most primal methods of medieval war-fare, which was completely dependent on exploitation of natural terrain and features (including forest). Additionally, it contains authentic remains of a 13th Century Palace (of Hamir) as the oldest tangible remains of a Hindu Palace in India.

The Fort is located on a hill in the heart of a dense forest represents the ‘forest fort’ typology of forts in combination with the ‘hill fort’ typology and is a masterpiece of ingenuity, ensuring that the natural terrain around the fort allows it to be visually obscure from enemies. The ensemble of fortifications, gateways, palace structures, water bodies within Ranthambore fort exemplify Rajput fort planning on the hilly terrain. It exhibits characteristics of a strong defensive military stronghold of the Rajputs in the Mewar Brij cultural zone of Rajasthan with technological adaptations utilizing the natural resources of water bodies and mountains in the eastern plain of Rajasthan. Ranthambore is an exceptional testimony to the Rajput cultural traditions of Rajasthan recording warfare, sacrifices and building activities of three major Rajput clans and sub clans of the Chauhans, Sisodias and the Kachchwahas. Loss of the Fort from the hands of the Rajputs in 14<sup>th</sup> and 16<sup>th</sup> century AD were significant events that changed the political landscape of India, with respect to the strengthening of the Imperial rule of the Sultanate and Mughals in the national context.

### **Gagron Fort**

Located critically at the confluence of 2 rivers, the Gagron Fort historically marks one of the most strategic defence location on a peculiar terrain controlling movement patterns on trade routes connecting the northern India to the Deccan. Located on lower elevation of the Vindhyan range, this fort exhibits ingenuity in use of terrain and the natural resource of water for its defense.

Gagron exemplifies one of the most unique, picturesque and strategic geographical location of a defensive hill fort with an additional characteristics of a water fort, being located at the confluence of two rivers and surrounded by water on three sites. It is an authentic example from the south eastern physiographic and Hadauti cultural zone within Rajasthan. The fort epitomise the resistance of Rajputs to the Islamic incursions and subsequent assimilation of foreign influences in fort planning and palace architecture with its historical record of 14 attacks countered by the Khinchi Chauhans and Sisodia Rajputs and later alliances with Mughals and the British by the Rathore, Hada and Jhala sub clans of the Rajputs. It stands as a testimony to the formation of princely states of Jhalawar, development of Rajput ideologies and Rajput architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the Sultanate period rulers and Mughal Emperors of Central India.

Gagron together with Kumbhalgarh & Chittor and were guarding the southern frontiers against the Malwa Sultans. This fort was a very critical outpost for Rajputs against the growing Sultanate dominance. (Map – Rajputana surrounded by the Sultanate rulers in Medieval times) It was only the accession of Gagron that allowed Allaudin to expand southwards.(The chieftains in the region were not in essentially in unision with the ruler. Even the Bhils backtracked during siege, which resulted in the failure of the defence system) after the fall of Gagron, Khalji infiltrated Hadauti region and eastern borders of Mewar. For the Khaljis, Gagron in combination with Mandalgarh (further west) would be an ideal seat to command route to Malwa.

### **Amber Fort**

The fort embodies the highest point of Rajput eclecticism marking the syncretism of Rajput-Mughal architectural and planning principles for palace spaces and gardens, water systems, artworks and building crafts. It has a distinctive split-level Hill Valley planning where the palatial quarters are located on the valley (Amber Fort) and the garrison is located on a higher elevation (Jaigarh) to command the valley.

Amber fort strategically located and built on the old Kalikho hills of the oldest mountain range, the Aravallis in the region is an excellent representative of the late medieval citadels of the Rajput warrior clans of Rajasthan. It reflects the changing political strategy of the Rajputs with subsequent



assimilation of foreign influences in fort planning and palace architecture. Amber fort establishes the later development of the fort -palace typology and the maturation of Rajput Mughal architectural style from the 17<sup>th</sup> century. It is an important record of the political situation of the Kachchwaha Rajputs, marked by the alternate strife and subjugation from the Mughal Empire and friction amongst the Rajput Kingdoms ruled by various clans. Amber is selected as an authentic, best conserved and most representative example of late medieval hill fort architecture from the eastern physiographic and Dhoondhar cultural zones within Rajasthan.

### **Jaisalmer Fort**

The hill fort of Jaisalmer has an extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it a unique example of a sacred and secular (urban) fort. The Fort exhibits fort planning and architecture with its ensemble of exemplary buildings and stone carvings. With large desert plains around it, the Jaisalmer fort represents the genius of Rajput military architecture in the medieval period with series of fortifications and 99 bastions to protect itself from the invaders. The fort is an important record of the socio-political and trade development in the region. As one of the unique forts in India renowned for its indomitability in history, it singularly contributes to all selected criterion.

### **Justification of Criteria**

The Serial nomination fulfills criteria (ii) (iii) and (vi).

Criteria (ii): The Hill Forts of Rajasthan exhibit an important interchange of Princely Rajput ideologies in fort planning, art and architecture from the early medieval to late medieval period within the varied physiographic and cultural zones of Rajasthan. The forts trace the development of Rajput architecture and technology, monumental arts and landscape design that subsequently influenced the architectural development in Rajasthan and other parts of India for centuries. The nominated Hill forts of Rajasthan, exhibit an important interchange of values, early medieval to late medieval period within Rajputana (Rajasthan), (cultural zone of rajputs), on developments in architecture, monumental arts and planning.

Criteria (iii): The Hill Forts of Rajasthan are an exceptional testimony to the Rajput cultural tradition and the socio-economic strata of Rajasthan. These forts are architectural manifestations of Rajput valour, bravery, feudalism and cultural traditions documented in several historic texts and paintings of the medieval and late medieval period in India. The Six components bear an

exceptional testimony to the cultural traditions of the ruling Rajput clans and patronage provided by them towards development of religion, arts and literature in the region of Rajasthan over centuries.

Criteria (vi): The Hill Forts of Rajasthan are the living testimony of the associational values attached of the people with them. The complete planning of the fort is an outcome of the belief systems which guided rulers from selection of the site for the fort to planning of different components within it including its defence mechanism which represents the Rajputana culture. Most of these beliefs were integral and bound with the religion and some were inherited by the community over centuries.

The event of "*Jauhar*" during the wars is a resultant of the strong beliefs of women preferring death instead of getting disgraced by the enemy. Following *Jauhar*, the men of the fort courageously open the gates of the fort and attack the enemy and fight until death. The spots where *Jauhar* took place within the fort are still revered by the people.

#### **Statement of Integrity**

Collectively, the Six components of the Hill Forts of Rajasthan demonstrate a relationship that enables a full understanding of the formation of princely states, development of Rajput ideologies and Rajput architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the foreign invaders, Sultanate period rulers and Mughal Emperors of Central India. The six components of the Hill Forts along with their buffer zones constitute the most authentic, best conserved and most representative sites of Rajput military architecture of medieval India.

Each component contributes to the Outstanding Universal Value with advanced construction techniques exploiting natural contours for defense, unique social associations with Rajput courtly life, and most sophisticated and evolved examples of secular Hindu Rajput architecture and technological adaptations utilizing the wealth of natural resources in an extraordinary geographical setting.

#### **Statement of Authenticity**

The six hill forts as components of the serial nomination represent significant level of authenticity which is expressed in OUV of the Serial nomination collectively as well as for each individual component in terms of their physiography, centre of power, sacredness and urban settlements. Also



## Executive summary

these components have also retained significant level of authenticity in terms of form & Design, Materials and Substance, Use and Function, Location etc

### Requirements for Protection and Management

The criteria (ii), (iii) and (vi) for this series are applicable on all 6 hill forts and the OUV stated here forms the basis for protection and management of the series. This will be used to guide the works under Management framework of each fort site, which will be closely monitored by Fort Apex Committee. The management framework aims to promote new thinking in managing properties in a serial nomination in India without taking anything from the autonomy of each site.

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**Position:** Director  
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**Website:** <http://museumsrajasthan.gov.in>

## **Fortification**

A generic term for system of defensive walls and bastions that could be around a town, around the royal citadel, or around a wider region.

## **Fort**

In the Indian context, Fort is a terminology used for the Hindi term 'durg', referring to fortified strongholds. Despite there being slight distinction in the terms Fort, Fortress, Citadel and Castles; the term 'Fort' is used locally in India to cover all types. The forts are further categorised on the basis of their strategic location on a hill, near water bodies, dense forest, desert or plains. The scale and form of the fort in the context of Rajasthan varies from:

- (a) medieval hill forts with fortification/ palace, habitation and supporting structures within the fortified walls.
- (b) post medieval fort-palace structure extending to a fortified town, also termed as a Citadel.

## **Hill Fort**

The hill fort is a typology of forts in the Indian context known as 'giri durg' that was considered to be the best defended typology in the Hindu texts of India. The hill fort could be built on the flat summit of a hill, extend down the slope of the hill or situated in a valley surrounded by high impassable hills guarded by chain of outposts and signal towers connected by defensive walls.

## **Citadel**

The term is defined as a fortress that commands a city and is used in the control of the inhabitants and in defense during attack or siege.

## **Bastion**

Most of the towers, or attalaka, on Indian forts were semicircular, resembling a letter 'D' in layout. As a rule they were fairly squat, which is why they are often called bastions.

## **Talus**

Talus is the solid sloping base of the wall or bastion, increasing the thickness at base to provide protection against battering rams. The talus was modified in form in some cases to hinder climbing to the walls by ladders.

## **Merlon**

The typical merlon in Rajput hill forts in Rajasthan is a defensive and architectural element. The most common form was of the shape of a pointed arch while articulated variation was seen with them resembling a bud or upside down tear drop. Fake merlons are often seen as a pattern repeated in secular structures across the region of Rajasthan.

## **Loopholes**

Slits built in to the merlons or between them in the parapet of the fortification wall of medieval forts, designed for archers. A number of loopholes are arranged in single or multiple tiers to enable shooting near the base of the wall and for long range fire. The arrangement of merlons would vary in different parts of a fort wall. To accommodate hand guns and light cannons post 15th century, the design of the loopholes showed modifications.



## Key terms

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### Medieval

The beginning of the medieval period in the current context is defined by the emergence of the Rajput clan around 7th - 8th century AD. The outset of invasions into India by Muslim-Turkic rulers in the early 11th century marked an important period for development of hill forts of Rajasthan, while the decline of Mughal rule in 18th century marks the end of the medieval period. Though the history of the hill forts of Rajasthan starts before this period, from 2nd century BC and goes on till the 19th century, the prime period for their development falls within the 7th - 18th century AD referred to as medieval and post medieval period.

### Rajput

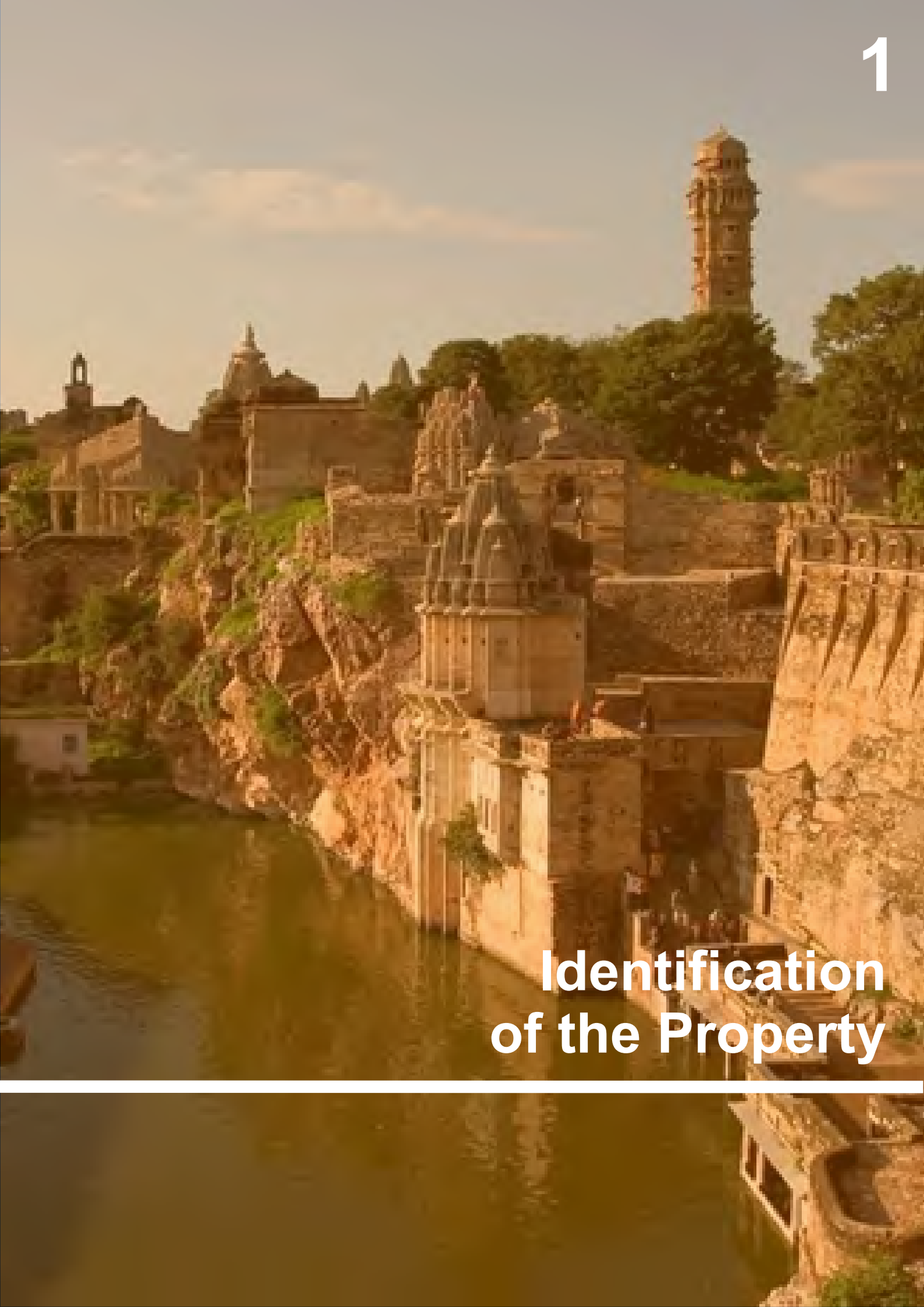
The term is referred to a Hindu warrior clan that emerged in north western India around 7<sup>th</sup> – 8<sup>th</sup> century AD, after the decline of the Gupta, Maurya and Harshavardhana Empire. The Rajput clans formed a number of small kingdoms in the north-western region and acted as a barrier from invasions from Central Asia. They were vanguards of the Hindus in face of Islamic onslaught throughout the Sultanate and Mughal period.

### Jauhar

An act of group immolation by the women, children and other dependents of a besieged fort or town, performed as a last resort, when it was realized that holding out against the enemy was no longer possible, and with no help in sight, death seemed the only honourable way out of the impasse.

### Shaka

It was the practice of population of fighting men of a besieged place to wear saffron clothes (kesariya) and charge defiantly onto the battle-field for one last time, and fight to the very end as befitted a warrior, following the act of jauhar by the women



**Identification  
of the Property**



**1.a Country:** India

**1.b State, Province or Region:** The nominated property comprises 6 fort sites in Rajasthan State in the districts of Chittorgarh, Rajsamand, Sawai Madhopur, Jaipur, Jhalawar and Jaisalmer

**1.c Name of Property:** Hill Forts of Rajasthan

**1.d Geographical coordinates to the nearest second:**

S. No.	Name	Nearest City/Town	District	Geographical Coordinates	Buffer coordinates	Map reference
1	Chittorgarh Fort	Chittorgarh	Chittorgarh	N 24 °53' 00" E 74° 38' 46"	N 24 °53' 27" N 24 °54' 14" N 24 °51' 27" N 24 °51' 11" N 24 °51' 56" N 24 °53' 50" E 74° 38' 53" E 74° 39' 18" E 74° 39' 24" E 74° 39' 00" E 74° 38' 28" E 74° 38' 24"	1.2,1.8, 1.14,1.20, 1.26,1.27
2	Kumbhalgarh Fort	Kumbhalgarh	Rajsamand	N 25° 09' 00" E 73° 35' 00"	N 25° 09' 36" N 25° 09' 59" N 25° 09' 34" N 25° 08' 55" N 25° 07' 27" N 25° 09' 18" E 73° 34' 32" E 73° 35' 10" E 73° 35' 48" E 73° 35' 39" E 73° 34' 43" E 73° 34' 30"	1.3,1.9, 1.15,1.21, 1.28,1.29
3	Ranthambore Fort	Sawai Madhopur	Sawai Madhopur	N 26° 01' 6" E 76° 27' 22"	N 26° 01' 41" N 26° 02' 06" N 26° 01' 33" N 26° 00' 34" N 26° 00' 28" N 26° 01' 31" E 76° 26' 00" E 76° 28' 00" E 76° 27' 40" E 76° 28' 01" E 76° 27' 30" E 76° 26' 39"	1.4,1.10,1. 16,1.22,1. 30,1.31
4	Gagron Fort	Jhalawar	Jhalawar	N 24° 37' 35" E 76° 11' 14"	N 24° 38' 25" N 24° 37' 58" N 24° 37' 06" N 24° 37' 11" N 24° 37' 42" E 76° 10' 56" E 76° 11' 56" E 76° 12' 12" E 76° 11' 22" E 76° 10' 18"	1.5, 1.11,1.17, 1.23,1.32
5	Amber Fort	Jaipur	Jaipur	N 26° 59' 5" E 75° 51' 7"	N 26° 59' 42" N 26° 59' 36" N 26° 59' 05" N 26° 59' 02" N 26° 58' 26" N 26° 58' 47" N 26° 59' 22" N 26° 59' 33" E 75° 51' 23" E 75° 51' 53" E 75° 51' 45" E 75° 51' 22" E 75° 51' 20" E 75° 50' 34" E 75° 50' 41" E 75° 50' 56"	1.6,1.12, 1.18,1.24, 1.33
6	Jaisalmer Fort	Jaisalmer	Jaisalmer	N 26°54'45 " E 70°54'45"	N 26° 55' 11" N 26° 55' 08" N 26° 55' 01" N 26° 54' 35" N 26° 55' 33" N 26° 54' 38" N 26° 54' 47" E 70° 54' 79" E 70° 55' 02" E 70° 55' 15" E 70° 55' 02" E 70° 54' 45" E 70° 54' 34" E 70° 54' 36"	1.7,1.13,1. 19,1.25, 1.34

## 1. Identification

1.3

S. No	Name	Nearest City/ Town	District	Significant Architectural Structure	Geographical Coordinates	
1.	Chittorgarh Fort	Chittorgarh	Chittorgarh	FatehPrakash Palace(P4)	24° 53' 30" N	74° 38' 48" E
2.	Kumbhalgarh Fort	Kumbhalgarh	Rajsamand	Badal Mahal (P2)	25° 08'58" N	73° 34' 49"E
3.	Ranthambore Fort	Sawai Madhopur	Sawai Madhopur	Hammir Mahal (P1)	26° 01' 13" N	76° 27' 18" E
4.	Gagron Fort	Jhalawar	Jhalawar	Zenana & Mardana Mahal (P3)	24° 37' 35"N	76° 11' 15" E
5.	Amber Fort	Jaipur	Jaipur	Diwan-e- Aam (P2)	26° 59' 10" N	75° 51' 2"E
6.	Jaisalmer Fort	Jaisalmer	Jaisalmer	Palace	26° 54' 46"N	70° 54' 47"E

### 1.e Maps and plans, showing the boundaries of the nominated property and buffer zone

List of Maps and Plans annexed (Refer Annexure V)

- (i)
  - a) India Map marking the State of Rajasthan and location of the 6 sites Chittorgarh, Kumbhalgarh, Sawai Madhopur (for Ranthambore), Jhalawar (for Gagron), Jaipur (for Amber), Jaisalmer
  - b) District Maps showing location of 6 sites in the property
- (ii)
  - a) Topographic Maps , al maps have a graphical scale (For scaled, untrimmed maps refer Annexure V)

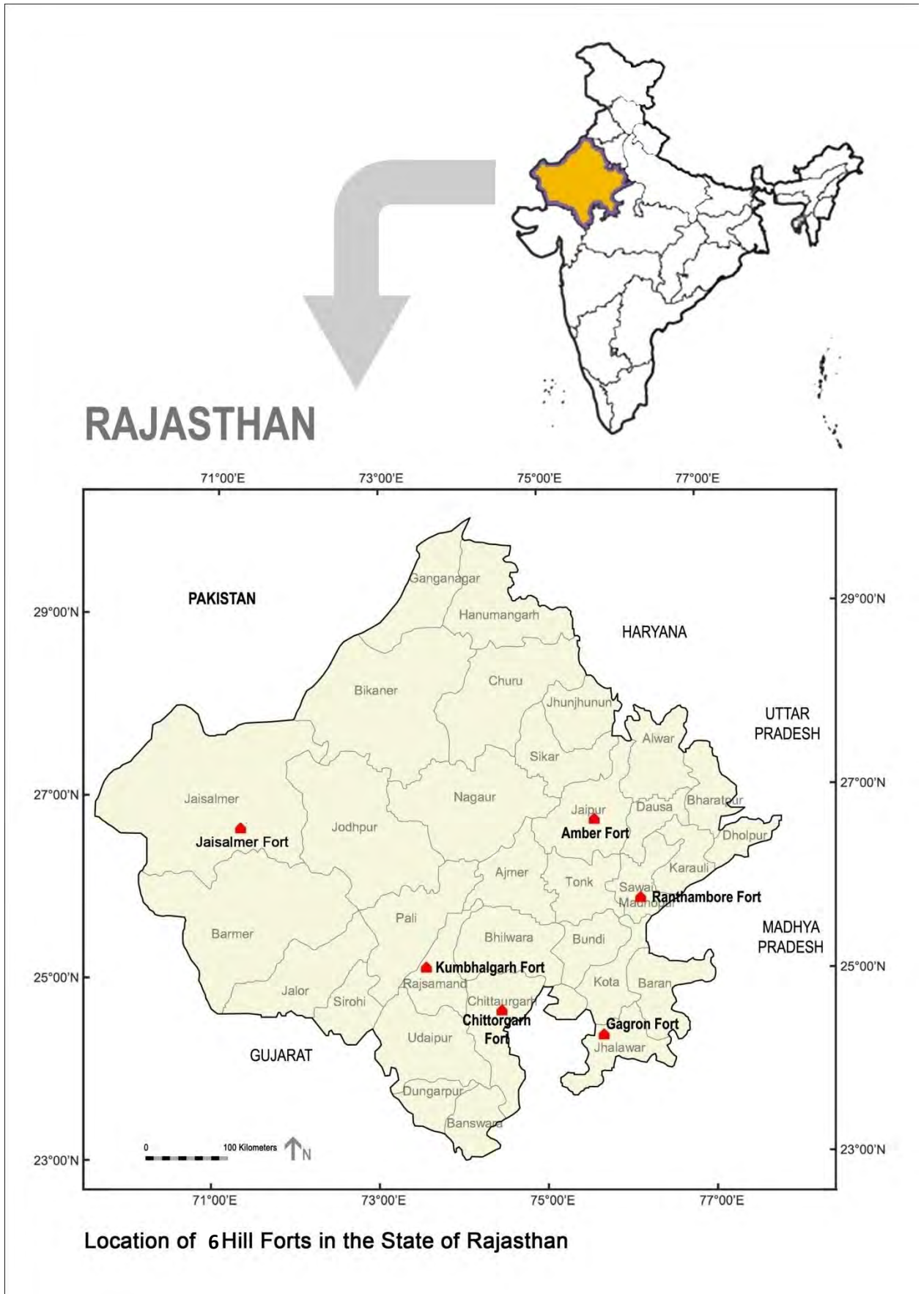
S.no	Name	Scale of Map	Date of Map
1.	Chittorgarh Fort	1:50,000	1971
2.	Kumbhalgarh Fort	1:250,000	1977
3.	Ranthambore Fort	1:50,000	1972
4.	Gagron Fort	1:50,000	1972
5.	Amber	1:25,000	1975
6.	Jaisalmer	1:50,000	2009

b) Satellite images

c) Plans showing boundaries of property along with buffer zone

d) Boundaries of zones of special legal protection from which the property benefits

- (iii) Plans of property showing individual features are included in Section 2



Map 1.1 – Location of 6 Hill Forts in the State of Rajasthan



# 1. Identification

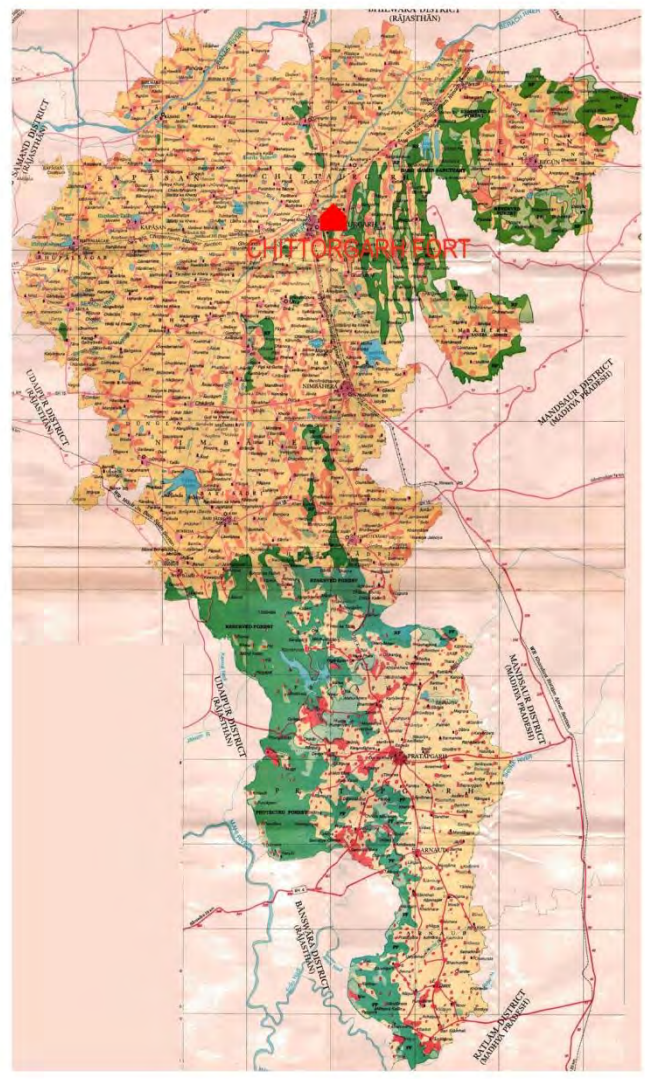


LOCATION OF CHITTORGARH DISTRICT IN RAJASTHAN

**REFERENCES**

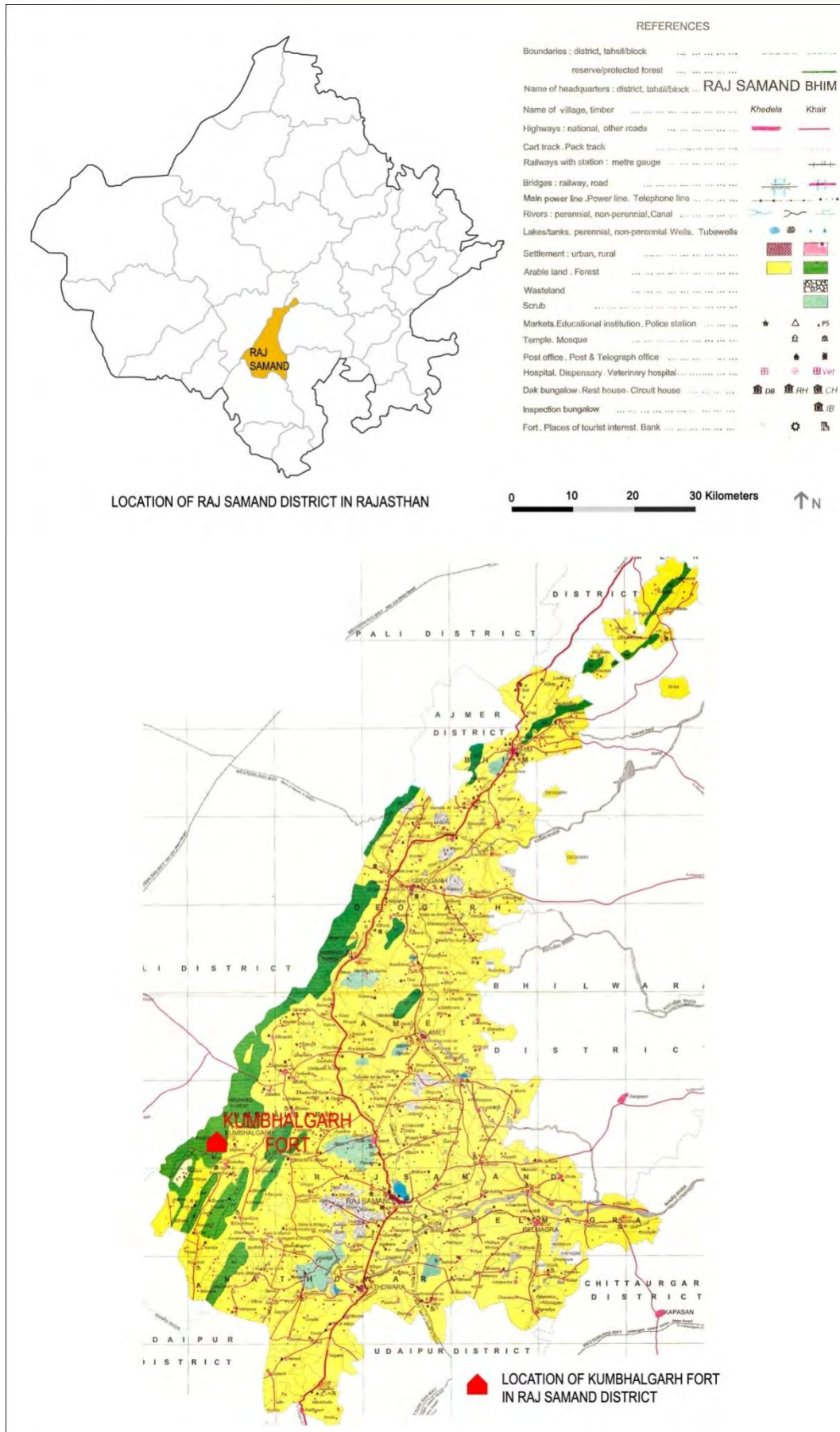
Boundary : international; state.	-----
Boundary : district; subdivn., tahsil or taluk.	-----
Boundary : block.	-----
Name, headquarters: district.	<b>CHITTAURGARH</b>
Name, headquarters: subdivn., tahsil or taluk; block	<b>BEGUN BHUPALSAGAR</b>
Name: other important places; forest; village.	<b>SĀVA RF PF Nandwāi</b>
Settlements: urban; rural; Fort.	
Roads: according to importance. Distance stone.	
Roads: national highway; state highway.	<b>NH 12 SH 4</b>
Ford or Ferry. Bridge: road; railway.	
Railways : broad gauge; metre gauge with station.	
Power line. Main power line.	
River. Canal. Well. Tube-well. Spring.	
Lake. Tank. Marsh.	
Cultivated land. Wasteland.	
Forest. Scrub. Orchard or Plantation	
Hospital. Dispensary. Veterinary Hospital.	
Post Office. Post & Telegraph Office. Police Station.	
Rest house. Circuit house. Inspection bungalow.	
Places of tourist interest.	
Temple. Church. Mosque. Gurūdwarā.	
Educational institutions: high school onwards.	

0 5 10 15 20 Kilometers ↑N



LOCATION OF CHITTORGARH FORT IN CHITTORGARH DISTRICT

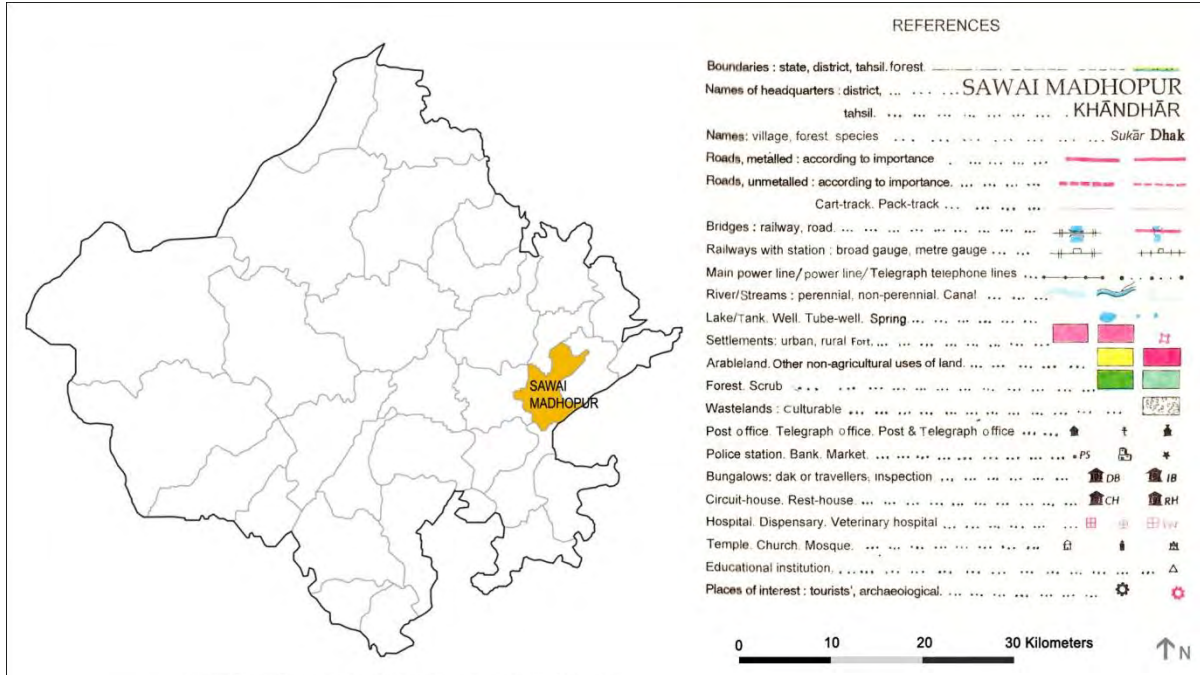
Map 1.2 – Location of Chittorgarh Fort in the District Map of Chittorgarh



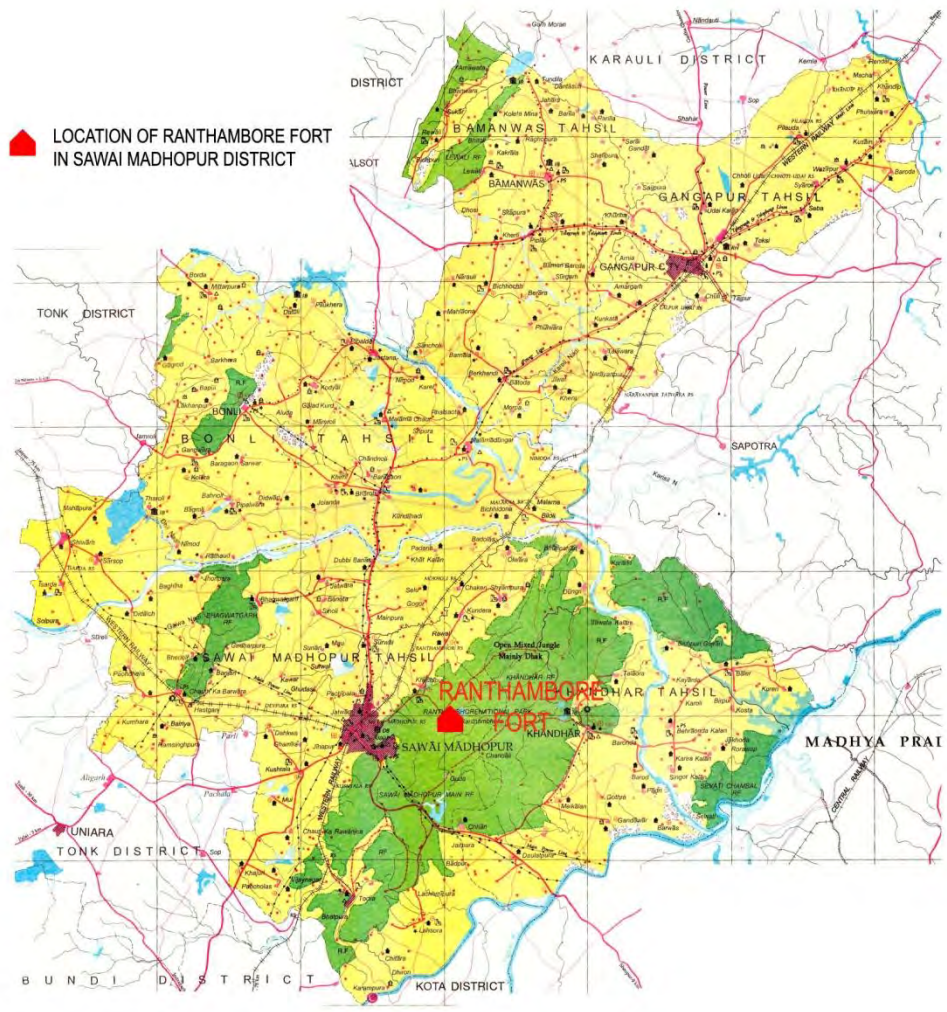
Map 1.3 – Location of Kumbhalgarh Fort in the District Map of Raj Samand



# 1. Identification

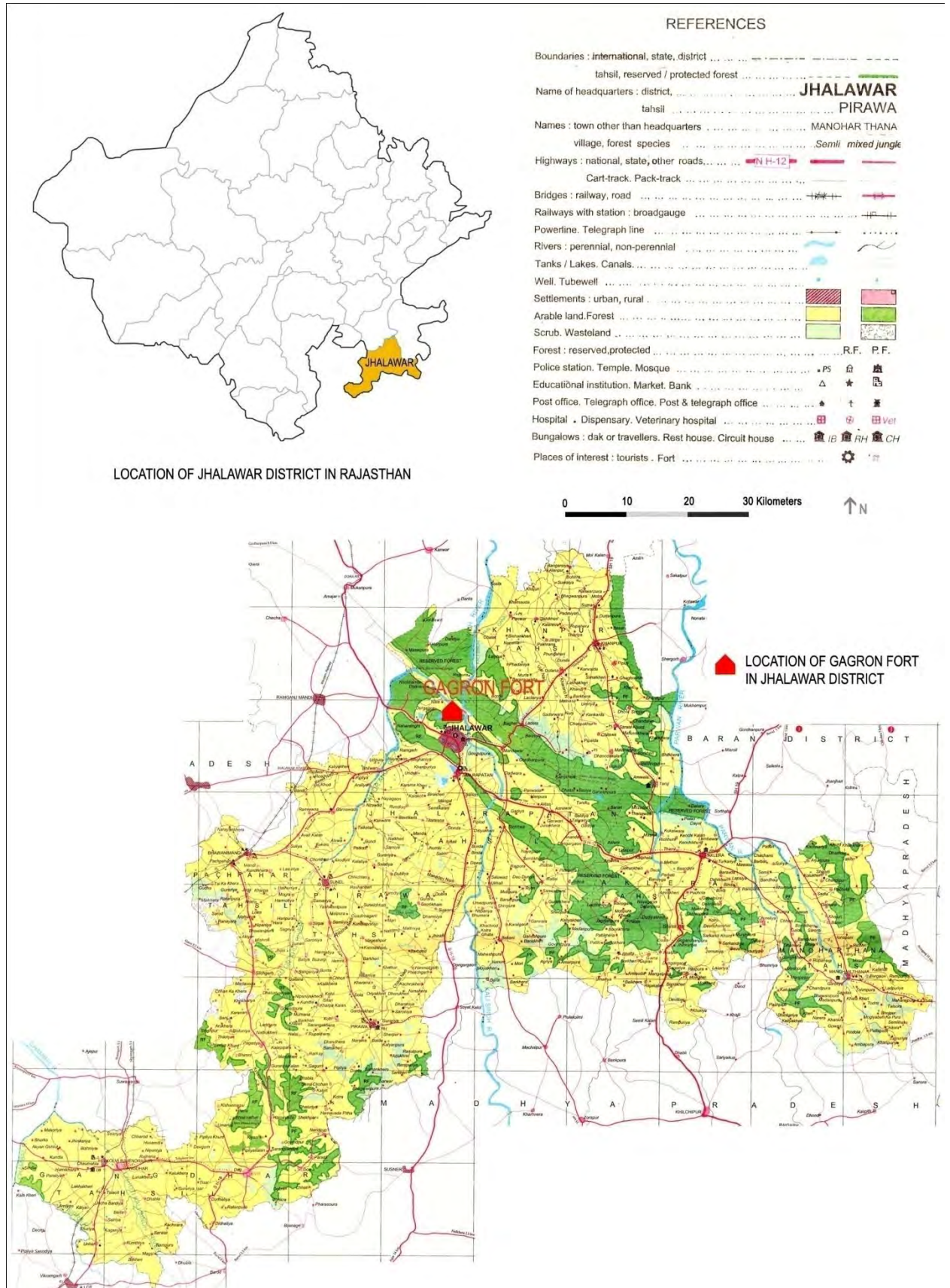


LOCATION OF SAWAI MADHOPUR DISTRICT IN RAJASTHAN



Map 1.4 – Location of Ranthambore Fort in the District Map of Sawai Madhopur

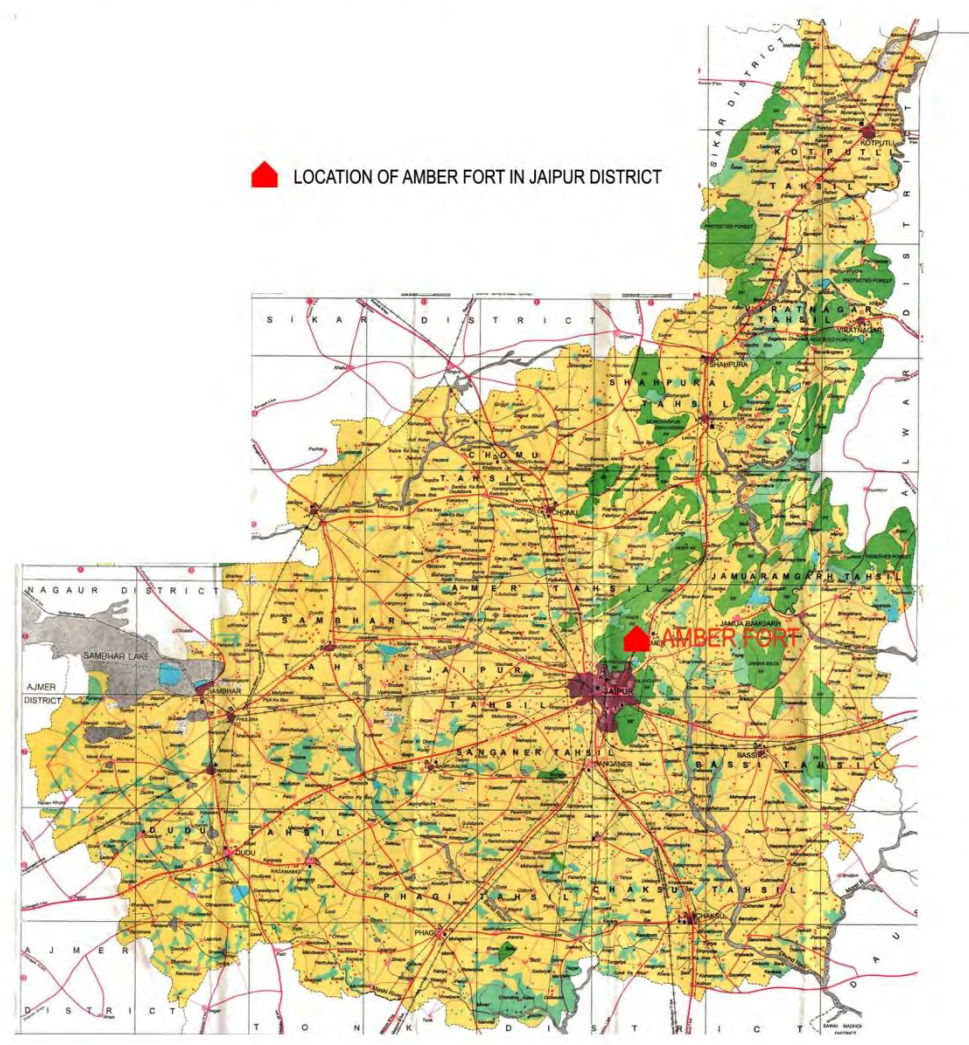
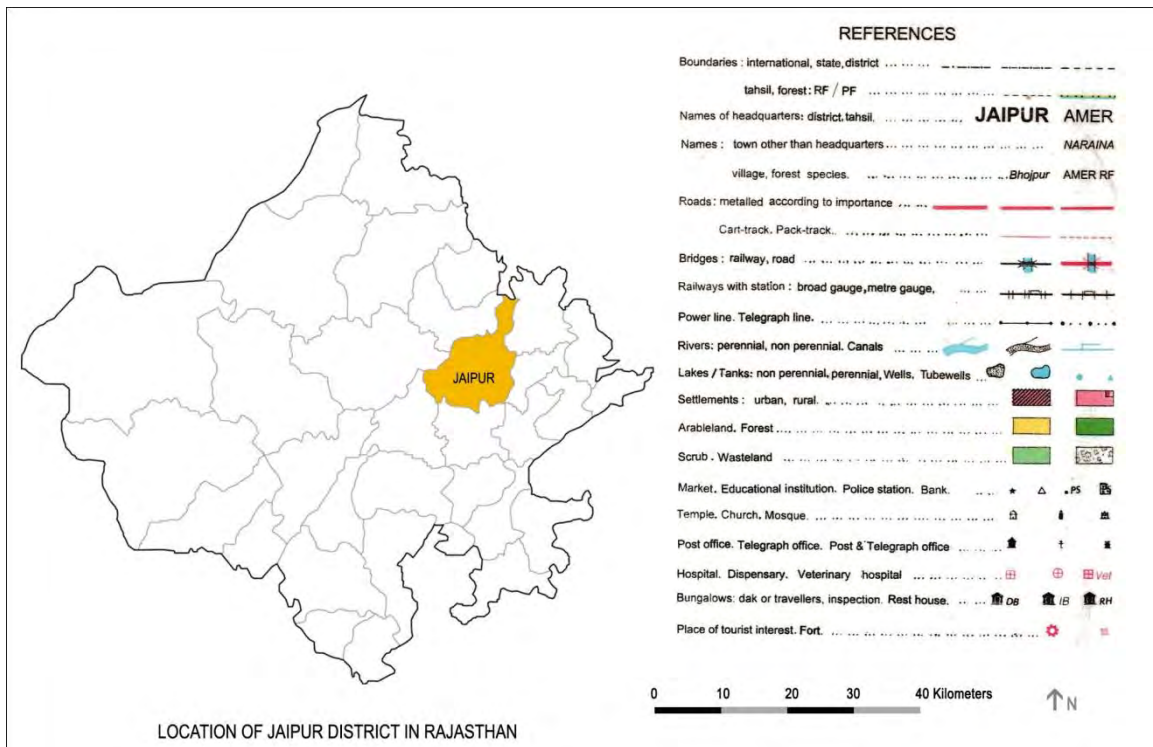




Map 1.5 – Location of Gagron Fort in the District Fort of Jhalawar



# 1. Identification



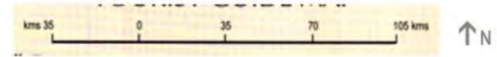
Map 1.6 – Location of Amber Fort in the District Map of Jaipur



LOCATION OF ALWAR DISTRICT IN RAJASTHAN

REFERENCES

<b>DELHI</b> □ Country Capital	— Railway Line	★ Pilgrim Centre
<b>JAIPUR</b> ■ State Capital	— National Highway	⊞ Hill Station
<b>BIKANER</b> ● District Headquarters	— Major Road	⊞ National Park/ Wild Life Sanctuary
● Shekhpore	— Other Road	⊞ Good Accommodation
○ Kohangarh	— Distances in kms.	
— International Boundary	⊞ Major Tourist Centre	
— State Boundary	⊞ Other Tourist Centre	
— District Boundary	⊞ Historical/ Archaeological Centre	

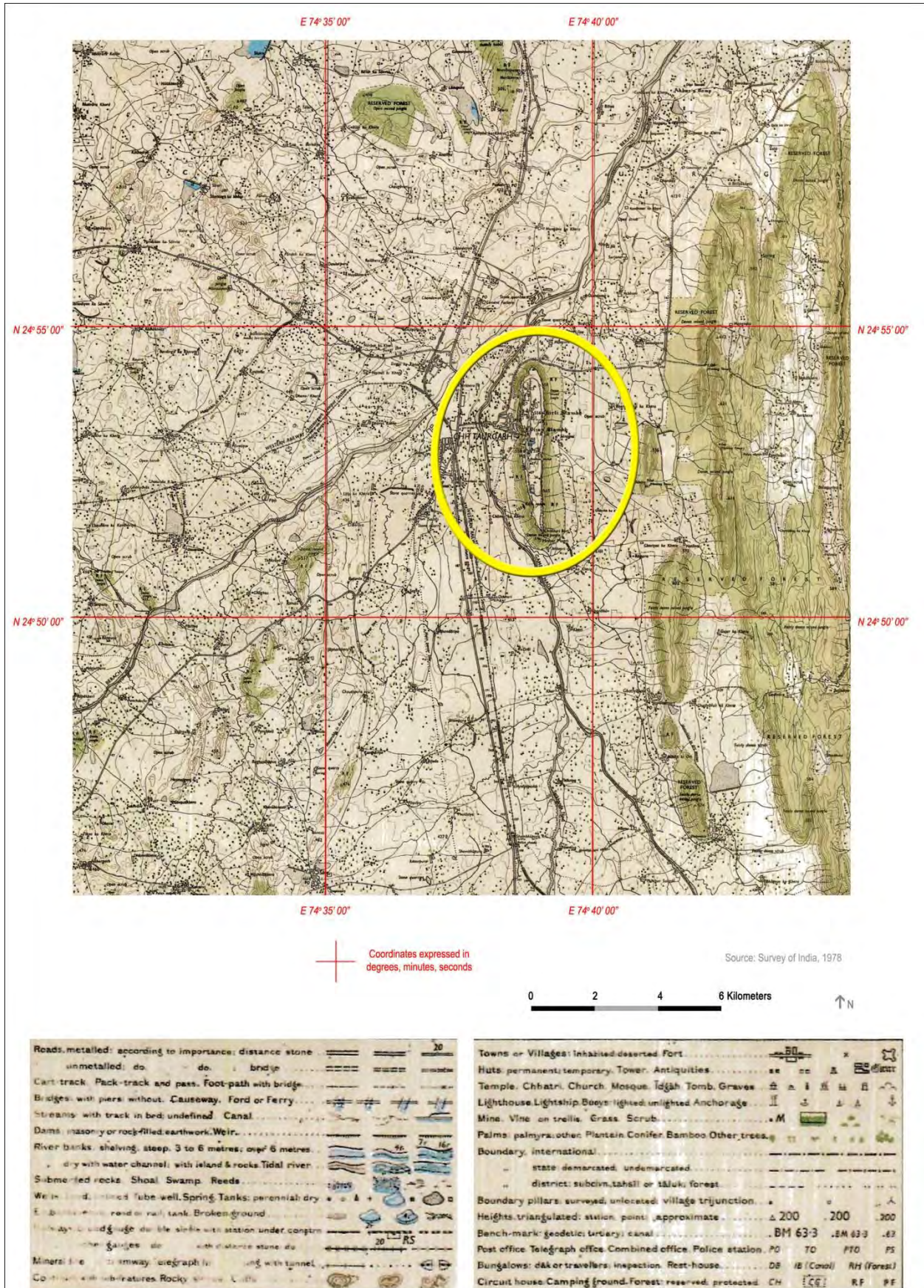


LOCATION OF JAISALMER FORT AT JAISALMER

Map 1.7 – Location of Jaisalmer Fort in the District Map of Jaisalmer

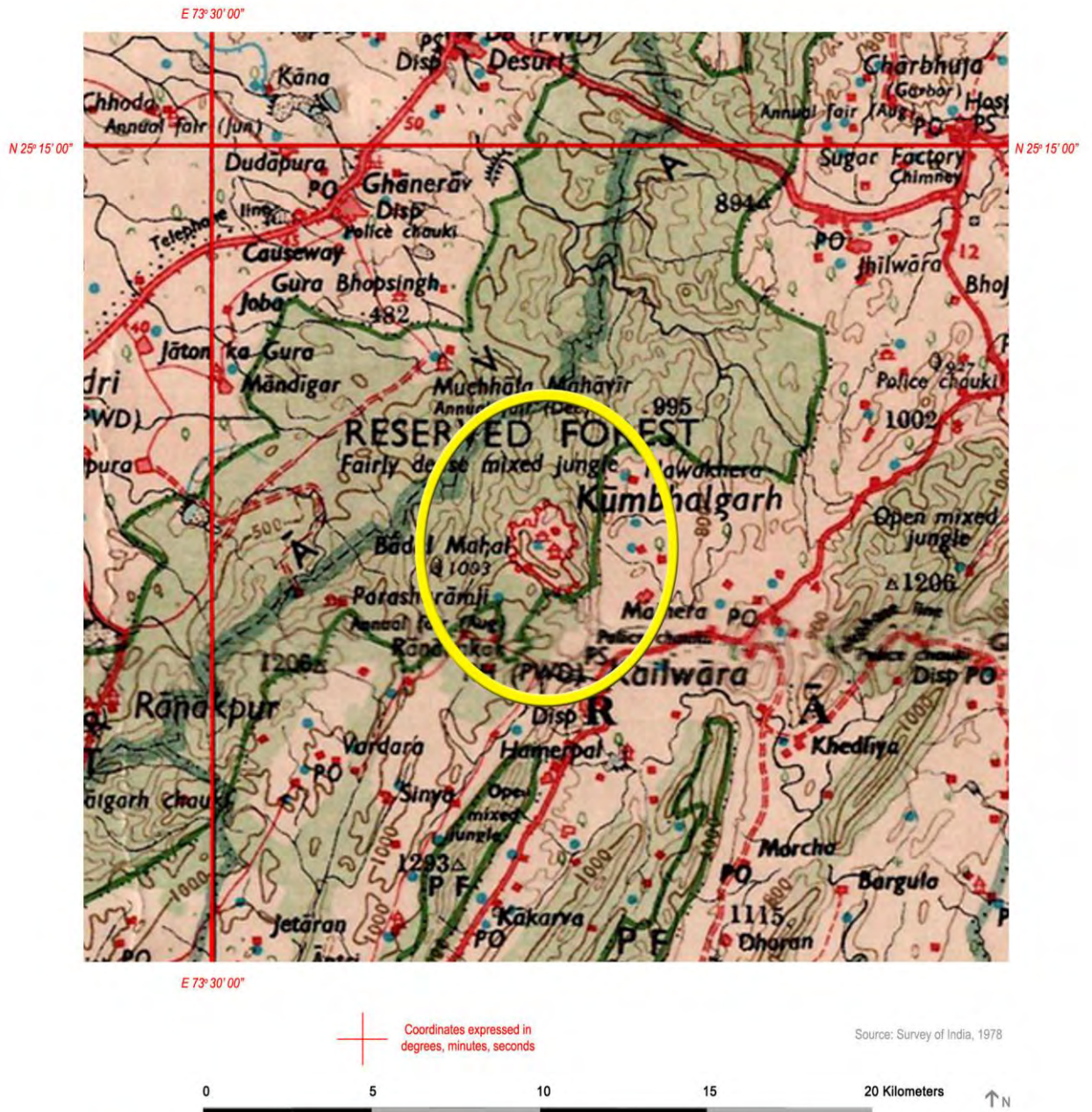


# 1. Identification



Map 1.8– Topography Map of Chittorgarh





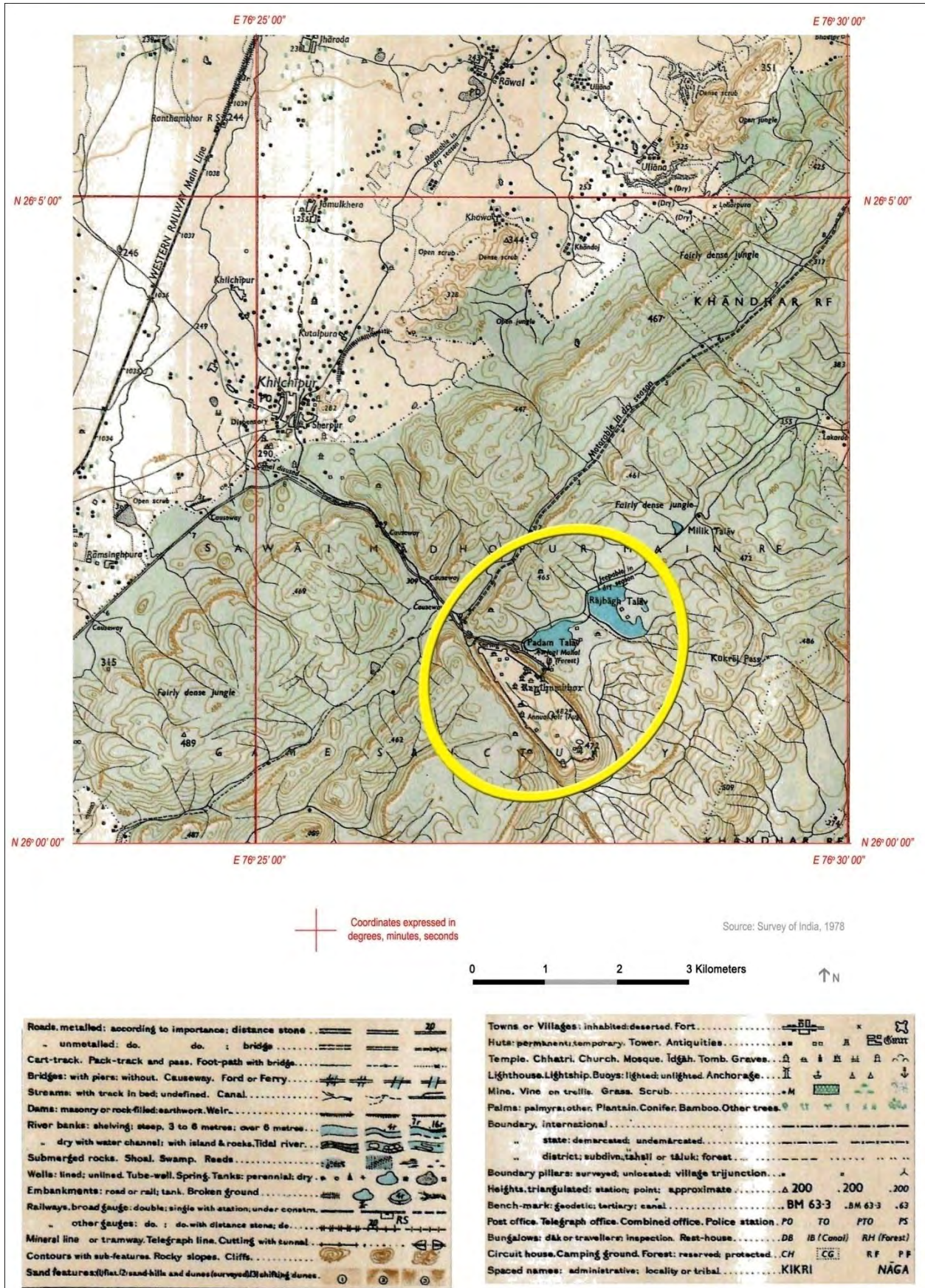
Roads, metalled, according to importance: distance stone	— — — — — 20
unmetalled, do.	— — — — —
bridge	— — — — —
Cart-track, Pack-track and pass, Foot-path with bridge	— — — — —
Bridges: with piers, without, Causeway, Ford or Ferry	— — — — —
Streams: with track in bed, undefined, Canal	— — — — —
Dams: masonry or rock-filled, earthwork, Weir	— — — — —
River banks: shelving, steep, 3 to 6 metres, over 6 metres	— — — — —
dry with water channel; with island & rocks, Tidal river	— — — — —
Submerged rocks, Shoal, Swamp, Reeds	— — — — —
Wells: lined, unlined, Tube-well, Spring, Tanks: perennial, dry	— — — — —
Embankments: road or rail; tank, Broken ground	— — — — —
Railways, broad gauge; double, single with station, under constr.	— — — — —
other gauges: do., do. with distance stone, do.	— — — — —
Mine: rail line or tramway, Telegraph line, Cutting with tunnel	— — — — —
Contours with sub-features, Rocky slopes, Cliffs	— — — — —
Sand features: flat, sand-hills and dunes (surveyed), shifting dunes	— — — — —

Towns or Villages: inhabited, deserted, Fort	— — — — —
Huts: permanent, temporary, Tower, Antiquities	— — — — —
Temple, Chhatra, Church, Mosque, Idgah, Tomb, Graves	— — — — —
Lighthouse, Lightship, Buoys: lighted, unlighted, Anchorage	— — — — —
Mine, Vine on trellis, Grass, Scrub	— — — — —
Palms: palmyra, other, Plantain, Conifer, Bamboo, Other trees	— — — — —
Boundary: international	— — — — —
state: demarcated, undemarcated	— — — — —
district: subdivn. tahsil or taluk, forest	— — — — —
Boundary pillars: surveyed, unlocated	— — — — —
Heights: triangulated: station, point: approximate	— — — — —
Bench-mark: geodetic, tertiary, canal	— — — — —
Post office, Telegraph office, Combined office, Police station	— — — — —
Bungalows: dak or traveller's, inspection, Rest-house	— — — — —
Circuit house, Camping ground, Forest: reserved, protected	— — — — —
Spaced names: administrative, locality or tribal	— — — — —

Map 1.9 – Topography Map of Kumbhalgarh

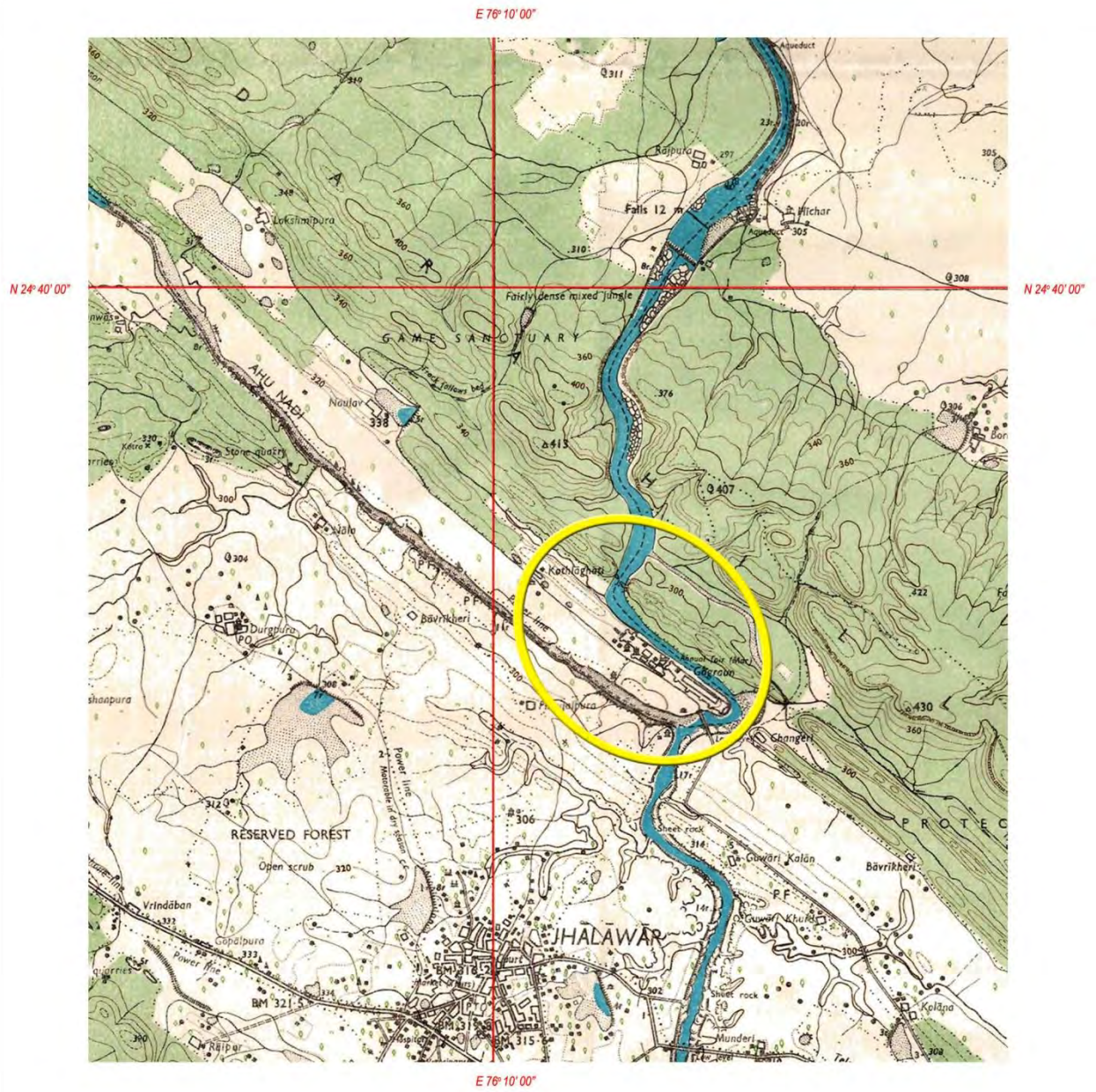


# 1. Identification



Map 1.10 – Topography Map of Ranthambore





Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



Roads: metalled, according to importance, distance stone		20
unmetalled, do. do. bridge		
Cart-track, Pack-track and pass Foot-path with bridge		
Bridges: with pier, without, Causeway, Ford or Ferry		
Streams: with track in bed, undefined Canal		
Dams: masonry or rock-filled earthwork Weir		
River banks: shelving, steep, 3 to 6 metres, over 6 metres		7, 16
dry with water channel, with island & rocks, Tidal river		
Submerged rocks, Shoal, Swamp, Reeds		
Wells: lined, unlined Tube-well, Spring, Tanks: perennial, dry		
Embankments: road or rail, tank, Broken ground		
Railways: broad gauge: double, single with station, under constr.		
other gauges: do. do. with distance stone, do.		20, 15
Mineral line or tramway Telegraph line, Cutting with tunnel		
Contours with sub-features Rocky slopes Cliffs		
Sand features: flat, low hills and dunes (surveyed), shifting dunes		

Towns or Villages: inhabited, deserted, Fort		20
Huts: permanent, temporary, Tower, Antiquities		
Temple, Chhatri, Church, Mosque, Idgah, Tomb, Graves		
Lighthouse, Lightship, Buoys, lighted, unlighted, Anchorage		
Mine, Vine on trellis, Grass, Scrub		
Palms, palmyra, other, Plantain, Conifer, Bamboo, Other trees		
Boundary, international		
state, demarcated, undemarcated		
district, subdiv. (ahali or saku), forest		
Boundary pillars: surveyed, unlocated, village, trijunction		200, 200
Heights: triangulated, station, point, approximate		BM 63.3, BM 63.3, 63
Bench-mark: geodetic, tertiary, canal		
Post office, Telegraph office, Combined office, Police station		PO, 70, PTO, PS
Bungalows: dak or travellers, inspection, Rest-house		DB, IB (Cantt), RH (Forest)
Circuit house, Camping ground, Forest: reserved, protected		CH, CG, RH, PF
Spaced names: administrative, locality or tribal		KIKRI, NAGA

Map 1.11 – Topography Map of Gagrion



# 1. Identification



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978

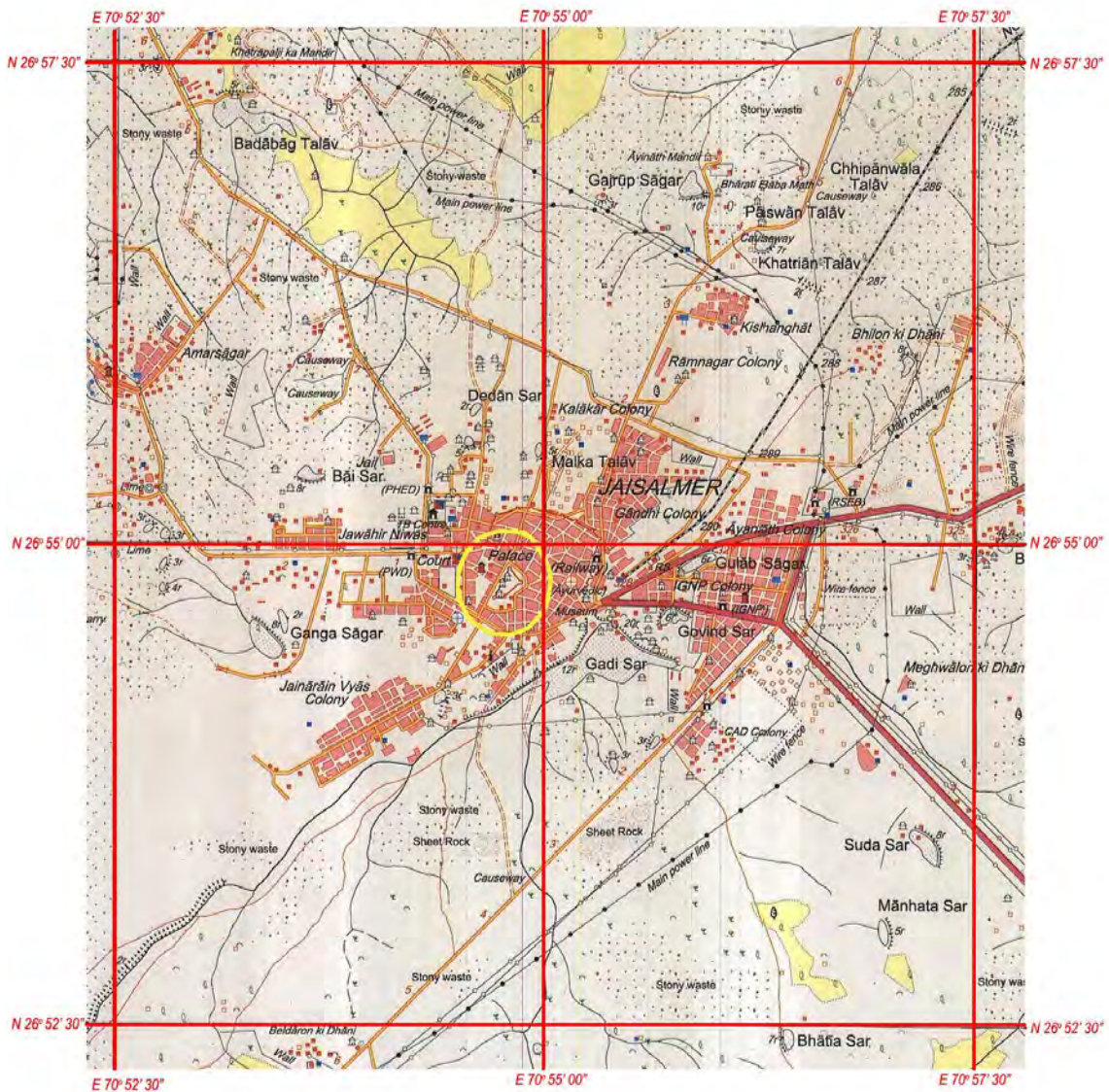


Roads metalled, according to importance, distance stone	20
unmetalled, do	1
Cart-track, Pack-track and path	Path with bridge
Bridges with pier within, Causeway, Ford or Ferry	
Streams with track in bed undefined, Canal	
Dams, masonry or rock filled earthen Weir	
River banks, shalving, steep, 3 to 6 metres, over 6 metres	
dry with water channel, with island & rocks Tidal river	
Submerged rocks, Shoal, Swamp, Reeds	
Wells, lined, unlined, Tube well, Spring, Tanks, perennial, dry	
Embarkments, road or rail, tank, Broken ground	
Railways, broad gauge, double, single with station, under construction	
other gauges, do, do with distance wire, do	20 75
Light railway or tramway Telegraph line, Cutting with tunnel	
Contours with sub-features Rocky slopes, Cliffs	
Land features: (1) Hills and dunes (2) Surveyed (3) Floating dunes	

Towns or Villages: inhabited, deserted, fort	
Huts: permanent, temporary, Tower, Antiquities	
Temple, Chhatra, Church, Mosque, Idgah, Tomb, Graves	
Lighthouse, Lightship, Buoys, lighted, unlighted, Anchorage	
Mine, Vine on trails, Grass, Scrub	
Palms, palms, other, Plantain, Conifer, Bamboo, Other trees	
Boundary, international	
state demarcated, undemarcated	
district, sub-district, tahsil or taluk, forest	
Boundary pillars: surveyed, unlocated, village, trijunction	
Heights: triangulated, station, point, approximate	200 200 .200
Bench-mark: geodetic, tertiary, canal	BM 63 3 .BA 63 3 .43
Post office, Telegraph office, Combined office, Police station	PO TO PTO PS
Bungalows: dika or travellers, inspection, Post-house	DB (Canal) NH (Forest)
Circuit house, Camping ground, forest: reserved, protected	CN CE R F P F
Spaced names: administrative, locality or tribal	KIKRI NAGA

Map 1.12 – Topography Map of Amber





Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



Express highway: with toll; with bridge; with distance stone	
Roads, metalled: according to importance	
Roads, double carriageway: according to importance	
Unmetalled road, Cart-track, Pack-track with pass, Foot-path	
Streams: with track in bed; undefined; Canal	
Dams: masonry or rock-filled; earthwork; Weir	
River: dry with water channel; with island & rocks; Tidal river; Submerged rocks; Shoal; Swamp; Reeds	
Walls: lined; unlined; Tube-well; Spring; Tanks: perennial; dry	
Embankments: road or rail, tank, Broken ground	
Railways, broad gauge: double; single with station; under constm.	
Railways, other gauges: double; single with distance stone; do.	
Mineral line or tramway, Kln. Cutting with tunnel	
Contours with sub-features. Rocky slopes. Cliffs	
Sand features: (1)flat, (2)sand-hills(permanent), (3)dunes(shifting)	
Towns or Villages: inhabited; deserted; Fort	
Hot: permanent; temporary; Tower; Antiquities	
Temple; Chhatr; Church; Mosque; Dghān; Tomb; Graves	

Lighthouse. Lightship. Buoys: lighted; unlighted. Anchorage	
Mine. Vine on trellis. Grass. Scrub	
Palms: palmyra; other. Plantain. Conifer. Bamboo. Other trees	
Areas: cultivated; wooded; Surveyed tree	
Boundary, international	
state: demarcated; undemarcated	
district; subdivision; tahsil or taluk; forest	
Boundary pillars: surveyed; unlocated	
Heights, triangulated: station; point; approximate	
Bench-mark: geodetic; tertiary; canal	
Post office; Telegraph office. Overhead tank	
Rest house or inspection bungalow. Circuit house. Police station	
Camping ground. Forest: reserved; protected	
Spaced names: administrative; locality or tribal	
Hospital. Dispensary. Veterinary; Hospital / Dispensary	
Aerodrome. Helipad. Tourist site	
Power line: with pylons surveyed; with poles unsurveyed	

Map 1.13 – Topography Map of Jaisalmer



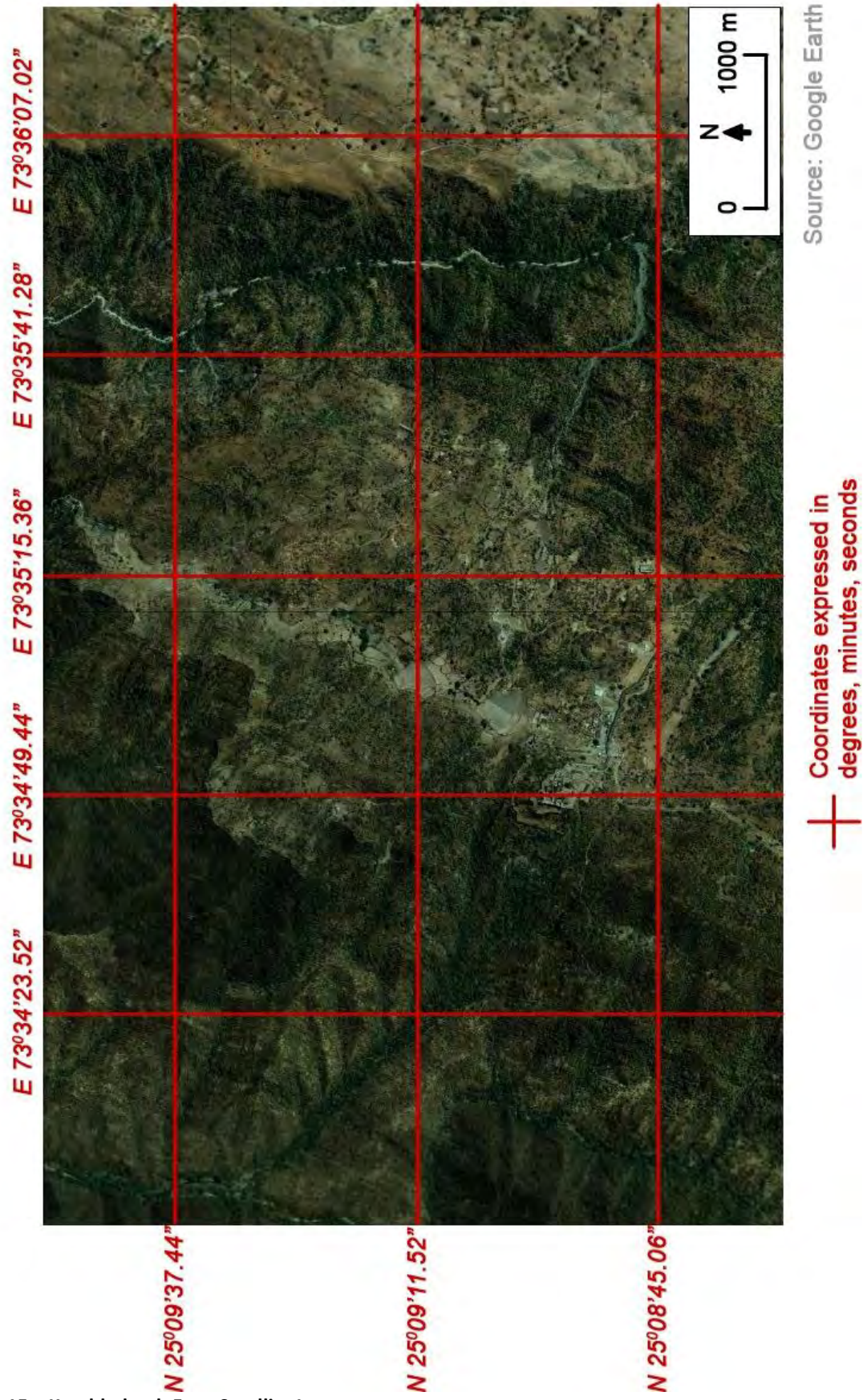
# 1. Identification

1.17



Map 1.14 – Chittorgarh Fort, Satellite Image

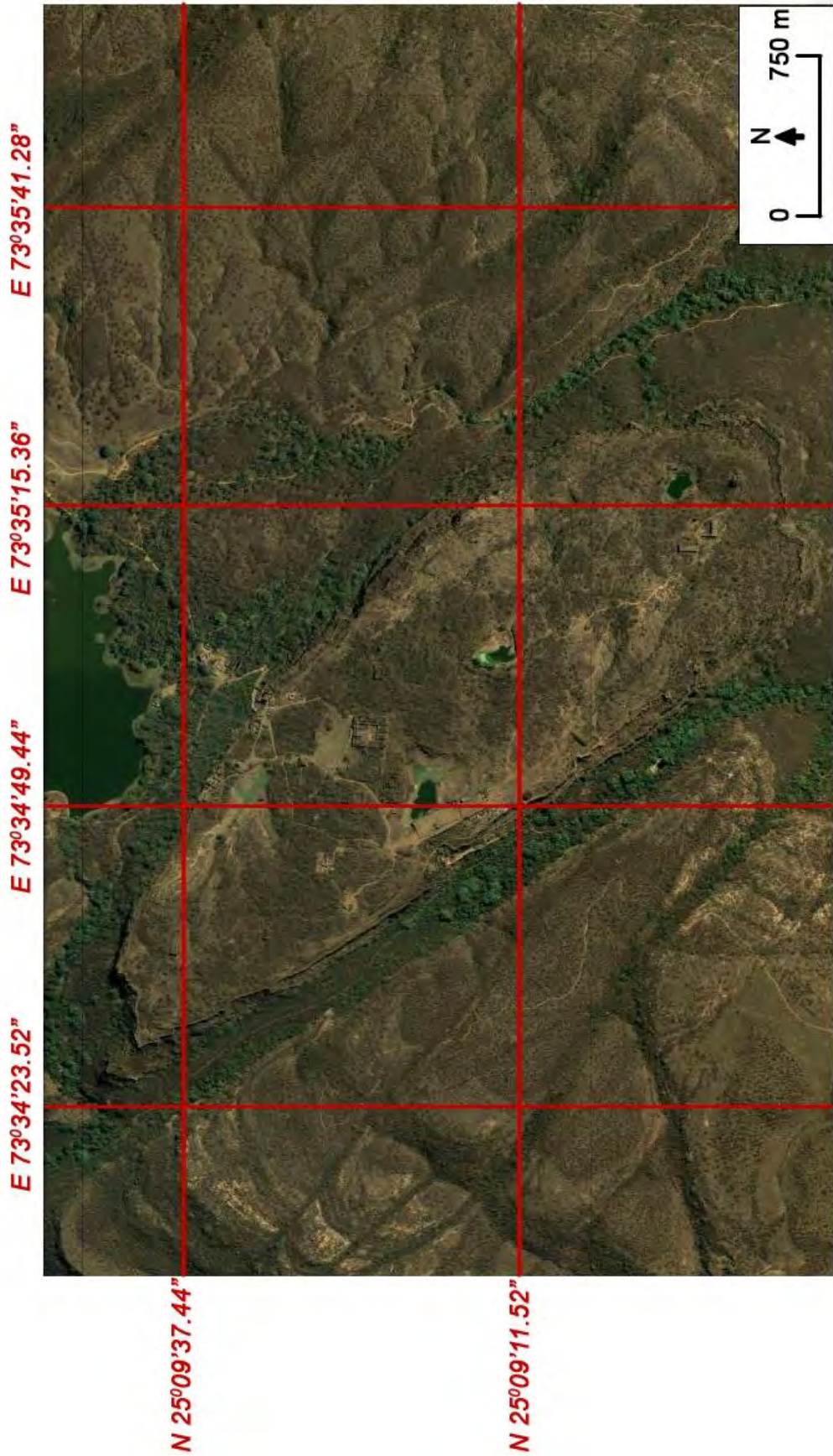




Map 1.15 – Kumbhalgarh Fort, Satellite Image



# 1. Identification



Source: Google Earth

⊕ Coordinates expressed in degrees, minutes, seconds

Map 1.16 – Ranthambore Fort, Satellite Image





Map 1.17 – Gagron Fort, Satellite Image



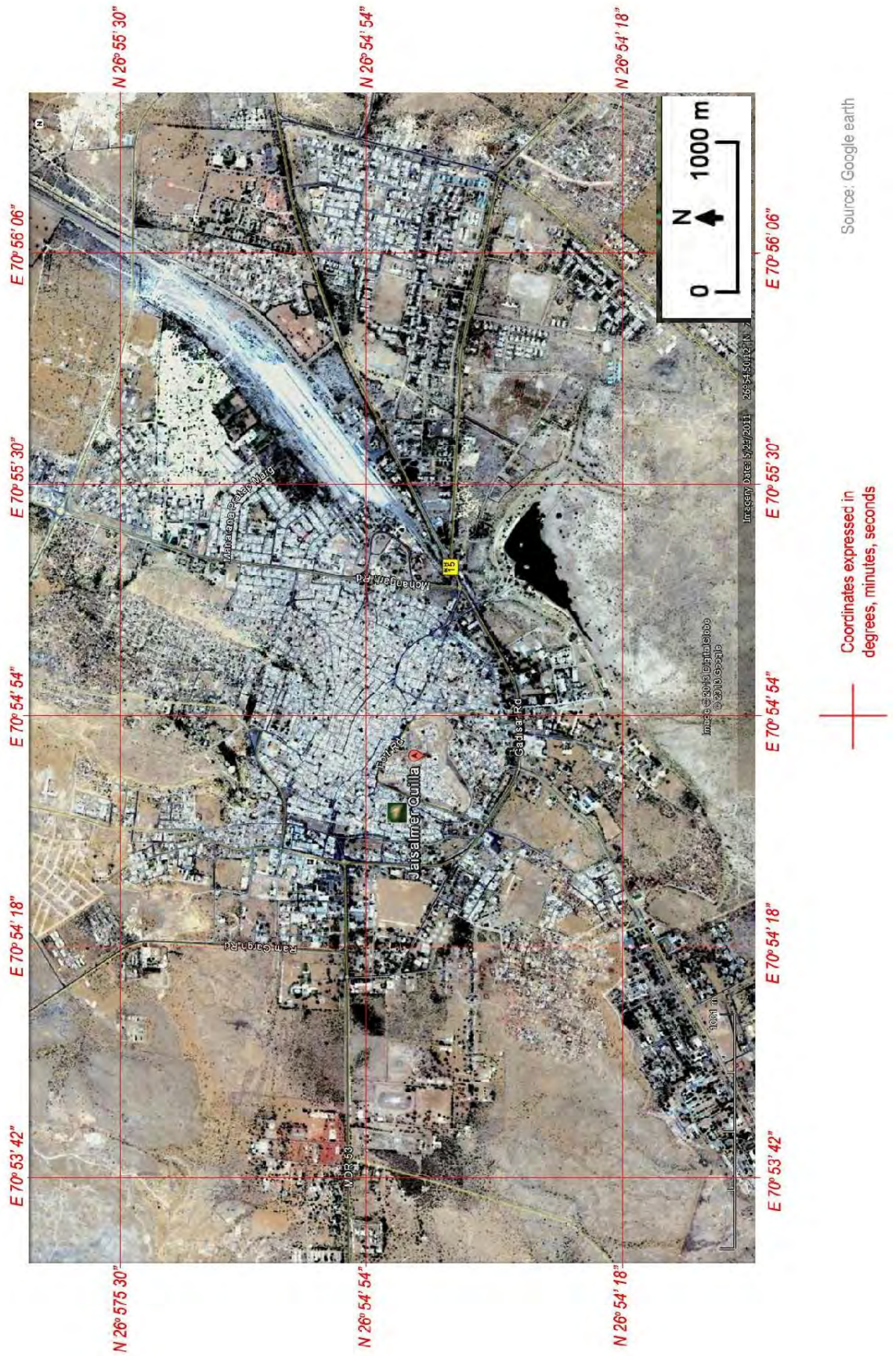
# 1. Identification

1.21



Map 1.18 – Amber Fort, Satellite Image

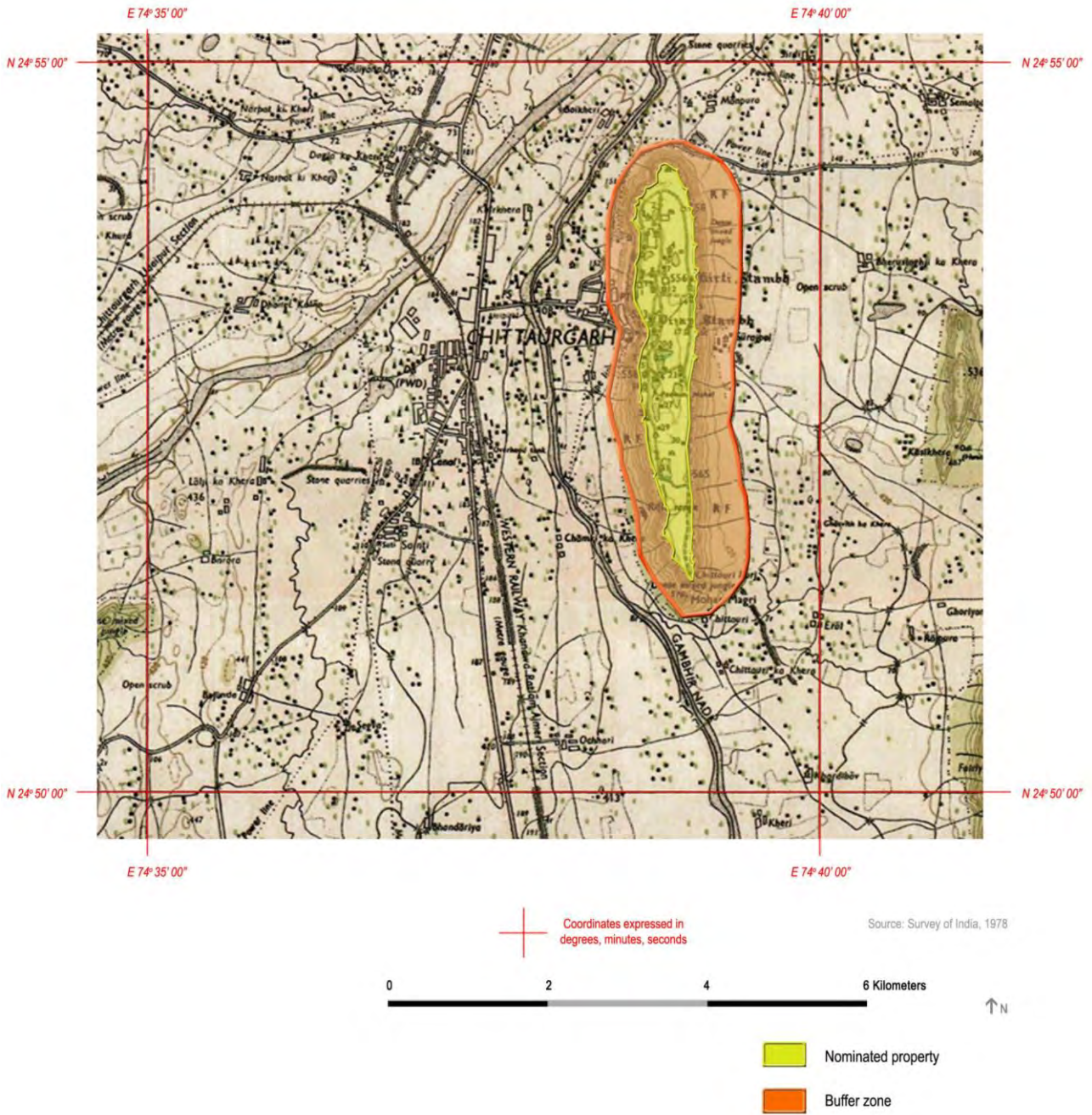




Map 1.19 – Jaisalmer Fort, Satellite Image



# 1. Identification

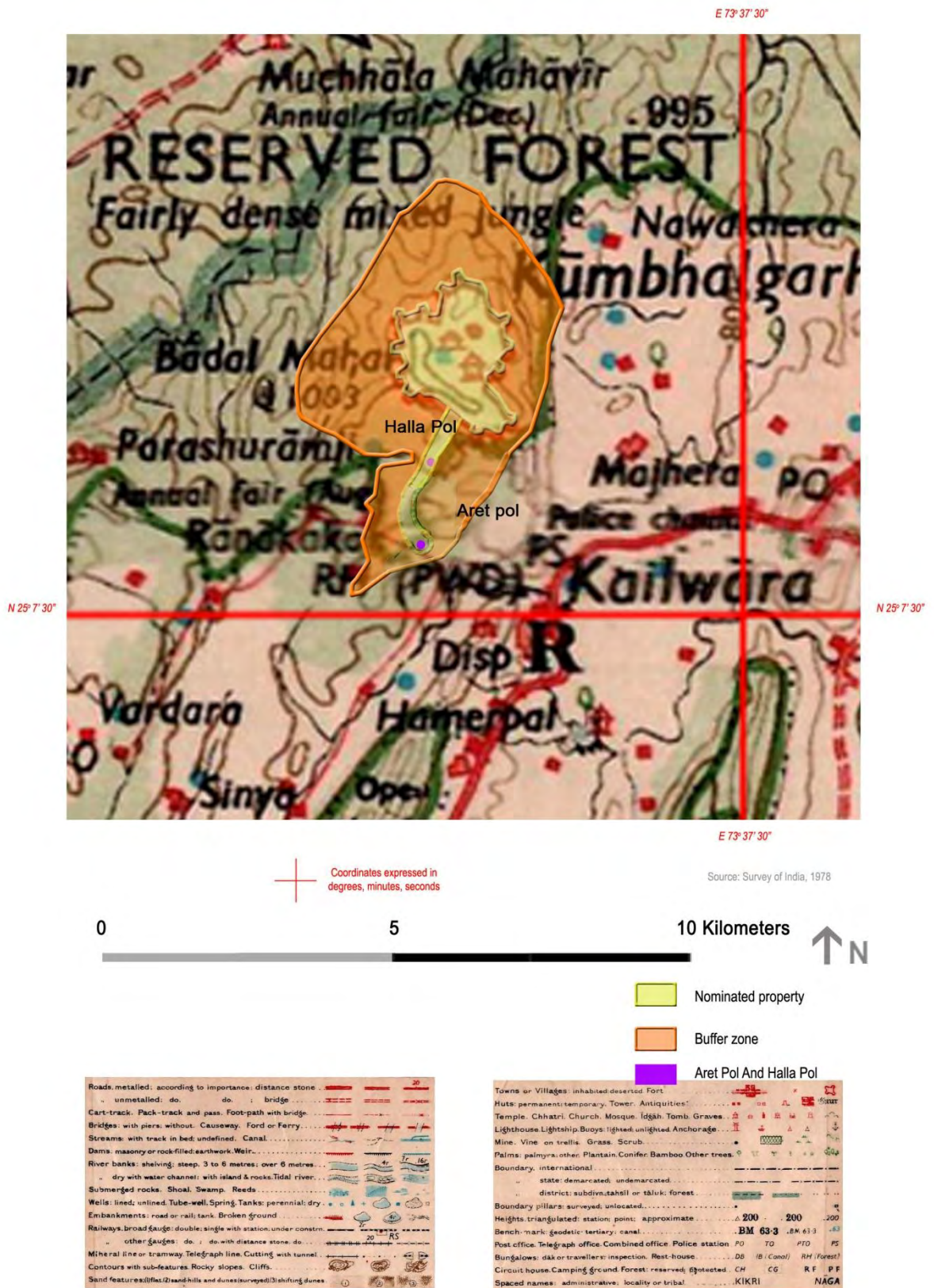


Roads: metalled	according to importance	distance stone	20
unmetalled: do	do	bridge	
Cart-track	Pack-track and pass	Foot-path with bridge	
Bridges: with piers	without	Causeway	Ford or Ferry
Streams: with track in bed	undefined	Canal	
Dams: masonry or rock-filled	earthwork	Weir	
River banks: shalving	steep: 3 to 6 metres	over 6 metres	
dry with water channel	with island & rocks	Tidal river	
Silt-matted rocks	Shoal	Swamp	Tanks
Well: hand-dug	tube well	Spring	Tanks: perennial
dry			broken ground
Highway	single	double	single
station	under	concrete	
gauge	do	with	stone
do			do
Mineral	to	roadway	with
tunnel			
Cart-track	with	obstructions	Rocky
do			do

Towns or Villages: inhabited	deserted	Fort	
Huts: permanent	temporary	Tower	Antiquities
Temple	Chhatra	Church	Mosque
Idgah	Tomb	Graves	
Lighthouse	Lightship	Boys	rigged
unrigged	Anchorage		
Mine	Vine	on	trellis
Grass	Scrub		
Palms: palmyra	other	Plantain	Conifer
Bamboo	Other trees		
Boundary: international			
state demarcated	undemarcated		
district	subdiv	taball	or
silak	forest		
Boundary pillars: surveyed	unsurveyed	village	trijunction
Heights: triangulated	station	points	approximate
BM 63-3	BM 63-3	BM 63-3	BM 63-3
Bench-mark: geodetic	triary	canal	
Post office	Telegraph office	Combined office	Police station
PD	TD	PTD	PS
Bungalows: dak	or	travellers	Inspection
Rest-house			
DB	IB	Conol	RH
Forest: reserved	protected	CV	CF
RF	PF		

Map 1.20 –Chittorgarh Fort – Nominated Property and Buffer Zone

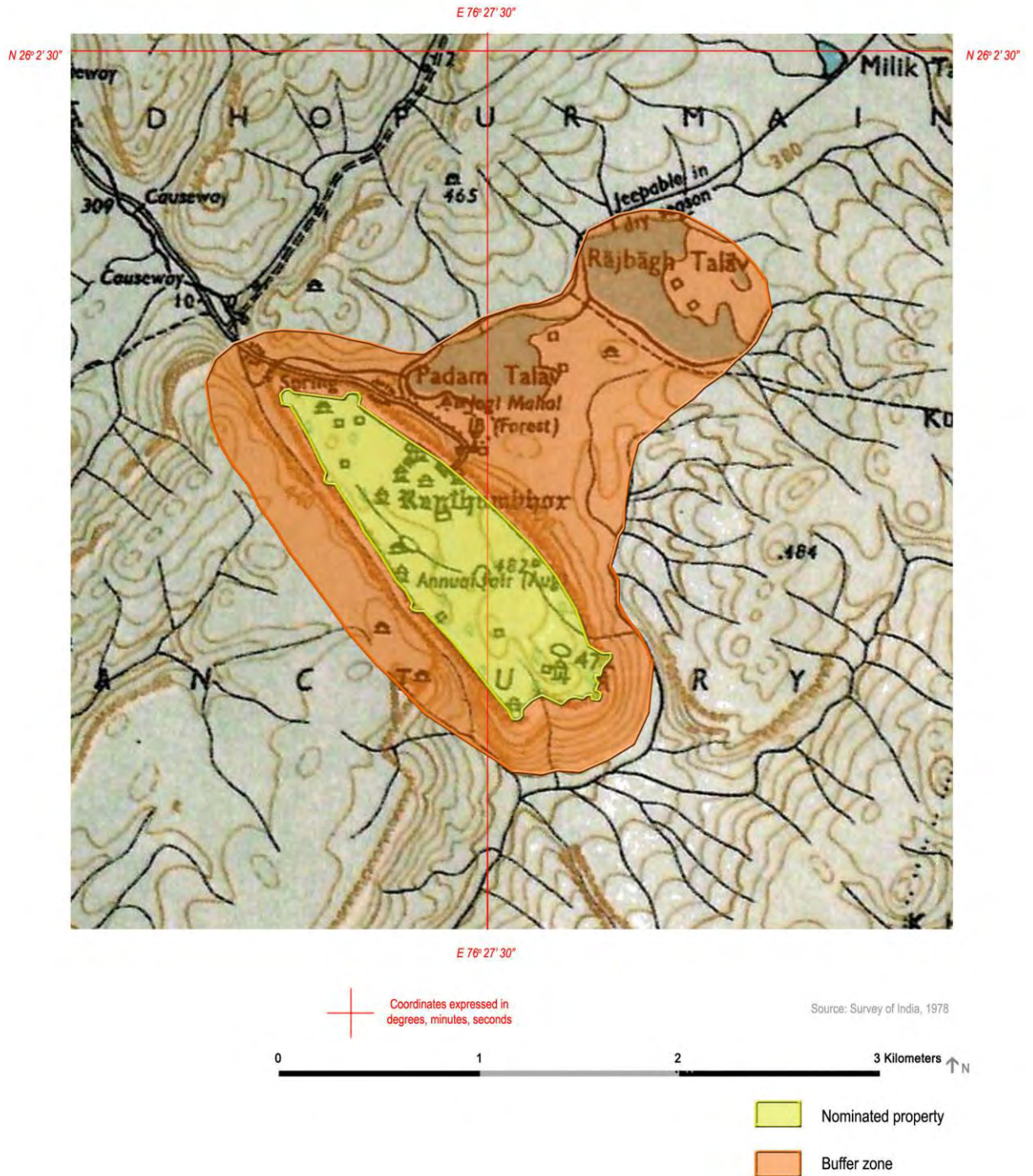




Map 1.21– Kumbhalgarh Fort – Nominated Property and Buffer Zone



# 1. Identification

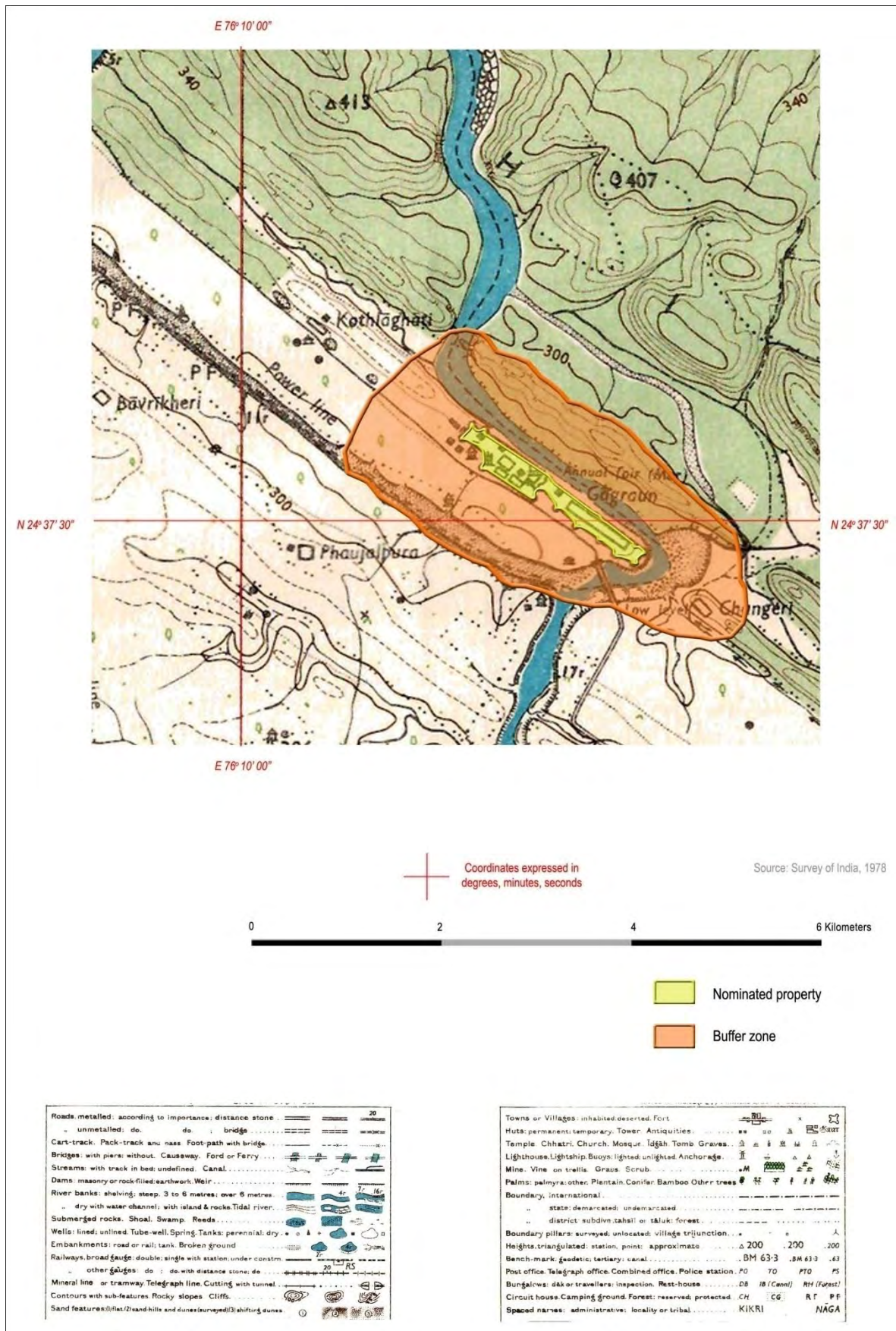


Roads, metalled: according to importance; distance stone	
unmetalled: do. do. bridge	
Cart-track, Pack-track and pass, Foot-path with bridge	
Bridges: with piers; without, Causeway, Ford or Ferry	
Streams: with track in bed; undefined, Canal	
Dams: masonry or rock-filled; earthwork, Weir	
River banks: shelving; steep, 3 to 6 metres; over 6 metres	
dry with water channel; with island & rocks; Tidal river	
Submerged rocks, Shoal, Swamp, Reeds	
Wells: lined; unlined; Tube-well; Spring; Tanks; perennial; dry	
Embankments: road or rail; tank, Broken ground	
Railways: broad gauge: double; single with station; under constr.	
other gauges: do. do. with distance stone; do.	
Mineral line or tramway, Telegraph line, Cutting with tunnel	
Contours with sub-features, Rocky slopes, Cliffs	
Sand features: dunes, Sand hills and dunes; surveyed; shifting dunes	

Towns or Villages: inhabited; deserted; Fort	
Huts: permanent; temporary, Tower, Antiquities	
Temple, Chhatra, Church, Mosque, Idgah, Tomb, Graves	
Lighthouse, Lightship, Buoys: lighted; unlighted; Anchorage	
Mine, Vine on trunks, Grass, Scrub, Other trees	
Palms; palmyra; other; Plantain; Conifer; Bamboo; Other trees	
Boundary, international	
state; demarcated; undemarcated	
district; subdiv. (tahsil) or taluk; forest	
Boundary pillars: surveyed; unlocated; village junction	
Heights, triangulated: station; point; approximate	
Bench-mark: geodetic; tertiary; canal, BM 63-3, BM 63-3, 63	
Post office, Telegraph office, Combined office, Police station, PO, TO, PTO, PS	
Bungalows: dak or travellers; inspection, Rest-house, DB, IB (Canal), RH (Forest)	
Circuit house, Camping ground, Forest: reserved; protected, CH, CG, R.P., P.P.	
Spaced names: administrative; locality or tribal, KIKRI, NAGA	

Map 1.22 – Ranthambore Fort – Nominated Property and Buffer Zone



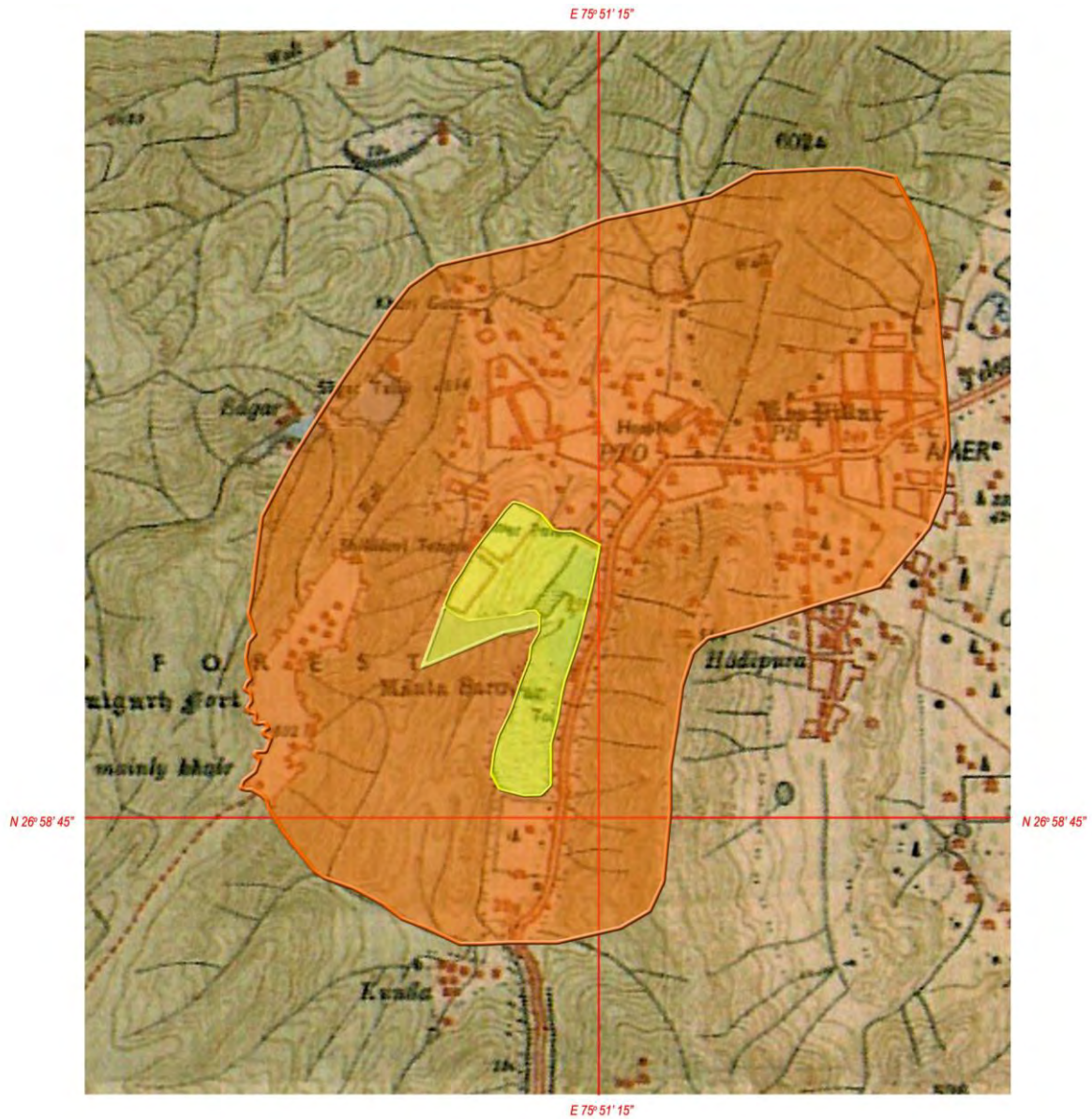


Map 1.23 – Gagraon Fort – Nominated Property and Buffer Zone



# 1. Identification

1.27



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



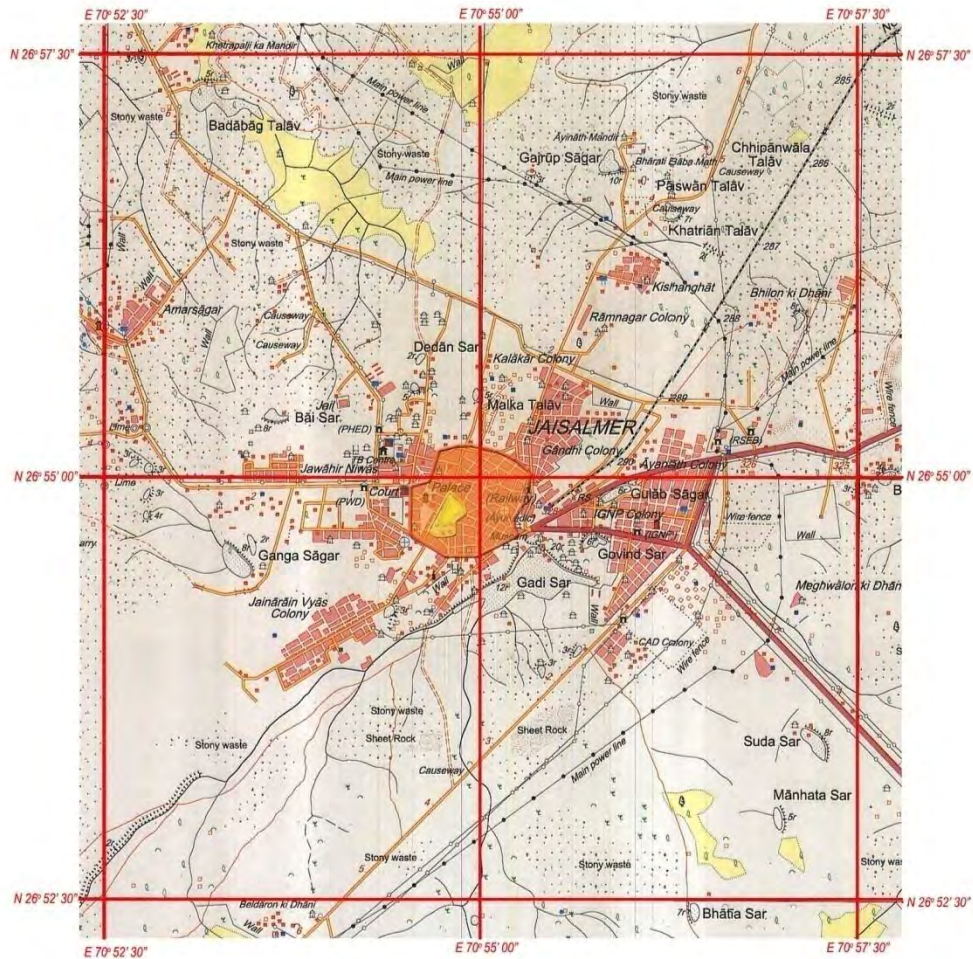
- Nominated property
- Buffer zone

Roads metalled: according to importance: distance stone	
unmetalled: do. do. do. bridge	
Cut-track: Peck-track and pile: Path-path with bridge	
Bridges with pier: without Causeway Ford or Ferry	
Streams with track in bed: undefined Canal	
Dams: masonry or race-filled earthwork Weir	
River banks: shewing steep 3 to 6 metres: over 6 metres	
dry with water channel: with island & rocks Tidal river	
Submerged rocks Shoal Swamp Reeds	
Wells: used, unused Tube-well Spring Tanks perennial dry	
Embarkments: road or rail tank Broken ground	
Railways: broad gauge double single with station under canopy	
other gauges: do. do. with distance view: do	
Light railway or tramway Telegraph line Cutting with tunnel	
Contours with sub-features Rocky slopes Cliffs	
Band features: life: 12 band hills and dunes: 100 ft: 200 ft: 300 ft	

Towns or Villages: inhabited: deserted Fort	
Ratt: permanent temporary Tower Antiquities	
Temple Chhatra Church Mosque Idgh Tomb Graves	
Lighthouse Lightship Buoy Lighted unlighted Anchorage	
Mine Vine on trellis Grass Scrub	
Palms: palmyra: other: Plantain Conifer Bamboo Other trees	
Boundary: international	
state demarcated undemarcated	
district: subdin: tahsil or taluk: forest	
Boundary pillars: surveyed: unlocated: village: trijunction	
Height: triangulated: station: peak: approximate	
Bench-mark: geodetic: tertiary: canal	
Post office: Telegraph office: Combined office: Police station	
Bungalows: 44: or traveller: inspection: Rest-house	
Circuit house: Camping ground: forest: reserved: protected	
Spaced names: administrative: locality or tribal	

Map 1.24 Amber Fort – Nominated Property and Buffer Zone





Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



Nominated Property  
Buffer Zone

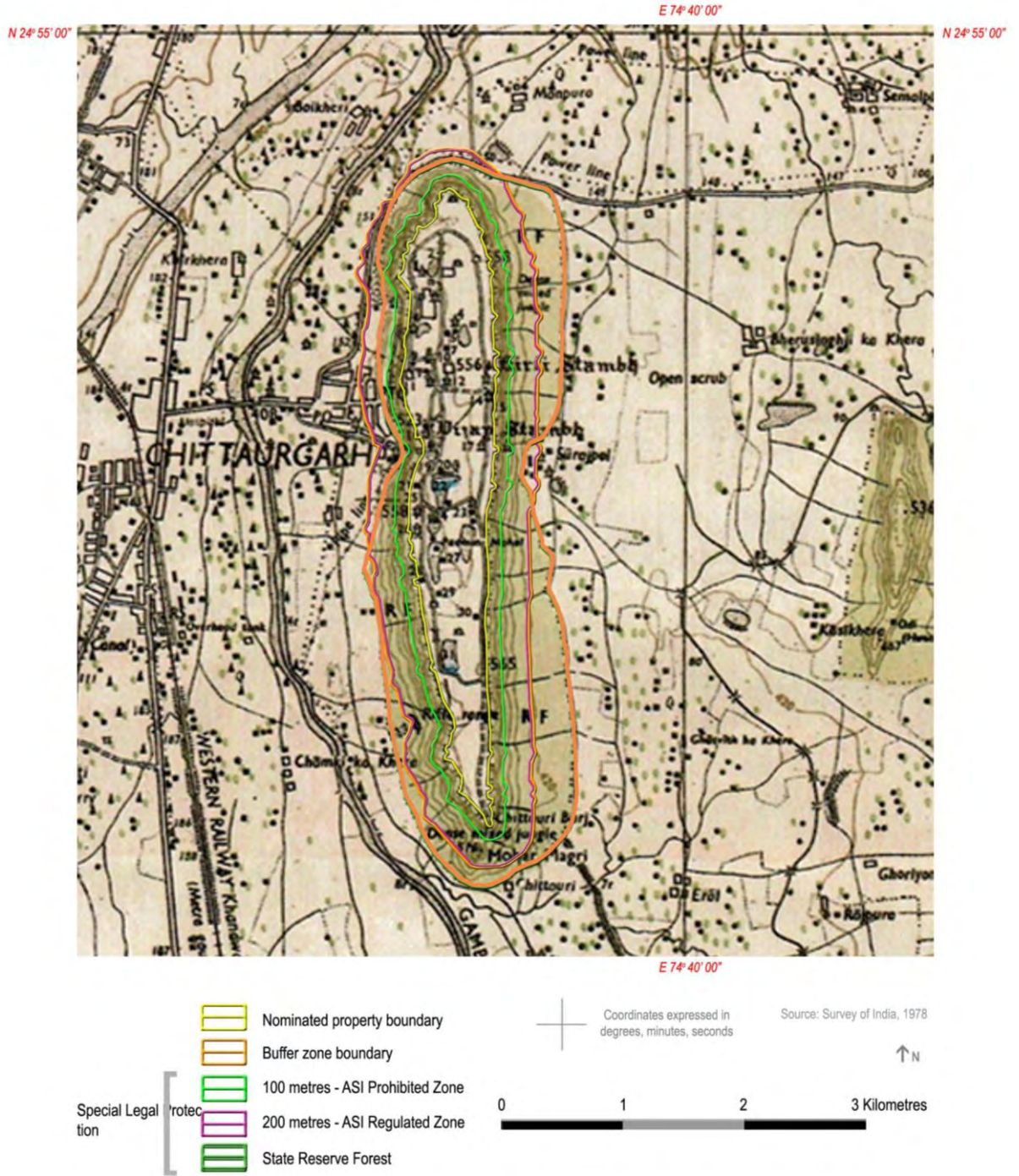
Express highway: with toll; with bridge; with distance stone	
Roads, metalled: according to importance	
Roads, double carriageway, according to importance	
Unmetalled road. Cart-track. Pack-track with pass. Foot-path	
Streams: with track in bed; undefined. Canal	
Dams: masonry or rock-filled; earthwork. Weir	
River: dry with water channel; with island & rocks. Tidal river	
Submerged rocks. Shoal. Swamp. Reeds	
Wells: lined; unlined. Tube-well. Spring. Tanks: perennial; dry	
Embankments: road or rail; tank. Broken ground	
Railways, broad gauge: double; single with station; under constr.	
Railways, other gauges: double; single with distance stone; do.	
Mineral line or tramway. Kin. Cutting with tunnel	
Contours with sub-features. Rocky slopes. Cliffs	
Sand features: (1) flat. (2) sand-hills (permanent). (3) dunes (shifting)	
Towns or Villages: inhabited; deserted. Fort	
Huts: permanent; temporary. Tower. Antiquities	
Temple. Chhatra. Church. Mosque. Logah. Tomb. Graves	

Lighthouse. Lightship. Buoys: lighted; unlighted. Anchorage				
Mine. Vine on trellis. Grass. Scrub				
Palms: palmyra; other. Plantain. Conifer. Bamboo. Other trees				
Areas: cultivated; wooded. Surveyed tree				
Boundary, International				
state: demarcated; undemarcated				
district, subdivision; tahsil or taluk; forest				
Boundary pillars: surveyed; unlocated				
Heights, triangulated: station; point; approximate				
Bench-mark: geodetic; tertiary; canal				
Post office. Telegraph office. Overhead tank				
Rest house or inspection bungalow. Circuit house. Police station				
Camping ground. Forest: reserved; protected				
Spaced names: administrative; locality or tribal				
Hospital. Dispensary. Veterinary: Hospital / Dispensary				
Aerodrome. Helipad. Tourist site				
Power line: with pylons surveyed; with poles unsurveyed				

Map 1.25 – Jaisalmer Fort – Nominated Property and Buffer Zone



# 1. Identification



Map 1.26 – Chittorgarh Fort – Special Legal Protection Zones



Map 1.27 – Chittorgarh Fort – Area exclusively under A.S./N.M.A

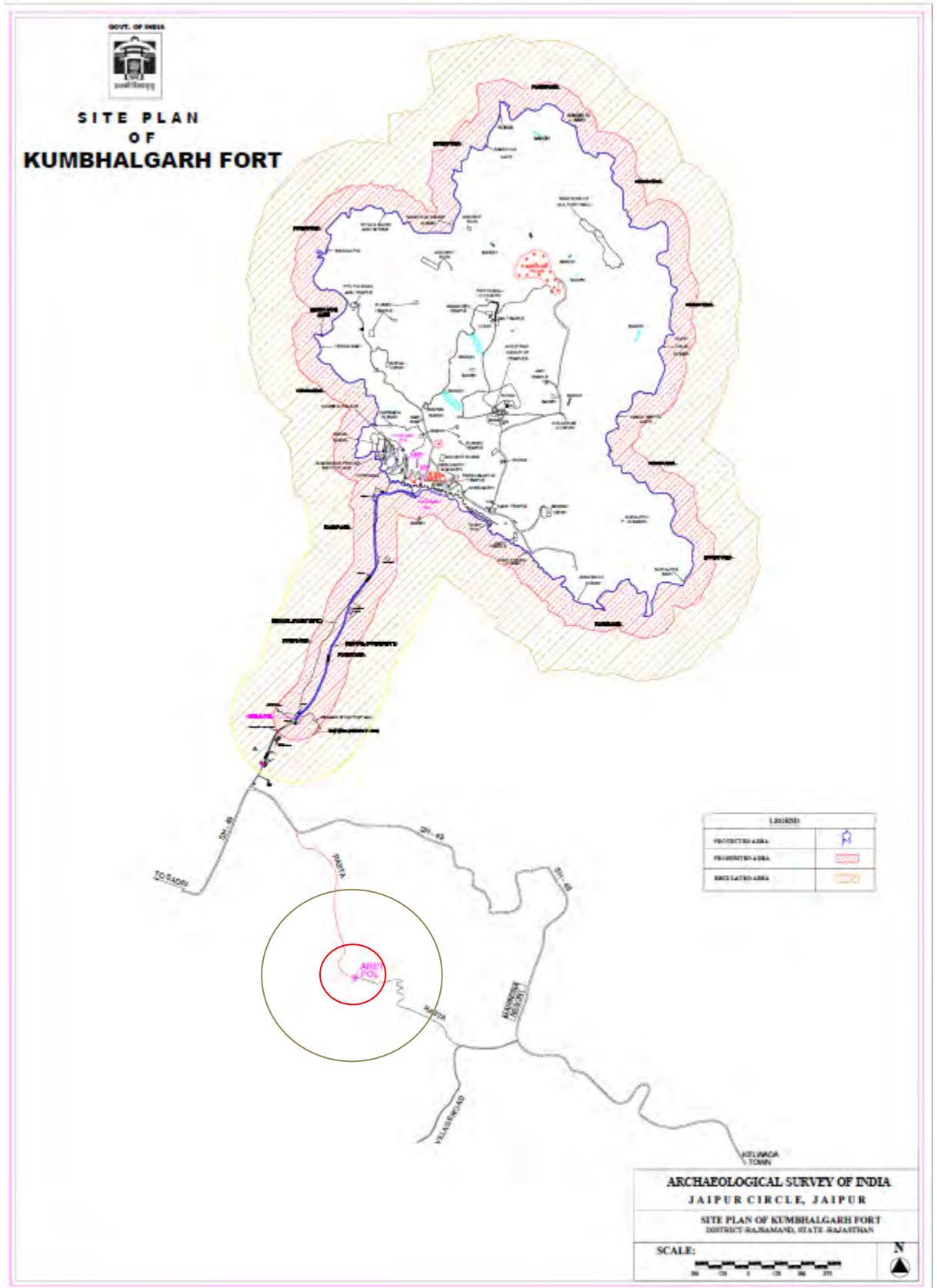
Source : Archeological Survey of Indi



# 1. Identification



Map 1.28 – Kumbhalgarh Fort – Special Legal Protection Zones



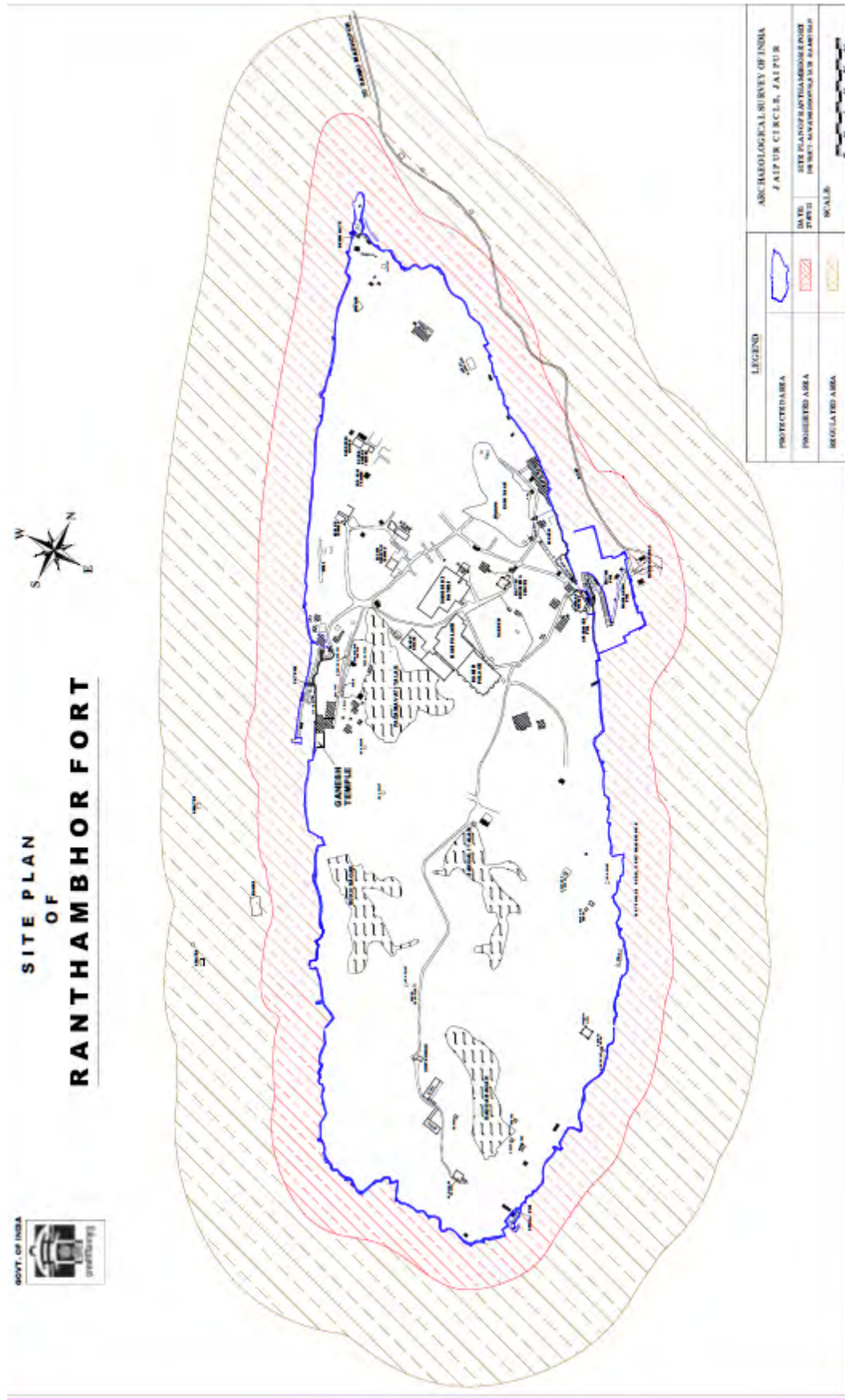
Map 1.29 – Kumbhalgarh Fort – Area exclusively under A.S./N.M.A Source : Archeological Survey of India



# 1. Identification



Map 1.30– Ranthambore Fort – Special Legal Protection Zones

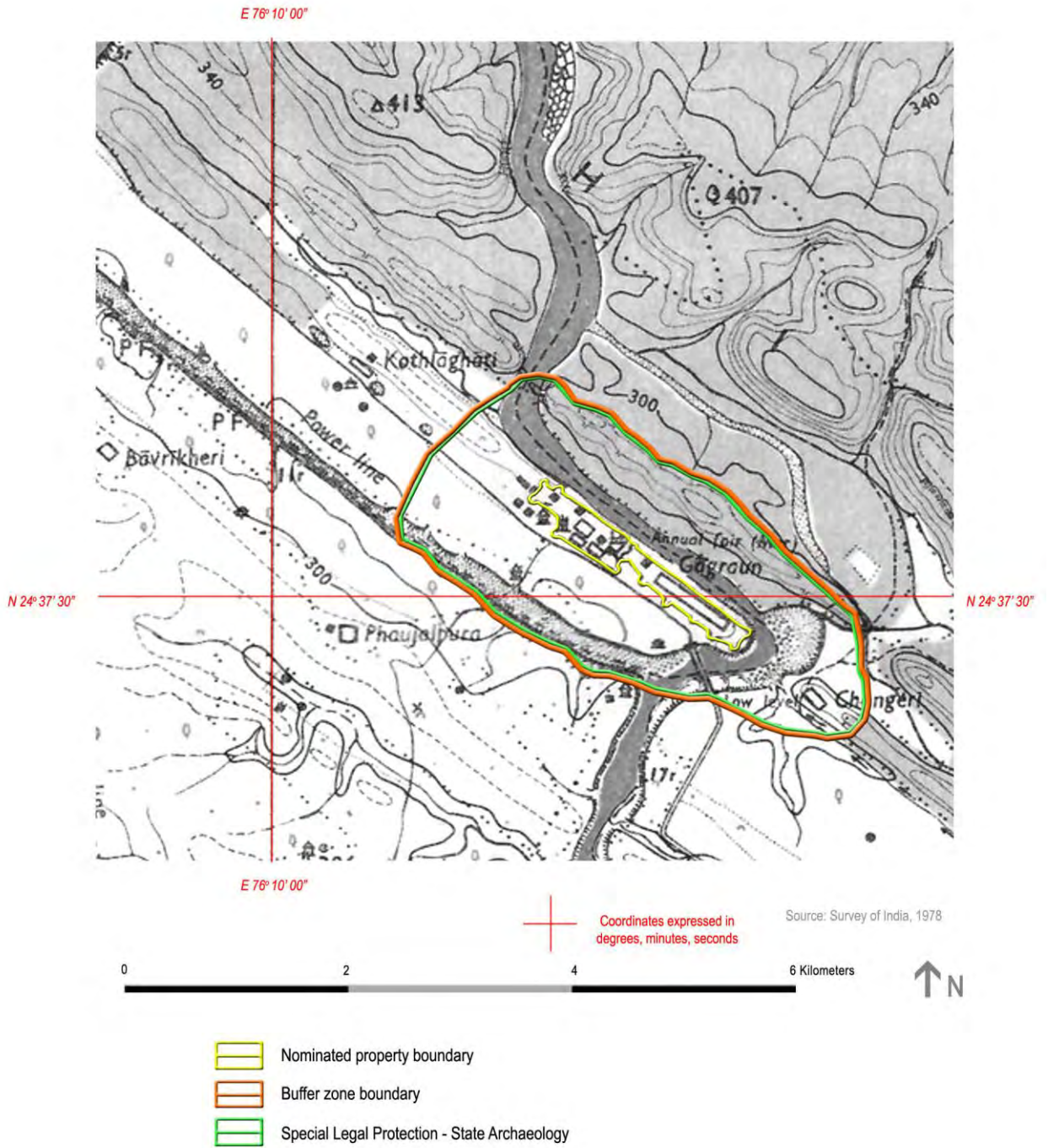


Map 1.31– Ranthambore Fort – Area exclusively under A.S.I./N.M.A

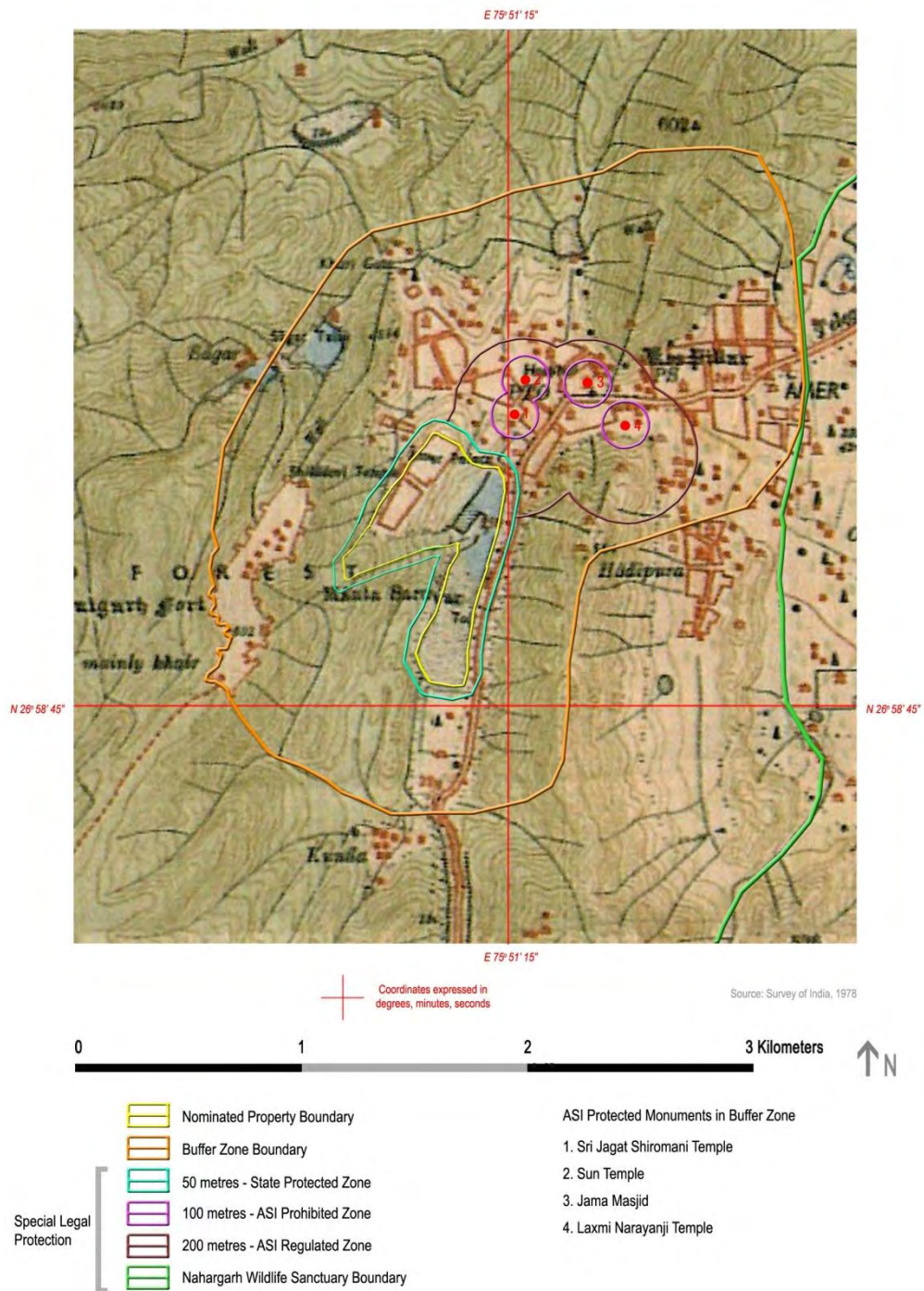
Source : Archeological Survey of India



# 1. Identification



Map 1.32 – Gagron Fort – Special Legal Protection Zones

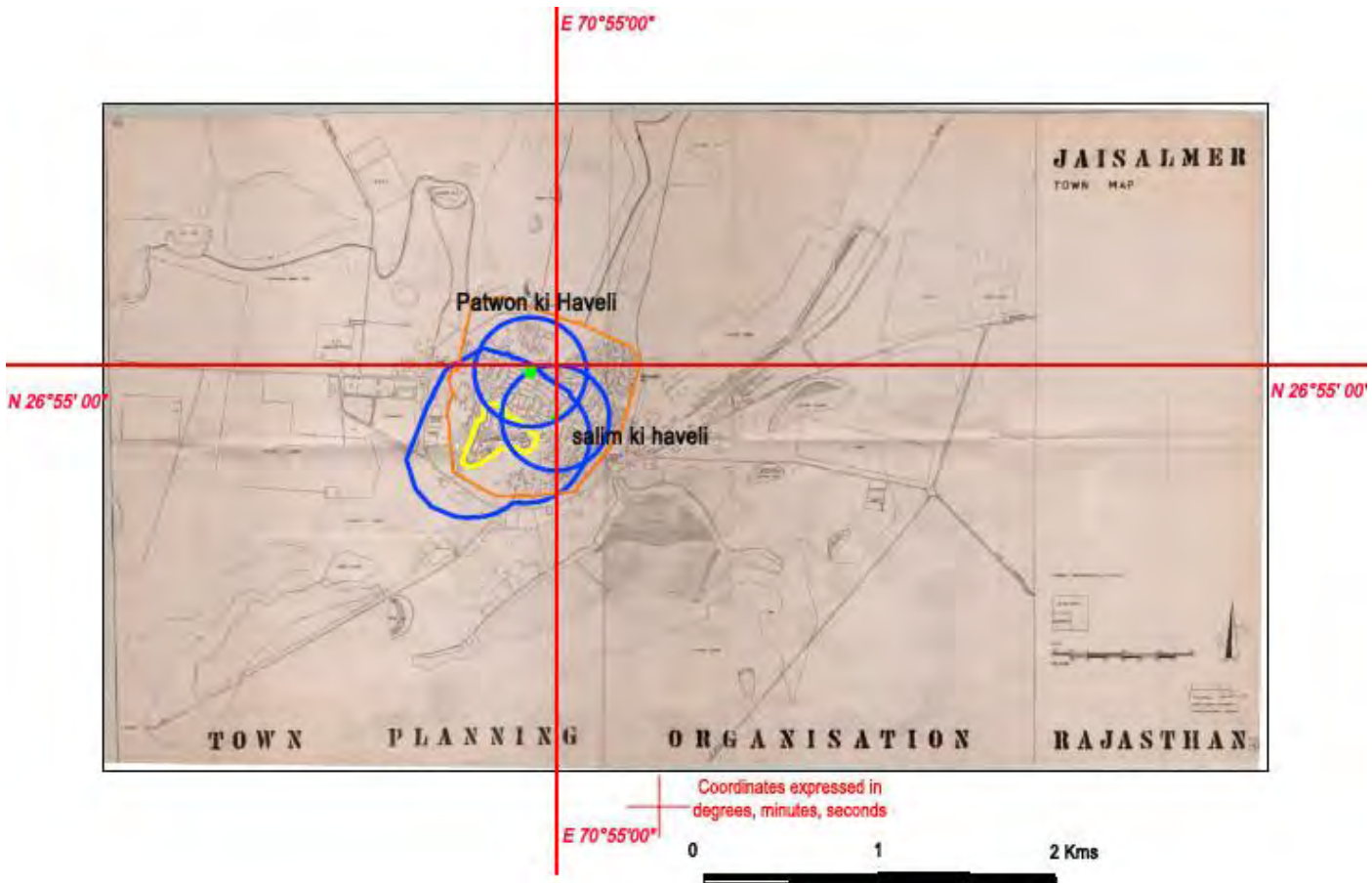


Map 1.33 – Amber Fort – Special Legal Protection Zones



# 1. Identification

1.37



-  Nominated Property Boundary
  -  Buffer Boundary Zone
  -  300 metres regulated area
  -  Patwaon Ki Haveli and Salim ki Haveli
- Special Legal Protection

Source Town Planning Organisation, Rajasthan

Map 1.34 – Jaisalmer Fort – Special Legal Protection Zones

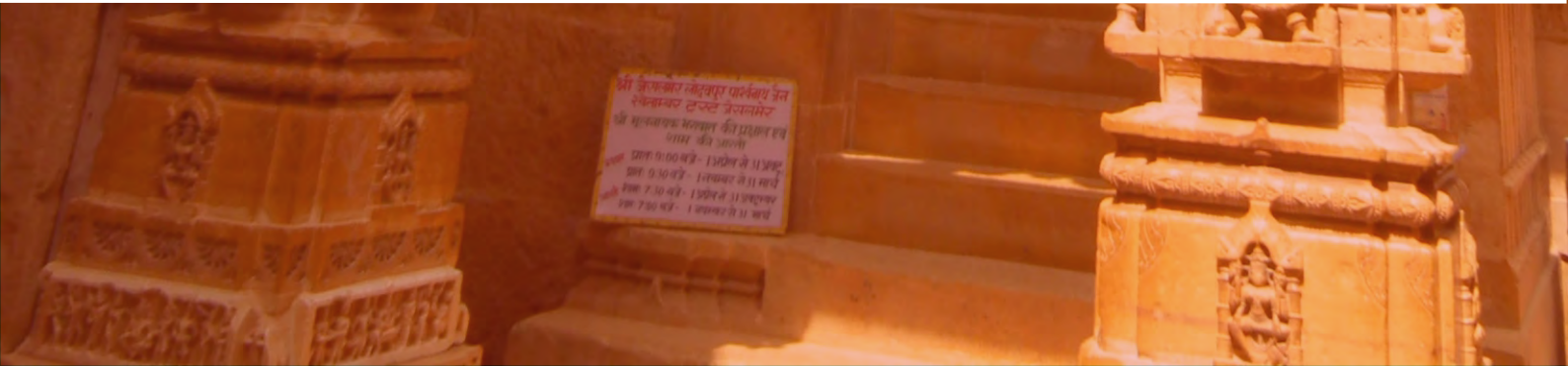
**1.f Area of each nominated property (ha.) and proposed buffer zone (ha.)**

<b>S. No.</b>	<b>Name</b>	<b>Area of Nominated Property (ha.)</b>	<b>Buffer Zone(ha.)</b>	<b>Total (ha.)</b>
1	Chittorgarh Fort	305	440	745
2	Kumbhalgarh Fort	268	1339	1633
3	Ranthambore Fort	102	372	474
4	Gagron Fort	23	722	745
5	Amber Fort	30	498	520
6	Jaisalmer Fort	8	89	92





# Description



श्री कैलाश महादेव मंदिर, गान्धिनगर, गान्धिनगर, गान्धिनगर  
श्री महादेव मंदिर की प्रमुखताएं  
समस्त की जानकारी  
दूर १०० नं० - १३०१ से १३०२  
दूर १०० नं० - १३०१ से १३०२  
दूर १०० नं० - १३०१ से १३०२  
दूर १०० नं० - १३०१ से १३०२



## 2a. Description of Property

Chittorgarh





## CHITTORGARH

### SUMMARY

The Fort of Chittorgarh is strategically located on the top of a high hilly outcrop of the Aravallis about 609 metres above sea level. It is situated on a formidable, isolated rocky plateau rising steeply from the plain. Sprawling over 700 acres of area, the fort walls extend up to 5 KMs long stretch and 910 Meters width of the hill top. The ascent to the fort passes through seven magnificent gateways built by Maharana Kumbha (1433-1468 AD) to replace the ancient eastern entrance road. In all, the fort comprises of about 65 historic structures and few ruins. It has 10 gates and openings, 4 palace complexes, 19 main temples dating from 7<sup>th</sup> to 15<sup>th</sup> centuries, 4 memorials including the Victory Tower and 20 functional water bodies (from a total of 85 historic water bodies) along with 7 small structures.

The fort planning at Chittorgarh primarily shows two basic layers; the first planning reflects the earliest pattern of hill forts in Rajasthan where the fort is strategically located and strengthened with fortifications on all sides with just one main access or gateway which was the Suraj Pol in case of Chittorgarh. The second significant layer of fort planning at Chittorgarh that exists till date, is from the mid 15<sup>th</sup> century during the reign of Sisodia Rajputs and specifically by Rana Kumbha who evolved the forms built by his immediate predecessors and, is credited to have established guidelines for medieval Rajput fortifications along with his famous artisan-architect Mandan.

The architectural vocabulary in most buildings within the fort is derived from the Hindu tradition as established by many researchers (Tillotson, Hooja).



View of Chittorgarh fort. Source: DRONAH

## 2a. Description of Property

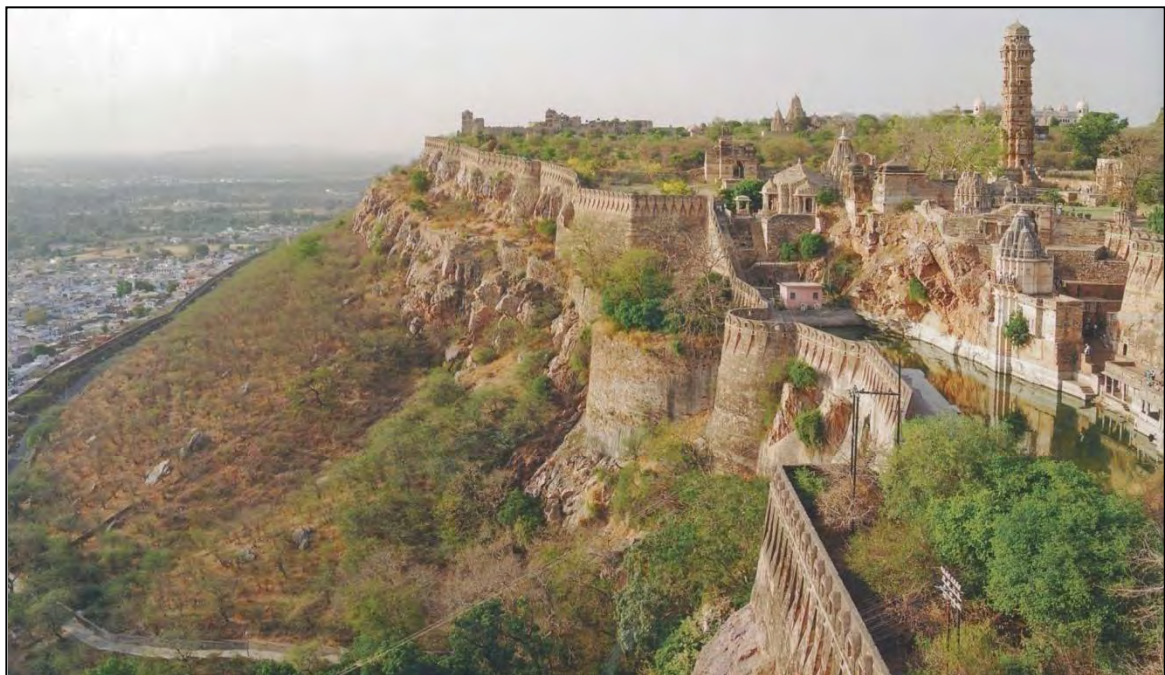
CHITTORGARH

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### ● Site context

The Fort of Chittorgarh is strategically located on the top of a high hilly outcrop of the Aravallis about 609 metres above sea level. It is situated on a formidable, isolated rocky plateau rising steeply from the plain. The mesa, reminiscent of the shape of a whale or the deck of a ship, extends 5.6 km. north to south, its width averaging about .75 km., lessening towards the southern end. It is encircled by wide stone fortifications, which follow the contours of the tableland in a perimeter of about 4.5 km. The hill is about 2 km. long and 155 m. wide. Its surface is uneven but the inward tendency of the summit has assured inexhaustible water supply to the fort. The hill has an angle of ascent to its scarped summit of about 45 degrees and the vertical scarps are crowned with the line of battlement which made it inaccessible to the enemies.



*Western view of the Chittorgarh Fort, the fortification walls which follow the outline of the hill as if growing out of the rock, the Gaumukh kund, the Vijay Stambh; and the town below*

*Source: Baig 2010,24*

### ● Site Planning

Sprawling over 700 acres of area, the fort walls extend up to 5 kms long stretch and 0.91 kms width of the hill top. The ascent to the fort passes through seven magnificent gateways built by Maharana Kumbha (1433-1468 AD) to replace the ancient eastern entrance road. Starting from the base of the hill one passes through Paidal Pol, Bhairon Pol, Hanuman Pol, Ganesh Pol, Jorla Pol, Laxman Pol, and Ram Pol, being the final and main gate. Inside Ram Pol are two roads, one leads north to a village and the other towards the south and the major historical attractions of the fort. The ancient eastern ascent to the fort has only one gate, Suraj Pol, the original main gateway at the top.

## 2a. Description of Property

### CHITTORGARH

2.8



*View of the Chittorgarh Fort, with the different structures from 7<sup>th</sup> - 20<sup>th</sup> century AD  
Source: Archeological Survey of India*

In all, the fort comprises of about 65 historic structures and few ruins. It has 10 gates and openings, 4 palace complexes, 19 main temples dating from 7<sup>th</sup> to 15<sup>th</sup> centuries, 4 memorials including the Victory Tower and 20 functional water bodies (from a total of 85 historic water bodies) along with 7 small structures.

The fort planning at Chittorgarh primarily shows two basic layers; the first planning reflects the earliest pattern of hill forts in Rajasthan where the fort is strategically located and strengthened with fortifications on all sides with just one main access or gateway which was the Suraj Pol in case of Chittorgarh. Smaller exit openings were often located so that the inhabitants could escape in case of an attack and the Lakhota Bari (small opening) in northern side of Chittorgarh is possibly one of the earlier period openings for this purpose. Most of the structures within the fort in this period such as Kalika Mata temple and others were located on the western edge of the plateau and the water structures such as Chitrangadh ka Talav, Gaumukh Kund, Kurkeshwar Kund were developed as the main water structures for rain water harvesting and sustenance of the fort. Not much record is available of further planning of this period.

The second and most significant layer of fort planning at Chittorgarh that exists till date, is from the mid 15<sup>th</sup> century during the reign of Sisodia Rajputs and specifically by Rana Kumbha who evolved the forms built by his immediate predecessors and, is credited to have established guidelines for medieval Rajput fortifications along with his famous artisan-architect Mandan. As per these



guidelines, also mentioned in the contemporary treatise written by Mandan it seems that the royal entrance for Chittorgarh was relocated from the western edge of the hill with a series of 7 gates as mentioned above finally arriving at the 7<sup>th</sup> gate or Ram Pol as the main entry into the fort for the ruler where the ruler's abode or Kumbha's palace is located on highest and safest terrain on the western edge with extra fortifications and the complex is entered through 2 more gateways; the Badi Pol and the Tripolya or triple bay gate that was the grand entrance gate for ruler's palace – a form that was emulated and adapted in later palatial architecture of the region. Besides fort planning, Rana Kumbha also evolved architectural principles and guidelines for palace structures and temple forms as evidenced in the construction and remodelling of several structures within the fort such as Kumbha's own Palace as a more refined form of his predecessors, the Kumbha Shyam Temple, Mira Bai Temple, Adi Varah, Sringar Chauri. Vijay Stambha modelled after the earlier structure of Kirti Stambha stands out as a masterpiece in stone carving and ornamentation.



*The fort walls built and strengthened over several centuries by Sisodias and Guhilas*

While the fort has significant architectural buildings and memorials from later periods such as the Mohur Magri on southernmost Chitori hill raised by Akbar's army in 16<sup>th</sup> century, memorials of Jaimal and Patta from this last siege of Chittorgarh and later palatial structures built by the Sisodia rulers in the 19<sup>th</sup> and 20<sup>th</sup> centuries, there was no attempt at fort planning or restructuring since the Sisodia rulers had given a commitment to the Mughals that fort will not be rebuilt. The main palatial structure of the later period is the early 20<sup>th</sup> century Fateh Prakash Palace reflecting the architectural style of Mewar- British period.

## 2a. Description of Property

### CHITTORGARH

#### ● Architectural Form and Details

The architectural vocabulary in most buildings within the fort is derived from the Hindu tradition as established by many researchers (Tillotson, Hooja). Along with the temple columns, the *jharokhas*, the *jalīs* and the flower bosses, this Hindu vocabulary also includes the richly carved stone brackets and corbels (supporting some of the balconies) and the *chajja*, used here not only as an eave, but also between the storeys as a part of the string course. All these forms are to be found in almost any Hindu or Jain temple of the medieval period or later; some examples within a few hundred yards of Kumbha's palace are the eleventh century Jain Sat Bis temple and the temples built by Kumbha himself, the Mira Bai temple (1440 AD) and the Kumbha Shyam (1448 AD). In the temples, the features are applied in a somewhat different manner: they are intermixed with profuse decorative carving depicting religious subjects and there is a greater concern for symmetry and a heavier massing of forms.



*Exquisite carving on stone is a common feature in many of the temples in Chittorgarh fort*



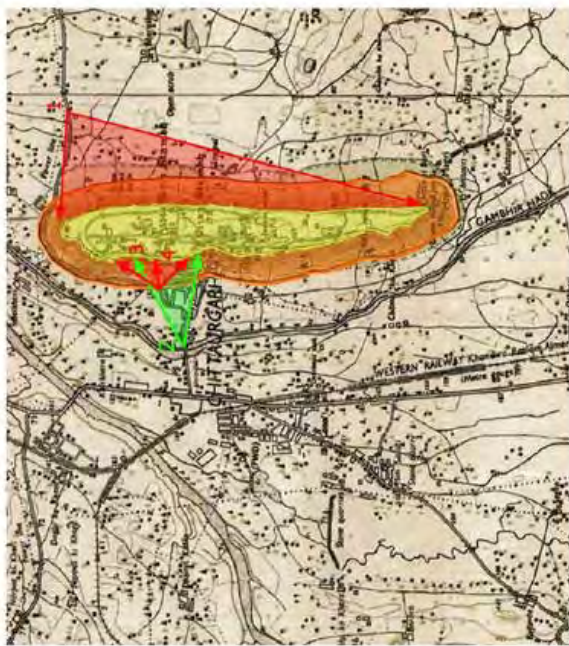
*Carved jharokas, jaalis & supporting stone brackets observed in many structures in Chittorgarh Fort*

Despite the fundamental dependence on temple traditions, some indication of the eclecticism which was to develop and shape the Rajput style in the ensuing centuries are also already present here such as the vaulted substructure, domes and pointed arches borrowed from contemporary sultanate architecture, such as that of adjoining Malwa region. Habitually the architects of Chittor relished complexity and detail; with a strong impulse to decorate which they indulged in liberally, (Tillotson, 1999, 52).

Structures such as the Kanwar Pade Ka Mahal incorporates for the first time in Rajput architecture the use of pointed arches (Tillotson, 1999). These S-shaped arches later became an essential part of Rajput architecture and were widely used in palaces, step wells and temples across Rajasthan. In the prince's palace can be seen some of the beautiful blue tiles that went into decorating most of the palaces here.



● Views from and to site



CHITTORGARH FORT: Topographic Map showing views of the fort



View 1: Panoramic view of Chittorgarh and the plateau from the eastern side



View 2: Panoramic view from the city on the western side



View 3: Panoramic view from the city on the western side



View 4: Panoramic view from the city on the western side



## 2a. Description of Property

### CHITTORGARH

2.12



#### FORT WALL AND BASTIONS

- F1. Fort wall and bastions
- F2. Banbir Wall

#### GATES

- G1. Paidal Pol
- G2. Bhairon Pol
- G3. Hanuman Pol
- G4. Ganesh Pol
- G5. Jorla Pol
- G6. Laxman Pol
- G7. Ram Pol
- G8. Suraj Pol
- G9. Badi Pol
- G10. Tripoliya Gate
- G11. Lakhota Bari

#### PALACE AREA

- P1. Kumbha Palace, Kunwar Pade Ka Mahal & Mira Bai Palace
- P2. Ratan Singh's Palace
- P3. Padmini's Palace and Khattan Mahal
- P4. Fateh Prakash or Badal Mahal

#### HAVELI / HOUSE

- H1. Patta & Jaimal Haveli
- H2. Bhama Shah Haveli
- H3. Alha Kabra House
- H4. Chonda House
- H5. Rampur Bhanpur Haveli

#### RELIGIOUS STRUCTURES

- R1. Kalika Mata Temple
- R2. Kumbha Shyam & Mira Bai Temples
- R3. Samideshwara Temple
- R4. Brick Temple
- R5. Shringar Chauri Temple
- R6. Saat Bis Devri
- R7. Kshemankari Temple
- R8. Adbuthnath Temple
- R9. Digambar Jain Temple
- R10. Ganesh Temple
- R11. Naag Chandereshwar Temple
- R12. Shiv Temple 1
- R13. Jata Shanker Temple
- R14. Shiv Temple 2
- R15. Patleshwar Temple
- R16. Mahadev Temple
- R17. Laxminarayan Temple
- R18. Charbujha Temple
- R19. Neelkanth Mahadev Temple

#### CHHATRIS/CENOTAPHS/MEMORIALS

- C1. Kirti Stambh
- C2. Vijaya Stambh
- C3. Mahasati Complex and Sati Gate
- C4. Rang Rasia Ki Chhatri

#### STORES

- S1. Top Khana

#### GARDENS

- B1. Garden at Kumbha's Palace
- B2. Garden at Padmini's Palace
- B3. Mrigvan (Forest area)

#### WATER STRUCTURES

- W1. Gaumukh Kund
- W2. Kukreshwar Kund
- W3. Chatrang Ka Talab
- W4. Sukha Dia Talab
- W5. Bhimlat Kund
- W6. Khattan Baori
- W7. Hathi Kund
- W8. Fatta Tank
- W9. Padmini Talab
- W10. Tank opposite Kalimata Temple
- W11. Ghee Ki Baori
- W12. Ratan Singh Tank
- W13. Rathoria Tank
- W14. Annapurna Kund
- W15. Bolia Talab
- W16. Kumaria Talab
- W17. Baori
- W18. Tel Ki Baori
- W19. Kund
- W20. Suraj Kund

#### HABITATION

- D1. Municipal Ward near Rawal Ratan Singh Mahal

#### RUINS

- U1. Ruins

#### OTHERS

- M1. Telang Ki Gumti
- M2. Chogania
- M3. Bagshi Jail
- M4. Nagina Bazaar
- M5. Mohur Magri

Note: Few recent structures such as small toilet block and office block are also present on the site.

400 200 0 500 Metres



Scale: 1:20000

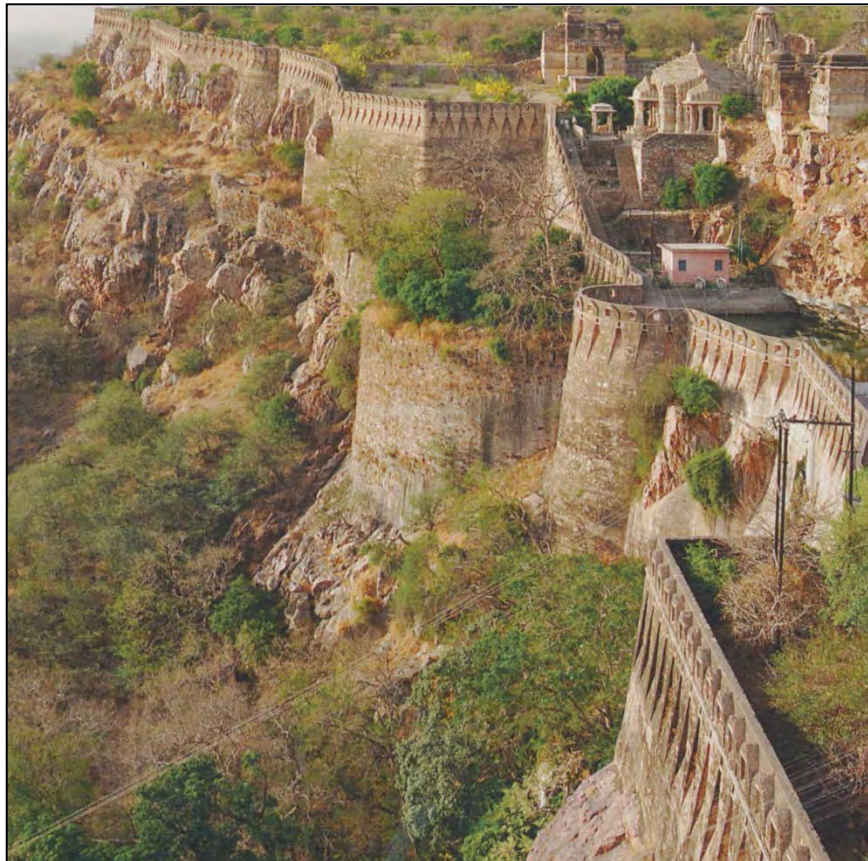
SITE COMPONENTS - CHITTORGARH FORT



## FORT WALL AND BASTIONS

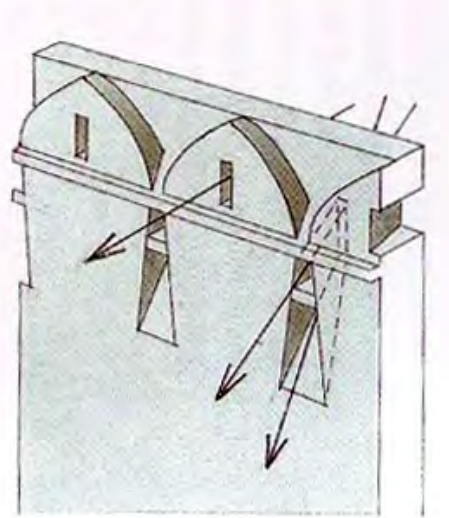
### ■ Fort Walls and Bastions as shown on the plan (F1)

- **Period of construction** 8<sup>th</sup> century onwards
- **Usage** defense
- **Architectural Form**
- **Patron** Guhilas & Sisodias



*The fort walls built and strengthened over several centuries by Sisodias and Guhilas*  
Source: Baig 2010,24

Five hundred feet above the plain, the walls of Chittor are one of the finest medieval Hindu defense works to survive in any degree of completeness. The fort walls extend up to 5 kms long stretch and 0.91 kms width of the hill top. The initial walls must have been constructed by the Guhila Rajputs in 13<sup>th</sup> century AD but most of the fort walls were reconstructed and strengthened during Rana Kumbha's period in the mid-15<sup>th</sup> century. The design of walls is as prescribed in the contemporary architectural treatise of the period capped with *kangooras*/crenellations. Though the *merlons* in the crenellation have a typical pointed arch profile, the embrasures splay out from narrow slits below a string course to produce rare wedge-shaped forms. Parts of the fort walls are recorded to be reconstructed in 16<sup>th</sup> and 17<sup>th</sup> century AD by the later Sisodia rulers' when they were damaged in sieges.



*Fake semicircular merlons pointed at the top shown in relief on the outside of the parapet wall; the unique arrangement and direction of loopholes that were made in the merlons themselves and under crenels either look forward (to command distant approaches) or downward (to command foot of the wall)*

*Source: (Nossov, 2006, 26)*



*The central part of the tower at the Ganesh Pol – a unique construction device was used here; half way up its height the tower is girdled with merlons. The merlons are false – no crenels of full value are to be found between them - but there are very real loopholes in the merlons themselves and in between. The shape of the merlons is also uncommon as they resemble buds*

*Source: (Nossov, 2006, 24)*

#### ● Construction Materials

The walls are made of massive stones, rising on the rocky boulders of the hilltop as solid foundations. The dressed stone masonry in lime mortar is a typical technique for fortifications of Kumbha's time in mid 15<sup>th</sup> century AD.



■ **Banbir wall (F2)**

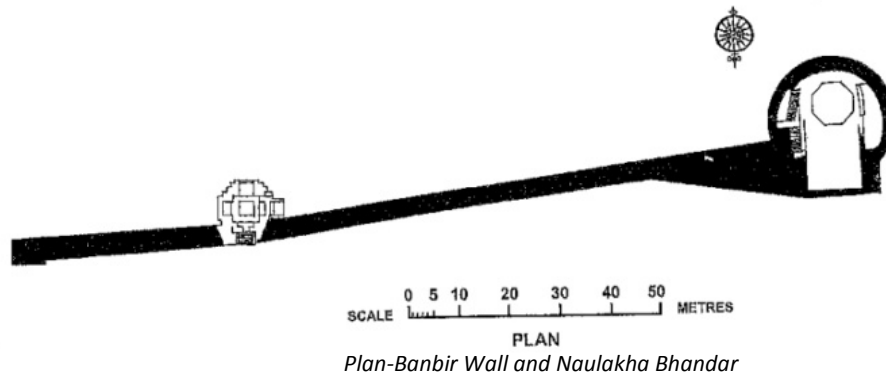
- **Period of construction** 1535 AD      **Patron** Banbir
- **Usage** defense

● **Architectural Form**

Banbir was the son of Prithviraj, who occupied the throne after attempting to kill Udai Singh. This citadel wall could not be completed as he was ousted by Udai Singh in 1540 AD. A large bastion like structure is built on the western end of this wall called as Naulakha Bhandar.

● **Construction Materials**

Crudely built with rubble masonry it has vaulted chambers built of solid stones (used for keeping the amount of rupees nine lakhs for the ongoing expenditure while the surplus being deposited in the central treasury)



*Naulakha Bhandar*



*Banbir Wall*

Chittorgarh Fort- View showing the fortifications and entrance gateways



The gate complex is protected both by longitudinal walls along the road and transversal walls which prevented an enemy from bypassing any of the gates. An enemy ascending the road would be exposed to fire from several tiers of the walls, and from the towers beside the gates

(1)Paidal Pol (2) Bhairon Pol (3) Hanuman Pol (4) Ganesh Pol (5) Jorla Pol (6) Laxman Pol (7) Ram Pol

Source: Nossov, 2006, 38

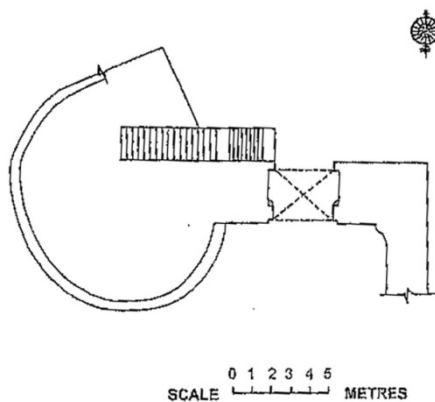


## GATES

The doors of the gates with pointed arches are reinforced to fend off elephants and cannon shots. All the gateways to the fort have been built as massive stone structures with secure fortifications for military defense. The top of the gates have notched parapets for archers to shoot at the enemy army. A circular road within the fort links all the gates and provides access to the numerous monuments in the fort.

### ■ Paidal Pol (G1)

- **Period of construction** 12th century AD/repared in 15<sup>th</sup> century AD **Patron** Guhila/Sisodias
- **Usage** entrance gateway



Plan of Paidal Pol

Source: Archeological Survey of India



Paidal Pol

- **Architectural Form**

The first south facing gate known as Paidal *Pol* is rectangular in plan, with 2.93 mts wide passage flanked by circular bastions in the western side.

- **Construction Materials**

Built of dressed rubble stone masonry in lime mortar

### ■ Bhairon Pol (G2)

- **Period of construction** mid 15<sup>th</sup> century AD **Patron** Rana Kumbha
- **Usage** entrance gateway

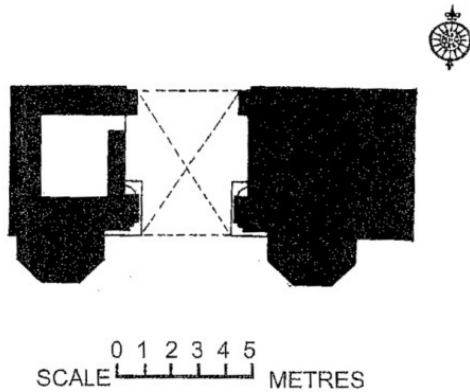
- **Architectural Form**

Bhairon Pol also called Tuta is flanked by octagonal bastions on both sides. The width of the passage is 3.12 mts.

## 2a. Description of Property

### CHITTORGARH

2.18



Plan of Bhairon Pol  
Source: Archeological Survey of India



Bhairon Pol

- **Construction Materials**

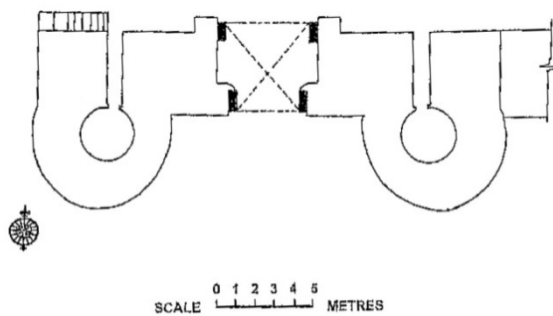
Built of dressed rubble stone masonry in lime mortar

- **Hanuman Pol (G3)**

- **Period of construction** mid 15<sup>th</sup> century AD

**Patron** Rana Kumbha

- **Usage** entrance gateway



Plan of Hanuman Pol  
Source: Archeological Survey of India



Hanuman Pol

- **Architectural Form**

Facing south west, provided with a wooden gate with 3.21 mts wide passage this gate is flanked by circular bastions on each side. There are two niches, one on each side of the facing wall. There is a Hanuman temple near this gate

- **Construction Materials**

Built of dressed rubble stone masonry in lime mortar



■ **Ganesh Pol (G4)**

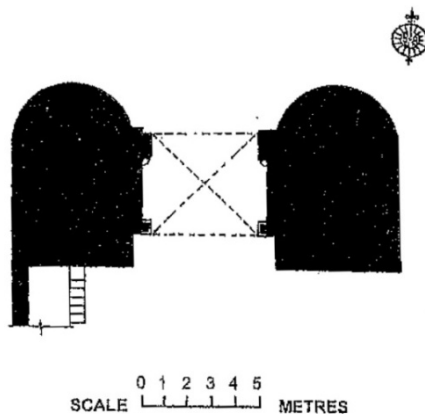
● **Period of construction** mid 15<sup>th</sup> century AD

**Patron** Rana Kumbha

**Usage** entrance gateway

● **Architectural Form**

Facing north, two stone brackets are provided on each side of the gate. At present it is roofless. The width of the passage is 2.44 mts. In the eastern side of the gate there is a magnificent circular bastion while on the western side; Ganesh Temple is built on a high platform with flanking steps



*Plan of Ganesh Pol*

*Source: Archeological Survey of India*



*Ganesh Pol*

● **Construction Materials**

Built of dressed rubble stone masonry in lime mortar

■ **Jorla Pol (G5)**

● **Period of construction** mid 15<sup>th</sup> century AD/rebuilt later after siege **Patron** Rana Kumbha

**Usage** entrance gateway

● **Architectural Form**

Jorla Pol (joined gate) is attached by its upper arch to the Lakshman Pol. The gate is flanked by semicircular bastions. The gate has an arched opening and is provided with a wooden door 2.1 mts wide.

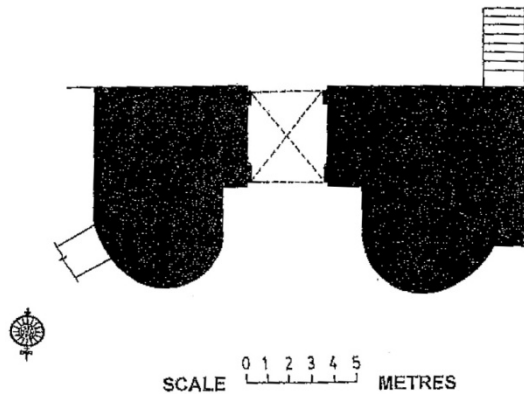
● **Construction Materials**

Built of dressed rubble stone masonry in lime mortar

## 2a. Description of Property

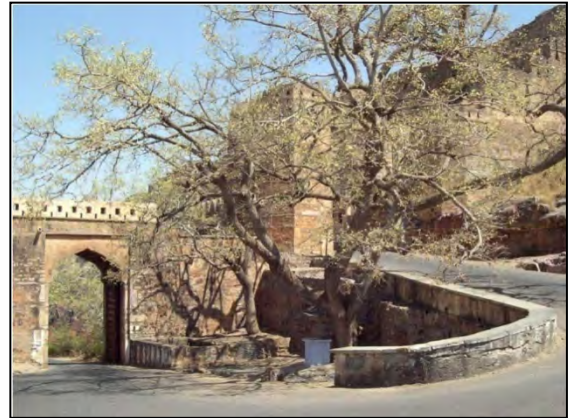
### CHITTORGARH

2.20



*Plan of Jorla Pol*

Source: Archeological Survey of India



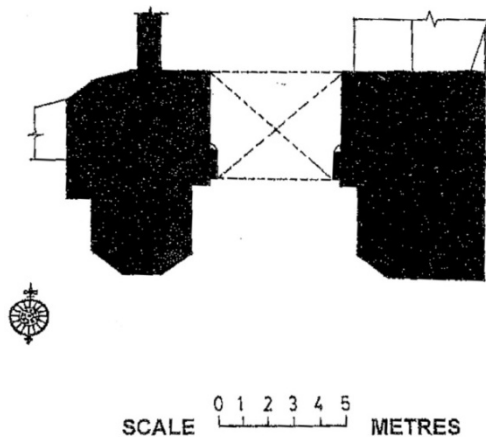
*Jorla Pol*

#### ■ Lakshman Pol (G6)

● **Period of construction** mid-15<sup>th</sup> century AD

**Patron** Rana Kumbha

**Usage** entrance gateway



*Plan of Lakshman Pol*

Source: Archeological Survey of India



*Lakshman Pol*

#### ● **Architectural Form**

The passage of this gate is 4.5 mt wide, faces south and is flanked by hexagonal bastions.

#### ● **Construction Materials**

Built of dressed rubble stone masonry in lime mortar

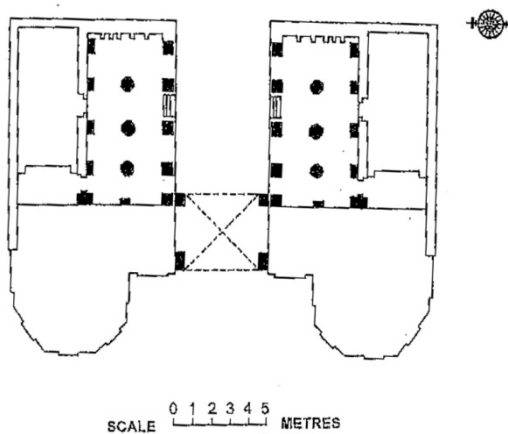


■ **Ram Pol (G7)**

- **Period of construction** mid-15<sup>th</sup> century AD      **Patron** Rana Kumbha
- **Usage** entrance gateway

● **Architectural Form**

Rampol, built on a richly moulded base of three friezes like those of the Hindu temples, is beautifully decorated with medallions. This gate is flanked by octagonal bastions. There are no barbicans, but a *mandapa*, a temple hall provided shelter for guard. The niche on each side has the deities of Ganesh and Bhairon. Below the niche on each side, there are three rows of figures which depict an elephant, a horse and a human figure.



Plan of Ram Pol

Source: Archeological Survey of India



Ram Pol

● **Construction Materials**

Built of dressed rubble stone masonry in lime mortar.

■ **Suraj Pol (G8)**

- **Period of construction** 8th century AD/repared in 15<sup>th</sup> century AD      **Patron** Maurya/
- **Usage** entrance gateway      Guhila/Sisodias

● **Architectural Form**

This gate served as the main entrance from the eastern steps and is built with bracketed opening like the Badi Pol. It has guard chambers on both sides. Currently no bastions exist on its sides though they were previously present.

## 2a. Description of Property

### CHITTORGARH

2.22



*Suraj Pol*

- **Construction Materials**

Built of dressed stone masonry in lime mortar.

- **Badi Pol (G9)**

- **Period of construction** mid-15<sup>th</sup> century AD

**Patron** Rana Kumbha

- **Usage** entrance gateway

- **Architectural Form**

This gate has bracketed opening with small niches on each side and circular bastions



*Badi Pol*

- **Construction Materials**

Built of dressed stone masonry in lime mortar.



■ **Tripoliya Gate (G10)**

● **Period of construction** mid-15<sup>th</sup> century AD

**Patron** Rana Kumbha

**Usage** entrance gateway

● **Architectural Form**

Forming the main entrance to Kumbha's Palace, this gate has bracketed opening with double colonnaded chambers on each side. The triple openings that give it its name Tripoliya are not in the main gate itself but incorporated in the inside of the gate on each side in the colonnaded spaces



*Tripoliya gate*

● **Construction Materials**

Built of dressed stone masonry in lime mortar.

■ **Other Entrance Gates within the fort complex**

*Entrance to Ratan Singh Palace*



*Entrance to Fatta Haveli*



Besides the main entry gates, various palace complexes and *havelis* within the fort have their own gates and entrances as found in Rawal Ratan Singh's Palace, Padmini Palace and Fatta (Patta) Palace

## 2a. Description of Property

### CHITTORGARH

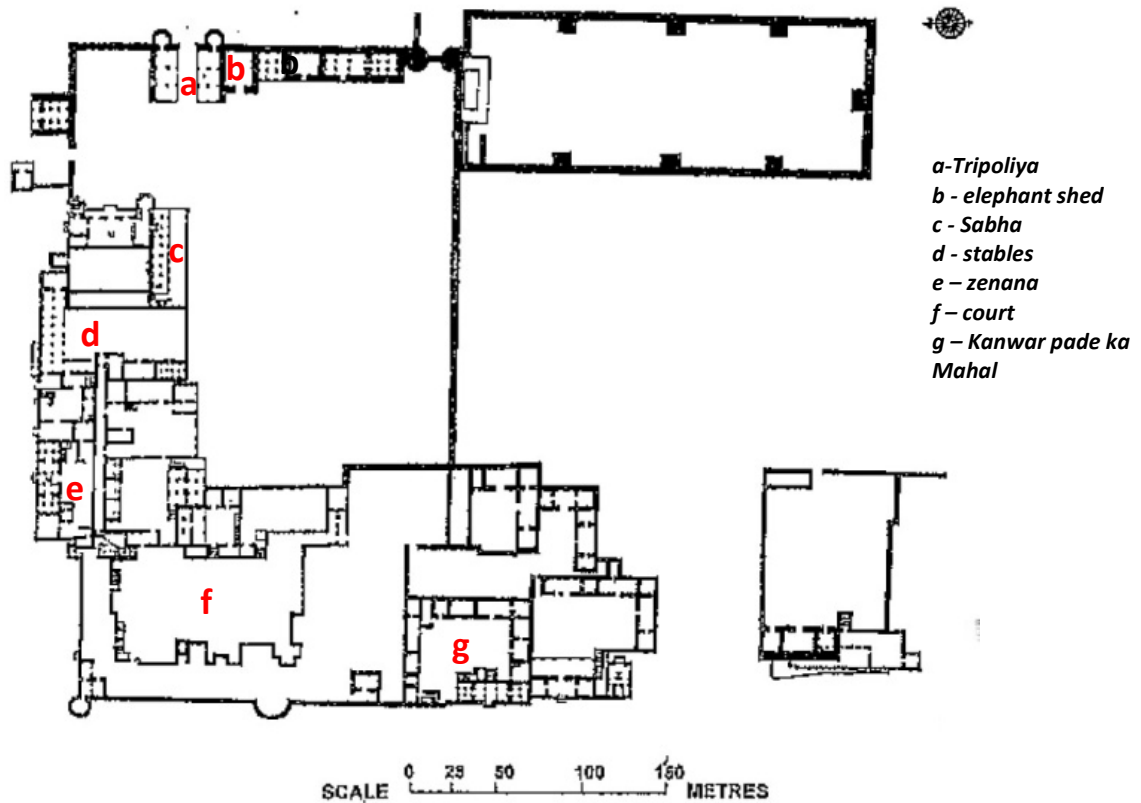
2.24

#### PALACE AREA

##### ■ Rana Kumbha Mahal, Kanwar Pade ka Mahal and Mira Bai Mahal (P1)

● **Period of construction** mid-15<sup>th</sup> century AD **Patron** Rana Kumbha

**Usage** Official meeting spaces, retiring rooms, *zenana* and Prince's apartments



Plan of Kumbha Palace complex  
Source: Archeological Survey of India

##### ● **Spatial Planning**

This magnificent palace occupying a large area, is a plain building, but in excellent taste and is typical of the domestic architecture of the Rajputs before the Muslim invasions. As described by Tillotson, Kumbha's palace is roughly rectangular in overall plan and its massing is quite irregular. The original building was extensively enlarged by additions carried out by Maharana Kumbha. Even in its ruined condition it provides faint glimpses of the pristine glory of this three storied structure where the poetess Mira Bai (1498-1546 AD), wife of Bhoja Raj, the eldest son of Rana Sanga, lived and sang in devotion of Lord Krishna. This portion of the palace complex is known as Meera's Palace. The principal entrance to the palace is through Badi Pol. The second gate is Tripoliya which leads into an open courtyard. In the courtyard, an underground entrance leads to the vaults where Rani Padmini along with other women is said to have performed the *jauhar*, during the first sack of the fort. The palace planning was perhaps based on the Hindu architectural treatise.



The gates lead into a large open space to the south of the palace and to the Darikhana or Sabha, a low *hypostyle* hall attached to the east end of the south front. These, the most accessible were also the most public parts of the palace, serving respectively as a parade ground and a council chamber. The *Sabha* conceals the main entrance in the south facade to the private apartments: a small doorway in the back of the *Sabha* gives access to a flight of stairs which lead up in to the body of the palace.



*The Rana Kumbha palace complex*

The remaining apartments of Kumbha's palace are less regular than the *zenana*, both in themselves and in their relation to each other. A curious feature is the street: a long, straight and uncovered passage running along the east west axis of the palace and making it seem more like an aggregate than a single structure. The Surya Gokhra at the extreme east end of the palace, built of green stone, is a later addition. The whole palace is raised on a vaulted substructure. The residential parts of the palace are predominantly *trabeate* in construction, with small, simplified temple columns.

In each palace (Kanwar Pade Ka Mahal – the heir apparent palace & Kumbha's Palace), surviving fragments of *jali* screens in the outer openings of this distinctive area indicate its use as the women's quarters. This shows that Kumbha's *zenana* was incorporated into the main body of the palace, a Hindu palace planning aspect which changed later with Mughal influence. In both Kumbha's Palace and the Kanwar Pade Ka Mahal, to the right of the steps leading into the women's quarters, is a large niche with a corbelled arch ceiling, which could only have served as a sentry box.

## 2a. Description of Property

### CHITTORGARH

2.26



*Kanwar Pade ka Mahal*

The women were therefore, apparently guarded within the palace, and just as the *jali* screens protected them from the outside world; but even so their apartment are unusually closely integrated with the rest of the palace.

#### ● **Architectural Form**

The walls are ornamented with artificial stone battlements and turrets, balconies and verandas with balustrades. Each balcony consists of a rectangular cradle, cantilevered out and surmounted by a canopy which is supported on short columns – the whole executed in richly carved stone.



*Mira Bai's Palace*





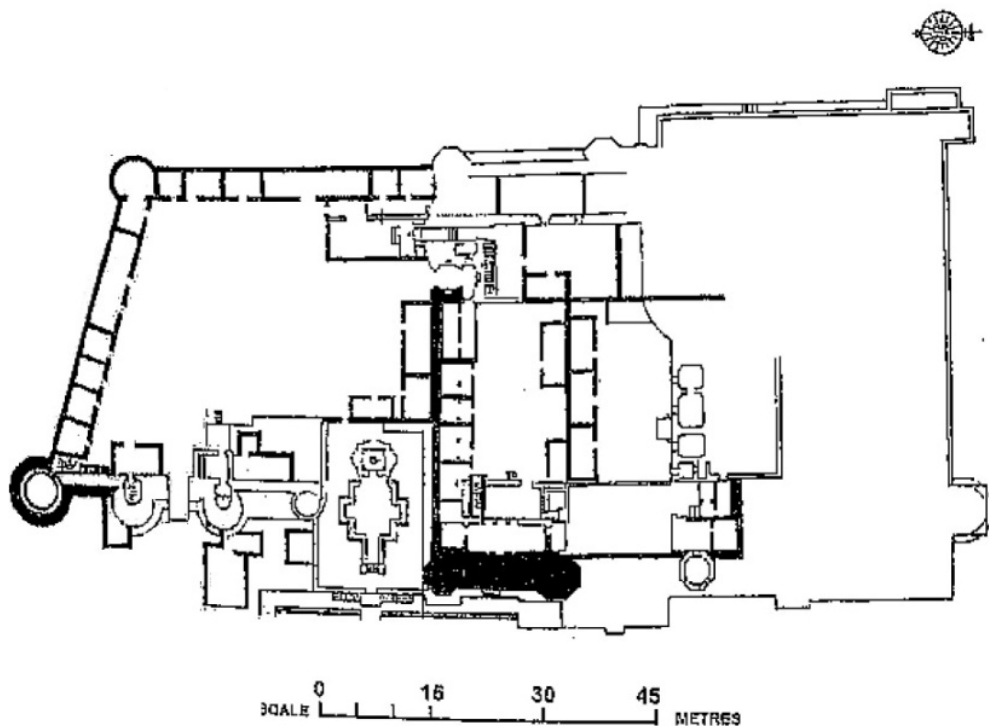
Interior view of Rana Kumbha Mahal complex

● **Construction Materials**

The palace is constructed of dressed stone in lime mortar, but even so was originally covered with lime plaster, of which patches survive on the north front.

■ **Ratan Singh Palace (P2)**

- **Period of construction** 1528-31 AD **Patron** Rana Ratan Singh II
- **Usage** private retiring rooms, court, temple areas, stables



Plan of Ratan Singh Palace

Source: Archeological Survey of India

## 2a. Description of Property

### CHITTORGARH

2.28

#### ● Spatial Planning

It is situated in the northern part of the fort complex. The main entrance of the palace facing east is provided with a grand gateway with *chhatris*. The first courtyard is surrounded by small service rooms and an entrance in the north-west leads to the second inner courtyard. The second storey of this open courtyard is provided with an audience hall along with a balcony overlooking the reservoir in the east. To the north there is another courtyard which has a building adorned with domes. There is a stone sculpted Siva temple in the palace area known as Ratneswara Mahadeva Temple.



*East view of Ratan Singh Palace with reservoir in the front*

As mentioned by researchers (Tillotson, Hooja), Ratan Singh palace was originally perfectly rectangular in plan and enclosed by a single, continuous, high wall. The wall was punctuated by massive towers, one at each corner and in the centre of each of the longer sides. This regular form is perhaps less evident now than it might be because the palace is much ruined and altered; in particular, a gallery and balcony have replaced part of the wall between the two southernmost towers of the east front. But the original form can still be readily deduced.

#### ● Architectural Details

The Towers are octagonal in base, articulated by string-courses and crowned with squat round domes: in other words, they imitate the bastions flanking the Tripoliya of Rana Kumbha's palace, thus reflecting the mid-15<sup>th</sup> century Rajput architectural style evolved from contemporary Sultanate forms in Malwa.





*First courtyard in the palace with Ratneshwara Mahadeva Temple on the right and entrance (deorhi) gate to inner courtyard in the centre*

- **Construction Materials**

The entire palace is constructed of roughly hewn stone and traces of an original plaster covering survive till date.

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- **Padmini Palace & Khattan Mahal (P3)**

- **Period of construction** 19<sup>th</sup> century AD                      **Patron** Maharana Shambhu
- **Usage** private retiring rooms, court

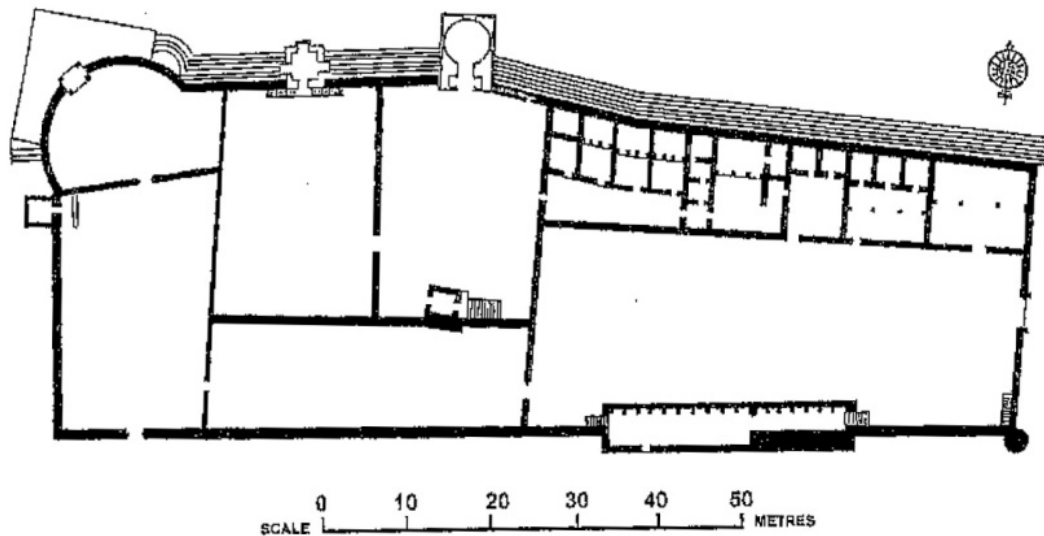
- **Spatial Planning**

The Padmini Palace is one of the important buildings within the fort complex because of its association values. Rani Padmini was wife of Rawal Ratan Singh in mid-13<sup>th</sup> century AD though the present structure was constructed later.. Hence this building is known after her name. It overlooks a reservoir Padmini Talab, in the centre of which stands a three storeyed structure with arched opening called Khattan Mahal. The main gate facing west leads to a courtyard surrounded with a row of small rooms. The adjacent second rectangular courtyard is provided with a circular hall in the southern side overlooking the reservoir. There is a third rectangular courtyard provided with double storeyed room on the south according to a legend Alauddin Khilji saw Padmini's reflection in a mirror here, that finally lead to first siege of Chittorgarh. A three storeyed pleasure pavilion known as Jal Mahal/Khattan Mahal stands in the centre of the Padmini Talav.

## 2a. Description of Property

### CHITTORGARH

2.30



Plan of Padmini Palace

Source: Archeological Survey of India

- **Architectural Details**

The Palace is a late 18<sup>th</sup> century AD recreation and consequently little can be deduced from them about the style around 1300 AD beyond noting that Padmini's island retreat shows that probably there already existed at this early date the idea of a pleasure palace in the middle of a lake (Tillotson, 1999)

- **Construction Materials**

The entire palace is constructed of stone and plastered with lime.



Rani Padmini's palace along the Padmini talav and the pleasure pavilion Khattan Mahal in the Padmini talav





*Rani Padmini's Palace – the planning reflects that of Jag Mandir in Udaipur*



*Arcade in front courtyard of the palace*



*Oil painting of Padmini's Palace in Chittaurgarh, Rajasthan by Marianne North, dated December 1878 AD.*

*Source: [http://en.wikipedia.org/wiki/Chittorgarh\\_fort](http://en.wikipedia.org/wiki/Chittorgarh_fort)*

*Rani Padmini's palace and Khattan Mahal as seen today*



## 2a. Description of Property

### CHITTORGARH

2.32

#### ■ Fateh Prakash or Badal Mahal (P4)

● **Period of construction** 1885-1930 AD **Patron** Maharana Fateh Singh

**Usage** audience hall, private retiring rooms, court



*Fateh Prakash or Badal Mahal*

#### ● **Spatial Planning**

The spatial planning of the palace reflects the Mewar - British Phase style with high ceilinged, symmetrical palace structure crowned with foliated *chhatris* at corners and in the middle. The built form is similar to contemporary construction of the Badal Mahal at Kumbhalgarh and the Durbar hall at City place Udaipur.

#### ● **Architectural Details**

The architectural vocabulary of this period was evolved by Maharana Fateh Singh with high ceilinged spaces, large halls and cusped arches, foliated domes in lime concrete and lime stucco work.

#### ● **Construction Materials**

Stone masonry in lime with lime concrete roofing in large spans and lime stucco work in finishes.



## HAVELI/HOUSE

### ■ Patta and Jaimal Havelis (H1)

The noblemen Patta and Jaimal were two of the heroes of the siege of 1567 AD and their residences were amongst the last monuments to be built in 16<sup>th</sup> century AD in Chittorgarh before the Sisodias lost it. These stand together on the west side of the fort, half a mile to the south of Kumbha Mahal.

- **Period of construction** 16<sup>th</sup> century AD      **Patron** Rana Udai Singh
- **Usage** Residence

### ● Spatial Planning

Despite being adjacent and contemporary, these two palaces exhibit very different treatments of planning. As noted by researchers (Tillotson, Hooja) Patta haveli is a faithful imitation of that part of Kumbha palace identified above as the *zenana*, re-created as a free-standing house. Like the part of the Kanwar Pada ka Mahal, it follows the same arrangement of rooms. It echoes even such details as the short flight of steps before the entrance: and the decoration too, is similar though slightly richer. The north wall is stepped at the top



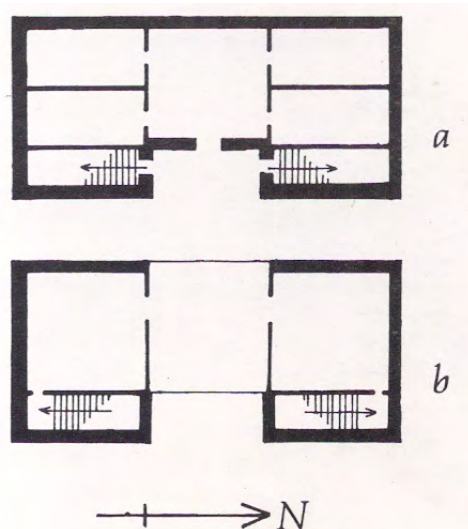
East view of Patta haveli

## 2a. Description of Property

### CHITTORGARH

2.34

Jaimal's haveli is quite different in conception. On the exterior it is a regular, solid block. Its blank walls have no openings except for a centrally placed door, and are relieved only by simple string courses which suggest three storeys (there are in fact only two). The central portion of the main, or east, front is somewhat recessed and the walls have slight batter: but otherwise there is no deviation from a cuboid form. The ground storey consists of a large, central chamber flanked by four small ones, two on each side: on the upper storey, reached by means of enclosed stairs on the front of the building, a roof terrace is flanked by two members.



Sketch plan of Jaimal haveli: lower and upper floors  
Source: Tillotson, 1999

#### ● Architectural Form

All the chambers have vaulted ceilings. The *haveli* is entirely without decoration, though it had, like the other palaces, a coat of plaster. The planning reflects 16<sup>th</sup> century phase of Mewari architecture matching with contemporary buildings like Moti Magri Palace built by Rana Udai Singh in Udaipur.

#### ● Construction Materials

Stone masonry in lime mortar with plaster and stucco work.

#### ■ Bhama Shah Haveli (H2)

● **Period of construction** 1326-1433 AD

**Patron** Rana Hammir

**Usage** residence

#### ● Spatial Planning

It is a three storeyed building, the middle storey having a broad arch in its centre. This arch has an emphatic ogee. The third storey has a rectangular opening. Vertical and horizontal projections make up the design. The whole structure is crowned by a single, broad, semicircular dome.



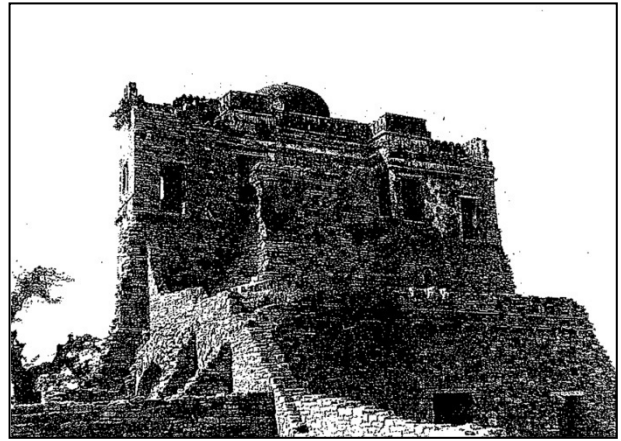
● **Architectural Form**

The architectural form is simple without much decoration reflecting the earlier period Mewari architecture with no ornamentation.



SCALE 0 5 10 15 20 METRES

*Plan of Bhama Shah Haveli  
Source: Archeological Survey of India*



● **Construction Materials**

The construction is of rubble masonry in lime mortar

■ **House of Alha Kabra (H3)**

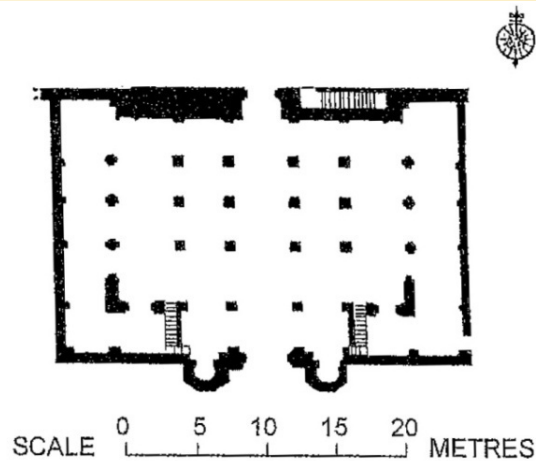
- **Period of construction** 16<sup>th</sup> century AD      **Patron**      Sisodias
- **Usage**      Residence

● **Spatial Planning**

The house of Alha Kabra is on the northern side of the Top Khana and has a hall with vaulted roof, supported on massive pillars and arches having two entrances, one on the south crowned with pointed arch and another in the north, crowned with Hindu quasi arch with lintel supported on brackets. This hall form is a part of the house of Alha Kabra and built in Islamic style, but brackets and balconies are of Hindu pattern. Ruins of the house are seen close to it on the north. It was possible constructed when the fort was conquered in one of the sieges.

● **Construction Materials**

The construction is of rubble masonry in lime mortar.



*Plan of Alha Kbra House*  
 Source: Archeological Survey of India

#### ■ House of Chonda (H4)

- **Period of construction** 14<sup>th</sup>-15<sup>th</sup> century AD      **Patron** Rana Lakha
- **Usage** Residence



*House of Chonda, son of Rana Lakha*  
 Source: Tillotson, 1999

#### ● Spatial Planning

Located to the south of Patta's palace is Chonda's house. Chonda renounced his claim to the kingship in favour of his half-brother, Mokal. Among the surviving fragments of the palace attributed to Chonda is a tower, standing at the north-west corner of the building. The tower has three storeys, each of which consisted of a single square chamber, and the whole tower was integrated into the mass of the palace. In all these details the tower anticipates the similar feature found in Rana Kumbha's palace, the Kanwar Pade ka Mahal and Patta's Haveli and like its successors it is crowned by a Sultanate style dome.

#### ● Architectural Form

Reflects the earliest Mewar form with minimal ornamentation and openings.

#### ● Construction Materials

The construction is of rubble masonry and lime.



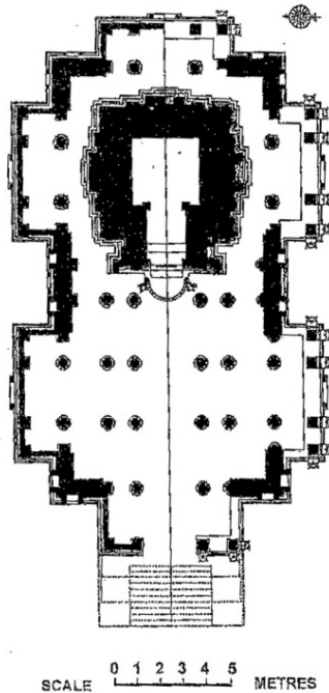
## RELIGIOUS MONUMENTS

### ■ Kalikamata Temple (R1)

● **Period of construction** 8<sup>th</sup> century AD

**Patron** Raja Manbhanga

**Usage** Hindu temple



Plan - Kalikamata temple  
Source: Archeological Survey of India



The original temple showing plinth from 8<sup>th</sup> century AD

### ● **Spatial Planning**

It is currently under religious use. Originally dedicated to Surya, it consists of a *panchratha* sanctum with an ambulatory having three transepts, a vestibule, a closed hall with lateral transepts and a porch, all devoid of original roof. The closed hall has a lofty central nave. The temple still retains the essence of Gupta style

### ● **Architectural Details**

The podium-mouldings are simple and bold, its cornice being surmounted by a band decorated with lotus scrolls. The ceiling of the closed hall is of flat type and disposed in registers, decorated with relief figures depicting deities. The pillars are profusely decorated and carry a tutelary deity.

### ● **Construction Materials**

Dressed stone and lime mortar

## 2a. Description of Property

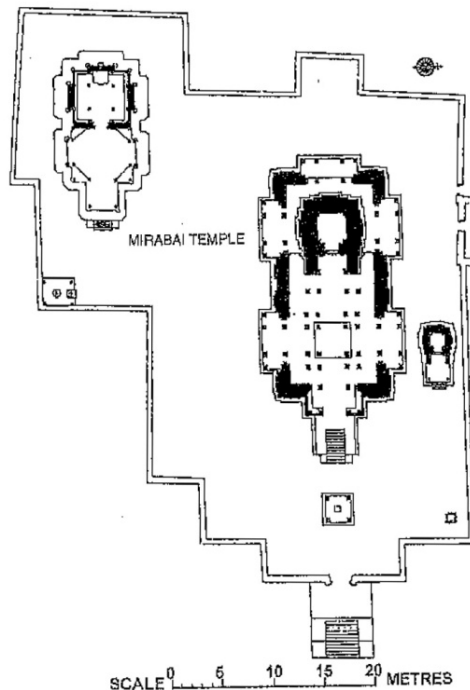
### CHITTORGARH

2.38

#### ■ Kumbhasvamin or Kumbha Shyam Temple and Mira Bai Temple (R2)

- **Period of construction** 1448 AD (remodeled 8<sup>th</sup> century AD) **Patron** Raja Manbhanga temple /Rana Kumbha

**Usage** Hindu Temple



Plan – Kumbha Shyam temple  
Source: Archeological Survey of India



Kumbha Shyam temple and adjoining smaller shrine of Mira Bai



Kumbha Shyam temple

#### ● Spatial Planning

Situated on a hill, near Kumbha's palace to the north of the Vijay-Stambh, the original temple shows features similar to the Kalika Mata Temple. It consists of a sanctum with *shikhara*, a *mandapa*, a portico and an open *pradakshina* (circumambulatory passage) running around the shrine. The interior is composed of twenty pillars arranged in longitudinal axis. Maharana Kumbha restored its *shikhara* and dedicated it to Lord Vishnu. This is also confirmed by the 15<sup>th</sup> century AD texts about Kumbha. In front of the temple is an image of Garuda under a canopy supported on four pillars. These pillars are of different stones, styles and type. The smaller shrine of Mira Bai is dedicated to Lord Krishna in whose praise Mira Bai used to sing and write poems. Raja Man Singh of Kacchwaha Rajputs of Amber later shifted the idol from this temple to the Jagat Shiromani temple in Amber

#### ● Construction Materials

Dressed stone and lime mortar



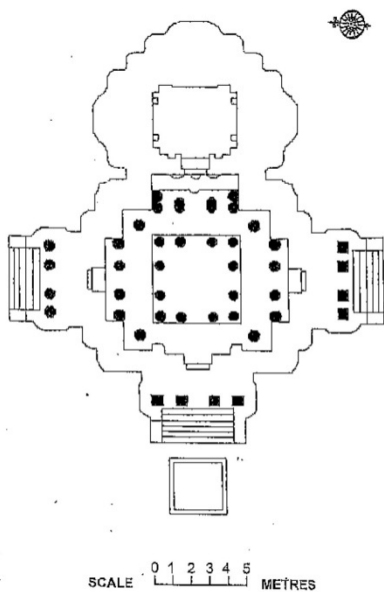
■ **Samidhesvara Temple (R3)**

**Period of construction** 11<sup>th</sup> -15<sup>th</sup> century AD **Patron** Parmara King Bhoja/Rana Mokal

**Usage** Hindu Temple

● **Spatial Planning**

Situated at the Gaumukha-Tirthasthala this Siva temple consists of a sanctum-sanctorum, antechamber and *sabha-mandapa* hall with the entrance porch on north, west and south sides. The sanctum at a lower level enshrines an image of Mahesa-murti with three faces; representing Aghora aspect of Siva.



Plan – Samideshvara temple Source: Archeological Survey of India



Samidhesvara temple

● **Architectural Details**

The ceiling of the sanctum consists of seven bands of concentric overlapping circles. The top of the ceiling is decorated with a full-blown lotus. The walls and ceiling of the antechamber are plain and its flat ceiling rests on four tall pillars. Of these, two pillars on the eastern side are richly ornamented. The ceiling of the central hall consists of seven bands of concentric overlapping circles carved with courses. The lower portion of the ceiling is carved with twelve brackets some of which show flying demonic forms playing on musical instruments. This feature of the ceiling is found in the ceiling of Siva temple at Bhojpur in Madhya Pradesh, also built by Paramara king Bhoja. The ceiling of the *sabha-mandapa* or outside hall rests on twelve pillars and eighteen prop-pillars which were provided during time of Maharana Mokala. The *Sabha mandapa* entrances on 3 sides are similar in architectural design and ornamentation. The elevation of the temple shows various ornate moulds



Gateway to Samidhesvara Mahadev temple from Gaumukh kund

from bottom upwards decorated with sculptures. Two large inscriptions placed and preserved in the temple supply valuable data. The earlier one consisting of 28 lines in Sanskrit language dated 1150 AD is carved on a slab of black marble which records the visit of the Chalukya king Kumarapala to Chittaurgarh and donations made to the temple. The second inscription with 53 lines in Sanskrit verse records restoration of the temple by Mokal, father of Maharana Kumbha in VS 1485 (AD 1428). This temple displays diverse features as it has been repaired and restored from the 11<sup>th</sup> to 15<sup>th</sup> century AD.

- **Construction Materials**

Dressed stone and lime mortar with extensive stone carved mouldings and *shikhara*.

- **Brick Temple (R4)**

- **Period of construction** 7<sup>th</sup> century AD **Patron** unknown

- **Usage** Hindu Temple

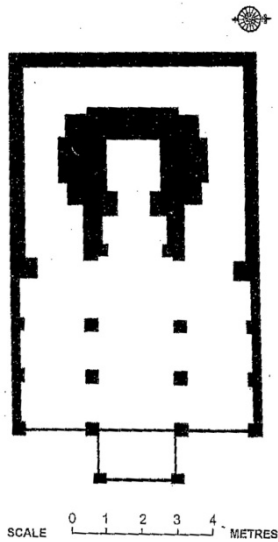
- **Spatial Planning**

Situated to the south of Kumbha's palace complex, this temple is unique in the fort and faces east. The plan is simple and consists of a sanctum, circumambulation, ante chamber and *sabhamandapa* or hall.

- **Architectural Details**

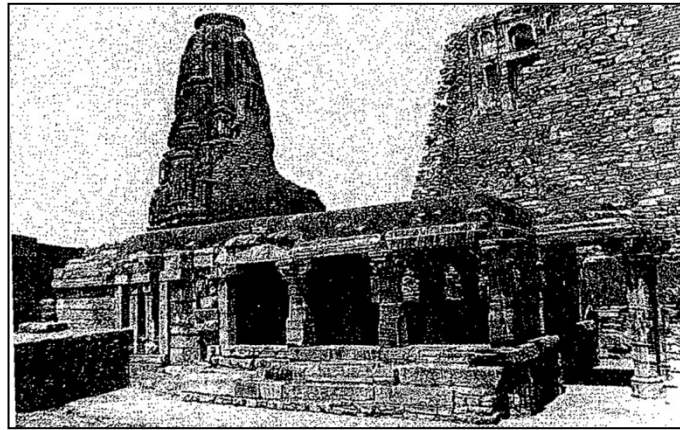
The base area ie the *pitha* and *mandovara* of the sanctum are built of massive blocks of stone and are absolutely plain. The exterior surface of the sanctum was originally plastered. There are no icons or sculptures. The covered circumambulation path has open ventilators one on each of its three sides.





Plan – Brick temple

Source: Archeological Survey of India



Brick temple

The *mandapa* has beautiful stone carvings. It consisted of four ornately carved stone pillars in the middle. Designs mostly consist of *kirtti mukha*, *laharavallari* and *ghatapallava* motifs of columns. Over the sanctum rises the brick *shikhara* of the Latina type. The *shikhara* is hollow inside, there is no epigraphic or any record related to this temple. Stylistically, the sanctum with its brick *shikhara* is assignable to 7<sup>th</sup> century AD, to which the ornately finished stone *mandapa* seems to have been added around the 10<sup>th</sup> century AD.

● **Construction Materials**

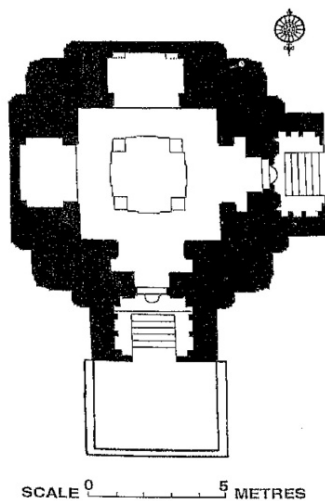
Dressed stone, bricks and lime

■ **Shringar Chauri (R5)**

● **Period of construction** 1448 AD

**Patron** Velaka, son of the treasurer of Maharana Kumbha

**Usage** Jain Temple



Plan – Shringar Chauri temple

Source: Archeological Survey of India



North entry of Shringar Chauri temple

## 2a. Description of Property

### CHITTORGARH

2.42

#### ● Spatial Planning

Shringar Chauri, situated in the centre of Banbir's wall is a Jain temple dedicated to Santhinatha. There are two doors in the temple on the north and the west, while the other two sides are closed with geometrical *jaali* work. There is an elevated square platform in the middle of the floor, upon which are four carved pillars carrying four beams. It was dedicated to Santhinatha .

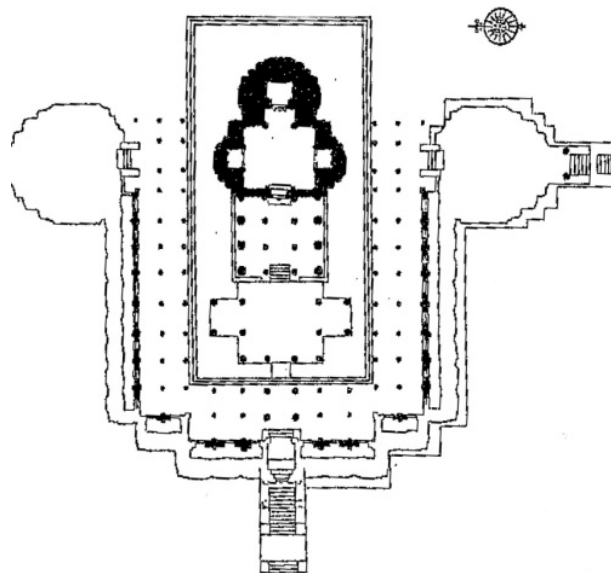
#### Construction Materials

Dressed stone laid in lime mortar and exquisitely carved

#### ■ Sat Bis Devri (R6)

- **Period of construction** mid 15<sup>th</sup> century AD **Patron** Velaka/Rana Kumbha

**Usage** Jain Temple



SCALE 0 5 10 METRES

Plan – Sat Bis Devri temple

Source: Archeological Survey of India



Sat Bis Devri temple



- **Spatial Planning**

The group of 27 shrines, locally known as Sat Bis Deori is built within the compound wall stands on a high plinth and comprises of a shrine with a *sabha mandapa* facing west. A minor shrine to its north and south and corridor with cell shrines surrounding the central shrine and its courtyard.



Exquisitely carved stone walls of the temple from the Hindu religious texts

- **Architectural Details**

Both sanctum and *mandapa* have projections adorned with sculptures. Miniature niches with figures appear even on the plinth in western Indian style. Over the sanctum rises a tower with cluster of elements; portion of the original decoration with arch like motifs are still intact. The *mandapa* is roofed with a restored corbelled dome; finely carved ceiling panels incorporate brackets and sculpted figures. The *mandapa* walls are embellished with lattice work.

- **Construction Materials**

Dressed stone laid in lime mortar and exquisitely carved

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- **Kshemankari Temple (R7)**

- **Period of construction** 825-850 AD     **Patron** unknown

- **Usage** Hindu Temple

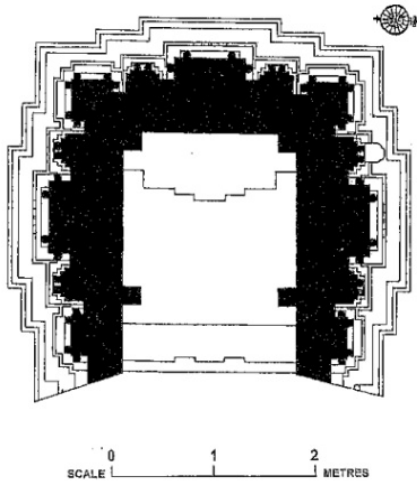
- **Spatial Planning**

The east facing Kshemankari temple is situated in a tank opposite the Kalikamata temple. The temple is famous in the name of Kshemankari as the image of the same is installed in the rear niche of the temple.

## 2a. Description of Property

### CHITTORGARH

2.44



Plan – Kshemankari temple

Source: Archeological Survey of India



Kshemankari temple in ruins

#### ● Architectural Details

It rests on ornate basal mouldings. The niches have standing images of heavenly Hindu figures and pilasters contain *apsaras* or angels. Broad niches have images of Kalki on the south and Kshemankari on the west whereas that on the north is missing. Its ornate Latina *sikhara* is damaged. The east face and the door-frame of this temple are missing.

#### ● Construction Materials

Dressed stone and lime mortar

#### ■ Adbuthnath Temple (R8)

● **Period of construction** 15<sup>th</sup>-16<sup>th</sup> century AD **Patron** Sisodias

**Usage** Hindu Temple

#### ● Spatial Planning

The Adbhuthnatha temple, dedicated to Siva is built of white sandstone. It consists on plan a sanctum, an ante chamber, a pillared hall and three smaller pillared halls, one each on the northern, southern and western sides. The interior of the sanctum is plain. The sanctum enshrines a Siva-Linga. There is a niche in the eastern wall of the sanctum containing a modern image of standing Parvati. The main pillared hall on the western or front side has an elaborate decorated doorway. It is approached by a flight of seven steps on the west.

#### ● Architectural Details

The elevation of the temple exhibits from bottom upwards plinth mouldings consisting of a plain wall surmounted by another wall marked by half-diamond design. Above this rest the more mouldings comprising of several layers and bands. Among the sculptures shown on the base of this



temple, the icons of standing and dancing heavenly Hindu figures, dancing Chamunda, Natraja, Andhakantaka Siva, Agni and Svaha and Yama and Yarmi are noteworthy. The three niches in the sanctum contain an image each of a seated Devi. The niches in the *shikara* above the sanctum contain images of seated and dancing Siva besides an image of dancing Bhairava. The Adbhuthnatha temple represents a late regional version of *bhumija* style

● **Construction Materials**

Dressed stone and lime mortar

■ **OTHER TEMPLES**

*Digambar Jain temple - 12<sup>th</sup>-15<sup>th</sup> century AD (R9)*



*Ganesha temple-15<sup>th</sup> century AD (R10)*



*Naagchandreshwar temple (R11) modern structure though shrine is older*



*Jatashankar temple (R13) mid-15<sup>th</sup> century AD*

## 2a. Description of Property

CHITTORGARH

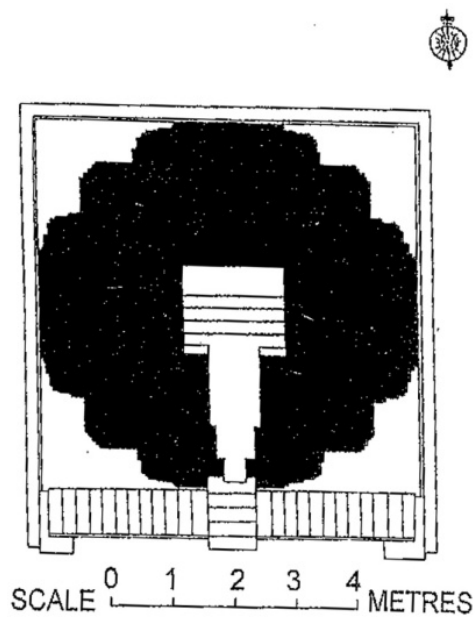
2.46

### CHATTRIS/CENOTAPHS/MEMORIALS

#### ■ Kirti Stambh (C1)

● **Period of construction** 13-14th century AD **Patron** Bagherwal Mahajan Jija, son of Naya

**Usage** memorial



*Plan – Kirti Stambh*

*Source: Archeological Survey of India*



*Kirti Stambh*



*Profusely carved external stone walls of the Kirti Stambh*

#### ● Architectural Details

Kirti Stambh or Tower of Fame is one of the most interesting Jain monuments of the medieval age and is an elegant specimen of its class adorned with sculpture and mouldings from base to summit. It was dedicated to Adinatha or Rishabh Deva, the first Jain Tirthankara whose standing images are fixed in the niches on its four cardinal points. Set up before a Jain temple, it has a miniature pavilion or canopy over the *Chaumukha*; a square block upon which a Jain image is sculptured upon each of



its four sides. The height of the tower is about 24 mts and stands on a square platform. A central staircase winds up a square shaft through six stories to a small open pavilion of elegant design, the roof of which rests on 12 pillars. There is an inscription at the base of the tower dated VS 952 (AD 896). However, the style of another inscription appears not to be older than 13<sup>th</sup>-14<sup>th</sup> century AD. Standing next to the Kirti Stambh is a Jain temple raised on high plinth. It comprises a sanctum and a pillared hall. The outer faces of the walls are beautifully carved with sculptures of gods and goddesses.

● **Construction Materials**

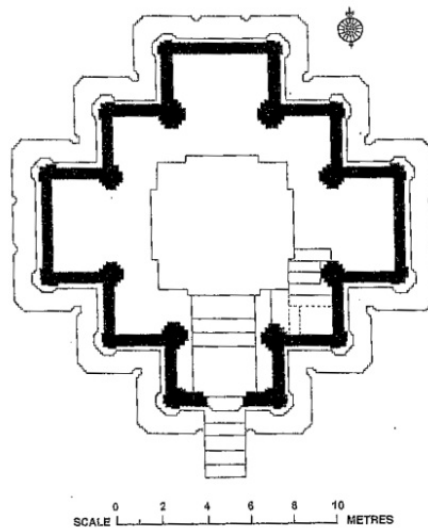
Dressed stone

■ **Vijay Stambh (C2)**

● **Period of construction** 1433-1468 AD

**Patron** Rana Kumbha

**Usage** memorial



Plan – Vijay Stambh

Source: Archeological Survey of India



Vijay Stambh

## 2a. Description of Property

### CHITTORGARH

2.48



*Intricate carvings from the pantheon of Hindu gods on the external stone walls of the Vijay Stambh*

#### ● Spatial Planning

The Vijay Stambh was erected after Rana Kumbha's victory over the combined armies of the Sultans of Malwa and Gujarat. It is 14.32 mts in length and breadth and rises to a height of 37.19 mts above the ground. It has nine storeys distinctly marked on exteriors with openings at the four faces of each storey. A staircase winding alternately through a central well, having 127 narrow stone-steps arranged within the body of the tower leads up to the eighth storey.

The chief architect, who designed and built this tower, was Sutradhara Jaita, son of Lakha, who was assisted by his three sons Napa, Puja and Poma. The tower has undergone partial renovation carried out by Maharana Fateh Singh and Bhupala Singh of Udaipur.

#### ● Architectural Details

The topmost storey houses two inscribed slabs of the fragmentary inscription which contains a genealogical account of the Guhila family and records the construction of this tower called Kirti-Stambha. This inscription was begun by Kumbha's pandit, scholar Arti and finished by his son Mahesudra, Brahma, Harihara, Ardhanarisvara, Siva, Vishnu, Padmavati and ascetics whose names are engraved below them.

There are many short inscriptions in the tower but most curious is the Arabic inscription, 'Allah' in the third and eighth stories. Each tier, a *mandapa* for its associated temple and enriched with balconied windows, is carved profusely with the gods of the Hindu pantheon, yet never at any point does it interfere with the outline or design of the building. Many priceless inscriptions inside were destroyed later but one remains saying: "Sparkling like the first rays of the sun, the tower rose like the bride of the earth"

#### ● Construction Materials

Stone and lime mortar

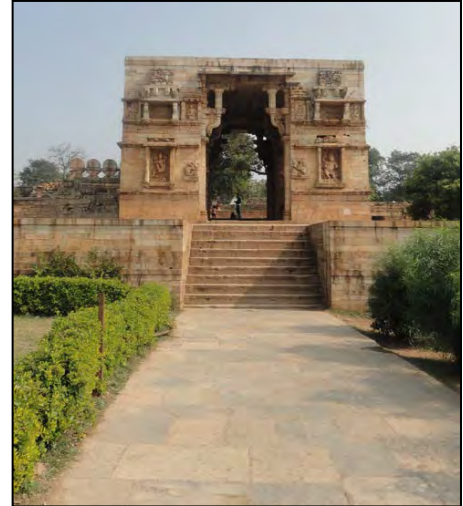


■ **Mahasati Complex (C3)**

- **Period of construction** 5<sup>th</sup>-8<sup>th</sup> century AD/ 1303 AD/1567 AD    **Patron** Gupta/post Gupta/  
**Usage** memorials    Guhilas/Sisodias



*Aerial view of the Mahasati with 4 shrines observed next to Samideshvara temple*



*Sati Gate adjoining the Mahasati complex*

● **Architectural Details**

In 1959 AD in the course of general clearance in the Mahasati enclosure, four shrines and some ashes and charred bones were found. As Rajput ladies are believed to have committed sati in this enclosure, three trenches were laid to ascertain the truth of the tradition. Of the five structural phases noticed, Phase I was marked by a small shrine flanked by two other shrines, the architectural features of which would roughly indicate eleventh century as their date.

In Phase II another shrine seems to have been constructed. To the same Phase belonged a stone pavement and two foundation-walls. Phases III and IV were important for the point under investigation. Three shrines and an oblong brick enclosure externally reinforced by rubble and internally plastered were laid bare. Within the enclosure, a 6-in thick layer of ashes was noticed: it was also seen that its mud floor was burnt. Close by were three pits full of ashes. Another interesting structure was a paved platform over which stood a sati-stone. Two other loose sati-stones were also found

● **Construction Materials**

Stone, bricks and lime mortar

## 2a. Description of Property

## CHITTORGARH

## STORES

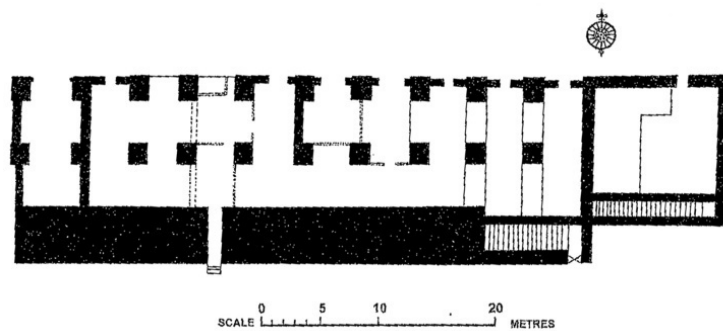
## ■ Topkhana (S1)

● **Period of construction** 17<sup>th</sup>-18<sup>th</sup> century AD      **Patron** Sisodias of Mewar

**Usage** Store for artillery

● **Spatial Planning**

It is centrally located multi-chambered building with high vaulted roof. The rear wall of the building is resting over the Banbir wall. Earlier, it was used as store house for arms and ammunitions; hence it is known as Topkhana. At present, it houses a few artifacts like guns and sculptures locally collected.



*Plan – Top Khana*

*Source: Archeological Survey of India*



*Top Khana*



*Cannons found outside the Top Khana*

● **Construction Materials**

The Top Khana is constructed in stone laid in lime mortar and plastered in lime



**GARDENS**

■ **Garden at Kumbha Palace(B1)**



*Garden – Kumbha Palace*

■ **Garden at Padmini Palace (B2)**



*Garden – Padmini Palace*



*Garden – Padmini Palace*

The gardens that may have been originally laid in front of Kumbha's and Padmini's palaces have been renovated by the Archeological Survey of India. Due to lack of historic evidence, they currently reflect a manicured approach.

## 2a. Description of Property

### CHITTORGARH

2.52

#### ■ **Mrigvan (B3)**

The Mrigvan is a protected forest found at the southern end of the fort. It provided security from the enemies trying to breach the fort from the southern end with its dense vegetation and animals. Due to a recent fire part of the vegetation was destroyed and the animals have been relocated.



*Mrigvan still has few animals like monkeys lingering around*

At the southern tip of Mrigvan, a spot named Mohur Magri is a partially-man-made hill just below the southern wall of the fort, about 5 m. from the Chittori Burj bastion. It is said that Emperor Akbar raised with soil and rocks to the fort's height to give his cannons enough height to fire directly into the otherwise impregnable fortress.



## WATER STRUCTURES

The fort has numerous water structures and step wells and exhibits remarkable insights into rainwater harvesting systems of medieval times. Of the 85 historic water structures 20 are still functional

### ■ Gaumukh Kund (W1)

- **Period of construction** since 7<sup>th</sup> century onwards     **Patron** Paramara Rajputs, Guhilas and Sisodia
- **Usage** water tank



*Gaumukh kund*



*View of the Gaumukh kund along the edge of fortification wall*

Originally called as Mandakini kund or the heavenly Ganges, it is located south of *Samideshvara* temple. Water issues from a cow's mouths carved in stone set up in the wall of a pillared hall and a little chamber to the north of it, hence the name Gaumukh. There are two openings which are said to give access to the immense subterranean galleries known as Rani Bhandar, where Rajput ladies sacrificed themselves in the first sack of Chittorgarh.

### ● Construction Materials

Stone and lime mortar for embankments

### ■ Kukreshwar Kund (W2)

- **Period of construction** 755 AD & repaired 1433-1468 AD     **Patron** Repaired by Maharana Kumbha
- **Usage** water tank

It is on the west of Kukreshwar temple abutting the fortification wall and is one of the perennial sources of water for the habitants.

### ● Construction Materials

Stone and lime mortar for embankments

## 2a. Description of Property

### CHITTORGARH

2.54

#### ■ Chatrang Ka Talab (W3)

- **Period of construction** 7<sup>th</sup> century AD      **Patron** Chitrangad Mori
- **Usage** water tank

It is irregular in shape and provided with a masonry embankment on the southern side, of which niches harbor images of Hindu gods and goddesses.



*Chatrang ka Talab*



*Embankment in stone along Chatrang ka Talab*

#### ● Construction Materials

Embanked on one side in rubble stone, dressed stone and lime mortar.

#### ■ Sukhadia Talab (W4)

- **Period of construction** mid-15<sup>th</sup> century AD      **Patron** Mokal/Kumbha
- **Usage** water reservoir

This reservoir is located on the south of the Bhimlat and east of Padmini Palace. It has a massive masonry built embankment on the northern side with recessed niche harboring the figures of Hindu divinities.



*Sukhadia Talab*



● **Construction Materials**

Stone and lime mortar for embankments

■ **Bhimlat Kund (W5)**

● **Period of construction** mid 15<sup>th</sup> century AD

**Patron** Mokal/Rana Kumbha

**Usage** water tank

This masonry built tank is situated on the eastern margin of the fort. It has stepped embankment on the east and broad stairs leading to the bottom of the reservoir. There are two ruined temples built on the eastern and western sides of the reservoir, dedicated to Vishnu and Siva, respectively. Large numbers of Sati pillars are erected around the reservoir.



*Embankments in stone with a shrine – Bhimlat tank*



*Bhimlat tank*

● **Construction Materials**

Dressed stone and lime mortar for embankments

■ **Other water Structures**



*Khattan Baori (W6)*



*Hathi Kund (W7)*

## 2a. Description of Property

### CHITTORGARH

2.56



*Fatta Tank (W8)*



*Padmini Talab (W9)*



*Tank opposite Kalikamata Temple (W10)*



*Ghee Ki Baori (W11)*



*Ratan Singh Tank (W12)*

It is difficult to date the water bodies but as per several historic sources it is evident that although many of these would have pre-existed as catchment basins they were built on or repaired during the mid 15<sup>th</sup> century AD during Rana Kumbha's rule.



**RUINS**

Few ruins are scattered across the Fort area and further documentation and research is required to establish their origin, history and location within the fort.



*Ruins near Vijay Stambh*



*A stand alone gateway*



*Stone jali remains*

## 2a. Description of Property

CHITTORGARH

2.58

### HABITATION

- Municipal Ward near Rawal Ratan Singh's Palace (D1)



*Habitation near Rawal Ratan Singh Palace*

### OTHER STRUCTURES



*Telang Ki Gumti (M1)*



*Bagshi Jail (M3)*

Few other structures like the Bagshi Jail, Telang ki Gumti, Moti Bazaar, Nagina Bazaar etc are spread across the fort (Refer section 1 and 2b for details)



## 2a. Description of Property

### Kumbhalgarh



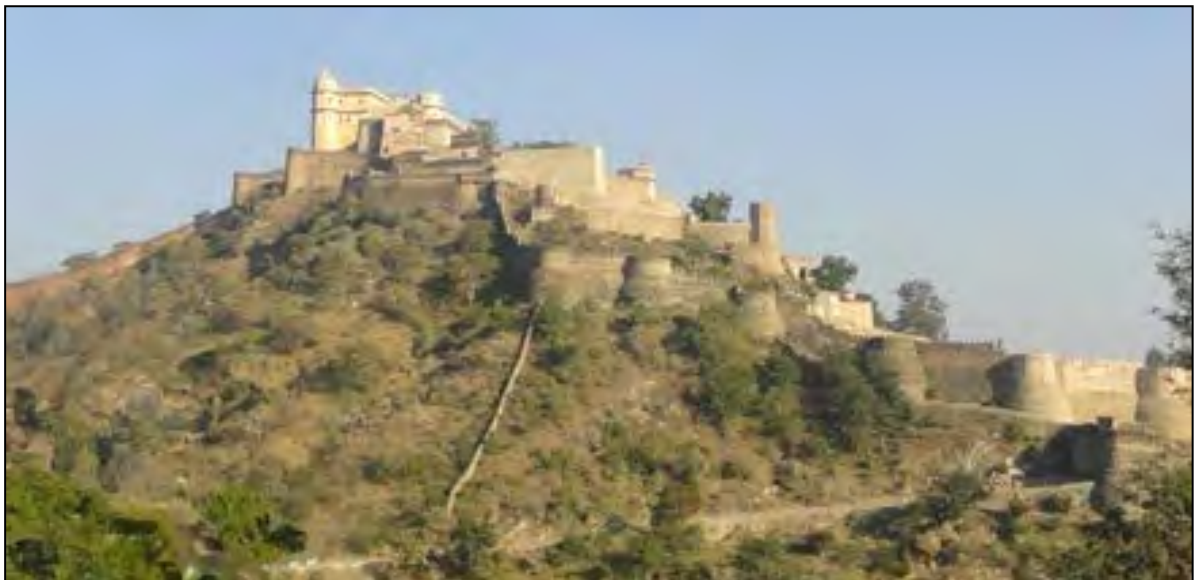
## KUMBHALGARH

### SUMMARY

Kumbhalgarh Fort in district Rajsamand, on the borders of Mewar and Marwar is amongst one of the largest forts of the country. Situated on a hill peak of the Aravalli range, at an altitude of about 1100 mts and surrounded by the vast Kumbhalgarh Sanctuary, the fort has a commanding view of the Aravallis to the east, south and west, and part of Marwar's desert terrain to its north west.

The fort was primarily built by Rana Kumbha in 1443-1458 AD covering an area of 11 sq km by providing fort walls and bastions. The fort is approached through a series of protective walls and defensive fortifications of successive battlements and bastions enclosing several nearby hillocks, through a narrow valley that winds up to the south of the Kelwara Village through the hilly terrain.

Within the high and wide fortification walls and formidable bastions were built a palace, several temples, stables for horses and other buildings, by the architect Mandana as also prescribed in his 15<sup>th</sup> century texts. The main habitation area of the fort was further secured through, seven fortified gate. The fortifications are most unique said to be the widest in India and 3<sup>rd</sup> largest in the world moving along the natural contours. This fort is considered a stupendous monument of military and constructive genius of Maharana Kumbha.



*View of Kumbhalgarh Fort*



2a. Description of Property

KUMBHALGARH

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● **Site context**

Kumbhalgarh Fort in district Rajsamand, on the borders of Mewar and Marwar is amongst one of the largest forts of the country. Situated on a hill peak of the Aravalli range, at an altitude of about 1100 mts and surrounded by the vast Kumbhalgarh Sanctuary, the fort has a commanding view of the Aravallis to the east, south and west, and part of Marwar's desert terrain to its north west. The sanctuary covers an area of 578 sq kms and is home to a very large variety of wild life, that include wolf, leopard, sloth bear, hyena, jackal, jungle cat, sambhar, nilgai, chaisingh (the four horned antelope), chinkara and hare, red spur owls, parakeets, golden oriole, grey pigeons, bulbul, dove and white breasted kingfisher some of which are highly endangered species. This fort historically commanded the pass between the kingdoms of Mewar to the east and Marwar to the west in the state of Rajasthan.



*The Kumbhalgarh Fort surrounded by the vast sanctuary as viewed on approach from the Halla Pol*



## 2a. Description of Property

### KUMBHALGARH

2.64

#### ● Site Planning

The fort was primarily built by Rana Kumbha in 1443-1458 AD covering an area of 11 sq km by providing fort walls and bastions. The fort is approached through a series of protective walls and defensive fortifications of successive battlements and bastions enclosing several nearby hillocks, through a narrow valley that winds up to the south of the Kelwara Village through the hilly terrain. Within the high and wide fortification walls and formidable bastions were built a palace, several temples, stables for horses and other buildings, by the architect Mandana as also prescribed in his 15<sup>th</sup> century texts. Mandana was one of Kumbha's chief architects and wrote his own treatise 'Rajavallabha' and is believed to have put some of his prescriptions into practice in this fort. (Tillotson, 1999)



*Badal Mahal and Kartar Garh located at the highest terrain with many levels of fort walls and bastions securing the King's palace*

The main habitation area of the fort was further secured through, seven fortified gates named Aret Pol, Halla Pol, Hanuman Pol, Ram Pol, Vijay Pol, Nimboo Pol and Bhairon Pol. Currently, 5 are part of the nominated property while the Halla Pol falls in the buffer zone. The first barrier gate in the buffer zone is Halla Pol, followed by Hanuman Pol, Ram Pol and Vijay Pol as the gates within the property that provided entrance to the main fort. From Aret Pol near Kelwara village (outside buffer zone) one has to come down to a natural stream called Odawala and after some distance, there comes the second gateway Halla pol. It is called so because up to this point invading Mughal forces

of Akbar could reach after the sack of Chittor in 1567 AD. It appears that Ram Pol, which leads to the palatial complex on the top of the hill through Bhairon Pol, Nimboo Pol, Chaugan Pol and Pagda Pol, was used by the ruling class while Vijay Pol, about 300m east of Ram Pol leading to Jaina temples, Baan Devri, Golera group of temples and other residential complex, was used as general entry in to the fort. The other gate on the eastern side on the fort wall, Danibhatta connects to the Marwar region. The name of this gate has its own significance as it is believed that here donation/tax was levied for entering Mewar. Besides, there are a number of small entrances meant for emergency entry or exit known as *bari*. In-between the Nimboo Pol (gate of lemon trees) to Chaugan Pol, there is a bastion called Tara Burj as a viewing post. Near the Nimboo poll is the Top Khana that housed the cannon.



View of fort wall and temples from Kartar Garh

The ruler's palace was situated within an inner fort called – Kartar- Garh enclosing structures like Kumbha Palace, Badal Mahal and Tara Burj, some added or renovated by Rana Kumbha's successors including Maharana Fateh Singh (1884 – 1930 AD). The ingenious water systems in the fort can be observed in the lower reaches that were provided with a number of water tanks and reservoirs. Kumbhgarh has several temples, one of the most important, stands at the entrance a temple of the goddess Chamunda. Behind it is the shrine to the Mer ruler whom Kumbha conquered and nearby, a beautiful *chhatri* of the ruling family, with pillars and domes intact. On entering Ram Pol, there is a group of temples on either side of the pathway, i.e., Ganesha and Charbhuj temples on the left side and *yajna-vedi* group on the right side followed by four other temples, i.e., Neelkantha Mahadeva, Parsvanatha, Kheda Devi and other ruined temples. The temples such as Neelkantha Mahadev temple, Kumbhaswami temple and Mamadeo temple were built during Rana Kumbha's



## 2a. Description of Property

### KUMBHALGARH

2.66

period in the 15<sup>th</sup> century and are representative of the trabeate stone construction and carving in local stone. A little distance away is, Jaina temples, Golera group of temples, Bawan Devri, etc. A few heaps of the architectural members exist within the Fort complex.

Kumbhalgarh presents an excellent example of a hill fort that is meticulously planned as per prescribed 15<sup>th</sup> century texts, a site where Rana Kumbha and his architect experimented with all aspects of hill fort planning and architecture to achieve a perfect form. First of all, the siting of the fort is entirely unique, on a hill surrounded by concentric hills and valleys on all sides thus making the fort inaccessible and not immediately visible to the enemy. Historical evidence of remains from 2<sup>nd</sup> – 15<sup>th</sup> century AD and narration of historic events prove that earlier Sisodia rulers and dynasties prior to them were well familiar with the potential of this site. Sisodias had earlier used this location for refuge during wartime in Chittor. However it was only in 15<sup>th</sup> century AD that Rana Kumbha exploited this site to its full potential to design a fort that served as an ideal refuge for later Sisodia rulers including the legendary Rana Pratap when he was fighting Emperor Akbar.



*Kartar Garh at the crown of the hill and other structures at lower levels as viewed from the wide ramparts of the fort wall*

The fortifications are most unique said to be the widest in India and 3<sup>rd</sup> largest in the world moving along the natural contours. As per fort planning guidelines, the rulers enclosure i.e. Kartar-Garh is located on the highest terrain and approached by a series of gate to the final palace of Rana Kumbha. Currently fourteen water structures are present on site but there may have been more catchments across the site historically. The settlements historically too would have been further down in the valley near Bhil village with agricultural fields and orchards that are still in function. This fort is considered a stupendous monument of military and constructive genius of Maharana Kumbha.

● Views from and to site



KUMBHALGARH FORT: Topographic Map showing viewpoints of and from the fort



View 1: View of fort and hills in buffer zone from Badal Mahal



View 2: View from fort wall looking into the buffer zone at eastern end



View 3: Panoramic View from a point on the fort wall looking towards Badal Mahal



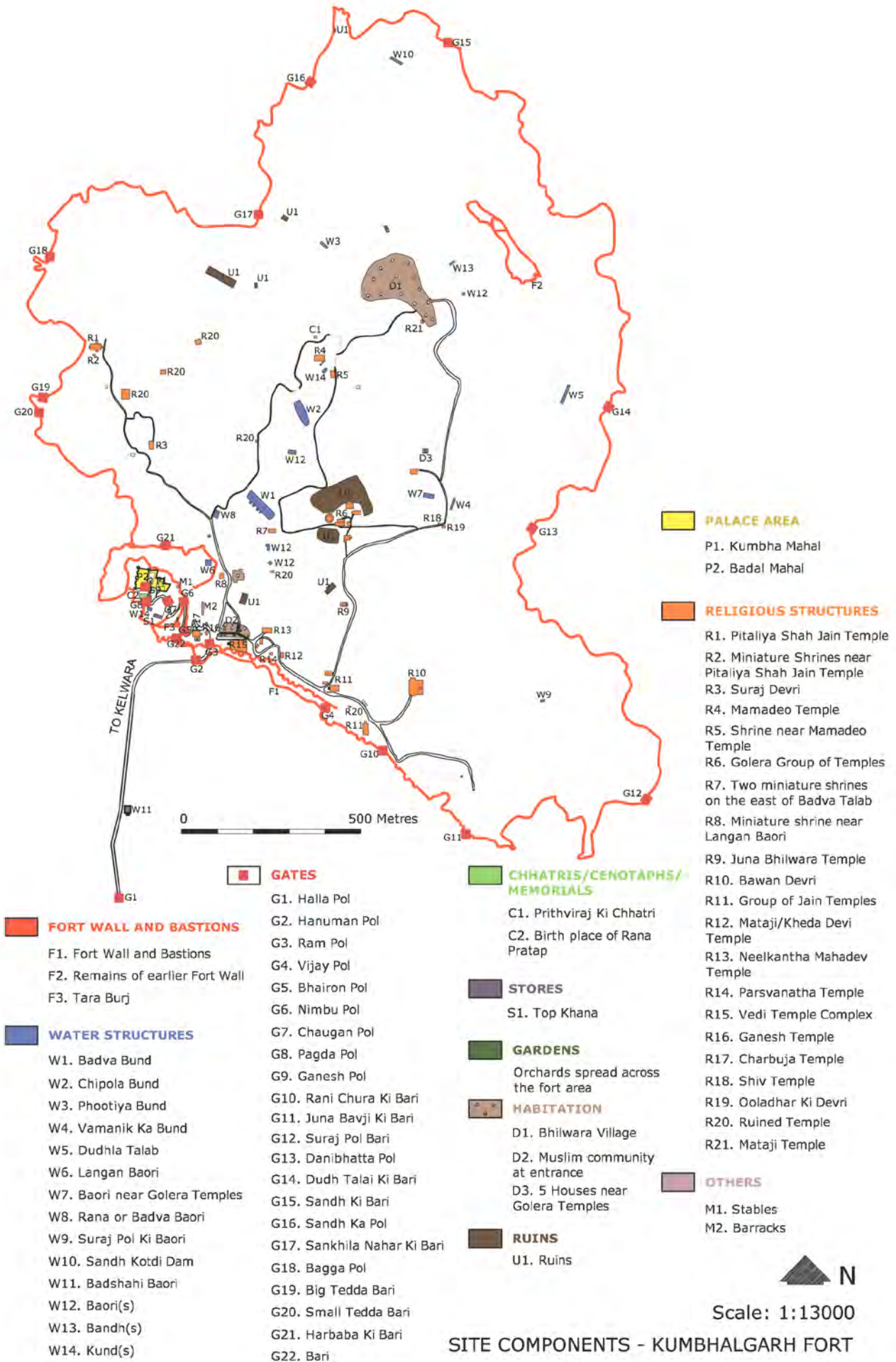
View 4: Panoramic view of the fort from the approach road



## 2a. Description of Property

### KUMBHALGARH

2.68



## FORT WALLS & BASTIONS

### ■ Fort Walls and Bastions as marked on the plan (F1) and old fort wall (F2)

- **Period of construction** Pre 15<sup>th</sup> century AD / 1443-1458 AD    **Patron** Mauryas/Guhtilas/  
**Usage** defense    Sisodias/ Rana Kumbha



*View of the fortification and bastions following the natural contours of the hill*



*Inner view of the fort wall showing the merlons*



*The D shaped bastions almost as high as the walls with a single storey, have a strong talus that is nearly vertical along most of its lower part and then abruptly comes to an end. This form of talus prevented the tower from being taken by escalade (Nossov, 2006, 19)*



## 2a. Description of Property

### KUMBHALGARH

- **Architectural form and details**

The fort walls come to around 14 kms in length, with minor differences due to the undulated surface. The massiveness of the rampart is remarkable with its numerous huge bastions its width at the top level varies from 3 to 5 mts. The formidable bastions in the battlemented wall of fortifications are peculiar in shape and are so built that the enemy cannot scale them by means of ladders. On the exterior face of the wall between Ram Pol and Vijay Pol, there are three stone idols heads fixed in the wall (it is said that during the invasions of the Mughals, three women of Mali caste showed the secret entrance to the enemies. As a measure of punishment, these women were bricked alive in the walls of the fort and three stone heads were put on to demonstrate the severe treatment meted out to the traitors of Mewar.

Few remains from the 2<sup>nd</sup> century fort walls exist and more research is required on these.

- **Construction Materials**

Random rubble and brick masonry laid in lime mortar, lime plastered in certain portions

- **Tara Burj (F3)**

- **Period of construction** mid 15<sup>th</sup> century AD

**Patron** Prithviraj

- **Usage** defense



*Exterior view of Tara Burj*



*Tara Burj*

- **Architectural form and details**

In-between the Nimboo Pol to Chaugan Pol, there is a bastion called Tara Burj. Used as a watch post from the fort it is flanked by stepped masonry walls typical of 15<sup>th</sup> century architecture of Kumbha's period.

- **Construction Materials**

Random rubble and brick masonry laid in lime mortar, lime plastered in certain portions.

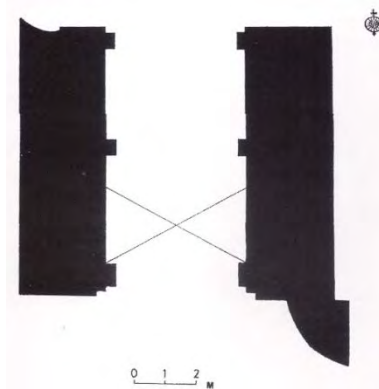
## GATES

### ■ Halla Pol (G1)

● **Period of construction** 1443-1458 AD

**Patron** Rana Kumbha

**Usage** entrance gateway



Plan – Halla Pol

Source: Archaeological Survey of India



Halla Pol

### ● Architectural form and details

Halla Pol is the second access gateway to Kumbhalgarh (the first one Aret Pol is beyond the buffer zone at a distance of more than 1 km. The invading Mughal forces of Akbar, after the sack of Chittor in 1567 AD, could reach only up to this point. The guards of this gate made the other guards alert by making a loud call/noise of caution, hence the name 'Halla'. The zig-zag turning of this gate also makes it safer from defense point of view. It has adequate rooms for the guards on both the sides, which are now in ruins.

### ● Construction materials

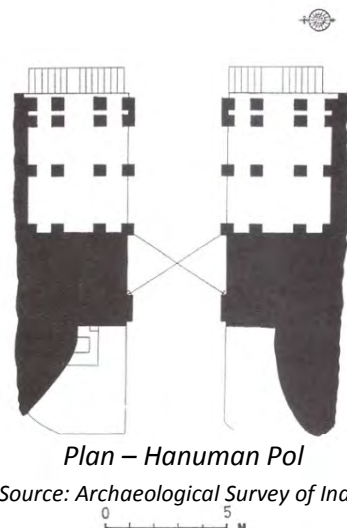
Random rubble and brick masonry.

### ■ Hanuman Pol (G2)

● **Period of construction** 1443-1458 AD

**Patron** Rana Kumbha

**Usage** entrance gateway



Plan – Hanuman Pol

Source: Archaeological Survey of India



Hanuman Pol



## 2a. Description of Property

### KUMBHALGARH

- **Architectural form and details**

At a distance of about half a kilometre from Halla Pol is Hanuman Pol, marking the entrance into the fort. This arched opening gate is flanked on either side by an open room for the guards. It has an arched opening with octagonal bastions at the sides followed by fort walls along the hillcrest. The arched opening has wooden gates topped by battlements having *kanguras*. An idol of Hanuman was brought by Maharana Kumbha from Mandor and installed in front of the gate VS 1515 (1458 AD), which still exists here. This idol was brought to Kumbhalgarh by Rana Kumbha after his own successful siege of Nagaur.

- **Construction materials**

Ashlar dressed stone masonry with decorative stone brackets.

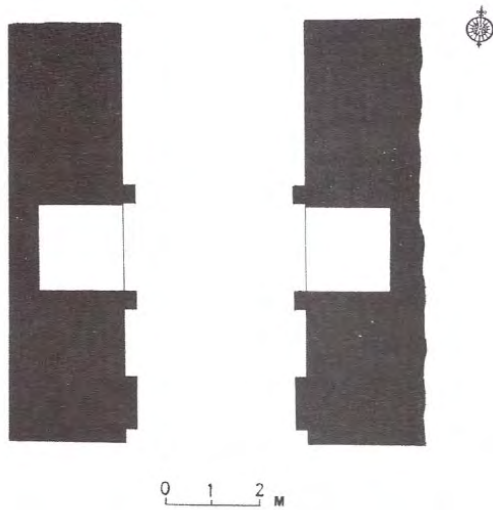
### ■ Ram Pol (G3)

- **Period of construction** 1443-1458 AD

**Patron** Rana Kumbha

**Usage**

entrance gateway for royals but now used as main entrance



Plan – Ram Pol

Source: Archaeological Survey of India



Ram Pol

Source: Archaeological Survey of India

- **Architectural form and details**

A little ahead of the Hanuman Pol is the Ram Pol, as the royal entrance gate. At present, it functions as the main entry in to the fort. This gate has an arched opening with bastions on either side and is topped by battlements and *kanguras*. It has on either side small chambers/cells for guards and currently works as the main entry to the complex.

- **Construction materials**

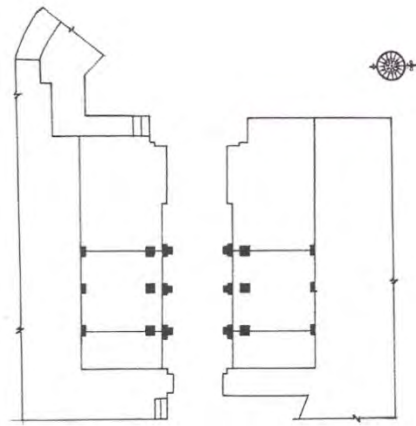
Dressed stone masonry with ornate stone brackets.

■ **Vijay Pol (G4)**

● **Period of construction** 1443-1458 AD

**Patron** Rana Kumbha

**Usage** entrance gateway for commoners



SCALE 0 1 2 3 4 5 M

Plan – Vijay Pol

Source: Archaeological Survey of India



Ram Pol

Source: Dorje and Dimri 2008

● **Architectural form and details**

Beyond Ram Pol a passage leads to the east along the fort wall to a distance of about 300 m to reach Vijay Pol. It is a doubled-storied gate flanked by rooms on either side. This gate was used by common public residing in the fort, and few ruins of residential houses can be seen at a number of places in the north-eastern area.

● **Construction materials**

Random rubble masonry with lime plaster.



## 2a. Description of Property

### KUMBHALGARH

2.74

#### ■ Aret Pol (G5)

● **Period of construction** 1443-1458 AD

**Patron** Rana Kumbha

**Usage** entrance gateway for commoners



*Aret Pol*

*Source: Archaeological Survey of India*

#### ● **Architectural form and details**

This is the first entrance gate to the settlement. It is a double-storied gate flanked by rooms on either side. This gate was used by common public residing in the fort, and few ruins of residential houses can be seen at a number of places in the north-eastern area.

#### ● **Construction materials**

Random rubble masonry with lime plaster.

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### ■ Other gateways

Several other gateways (*pol/s*) and smaller entries (*baris*) are present at intervals in the fort walls. The other gates to inner enclosure of Kartar Garh are Bhairon Pol followed by Nimboo Pol, Chaugan Pol, Pagda Pol and Ganesh pol. Ganesh Pol is the main entrance to Badal Mahal. All these gates except Ganesh Pol are double storeyed having guardrooms on either side. The other gates are Bagga Pol and Sand Ka Gate

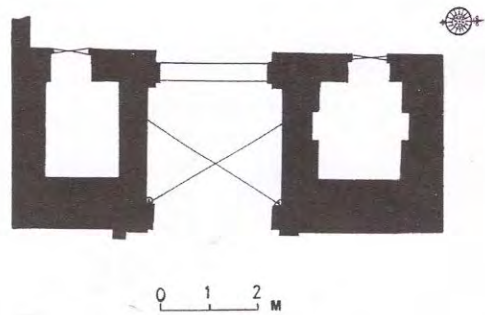
- **Period of construction** 1443-1458 AD **Patron** Rana Kumbha
- **Usage** entry/exit point of fort



## 2a. Description of Property

### KUMBHALGARH

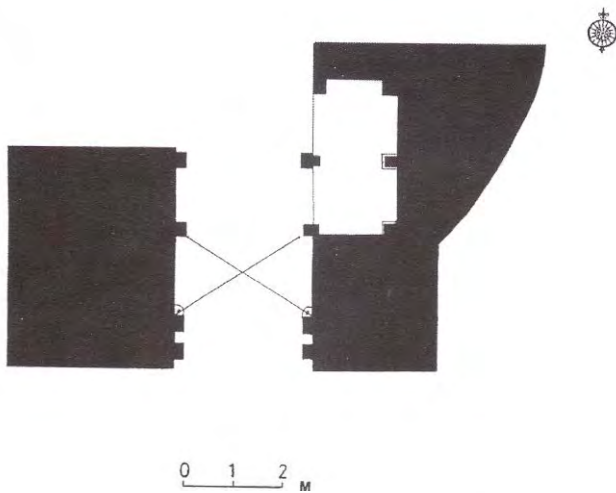
2.76



*Plan - Bhairon Pol (G5)*  
*Source: Dorje and Dimri 2008*



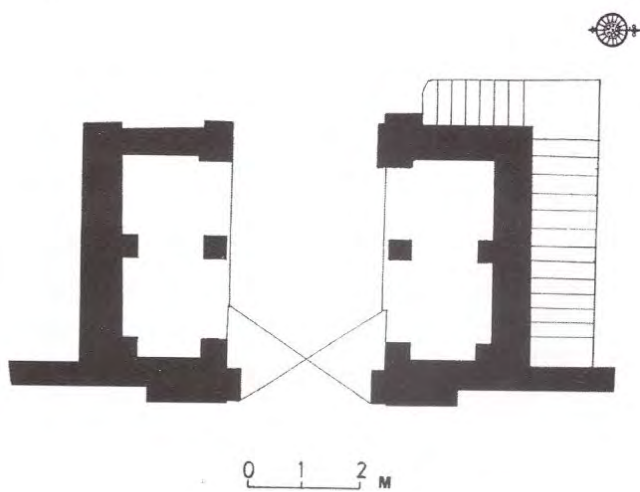
*Bhairon Pol*



*Plan- Nimboo Pol*  
*Source: Dorje and Dimri 2008*



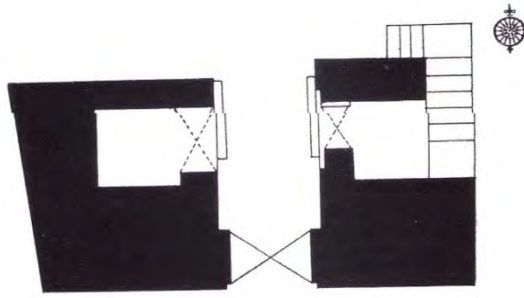
*Nimboo Pol*



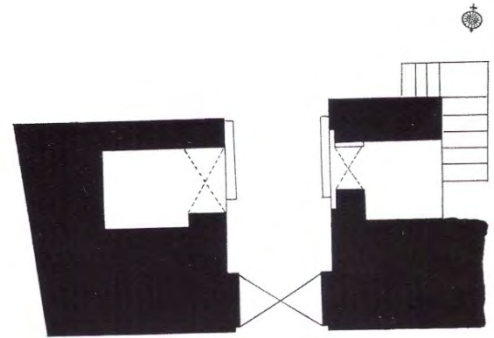
*Plan - Chaugan Pol (G7)*  
*Source: Dorje and Dimri 2008*



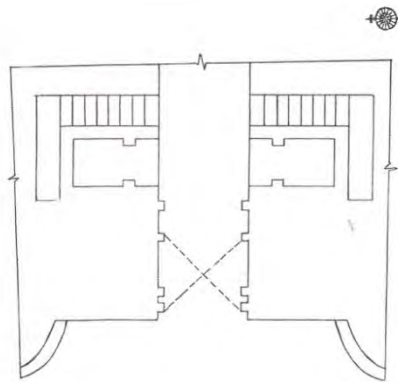
*Chaugan Pol*



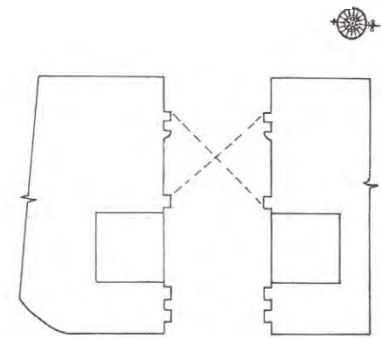
0 1 2 METRES  
Plan - Pagda Pol (G8)



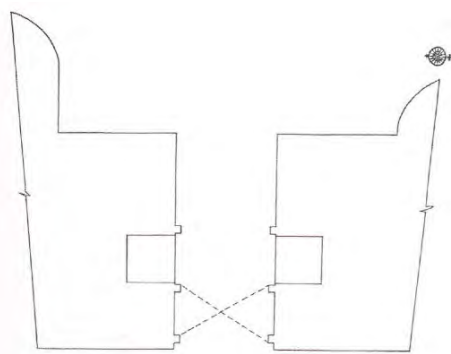
0 5 10 M  
Plan - Ganesh Pol (G9)



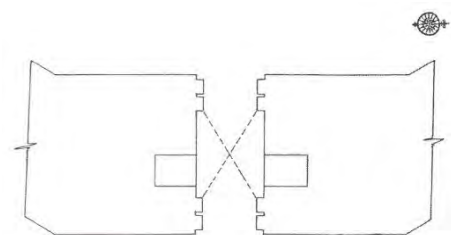
0 1 2 3 4 5 M  
Plan - Danibhatta Pol (G13)



0 1 2 3 M  
Plan - Sand Ka Pol (G16)



0 1 2 3 4 5 M  
Plan - Bagga Pol (G18)



0 1 2 3 4 5 M  
Plan - Bari (G22)

All PLANS

Source: Archaeological Survey of India & Dorje and Dimri, 2008

● **Architectural form and details**

All gates and openings were built during Kumbha's period and reflect the trabeate stone construction and styles of 15<sup>th</sup> century Mewar.

● **Construction materials**

Random rubble stone masonry with plaster, with few gates in dressed ashlar masonry.



## 2a. Description of Property

### KUMBHALGARH

#### PALACE AREA



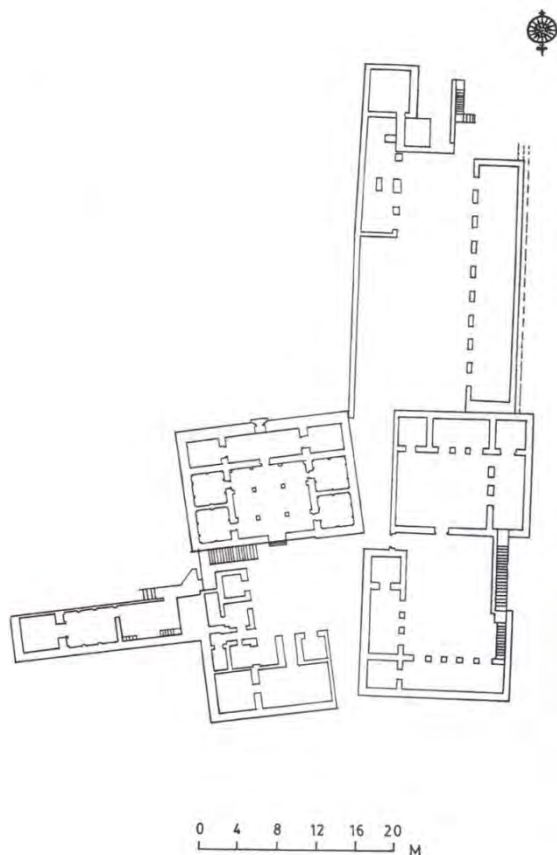
*In the palace complex at the top of the hill is the 'Kartar Garh' that houses three main structures: Kumbha Mahal, Badal Mahal and birth place of Rana Pratap with other attached structures*

**Kumbha Mahal (P1)**

**Period of construction** 1443-1468 AD

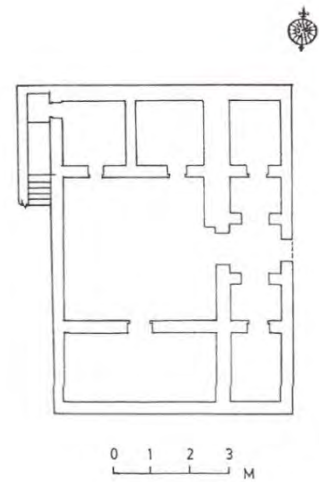
**Patron** Rana Kumbha

**Usage** Palace area with men's and women's apartment

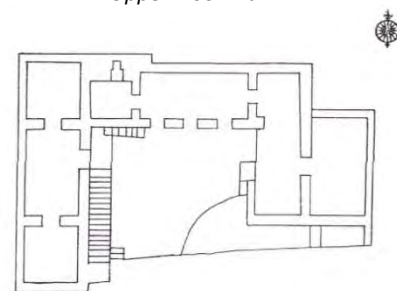


Ground Floor Plan

Source: Dorje and Dimri, 2008



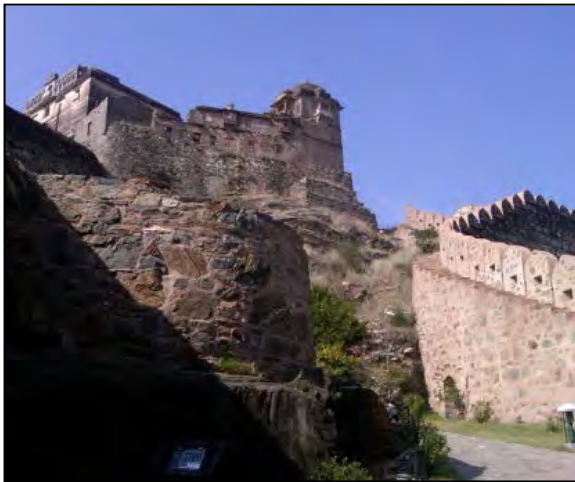
Upper Floor Plan



Lower Floor (Basement) Plan

● **Spatial Planning**

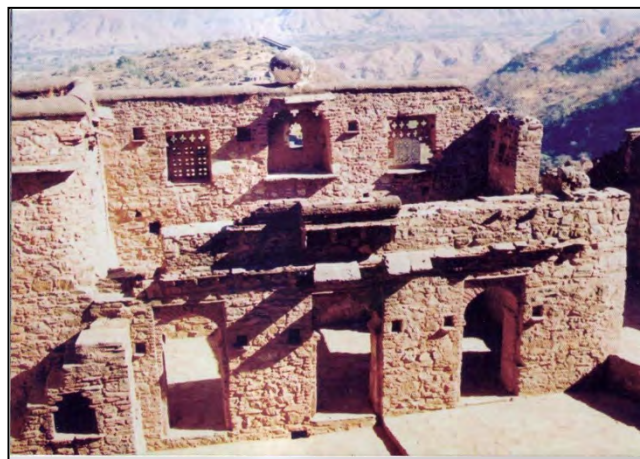
It is a two-storied structure with an additional basement level. The lower floor consists of a rectangular hall with small chambers on either side approached through masonry stairs, while the upper floors have two rooms, a corridor in the middle and open space in front. The rooms have windows or *jharokas* of carved stones. The location of the palace is such that one can easily view the entire fort from here. In the front, there are a number of rooms and a courtyard in the centre. There is another two storeyed building in between the Kumbha Palace and Badal Mahal. It comprises of chambers and a hall enclosed in the front at ground floor and an open courtyard enclosed by side rooms at the top floor. One of the rooms on the ground floor is being used as a shrine dedicated to Nav Durga. The royal kitchen and the toilet are in front of the building whereas the two spacious *Bhojanshalas* (dining areas) are on the left side.



*Fortified ramp leading to Kumbha Mahal*



*Kumbha Mahal*



*Inner structures of Kumbha Mahal*

*Source: Dorje and Dimri 2008*

● **Construction Materials**

The rooms at the upper floor are spacious and airy and finely plastered walls with lime flooring. There are also traces of painted decorations on the ceiling of the few rooms. The structure is built in random rubble masonry with lime mortar.

## 2a. Description of Property

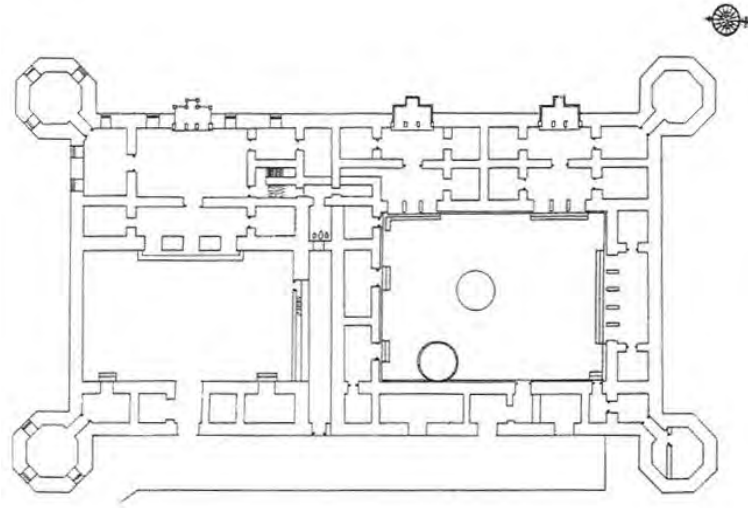
### KUMBHALGARH

2.80

#### ■ Badal Mahal (P2)

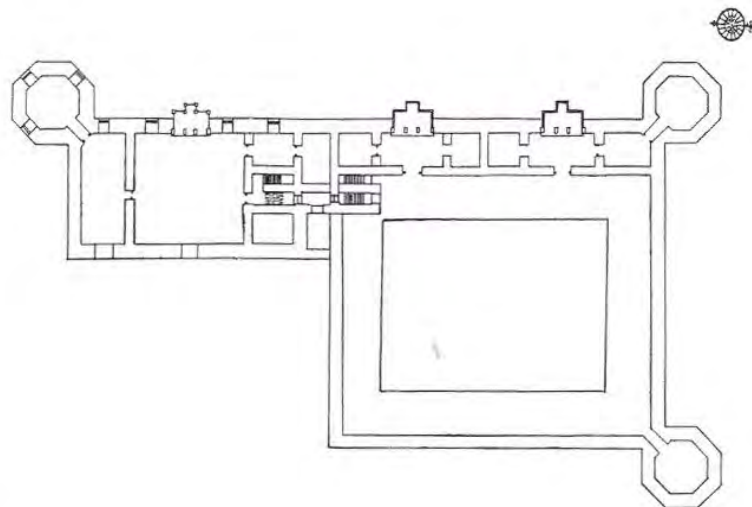
● **Period of construction** 1884-1930 AD **Patron** Maharana Fateh Singh

**Usage** palace area for monsoons



Ground Floor Plan

0 2 4 6 8 10  
SCALE METRES



Upper Floor Plan

0 2 4 6 8 10  
SCALE METRES

Source: Dorje and Dimri, 2008

#### ● **Spatial Planning**

It is believed that Maharana Fateh Singh pulled down old and damaged structures on the site and erected this new palace in their place in the late 19<sup>th</sup>/early 20<sup>th</sup> century. The magnificent edifice of Badal Mahal ('cloud palace') or the Fateh Prakash stands on the highest point of Kumbhalgarh and commands the entire view of the fort below. This double-storied palace is separated into two parts – Zenana Mahal and (with a temple area) Mardana Mahal. Facing east, the palace has several sets of large and small rooms.



- **Architectural form and details**

The walls and the ceilings of the rooms of upper storey are painted with floral designs in various colours whereas in the lower floor, the paintings on base portions of the walls are depicted with fighting scenes of elephants and warriors, etc. The facade is decorated with *chhatris* and ornamental stucco work in lime typical of Mewar-British period.

- **Construction Materials**

Stone masonry with lime plaster and lime wash.



*Exterior view of Badal Mahal  
Source: Dorje and Dimri 2008*



*The inner courtyard in Badal Mahal*

## 2a. Description of Property

### KUMBHALGARH

2.82

#### RELIGIOUS MONUMENTS

##### ■ Temples

The archaeological evidences suggest that Kumbhalgarh was an important religious centre even before the 15<sup>th</sup> century. It is believed that there were more than seventy Jain and Brahmanical temples in the fort. However, there are no remains of early temple activities found at Kumbhalgarh except a fragmentary inscription in the pedestal of one of the broken images of Jain Tirthankara dated VS 1269 (1212 AD) which supports the early temple construction activities here. Majority of the temples present today, were constructed during the 15<sup>th</sup> century or later period. Rana Kumbha too had patronized Jainism as evident from the establishment of a number of shrines of Jain pantheon at Kumbhalgarh.



Decorations on the ceiling in stone



Trabeate system of spanning the temple roofs

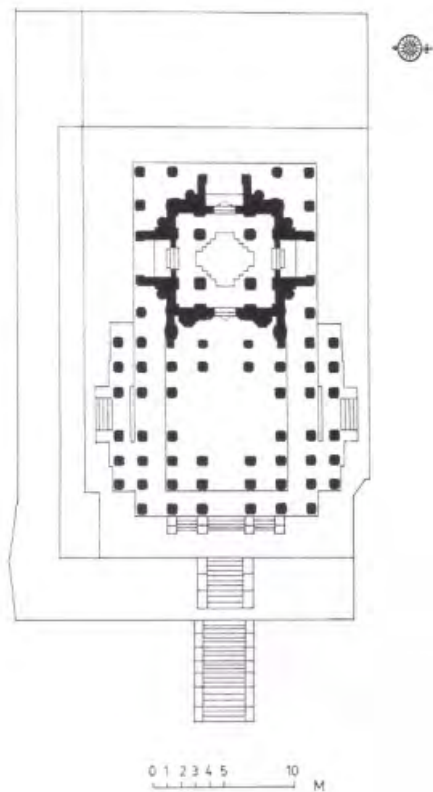
As stated, Mandana was the architect or *sthapati* during his time and the text 'Prasada Mandana' was composed by him revealing the detailed descriptions of plans and elevations of the temples and all its spaces like the inner sanctum, ante chamber, pillared halls etc. Besides this there are specifications of sizes, scales, forms and proportions of the columns, brackets, entrance doorways, and the kind of carvings they should have. He also gives detailed descriptions of various types of *shikharas*. Generally, curvilinear *shikhara* is raised both of bricks and stones with a number of miniature shrines all around. The pillared halls have a domical roof. To raise the height of the temple, more sets of the mouldings of plinth are added to the temple. At Kumbhalgarh due to the undulated rocky surface, most of the temples are standing on high *jagati* (plinth) and a few of the temples have also been provided with enclosure wall all around with an entrance. Another text of the same period written by him 'Devta Murti Prakaran' specifies the scale, size, proportion and nature of the idol to be placed in the different spaces of the temple. The temples of Kumbhalgarh are an important resource to understand Mandana's scholarship on temple architecture and to discover how many of these prescriptions have been put into practice.

■ **Pitaliya Shah Jain Temple (R1)**

● **Period of construction** 1455 AD

**Patron** Pitalia Shah

**Usage** Jain temple



Plan

Source: Dorje and Dimri, 2008



Pitaliya Shah Jain Temple  
Source: Dorje and Dimri, 2008

● **Spatial Planning**

This magnificent Jain temple also known as Bairath Mata ka Mandir was built by Pitalia Shah whose descendents are still living in Ratlam. The temple is also located on a hillock on the west of Mamadeo temple. Standing on a high plinth, the temple is having an inner sanctum, pillared halls and an entrance porch. The main entrance is on the east. The sanctum on the west has a raised pedestal with mouldings in the centre which is now without a deity.

● **Architectural Details**

Agni, Varuna, Brahma, Yama, Indra with their vehicles are carved on the outer wall of the temple. The facades of the temple are elaborately carved with male and female figures with various attributes and postures. It appears that the image of Bairath Mata, the family deity of Pitalia Shah, was set up here.



## 2a. Description of Property

### KUMBHALGARH

- **Construction materials**

Stone and lime.

- **Miniature Shrines near Pitaliadeva Jain Temple (R2)**

- **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century **Patron** Sisodia rulers

- Usage** Hindu temple



*Miniature Shrines near Pitaliadeva Jain Temple  
Source: Dorje and Dimri, 2008*

- **Architectural Form & Details**

Facing east, the temple shrine is raised over a double terraced platform. It is located south of the Pitaliadeva temple and west of the Sun temple. It consists of a sanctum, a vestibule and a pillared hall. The sanctum is square. The plain wall has projected niches in the cardinal directions, now empty. The square sanctum is entered through a plain doorway. The door lintel and doorjambs are plain. A raised plinth is built along the rear wall of the sanctum for the deity. The vestibule of the temple has recessed niches on either side. The pillared hall is supported on two pilasters (now missing).

- **Construction materials**

Stone and lime.

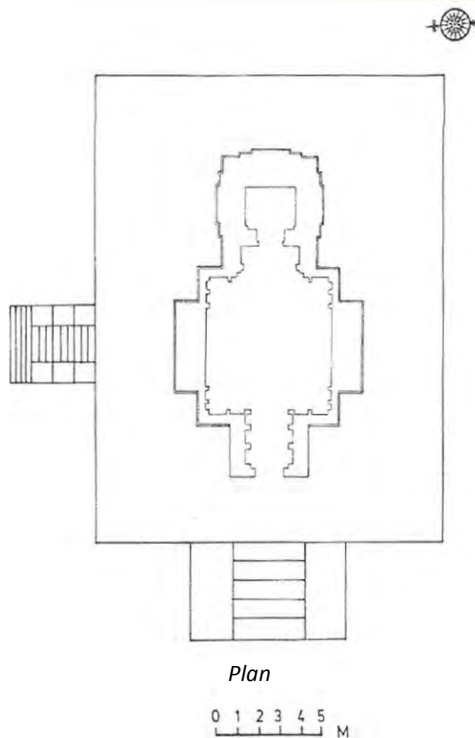
- **Suraj Devri (R3)**

- **Period of construction** 1433-1468 AD **Patron** Maharana Kumbha

- Usage** Hindu temple

- **Spatial Planning**

Locally known, as Surya Mandir, it is located on the top of a hillock on the south of Pitaliadeva Jain temple and from here maximum part of the fort can be seen. Facing west and standing on a raised platform, this temple consists of a sanctum, an anti chamber, a *mukhamandapa* or a pillared hall. The whole temple is built on a rectangular platform approachable through a flight of steps from the



Source: Dorje and Dimri, 2008



*Suraj Devri Temple*  
Source: Dorje and Dimri, 2008

north. The temple is in a dilapidated condition and only the wall portion of the sanctum is intact. The sanctum is followed by an ante chamber having a plain roof. The available evidence suggests that the sanctum had a curvilinear brick *shikhara*. It is believed that this temple is contemporary to the Sun temple of Ranakpur in the Pali district of Rajasthan.

- **Architectural Details**

The sanctum is raised over an extensively carved plinth with mouldings. The plain walls of the sanctum have three projected niches on three sides. The sanctum is now empty but the entrance is plain and a female attendant is shown on either side and a defaced figure is in the centre.

- **Construction materials**

Stone, brick and lime

- **Mamadeo Temple (R4)**

- **Period of construction** 15<sup>th</sup> century

**Patron** Rana Kumbha

**Usage** Hindu temple

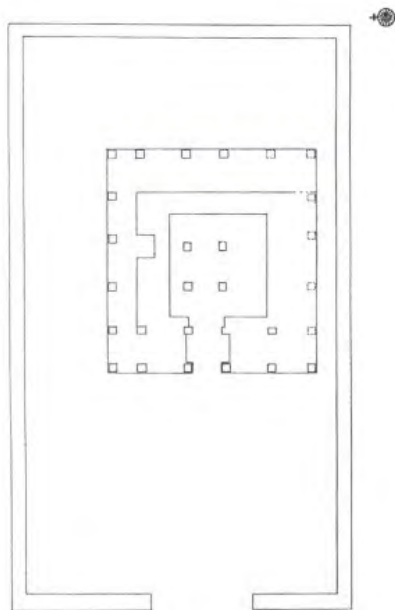
- **Spatial Planning**

The temple is located on the downward slope near Rana Baori. It is also known as Kumbhashyam temple. At present, it is in ruins. The temple is enclosed by a wall. Near to this is a step well locally known as Mamadeo Baori. It is also said that this is the place where Rana Kumbha got the history of Kumbhalgarh engraved on stone slabs. It is also believed that Rana Kumbha was assassinated here

## 2a. Description of Property

### KUMBHALGARH

2.86



0 1 2 3 M

Plan

Source: Dorje and Dimri, 2008



Mamadeo Temple  
Source: Dorje and Dimri, 2008

by his son Uda in AD 1468. A large number of sculptures were found here, important among them being Sanskarshan, Madhava, Madhusudana, Krishna, Purushottama, and Vasudeva with date Asadh Sudi 13, VS 1516 (1460 AD) engraved on the bottom of the image. These sculptures are now displayed in the Museum at Udaipur. Fragments of numerous stone inscriptions were also collected during exposing the compound of the temple complex in the early 1970s.

#### ● Construction Materials

Fine stone slabs have been used as veneering. The partly buried stone-paved flooring was exposed

#### ■ Temple near Mamadeo Baori (R5)

● **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century

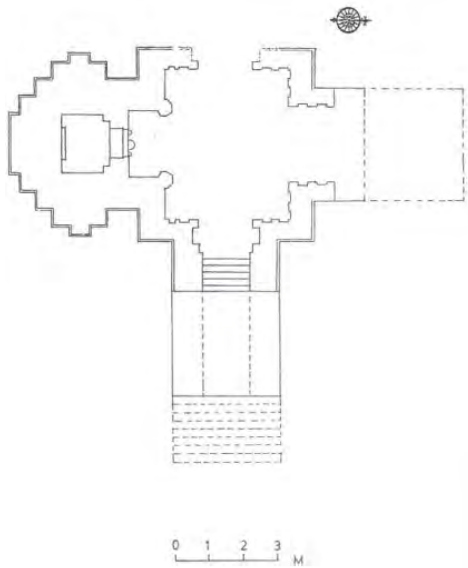
**Patron** Sisodia Rulers

**Usage** Hindu temple

#### ● Spatial Planning

To the south-east of Mamadeo Baori, there is also a dilapidated Brahmanical temple built on a raised plinth. Facing north, this temple comprises of an inner sanctum, an ante chamber, and two pillared halls. The plinth is followed by plain walls with three pillared niche in the cardinal directions.





Plan

Source: Dorje and Dimri, 2008



Temple near Mamadeo Baori

The temple is crowned by a multi-spired *shikhara*, partly collapsed. It is entered through a plain doorway. A seated image of Ganesha is present here. A raised plinth is on the rear wall of the sanctum for the main deity. Figures are carved on either side of the doorjamb. The pillared hall of the temple has two entrances on the north and east. The cusped ceiling of this hall is supported on pillars, now in ruins. The ancillary pillared hall of the temple is also partly missing.

- **Construction materials**

Stone and lime.

- **Golera group of temples (R6)**

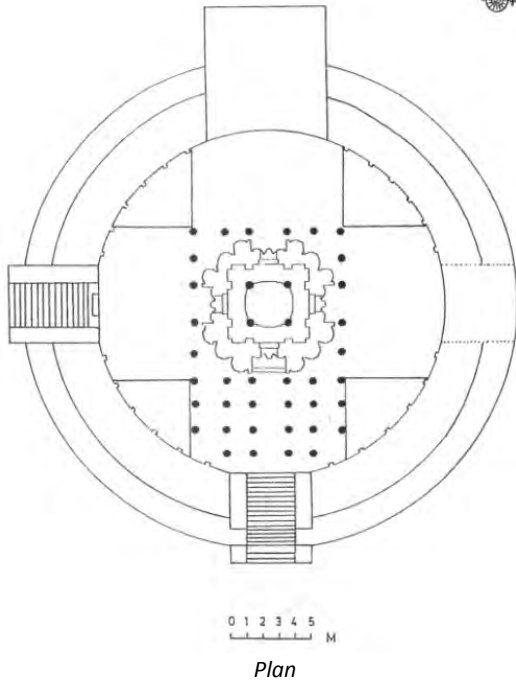
- **Period of construction** 15<sup>th</sup> to 18<sup>th</sup> century AD      **Patron** Sisodia rulers
- **Usage** Hindu/Jain temples

- **Temple 1**

- **Spatial Planning & Architectural Details**

These are eight recessed niches in each corner crowned by two figures each. Four-armed guards flanked by figures are on either side. A female attendant is standing on the side of the guard holding pitcher in the hands. The door lintel is also decorated while a seated image of a Jain Tirthankara is shown. The stone door sill of the entrance in the centre is flanked by a four-armed female deity on the either side. The roof of the vestibule is flat but decorated with scroll and diamond design in ascending order.

## 2a. Description of Property KUMBHALGARH

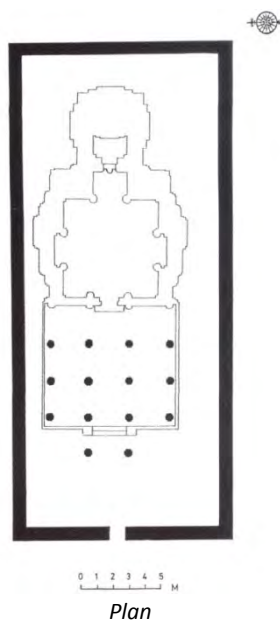


Golera Temple 1

Source: Dorje and Dimri, 2008

It is crowned with a domical ceiling. The other three cardinal pillared halls are now missing. There is a chamber below the western hall and it is entered through a narrow entrance from the west. It has a flat roof rested on four heavy stone pillars. Underneath the flooring, there is an underground chamber where twenty-eight inscribed headless Jain images were found. This chamber appears to be used for meditation purposes. An inscription engraved on the left niche on the eastern vestibule assignable to 16<sup>th</sup> century AD was also found.

### ● Temple 2



Golera Temple 2

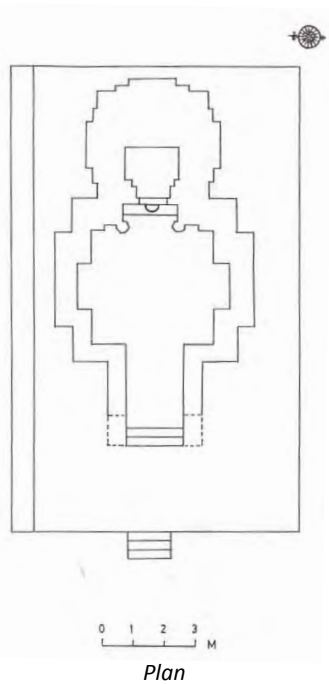
Source: Dorje and Dimri, 2008

● **Spatial Planning & Architectural Details**

It is just in front of Temple 1 and on the south of Temple 3. Facing west, the temple consists of an inner sanctum, an antechamber, 2 pillared halls and a porch. The plain walls have projected balconies for enshrining images. The doorjamb is decorated a seated image of a Jain Tirthankara is. Four-armed guards, flanked by river goddesses and other figurines, are shown on the lower part of the doorjamb on either side. The antechamber has recessed niches on either side, now lying vacant. One of the pillared halls of the temple is covered from all sides and has a plain doorway on the west. A recessed niche is provided on either side of the doorway facing the pillared hall. The temple is assignable to sixteenth-seventeenth century AD.

● **Temple 3**

● **Spatial Planning & Architectural Details**



Source: Dorje and Dimri, 2008



Golera Temple 2 & 3  
Source: Dorje and Dimri, 2008

It is located on the east of Temple 1 and north of Temple 2 and stands on a low platform. The approach of the temple is through a flight of steps from the east. It comprises of a sanctum, an antechamber and an open pillared hall. The sanctum has curvilinear brick *shikhara* while the pillared hall has a domical roof. The roof of the adjacent pillared hall is missing now. The dilapidated *shikhara* is adorned with miniature *shikharas*. The square sanctum has a plain doorway. The image of Ganesha is engraved in the centre of the sanctum. The vestibule has recessed niche on either side of the entrance and it has a flat ceiling. There is a small recessed niche over the vestibule, probably built for enshrining an image of a deity. The pillared hall has two projected balconies on either side.



## 2a. Description of Property

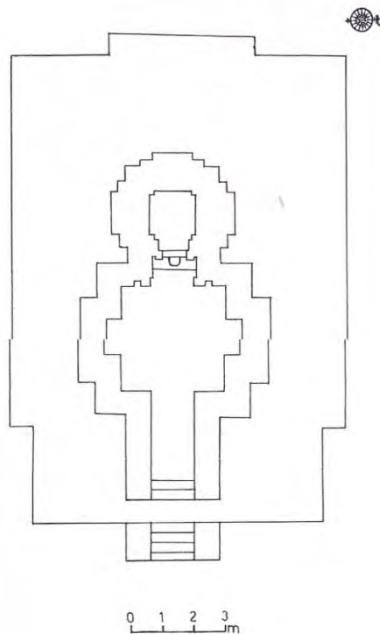
### KUMBHALGARH

It has a cusped ceiling devoid of any decoration. The pillars are plain except a band of carvings on top of it. It is assignable to sixteenth-seventeenth century AD.

#### ● Temple 4

##### ● Spatial Planning & Architectural Details

This temple is on the northern margin of the group and on the west of Temple 5. It is also built on a raised plinth. Facing east, it consists of a sanctum, an antechamber, and two pillared halls. A small domical roof crowns the cusped ceiling of the sanctum. The sanctum is square from inside and has a recessed niche on the western wall for enshrining the image of the principal deity. The sanctum is entered through a plain doorway. A mutilated figure of a seated Ganesa is shown. The antechamber is followed by pillared hall. It has a cusped ceiling rested on sixteen pillars and brackets. It is also decorated with twelve brackets figures and a lotus pendant is shown in the centre of the ceilings. The bracket figures are missing now. The roof of the pillared hall is domical. The pillared hall is followed by a porch rested on two identical pillars. The cusped ceiling of the porch is crowned by a domical roof and is entered through a flight of steps. It is also assignable to the sixteenth-seventeenth century AD.



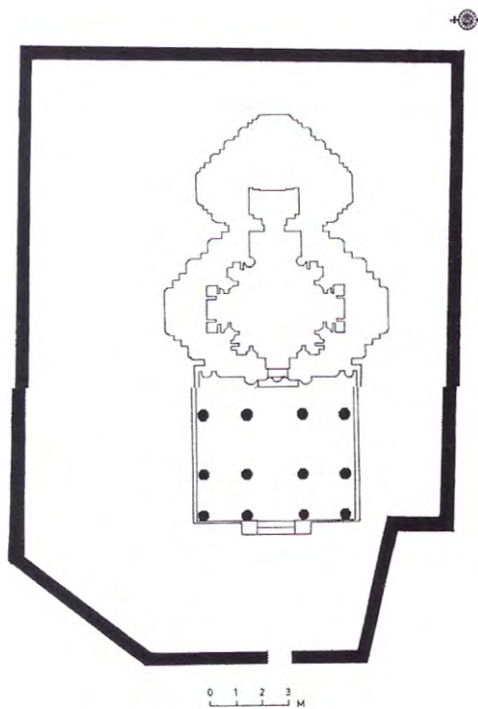
Plan

Source: Dorje and Dimri, 2008



Golera Temple 4

● Temple 5



Plan

Source: Dorje and Dimri, 2008

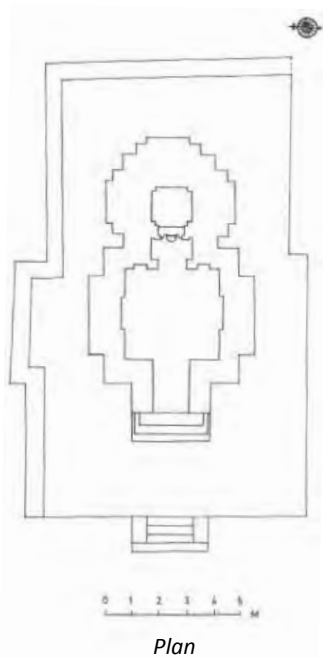


Golera Temple 5

● Spatial Planning & Architectural Details

It is just in front of Temple 4. Facing west, it comprises, on plan an inner sanctum and an antechamber followed by three pillared halls. The plan inner wall has three projected balconies crowned by pediments. The sanctum is crowned by curvilinear *shikhara* of Bhumiya style similar to Adbhutnatha temple at Chittorgarh. The hollow *shikhara* is built of bricks. The traces of painting on the plastered surface with ochre can be seen even today. The square sanctum is entered through a decorated doorway. A seated image of a Jain Tirthankara is seen. Four-armed guards flanked by river goddesses and female figurines on either side are shown at the lower part of the doorjamb. The sanctum is followed by a vestibule, having recessed niches on either side. The cusped ceiling is rested on eight pillars and four pilasters. It is devoid of any interior decoration. The hypostyle pillared hall has sixteen pillars supporting the flat roof. The central roof is cusped and rested on four pillars, octagonal at the base and top while the central circular part with chain and bell decoration. The porch is missing. The curvilinear brick *shikhara* of the sanctum has partially fallen down while the domical roof of the pillared hall is intact. It is assignable to the fifteenth-sixteenth century AD.

### ● Temple 6



Source: Dorje and Dimri, 2008



Golera Temple 6

#### ● Spatial Planning & Architectural Details

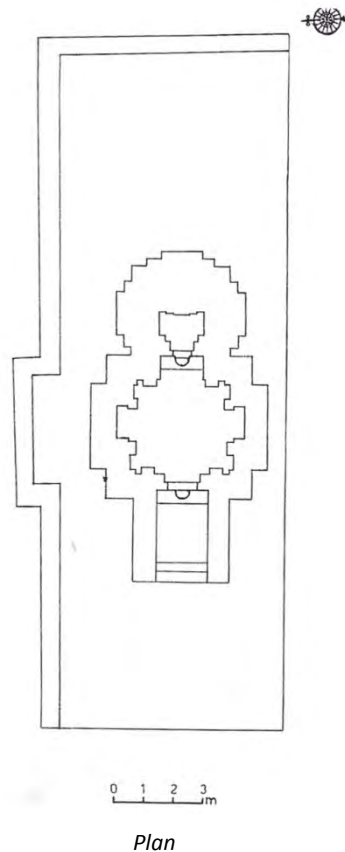
This temple is built just on the back of the temple 2. Facing west, it is raised on a high platform and comprises on plan a sanctum, an antechamber and two pillared halls. The roof is domical. The plain inner wall has projected niches in the cardinal directions. The square sanctum has recessed niche in the rear (eastern) wall for the deity. The doorjamb is plain and a crude image of a seated Ganesha is engraved. The sanctum has cusped ceiling but the *shikhara* is now missing. The antechamber is followed by a pillared hall with projected balconies on the north and south. The cusped ceiling of the pillared hall is supported on sixteen pillars, decorated with bracket figures. The porch is supported on two pillars. The cusped ceiling of the porch has lotus decoration painted with ochre colour. It is assignable to the sixteenth-seventeenth century AD.

### ● Temple 7

#### ● Spatial Planning & Architectural Details

This temple is located on the south of Temple 6 and north of Temple 8. Facing east, this temple stands on a raised rectangular platform. It consists of the sanctum, vestibule, pillared hall and a porch. The wall has three projected niches in the cardinal directions. The square sanctum has a plain doorjamb and a four-armed seated image of Ganesha is seen. The doorjamb has a band of scroll, frieze and female attendants holding pitcher in their hands on either side. The sanctum has cusped ceiling and moulded pedestal is built on the rear wall. The narrow vestibule has a pillared niche on either side crowned by a pediment.





Source: Dorje and Dimri, 2008



Golera Temple 7

The cusped ceiling is plain and devoid of any decoration. The roof of the pillared hall is domical. The entrance is flanked by a female figure holding pitcher in their hands and seated Ganesha on the lintel. A seated image of four-armed Ganesha and a four-armed seated image of goddess are shown on the right and left respectively, over the door sill. It is approached by a flight of steps. The temple is assignable to the sixteenth-seventeenth century.

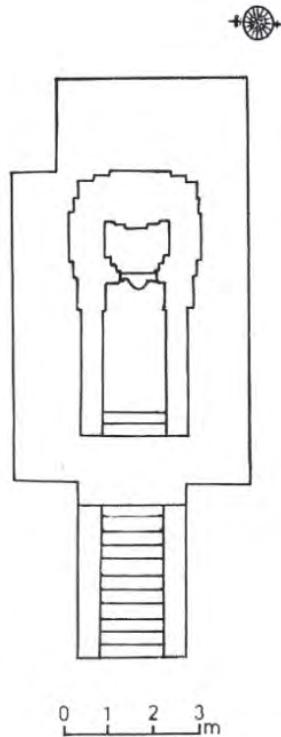
### ● Temple 8

#### ● Spatial Planning & Architectural Details

This shrine is located on the southern end of the group and is raised on a high plinth. Facing west, it consists of a sanctum and open pillared porch. The sanctum has curvilinear brick *shikhara* but the pillared hall has a domical roof. The plain inner wall has three projected niches on three sides. The central spire of the *shikhara* is adorned with miniature *shikharas* and small projected niches are at the base of the *shikharas*. The square sanctum has a plain doorway and elevated plinth in the eastern wall for the deity. The vestibule has two projected niches on either side without an image. The vestibule is followed by a porch and it is resting on two pillars. The roof is crowned by domical structures, which are later additions. It is assignable to the sixteenth-seventeenth century AD.

## 2a. Description of Property

## KUMBHALGARH



Plan

Source: Dorje and Dimri, 2008

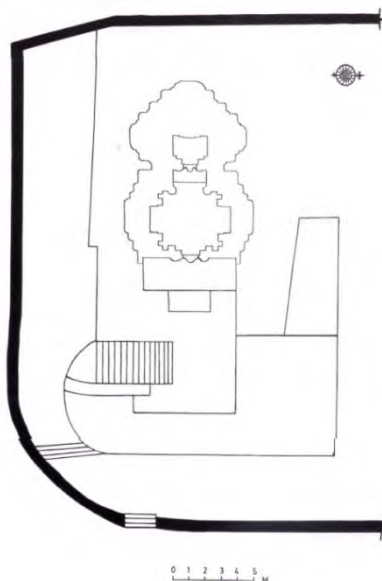


Golera Temple 8

## ● Temple 9

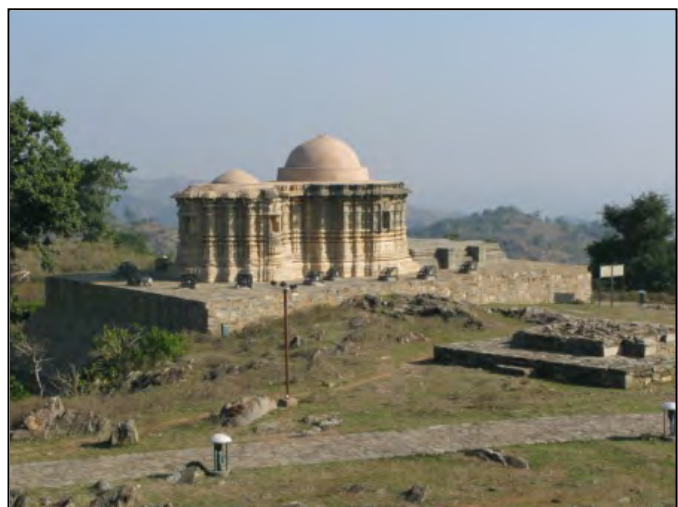
## ● Spatial Planning &amp; Architectural Details

To the north-east of this Golera group of temples, there is another Jain temple designated as temple 9. It is built on an elevated rocky surface. Facing east and raised on a high plinth it consist of an inner sanctum, an antechamber and a pillared hall topped by a domical roof. The plinth is elaborately decorated. The inner wall of the temple is profusely decorated with female figurines.



Plan

Source: Dorje and Dimri, 2008



Golera Temple 9

The antechamber is prominent and the exterior wall is adorned with sculptures. There are elaborate carvings on the door sill, jambs and lintels. The vestibule has recessed niches crowned by pediments. It is followed by a pillared hall, covered from all sides and is entered through a narrow entrance from the east. The exterior of the pillared hall is similar to the sanctum with five offsets. It is square on plan and has a cusped ceiling supported on four pillars and four pilasters. The interior part of the ceiling is painted with ochre colour and their faint traces are still seen. A seated image of a Jain Tirthankara is seen. Four-armed guards flanked by figurines are shown on the lower part of the doorjamb Ganga and Yamuna are shown on either sides. The roof of the pillared hall is domical. The temple is assignable to the fifteenth century AD.



*Golera group of temples*



*Golera group of temples*

● **Construction materials**

All temples are constructed of stone, bricks and lime.



## 2a. Description of Property

### KUMBHALGARH

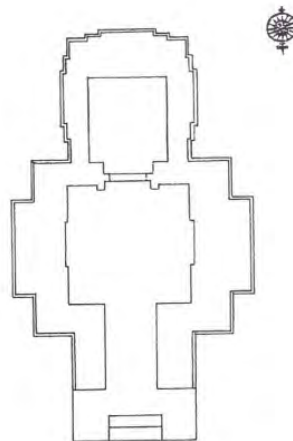
#### Two Miniature Shrines on the east of Badva Talab (R7)

● **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century **Patron** unknown

**Usage** temples

#### ● Spatial Form and Architectural Details

The first shrine is raised on a rectangular plinth and approachable through steps from the east. This temple has a large temple in the centre and four miniature shrines on the four corners. The principal temple is now in ruined condition and has a few courses of sanctum, vestibule and two pillared halls. The sanctum is having only one raised plinth portion. The superstructure is now missing. The vestibule is followed by a pillared hall with two projecting balconies on either side. The cusped ceiling of the pillared hall once decorated with eight bracket figures is now without images. The hall is supported on the pillars and has a cusped ceiling. The miniature shrines on the four corners are identical with their lower plinth mouldings only. The other miniature shrine is located on the east of this temple. It is also raised on a platform approached through a flight of steps. The temple is enclosed by an enclosure wall. The intact plinth moulding suggests that it had a sanctum, vestibule and a pillared hall.



Plan

Source: Dorje and Dimri, 2008

#### ● Construction materials

Stone and lime.

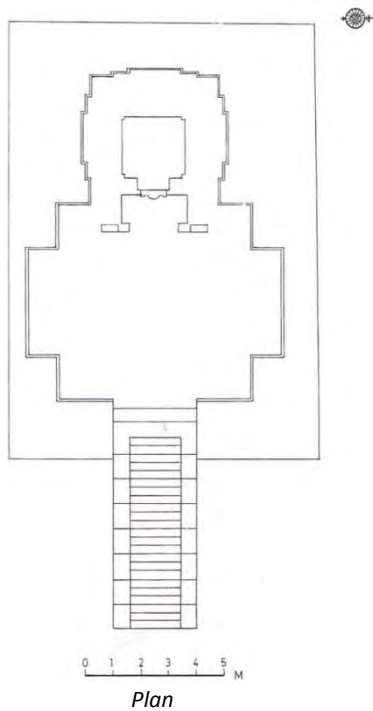
#### Miniature Shrine near Langan Baori (R8)

● **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century **Patron** unknown

**Usage** Hindu temple

● **Architectural Form & Details**

It consists of a sanctum, vestibule and two pillared halls. The sanctum has plinth mouldings followed by an inner wall. The inner wall has three projected niches on the north, south and west. The square sanctum is entered through a plain doorway. A crude seated image of Ganesha is shown in the centre. The images of Ganga and Yamuna are carved on the lower part of the left projection suggests that the pillared hall had two projected balconies on either side which are now missing.



Source: Dorje and Dimri, 2008



Golera group of temples  
Source: Dorje and Dimri, 2008

● **Construction materials**

Stone and lime.

■ **Juna Bhilwara Temple (R9)**

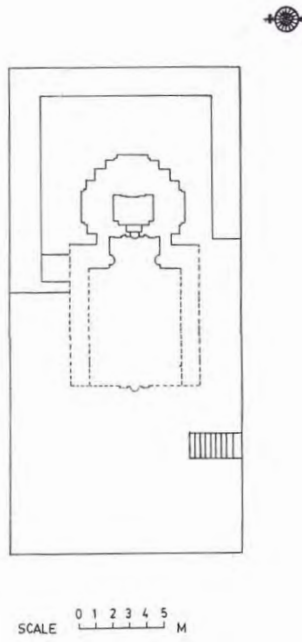
- **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century AD      **Patron** Sisodia Rulers
- Usage** Jain temple

● **Spatial Planning**

A little distance away from Jain Temple 2, on the way to Golera group of temples, is situated near the Juna Bhilwara temple. It is raised on a terraced platform and has a sanctum, an antechamber and a pillared hall. Only the lower inner wall portion of the sanctum is intact, whereas the pillared hall is completely missing except for the flooring. The intact portion of the wall of the sanctum is elaborately carved with sculptures. Among them are four-armed male images on the walls of the vestibule, figure of Tirthankara on the projected balcony and dancing female figure.

## 2a. Description of Property

### KUMBHALGARH



Plan

Source: Dorje and Dimri, 2008



Juna Bhilwara temple

#### ● Construction materials

Stone and lime.

#### ■ Bawan Devris Temple (R10)

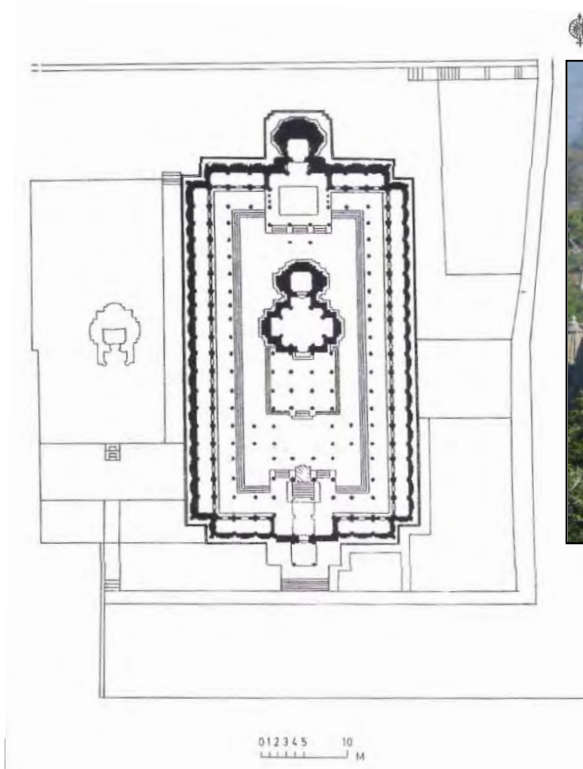
● **Period of construction** 1464 AD

**Patron**

Rana Kumbha

**Usage**

Jain temple



Plan

Source: Dorje and Dimri, 2008



Bawan Devris temple



● **Spatial Planning**

This beautiful temple is half a kilometre away from the VEDI group of temples on the eastern down slope near Jain Temple 3. It has fifty-two deities with an entrance from the north. Out of fifty-two deities, two are larger in size, one located in the centre of the back wall and the other in the middle of the court. The remaining fifty deities are arranged all around the outer walls with the entrance towards the courtyard. The main shrine consists of a sanctum, an antechamber and an open pillared hall.

● **Architectural Details**

The interior of the temple is square with domical ceiling and has no image inside. The façade of the sanctum is profusely carved with floral designs and human figurines. In the centre of the lintel is a seated Jain Tirthankara.

● **Construction materials**

Stone and lime.

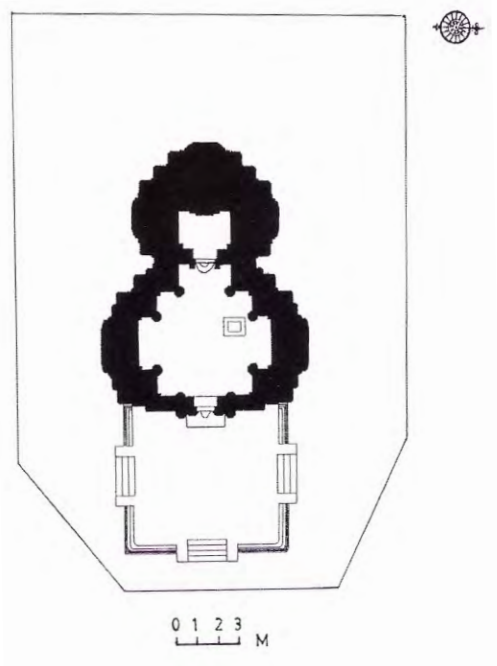
■ **Jain group of Temples (R11)**

● **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century AD

**Patron** Sisodia Rulers

**Usage** Jain Temple

■ **Temple 1**



Source: Dorje and Dimri, 2008



Jain Temple 1

## 2a. Description of Property

### KUMBHALGARH

2.100

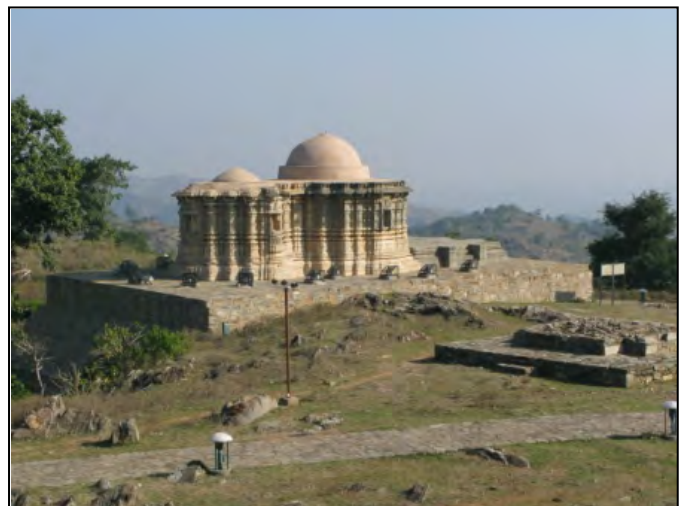
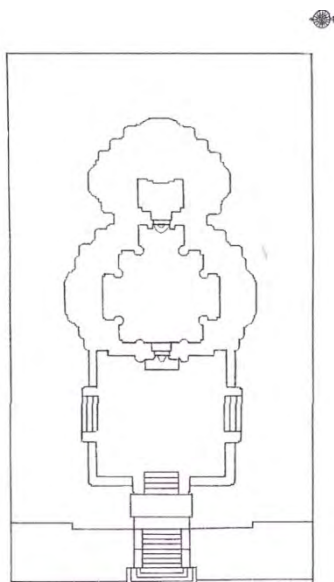
#### ● Spatial Planning and Architectural details

To the east of the Kheda Devi temple on the eastern margin of table land and north of Vijay Pol are located two temples dedicated to Jain pantheon, besides ruined shrines in between. Both the temples are built on a raised platform. The temple 1 is facing west and on plan, consists of an inner sanctum, an antechamber, a pillared hall and a porch. The entrance of the sanctum is plain and a diamond design is shown at the base of the doorjamb. A seated image of Jain Tirthankara is seen. It has a carved plinth, and inner wall.

The plain inner wall has projected pillared niches crown by pediment, in the cardinal directions. The sanctum was crowned by *shikhara*, which is missing now. The temple has a developed vestibule.

The exterior wall of the vestibule is plain but the interior has a recessed niche on either side, now lying vacant. It is followed by a pillared hall. The adjoining pillared hall is square on plan and has two offsets on the north and south from inside. The cusped ceiling is rested on pillars. The wall is devoid of any decoration. The entrance of the pillared hall is plain and a seated image of a Jain Tirthankara is shown as tutelary deity. The entrance of this hall is flanked by pilasters crowned by brackets supporting the lintel of the door. The pillar has an octagonal base decorated with bands of diamond design. The pillared hall at the entrance is now missing; only the plinth portion is intact. It is square on plan and has three entrances, being principal on the west and subsidiary on the north and south.

#### ■ Temple 2



Jain Temple 2

0 1 2 3 4 5  
M

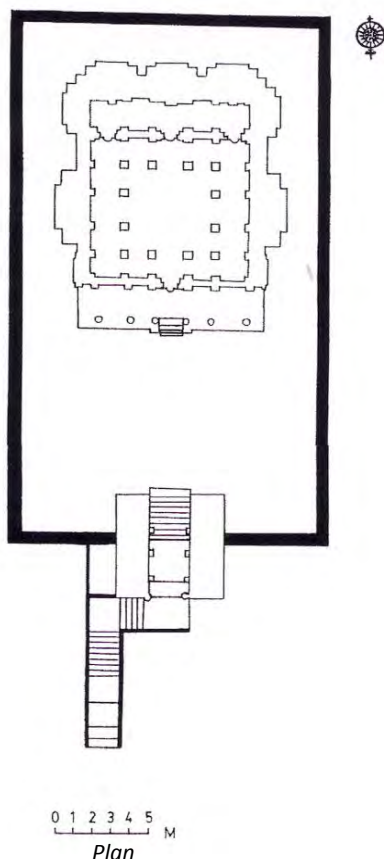
Plan

Source: Dorje and Dimri, 2008

● **Spatial Planning and Architectural details**

The temple stands on the north of Temple 1. Facing east and raised on a high plinth, it consists on plan of a sanctum, an antechamber, two pillared halls and a porch. The entry is from the east through a flight of steps. The plinth of the temple is profusely decorated with bands of half lotus, diamond, triangles etc in the ascending order. The inner wall of the temple has three projected pillared niches in the cardinal directions and crowned by a pediment. It enshrines an image of a four armed seated deity. The exterior wall is adorned with a figure arranged in a band form and in the upper part is shown petals of flower. The doorsill and doorjamb are profusely decorated. The vestibule has pillared niche and its horizontal roof has a lotus medallion in the centre. The pillared hall is larger than the sanctum and is also profusely decorated. The interior part of this hall is square on plan with two offsets on the north and south. *Chhajja* slabs are provided all around the interior of the pillared hall. The roof of the hall is domical. A seated image of a Jain Tirthankara is seen. It is followed by an open-pillared hall and porch, the upper portions of which are now missing. The pillared hall has three entrances from the north, south and east. In between there is another ruined shrine of which only the plinth portions are partly intact.

■ **Temple 3**



Jain Temple 3



## 2a. Description of Property

### KUMBHALGARH

2.102

#### ● Spatial Planning and Architectural details

It is located on a down slope on the way to Bawan Devris and east of Vijay Pol. It is built on a raised platform over an elevated rocky surface. Facing east, the temple is built on the southern part of a raised platform. The temple is square on plan and consists of a three-door sanctum, a pillared hall and a porch. The sanctum has three cells with plain exterior. A seated image of Tirthankara is shown in centre. Female goddesses holding pitchers in their hands are shown on the either side of the doorway. The doorsill is also decorated. The hall is adorned with foliage, flanked by four armed deities on either side. The roof of the sanctum is segmented in five parts crowned by a domical roof. There are three recessed niches on the front wall of the sanctum. The hall has *jalis* and two more *jalis* on the east for light and air. The cusped ceiling rests on twelve pillars and twenty pilasters. The exterior and interior of the temple is plain. A seated image of a Jain Tirthankara is shown on the lintel. A recessed niche, now lying vacant, flanks the doorway. It is followed by a porch which has a cusped roof supported on six pillars. In front, there is an open courtyard and an entrance is provided on the north and the only the doorsill is intact. The roof of the entrance resting on four pilasters is plain.

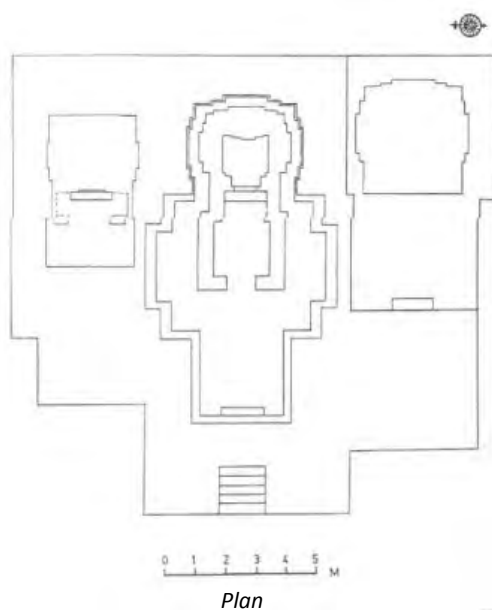
#### ● Construction materials

Stone and lime.

#### ■ Mataji Temple (R12)

● **Period of construction** 13<sup>th</sup>-14<sup>th</sup> century AD **Patron** Rana Jaitra Singh or Rana Hammir Singh

**Usage** Hindu temple



Plan  
Source: Dorje and Dimri, 2008



Mataji/Kheda Devi temple

● **Spatial Planning**

Just on the back of the Neelkantha Mahadeva temple on the way to Jain temples and Bawan Devris, there are two temples – one is locally known as Mataji temple or Kheda Devi temple flanked on either side with two ruined smaller shrines. It stands on a raised platform and faces west. The temple has a sanctum with curvilinear brick *shikhara*, an antechamber followed by hall and porch. The hall and the porch are now missing. Only base portions are still intact. The image of a goddess is enshrined in the sanctum. On either side of the temple, two other shrines are present. The plinth portion can also be seen. This temple appears to be one of the oldest temples in the fort complex. On the opposite side, there is another temple. It faces east and has a sanctum and an antechamber built on a raised platform. The pillared hall portion is found missing. The *shikhara* of the temple is also found damaged.

● **Construction materials**

Stone, bricks and lime

■ **Neelkanth Mahdeva Temple (R13)**

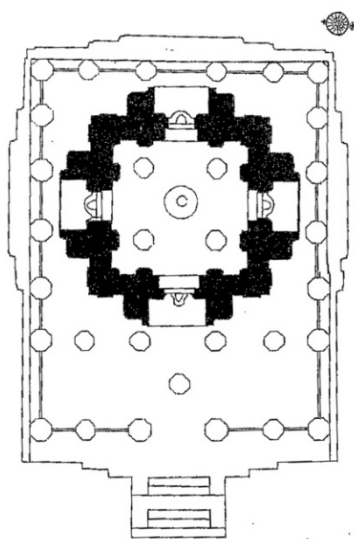
● **Period of construction** 1458 AD

**Patron** Rana Kumbha

**Usage** performance of *Yajnas*

● **Spatial Planning**

It is on the back of the Vedi temples and on the north of Parsvanatha temple. Approached through a flight of steps from west, the temple is rectangular on plan and the roof is supported by 26 gigantic stone pillars. The roof of the temple is capped by seven domes. The central one is larger in size with lotus finials at the top. Sanctum in the centre is Sarvatobhadra on plan enshrining the huge Shivalinga of black stone.



SCALE 0 5 METRES

Plan

Source: Dorje and Dimri, 2008



Neelkanth Mahadev temple

## 2a. Description of Property

### KUMBHALGARH

2.104

#### ● Architectural Details

On the left of the eastern door of the sanctum, there is a standing image of Parvati, while an inscription in *Nagari* characters on stone slab fixed on the left wall of the entrance reveals the renovation of the temple by Rana Sanga. It bears the date VS 1521 in the first line and is dedicated to Parvati. Another two-lined inscription engraved on the right side of the eastern entrance bears the name of Neelkantha. The other sculptures in the temple are a seated Nandi on a high pedestal and a four-armed female deity on the left side of the entrance standing. The face is slightly defaced. Recently steps for sound and light show have been constructed here.

#### ● Construction materials

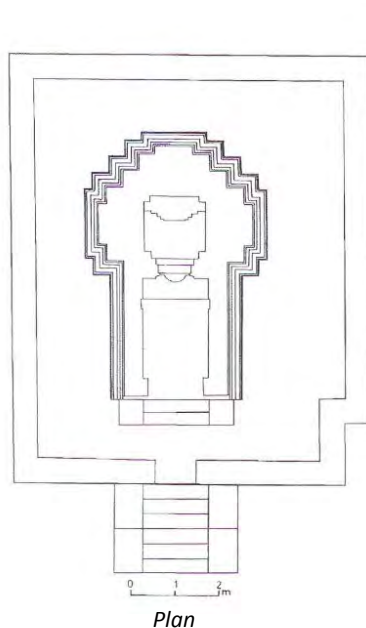
Stone and lime.

#### ■ Parshvanatha Temple (R14)

● **Period of construction** 1451 AD

**Patron** Nar Singh Pokhad

**Usage** Hindu temple



Parshvanatha temple

#### ● Spatial Planning

This temple is located very near to the Neelkantha temple. It is built on an elevated solid rock. Facing north and approached through a flight of steps, it comprises of an inner sanctum, an antechamber and a pillared hall. The inner sanctum is crowned by stone *shikhara* whereas the pillared hall has a domical roof. An image of Ganesha is engraved in the centre of the lintel of the sanctum. The temple is enclosed by high enclosure wall with entrance from the north. It appears that the present inscribed seated image of Parsvanatha dated VS 1508 (AD 1451) was installed in the sanctum at a later date.

#### ● Construction materials

Stone and lime.





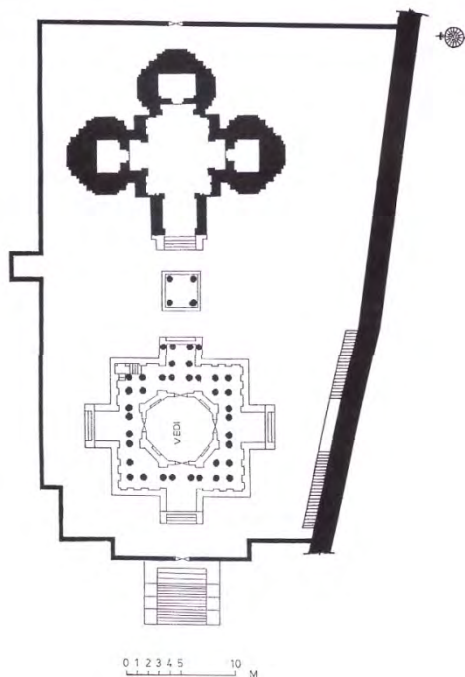
NeelKantha Mahadeva and Parshvanatha Temples

■ Vedi Temple Complex (R15)

● **Period of construction** 1457 AD

**Patron** Rana Kumbha

**Usage** performance of *Yajnas*



Plan

Source: Dorje and Dimri, 2008



Vedi temple complex

● **Spatial Planning and Architectural Details**

On the right side of the Ram Pol is a group of imposing monuments also known as Yajna Vedi. Facing west and standing on a raised platform enclosed on three sides by high enclosure walls, the complex comprises of a three-storied pillared Yajna Vedi, the triple shrines on the back and a small square pillared *chhatri* in-between.

## 2a. Description of Property

### KUMBHALGARH

2.106



Three storeyed Yajna Vedi



Chhatri

The pillars are placed in such a way that the central hollow portion becomes octagonal and are topped by a domical roof. The open octagonal portion of the ground floor has now been blocked by constructing wall and wooden gates. The triple shrines are unique in plan. This triple shrine at Kumbhalgarh appeared to be based on Mandana's concept which has separate inner sanctum with a common hall followed by a west-facing pillared hall. The triple temples have curvilinear *shikharas* while the pillared halls have domical roof. The sanctums of the two shrines are empty. While the western one has an image of six-armed Vishnu holding dagger like object in his right upper hand, the other attributes are not clear. Garuda in human form flanked by dwarf male figures is shown on either side. The pillared *chhatri* in the centre is meant for offering sacrifice during the time of *yajna* (special rituals).

- **Construction materials**

Stone and lime.

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- **Ganesha Temple (R16)**

- **Period of construction** 1443-1468 AD **Patron** Rana Kumbha

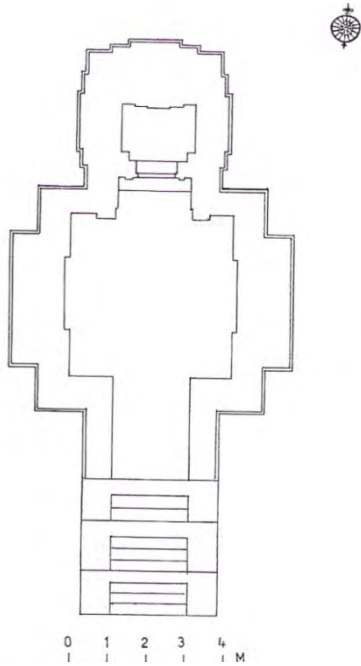
- Usage** Hindu Temple

- **Spatial Planning**

Just on the left side of the Ram Pol is the Ganesha temple. The temple stands on a high platform and is entered through a flight of steps from the south. It consists of an inner sanctum, an *antechamber*, a two pillared halls. The sanctum has decorated curvilinear brick *shikhara* while the pillared halls have domical ceilings. The image of Ganesha is enshrined in the sanctum.

- **Construction materials**

Dressed stone with *shikhara* in brick.



Plan

Source: Dorje and Dimri, 2008



Ganesh temple

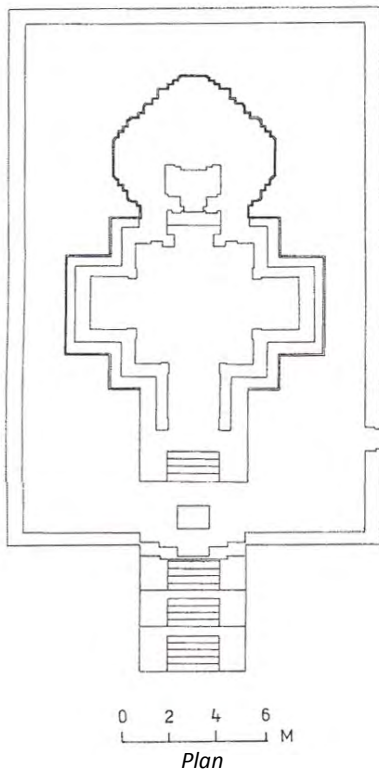
Source: Dorje and Dimri, 2008

■ **Charbhuja Temple (R17)**

● **Period of construction** 1443-1468 AD

**Patron** Rana Kumbha

**Usage** Hindu temple



Plan

Source: Dorje and Dimri, 2008



Charbhuja temple



## 2a. Description of Property

### KUMBHALGARH

2.108

#### ● Spatial Planning

This temple is located on a hill slope on the right side of Ganesha temple. It has been raised over a high platform enclosed by an enclosure wall with entrance gate on the east through steep flight of steps. The temple, on plan, consists of an inner sanctum, an antechamber, and two pillared halls. The openings of the pillared hall of the temple were closed at a later stage. The curvilinear stone *shikhara* of sanctum has miniature shrines all around but the pillared halls have a domical roof. The sanctum of the temple enshrines the four-armed goddess.

#### ● Construction materials

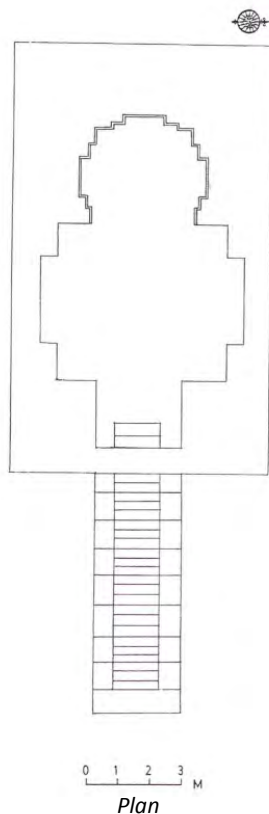
Dressed stone, stone *jalis* and carvings.

#### ■ Shiv Temple (R18)

● **Period of construction** 16<sup>th</sup>-17<sup>th</sup> century

**Patron** unknown

**Usage** Hindu temple



Source: Dorje and Dimri, 2008



Shiv temple  
Source: Dorje and Dimri, 2008

#### ● Spatial Planning

About 150 m east of Golera group of temples, there is another temple dedicated to Lord Siva. It stands on a raised platform and faces east. It consists of an inner sanctum, an antechamber, and two pillared halls in original plan. The square sanctum consists of plinth mouldings. The plain inner wall has three projected balconies in the cardinal directions, now empty.

- **Architectural Details**

The sanctum is crowned by a brick *shikhara* and is partly collapsed. The sanctum is entered through a plain doorway. The tutelary deity is absent on the door lintel. A plinth is built adjoining the western wall of the sanctum, now lying vacant. The vestibule has niches on either side of the entrance. The original pillared halls are now missing. However, one of the present pillared halls resting on two pillars is a later addition. Available evidences suggest that the original temple was damaged. The antechamber and the porch were added.

- **Construction materials**

Stone and lime.

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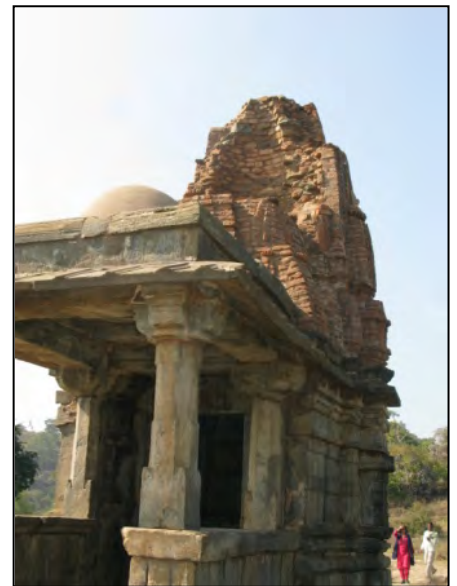
- **Ooladhar Ki devri (R19)**

- **Period of construction** unknown **Patron** unknown

- Usage** Hindu temple



*The temple raised on a high plinth*



*Ooladhar ki Devri*

- **Architectural Details**

Brick *shikhara* and carved stone pillar with an inner sanctum. The extensively carved stone wall structure is raised on a high plinth.

- **Construction materials**

Stone, bricks and lime.

## 2a. Description of Property

KUMBHALGARH

### CHHATRIS/CENOTAPHS/MEMORIALS

#### ■ Prithviraj Ki Chhatri (C1)

● **Period of construction** 1468-1508 AD **Patron** Rana Rai Mal

**Usage** memorial



*Prithviraj ki Chhatri*

#### ● Architectural Details

This *chhatri* stands on the north of Mamadeo temple at a distance of 50m. Accessed by a flight of steps from the east, it is built on a raised square platform having octagonal pillared chamber. It is topped with a domical roof. The inscribed memorial pillar is in the centre; the lower half of which is plain while the upper half is engraved with the scenes depicting the life of Prithviraj. It also bears the names of the queens who performed *sati* with Prithviraj.

#### ● Construction Materials

Random rubble masonry with the roof plastered and finished with lime

#### ■ Birth Place of Maharana Pratap (C2)

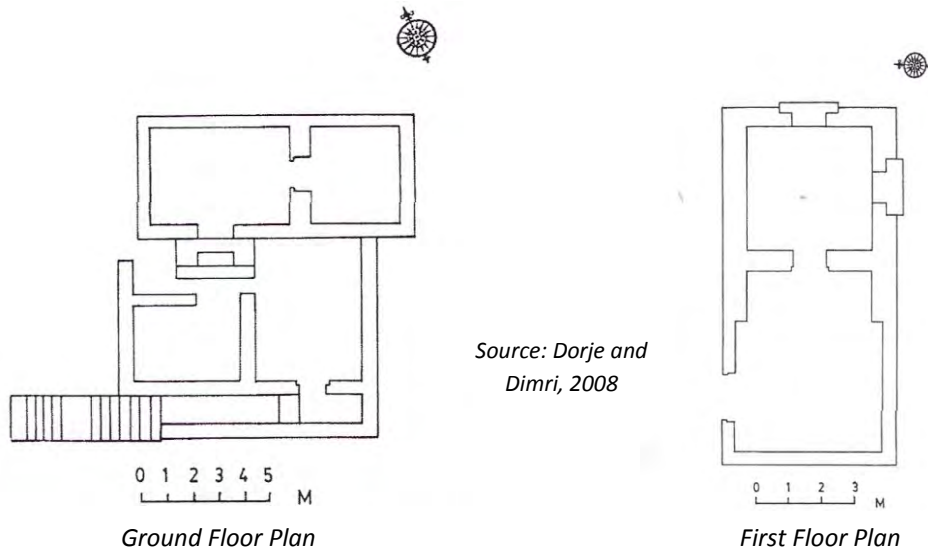
● **Period of construction** rebuilt over in 20<sup>th</sup> century AD **Patron** Maharana Fateh Singh

**Usage** memorial

#### ● Spatial Planning

Just on the lower terrace of the Badal Mahal and very near to Pagda Pol is the double-storeyed structure locally known as the birth-place of the Rana Pratap. It is said that Rana Pratap was born here in one of the rooms on the ground floor on May 9, 1540, though the structure was built much later in 20<sup>th</sup> century in commemoration.





*Birth place of Rana Pratap*

The double-storied edifice has a smaller chamber (birth-place of Pratap), veranda and open courtyard on the lower floor, while the upper floor consists of only square-domed roof chamber with an enclosed open courtyard in the front.

● **Construction Materials**

Random rubble masonry plastered and finished with lime

## 2a. Description of Property

### KUMBHALGARH

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#### STORES

##### ■ Topkhana (S1)

- **Period of construction** 15<sup>th</sup> Century **Patron** Rana Kumbha
- **Usage** store for artillery



*Top Khana*

##### ● Architectural Details

Planned structure with crenellated parapet walls.

##### ● Construction materials

Stone and lime plaster

---

#### GARDENS

##### ■ Orchards of custard apples spread across different areas of the fort (B1)

Several custard apple orchards and agricultural fields are spread across the fort area.



*Custard apple orchards*

## WATER STRUCTURES

Being situated on the hillock, Kumbhalgarh is devoid of any natural source of water. It appears that the inhabitants of the fort were totally dependent on rain water. In order to cope up with these problems, all possible efforts were made to collect rain water by constructing dams, step wells and wells at different locations as per their requirements. The water harvesting system was planned before starting construction works at the site.

There are about ten dams and more than twenty *baoris* (step-wells) at different locations. The dams are built of massive stone masonry walls between narrow passages of two hills. There are four dams on south-north direction, two on east-west direction below the Juna Bhilwara village and two on the east of the Golera group of temples. The biggest and highest dam is known as Badva Bund.



*Talabs and dams near Juna Bhilwara village*  
*Source: Dorje and Dimri, 2008*

After a distance of about 230 m north of Badva Bund or Talab, another dam is built just after the meandering of the gorge named Chipola Bund. Another dam locally known as Phootiya Bund is built about 395 m north of Chipola Bund. Further north on the northern margin of the fortification is Sandh Kotdi Dam. Both are constructed just after the meandering the narrow hills probably to control the pressure of water. The construction techniques in both the dams are same as discussed earlier and both are provided with outlet drain to flow the excess water.

Besides the *bunds/dams*, there are a number of step wells or *baoris* constructed at different catchment areas of the fort. Generally, these step-wells were being built by cutting deep rock with landing from the sides. Water is lifted through Persian wheel system. These step-wells are rectangular on plan with landing from two to three sides. The majestic and most important is Langan baori.



## 2a. Description of Property

### KUMBHALGARH

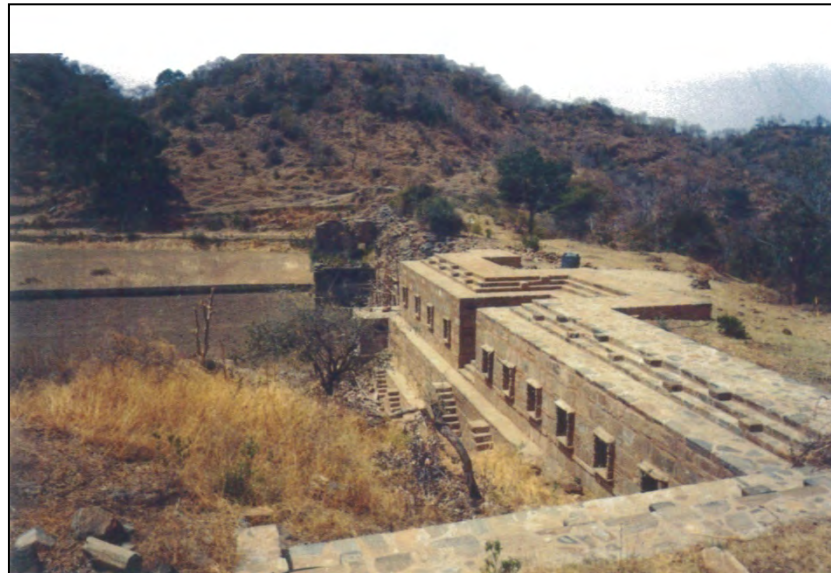
2.114

#### ■ Badva Bund (W1)

- **Period of construction** 15<sup>th</sup> Century **Patron** Rana Kumbha
- **Usage** water storage

#### ● **Architectural form and details**

The biggest and highest dam is known as Badva bund. It is built on the down slope of Ram Pol covering the maximum catchment area of the fort. The maximum length of the wall on the top is about 128 m while at the bottom on the downward slope of the hills, it is about 103 m. The width at the base is about 68 m but at the top, it is about 15 m by providing gentle slope from the outer face. Altogether there are three massive walls running in the east-west direction at the base in order to provide more strength to the structure. The present height of the dam is about 10 m but available evidence suggests that the actual height of the dam is more than 15 m.



*Badva Bund*

*Source: Dorje and Dimri, 2008*

There are a series of niches made on the upper portion probably for fixing sculptures, now missing. The stepped landings have been provided up to the bottom of the dam with arch-shaped structure in the centre for lifting water through Persian wheel system. There is also a provision for flow of excess water on the western margin of the dam where top two outlet drains, one above the other with socket measuring about 1 x 1.5 m, been provided.

#### ● **Construction materials**

Stone and lime.

## ■ Chipola Bund (W2)

- **Period of construction** 15<sup>th</sup> Century **Patron** Rana Kumbha  
**Usage** water storage

### ● Architectural form and details

The nature of the construction of this dam is also same as in the case of Badva Bund but comparatively smaller in size probably due to lesser catchment areas. It is 118 m long on the top while 8.5 m at the base. The width of the base is 52 m and top is 5 m and the available height is about 13 m. Two outlets were also provided on the western margin to overflow the excess water.

### ● Construction materials

Stone and lime

---

## ■ Vamanik Ka Bund & Dudhla Talab (W4 &W5)

- **Period of construction** mid 15<sup>th</sup> century AD **Patron** Rana Kumbha  
**Usage** water storage



*Dudhla Talab*

*Source: Dorje and Dimri, 2008*

### ● Architectural form and details

Two dams, locally known as Vamanik-ka-Bund and Dudhla Talab, are built on the eastern side of the Golera group of temples. Vamanik-ka Bund located near the *baori* known with the same name is smaller in size in comparison with Dudhla Talab. The length of the wall on the top is 45 m whereas its base is 30 m. the width at the base is 16m while at the top it is 6 m. The Dudhla Talab is built further south of the Vamanik-ka Bund. The length at the top is 50 m while its width is about 7 m.

## 2a. Description of Property

### KUMBHALGARH

there are two other dams located on the down slope of the Juna Bhilwara village but they are small in size

- **Construction materials**

Stone and lime.

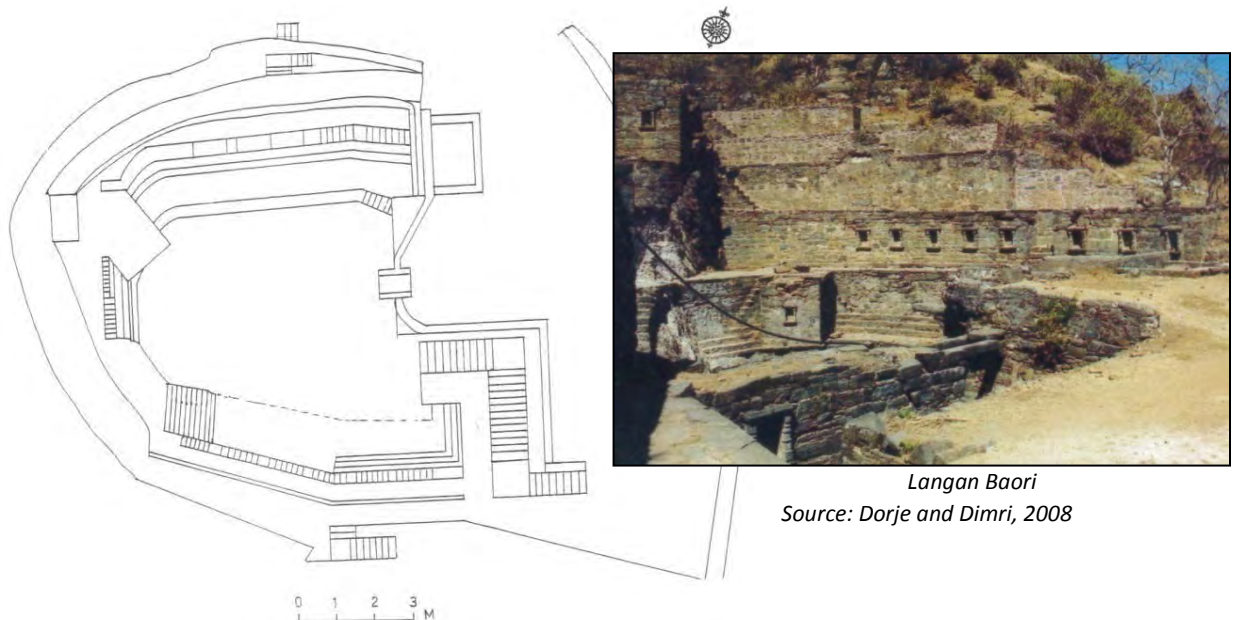
- **Langan Baori (W6)**

- **Period of construction** mid 15<sup>th</sup> century AD **Patron** Rana Kumbha

- **Usage** well

- **Architectural form and details**

This step-well is also known as Kali baori. This step-well appears to be exclusively meant to feed the royal family in the palace complex on the top of the hill. It is not visible from any part of the fort except Kumbha Mahal. Built on a steep slope to the east of Kumbha Mahal, it is enclosed by fortification wall. This heart shaped step-well is cut into such a deep rock that it has not dried up even during continuous droughts in the recent past. The step-well is in three successive terraces with its conical end on the west and stepped landing on the east. Water is carried out to the palatial complex from this step-well by Persian wheel system at different stages. A small entrance has been provided from the south probably for proper maintenance of the step-well.



*Langan Baori*

*Source: Dorje and Dimri, 2008*

*Plan*

*Source: Dorje and Dimri, 2008*

- **Construction materials**

Stone and lime.

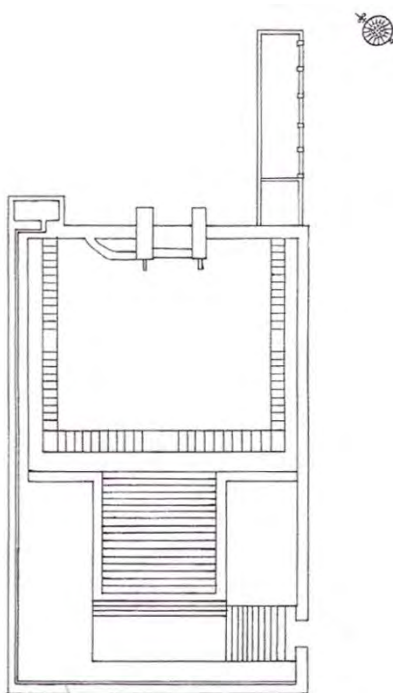


■ **Rana Baori (W8)**

● **Period of construction** mid 15<sup>th</sup> century AD

**Patron** Rana Kumbha

**Usage** well



0 1 2 3 4 5 M

Plan

Source: Dorje and Dimri, 2008



Rana Baori

Source: Dorje and Dimri, 2008

● **Architectural form and details**

Rana baori is built just below Langan baori on the table land on the right bank of the Badva bund. It is rectangular in plan with landing steps from south and north.

● **Construction materials**

Stone and lime.

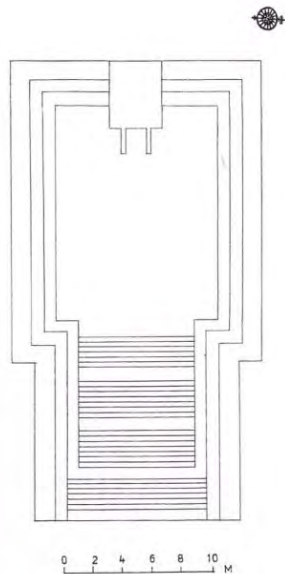
■ **Other Water Structures**

Just on the left bank of Badva bund, there is another step-well rectangular in shape and having steps in the south-west. On the back of Badva bund and near Mamadeo temple, there is another step-well partly buried under debris as such detailed plan could not be located. There is another step-well for the common residents just beside the Golera temple no. 9 and near the Brahmanical temple.

## 2a. Description of Property

### KUMBHALGARH

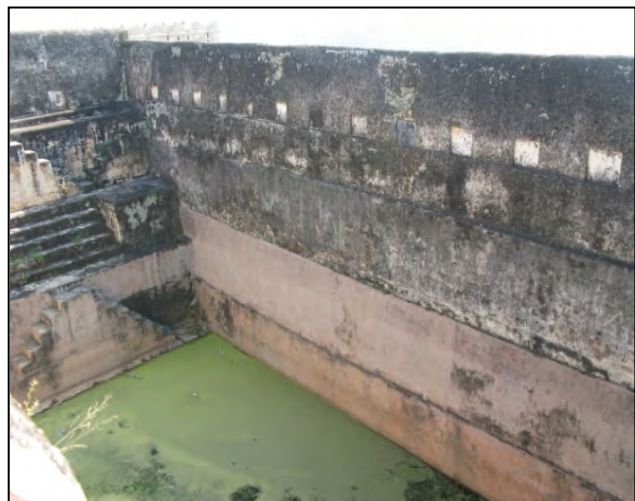
2.118



*Plan of a step-well near  
Golera temple (W7)*  
Source: Dorje and Dimri, 2008



*Step well near Golera temple (W7)*



*Tank near the birth place of Rana Pratap(W14)*



*Stepwells near Ooladhar Devri temple  
(W12)*

■ **Badshahi Baori (W11)**

● **Period of construction** 1578 AD

**Patron** Shahbaz Khan under Akbar

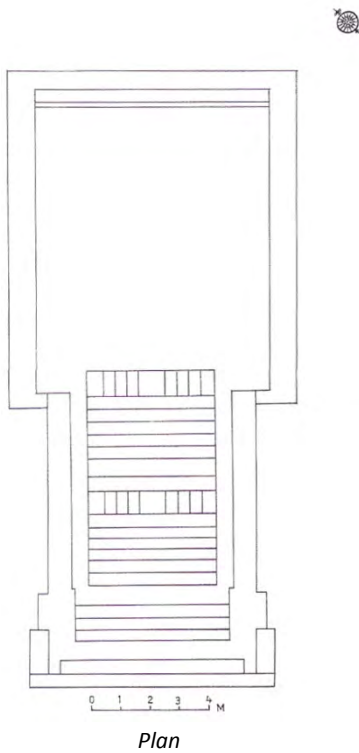
**Usage** well

● **Architectural form and details**

It is an important step-well, situated a little ahead of Halla Pol and built for the troop of Shahbaz Khan when Akbar set him to Kumbhalgarh to defeat and arrest Rana Pratap. It is rectangular in plan with landing from the east.

● **Construction materials**

Stone, bricks and lime.



Source: Dorje and Dimri, 2008





## 2a. Description of Property

### KUMBHALGARH

2.120

#### HABITATION

The habitation in Kumbhalgarh area is rural in nature and present in 3 specific locations.



*Bhil village down in the valley seems to be a historic settlement as Sisodia rulers were well known to patronise Bhils as a community.  
Bhilwara Village (D1)*



*The Muslim community at entrance of the fort is a more recent development but has existed for more than fifty years now.  
Muslim Community at entrance of the fort (D2)*



*There are 5 rural houses near Golera temples that depend on the nearby fields for their livelihood and existed since a long time.  
5 Houses near Golera temples (D3)*

**RUINS**



*A ruined temple near the Neelkantha Mahadev temple consolidated by the Archaeological Survey of India*



*Remains of a traditional lime mortar grinding set-up: structures like these lie scattered amidst the wild vegetation of the fort and require detailed mapping*



*A fortification battlement in a ruinous condition- a common feature among the fort walls extending into the forests*



## 2a. Description of Property

### KUMBHALGARH

2.122

#### OTHERS

##### Stables (M1)

- **Period of construction** 15<sup>th</sup> Century **Patron** Rana Kumbha
- Usage** horse stables



*Simple arcaded structure built in Kumbha's time seems to have been renovated in 20<sup>th</sup> century as lime stucco remains show-built in rubble stone laid in lime mortar*

##### Barracks (M2)

- **Period of construction** 20<sup>th</sup> Century **Patron** Maharana Fateh Singh
- Usage** Rooms for servants/jail



*Barracks in plain stone masonry structure laid in lime mortar with no ornamentation*



## 2a. Description of Property

### Ranthambore



## RANTHAMBORE

### SUMMARY

Located on the top of the Thambhor hill, the Ranthambore fort is one of the strongest forts of Rajasthan. It is surrounded by the Ranthambore National Park, formerly the hunting grounds for the Rajput Maharajas of Jaipur. The scenery changes dramatically from gentle and steep slopes of the Vindhya to sharp and conical hills of the Aravalis. Three big lakes – Padam Talab, Malik Talab and Raj Bagh – are visible from the fort, located in the vast forest that abounds with aquatic vegetation including duckweeds, lilies and lotus. A significant geological feature within the park is the 'Great Boundary Fault' where the Vindhya plateau meets the Aravali range

The fort is Strengthened by massive fortification. It covers an area of about 4.5 sq kms, with a circumference of 5.4 km. Overhanging cliffs, jagged rocks and dense forest form natural obstacles to an invading army, to which the Ranthambore rulers added a route of steep paved ramps, a narrow and sinuous path and a long flight of steps barred at points by four powerful gateways.

The fort is not visible until the valley is reached through these series of gateways. Each of these is placed at a sharp angle to the path in a system that ensured that no advancing army could proceed unimpeded. The grim fortifications, its gateways and the position of the fort are interesting examples of Rajput defense art.



*Aerial views of steps and gateways leading to the fort with the Ranthambore National Park sanctuary sprawling below*

## 2a. Description of Property

RANTHAMBORE

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● **Site context**

Located on the top of the Thambhor hill, the Ranthambore fort is one of the strongest forts of Rajasthan. It is surrounded by the Ranthambore National Park, formerly the hunting grounds for the Rajput Maharajas of Jaipur. The reserved forest lies on the junction of Aravali and Vindhya range of mountains just 14 Kms from Sawai Madhopur in Eastern Rajasthan and sprawls over a varying and undulating landscape. The scenery changes dramatically from gentle and steep slopes of the Vindhyas to sharp and conical hills of the Aravalis. Three big lakes – Padam Talab, Malik Talab and Raj Bagh – are visible from the fort, located in the vast forest that abounds with aquatic vegetation including duckweeds, lilies and lotus. A significant geological feature within the park is the 'Great Boundary Fault' where the Vindhya plateau meets the Aravali range. The Ranthambore fort spans one of the highest hills at the meeting point.



*View from the fort of the Jogi Mahal currently under the Forest Department and in the buffer zone (earlier under the jurisdiction of ASI), the Ranthambore sanctuary, and the Padam Talab*

The fort itself is said to have derived its name from the two hills Ran and Thambor. It commands a strategic location, on the hills and is a classic example of a forest fort. The sanctuary, most well known for the celebrated Indian tiger, is a perfect backdrop for the dominating skyline of this historic fort that was the focal point of several historic developments of Rajasthan. With its thick and dense jungle it was provided a strong buffer of impenetrable security. While many of the hill fortresses are visible from a long distance, the Fort of Ranthambore conceals itself amidst the hill ranges and the dense forests, rendering itself hardly visible from a distance.

## 2a. Description of Property

### RANTHAMBORE

This National Park is bound by the rivers Chambal in the south and the Banas in the north. The rugged park terrain alternates between dry deciduous forest, open grassy meadow, dotted by several lakes and rivers that are only made passable by rough roads built and maintained by the Forest Service. A variety of birds including Owlets, the ubiquitous Langur (monkey), Leopard, Caracal, Hyena, Jackal, Jungle Cat, marsh Crocodiles, Wild Boar, Bears and various species of Deer are the other wildlife attractions

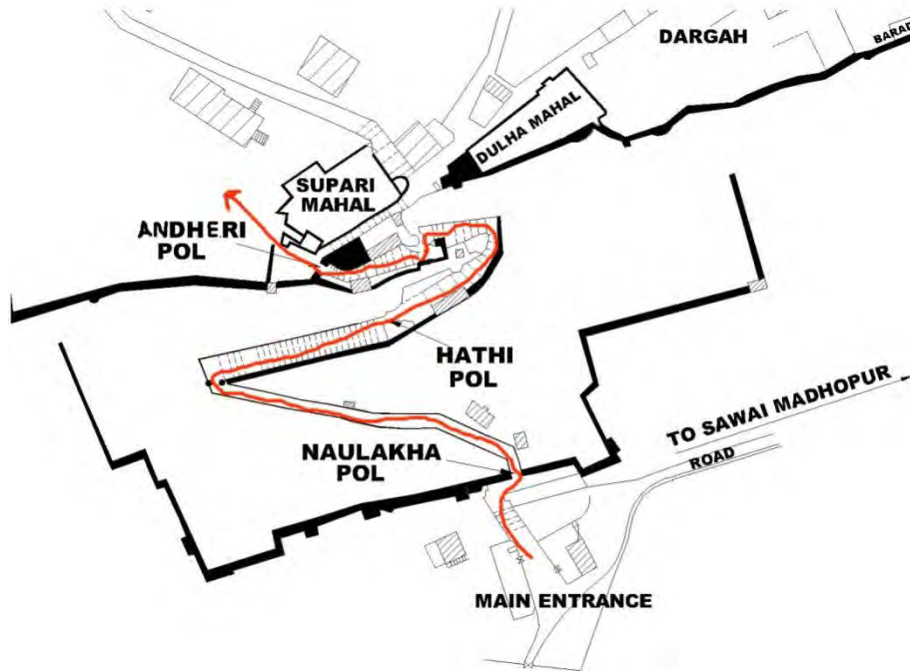


*Aerial views of steps and gateways leading to the fort with the sanctuary sprawling below*

#### ● Site Planning

Strengthened by massive fortification, the main approach to the fort is from the north at the east end of the new road constructed in 1959. It covers an area of about 4.5 sq kms, with a circumference of 5.4 kms. The ascent after crossing the low lying area was so precipitous that steps had to be cut out to lead from one gate to another. Overhanging cliffs, jagged rocks and dense forest form natural obstacles to an invading army, to which the Ranthambore rulers added a route of steep paved ramps, a narrow and sinuous path and a long flight of steps barred at points by four powerful gateways the Naulakha Pol, Hathi Pol, Ganesh Pol and Andheri Pol. The fort is not visible until the valley is reached through these series of gateways. Each of these is placed at a sharp angle to the path in a system that ensured that no advancing army could proceed unimpeded. The other three *pol*s that puncture the massive fortifications are the Sat Pol, Suraj Pol and Delhi Pol. The grim fortifications, its gateways and the position of the fort are interesting examples of Indian military art.





*A sketch plan showing the arrangement of gateways along slope of the hill inter connected by ramps and steps*



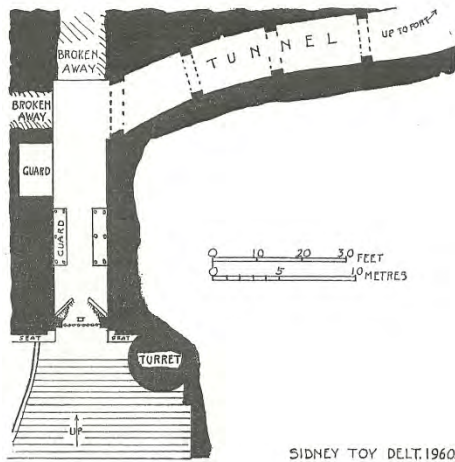
*The steep climb from Naulakha to Hathi pol by stairs and ramps*

Once past the gateways, heavily spiked and placed at sharp angles lie many palaces, temples, shrines, *chattris*, walled enclosures, stores etc the important of which are Hammir Palace, Rani Palace, Hammir Badi Kacchehri, Chhoti Kacchehri, Badal Mahal, Battis Khamba Chhatri, Janwara-Bhanwra (Granaries), Dargah, Hindu and Jain temples. Of these, notable are the Lakshmi Narayan temple, Raghunathji temple, Banke Bihari Temple, Digambar Jain temple and Ganesh temple. There are five tanks in the fort which were kept full of water and even today some water is to be found in all of them.



## 2a. Description of Property

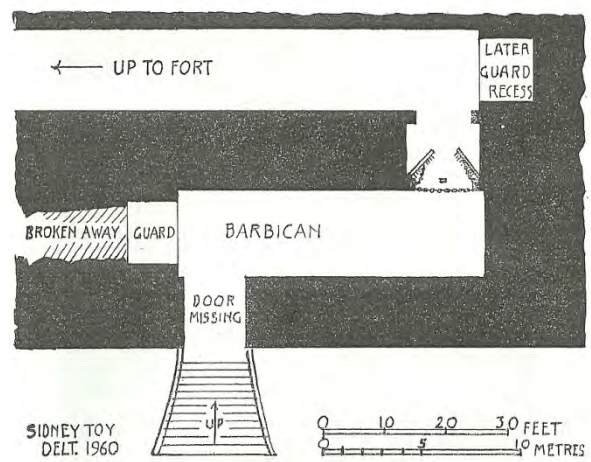
### RANTHAMBORE



SIDNEY TOY DELT. 1960.

*Andheri Pol with long flight of steps set in a sharp loop of the pathway*

*Source: (Toy, 1965)*



SIDNEY TOY DELT. 1960

*Naulakha Pol with strategically located guard rooms and zig zag turns*

*Source: (Toy, 1965)*

The planning of the inner structures show that the main palace components of Hammir Palace, Rani Mahal and few other structures area were placed centrally on the hill top, accessed by a series of 4 gates which defined the royal access. Either the Suraj Pol or Delhi Pol (with public buildings close to it) was possibly, the entrance gate for commoners as also found in other forts of this period. A number of the historic water structures and stepwells within the fort are still functional and full of water.



*The entrance to the fort from Naulakha Pol and the fort at the higher level reached by steps and ramps following a zig zag pattern; all laid down as part of security measures in synchrony with the terrain*



*Aerial view of the Naulakha Pol below, from the fort showing the height that has been scaled through series of gateways to reach the fort*



*The Padmavati Talab with structures along its embankment*



## 2a. Description of Property

### RANTHAMBORE

#### Views from and to fort



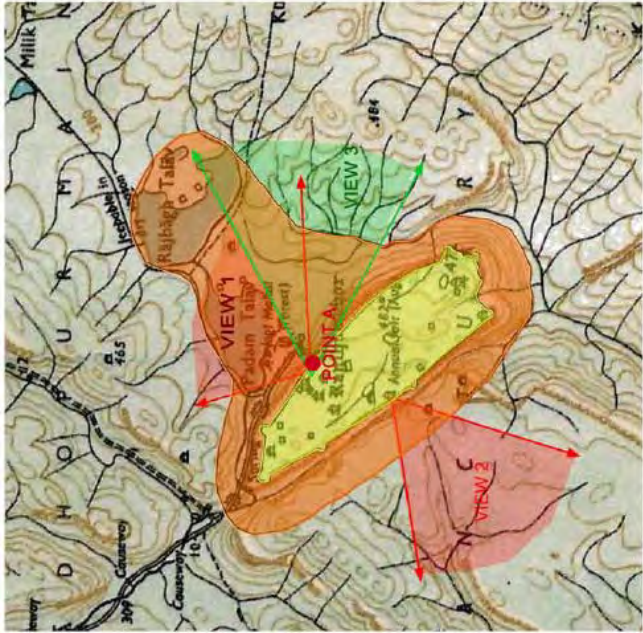
View 2: View of buffer on east from Sat Poi



View 1: View of Padam Talab and Rajbagh from Badal Mahal



Point A: View of approach ramp from Badal Mahal

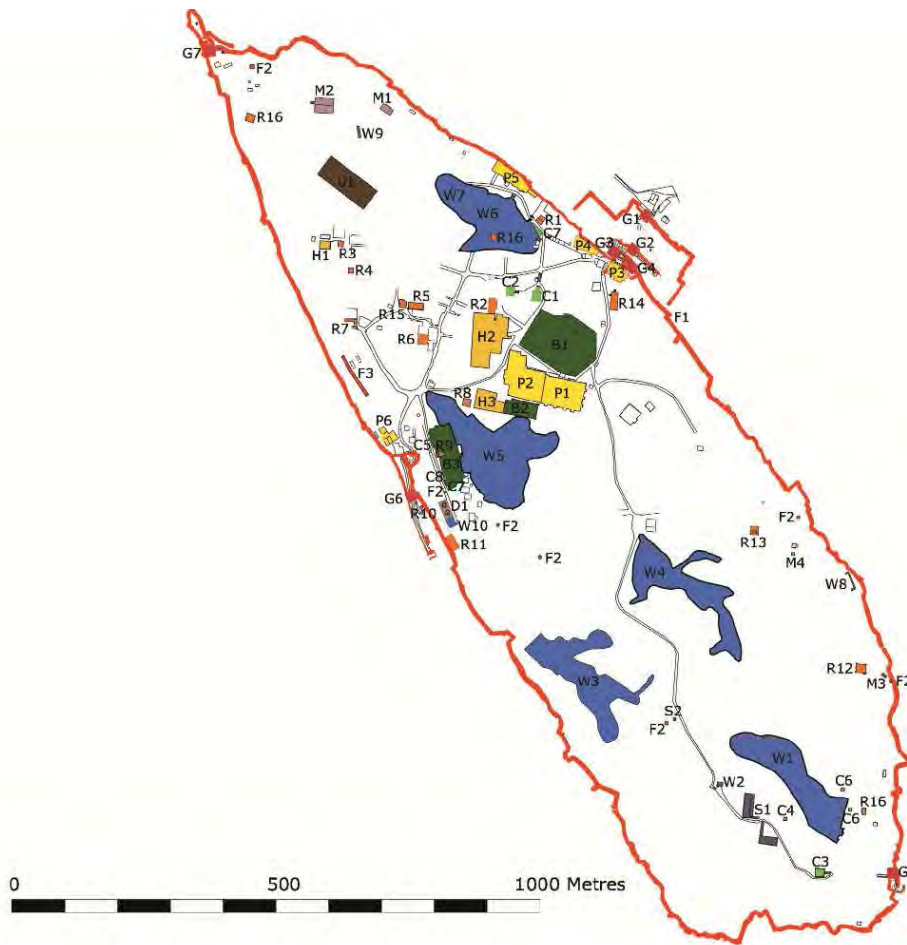


RANTHAMBORE FORT: Topographic Map showing viewpoints from the fort



View 3: View of Padam Talab and entry point from Hathi Poi





<p><b>FORT WALL AND BASTIONS</b></p> <p>F1. Fort Wall and Bastions F2. Gun Point F3. Remains of earlier Fort Wall</p> <p><b>GATES</b></p> <p>G1. Naulakha Pol G2. Hathi Pol G3. Ganesh Pol G4. Andheri Pol G5. Suraj Pol G6. Sat Pol G7. Delhi Gate</p> <p><b>PALACE AREA</b></p> <p>P1. Hammir Mahal P2. Rani Mahal P3. Supari Mahal P4. Dulha Mahal P5. Badal Mahal P6. Pachauri Mahal</p> <p><b>CHHATRIS/CENOTAPHS/MEMORIALS</b></p> <p>C1. Battis Khamba Chhatri C2. Hada Rani Chhatri C3. Chhatri to the south C4. Chhatri near Janwara Bhanwra C5. Hanuman Chhatri C6. Chhatri C7. Graves C8. Tomb</p>	<p><b>GARDENS</b></p> <p>B1. Garden B2. Old Garden B3. Pushp Vatika</p> <p><b>STORES</b></p> <p>S1. Janwara Bhanwra S2. Namak Ka Kotha</p> <p><b>HAVELI / HOUSE</b></p> <p>H1. Barnala House H2. Sanghi Ki Haveli H3. Pandit Ki Haveli</p> <p><b>WATER STRUCTURES</b></p> <p>W1. Badda Sagar W2. Gupta Ganga W3. Sukh Sagar W4. Jangali Talab W5. Padmavati Talab W6. Rani Talab W7. Well W8. Kund W9. Bandh W10. Tank</p> <p><b>HABITATION</b></p> <p>D1. Habitation near Ganesh Temple</p>	<p><b>RELIGIOUS STRUCTURES</b></p> <p>R1. Dargah R2. Raj Mandir R3. Banke Bihari Temple R4. Sita Ram Temple R5. Laxmi Temple R6. Laxmi Narayan Temple R7. Kalika Mata Temple R8. Temple of Patal Bhairavi R9. Annapurna Temple R10. Shiv Temple R11. Ganesh Temple R12. Peer Baba Ka Sthan R13. Hanuman Temple R14. Raghunath Temple R15. Digambar Jain Temple R16. Mosque</p> <p><b>RUINS</b></p> <p>U1. Ruins</p> <p><b>OTHERS</b></p> <p>M1. Chhoti Kachehri M2. Hammir or Badi Kachehri M3. Phansi Ghar M4. Balam Ki Meddi</p>
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Scale: 1:13000

SITE COMPONENTS - RANTHAMBORE FORT

## 2a. Description of Property

RANTHAMBORE

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## FORT WALLS AND BASTIONS

### ■ Fort walls and bastions as shown on the Site Plan (F1)

- **Period of construction** 5<sup>th</sup> -16<sup>th</sup> century AD     **Patron** Yadavas/Chauhans/Sisodias/  
**Usage** defense     Kacchwahas

### ● Architectural Form and Details

The crest of the hill is nearly 1.6 kms in length and breadth and is encircled by a massive embattled wall, numerous bastions and towers. The height of the fortifications depends upon the situation at the top of the hill. The scraped hillsides all around form the first level of defense, serving as the outer natural rampart. The upper surface of the fort is undulating, some portions being on much higher levels than others and its contours follow the outline of the rampart with the precipices very irregular. Where the rise of the hills is less precipitous or mounts up in vertical tiers, strong walls with bastions at intervals are built; these walls wind up along the hill side connecting the lower with higher levels at intervals. In the existing portions of the parapets, most of the merlons are unpierced, the firing being through the narrow embrasures. Square loopholes were designed for firearms like handguns.



*View of the fortification varying in heights with the narrow embrasures for firing*

### ● Construction Materials

The fort walls and bastions are made of coarse rubble stone and lime mortar



## 2a. Description of Property

### RANTHAMBORE

2.134



*The merlon crenellations*



*Fortification as viewed from Shiv Temple area*

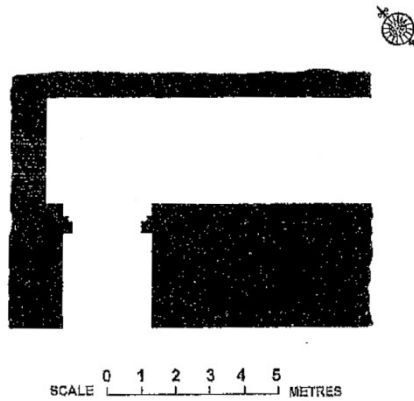


*Fortification as viewed from the sanctuary from the ground*

## GATES

### ■ Naulakha Pol (G1)

- **Period of construction** 13<sup>th</sup> -14<sup>th</sup> century AD, door from 19<sup>th</sup> century AD **Patron** Chauhan Rajputs/  
Kacchwahas
- **Usage** entrance gateway



Plan-Naulakha Pol

Source: Archaeological Survey of India



Naulakha Pol

### ● Architectural Form

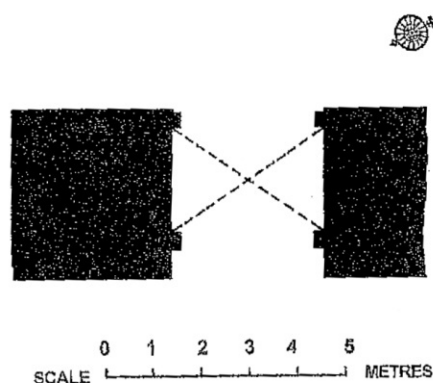
The first gateway from the east, approached through a long flight of steps has a series of three sequential gates. This gate 3.2m wide is protected by a barbican with zigzag, three right angled turns and guard rooms. With a small wicket gate in the left leaf, the door is armored with ferocious looking elephant spikes. A copper plate inscription affixed to the gate states that the existing wooden doors were provided during the period of Sawai Jagat Singh of Jaipur in the 19<sup>th</sup> century AD

### ● Construction Materials

Stone and lime mortar

### ■ Hathi Pol (G2)

- **Period of construction** 13<sup>th</sup> -14<sup>th</sup> century AD **Patron** Chauhan Rajputs
- **Usage** entrance gateway



Plan of Hathi Pol

Source: Archaeological Survey of India



Hathi Pol

## 2a. Description of Property

### RANTHAMBORE

#### ● Architectural Form

Located towards the south east, the second gateway 3.2m wide has similar defenses without a barbican. On one end it is attached to the fort wall, while the other side abuts a natural rock. A rectangular chamber for guards is constructed on top of the gate. The head of the doorway, originally a flat lintel on corbels has been repaired and the two crude figures set against the right face of the gate have been modified over a period of time.

#### ● Construction Materials

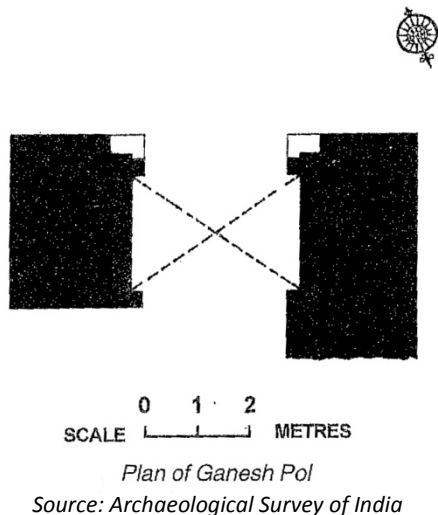
Stone and lime mortar

#### ■ Ganesh Pol (G3)

● **Period of construction** 13<sup>th</sup> -14<sup>th</sup> century AD

**Patron** Chauhan Rajputs

**Usage** entrance gateway



*Ganesh Pol*

#### ● Architectural Form

With the same defenses as other, the third southern gateway 3.10 mts wide, lies on a sharp loop of the path. The lintel of the gate is supported on brackets, further framed by a pointed arch and inverted trefoils. The eastern edge of the gate is attached to a vertical rock.

#### ● Construction Materials

Stone and lime mortar

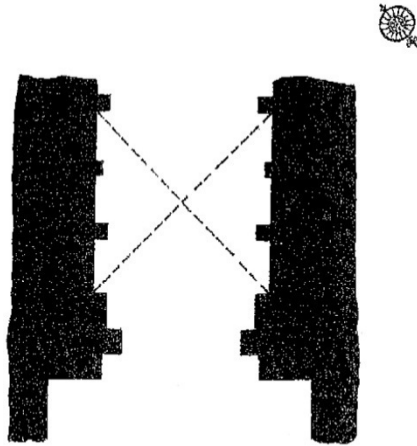


■ **Andheri Pol (G4)**

● **Period of construction** 13<sup>th</sup> -14<sup>th</sup> century AD

**Patron** Chauhan Rajputs

**Usage** entrance gateway



SCALE 0 1 2 METRES

Plan of Andheri Pol

Source: Archaeological Survey of India



Andheri Pol

● **Architectural Form**

Facing the north, this last entry gate into the fort has a formidable bastion, close to the summit. It is 3.3 mts wide and is connected to the fort wall on either side. It is provided with a recessed pointed arch with projections on sides carved in Hindu style. Situated at the head of a steep flight of steps, it is reinforced by a turret and huge doors with elephant spikes. The inner passage is flanked by a raised platform, beyond which a long vaulted tunnel leads to the fort.

● **Construction Materials**

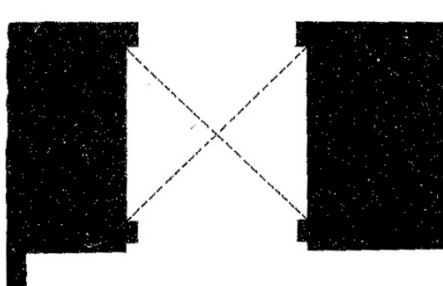
Stone and lime mortar.

■ **Dilli Pol (Delhi Gate)(G5)**

● **Period of construction** 13<sup>th</sup> -14<sup>th</sup> century AD

**Patron** Chauhan Rajputs

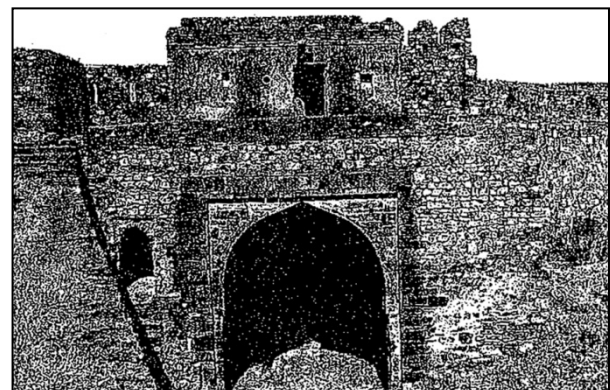
**Usage** entrance gateway



SCALE 0 1 2 3 4 5 6 7 8 9 10 METRES

Plan of Delhi Gate

Source: Archaeological Survey of India



Delhi Gate

Source: Archaeological Survey of India

## 2a. Description of Property

### RANTHAMBORE

#### ● Architectural Form

This is situated in the north western corner of the fort. It is north facing and 4.7 mts wide. In this arched gateway, a number of chambers have been constructed for residence of the security guards.

#### ● Construction Materials

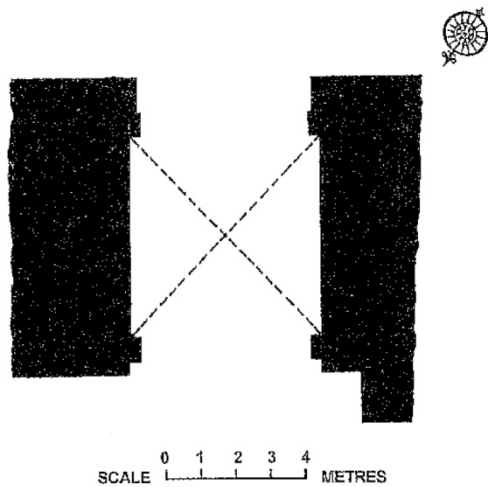
Stone and lime mortar

#### ■ Sat Pol (G6)

● **Period of construction** 12<sup>th</sup> -13<sup>th</sup> century AD

**Patron** Chauhan Rajputs

**Usage** entrance gateway



*Plan of Sat Pol*

*Source: Archaeological Survey of India*



*Sat Pol*

#### ● Architectural Form

Located in the western part of the fort, this south facing gate is the largest and loftiest of all, measuring 4.7 mts wide. There is a provision of double storied chambers for security guards at this gate. Its recesses are flanked by projected balconies on both sides. The battlement at the top are built of rocky masonry.

#### ● Construction Materials

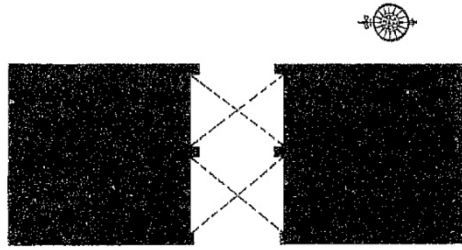
Stone and lime mortar

#### ■ Suraj Pol (G7)

● **Period of construction** 12<sup>th</sup> -13<sup>th</sup> century AD

**Patron** Chauhan Rajputs

**Usage** entrance gateway



SCALE 0 1 2 3 4 5 METRES

Plan of Suraj Pol

Source: Archaeological Survey of India



Suraj Pol

- **Architectural Form**

This east facing gate, located in the western part of the fort is comparatively small, with a width of 2.1 mts.

- **Construction Materials**

The chief construction materials are stone and lime mortar

- **Dargah Pol (G8)**

- **Period of construction** 17<sup>th</sup> -18<sup>th</sup> century AD

**Patron** Kachhwaha Rajputs

**Usage** entrance gateway



View from the approach to Dargah - Dargah Pol



View from the other side - Dargah Pol

- **Architectural Form**

This gate is located close to the *dargah* of Pir Sadar-ud-din. This is the main gateway to enter the Badal Mahal area. East facing and 2.75 mts wide, it has an arched gateway

- **Construction Materials**

Constructed out of undressed stone and lime plastered.



## 2a. Description of Property

### RANTHAMBORE

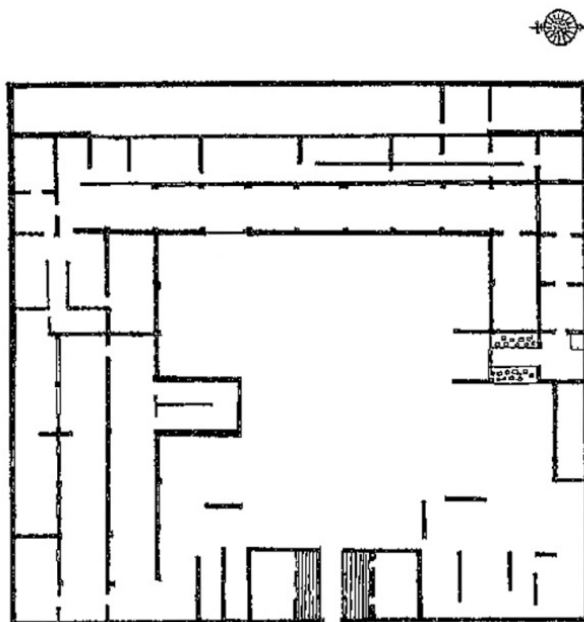
#### PALACE AREA

##### ■ Hammir Mahal (P1)

● **Period of construction** 1283-1301 AD

**Patron** Hammir Dev

**Usage** retiring rooms/Palace areas



SCALE 0 5 10 15 20 METRES

#### PLAN

Source: Archaeological Survey of India



*Aerial view of Hammir Mahal*



*Brackets carved in sandstone supporting beams*

##### ● **Spatial Planning**

Built in Hindu style the palace is a majestic structure that is entered through an arched gateway to the north by ramps from two directions. The palace includes living apartments, stables for horses, stores and quarters for the king's retinue. The eastern wing of the palace is three storeyed while the rest is single storeyed. It has a basement in the north east corner. The ground floor has multiple chambers connected to each other through small doorway. All of these open into a veranda. The roof of the veranda is supported on plain columns, devoid of any elaboration. The eastern part of palace is more decorated. A convenient ramp is constructed to reach its first floor. The ceiling of the palatial compartment is flat supported on beams.



View of Hammir Mahal



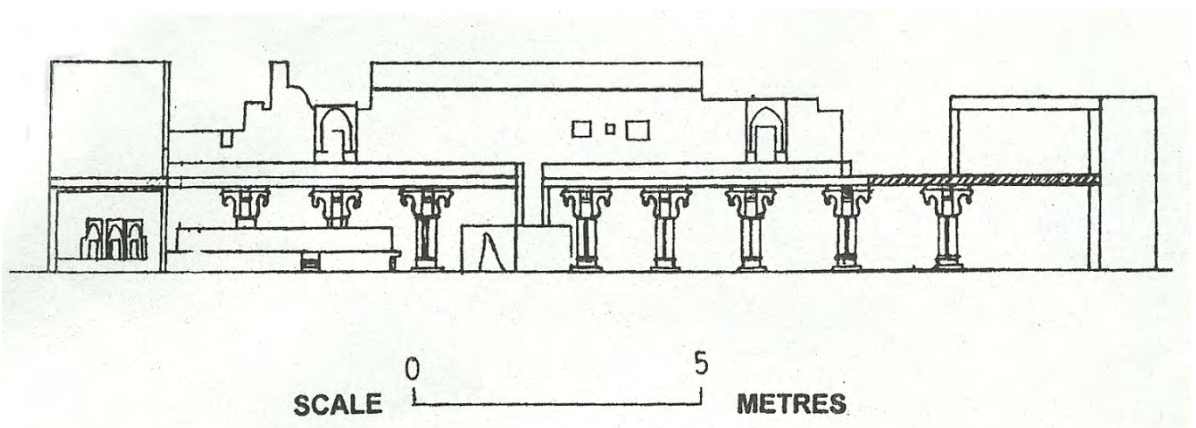
Ornamental stone columns



Stone brackets and jais on the façade of Hammir Mahal



Hammir Mahal



A sketch of the façade of Hammir Mahal

Source: Singh & Bahura, 1990)

● **Construction Materials**

The roof of the entire area is constructed of very large suspended slabs of sandstone, supported on stone brackets. Its walls are built in red Karauli stone with remarkable masonry work and lime plastered over, evident even today



## 2a. Description of Property

### RANTHAMBORE

2.142

#### ■ Rani Mahal (P2)

● **Period of construction** 1283-1381 AD **Patron** Hammir Dev

**Usage** Palace for Queens

#### ● **Architectural form and details**

This spectacular building complex is situated near Hammir Palace. Various structures are located inside its boundary but most of them are in a ruinous condition. The entrance gateway is quite imposing, with architectural details similar to the ones found on the main gateways.



*A gateway at the entrance of the Rani Mahal*

*Source: Archaeological Survey of India*



*Interior of Rani Mahal*

*Source: Baig, 2010*

#### ● **Construction Materials**

The entrance gateway is made of red sandstone. The Rani Mahal is constructed of stone laid in lime mortar and lime plastered. The interiors are decorated exquisitely using lime plaster. Originally Rani Mahal seems to have formed part of the Hammir Mahal which was separated by a wall at later time.



■ **Supari Mahal (P3)**

- **Period of construction** 17<sup>th</sup> -18<sup>th</sup> century AD **Patron** Kacchwahas
- Usage** Palace area/guest house

● **Architectural Form and Details**

This palace space is strategically located with the best view towards Raj Bagh and lake below. Architectural features include projected *jharokhas* on brackets and painted ceilings in rooms inside. It is currently used as a guesthouse by ASI and toilet facilities have been recently added



*Supari Mahal*



*Column carved exquisitely in sandstone*



*Random rubble masonry wall with jharokas*

● **Construction Materials**

Coarse rubble stone and lime for walls with lime plaster. Sandstone has been used for columns, brackets and jaalis.

## 2a. Description of Property

### RANTHAMBORE

2.144

#### ■ Dulha Mahal (P4)

● **Period of construction** 17<sup>th</sup>-18<sup>th</sup> century AD **Patron** Kacchwahas

**Usage** palace area

#### ● **Architectural Form and Details**

Built around courtyards with Tibari spaces, the Dulha Mahal was a palace structure of later period located towards the western edge of the fort, on looking Raj Bagh area. Architectural features are typical of Jaipur style arches, lotus base columns with stucco work. Few rooms have elaborate paintings but the structure is badly damaged



*View of the interior spaces within the Dulha Mahal in a ruined condition*



*An exterior view of the Dulha Mahal*

#### ● **Construction Materials**

Coarse rubble stone and lime for walls with lime plaster. Sandstone has been used for columns, brackets and jaalis.



■ **Badal Mahal (P5)**

● **Period of construction** 18<sup>th</sup>- 19<sup>th</sup> century AD **Patron** Kachhwaha Rajputs

**Usage** monsoon palace

● **Spatial Planning**

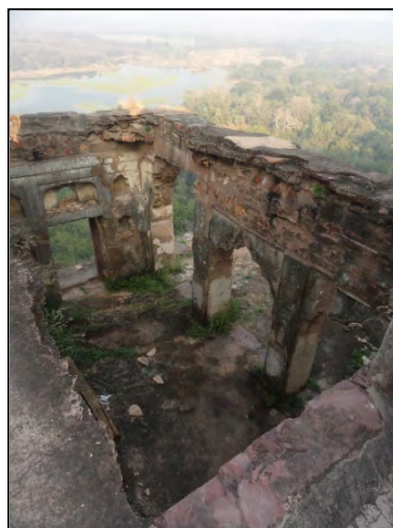
The Hammir Mahal, facing north is approached through a huge gateway with a prominent locking device. The inner courtyard of the palace is surrounded by verandahs and rooms preceded by massive stone pillars carved with stylized floral patterns at the base, thick shafts consisting of huge blocks of stone surrounded by triple roll brackets. The doorways leading to the side rooms are flanked by square and octagonal pilasters supporting the lintels. The upper storey preserved on the eastern side has small courtyards flanked by pillared verandahs and rooms. This is a large double storeyed structure. There is one dance room amongst these chambers that is supported on columns with the use of double arches. It was a palace to be used during monsoon.



*Entrance to the Badal Mahal with features similar to havelis of Jaipur from the same period*



*Rear view of Badal Mahal*



*Ruined portions of the Badal Mahal*



## 2a. Description of Property

### RANTHAMBORE

- **Architectural Details**

In one of the hypostyle halls, besides beautiful wall painting, various decorative techniques have been depicted. There are two big halls which are notable for their decorative plaster work and remnants of paintings on the walls and the ceilings.

- **Construction Materials**

All the rooms are built of coarse red sandstone with lime plaster and paintings in upper floor. The walls are lime plastered.



*Inner court - Badal Mahal*



*Verandah with cusped arches in stone - Badal Mahal*

■ Pachauri Mahal (P6)

● **Period of construction** 18<sup>th</sup>- 19<sup>th</sup> century AD **Patron** Kachhwaha Rajputs

**Usage** Palace area

● **Architectural Details**

The Pachauri Mahal, situated near the Satpol gate, is a moderate double storeyed structure with a closed verandah approached through triple arched openings on the ground floor and having a projected arched balcony (*jharokha*) flanked by rooms on the upper storey. Except for some decorative treatment on the facade, the structure is devoid of any ornamentation. At times the *Mahal* is misused by the pilgrims who cook inside, the offerings to be made to the Ganesh temple that is located nearby.



*Pachauri Mahal*

● **Construction Materials**

Random rubble masonry laid in lime mortar and lime plastered.

## 2a. Description of Property

RANTHAMBORE

HAVELIS

2.148



*Sanghi ki Haveli (H2)*



*Pandit ki Haveli (H3)*



*Pandit ki Haveli (H3)*



## RELIGIOUS MONUMENTS

### ■ Dargah of Qazi Pir Sadr-ud-din( R1)

● **Period of construction** 13<sup>th</sup>-14<sup>th</sup> century AD **Patron** Unknown

**Usage** religious



*Dargah of Qazi Pir Sadr-ud-din, Dargah Pol and graves*

#### ● **Spatial Planning**

Facing south west, there are seven graves inside the structure. There is a platform in front of the Dargah that has a number of graves. An extremely significant inscription in Persian was earlier placed here that has been stolen.

#### ● **Architectural details**

This is a domed structure with arched entrance gateways. Inside the chamber, each corner has a niche and in the dome there are four ventilators with stone *jalis*.

#### ● **Construction Materials**

The chief construction materials are stone and lime mortar. The walls have been lime plastered and lime washed

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### ■ Lakshmi Narayan Mandir (R6)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD **Patron** Kacchwahas

**Usage** Hindu temple

#### ● **Architectural details**

The temple has a courtyard and follows the *Haveli* –temple type prevalent in the 18<sup>th</sup> century AD in the region

#### ● **Construction Materials**

Stone and lime mortar. The walls have been lime plastered and lime washed

## 2a. Description of Property

### RANTHAMBORE

2.150



Inner courtyard of Lakshmi Narayan Mandir



Lakshmi Narayan Mandir

#### ■ Annapurna Mandir (R9)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Kacchwahas

**Usage** Hindu temple



Annapurna Mandir

#### ● **Spatial Planning**

This temple is south facing and is built on high plinth. The temple plan includes a sanctuary, and two pillared halls. The terrace of this temple is flat at a single level.

#### ● **Architectural details**

A *Shivaling* is established in the sanctuary. On each two walls of the pillared hall there is a scenery made out of stone, with flowers and birds engraved along with marigold decoration, dated to VS 1898 (1841 AD)

#### ● **Construction Materials**

Stone and lime mortar

■ **Shiv Mandir (R10)**

● **Period of construction** 12<sup>th</sup>-13<sup>th</sup> century AD

**Patron** Chauhan Rajputs

**Usage** Hindu Temple



*This is a small shrine but significant amongst the temples within the fort as it is said that this is the spot where Hammir Dev beheaded himself as an offering to Lord Shiv – seen here are the Shivling, Nandi and carved stone columns*

■ **Ganesh Mandir (R11)**

● **Period of construction** 5-11<sup>th</sup> century AD, structure later period

**Patron** Chauhans/  
Kacchwahas

**Usage** Hindu temple



Ganesh Mandir

● **Architectural details**

Inside the temple, the head and trunk of Lord Ganesha are carved on a large rock. Among the local people this is famous as Ranat Bhanwar and is the most revered of all the temples within the fort. A spectacular fair is organized here at the occasion of Ganesh Chaturthi.

● **Construction Materials**

Stone and lime mortar



## 2a. Description of Property

### RANTHAMBORE

#### ■ Raghunath Ji Mandir (R14)

- **Period of construction** 13<sup>th</sup> century AD, surrounding structures of 18<sup>th</sup> century
- **Patron** Chauhans/  
Kacchwahas
- **Usage** Hindu Temple



Raghunath Ji Mandir

#### ● **Spatial Planning**

This west facing temple comprises of an open courtyard, a covered court and a *garbh griha* (inner sanctum) with a *pradakshina path* (circumambulatory path). A chamber and a veranda are attached on either side of the sanctuary and the outer walls of the sanctuary are decorated with beautiful paintings.

#### ● **Construction Materials**

The chief construction materials are stone and lime mortar

#### ■ Digambar Jain Mandir (R15)

- **Period of construction** *Shikhara* from 12<sup>th</sup> century AD, surrounding structures of 18<sup>th</sup> century
- **Patron** Chauhans/  
Kacchwahas
- **Usage** Hindu Temple

#### ● **Spatial Planning**

Originally, the temple was planned with an open pillared hall and an inner sanctum. Subsequently it went through a number of transformations. The open sides of the pavilion were closed by brick screens. Colonnaded verandas are built on three sides of the pavilion. Two ancient idols were stolen from here in the year 1979. Presently, a contemporary idol of Sambhavnath in meditative pose is seated within the sanctuary.

#### ● **Construction Materials**

Stone and lime mortar



Digambar Jain Mandir



Courtyard - Digambar Jain Mandir

■ **Mosque (R16)**

● **Period of construction** unknown    **Patron** unknown

**Usage** Mosque



Mosque

● **Architectural details**

The features of the mosque are islamic with 3 pointed arches crowned by three domes and decorated with stucco work. It has a small minaret at the back and a stepped gateway in front.

● **Construction Materials**

Stone and lime mortar. The walls have been lime plastered and lime washed



## 2a. Description of Property

### RANTHAMBORE

2.154

#### Other Religious Structures



*Raj Mandir temple (R2)*



*Sitaram temple (R4)*



*Patal Bhairav temple (R8)*



*Kalika Mata temple (R7)*

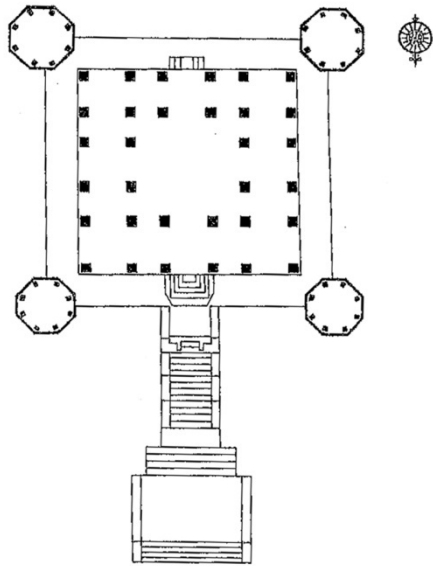


## CHHATRIS/CENOTAPHS/MEMORIALS

### ■ Battis Khamba Chattri (C1)

● **Period of construction** 18<sup>th</sup> century AD. **Patron** Kachhwaha Rajputs of Jaipur

**Usage** Pleasure pavilion



SCALE 0 5 10 METRES  
PLAN  
Source: Archaeological Survey of India



*Battis Khamba Chhatri*



*Carved sandstone pillars with cusped arches- Battis Khamba Chhatri*

### ● **Spatial Planning**

Close to the Hammir Mahal stands this pavilion on a three level platform, approached from north through a flight of steps. The top terrace measuring 12.5 X 12.5 mts, has a roof supported on 32 columns arranged in two rows. The outer row of columns is constituted by six columns on each side while the inner row is comprised on four columns on each side.

### ● **Architectural details**

The base of these columns is square; and the central part is octagonal surmounted by a capital. The veranda of the structure has a flat roof while the central part is covered by a dome. The central dome is flanked by three small domes each on all four sides. The internal octagonal part of the main dome is decorated by floral patterns and figures of the deities Ganesh and Venugopal.

### ● **Construction Materials**

The first two terraces are made of stone rubble with lime plaster and the third one is veneered by red sandstone slabs.

## 2a. Description of Property

### RANTHAMBORE

2.156

#### Other Chattris



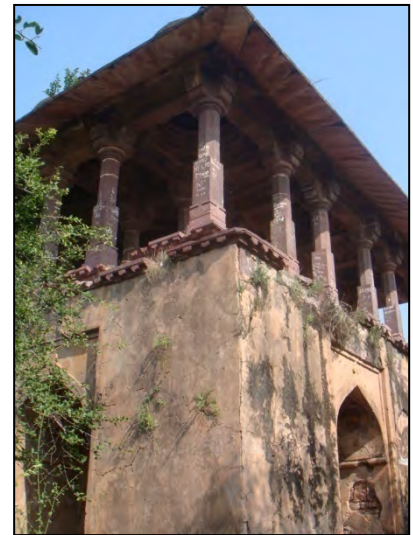
*Column bases - remain of the Hada Rani Chattri (C2)*



*Chattri near Bhanwara Janwara granaries (C4)*



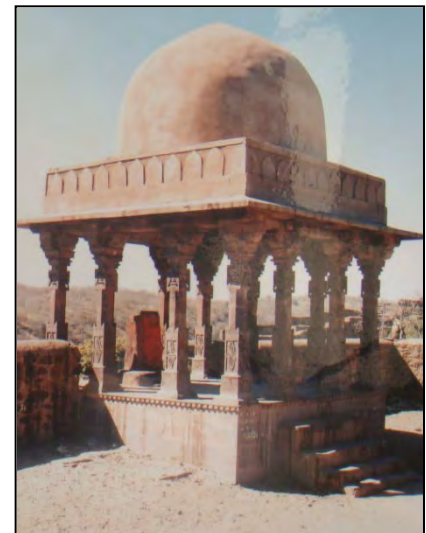
*Battis Khamba Chattri (C3)*



*Carved sandstone pillars of the Battis Khamba Chattri*



*Sandstone carved ceiling of the Battis Khamba Chattri*



*Hanuman Chattri (C5)*



## STORES

### ■ Janwara and Bhawnra Granaries (S1)

● **Period of construction** 12<sup>th</sup> – 14<sup>th</sup> century AD **Patron** Chauhan Rajputs

**Usage** granaries

### ● Spatial Planning

Two massive granaries with a series of arched shambars were used for storage of grains. These two structures are located close to the Chhatri. Ramps have been constructed to reach up to these and the roofs of each have a large hole for filling in grains from the top for storage.

### ● Construction Materials

Random rubble masonry and lime mortar.



*Janwara Bhawnra Granaries*



*An opening to the store house to fill the grains from top*



## 2a. Description of Property

RANTHAMBORE

2.158



*Interiors of the granaries*

### ■ Namak Ka Kotha (S2)

● **Period of construction** 19<sup>th</sup> century AD      **Patron** Kacchwahas

**Usage** store

### ● Spatial Planning

This is a small square structure possibly used to store salt as the name indicates. Construction style with semi circular arch indicates that it was built in the 19<sup>th</sup> century AD

### ● Construction Materials

Stone and lime mortar with the walls plastered.



*Namak Ka Kotha*

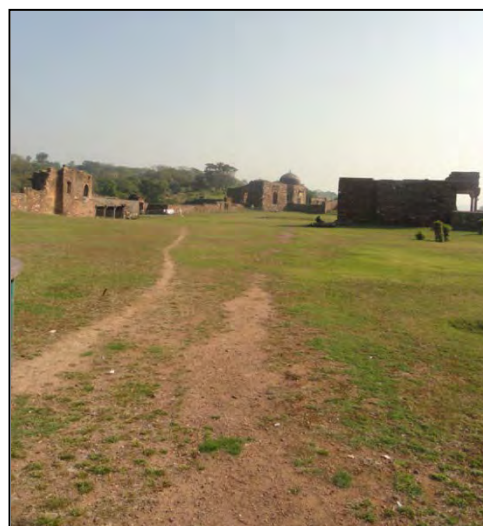
**GARDENS**



*Garden in front of Hammir Palace (B1)*



*Garden in front of Hammir Palace – there is not much evidence of historic gardens. New garden areas are developed by Horticulture department of Archaeological Survey of India*



*Pushp Vatika (B3)*



## 2a. Description of Property

### RANTHAMBORE

2.160

#### WATER STRUCTURES



*Gupta Ganga (W2)-The spot was present since earlier period possibly while the foundation of fort was laid while construction of a structure is dated late)r. A perennial stream flows underground with a small temple above.*



*Sukh Sagar (W3)*



*Sukh Sagar*





*Jangali Talab (W4)*



*Padmavati Talab (W5)- found during the period of Hammir Singh in the 13th-14<sup>th</sup> century AD after his daughter Padma who is said to have committed suicide during the siege*



*Rani Talab (W6) - the crescent shaped tank with the ruins of a small temple at the south border of the tank*

## 2a. Description of Property

RANTHAMBORE

### RUINS (U1)



*Ruined Chattris amidst dense vegetation - these are found dispersed all over the site and require detailed mapping. Smaller chhatris were usually built in memories of young Princes who died at an early stage*



*Ruins near the Raj Mandir temple show positions of a haveli/residence*



**OTHERS**

■ **Chhoti Kachehri (M1)**

- **Period of construction** 13<sup>th</sup> century AD/18<sup>th</sup> century AD    **Patron** Hammir Singh/Kacchwahas
- **Usage** court/administrative



*Cusped arches in sandstone – Chhoti Kachehri*



*Chhoti Kachehri*

● **Architectural Details**

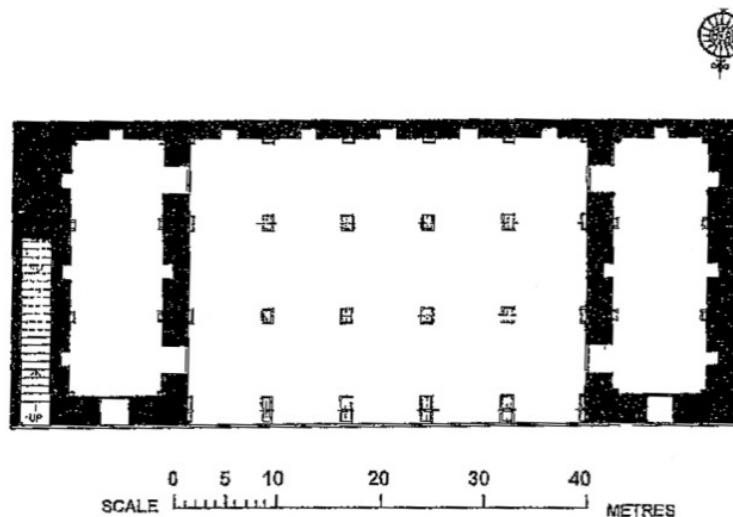
Extensively ornate walls with panels of niches, sandstone columns and cusped arches. Stylistically, these resemble structures of Mewar and may have been built or renovated in the 14<sup>th</sup>-15<sup>th</sup> century AD

● **Construction Materials**

The *Kachehri* is constructed of dressed stone rubbles in lime mortar veneered by roughly dressed slabs.

■ **Hammir Kachehri (M2)**

- **Period of construction** 1283-1301 AD    **Patron** Hammir Singh
- **Usage** Court/ administrative



**PLAN**

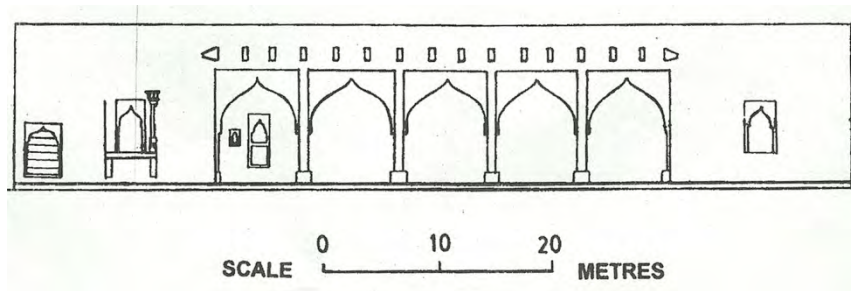
*Source: Archaeological Survey of India*



## 2a. Description of Property

RANTHAMBORE

2.164



Sketch of the front façade of the Hammir Kachehri

Source: Singh & Bahura, 1990)



Hammir Kachehri



Window brackets carved in sandstone

### ● Spatial Planning

Situated in the North West corner of the site, this structure stands near the Dilli Pol. It is perched on a high plinth and faces the north. The plan comprises of a central chamber measuring 19.5 X 11.9 mts, on either side of which are rectangular chambers. The roof of the central chamber is supported on a numbers of columns arranged in two rows. The arrangement of columns divides the chamber into 15 parts. The base and shaft of each pillar is square. The front of the central chamber consists of five arches (*toranas*) resting on a double row of columns. The roofs of the side chambers are sloping.

### ● Construction Materials

The *Kachehri* is constructed of stone rubbles in lime mortar veneered by roughly dressed slabs.

## 2a. Description of Property

Gagron



**GAGRON**

**SUMMARY**

Gagron Fort, located about 10 Kms from the town of Jhalawar surrounded by the waters of the Ahu and Kali Sindh rivers on three sides is considered as one of the finest example of water hill fort, looming out on the crest of the Vindhyan hill range where the two rivers meet. It is separated from the nearby village by a deep ditch cut in solid rock and crossed by a stone bridge.

Gagron fort is an excellent example of defense planning of the Doda and Khinchi Rajputs from the 12th century. It is effectively protected on three sides by a set of double fortification walls along with access to rivers on both sides adding to a natural buffer from the enemy. The river served as a continuous water resource and in addition, there exist two clusters of five wells each within the fort. The site has gateways, kunds, temples and palaces within .



*View of Gagron Side*  
*Source: Dilmeet Garewal*



## 2a. Description of Property

GAGRON

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● **Site context**

Gagron Fort, located about 10 Kms from the town of Jhalawar surrounded by the waters of the Ahu and Kali Sindh rivers on three sides is considered as one of the finest example of water fort, looming out on the crest of the Vindhyan hill range where the two rivers meet. It is separated from the nearby village by a deep ditch cut in solid rock and crossed by a stone bridge.



*View of Gagron from the rear showing the fort structure as it stands on the solid rock with a double fortification layer seen at a higher level*

*Source:Dronah*

The exit of the fort is to the south-east through a simple opening in the wall, from which a descent leads to the end wall immediately over the river. Hence there is a path which, going back towards the village outside the fort, crosses a small precipice protected by ramparts 20 or 22 mts above the ground and leads to two bastions. On the north-east face there is but one wall, the precipitous nature of the hill here rendering a second and lower wall. The hills and the valleys to the north across the Kali Sindh are thickly wooded and the gorge by which the river finds its way out in to the open plains is very fine, high precipices with woody slopes alternating on either side. One precipice, absolutely vertical, that was plumbbed and found to be 93.6 mts in height is known as gidh-karai

or vulture's cliff and it is said that it was formerly used as a place of execution by the Hada Rajputs of Kota, the victims being hurled on the rocks below. The top of these ridges are the culminating points of the range.

## 2a. Description of Property

GAGRON

2.170



*The Kali Sindh river with portions of the fort on the north east*



*The Ahu river with the arcaded bridge leading to the Gagrion fort*



### ● Site Planning

Gagron fort is an excellent example of defense planning of the Doda and Khinchi Rajputs from the 12th century. It is effectively protected on three sides by a set of double fortification walls along with access to rivers on both sides adding to a natural buffer from the enemy. The river served as a continuous water resource and in addition, there exist two clusters of five wells each within the fort.

The main entrance to the fort is from the Ganesh Pol to the north. The first court to the east after the two entrance gateways – Ganesh Pol and Nakkar Khana Gate, houses the Jauhar Kund and small associated structures. Further east, it leads to the second court, in which the Sheesh Mahal, Darikhana and Zenana and Mardana Mahal are located. This palace construction seems to be 16th century with later additions from 18th - 19th century. The Palace area is entered from the east through the Bhairu Pol. The Madhusudan Temple is located at a higher level from the Bhairu Pol.



*The fort walls rising out of the natural rocks near the Ahu and Kali Sindh rivers*

Some ancillary structures run along the ridgeline supported on one side by the inner fortification wall. Top Khana and Sileh Khana are also located along this ridgeline as a series of rooms fronted by verandahs. The Barud Khana is located to the north of Sileh Khana and Top Khana. Next to the Top Khana is the Krishna Dwar and its surrounding structures. This gateway complex leads into the next court through a series of three rooms. The stables are located further east, near the Purva Dwar.

## 2a. Description of Property

### GAGRON

The last court on the eastern end is confined between the outer fortification wall in the rear and the inner fortification wall. The outer fortification wall loops into a major rampart in the rear providing opportunity for leisure at the confluence of the rivers. Outside the main fortification, and on the west of the Ganesh Pol are located the Dargah, some habitation, the Chaturbujnath Temple, the Ramchandraji Temple and the Madan Mohan Temple. This is accessible from outside the fortification by the Suraj Pol to the east. The Hanuman Temple is also located near the gateway.

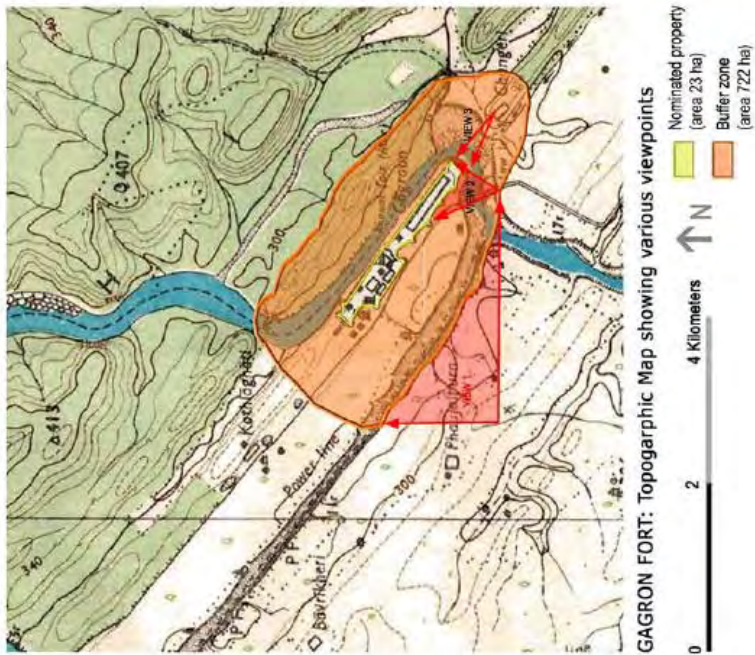


*A structure rising up the natural rocks along the inner fort wall, facing south*

Further west is the Raniwas – currently being used as a school complex. There is a gate at the western end of the fort, surrounded by a wall of 25 metres radius, called the Karishma Tower allowing a full view of the landscape beyond.



Viewpoints to and from fort



View 1: Panoramic view of the fort from the approach road on the south western side



View 2: View from the southern side near Changeri village



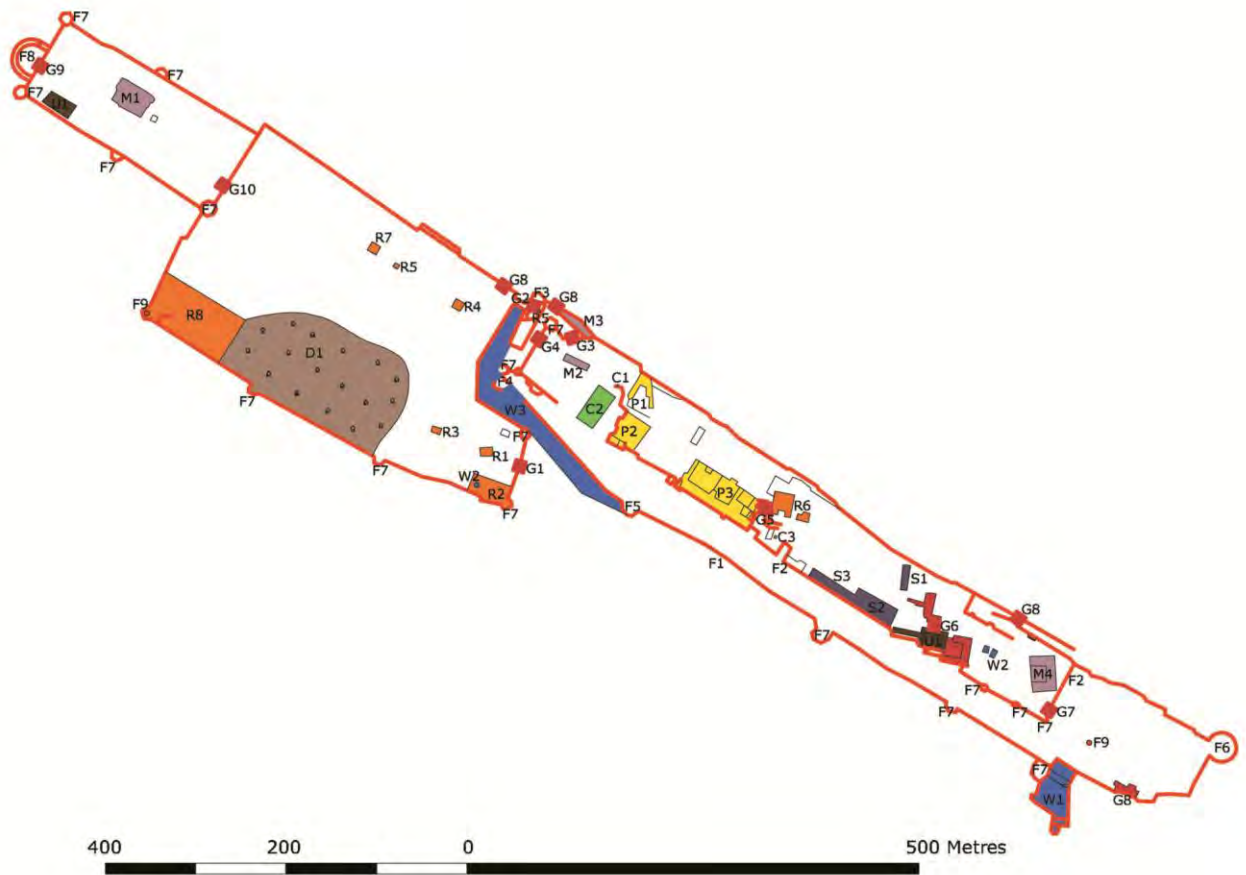
View 3: View of the fort from Changeri village



## 2a. Description of Property

### GAGRON

2.174



<p><b>FORT WALL AND BASTIONS</b></p> <p>F1. Outer Fortification Wall F2. Inner Fortification Wall F3. Chunda Burj F4. Goverdhan Burj F5. Lakshman Burj F6. Ram Burj F7. Bastion F8. Karishma Tower F9. Cannon Stand</p> <p><b>GATES</b></p> <p>G1. Suraj Pol G2. Ganesh Pol G3. Nakkar Khana Gate G4. Lal Darwaza G5. Bhairu Pol G6. Krishna Dwar G7. Purva Dwar G8. River Gate G9. Gate near Karishma Tower G10. Gate</p> <p><b>CHHATRIS / CENOTAPHS / MEMORIALS</b></p> <p>C1. Jattarmal Ki Chhatri C2. Jauhar Kund C3. Chhatri near Madhusudan Temple</p>	<p><b>PALACE AREA</b></p> <p>P1. Sheesh Mahal P2. Darikhana P3. Zenana and Mardana Mahal</p> <p><b>RELIGIOUS STRUCTURES</b></p> <p>R1. Madan Mohan Temple R2. Hanuman Temple R3. Ramchandraj Temple R4. Mosque R5. Ganesh Temple R6. Madhusudan Temple R7. Chaturbujnath Temple R8. Dargah</p> <p><b>STORES</b></p> <p>S1. Barud Khana S2. Top Khana S3. Sileh Khana</p> <p><b>RUINS</b></p> <p>U1. Ruins</p>	<p><b>WATER STRUCTURES</b></p> <p>W1. Baori W2. Well W3. Moat</p> <p><b>HABITATION</b></p> <p>D1. Gagrion Village</p> <p><b>OTHERS</b></p> <p>M1. Raniwas - School Building M2. Tibari M3. Chowkidar Cabin M4. Stable</p> <p>Note: Few recent structures such as office blocks are also present</p>
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Scale: 1:7500

SITE COMPONENTS - GAGRON FORT

## FORT WALLS & BASTIONS

### ■ Outer Fortification Wall as shown on the plan (F1)

● **Period of construction** 12<sup>th</sup> century AD      **Patron** Khinchi Rajputs

**Usage** defense

### ● Architectural form and details

The outer fortification wall is typical of medieval fortifications interspersed with circular bastions and crowned with large *kanguras* (crenellations) at the top in most places. The ramparts raise up to 20 to 30 mts above the ground



*Outer fortification wall*

### ● Construction Materials

Random rubble stone masonry in lime mortar. Portions of wall show that it may have been plastered with lime. A portion of the wall has dry masonry in stone and may be an earlier historic layer.

### ■ Inner Fortification Wall as shown on the plan (F2)

● **Period of construction** 15<sup>th</sup> century AD      **Patron** Khinchi Rajputs

**Usage** defense

### ● Architectural form and details

The inner fortification wall is also interspersed with circular bastions and crowned with large *kanguras* (crenellations) on the top. The ramparts rise up to 10 to 15 mts above the ground. This wall extends from Jauhar Kund on the west to Purva Dwar on the east.

## 2a. Description of Property

GAGRON

2.176



*Inner fortification wall*

- **Construction Materials**

Random rubble stone masonry in lime mortar. Portions of wall show that it may have been plastered with lime in earlier times.

- **Chunda Burj (F3)**

- **Period of construction** 15<sup>th</sup> century AD    **Patron** Khinchi Rajputs
- **Usage** defense



*Chunda Burj*

- **Architectural form and details**

The bastion is located on the north-west side of the fort. 25 mts high, the tower is wider at the bottom and tapers towards the top. It is crowned with large *kanguras*.



- **Construction Materials**

Random rubble stone masonry in lime mortar.

---

- **Goverdhan Burj (F4)**

- **Period of construction** 15<sup>th</sup> century AD      **Patron** Khinchi Rajputs
- **Usage** defense



Goverdhan Burj

- **Architectural form and details**

The bastion is located on the south-west side of the moat, and its foundation falls inside the moat. The tower is wider at the bottom and tapers towards the top, and is crowned with large *kanguras*, typical of Rajput fortification in the region.

- **Construction Materials**

Random rubble stone masonry in lime mortar.

---

- **Lakshman Burj (F5)**

- **Period of construction** 15<sup>th</sup> century AD      **Patron** Khinchi Rajputs
- **Usage** defense

- **Architectural form and details**

The bastion is located on the southern side of the fort. The tower is wider at the bottom and tapers towards the top, and is crowned with large *kanguras*, typical of Rajput fortification in the region.

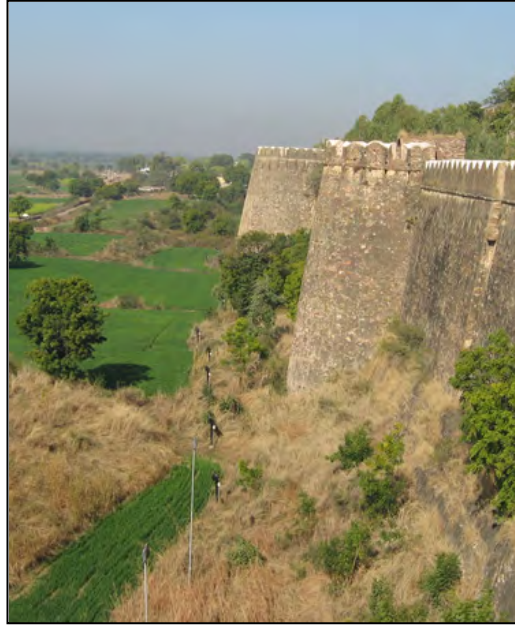
- **Construction Materials**

Random rubble stone masonry in lime mortar.

## 2a. Description of Property

GAGRON

2.178



*Lakshman Burj*

### ■ Ram Burj (F6)

- **Period of construction** 15<sup>th</sup> century AD, reconstructed in 18-19<sup>th</sup> century AD **Patron** Khinchi Rajputs
- **Usage** defense



*Ram Burj*

### ● Architectural form and details

Named after Maharao Ram Singh, who reconstructed it in the 17<sup>th</sup> century AD, the bastion lies on the north-eastern part of the fort. It is about 20 mts high with a uniform radius from top to bottom, and is crowned with large *kanguras*.

### ● Construction Materials

Random rubble stone masonry in lime mortar.

### ■ Karishma Tower (F8)

- **Period of construction** 18-19<sup>th</sup> century AD
- **Patron** Hada/Jhala Rajputs
- **Usage** defense



*Karishma Tower*

- **Architectural form and details**

The Karishma Tower is a circular wall with a radius of 25 mts around a gate on the western end of the fort. It is crowned by *kanguras* at its top.

- **Construction Materials**

Random rubble stone masonry in lime mortar.

- **Others**



*Cannon stand (F9)*



## 2a. Description of Property

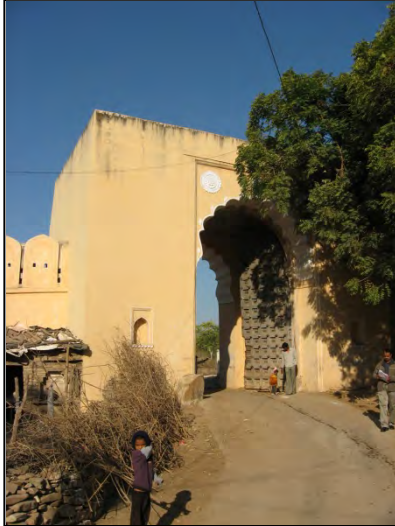
GAGRON

### GATES

#### ■ Suraj Pol (G1)

● **Period of construction** 18<sup>th</sup> century AD **Patron** Jhala Rajputs

**Usage** Entrance gateway



*Cusped archway of Suraj Pol with metal spikes on the wooden gate*

#### ● Architectural form and details

The cusped arch style and paintings on the ceiling as well as circular flower motifs indicate the gate to be of 18<sup>th</sup> century AD style.

#### ● Construction Materials

Random rubble masonry in lime mortar and lime plaster with stucco work.

#### ■ Ganesh Pol (G2)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD **Patron** Jhala Rajputs

**Usage** Entrance gateway



*Ganesh Pol*

- **Architectural form and details**

The Ganesh Pol is surrounded by three bastions. The cusped arch style and paintings on ceiling as well as circular flower motifs indicate the gate to be of 18<sup>th</sup> century AD, Hadauti style.

- **Construction Materials**

Random rubble masonry in lime mortar and lime plaster with stucco work.

---

- **Nakkar Khana Gate (G3)**

- **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Zalim Singh Jhala
- **Usage** Entrance gateway



Nakkar Khana Gate

- **Architectural form and details**

The architectural styles of this gate include cusped and semicircular arches prevalent in the Hadauti region in late 18<sup>th</sup> to 19<sup>th</sup> centuries. The design incorporates a large entrance archway crowned with triple arched Nakkar Khana space (used for announcements) on the first floor.

- **Construction Materials**

Random rubble masonry in lime mortar finished with lime plaster and lime /*khameera* wash.

---

- **Lal Darwaza (G4)**

- **Period of construction** 16<sup>th</sup> century AD      **Patron** Rathore Rajputs
- **Usage** Entrance gateway

## 2a. Description of Property

GAGRON

2.182



*Lal Darwaza*

- **Architectural form and details**

Constructed in red sandstone, the Lal Darwaza is situated near the Nakkar Khana along the western edge of the fort. There are paintings and engravings inside the gate which may be interventions of later 18<sup>th</sup>-19<sup>th</sup> century AD.

- **Construction Materials**

Red Sandstone.

---

- **Bhairu Pol (G5)**

- **Period of construction** 16<sup>th</sup> century AD      **Patron** Rathore Rajputs

- **Usage** Entrance gateway



*Bhairu Pol*



- **Architectural form and details**

The Bhairu Pol is surrounded by 30 ft high towers, and leads to the Palace from the east. Above the gate and around the western area, there are rooms built. The entrance is marked by two *chhatris* along the gate, in which the inscriptions on either side represents the Mughal style.

- **Construction Materials**

Random rubble masonry in lime mortar finished with lime plaster and lime /*khameera* wash.

---

- **Krishna Dwar (G6)**

- **Period of construction** 12<sup>th</sup> century AD                      **Patron** Khinchi Rajputs

- **Usage** Entrance gateway

- **Architectural form and details**

This gate can be dated to the same period as the fort walls reflecting the post and beam style. The pointed arch gate seems to be of a later period possibly built by the Sisodia Rajputs.

- **Construction Materials**

Random rubble stone masonry in lime mortar. Portions of wall show that it may have been plastered with lime in earlier times.



*Krishna Dwar*

---

- **Purva Dwar (G7)**

- **Period of construction** 12<sup>th</sup> century AD                      **Patron** Khinchi Rajputs

- **Usage** Entrance gateway

## 2a. Description of Property

### GAGRON

- **Architectural form and details**

This gate is located on the eastern part of the inner fortification wall. It is a simple gateway with no ornamental details, leading to the stables.

- **Construction Materials**

Random rubble stone masonry in lime mortar and lime plastered



*Purva Dwar*

- **River Gate (G8)**

- **Period of construction** 15<sup>th</sup> century AD, may have been repaired and added later

**Patron** Khinchi Rajputs

**Usage** gateway to the river



*River Gate*

- **Architectural form and details**

River gates are openings on the outer fortification wall, and are access to the rivers Kali Sindh to the north and Ahu to the south. There are three river gates that open towards the north and one towards the south.

- **Construction Materials**

Random rubble masonry in lime mortar.

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- **Pol near Karishma Tower (G9)**

- **Period of construction** 18-19<sup>th</sup> century AD      **Patron** Hada/Jhala Rajputs

- **Usage** Entrance gateway



*Pol near Karishma tower*

- **Architectural form and details**

This gate is the western gate of the fort. It is surrounded by the Karishma Tower, which is a circular wall of radius 25 mts. The architectural style of this gate includes cusped arches.

- **Construction Materials**

Random rubble masonry in lime mortar finished with lime plaster and lime /*khameera* wash.

---

- **Pol (G10)**

- **Period of construction** 16<sup>th</sup> century AD      **Patron** Rathores/Mughals

- **Usage** Entrance gateway



## 2a. Description of Property

GAGRON

2.186



*Pol*

- **Architectural form and details**

This gate is an entrance gateway to the west court of the fort. It leads to the Raniwas. The architectural style includes a pointed arch.

- **Construction Materials**

Random rubble masonry in lime mortar.

**PALACE AREA**

■ **Sheesh Mahal (P1)**

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD     **Patron** Jhala Rajputs

**Usage** Palace area



*Sheesh Mahal*



*Western facade of Sheesh Mahal & Darikhana along Jauhar Kund*

● **Architectural form and details**

The Palace structure is in complete ruins. Though the structure may have existed earlier, it probably came to be known as Sheesh Mahal under the Jhala Rajputs in the 18<sup>th</sup>-19<sup>th</sup> century. The term is synonymous with palatial areas of 18<sup>th</sup>-19<sup>th</sup> century AD decorated with glass inlay work and possibly the rooms housed art work earlier which is completely destroyed now.

● **Construction Materials**

Ruins show structure of random rubble masonry in lime mortar with stone columns.

## 2a. Description of Property

GAGRON

2.188

### ■ Darikhana (P2)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Jhala Rajputs

**Usage** Palace area



*Darikhana*

#### ● **Architectural form and details**

The Darikhana extends from Jauhar Kund to the Mardana Mahal. It is a two storied structure with a central court. Over a period of time, this courtyard has been divided by walls that accommodate soldiers at times of war. The arched colonnades have been closed to form rooms for accommodation. With so many alterations, the original form of the structure is difficult to predict.

#### ● **Construction Materials**

Ruins show structure of random rubble masonry in lime mortar with stone columns.

### ■ Zenana and Mardana Mahal (P3)

● **Period of construction** 15<sup>th</sup>- 19<sup>th</sup> century AD      **Patron** Sisodia and Jhala Rajputs

**Usage** Palace area with women's and men's quarters

#### ● **Architectural form and details**

Close to the Darikhana, this Palace building is a two storied structure occupying maximum area in the fort. It is of linear formation with courtyards and rectangular/square cellular rooms. The architectural styles reflect layers of history and it seems that the palace structure may have existed and was rebuilt by later rulers. The most prominent style is of Zalim Singh Jhala who spent maximum number of years here such as the foliated ornamentation in arched opening from the 19<sup>th</sup> century AD. However, few features such as the ornately carved stone *jharokhas* reveal earlier origins of the palace contemporary to the styles used by Mewar rulers who occupied the fort in 15<sup>th</sup>-16<sup>th</sup> century AD.

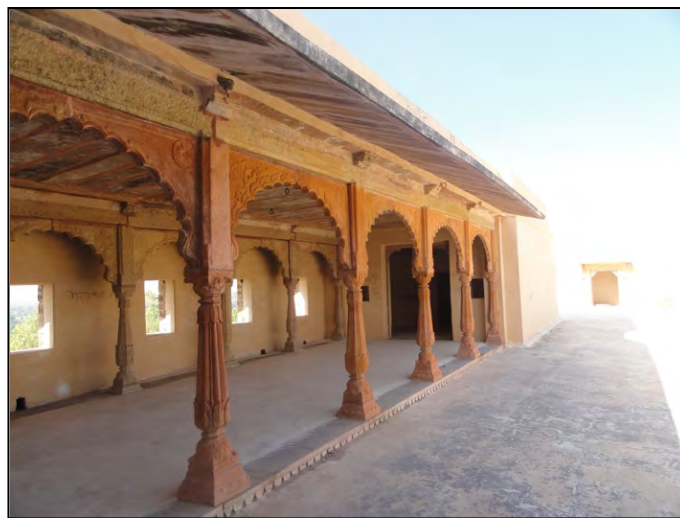




*Main entrance to Zenana Mahal*



*Courtyard at Mardana Mahal*



*Terrace at Zenana Mahal*



*Mardana Mahal*

● **Construction Materials**

Stone structure with lime stucco and wall paintings from 19<sup>th</sup> century AD

## 2a. Description of Property

GAGRON

### RELIGIOUS MONUMENTS

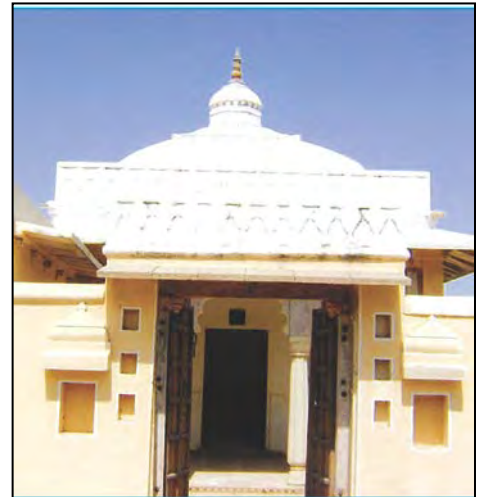
#### ■ Madan Mohan Temple (R1)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Jhala Rajputs

**Usage** Hindu Vaishnava temple



*Madan Mohan temple*



*Main entrance to Madan Mohan temple*

#### ● Architectural form and details

Located near the Suraj Pol, this is a temple in the complex of the Haveli type without *shikhara* reflecting the Vaishnava philosophy of the period.

#### ● Construction Materials

Lime plastered stone walls with decorative lime stucco work at the entrance gate.

#### ■ Hanuman Temple (R2)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Jhala Rajputs

**Usage** Hindu temple



*Hanuman temple*

- **Architectural form and details**

Located near the Suraj Pol and to the southern part of the fort, this is a *haveli* type temple without *shikhara*.

- **Construction Materials**

Lime plastered stone walls.

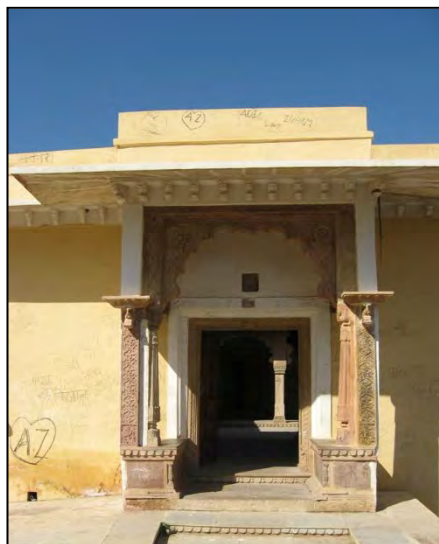
- **Madhusudan Temple (R6)**

- **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Jhala Rajputs

- Usage** Hindu Vaishnava temple



*Madhusudan Mandir*



*Entrance to Madhusudan temple*

- **Architectural form and details**

The temple structure located near the Bhairon Pol, is without a *shikhara* on the pattern of *haveli* temples that were a popular temple type in 18<sup>th</sup> -19<sup>th</sup> century AD in Rajasthan, promoted by the Vaishnava sect.



## 2a. Description of Property

### GAGRON

- **Construction Materials**

Random rubble stone structure with lime plaster and lime wash having architectural elements such as projected balconies and brackets in sandstone

- **Chaturbujnath Temple (R7)**

- **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD      **Patron** Jhala Rajputs

- **Usage** Hindu temple



*Chaturbujnath temple*

- **Architectural form and details**

This temple is located a little further to the west of the Mosque. It is a two storied structure with cusped arches on the first floor. On the west façade, there is a projected balcony.

- **Construction Materials**

Random rubble stone structure with lime plaster and lime wash having architectural elements such as projected balconies and brackets in sandstone.

- **Dargah (R8)**

- **Period of construction** 16<sup>th</sup> century AD      **Patron** Rathores/Mughals

- **Usage** Muslim shrine

- **Architectural form and details**

The Dargah is located on the west of the fort, beside the habitation, and is accessed by a gate from the east. The main structure has cusped arches on the ground floor and a dome above.

- **Construction Materials**

Random rubble stone structure with lime plaster and lime wash.



Entrance to the Dargah

Other Religious Structures



Ramchandraji temple (R3)



Mosque (R4)



Ganesh temple (R5)

CHHATRI/CENOTAPHS/MEMORIALS

## 2a. Description of Property

GAGRON

2.194

### ■ Kattarmal ki Chhatri (C1)

● **Period of construction** 18<sup>th</sup>-19<sup>th</sup> Century AD **Patron** Jhala Rajputs

**Usage** memorial



*Kattarmal ki Chhatri*

### ● **Architectural form and details**

This *chhatri* is located beside the Jauhar Kund. It has a small domical roof on square base representing the Rajput *chhatri* form of 18<sup>th</sup>-19<sup>th</sup> century AD.

### ● **Construction Materials**

Cut stone arches and columns and *chhatri* with lime stucco work on the base.

### ■ Jauhar Kund (C2)

● **Period of construction** 15th century AD **Patron** Khinchi Rajputs

**Usage** memorial (*Jauhar* was performed atleast twice in the Jauhar kund)



*Jauhar Kund*

**STORES**



■ **Top Khana and Sileh Khana (S2 & S3)**

● **Period of construction** 12-16<sup>th</sup> century AD      **Patron** Khinchis/Rathores/Mughals

**Usage** Store for arms, ammunitions and cannons



*Sileh Khana*



*Top Khana*

● **Architectural form and details**

The Top Khana and Sileh Khana are located near the Madhusudan Temple, running along the ridgeline supported on one side by the inner fortification wall. They are a series of rooms fronted by verandahs. In the rooms are Y-shaped stone supports which are placed in pairs in a row of five each, along the length of the room. These features are further queered by the presence of large square shaped stone tanks, which have carved stone lids.

● **Construction Materials**

Lime plastered stone walls.

## 2a. Description of Property

GAGRON

### RUINS



*Ruins along inner fortification walls*



*Ruins near Krishna Dwar*



*Ruins near Madhusudan Temple*



WATER STRUCTURES



*Baori (W1)*



*Well (W2)*



*Moat (W3)*



## 2a. Description of Property

GAGRON

### HABITATION



*Habitation near the Dargah of Muslim population (D1)*



*Habitation near the Dargah*

OTHERS

■ **Stables (M4)**

- **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD, may have existed before **Patron** Jhala Rajputs  
**Usage** stables



*Stables*

- **Architectural form and details**

The Stables are located near the Purva Dwar on the eastern part within the inner fortification walls. They are courtyard structures with colonnades of cusped arches on all sides.

- **Construction Materials**

Random rubble masonry with lime plastered walls.

---

■ **Raniwas (M1)**

- **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD **Patron** Jhala Rajputs  
**Usage** Palace for royal women

- **Architectural form and details**

The Raniwas is located on the west court of the fort. It is a complex with a few structures around a central hall, and was probably used by the queen. The central hall has beams resting on bracketed columns. The facades of the buildings have cusped arches and *chajjas* resting on brackets. It is presently used as a school.

## 2a. Description of Property

GAGRON

2.200



*Raniwas School*

- **Construction Materials**

Random rubble masonry with lime plastered walls, dressed stone for columns and *chajjas*.

- **Tibari (M2)**

- **Period of construction** 18<sup>th</sup>-19<sup>th</sup> century AD

- **Patron** Jhala Rajputs

- **Usage** originally an open arched pavilion



*Tibari*

- **Architectural form and details**

The tibari has a rectangular plan and is located to the south of the Nakkhar Khana gate. It has a cusped arch opening and bracket supported *chajja*. It may originally have been a triple arched open pavilion that was built on later.

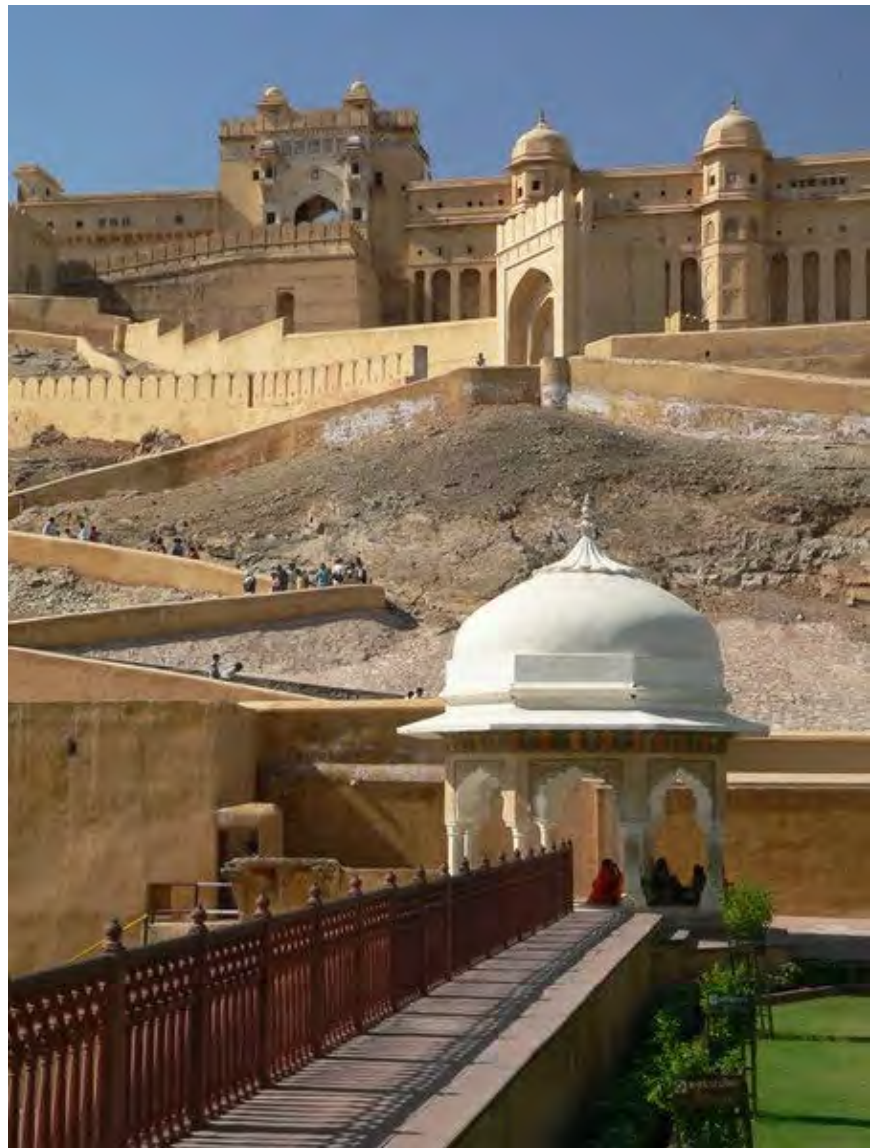
- **Construction Materials**

Random rubble masonry with lime plastered and lime washed walls.



## 2a. Description of Property

Amber



## AMBER

### SUMMARY

Amber Fort is located in a valley formed by a range of Aravallis known as Kalikho Hills. Located below the connecting fortress of Jaigarh, the hill fort of Amber commands a scenic view of the temples situated on the hillside, the lake Maota and the small village adjoining lake Sagar. The palace and fort, located on top of the hill with the city on slopes and the valley are protected by fortifications with four gates in the four cardinal directions. The strategic location of the complex provided it with a natural protection and security being the foremost concern, the natural formations of the hills and valleys were utilized in the best possible manner. The fort was the focal point of the town and all roads led from the gateways in the fort wall to the palace. Surrounded by strong fortification walls and gateways, it comprises of number of gardens, courtyards and palatial spaces influenced by Mughal architecture. The water system including lifts, the lake with its Kesar Kyari, the *hammams* (baths) and fountains is a special feature of the palace. The palace complex is built in a linear manner, on an approximate north-south axis due to the natural formation of the land. The fort palace of Amber is an interesting example of Rajput Mughal planning borrowing the plan form of Mughal palaces that are superimposed on the hilly terrain combined with Rajput fort planning. The fort is an excellent example that showcases how topography has been utilized along with the traditional elements of Indian architecture like courtyards, pavilions and elements of transition.



View of Amber Palace with Maota Lake

Source: Munish Pandit

## 2a. Description of Property

AMBER

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● **Site context**

Amber Fort is located in a valley formed by a range of Aravallis known as Kalikho Hills. Located below the connecting fortress of Jaigarh, the hill fort of Amber commands a scenic view of the temples situated on the hillside, the lake Maota and the small village adjoining lake Sagar. The palace and fort, located on top of the hill with the city on slopes and the valley are protected by fortifications with four gates in the four cardinal directions. The strategic location of the complex provided it with a natural protection and security being the foremost concern, the natural formations of the hills and valleys were utilized in the best possible manner.



*Amber Palace, surrounding hills and the Amber town as viewed from Jaigarh Fort*

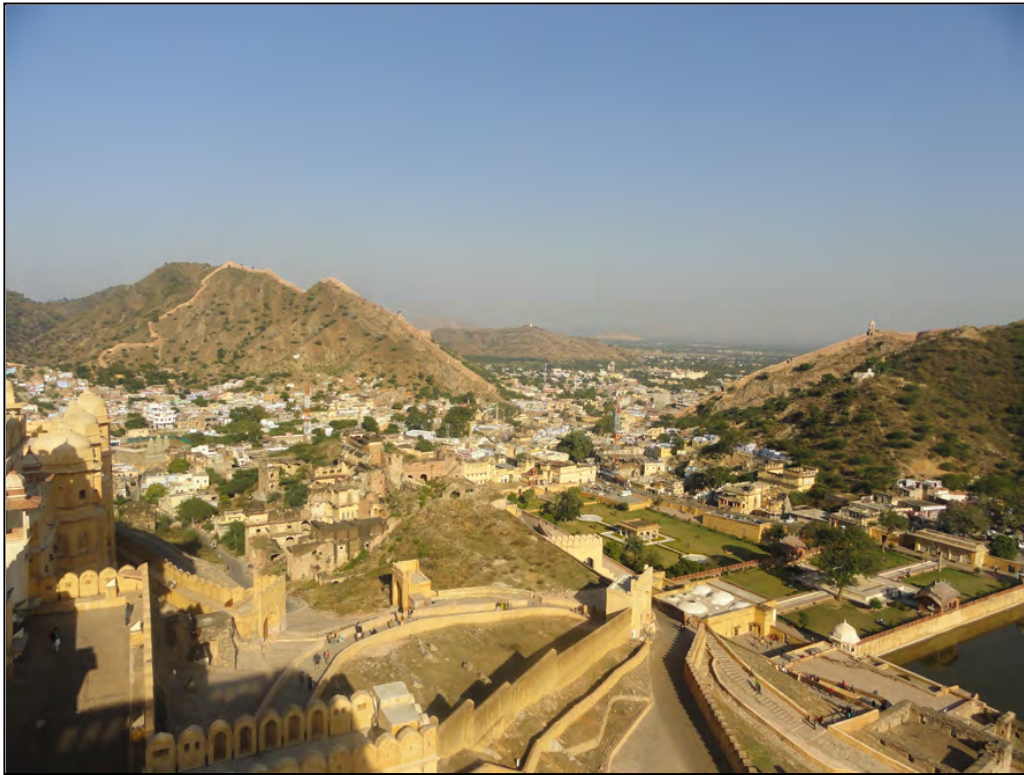
In its primary function, it was the seat of the Kacchwaha Rajputs and defined the capital of the Dhoondhar region of Rajasthan. It served the dual purpose of an administrative as well as residential complex. At the base, on the east side, is the Maota Lake, fed by the surrounding catchment area and providing a beautiful view of itself from the palace top. The name Maota is derived from “Mawat” or a shower of rain which fills the lake. In the historic times it would have been a part of the natural defenses for the palace, provided water to it (evident from the elaborate system of lifts and tanks present), and acted as a place of recreation for the royalty. This fort of Amber lies below Jaigarh, another fortification which crowns the summit of a hill 152 mts above the Amber Fort. The Jaigarh is connected with and defended the Amber palace; it was for many years the State Treasury and prison.



## 2a. Description of Property

AMBER

2.206



*The Dalaram Bagh and Ram Bagh, the town below and surrounding hills as viewed from the Amber Palace*



*View of the Amber Palace complex with the town sprawling below  
Source: State Department of Archaeology, Rajasthan*

### ● Site & Spatial Planning

The fort was the focal point of the town and all roads led from the gateways in the fort wall to the palace. Surrounded by strong fortification walls and gateways, it comprises of number of gardens, courtyards and palatial spaces influenced by Mughal architecture such as the Diwan-i-Am, Diwan-i-Khas, etc. Some of the most striking features in the whole complex are the Sheesh Mahal, the Ganesh Pol, Bhojanshala paintings and the temple of Mata Sila Devi. The water system including lifts, the lake with its Kesar Kyari, the *hammams* (baths) and fountains is a special feature of the palace. A proper drainage system with clay pipes was also worked out.



*The Amber Palace with fortifications, Kesar Kyari garden and the Maota Lake*

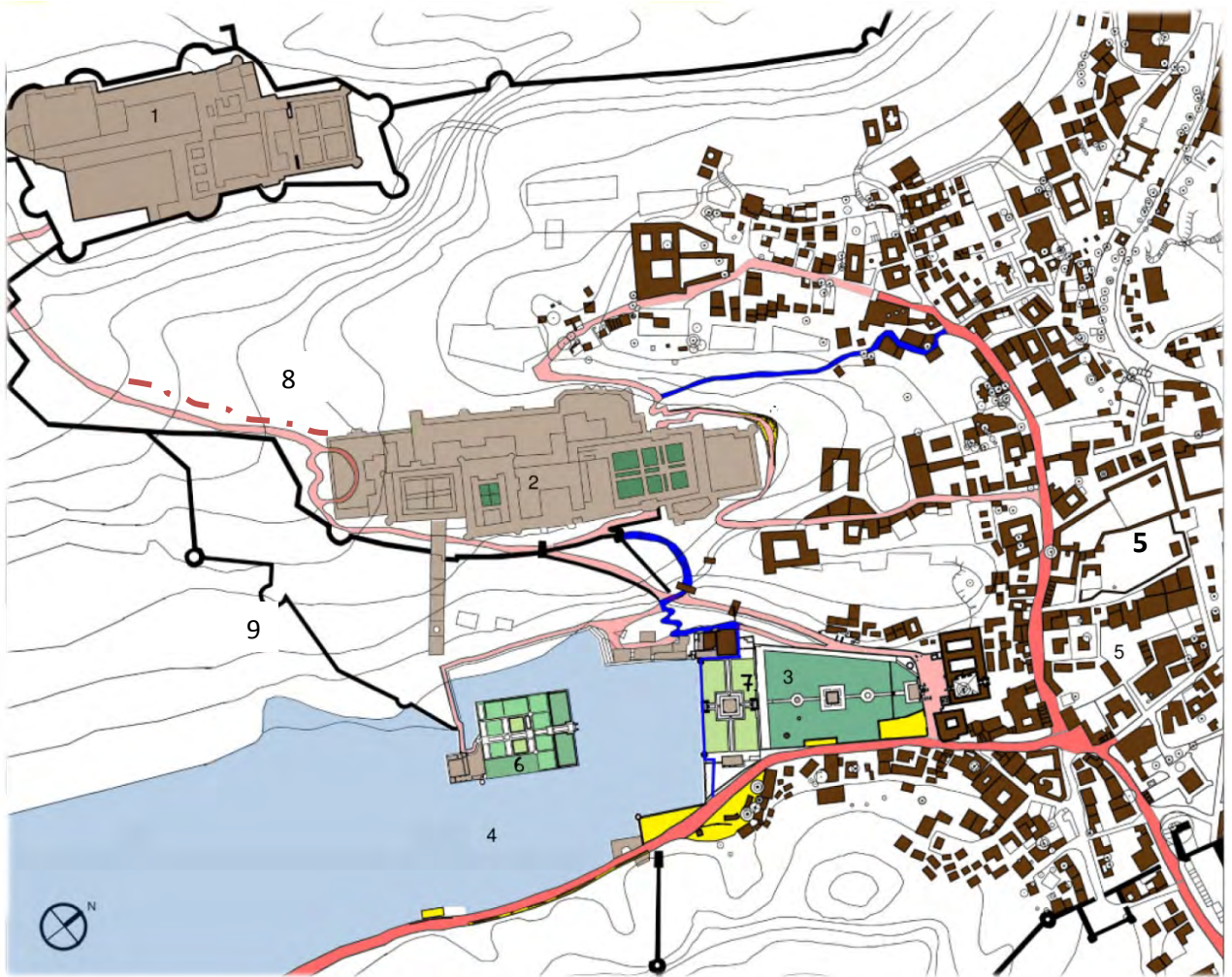
The palace complex is built in a linear manner, on an approximate north-south axis due to the natural formation of the land. The principal functions are placed on either the east or the west sides. Since the beautiful Maota Lake and its surrounding gardens fall on the east, the important functions of the palace like the meeting halls of the king are placed on the eastside with views towards the lake. Servants' quarters or other support activities fall on the west side which faces the cliff and forms a protective buffer zone.



## 2a. Description of Property

### AMBER

2.208



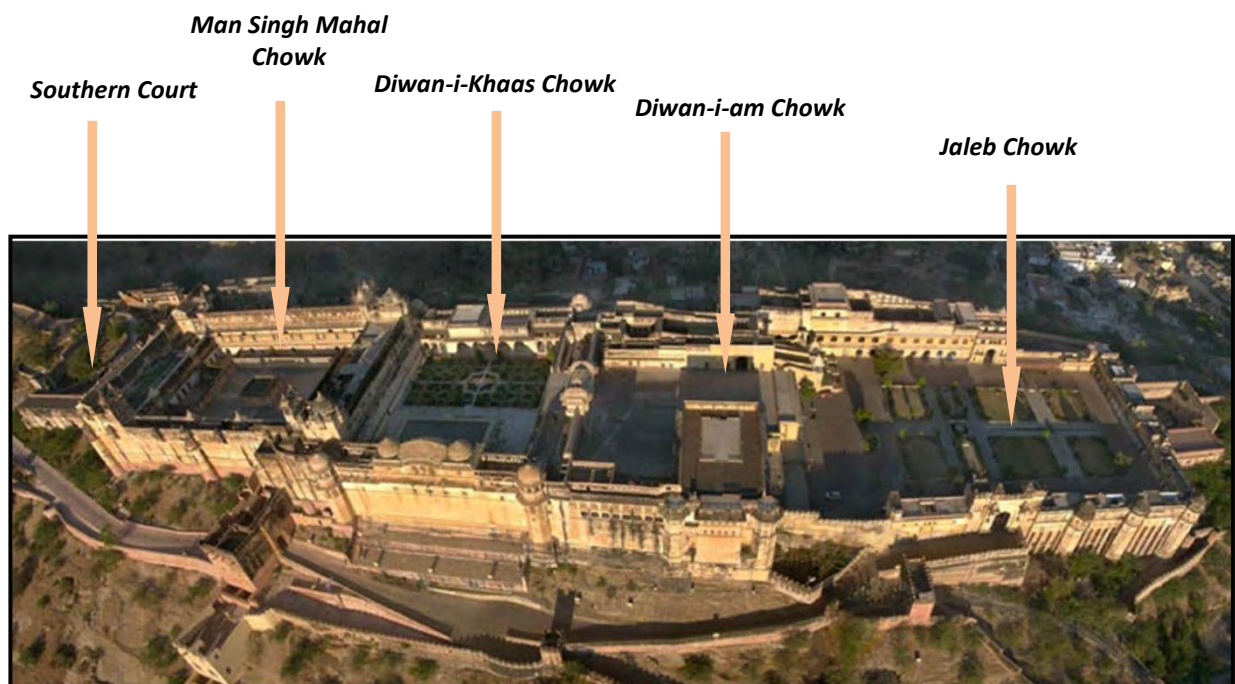
*Site Plan of Amber Fort showing link with Jaigarh*

*1. Jaigarh Fort 2. Amber Palace 3. RamBagh 4. Maota Lake 5. Amber town. 6. Kesar Kyari 7. Dalaram Bagh, 8. Tunnel, 9. Bastion*

*Source: State Department of Archaeology, Rajasthan*

The fort palace of Amber is an interesting example of Rajput Mughal planning borrowing the plan form of Mughal palaces that are superimposed on the hilly terrain combined with Rajput fort planning. The palace based on Mughal plan has the Jaleb Chowk for entrance and public functions, the Diwan-i-Am for public hearings, and the Diwan-i-Khas for the main administrative functions and finally the Man Singh Mahal (Zenana chowk) which forms the residential areas. The Jaleb Chowk and the Man Singh Mahal are aligned to the main axis and the other two courtyards have an axis that is perpendicular to the primary axis. They are built along a ridge of the hill and so form a single line. On the west side, are buildings of different dates, mostly self-contained apartments for servants of varying ranks; and include small spaces tightly packed with simpler structures. The east front dominates the valley, and in conjunction with Jaigarh and Maota lake, it makes a composition as informal and powerful as the hill side itself.

Courts are the main open spaces of the palace. Reference has been made to the organizational structure of the palace around the four main courts. Apart from these, there are other courts which constitute the servants' area, a forecourt for the *zenana* at the south end, and the court of Panna Mian ki haveli. Each court is differently structured in terms of size, articulations and connections to the spaces around, depending upon its position in the hierarchy of the palace, type of space required for a particular function, living traditions, and climate. Elements like *baradaris*, water bodies, gardens and gateways articulate the courts. In others, there are deviations with gateways, *baradaris* and steps breaking the axis.



Aerial view of Amber Palace showing the arrangement of spaces around courtyards of Jaleb chowk, Diwan-i-am, Diwani-i-Khaas and Man Singh Mahal chowks along the north south axis as it aligns along the terraces of the hill

Source: State Department of Archaeology, Rajasthan

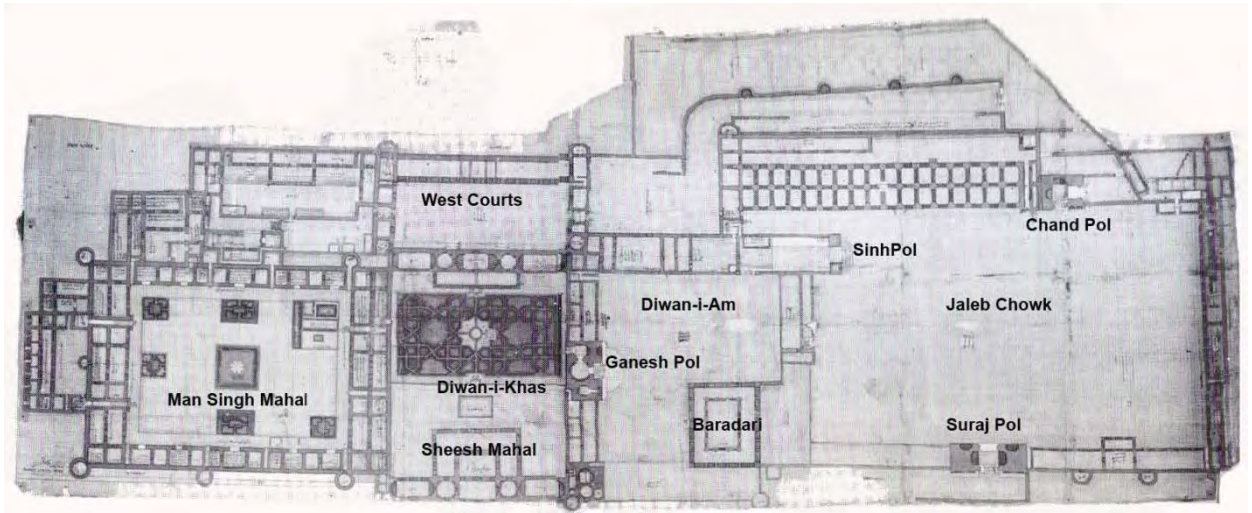
The court of the Diwan-i-Am looks out onto the Maota Lake through a pavilion structure. The Man Singh Mahal has several smaller courts abutting it, each defining the territory of a particular queen. It is scaled by a central *baradari*. Connected to the main spaces through a series of smaller support spaces are the servants' quarters, kitchens, stores, toilets etc. They have the same linear organization though the scale and articulation is of a lesser degree. Separation between main spaces and support spaces is through long narrow ramp leading to the rear west courts. The Dalaram Bagh, Ram Bagh and Kesar Kyari are the peripheral gardens that define the entrance from the east side. The ramps are placed between two courts to connect the different levels and are a later insert. They are added on terraces and in the gardens.



## 2a. Description of Property

### AMBER

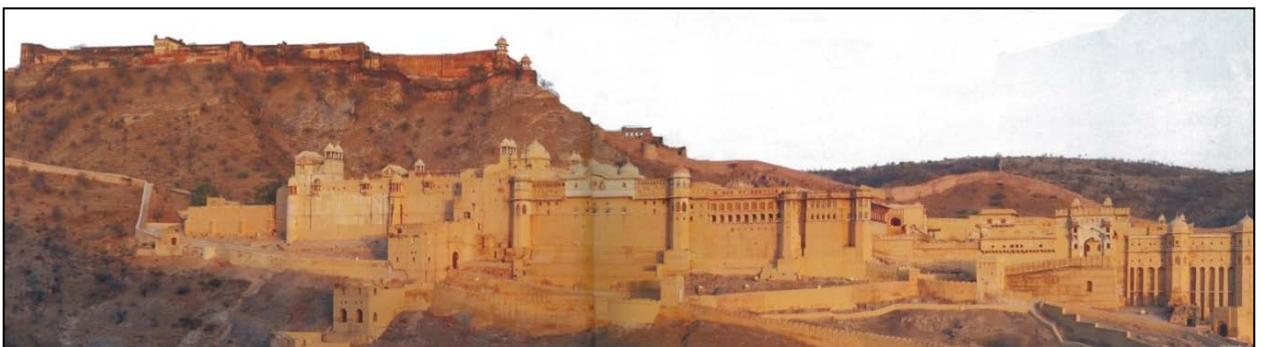
2.210



*A historic map of Amber with notes recording when certain repairs and additions were carried on (dates vary from 1649-1681 AD). Though the map is not dated, it gives an idea of the structure of the palace before it took its present form  
Source: Gole, 1989*

The palace complex has a temple dedicated to the deity of Kali. It is accessed directly from the Jaleb Chowk. To the right of Singh Pol are steps that lead to the temple. Amber was part of an arid region of the country and water played an important role in the making of the palace. Special provisions were incorporated within the construction and planning. Maota Lake was the primary source of water and it was replenished by rain. Water from the lake was drawn up by a series of lifts and used for various purposes in the palace like *hammams* and fountains. Channels and pipes were utilized to move the water throughout the palace.

The fort is an excellent example that showcases how topography has been utilized along with the traditional elements of Indian architecture like courtyards, pavilions and elements of transition. A gradual slope in the north south direction generated terraces on that axis leading to the formation of the linear plan. Creation of several basements under the main levels is suggestive of the hill formations. The undulations of land were converted into salient features with terraces and courtyards.



*A panoramic view of the Amber Palace as it sits on the terraces of the contours of the site  
Source: Baig, 2010*

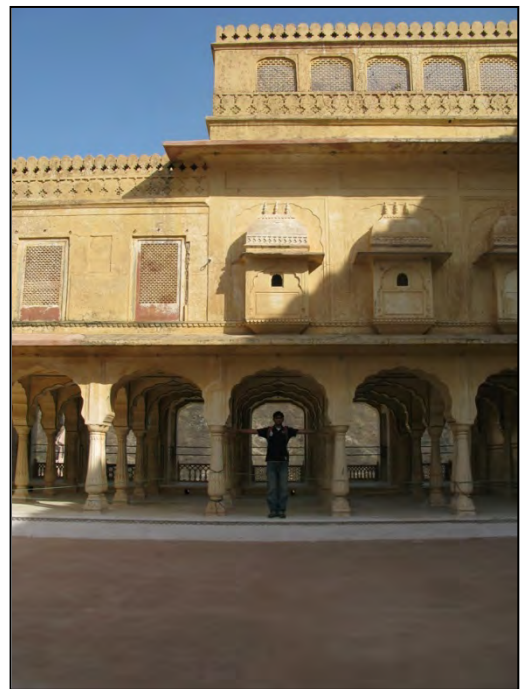


● **Architectural Details and Construction Materials**

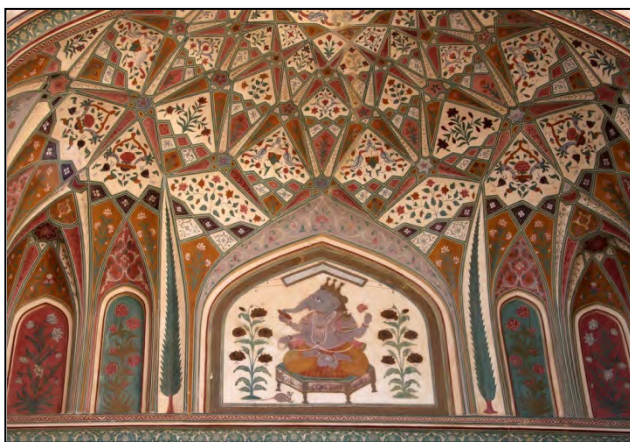
Built in stone and lime as basic materials, the palace is a composite construct of load bearing and post beam systems. The smaller openings are made with cusped brackets forming arches, rather than true arches. Effectively, these are extended brackets. However, the larger spans in the gateways are formed with massive masonry system. They were then spanned with domes, vaults or half domes. Pendentive arches were used. These were then decorated with paintings and frescos. The gateways are reminiscent of the large *diwans* of Islamic architecture in their manner of construction.



*The cusped arches and jharokas with a small opening for viewing*



*The post-beam system of the Diwan-i-Am elaborately carved in sandstone & marble*



*The intricate and colorful fresco painting at Ganesh Pol*



*The sandstone carved brackets supporting the trabeate system of spanning spaces*

## 2a. Description of Property

### AMBER

2.212



*The intricately carved lattice work-the Jali patterns in stone*



*The mirror embellishments of the Sheesh Mahal*



*The fresco work on the walls depicting floral patterns*

The roofs are made of stone slabs supported on walls or beams. At times they could also be domes or vaults. Dressed stone columns, brackets, door jambs, lintels are also used to provide for various edging conditions of the load bearing system. The load bearing walls are made of stone masonry which may be of dressed or rough stone. One also finds inlay work, both in stone as well as in wood. Inlay of ivory on sandalwood doors, or colored semiprecious stone in marble is used to enhance the special chambers. Glazing work is also found here. The mirror embellishments of the Sheesh Mahal and the POP work of Sukh Niwas are unsurpassed in the area. The care of the artisans in making the palaces is seen in the minutest of *jali*-work, in filled with wafer thin mica sheets. The palace complex of Amber fort is a fascinating blend of Hindu and Muslim architecture built in green quartzite, red sandstone and white marble.



View to and from fort



View 1: Panoramic view of Rambagh and Amber town from Suraj Pol within the fort



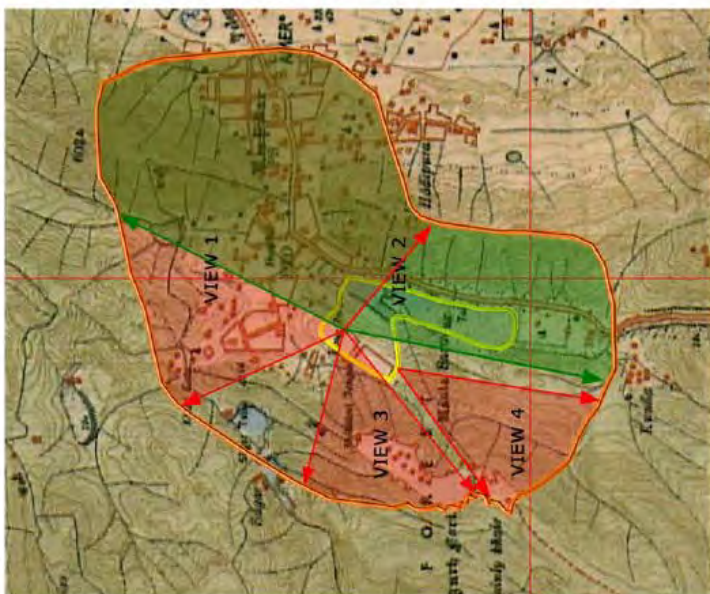
View 2: Panoramic view of hills on the eastern side overlooking Maota Lake



View of Amber town situated to the north of Amber fort



View 3: Panoramic view of Jaigarh from Amber fort



AMBER FORT: Topographic Map showing viewpoints from the fort



View 4: Panoramic view from the south court within fort



## 2a. Description of Property

AMBER

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**FORT WALL AND BASTIONS**

F1. Outer Wall and Palace Walls with Bastions

**GATES**

- G1. Suraj Pol
- G2. Chand Pol
- G3. Sinh Pol
- G4. Ganesh Pol
- G5. South Pol
- G6. Tripoliya Gate
- G7. Bhairu Pol
- G8. Dhruva Pol

**PALACE AREA**

- P1. Jaleb Chowk
- P2. Diwan-i-Am (Kuchehri, Baradari, Billiards Room)
- P3. Diwan-i-Khas (Sukh Niwas, Jas Mandir)
- P4. Man Singh Mahal (Man Singh Chowk, Zenana Quarters, Baradari, Dry Toilets)
- P5. Rang Mahal

**HAVELI / HOUSE**

- H1. Panna Miyan Ki Haveli

**RELIGIOUS STRUCTURES**

- R1. Shila Mata Temple
- R2. Temple (Man Singh Mahal)

**STORES**

- S1. Palki Khana
- S2. Stables

**GARDENS**

- B1. Dalaram Bagh
- B2. Ram Bagh
- B3. Kesar Kyari
- B4. Garden in Diwan-i-Khas Court

**WATER STRUCTURES**

- W1. Water system of lifts to get water up from Maota Lake
- W2. Hammam
- W3. Maota Lake

**OTHERS**

- M1. West Court (Servant Quarters and Maid's Quarters)
- M2. South Court
- M3. Kitchen and Dining Hall
- M4. Barracks & Attendant Quarters

0 50 100 150 200 250 Metres



Scale: 1:3000

SITE COMPONENTS - AMBER FORT

## 2a. Description of Property

AMBER

### FORT WALLS AND BASTIONS

#### ■ Outer wall and Palace Walls with Bastions (F1)

- **Period of construction** 11<sup>th</sup> century AD onwards **Patron** Kacchwahas
- **Usage** defense

#### ● Architectural Form and Details

The fort is surrounded by fortifications in stone walls, punctuated at suitable intervals by great octagonal watchtowers and provided with several gateways. Many sections of these walls are typical of Rajput fortifications.

#### ● Construction Materials

Coarse rubble stone, dressed stone and lime



*The fortifications of Amber Palace as viewed from the approach road along the Maota Lake*



*The exteriors walls of the Amber Palace*



## GATES

### ■ Suraj Pol (G1)

● **Period of construction** 1622 – 1677 AD/1699-1743 AD

**Patron** Mirza Raja Jai Singh I /Jai Singh II

**Usage** entrance gateway



Suraj Pol

#### ● **Architectural Form and Details**

Suraj Pol forms the main entry to the palace opening into the Jaleb Chowk. The structure itself is three floors high with a monumental Islamic pointed arch, guard room and other chambers flanked on sides. It is extensively ornamented in stone and stucco work, crowned with two *chhatris* and a crenellated parapet on top.

#### ● **Construction Materials**

Stone laid in lime mortar, lime plastered and lime washed.

### ■ Chand Pol (G2)

● **Period of construction** 1622 – 1677 AD/1699-1743 AD

**Patron** Mirza Raja Jai Singh I /Jai Singh II

**Usage** entrance gateway

#### ● **Architectural Form and Details**

A four storeyed structure opposite to the Suraj Pol forms the second point of entry/exit into Jaleb Chowk. The gateway has side chambers, pointed arched opening and projected stone carved balconies on either side on the first storey

#### ● **Construction Materials**

Stone with stone carved elements laid in lime mortar, lime plastered and lime washed.

## 2a. Description of Property

AMBER

2.216



*Chand Pol*

### ■ Sinh Pol (G3)

● **Period of construction** 1622 – 1677 AD **Patron** Mirza Raja Jai Singh I

**Usage** entrance gateway

### ● Architectural Form and Details

A simple gate with Islamic pointed arch opening crowned with a triple arched *jharokas* and decorated with paintings. It leads to the temple of Sila Devi from Jaleb Chowk

### ● Construction Materials

Stone laid in lime mortar, lime plastered and lime washed.



*Entrance to Sinh Pol*



*View of Sinh Pol from Diwan-i-Am court*

■ **Ganesh Pol (G4)**

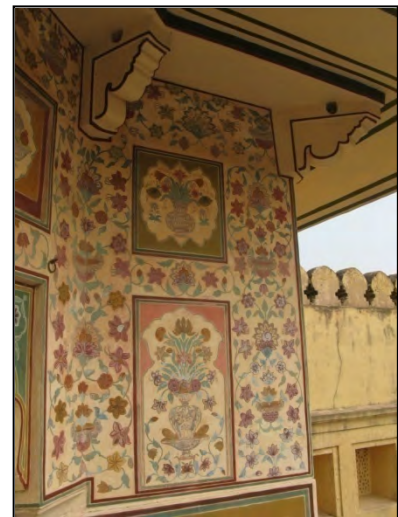
- **Period of construction** 1622 – 1677 AD/1699-1743 AD     **Patron** Mirza Raja Jai Singh I/  
**Usage** entrance gateway     Jai Singh II

● **Spatial Planning**

The Ganesh Pol is in two storeys, which serves as the entrance from the public to the private courts of the palace. The upper portion of the gateway is the Suhag Mandir (a small pavilion limited in size to the span of Ganesh Pol). It was used as a chamber by the royal ladies to witness, through lattice screens, the state functions held below in the Diwan-i-Am. On the outer, north side the two storeys form a united façade. On the inner, south side the unity is abandoned: the south elevation of the lower chamber is a blank wall, and the upper chamber is seen to be a pavilion standing on a terrace formed by the roof of the lower one. The access which it provides, however, is not direct: the gate consists of two adjacent halls and the route through them turns two right-angled corners. This is primarily a defensive measure, intended to confuse and so impede an invading force.



*Ganesh Pol*



*Fresco paintings at Ganesh Pol*

In the Ganesh Pol, the indirectness of access is also a stylistic measure. One expects such a grand gateway to provide direct access – as do most formal gateway in India – and this confounding of expectation, the upsetting of a formal scheme, illustrates an attitude to symmetry found in parts of many of the more irregular Rajput fort palaces: the rules of symmetry are invoked, only to be whimsically disobeyed.

● **Architectural Details**

There are exquisite frescos in vegetable colours. The composition of five pointed arches – with a central tall one flanked by smaller ones in tiers is similar to such Mughal monuments as the gateway to Akbar’s tomb at Sikandra, which are of an early date. The difference between the two fronts of the Ganesh Pol involves a change in the scale from the imposing grandeur of the outer front, suitable to the public court, to the divided and so smaller components of the inner front, more in keeping with the intimate atmosphere of the private court.



## 2a. Description of Property

AMBER

2.218

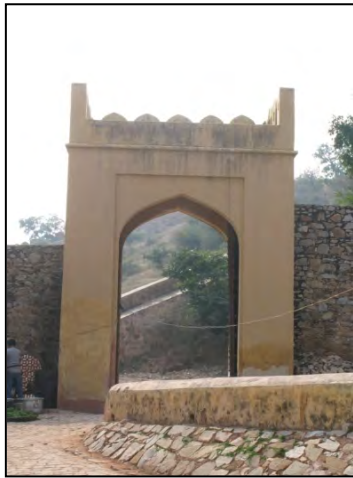


*Cusped arches with intricate jalis on the upper floor of Ganesh Pol*

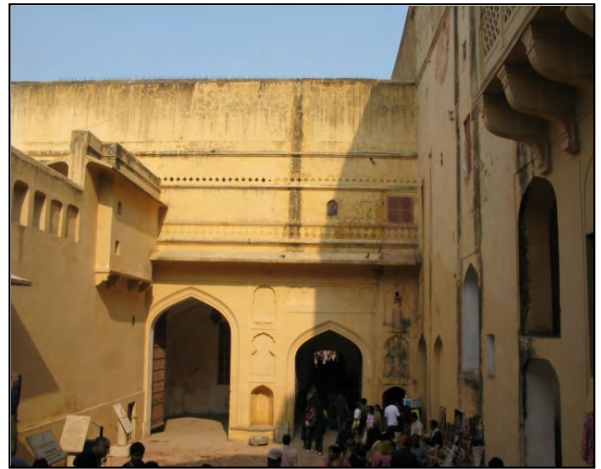
### ● Construction Materials

Stone laid in lime mortar, lime plastered and lime washed with fresco paintings using natural pigments

### ■ Other Gates



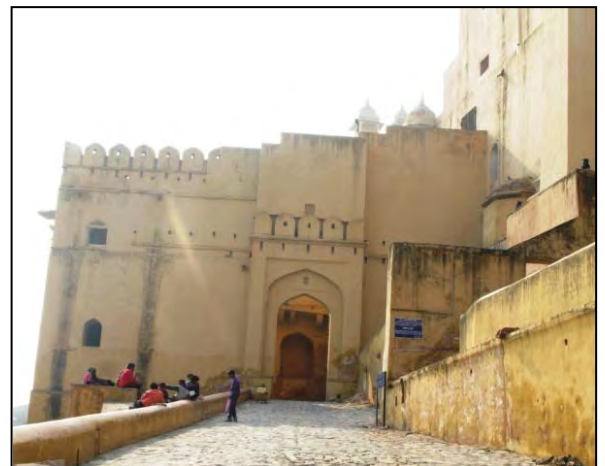
*South Pol(G5)*



*Tripoliya Gate (G6)*



*Bhairu Pol (G7)*



*Dhruv Pol(G8)*

**PALACE AREA**

■ **Jaleb Chowk (P1)**

- **Period of construction** 1622-1677 AD/1699-1743 AD **Patron** Mirza Raja Jai Singh I/Jai Singh II
- **Usage** courtyard



*Jaleb Chowk with Chand Pol on its west*

● **Spatial Planning**

The winding route to the palace brings one to the Jaleb Chowk, a forecourt to the palace. This was the place for large gatherings, festive occasions, parades and public audiences of the king. Historically, functions like *kacchehri* (court where legal decisions are taken), record office, and stable attendant's quarters and staff residences were part of this *chowk*. It may be presumed that considering the public nature of this space, it would have accommodated administrative and other service related facilities. Three beautiful gateways, the Suraj Pol, Chand Pol and Sinh Pol open into this courtyard. The temple to the Goddess Kali (Shila devi temple) is also accessed from this *chowk*, through the Sinh Pol.



*View of the Jaleb Chowk with Suraj Pol on its east, Diwan-i-Am and Ganesh Pol on its south*  
*Source: State Department of Archaeology -Rajasthan*



## 2a. Description of Property

### AMBER

It is rectangular in plan (64m x 92m). Held on all sides by offices and quarters, the built form is low on the north and east sides while it towers up towards the south with the Diwan-i-Am overlooking this *chowk*. These two sides have arcades on the lower level while the first floor has only small windows in rooms projecting out.



*Jaleb Chowk with Suraj Pol*



*Jaleb Chowk with low height arches on the lower floor and projecting rooms on the upper floor*

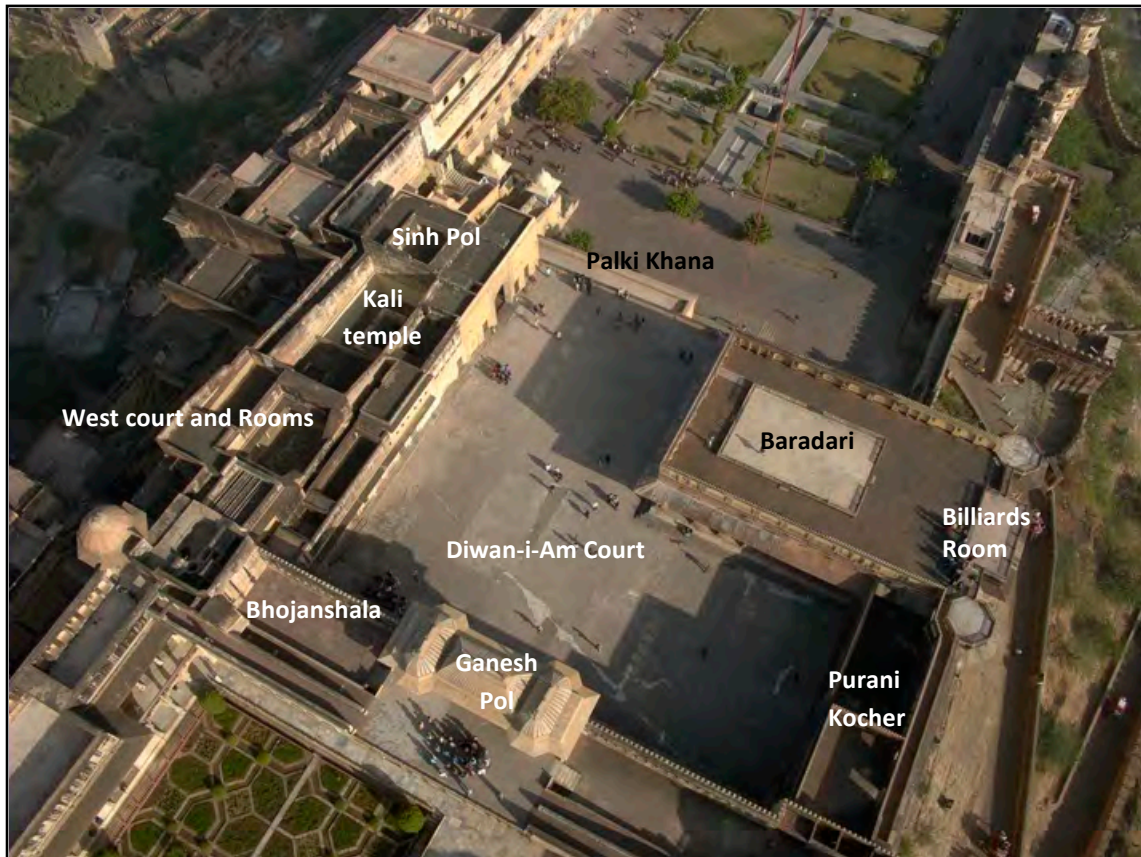
#### ■ Diwan-i-Am (P2)

- **Period of construction** 1622 – 1667 AD      **Patron** Mirza Raja Jai Singh I  
**Usage** Court for commoners

#### ● Spatial Planning

The Diwan-i-Am or the court for the commoners was a place for public meetings and durbars. It stands on a raised platform supported by a series of 40 columns. According to European traveler Rousselet, the splendor of the Diwan-i-Am was such that it aroused the envy of the Emperor Jahangir and having thus caused Raja Jai Singh some anxiety. To appease the Mughal Emperor, Mirza Raja Jai Singh subsequently had the pillars covered with stucco and it was only much later that the pillars reacquired their original color (*Hooja, 40, 2009*). Historic plans show that initially the *baradari* was the only built structure within the *chowk* with the north and west sides left open. Opening onto the *baradari* is a large hall with another set of rooms behind it facing the Kesar Kyari. The rooms along with a rectangular multi-layered pavilion were added later on. The articulation of the built form greatly varies from space to space. While the Diwan-i-Am with its elephant brackets, beige and red sandstone construction is high, the pavilion on the side with its nine cusped arches and white marble columns is a low building.





An aerial view of the Diwan-i-Am with the Court, Baradari, Billiards room and adjoining rooms  
 Source: State Department of Archaeology -Rajasthan

To the south of the court is the imposing Ganesh Pol. Access to one set of *hammams* (bath) is from this court. They are in the south east corner and are fed from the water lifting system of Maota Lake. Above the south verandahs are rooms which are called the *Bhojanshala*. It was the private dining room of the ruler. It is a small room hardly 4mts by 2 mts on the first floor with a door from the inner courtyard verandah in the middle of one wall, and opposite it, a door leading to a verandah, overlooking the outer courtyard. At one end a small stair leads up from the lower floor and at the other a door leads to another small room. Around the walls from a height of about 1 meter to the top, about two and half meters high are paintings, in some cases black and white sketches in square blocks. On some of the walls, the paintings depict religious scenes. Delicate, geometric patterned *jail* work separates these rooms from the Diwan-i-Am. The Diwan-i-Khas is accessed through the magnificent Ganesh Pol through the Diwan-i-Am court.

#### ● Construction Materials

The outer columns, in coupled pairs, are of red sandstone and the inner ones of cream marble. Neither of these stones is local to the Amber district and the use of imported stone is one feature of the lavishness of the building (most of the palace is built of local stone, rendered and painted cream).

## 2a. Description of Property

AMBER

2.222



*The Diwan-i-Am hall*



*The Kacchehri – an open hall pillars and cusped arches*



*The Diwan-i-Am court with the Bhojanshala to its south*

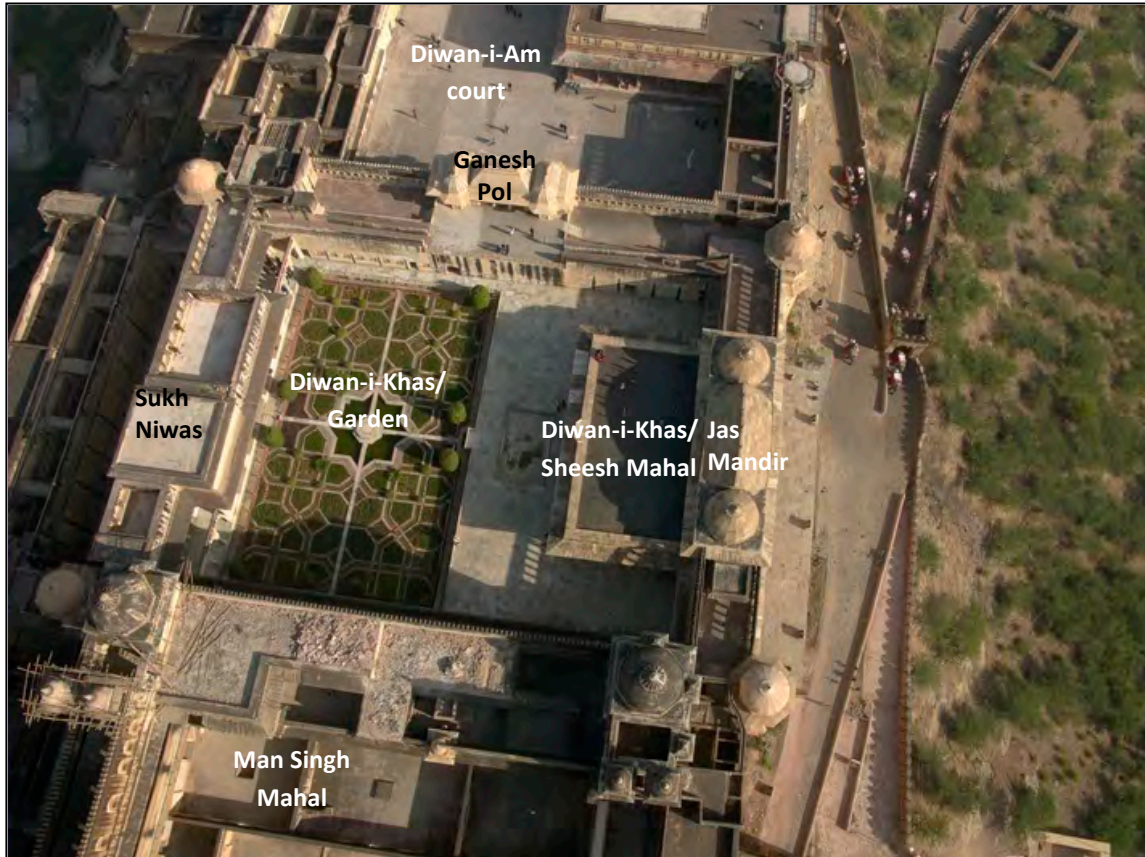


■ **Diwan-i-Khas (P3)**

● **Period of construction** 1622 – 1667 AD

**Patron** Sawai Jai Singh II

**Usage** Court for private audience &  
King's residence



An aerial view of the Diwan-i-Khas

Source: State Department of Archaeology -Rajasthan

● **Spatial Planning**

Of all the courts, the Diwan-i-Khas (also known as Sheesh Mahal), being the most important in the political hierarchy, is the most formal and ornate. The halls derive their title from the elaborate mirror work on the walls, ceilings and columns. A corridor with double columns of alabaster surrounds the halls of the Sheesh Mahal. Above the Sheesh Mahal is the Jas Mandir, an oblong chamber with splayed corners and a curvilinear (*bangaldhar*) roof flanked by two octagonal, domed side rooms. Placed at the edge of the palace so that its outer wall is flush with the exterior wall, the pavilion gets breezy and cool, and affords a striking view of the lake to the east of the palace, the Maota Lake, with its island garden. Facing the Sheesh Mahal is the Sukh Niwas, the pleasure palace, a large chamber with side rooms fronted by a verandah overlooking a courtyard garden.



## 2a. Description of Property

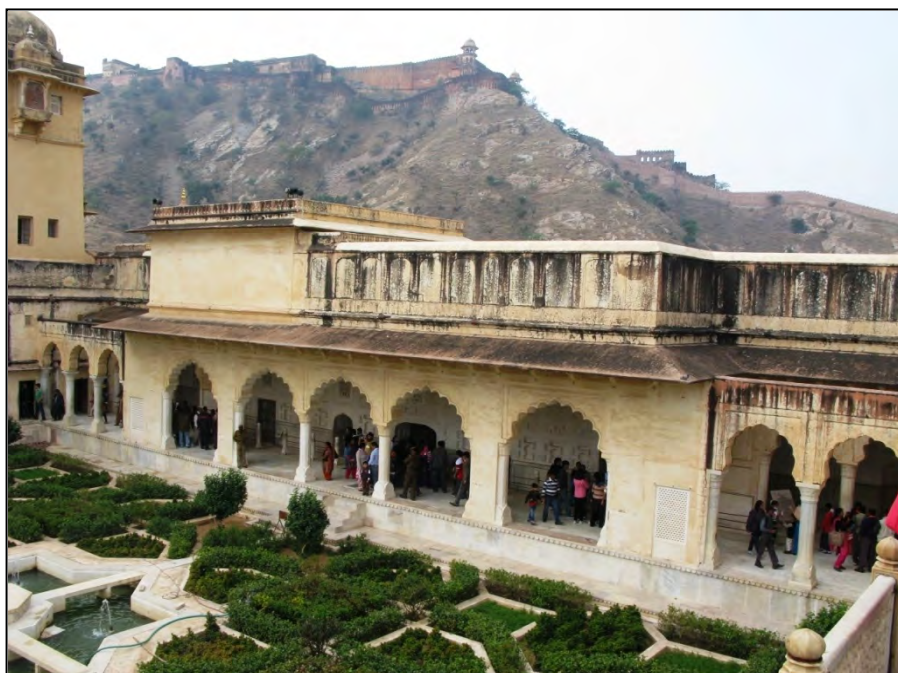
AMBER

2.224



*Diwan-i-Khas/Sheesh Mahal and the Jas Mandir above with curvilinear roof flanked by chhatris*

The rear wall of the main chamber contains a pierced marble slab over which water cascaded before flowing out of the chamber into the garden through a marble water channel. The marble water channel of the garden is inset with small fountains. The court is divided into levels with the garden at the lowest level. Atop the Sheesh Mahal sits the Jas Mandir with terraces overlooking the garden below. It would have indeed been delightful to hear the sound of water gurgling down carved marble *chadars* and the fountains and see the light of the lamps multiplied in the mirrors of the Sheesh Mahal. The south side is an entirely blank facade with small *jalis* and doorways to the Man Singh Mahal.



*The Sukh Niwas with the Charbagh garden in the front*

Suhag Mandir, the beautifully articulated pavilion with marble screens crowning the Ganesh Pol would have been the perfect space for viewing the activities of the Diwan-i-Am court without being seen. It is the only space from where one can experience both the courts simultaneously. There are accesses to the west courts, the water system and *hammams* on the east side overlooking the Maota lake as well as the Man Singh Mahal from this court.



Exquisite stucco work on the walls of Sukh Niwas



The intricate mirror embellishments in the Sheesh Mahal

### ● Construction Materials

The Sheesh Mahal consists of two beautiful halls with low arched entrances, elaborately decorated niches and intricate floral patterns carved in stone. The Jass Mandir has a polished lime flooring and delicate marble *jali* work windows. Marble and sandstone are chief materials of construction.

### ■ Man Singh Mahal (P4)

- **Period of construction** 1589-1614 AD      **Patron** Raja Man Singh
- **Usage** Women's quarters

### ● Spatial Planning

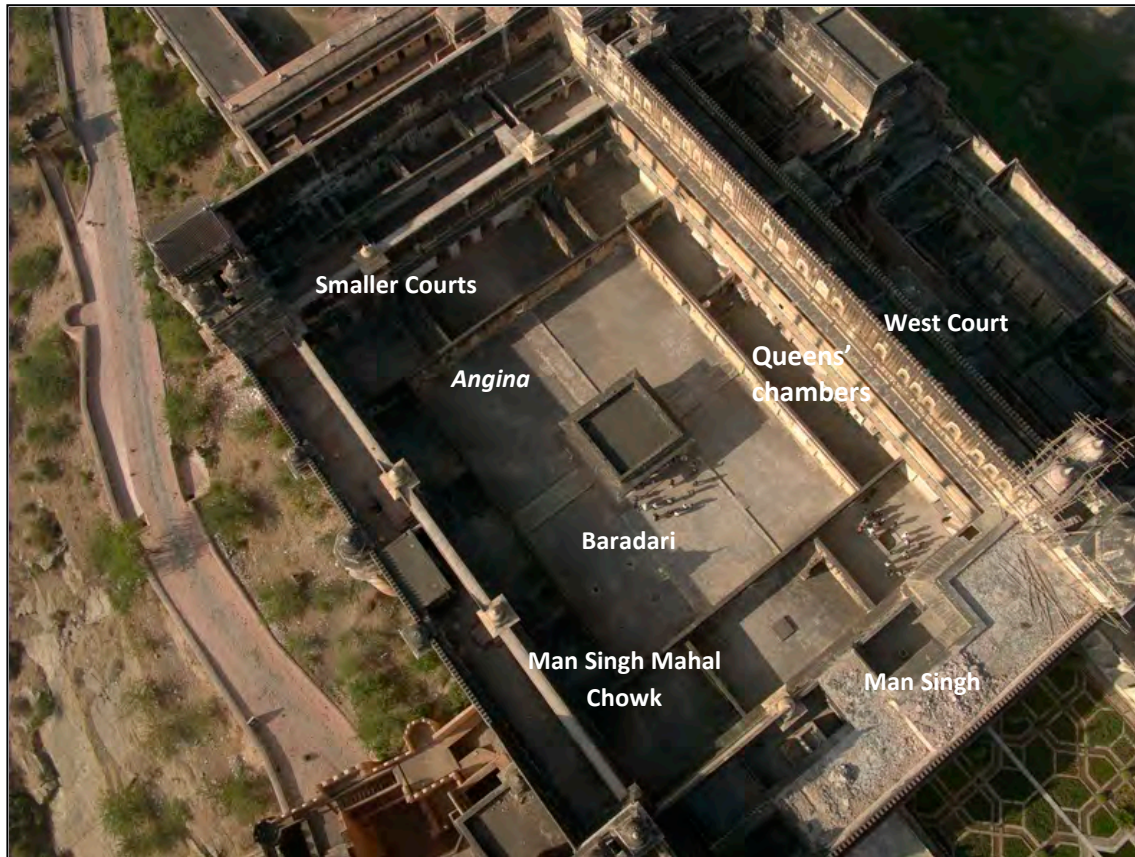
Originally built by Man Singh as his main palace, the structure was converted into *zenana* in the 17<sup>th</sup> century AD. In its present condition, one enters the Man Singh Palace through a winding ramp onto a small court which then opens into a larger court. A series of small courts defined by a 3m wall abutting the main court define the Man Singh chowk. All the courts have a single access through a doorway into the main court. The quadrangle of Man Singh Mahal primarily comprises chambers all around the central *chowk*. It is a two storeyed structure and the chambers become apartments for the queens.



## 2a. Description of Property

AMBER

2.226

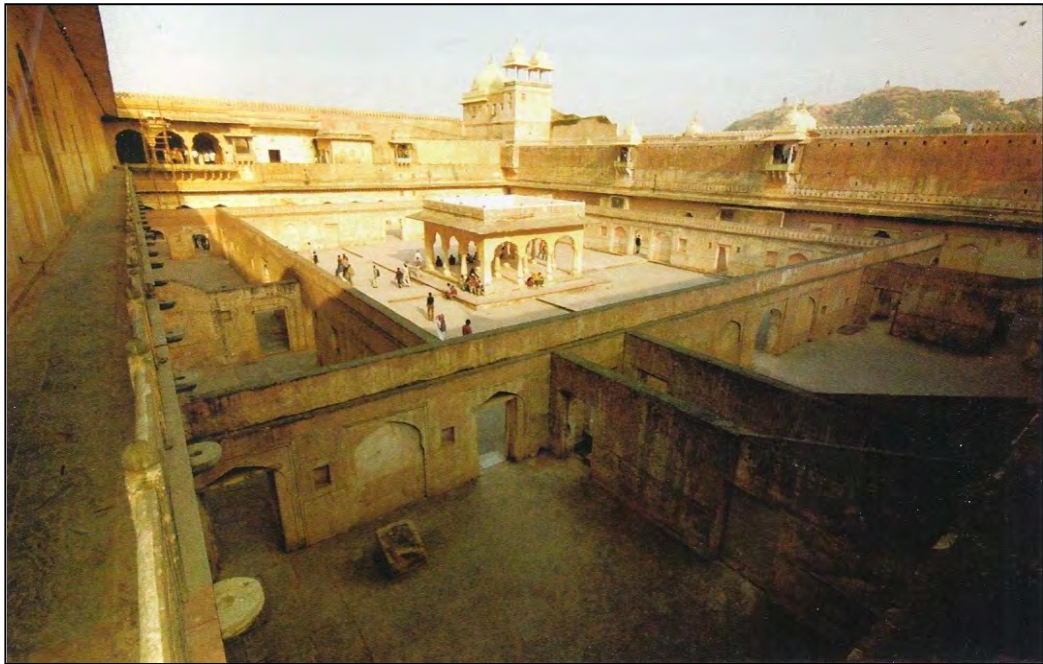


An aerial view of the Man Singh Mahal and Chowk  
Source: State Department of Archaeology -Rajasthan

A *baradari* defines the centre of this court. The edges of the court are mostly blank walls unlike other courts which have verandahs. Concerns for privacy could have been one parameter. The *chowk* was originally empty. It appears to have been modified over time with several small courtyards and the pillared *baradari* in the centre of the quadrangle having been added at a later time. The high walls and the ring of balconies and corridors enabled the ladies of the palace (and their scores of servitors and retainers) to remain in *purdah* (behind a veil). The *zenana* also contains smaller apartments for the servants and other staff. The *zenana* contains high walls, towers and long galleries as well as covered balconies and corridors leading to the numerous apartments of the royal ladies. On the exterior, its high, un-pierced walls are articulated by heavy string-courses and punctuated by buttress towers capped by cupolas, between which small box-like balconies break the skyline. It straddles the highest point of the cliff and is therefore the highest court of the palace. It has an entry from the southwest side, which is also the area of the king's residence.

While on the ground floor, the apartments have a private court, on the second floor, there are terraces. All the apartments on the top floor are connected by a passage that runs along the court





*Man Singh Mahal, Man Singh Chowk and the Baradari*

*Source: Khan, 2008*

and its length is intercepted by projected *jharokas* at intervals. The corners are defined by three storeyed stairwell towers crowned by a pair of *chhatris*. Care was taken to provide services to the palace. The south end of the palace has a linear block of toilets and baths that is separated from the main building by a court. On the west side are the maids' quarters, kitchens, stores etc. Each of the quarters has a separate entry for individual servants to access their queens directly and each of them has a dry toilet



*Baradari-Man Singh Chowk*

## 2a. Description of Property

AMBER

2.228



*Zenana quarters with paintings on the facade-Man Singh Mahal*



*Smaller courts with the main court- Man Singh Chowk*

### ● Architectural Form and Details

Most of Man Singh Mahal is simple with small elements like *jharokas* to break the monotony. Certain important spaces are decorated with wall paintings and frescoes. They are on the walls and under the *chajjas*. The four corner pavilions were embellished with blue and yellow colored Persian glazed tiles, remains of which can be seen on the inside as well as the outside.

### **Construction Materials**

The chief construction material are sandstone and lime. The walls are lime plastered with frescoes on some facades.



■ Rang Mahal (P5)

● **Period of construction**

17<sup>th</sup> century AD

**Patron**

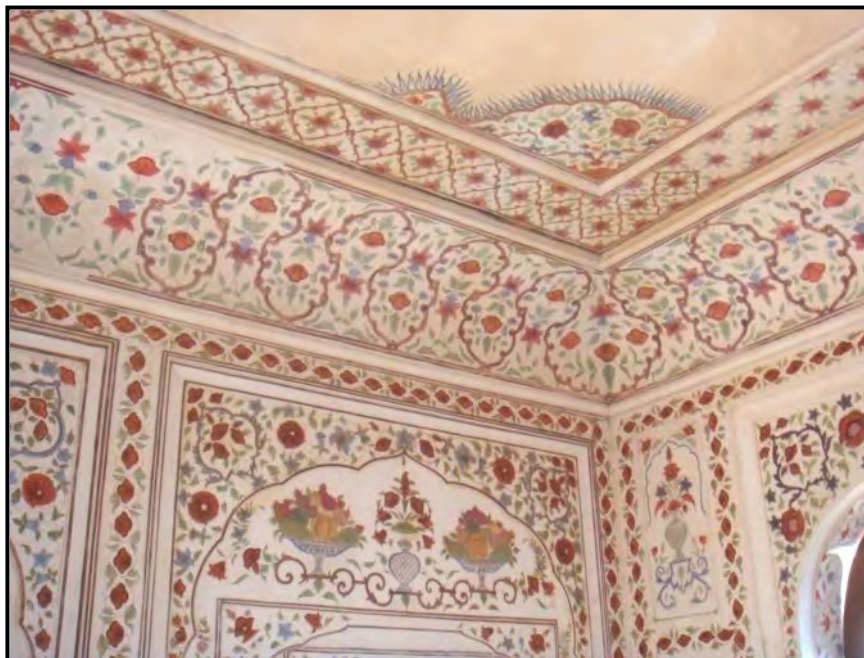
Mirza Raja Jai Singh I

**Usage**

entertainment/performing place



*Rang Mahal*



*Paintings on the walls of Rang Mahal*

● **Architectural Form and Details**

The hall of Rang Mahal is flanked by a series of cusped arches on either side and opens into a small garden courtyard. As the name indicates, it was possibly used for entertainment and recreational purposes.

● **Construction Materials**

Stone laid in lime mortar and lime washed with decorative wall paintings.



## 2a. Description of Property

AMBER

### HAVELI/HOUSE

#### ■ Panna Miyan Ki Haveli (H1)

- **Period of construction** 1699-1743 AD      **Patron** Jai Singh II
- **Usage** residence



*Panna Miyan ki Haveli*

#### ● **Spatial Planning**

This small *haveli* (house) adjoining the Jaleb Chowk is at the lowest level of the palace. A long flight of stairs leads one to the courtyard of the *haveli* (house). It has some spectacular views of the valley. It therefore becomes a connection to the Jaleb Chowk, apart from the historic entrances. The small courtyard with blank walls on three sides and a verandah and rooms on the fourth side has a beautiful intimate scale. This is the lower most residential building with a direct outside entry. It is known as Panna Miyan ki haveli, who is reputed to have been a eunuch in the service of Bishan Singh and his son Sawai Jai Singh II. It was perhaps a practice area for performing arts.

#### ● **Construction Materials**

Stone and lime with stucco work in the ceiling.

## RELIGIOUS MONUMENTS

### ■ Shila Mata Mandir (R1)

- **Period of construction** 1589-1614 AD    **Patron** Raja Man Singh  
**Usage** Hindu temple

### ● Architectural Form and Details

Raja Man Singh brought the idol of the Shila Mata temple, as well as the priests who perform the associated religious rituals following his Bengal campaigns in 1604 AD and established them within the palace complex. The ruler as well as the general public of Jaipur used to obtain the blessings of Shila Mata on occasions such as birthdays and marriages or before embarking on journeys and military campaigns. This tradition finds in echo in contemporary times with students visiting the temples before examinations and droves of devotees arriving at the temple during the religiously significant Navaratra period. The Temple is accessible from the Jaleb Chowk through the Sinh Pol, after climbing a straight flight of steps. Shila Mata is the tutelary goddess of the Jaipur royal family.

### ● Construction Materials

The doors of this shrine are made of silver.



*Sinh Pol stairs leading to the Shila Mata shrine*

## 2a. Description of Property

AMBER

2.232

### STORES



*(S1) The Jaleb Chowk – the first court from the main entrance with the Palki*



*Palki Khana (store for palanquins) now used as a guest lounge now*



*Stables(S2)- around the Jaleb chowk*



## GARDENS

The gardens at the Amber palace are along the lines of Mughal gardens where there is a strict geometric planning with water channels and Char Bagh pattern.

### ■ Dalaram Ka Bagh and Ram Bagh (B1 & B2)

● **Period of construction** 1622-1677 AD **Patron** Raja Jai Singh I

**Usage** garden



*Dalaram Bagh*



*Ram Bagh*

### ● **Spatial Planning**

Dula Ram Ka Bagh (also referred to as Dalaram Bagh and occasionally as 'Dil-Aram' Bagh, was constructed alongside the Maota Lake at the order of Mirza Raja Jai Singh in 1664 AD. It is commonly held that Dula Ram (or Dalaram) was one of the two main architects-artisans employed

## 2a. Description of Property

### AMBER

by Mirza Raja Jai Singh. A fine example of 17<sup>th</sup> century Rajput Garden architecture, the Dalaram Bagh is distinguished by the octagonal *chattris* and the curvilinear roofed pavilions of red Agra sandstone at its north east and south east corners. It currently houses a small museum of local artifacts.

The garden on the northern side of Dalaram Bagh is called Ram Bagh. This garden were also laid down following the *charbagh* patterns of Mughal Garden

#### ■ Kesar Kyari (B3)

- **Period of construction** 1622-1667 AD **Patron** Mirza Raja Jai Singh I  
**Usage** garden



*Kesar Kyari garden as viewed from an eastern quarter of the Palace*

#### ● Spatial Planning

The Kesar Kyari is in the middle of the Maota lake, like an island. It used to be called Mohan Bari named after another of Raja Jai Singh's architects. This garden has flower beds arranged in geometric patterns typical of Mughal gardens. A cascading marble fountain runs along the centre. At present there are a lot of subdivisions of the main parterres that could be a later addition. Linked to the mainland on the west side it is a terraced garden with many subdivisions. It forms an important point of focus from the palace which towers above. The Lake, the Kesar Kyari and the hills in the background create a spectacular view when seen from the Amber Palace.

■ **Garden in Diwani-I-Khas court (B4)**

- **Period of construction** 1627-1667 AD      **Patron** Jai Singh I
- **Usage** garden

● **Spatial Planning**

A small garden has been laid out in the Diwan-i-Khas court in front of the Sukh Niwas. The rear wall of the main chamber (of Sukh Niwas) contains a pierced marble slab over which water cascaded before flowing out of the chamber into the garden through a marble water-channel. A water body in the centre with a fountain as its focal point is fed by water channels from two sides coming from the



*An aerial view of the garden at Diwan-i- Khas court, in front of the Sukh Niwas  
Source: State Department of Archaeology -Rajasthan*

smaller palaces. The marble water channel of the garden is also inset with small fountains. A few trees are planted on the corners. This garden is at a lower level than the rest of the court and is accessed by steps and ramps. Based on the *Char Bagh* concept with flower beds laid down in a geometrical pattern and water courses dividing the entire into four parts, it is a classical example of a Rajput Mughal garden.



## 2a. Description of Property

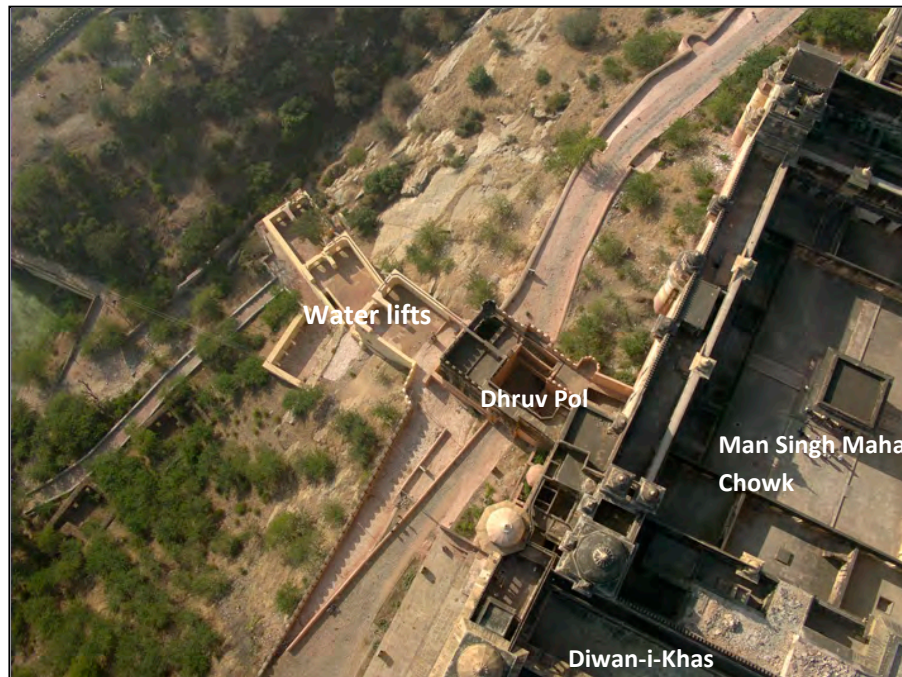
AMBER

2.236

### WATER STRUCTURES

#### ● Water system with pulleys (W1)

The historic water system here comprises of collecting rain water from the slopes of hills into the Maota Lake and lifting it to the last storage point in the palace through lift mechanisms operating at different levels.



*An aerial view of the structures which house the lift system, connected through Dhruv Pol to the Diwan-i-Khas*

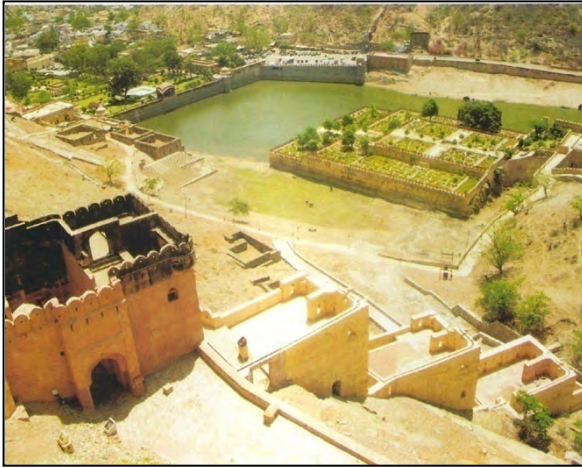
*Source: State Department of Archaeology -Rajasthan*

#### Stage: 1

Water was raised from the lake along the eastern façade of the Kesar Kyari employing draught animals and a series of pulleys and leathern bags. Water drawn in this manner was collected in two storage tanks built on the terrace overlooking the garden. From there, a sectioned clay pipeline, approx. 125 mts in length, channeled it into another storage tank at the base of the second stage.

#### Stage: 2

This stage is composed of four separate but connected structures built in ascending order. Each such structure had its own pulley and rope arrangement using draught animals and, had its own intake-cum-storage tank at its base. Water was drawn from the lower most storage tank to the next higher one, in leathern bags slung over a pulley with a rope. Water was taken up thus from the first storage tank situated at the lower level, up to the last one situated on the first floor of Dhruv Pol (Balidan gate). Structures are each between 10 to 13 mts in height which means that overall, this system raised water to about 45 mts.



Enclosed structures housing water lifts with the Maota lake behind  
Source: Khan,2008

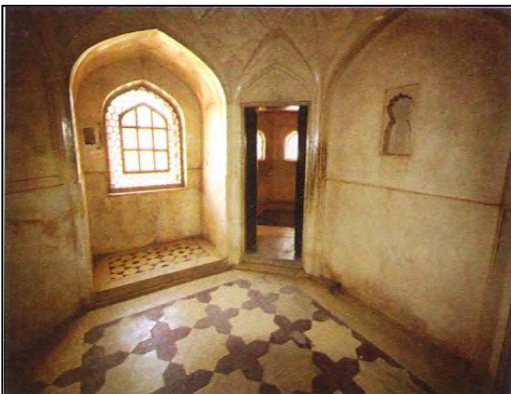


The Persian wheel system for the final stage of lift reinstalled in 2006-2007

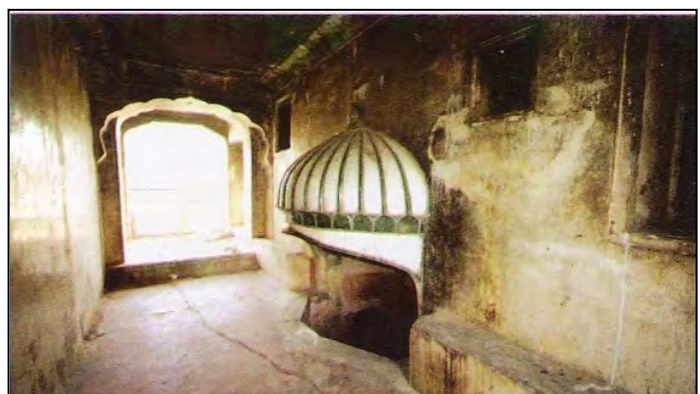
### Stage: 3

The final stage of lift employed a 'Rahat' or Persian Wheel. A long wooden shaft rotating on its axis supplied power to the axle of the drum/wheel which has a rope with a number of earthen buckets attached to it. The rotating drum moved the rope with its attached vessels elliptically down into, and then up through, the water in the storage tank. The pots filled up with water in the process and were then carried up, decanting their contents into a collection channel at the very top of the mechanism. The water was then circulated in the palace through a network of earthen pipes.

## ■ Hammams (W2)



Entrance to a Hammam  
Source: Khan,2008



Water heating system at the Hammam is between the Diwan-i-Am and the Diwan-i-Khas  
Source: Khan,2008

Three pairs of *hammams* (baths) are found in the palace. Adjacent to the Diwan-i-Khas and on its northern side the bath was used by the ruler and royal family. It is unique in that it has separate cold, hot, dry and wet areas. The marble tub has an arrangement of hot and cold water. The heating bowl, the fuel passages and the direct lifting of wood from the east side is evident.

## 2a. Description of Property

AMBER

2.238



*Hammam between the Diwan-i-Am and Diwan-i-Khas  
with water outlets at four corners*

Dress changing and massage rooms along with adjoining toilets can also be seen here. Some of the nozzles and openings of the water system are also observed. A hearth in the outer portions of the bath was used to warm water. The bath can be directly accessed from the Sheesh Mahal also.

### ■ Maota Lake (W3)

The Maota lake was the primary source of water for the palace and with its beautiful Kesar Kyari garden, it may have been used by the royalty for recreation also. Important spaces like the Diwan-i-Am and Diwan-i-Khas are aligned along the eastern side of the fort and command a beautiful view of this lake.



*Maota Lake with the Kesar Kyari garden*



**OTHERS**

■ **West Court (M1)**

● **Period of construction** 16-17<sup>th</sup> century

**Patron** Man Singh/Mirza Raja Jai Singh I

**Usage** courtyards with service spaces around



*Area covered under west courts showing the character of the spaces with small courtyards, verandahs and several rooms*

*Source: State Department of Archaeology -Rajasthan*

● **Spatial Planning**

This is a series of courts on the west side of the palace that slopes down the contours of the site parallel to the main courts. There is a hierarchy of courts even within this area as larger courts lead to smaller ones. This part of the palace is very densely laid out. Functions like servants' quarters, toilets and stores were included in this part. It could have housed residences of attendants and officials of lower rank. These spaces act as a buffer zone for the main spaces of the palace from the west side. Each of the principal courts has connections to this part of the palace through stairs and gates. The top of the gates also form connections with the main palace. The larger courts have basements on the west side.



*Servant quarters as viewed from Shila Mata temple*



*A courtyard at West court*

## 2a. Description of Property

AMBER

### ■ South Court (M2)

● **Period of construction** 16<sup>th</sup> -17<sup>th</sup> century **Patron** Man Singh/Mirza Raja Jai Singh I

**Usage** courtyard with service spaces



*An aerial view of the courtyard at South Court with service spaces around  
Source: State Department of Archaeology -Rajasthan*

### ● Spatial Planning

This is the southernmost part of the palace. Mainly toilets from the Man Singh Palace open onto this side. It has a direct entry into the Man Singh Palace from the west courts which may have been a service entry. On the west of this court is Rang Mahal. There is a pathway leading to Jaigarh from here.



*Service court behind Man Singh Mahal*



*South Court*



*Toilets at Man Singh Mahal that open to South Court*



*South Court*



■ **Tunnel**

● **Period of construction** 16<sup>th</sup>- 18<sup>th</sup> century **Patron** Raja Man Singh

**Usage** Defense

● **Architectural Form and Details**

A 325-metre long 18th century open air tunnel, connecting Amber Palace to Jaigarh fort, was used as a defence mechanism so that in case of an attack on Amber palace, the royal family and others could be evacuated undetected from the palace to the fort through this structure.



*View of tunnel at Amber*  
Source: Dronah



*Internal View of tunnel at Amber*  
Source: Dronah

■ **Bastions**

● **Period of construction** 16<sup>h</sup> century **Patron** Raja Man Singh

**Usage** courtyard with service spaces

**Architectural Form and Details**

The fortification wall is interrupted by several Bastions. The bastions are constructed of rubble masonry. The outer fortification wall is punctured at intervals which served as viewpoints.



*View of Bastion from top*  
Source: Munish Pandit



*View of Bastion from the Road side*  
Source: Munish Pandit



## 2a. Description of Property

Jaisalmer



**JAISALMER**

**SUMMARY**

The fort of Jaisalmer is strategically located on the top of a sedimentary rock mass that is the same type of stone used to construct its structures. The fort of Jaisalmer covers a triangular hill called Trikuta Hill rising 76 meters above the surrounding plain and 457 meters across at its widest point. The Fort with the city within, set atop the hill, is approximately 30 meters higher than the Jaisalmer town at its base. Roughly triangular in plan, the Jaisalmer Fort measures approximately 1500 feet north to south, and 750 feet east to west, and follows the contours of the hill on which it is perched. This living fortress city, with 2,500 residents on a plateau elevated 250 feet above the surrounding landscape, is circumscribed by a retaining wall with 99 bastions, mori, slope and pitching. The irregular polygonal Fort has a double line of fortifications. The overall form of the Fort manifests itself through these 'bastioned' fortification walls, which to an extent also act as retaining walls. The stone bastions are mostly circular in shape and occasionally rectangular. Once inside the Fort the entire complexion changes as amazing vistas open out. The cuboid palaces and dwellings contrast with the cylindrical bastions, yet both co-exist in piquant harmony. The focal point of the Fort is the palace complex. Apart from the palace buildings and several temples, most of the other structures of the Fort are residential houses. Aesthetics, is one of the most important dimensions, which paramount all other factors at Jaisalmer fort. Almost all the regal structures inside the fort are built of sand stone and mortar. The majestic, magnificent and elegantly carved front façade not only add aesthetic sense but also rejuvenate the memories of the golden regal era, when all the courtly nobleman resided within the fort premises.



*View of the Jaisalmer Fort, the fortification walls, Entrance and a temple inside the fort.*

## 2a. Description of Property

JAISALMER

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- **Site context**

The fort of Jaisalmer is strategically located on the top of a sedimentary rock mass that is the same type of stone used to construct its structures. The fort of Jaisalmer covers a triangular hill called Trikuta Hill rising 76 meters above the surrounding plain and 457 meters across at its widest point. The Fort with the city within, set atop the hill, is approximately 30 meters higher than the Jaisalmer town at its base. The coordinates of the location are: longitude 69.3 to 72.2° east, latitude: 26.01 to 28.02° north. The fort is located at an altitude of 242 meters above mean sea level. This three peaked hill, locally called trikuta, was chosen as the site for the citadel for its sheer prominence and also because of the presence of a water body (now Lake Gadisar) in the vicinity.



*View of the Jaisalmer Fort, the fortification walls which follow the outline of the hill as if growing out of the rock, the Trikuta Hill, and the town below.*

*Source: World Monuments Fund*

- **Site Planning**

Roughly triangular in plan, the Jaisalmer Fort measures approximately 1500 feet north to south, and 750 feet east to west, and follows the contours of the hill on which it is perched. This living fortress city, with 2,500 residents on a plateau elevated 250 feet above the surrounding landscape, is circumscribed by a retaining wall with 99 bastions, mori, slope and pitching. Below lies the city of Jaisalmer, with a population of 38,000, and beyond the plains of the Thar Desert. Because of Jaisalmer's desert location, dry masonry was employed for construction. The distinctive golden-colored sandstone that gives Jaisalmer its celebrated glow is still locally quarried and continues to be used as a building material.

## 2a. Description of Property

### JAISALMER

2.246



*View of the Jaisalmer Fort, with the different structures from 12<sup>th</sup>-18<sup>th</sup> century AD*

*Source: World Monuments Fund*

The irregular polygonal Fort has a double line of fortifications. The overall form of the Fort manifests itself through these 'bastioned' fortification walls, which to an extent also act as retaining walls. The stone bastions are mostly circular in shape and occasionally rectangular. Once inside the Fort the entire complexion changes as amazing vistas open out. The cuboid palaces and dwellings contrast with the cylindrical bastions, yet both co-exist in piquant harmony. The focal point of the Fort is the palace complex. Apart from the palace buildings and several temples, most of the other structures of the Fort are residential houses.

There is only one point of entry to the Fort, which is a winding path leading through a series of gates that functioned as check points. Apart from the palace buildings and several temples, most of the other structures of the fort were residential residences houses. These dwellings, which form the bulk of the buildings in the fortress, were typically narrow, deep houses with courtyards. There were traditionally about 600 families living in the fort. Most of the bastions originally built for defense, have been converted and used as habitations for some time in the past. Unlike other forts that were built purely for defense, the Jaisalmer fort has always had people living within. This is an inherent part of the nature and character of the fort, giving it the unique distinction of being a 'living fort'.







Jaisalmer—A Living Fort

Source: Dronah

### ● Architectural Form and Details

Aesthetics, is one of the most important dimensions, which paramount all other factors at Jaisalmer fort. Almost all the regal structures inside the fort are built of sand stone and mortar. The majestic, magnificent and elegantly carved front façade not only add aesthetic sense but also rejuvenate the memories of the golden regal era, when all the courtly nobleman resided within the fort premises. The workmanship is of highest order and it difficult to comment that the carving is on stone or that on wood. The structures/Havellis have well sculptured façade, the projected jharokhas, balustrades or latticed



## 2a. Description of Property

### JAISALMER

2.248

windows and highly decorative and ornamented porches and columns define the general characteristics of the building.

The structure has a wide range of building typologies and is a architectural marvel as well as all the structures have distinctive design vocabulary. The fort houses around 469 structures all in yellow sand stones and all are exemplary example of fine workmanship. The scale and volume of the fort is very massive. The 5-7 feet long wall which envelopes the fort is supported by 99 massive bastions, which interrupts the wall at different distance.



*Exquisite carving on stone is a common feature in Jaisalmer fort,*

*Source: Dronah*

**Views to and from fort**



Views from fort of the settlement

**View of the fort**

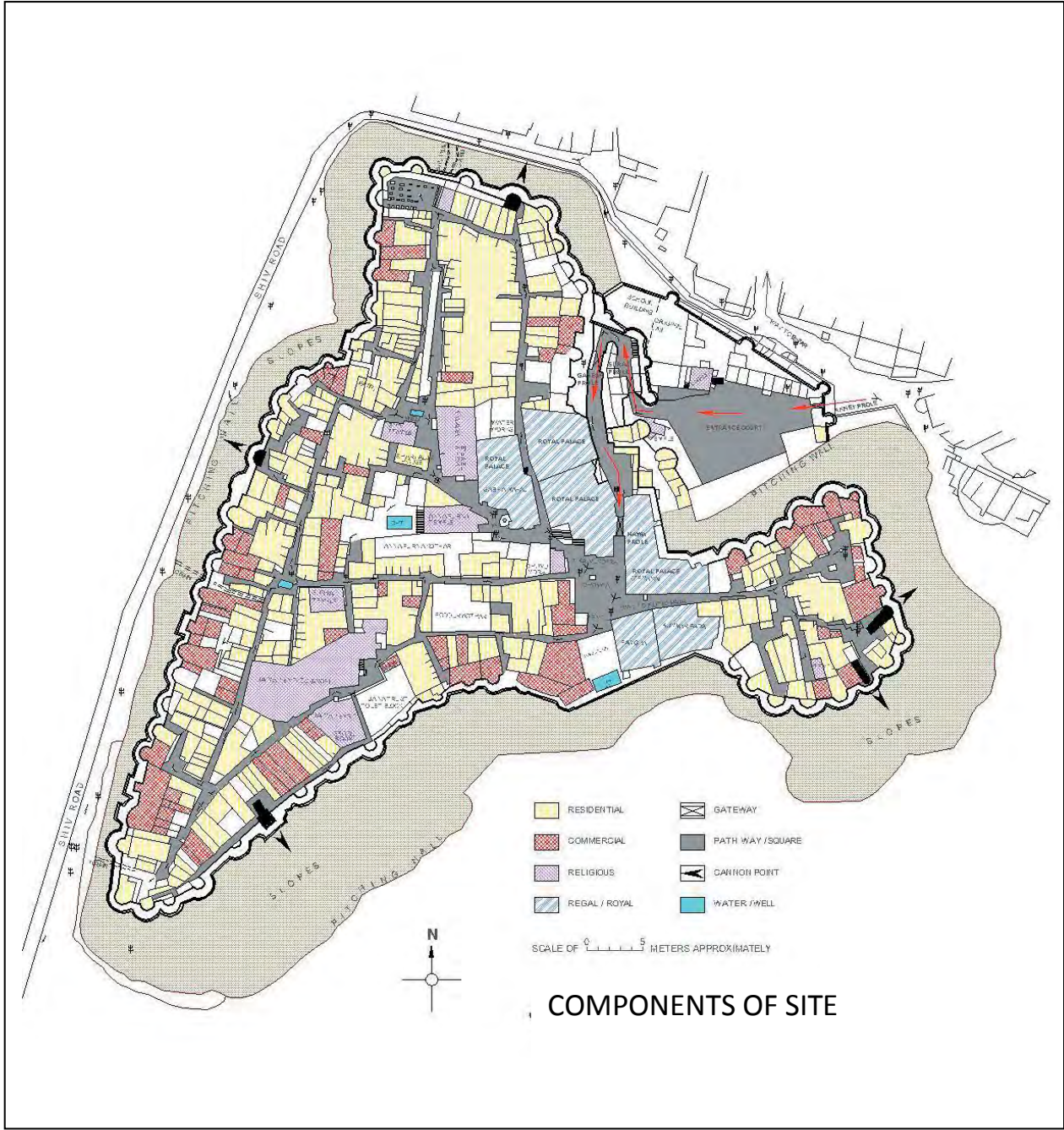




2a. Description of Property

JAISALMER

2.250





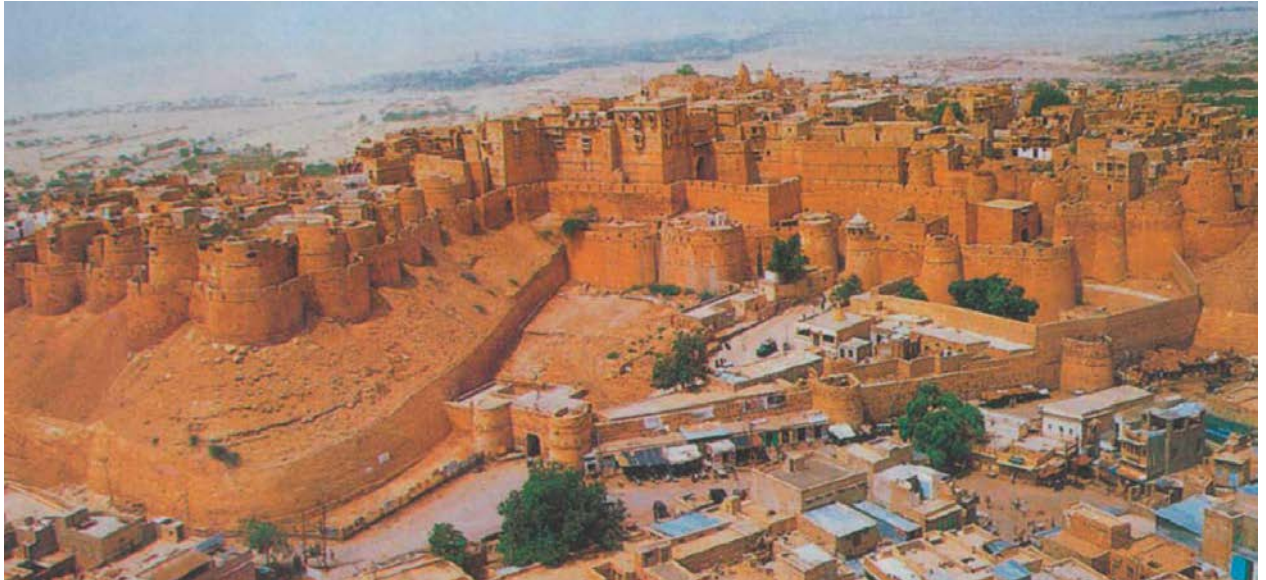
## FORT WALL AND BASTIONS

### ■ Fort Walls and Bastions as shown on the plan (F1)

● **Period of construction** 13<sup>TH</sup> -14<sup>th</sup> century onwards **Patron** Mool Raj I (1315 – 1316)

**Usage** Defense

### ● Architectural Form

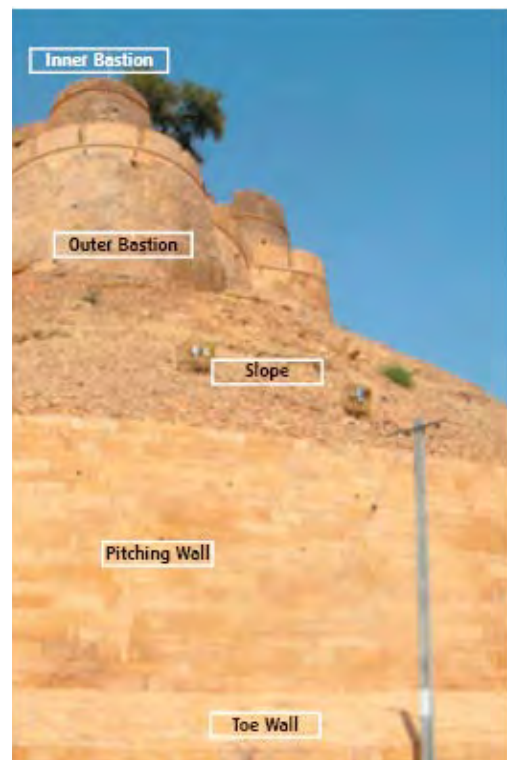


*The fort walls built and strengthened over several centuries  
Source: World Monuments Fund*

The architectural style of the fortifications that make up Jaisalmer Fort is unique, and the same holds good for the rather distinctive constituent elements of the fortifications. A detailed description of the fortifications and their constituent architectural elements is provided in this section.

### PITCHING WALL

The triangular hill on which Jaisalmer Fort was built, consists mostly of soft clay as its base. The upper slopes have in parts some soil and loose rock. These slopes have a pitching wall built up of local Jaisalmer stone blocks, running round the base of the hill. This wall, pitched on to the slope with interlocking dressed stones, is of dry masonry construction and ranges in height from 2.9 meters (north and south) to 9 meters (east). It was originally intended merely to maintain the slope and not to withstand any lateral loads, to which it is increasingly being subjected to today. It functions not for defense, but primarily as a retaining wall



*The constituents of Fort wall  
Source: World Monuments Fund*

## 2a. Description of Property

### JAISALMER

that circumnavigates the base of the Fort hillock and holds back the clay within the lower slopes. The total length of the wall is around 1.36 kilometers.

#### TOE WALLS

Constructed at some points along the foot of the pitching wall of the Fort, the stone base paving varying in height from about half to one meter, forms the toe wall of the Fort. Historically, these walls formed the outermost edge of the Fort, as beyond them originally only sand dunes were located. Local historian N K Sharma believes that the rainwater from the Fort would fall over the sloping Fort walls and over these toe walls into a moat located beyond. However, no evidence of a moat exists today and this conjecture remains to be verified.



*View of the pitching and Toe wall, Source: World Monuments Fund*

#### SLOPE

The embankment encircling the upper fortress and containing the area within the outer fortification walls and the pitching walls is known as the slope. Originally, the slope was used as a dumping place for building material and all other household waste. At present, the slope is completely covered with debris (upto 2 meters depth at places) consisting of waste material, collapsed bastion

● **Construction Materials**

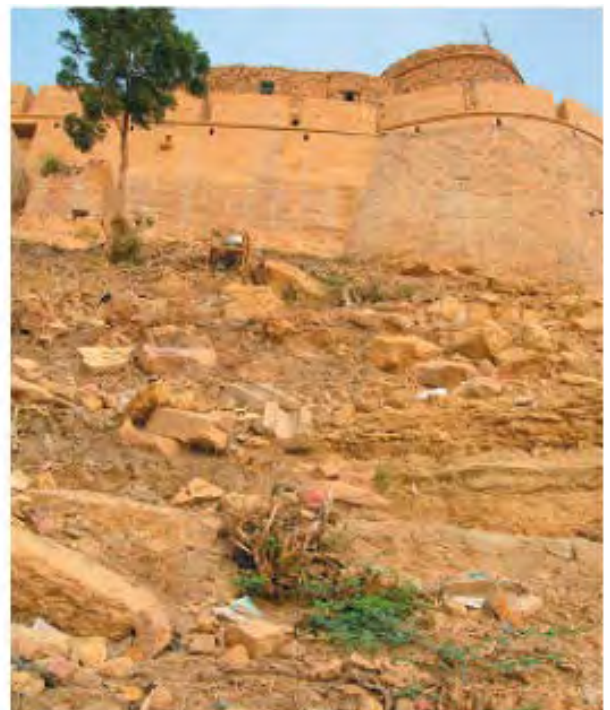
The walls are made of massive stones, rising on the rocky boulders of the hilltop as solid foundations. The dressed stone masonry in lime mortar is a typical technique for fortifications of Kumbha's time in mid 15<sup>th</sup> century AD.

**OUTER FORTIFICATION WALLS WITH BASTIONS**

The outer fortification walls including its half bastions and occasional rectangular bastions are entirely constructed of dry sandstone masonry and vary in height from 4 to 6 meters. Located on the edge of the escarpment, and following the contour of the summit, the outer wall was constructed primarily for defense purposes and it defines the outer edge of the mori. Its crenellations are punctured at various levels by view ports for easy visibility of the landscape and to keep track of the movement of the enemy. At the junctions of the outer bastion walls and the slope, where no solid bedrock strata were available, remnants of foundation walls are still visible. The lower portions of the outer wall have today either been buried under excessive debris of the slope, or where exposed are eroded, revealing the layers beneath.



*View of the sloped embankment of the fort.*



*Debris lying along the slope*

**1) Crenellations**

The outer bastion walls throughout the periphery of the Fort are topped with crenellations or 'khanguras' (parapets). These are built of sandstone blocks, usually about a meter high, with rounded-off edges at the top. They are either flush with the outer wall or are offset a small distance from it. The crenellations are punctured with small view ports at varying levels. Though they appear decorative and are an iconic visual feature of the Fort, the crenellations are essentially a traditional defense feature.



## 2a. Description of Property

JAISALMER

2.254

### 2) Stone Missiles

There are stone balls and cylinders placed on top of the crenellations that are visible all along the periphery of the Fort even today. In earlier times these were used by the soldiers as missiles to be rolled down the slopes to thwart the invading enemy.

### 3) Gun Ports

At regular intervals along the inner side of the outer fortification wall, twin stone projecting brackets are visible, which in earlier times were used for placing guns and muskets. These were mounted on a stone cross piece with a central pivot. Immediately above these platforms, an opening was provided in the wall forming a gun port.

This opening had chamfered edge sections that allowed for easy maneuvering of the guns and a wide ranging coverage of the surrounding slopes.



*Gunports covering the main entrance gateways*

#### **4) View Ports**

The crenellations of the outer fortification walls are provided with small rectangular openings with sloped bases that angle down the slope of the Fort. These tiny holes are located at a 'general eye level' from the mori base.

These holes or view ports helped the soldiers standing in the mori to have easier visibility of the enemy - particularly down along the slope, while keeping the soldiers themselves protected from attack behind the walls. The view ports were an important defense feature that helped protect the Fort from invaders.

#### **MORI**

The mori is the narrow passageway between the outer and the inner fortification walls that meanders around the upper perimeter of the Fort. Designed primarily for defense, it is fairly evident (from the pit digs carried out here) that the mori and the outer fortification walls were built simultaneously. The mori was primarily the space where the soldiers were stationed and kept vigil to prevent the Fort from being attacked. The space was wide enough to even allow horsemen to move around.

The mori is built entirely of dry stone masonry blocks laid out in a radial pattern, and it varies in width from a meter to 3 meters at places. Traditionally, the top layer of stone was laid on edge and sloped towards the spouts and toilet openings as that facilitated quick and easy drainage of water. This is an important design detail as the mori also functioned as the Fort's main drainage conduit for storm water.

#### **TRADITIONAL SANITATION**

Within the mori, at regular intervals along the outer fortification walls, are a number of holes which are designed and function as toilet outlets. These shafts point to the fact that the mori was also used as a toilet space by the Fort residents and the soldiers stationed in the mori. The design of these holes was such that they allowed for the direct disposal of human waste down onto the slopes without the use of water.

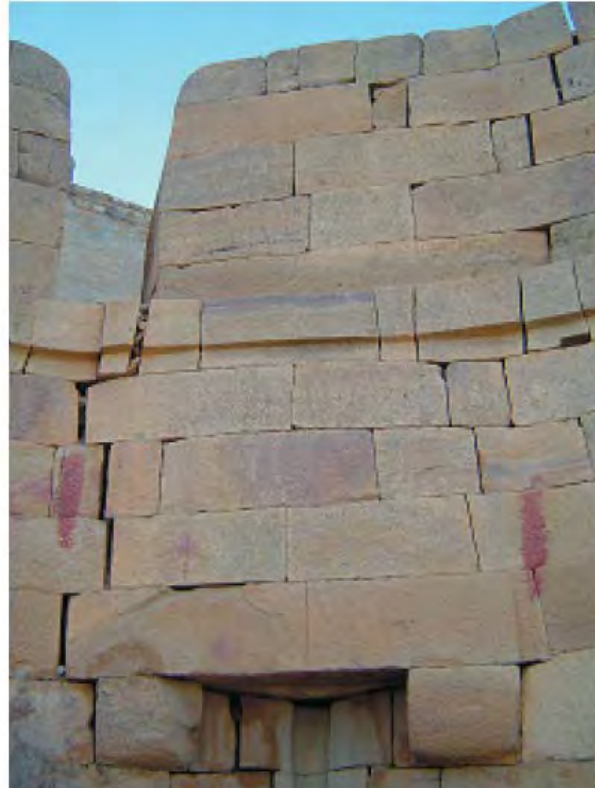
## 2a. Description of Property

JAISALMER

2.256



*View of the meandering mori space*



*View of the traditional sanitation facilities along the outer bastion*

### **INNER FORTIFICATION WALL**

The inner fortification wall and its circular bastions define the internal edge of the mori. The inner fortification walls too are constructed entirely of dry sandstone masonry and vary in height from four to six meters. Some bastions of the inner fortification wall are built up as platforms or damdama and were used to mount wheeled guns and cannons, the ammunition for which was stored in rooms below the bastion platform. Originally, before the outer bastions were built, the inner bastions formed the defense wall of the Fort. Later, with the outer bastions forming the main defense barrier, the inner bastions were absorbed into the residential quarters of the Fort. It was at this time that the crenellations of the inner bastions were filled in and jharokhas and windows introduced. As a result, the traditional severity of the inner fortification walls today are highlighted, at the upper levels, by the contrasting decorative features of jharokhas, brackets, carved fenestrations etc, giving an innately unique characteristic to the Fort.





*Inner fortification bastion,  
SOURCE: World Monuments Fund*

## 2a. Description of Property

### JAISALMER

2.258

#### GATEWAYS

(known as *pols* in Rajasthani or *proles* in Hindi)

Entry to the Jaisalmer Fort is through a single gateway, Akhey prole, beyond which are three other majestic gateways that have to be traversed to enter the inhabited upper sections of the Fort.

#### Akhey prole

**Period of construction** mid 17<sup>th</sup> century

**Patron** Maharawal Akhey Singh

**Usage** entrance gate

#### Architectural Form

It consists of two semi-circular bastions on either side, with a wooden doorway set in the central wall. Spanning the doorway is a single-storied structure, adorned with jharokhas (which at present houses a restaurant).



*View of Akhey Pole,  
Source: World Monuments Fund*

#### Construction Material

Built of dressed rubble stone masonry in lime mortar.



*View of Akhey Pole and the chowk  
Source: World Monuments Fund*

#### Suraj prole:

**Period of construction** mid 16<sup>th</sup> century

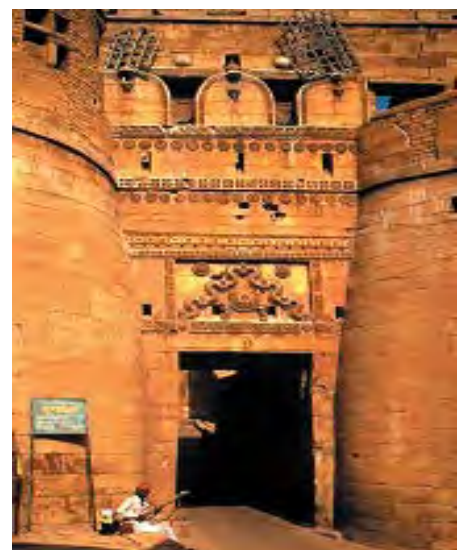
**Patron** Maharawal Bhim

**Usage** entrance gate

#### Architectural Form

The façade of the Suraj prole is embellished with elaborate decorated carvings of a torana-vallari, with an imposing sun motif in the exact centre. This feature, and the fact that it receives the sun for most of the day, has probably given it its name.

Originally, prior to Akhey prole being constructed, this was the first gate of the Fort. On its right, a vigilancecum- bastioned minaret is capped with a distinctive voluted octagonal chattri.



*View of Suraj Pole  
Source: World Monuments Fund*

### Construction Material

Built of dressed rubble stone masonry in lime mortar.

### Ganesh prole

**Period of construction** 12<sup>th</sup> century      **Patron** Maharawal Salivahan

**Usage** entrance gate

### Architectural Form

It is the oldest gateway of the Fort Ganesh prole, named after the Hindu God Ganesha (son of Shiva and Parvati) whose image is carved on the main lintel.

### Hawa prole

**Period of construction** mid 16<sup>th</sup> century      **Patron** Maharawal Bhim

**Usage** entrance gate

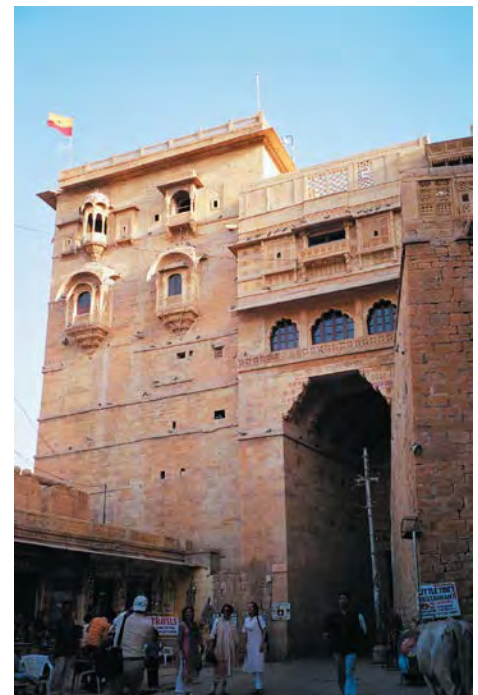
### Architectural Form

It is believed that during the extension of the royal palace, as the load on the original palaces increased, one of the palace walls cracked and this prole was built as a buttress. It connects the palaces at the upper levels.

On the second floor, adjoining the main building of Gajvilas, is a hall known as the Rangmahal, which is decorated with beautiful murals. This prole, therefore, also assumes the name Rang prole.

### Construction Material

Built of dressed rubble stone masonry in lime mortar.



View of Hawa Prole  
Source: World Monuments Fund



## 2a. Description of Property

JAISALMER

2.260

### CHOWK / CHOWTA

Public squares, locally known as chowk (in Hindi) or chowta (in Rajasthani), form the socio-cultural center of the community.

According to local historian, N K Vyas: “The threshold of each and every household of the Fort leads to a chowta.” The streets, along which are located the dwelling houses, all began from and terminated at a chowk. This clearly shows the essence of the chowk as a social community hub.

### Dushera chowk

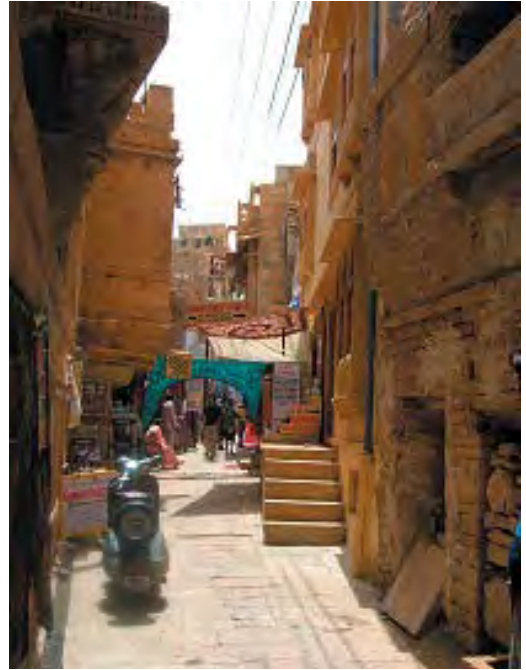
This central chowk, with the royal palaces on two sides and the Devi Temple on the third, is a classic example of a central square. This is the main space that greets both visitors and residents as one enters the Fort through the winding pathway and series of gateways. This royal chowk is perhaps the most vibrant place in the Fort, with hawkers, musicians, tourists viewing the beautiful palace facades, children playing and cows relaxing on the cobbled stones. It is the heart and the primary social space of the Fort.



*View of Dushera Chowk,  
Source: World Monuments Fund*

### STREETS

A series of winding pathways and alleys, paved with yellow Jaisalmer stone, form an interesting street pattern throughout the Fort. Varying in width from 1 meter to 2 meters, these primary, secondary and tertiary streets provide access to even the most remote corners of the Fort.



*View of the streets in Jaisalmer Fort,  
Source: World Monuments Fund*

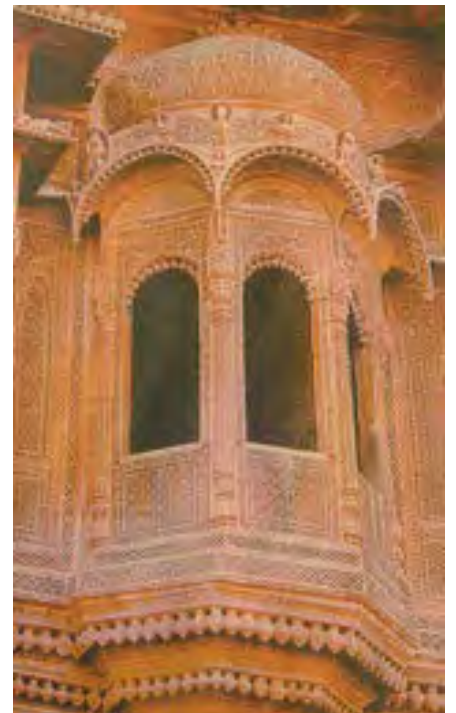
### **PADA**

In the original design of the Fort, each neighborhood or pada had its own approach, entry and exit, well defined in terms of streets and chowks. The movement of people was restricted and this created the notion of a welldefined 'territory' for each pada.

### **HAVELIS**

Single or double storied mansions with courtyards, belonging to the wealthier classes, are locally known as havelis. These were embellished with beautifully carved sandstone columns, jharokhas and brackets. Often far more embellished than the palaces, the scale, complexity and intricacy of carving was directly related to the importance of the building in the complex, and was indicative of the wealth of the merchant traders of Jaisalmer.

**Jharokhas:** Small balconies cantilevered out of the main structure are locally known as jharokhas. Traditionally, these were used as viewing galleries by the women of the household. Extensively carved in sandstone, this feature adorns all significant structures within the Fort



*View of a typical Jharokhas in Jaisalmer Fort,  
Source: World Monuments Report*

## 2a. Description of Property

JAISALMER

### TRADITIONAL WATER SUPPLY SYSTEM

About seven wells located within the Fort also provided water to its inhabitants. However, the water from these wells was often brackish and saline and therefore could not be used for drinking purposes. Located in different parts of the Fort, these wells were:



Map showing location of various Historic wells within the fort structure.

Source:RUIDP

#### Jaisaloo well

**Period of construction** 12<sup>th</sup> century    **Patron** Maharawal Jaisal

**Usage** Well

Considered to be the oldest well in the Fort. The presence of this well, is believed to be one of the prime reasons Maharawal Jaisal chose this site for his new capital. As mentioned earlier, legend has it that this well was dug by Lord Krishna with his sudarshan chakra for Arjun to quench his thirst, while they were passing by this spot.



### Ranisar well

**Period of construction** mid 19<sup>th</sup> century      **Patron** Maharawal Jaisal

**Usage** Well

The well is situated just 10 feet away from Harjaloo well was constructed by the queen of Maharawal Bairisal. Legend has it that the queen was piqued when her daughter's dasi was not allowed to draw water out of turn from the Harjaloo well; adding insult to injury, the Paliwals taunted the dasi, saying that if the queen was in such a hurry she should get her own well constructed. As a result, the queen is said to have had this well built.

### Other water structures

**Bulla well** located in the Bulla pada neighborhood of the Fort.

**Harjaloo well** located near the Shiv Temple was constructed by Harjal Paliwal, the head of the Bhatti clan.

**Khuniwala well**, located on the platform facing the entrance chowk, close to Sh. Ram Dev Temple.

**Ramdeora well**, which was located just a few yards away from Khuniwala well.

**Gosisar well**, located in the Chaugan pada neighborhood.

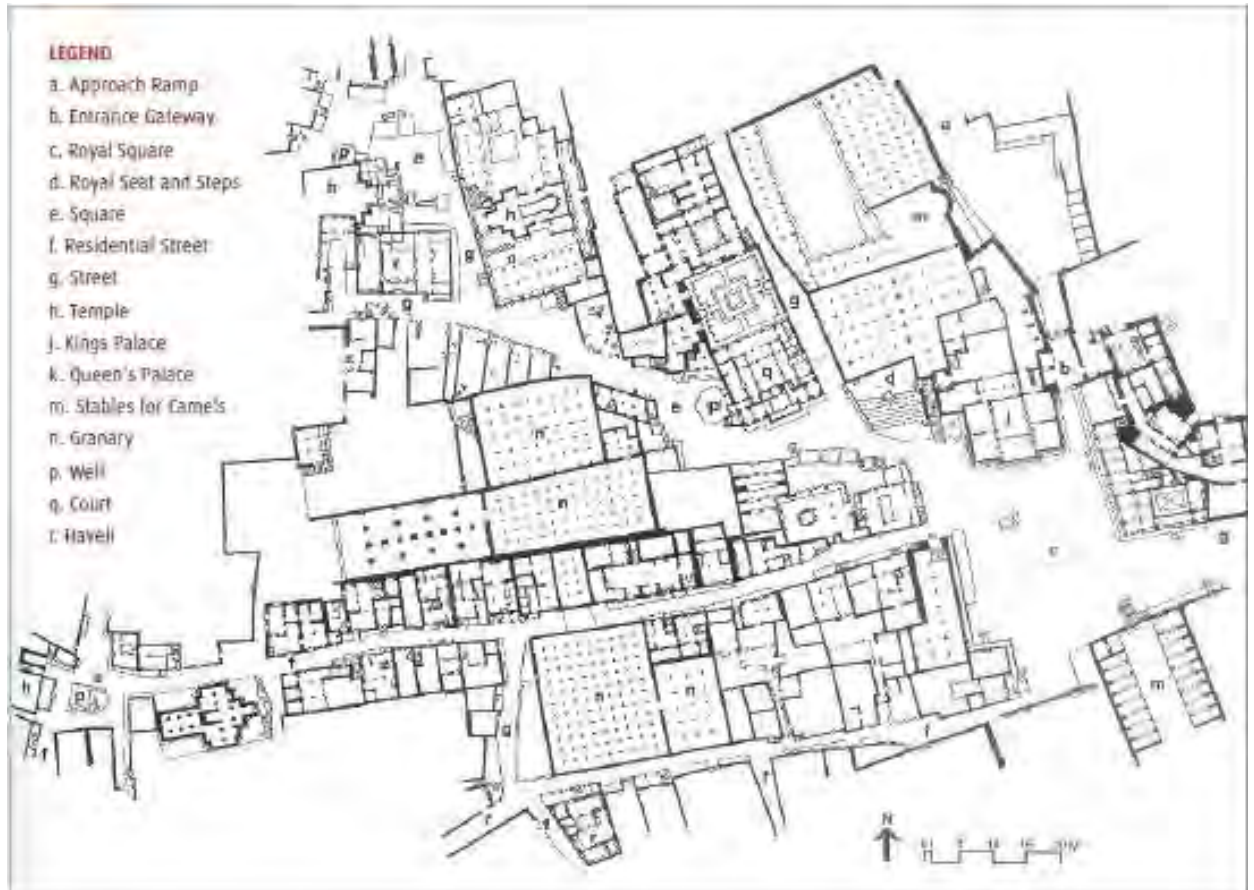
### RESIDENTIAL QUARTERS

Residential quarters are made well organized as they have a well developed and definite order of streets and buildings. Enclosed cluster formation are essential and useful community spaces which are active community spaces as well. One such space the holingda (used to light the holi festival fifi re) is within the *Kothari pada* area. It connects four streets and is very active throughout the day. About twelve houses open directly into this space, and many other houses from adjoining streets make use of it. The domestic architecture at this level displays a strong aspect of homogeneity. The spaces acquire a non specific character as they change in their use from morning to noon, and noon to evening. They are also used differently in summer and winter. Interior open spaces like courtyards, terraces and balconies have specific significance under such situations; they accommodate a variety of activities during different seasons or different parts of the day.

## 2a. Description of Property

### JAISALMER

2.264

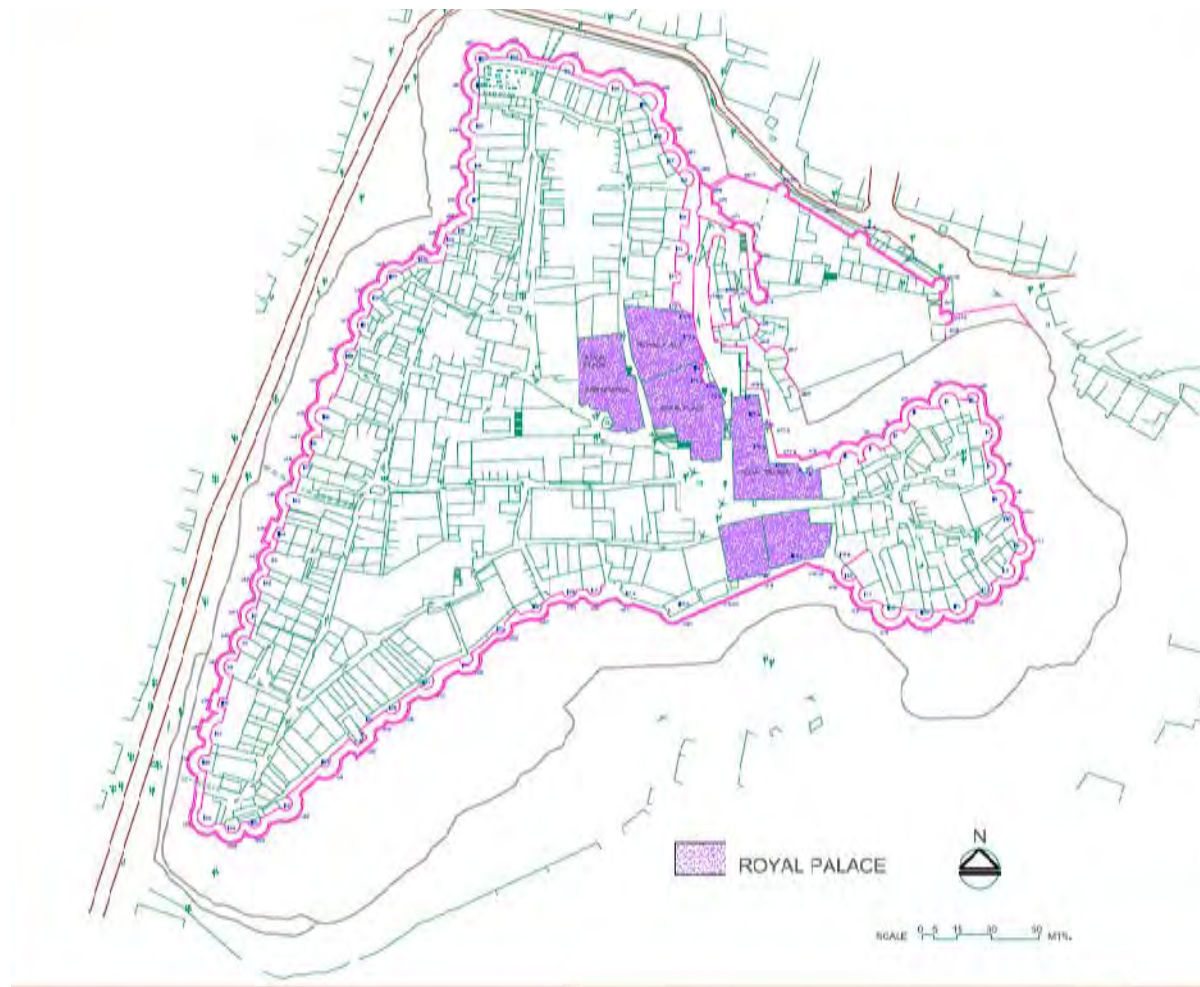


Plan of the Royal Chowk, source: World MonumentS Fund

Almost every house is built in yellow sandstone and has grown out of the modulation of domestic scale and has been dictated by the limitations of stone construction. The smallest house is a two-bay house, with one of the bays having a courtyard. The idea of a courtyard was also reinforced by climatic needs.

The number of bays increased as the house grew larger. Broadly, there are two categories of houses within the residential quarters. One type of house is the circular bastion house, where the major space of the house is in the bastion while, the courtyard and some other spaces extend outside it. Traditionally these houses were occupied by guards and their families. The other category is the set of houses built by poorer and lower communities, generally near the Fort wall of the city. Often, these people were from a rural background which reflects in the form and finish of their houses. Random stone masonry is finished with mud plaster, and major elements like doors and balconies have a wide border, characteristic of rural Rajasthan. The whole plan of the house is developed around the concept of privacy thereby generating very specific expressions and elements. Plinths in front of the house became informal interactive spaces separating the 'private' house from the public street. The house started opening up as one moved away from the street. The need for privacy was really from a stranger passing by than from the adjoining house or the one across the street.

**PALACES**



Map showing location of Palaces within the fort structure.

Source: RUIDP

The palace structures in the fort complex have not been dated before 1500 AD (Juna Mahal), though there is scope for archaeological research.

**Juna Mahal**

**Period of construction** 13-14<sup>th</sup> century

**Patron** Maharawal Jaisal

**Usage** Palace

**Architecture**

Hence, the Juna Mahal with trabeate construction, *jharokhas* (balconies) projecting on corbels and temple columns could be amongst the oldest of surviving Rajput palaces, similar to the palaces of Chittor. The use of the *bangalदार* (curved roof form from Bengal region) roof for façade treatment and the extensively carved sandstone *jali* (screen) panels are typical features of the fort. Juna mahal is one other palace it is seven a storied building it is placed under a huge metal umbrella which has been topped



## 2a. Description of Property

### JAISALMER

on a shaft of stone.

#### Other structures

##### Gaj Vilas

**Period of construction** 19<sup>th</sup> century

**Patron** Maharawal Gaj Singh

**Usage** Palace

##### Architecture

The later structures from the 19<sup>th</sup> century – (from reign of, 1820–1846) show decoration with greatly proliferated surfaces, the heaviness of the earlier phase replaced by intense richness in surface treatment. Decorative carving continued in Jaisalmer up to the 20<sup>th</sup> century without decline in artistic value unlike the case in other regions.

##### Moti Mahal

**Period of construction** 19<sup>th</sup> century **Patron** Maharawal Gaj Singh

**Usage** Palace

##### Architecture

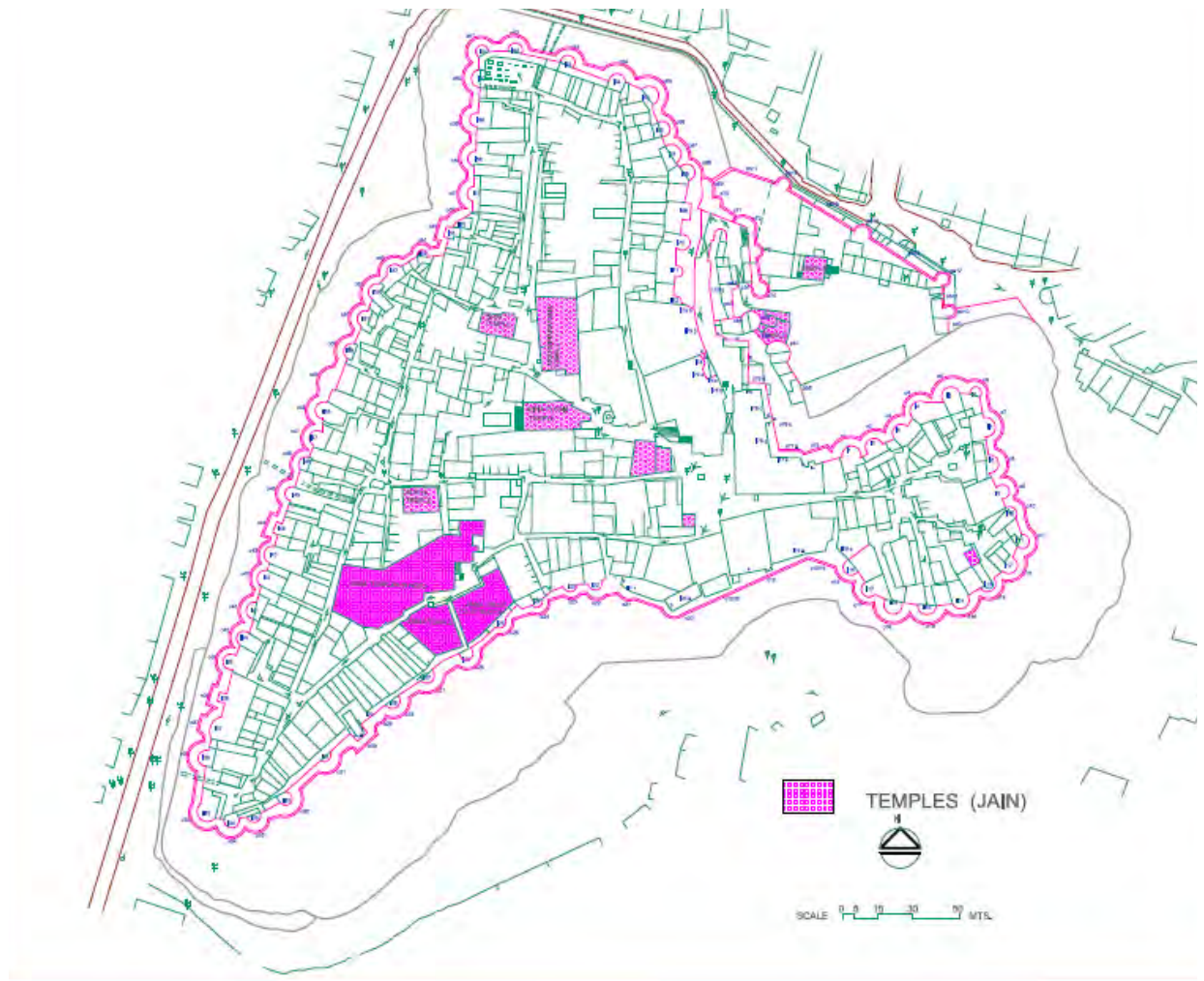
One of the later structures from the 19<sup>th</sup> century – (from reign of, 1820–1846) show decoration with greatly proliferated surfaces, the heaviness of the earlier phase replaced by intense richness in surface treatment, the structures have decorative carving continued in Jaisalmer up to the 20<sup>th</sup> century without decline in artistic value unlike the case in other regions.



*View of Rani ka Mahal.*

*Source: World Monuments Fund*

## TEMPLES



Map showing location of Palaces within the temples structure.

A

Source: RUIDP

**Period of construction** 12<sup>th</sup> century

**Patron** Maharawal Jaisal

**Usage** Worship

The present Annapurna Temple is said to be constructed in around 12th century. According to local historian N.K Sharma, beneath the Annapurna Temple is the original temple where Rawal Nath performed the tilak ceremony for the king before he ascended the throne.

### OTHER TEMPLE STRUCTURES

In 14th -17th century the construction of the Jain temples and the adjoining areas (present day Dhunda Pada) came up. The oldest of the Jain temples, Sh. Chintamani Parsavnath Jain Mandir, dates back to 1389 AD and was built over 84 years. The other Jain temples built during this period are:

- Sh. Shital Nath Jain Temple, 1470 AD



## 2a. Description of Property

### JAISALMER

- Sh. Mahaveer Swami Jain Temple, 1473 AD
- Sh. Sambhavnath Temple, 1497 AD
- Gyan Bhandar, 1500 AD
- Sh. Chandra Prabhu Swami Temple, 1509 AD
- Sh. Shanti Nath Temple, 1536 AD
- Sh. Rishabh Dev Jain Temple, 1536 AD

The Hindu Vaishnava temples were also built around this time. The oldest, Shiv temple, presently called the Ratneshwar Mahadeo temple, dates back to 1490 AD.

The other temples, Sh. Laxmi Nath temple and Surya temple date back to 1494 and 1496 AD respectively. A number of dancing figures and carved deities are housed there.

The temple facades are highly decorated with intricate designs and motifs. All the temples are in yellow sandstones.

The pillars have highly decorative features and motifs. The use of the *bangalदार* (curved roof form from Bengal region) roof for façade treatment and the extensively carved sandstone *jali* (screen) panels are typical features.



View of temple

Source: DRONAH





View of temple

Source: DRONAH



View of temple

Source: DRONAH

## 2b. History and Development

### Chittorgarh



## 2b. History and Development

CHITTORGARH

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● **Phase I: 5<sup>th</sup> – 12<sup>th</sup> century AD**

Remains dated to Gupta and post-Gupta period (5<sup>th</sup> – 6<sup>th</sup> century AD) are present on site, though the construction of fort is ascribed to Chitrangad of the Mori or Maurya dynasty in 7<sup>th</sup> century AD and is said to have been called Chitrakut. Small votive stupas found on site reflect Buddhist association. After being under Maurya dynasty (7<sup>th</sup> – 8<sup>th</sup> century AD), it came under Pratiharas (9-10<sup>th</sup> century AD), Paramaras (10-11<sup>th</sup> century AD), Solankis (12<sup>th</sup> century AD). Temples dated to 8<sup>th</sup>, 9-10<sup>th</sup> and 11<sup>th</sup> century AD are present on site along with inscriptions from the period. Bappa Rawal, the founder of Guhila clan of Rajputs of Mewar is said to have taken the fort in 734 AD, though it might have been in a subsidiary capacity.

● **Phase II: 13<sup>th</sup> – early 14<sup>th</sup> century AD**

The Fort served as the capital of the kingdom of Mewar under the Guhila Rajput dynasty from the 13<sup>th</sup> century AD. The Jain Kirti Stambh, dedicated to Adinath or Rishabhadeva, the first Jain Tirthankar is one of the most interesting Jain monument datable to 13<sup>th</sup> century AD and is adorned heavily with sculptures and mouldings from base to summit. This period saw flourishing of Jainism and erection of Jain temples and the tower Kirti Stambh. The Fort was taken by Alauddin Khilji in 1303 AD. The Rajput women and children committed the ritual of Jauhar (group immolation by the women and children of a besieged fort when the fall of the place seems inevitable) and the warrior men undertook Shaka (dressed in saffron clothes and charged out of the Fort, fighting till death), hence the main Guhila line of Rajputs was wiped out before the Fort came under foreign control. For the next two decades, named Khizrabad after Khizr Khan (son of Alauddin Khilji who held it for a decade), the Fort was under the Sultanate of Delhi (Khiljis and Tughlaqs).

● **Phase III: 14<sup>th</sup> – 16<sup>th</sup> century AD**

In 1336 AD, the Sisodias of Mewar (a collateral branch, or sub-clan, descended from the main ruling line of Guhilas) took the Fort under their control and used it as the capital of the kingdom of Mewar under them. This period saw construction of temples and palaces (including the Chonda's house from 1400 AD that is the earliest existing Rajput palace structure). Repair works undertaken during this period reflect influence of Vaghela style of Gujarat. During the reign of Rana Kumbha (1433-1468 AD), the Fort saw a lot of construction and repair activity along with strengthening of its defense mechanism. Significant structures added by Rana Kumbha include the 37 mts high nine storey embellished tower called Vijay Stambh (1440-1448 AD), the Rana Kumbha's Palace and a number of temples. His successors held the Fort as the capital till 1535 AD and added a few structures such as the Palace of Rana Ratan Singh II. Sultan Bahadur Shah of Gujarat took the Fort in 1535 AD but the Sisodias took it back in 1536 AD.

## 2b. History and Development

### CHITTORGARH

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2.274

- **Phase IV: 16<sup>th</sup> – 18<sup>th</sup> century AD**

It was after the Mughal Emperor Akbar captured it in 1567 AD, that the Sisodias lost hold over the Fort and shifted their capital to the newly founded Udaipur. Each time the fort was taken, the rituals of Jauhar and Shaka were committed at Chittorgarh and the structures within destroyed by the victors (Akbar ordered a massacre of 30,000 non combatants). With the signing of a peace treaty in 1615 AD with the Mughal Emperor Jehangir, the Sisodias got the fort back, but were not permitted to undertake any repair or construction activity. Ruling from Udaipur, the Sisodias attempted to refortify Chittor twice, but the attempts were thwarted on both occasions with the new fortifications demolished by Mughal forces. Taken by Mughal Emperor Aurangzeb in 1679 AD, the Fort again came to the Sisodias in 1681 AD after signing a peace treaty with the Mughals.

- **Phase V: 18<sup>th</sup> – mid 20<sup>th</sup> century AD**

Following the weakening of the Imperial power of the Mughals, faced with Maratha and Pindari attacks a severe famine and internal disputes, the Sisodias signed a subsidiary alliance treaty with the East India Company. During the reign of Maharana Swaroop Singh, Maharana Shambhu Singh and Maharana Fateh Singh, conservation works were undertaken at Chittor by Sisodia rulers from the beginning of 20<sup>th</sup> century; directed, inspected and recorded by the Archaeological Survey of India.

- **Phase VI: Mid 20<sup>th</sup> century to present day**

In 1948, the state of Mewar merged in to the Union of Rajasthan, as part of Independent India and the fort became a protected monument in 1956 AD. Conservation works have been undertaken by the Archaeological Survey of India consistently, along with addition of visitor facilities.

● **Table 2b.1: Historic evolution of Chittorgarh Fort**

<b>Phase I: 5<sup>th</sup> – 12<sup>th</sup> century</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
Gupta, post-Gupta and Mori (Maurya)	Chitrangad Mori Manbhanga	5 <sup>th</sup> – 8 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>Fortifications, terraces of Mahasati, Gaumukh and objects in excavations of the large tank on the plateau from Gupta period</li> <li>Small Buddhist votive stupas</li> <li>Fort was called Chitrakut</li> <li>Chitrangad Tank/Chatrang ka Talab</li> <li>Palace located in the southern portion of the hill</li> <li>Brick Temple (to the south of Kumbha's Palace)</li> <li>Earlier Kumbha Shyam Temple</li> <li>Neelkanth Mahadev Temple</li> <li>Suraj Pol</li> <li>Sun Temple constructed by Manbhanga (8<sup>th</sup> century AD), later became Kalika Mata Temple</li> <li>Kukreshwar Kund</li> <li>Bappa Rawal took the fort from Mori Rajputs in 734 AD but it was taken over by Pratiharas</li> </ul>
Pratiharas		9 <sup>th</sup> – 10 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>Kshemankari temple</li> </ul>
Parmaras of Malwa	King Bhoja Naravarman	10 <sup>th</sup> -11 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>Tribhuvana Narayan Temple (later became Samidheshwar Temple)</li> </ul>
Solankis (Chalukyas)		12 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>Inscription dated to 1150 AD referring to visit of Kumarapala Solanki of Malwa in Samidheshwar Temple and mentioning temple construction and endowments</li> <li>Considered holy place of Jains</li> </ul>
<b>Phase II: 13<sup>th</sup> – early 14<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
			Siege and control by Sultanate of Delhi (Khiljis and Tughlaqs)
Guhilas of Mewar	Rawal Jaitra Singh Rawal Tej Singh Rawal Samar Singh Rawal Ratan Singh	1213-1303 AD	<ul style="list-style-type: none"> <li>Rawal Jaitra Singh made Chittor his capital after destruction of earlier capital of Nagda</li> <li>Jainism encouraged during Rawal Samar Singh's reign</li> <li>Kirti Stambh</li> <li>Samidheshwar Temple (earlier Tribhuvan Narayan Temple)</li> <li>Step well</li> <li>Two inscriptions mentioning endowments and grants made by Rawal Samar Singh from 1278 and 1287 AD.</li> <li>Earlier traces of Padmini's pleasure palace in the middle of a lake</li> </ul>



## 2b. History and Development

### CHITTORGARH

Khilji Dynasty	Alauddin Khilji Khizr Khan	1303-1314 AD	<ul style="list-style-type: none"> <li>In 1303 AD, the Fort was taken by Alauddin Khilji after Jauhar and Shaka were committed by the Guhilas of Mewar, large scale massacre of general population followed</li> <li>Came under command of Alauddin's son Khizr Khan and the fort was named Khizrabad</li> <li>Bridge at base of the fort over River Gambhiri built</li> </ul>
Sonagra Chauhans of Jalore	Maldeo Jaisa	1314-27 AD	<ul style="list-style-type: none"> <li>Fort was passed to command of the Sonagra Chauhan Rajput Maldeo of Jalore in subordinate capacity</li> <li>Passed on at his death in 1327 to his son Jaisa</li> </ul>
<b>Phase III: 14<sup>th</sup> – 16<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
			Invasion by Sultanate of Gujarat
Sisodias of Mewar	Rana Hammir Rana Kheta Rana Lakha	1336- 1433 AD	<ul style="list-style-type: none"> <li>Rana Hammir recovered Chittor in 1336 AD</li> <li>Construction of temples and reservoirs</li> <li>Annapurna Temple (with Gupta period reliefs)</li> <li>House of Chonda (during Rana Lakha's reign, 1381-1421 AD)</li> <li>Rana Lakha rebuilt Palaces</li> <li>Chittor became important trade centre under Rana Lakha (due to re-discovery of tin and silver mines at Zawar)</li> <li>Bhama Shah's Palace</li> </ul>
	Rana Mokhal		<ul style="list-style-type: none"> <li>Renovations of Samidheshwar Temple</li> <li>Built Charbhuj Temple</li> </ul>
	Rana Kumbha	1433-1468 AD	<ul style="list-style-type: none"> <li>Rebuilt seven gates – Padan, Bhairon, Hanuman, Ganesha, Jordla, Lakshman and Ram Pol</li> <li>Fortifications were modernised in 1453 AD with circular bastions added and towers and paved chariot way leading to the fort added</li> <li>Rana Kumbha's Palace</li> <li>Vijay Stambh (to commemorate victory over Sultan Mahmud of Malwa in 1439 AD)</li> <li>Jain Sat Bis Temple</li> <li>Shringar Chauri Temple</li> <li>Temple (later called Mira Bai Temple?)</li> <li>Kumbha Shyam Temple</li> <li>Other structures such as Adi varah Temple, Ram Kund and Brahma Temple</li> </ul>

			were constructed
	Rana Rai Mal Rana Sanga Rana Ratan Singh II Rana Vikramaditya	1468-1535 AD	<ul style="list-style-type: none"> <li>Adbhutnath Temple</li> <li>Bagshi Jail</li> <li>Palace of Rana Ratan Singh II</li> </ul>
	Rana Banbir Rana Udai Singh II	1536-67 AD	<ul style="list-style-type: none"> <li>Sultan Bahadur Shah of Gujarat captured the Fort in 1535 AD</li> <li>Banbir wall</li> <li>Patta and Jaimal Palaces</li> <li>Rampura Bhanpura Havelis</li> <li>Alha Kabra's House</li> <li>Lakshmi Narayan Temple</li> </ul>
<b>Phase IV: 16<sup>th</sup> – 18<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period of rule	Evolution of the Fort
			Mughal control
Mughals	Akbar placed the Fort under the charge of Asaf Khan	1567 – 1615 AD	<ul style="list-style-type: none"> <li>Mughal Emperor Akbar captured the fort in 1567 AD following Jauhar and Shaka.</li> <li>Akbar ordered massacre of 30,000 non combatants within the fort</li> </ul>
Sisodias of Mewar	Rana Amar Singh I Rana Karan Singh	1615- 1628 AD	<ul style="list-style-type: none"> <li>Mewar-Mughal Peace treaty signed between Rana Amar Singh I and Mughal Emperor Jehangir as per which Chittor came back to the Sisodias of Mewar but they were not permitted to undertake any repairs to the Fort</li> </ul>
	Rana Jagat Singh	1628-52 AD	<ul style="list-style-type: none"> <li>Attempted to repair the Fort, and Mughal Emperor sent forces against Mewar in 1643 AD (under Sadullah Khan), but open conflict avoided by mediation</li> </ul>
	Rana Raj Singh	1652-79 AD	<ul style="list-style-type: none"> <li>In 1654 AD, Rana Raj Singh started refortifying Chittor, Mughal forces of Shah Jahan under Sadullah Khan demolished the new fortification</li> </ul>
		1679 AD	<ul style="list-style-type: none"> <li>Chittor Fort taken by Mughal Emperor Aurangzeb's army</li> </ul>
Sisodias of Mewar	Maharana Jai Singh Maharana Amar Singh II Maharana Sangram Singh II Maharana Jagat Singh II Maharana Pratap Singh II Maharana Raj Singh II	1681-1778 AD	<ul style="list-style-type: none"> <li>Peace treaty with Mughal Emperor Aurangzeb in 1681 AD</li> <li>Rani Padmini's palace reconstructed on the existing ruins in 18<sup>th</sup> century</li> </ul>
	Maharana Ari Singh II Maharana Hamir Singh		<ul style="list-style-type: none"> <li>Chittor taken by rival heir Ratan Singh with support of Marathas, but taken back by Maharana Ari Singh in 1771 AD</li> </ul>
<b>Phase V: 18<sup>th</sup> – Mid 20<sup>th</sup> century AD</b>			

## 2b. History and Development






### CHITTORGARH

2.278

Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
			British Subsidiary Alliance
Sisodias of Mewar	Maharana Bhim Singh Maharana Jawan Singh Maharana Sardar Singh	1778-1842 AD	<ul style="list-style-type: none"> <li>Subsidiary Alliance Treaty signed with the East India Company on January 13, 1818, with Captain (later Lt. Colonel) Tod as Political Agent</li> <li>Topkhana</li> </ul>
	Maharana Swaroop Singh Maharana Shambhu Singh Maharana Sajjan Singh Maharana Fateh Singh Maharana Bhupal Singh	1842-1948 AD	<ul style="list-style-type: none"> <li>Chogania</li> <li>Telang ki Gumti</li> <li>Repairs carried out on dome of Vijay Stambh</li> <li>Renovation of Charbhuj Temple</li> <li>Renovation of Rani Padmini's palace</li> <li>Fateh Prakash Palace</li> <li>Conservation works undertaken in 1902-1904 at Kirti Stambh and 1927 at Vijay Stambh and Temple of Mokalji under the Sisodia rulers of Mewar (Mewar Durbar), followed by conservation works in 1935-36.</li> </ul>
<b>Phase VI: Mid 20<sup>th</sup> century – present day</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
Government of India		1948-1956 AD	<ul style="list-style-type: none"> <li>Mewar state joined the newly formed Union of Rajasthan in 1948 AD</li> <li>Conservation works and excavation carried out from 1953 to 1956.</li> </ul>
	Archaeological Survey of India	1956-2010	<ul style="list-style-type: none"> <li>Chittorgarh notified as protected monument under ASI in 1956 AD</li> <li>Conservation works undertaken by the ASI and visitor facilities added (as listed in table 2b.2).</li> </ul>





-  PHASE I: 5th - 12th CENTURY AD
-  PHASE II: 13th - EARLY 14th CENTURY AD
-  PHASE III: 14th - 16th CENTURY AD
-  PHASE IV: 16th - 18th CENTURY AD
-  PHASE V: 18th - MID 20th CENTURY AD

400 200 0 500 Metres



HISTORIC EVOLUTION - CHITTORGARH FORT

## 2b. History and Development

### CHITTORGARH

2.280

- **Table 2b.2: 20<sup>th</sup> – 21<sup>st</sup> century Excavations and Conservation works by Sisodias rulers of Mewar (Mewar Durbar) and Archaeological Survey of India**

Year	Area	Excavation/conservation works undertaken
1899	Kirti Stambh	The tower was in urgent need of conservation. It was suggested to take down about 30ft of the top, and rebuild it with clamped masonry.
1902	Kirti Stambh	Dismantling, as suggested had begun and the crowning pavilion and about 15ft of masonry below removed. The work was discontinued after a few months.
1904	Kirti Stambh	The work started with carving new stones to replace those broken, as these as made were laid out and fitted to the old ones on the ground at the base. The stones were prepared for several courses before the erection of them was executed. The carving was done by local masons with genuine architectural quality. The crowning <i>chhatri</i> made almost entirely new, with the roof (made from stones found near the base) was left hollow to reduce the weight on the pillars.
1906	Kirti Stambh	The re-erection was completed after which a lightning conductor was put up and new stones coloured to harmonize with the old. The ground around the tower was leveled and cleaned, the adjoining temple cleared of creepers and the stairways to its plinth repaired. Struts ( <i>toranas</i> ), spanning the pillars of the canopy were laid which originally existed in 1883. Around the margin of the platform, on which the pillars stand – a low parapet wall was restored as well.
1927-1928	Vijay Stambh, Temple of Mokalji	Mewar Durbar carried out repairs. The Director General was greatly disappointed on march 27, 1927 on his visit to Chittorgarh by the repairs in progress, particularly Viay Stambh. Some of the original base reliefs had been restored in a manner entirely in conflict with archaeological needs. The tower is about 120ft high, elaborately decorated from top to bottom, inside and outside with innumerable images of various kinds providing valuable materials for the history of Hindu mythology and art. The tower now stands in the most perilous condition. A memorandum by the director general of Archaeology of India has been forwarded to the Mewar Durbar, dealing with conservation and repair of this important monument.
1928-1929	General	Several most valuable monuments require urgent repairs, particularly the Tower of Victory.
1935-36	Vijay Stambh, Temple of Mokalji	Repairs to the Tower of Victory at Chittorgarh consisted of replacing broken stones by new stones in the lowest storey and making the plinth thoroughly secure. The side walls of the plinth together with the stairs have been satisfactorily repaired. An attempt was made to imitate and restore the sculptures and relief on the slabs in the new work, but was taken as destruction of the historic interest of the original tower and hence the work was stopped at the instance of the Archaeological Survey. The Durbar has also started repairs to the <i>shikhara</i> of the Mokalji Temple.
1953-1954	Rana Kumbha's Palace-complex, Navalakha Bhandar, Shringar Chauri, Padmini palace and Patta haveli	Immediate repairs were carried out as a first step towards the implementation of a systematic conservation programmes.
1954-1955	General	Large-scale work continued at the monuments situated within the fort. At important monuments boards giving their short history and special features were put up and the approach-roads repaired. A proper approach is being provided to the Samideshvara Temple.
	Naulakha Bhandar and Banbir Wall	The fallen façade of Naulakha Bhandar was replaced by a concrete roof. The enormous inner fortification-wall, as thick as 18 ft, constructed by Banbir, was underpinned at places and consolidated as a whole.

	Shringar Chauri Temple	Shringar Chauri, a Jain temple, can now be viewed from all the sides, since even the sides covered by Banbir's wall were exposed this year. The door-frame, which had gone out of plumb was reset in position.
	Rana Kumbha Palace	In the course of clearing the debris in Rana Kumbha's palace several interesting structural details were brought to light: a hitherto-unknown main entrance by the side of the Diwan-i-Am, leading to Suraj Gokhara, was discovered; it was also noticed that the palace proper stood on a series of vaults with groined arches, which must have been in use, for one of them contained an image of Gajalakshmi in a niche. The overhanging dome on the palace was taken up for repairs. The fallen wall on the eastern side is being rebuilt in accordance with its original technique to a sufficient height, so that it can support the damaged dome. The stumps of walls brought to light after clearances were raised in height so as to show the alignment and the lay-out of the apartments in Zenana Mahal.
	Mira Bai Temple	Flooring was repaired.
	Mira Bai Palace	Water tightening of the tops of walls and filling up cracks.
1955-56	Patta Palace	The monuments continued to receive careful attention. The Palace of Patta was thoroughly conserved after a preliminary jungle-clearance and removal of heaps of foreign stones. The decayed concrete on the dome of the entrance gate was substituted by a fresh one. The enclosure and parapet were rebuilt in rubble masonry up to the necessary heights. The cracks in the dome were grouted and the sagging arches in the pavilion rebuilt after the original design.
	Kumbha Palace	In Rana Kumbha's palace a few more underground chambers with groined arches on which stands the palace, were brought to light in the course of repairs and are being cleared of debris. In the main entrance-gate to the palace called Badi Pol, the rebuilding of loose rubble masonry of the side parapet walls and fallen portions was taken in hand.
	Shringar Chauri Temple	The vertical cracks in the outer façade and door jambs of the elaborately carved Jain temple known as Shringar Chauri were grouted. Decayed concrete and loose stones were removed from the dome, which had also to be partly rebuilt on original lines. The entire surface of the dome and terrace was re-laid with concrete mortar. Missing <i>chhajja-stones</i> were replaced and rusted iron clamps replaced by copper ones.
	Jain Temple near Shringar Chauri Temple	The <i>shikhara</i> of the other Jain temple near Shringar Chauri had been partly repaired last year. This year the vertical cracks were grouted and the dislodged sculptures in the façade fixed. The dome and terrace were rendered watertight with rubble packing and concreted mortar.
	Jatashankar Temple	In the temple of Jatashankar the collapsed side walls of the plinth were rebuilt and the open joints in the roof of the <i>sabha mandapa</i> pointed. The dislodged stones of the <i>Shikhara</i> were reset in lime-cement and the flight of steps repaired. With the provision of the missing stone pavement reconditioning of the monument will be complete.
	Pataleswar temple	The later accretions abutting against the Patalesvara temple were removed, which exposed to view the sculptures and mouldings in the plinth and <i>mandovara</i> .
	Banbir Wall and Naulakha Bhandar	The core of the portion of Banbir's wall between Topkhana and Shringar Chauri was consolidated by the removal of two courses of loose stones from the top and sections and their re-laying in cement after necessary underpinning. The hollows were filled with concreted mortar, thus bringing out the original feature of the rubble masonry laid in mortar with coarse grits. The cracks in the vaulted semi-circular chamber in the bastion known as Naulakha Bhandar are being grouted and the joints pointed. The tops of the walls of adjacent structures are being made water tight with a roof provided over the rooms.
	Mahasati enclosure	The northern gate of the Mahasati enclosure near the Tower of Victory had been blocked by steps and cross-walls: they are being removed. The bulges in the ashlar masonry of the side-walls of the gate were treated, and the niches



## 2b. History and Development

### CHITTORGARH

		in the north wall rebuilt.
	Gardens	Small gardens were laid round the palace of Padmini. The growth of small gardens in the compounds of the monuments, where water-supply was easily available, was encouraged.
1956-57	Rana-Kumbha Palace	The Tripoliya gate, the main entrance to Rana-Kumbha's palace complex, was taken up for thorough repairs. The flanking walls were rendered water tight. The dilapidated domes of the guard rooms in the top floor were reconstructed. The bulges in the masonry were rectified by putting back in position the disjointed architectural members. The cracked massive lintels are being replaced.
	Badi pol	The Badi pol was repaired by pointing of joints in the masonry and rebuilding of the plinth and the pavilion, where guard rooms once existed, up to its original height.
	Pataleswar Temple	The temple was thoroughly repaired by making the roof water-tight, removal of debris all around and thus exposing to view the carvings of the façade and the plinth, and replacement of the missing stone pavements all around. The collapsed porch was built up on the original lines.
	Jatasankar temple	The temple had suffered considerable damage in its plinth portion and pavement, besides the roof. The plinth-wall was built up to its original height and dry-rubble pitching was provided to ward off erosion. While resetting the pavement stones, remains of subsidiary shrines were noticed and duly preserved.
	Siva Temple	A toe wall was built up to retain the Siva Temple, the high plinth of which had been over hanging.
	Adbhutanathji Temple	The temple known for its sculptures of the 12-13 <sup>th</sup> centuries was rendered water tight after the resetting of the shikhara-stones and provision of rubble packing to the core of the southern wall and door frame. Steps were also built up and provision was made to drain of rain-water.
	Kukkreshwar Temple	The temple had been heavily leaking. After grouting the cracks and closing the gaps in the Shikhara, rubble packing was provided for the domes. The decayed concrete lime plaster was removed and replaced by a fresh layer of the same material.
	Fateh Prakash Palace	The entrance gateway of the, a 3-storeyed structure used by the generals of the rulers of Chittor, was rendered water tight by rubble packing and lime cement concrete on the terrace. The wall tops were treated and debris removed.
	Mataji-ka-kund	Besides the removal of vegetation, a titled pillared pavilion standing on the embankment of the kund, was put back in position by the resetting of the dislodged stones of the high plinth.
	Mahasati complex	The northern sati gate provided at the entrance to the Mahasati enclosure was provided with proper steps, and damages to the walls caused by tree-roots mended.
1957-58	Mahasati complex	The Sita temple in the enclosure received special repairs by way of underpinning the dangerously overhanging portion of the high plinth in rugged masonry. The <i>pradakshina-pratha</i> around the sanctum was restored. The beautifully carved door-jambs were reset in plumb. The eastern Sati gate had suffered heavy damage owing to jungle-growth, leakage of water, etc. Extensive repairs were carried out to this monument. The bulged masonry of the side walls was taken down and re-set in plumb with the ashlar-veneering security held. The damaged niches were repaired by the replacement of missing stones and the fixing in position of the dislodged sculptures. The high-plinth walls of the platforms on the western side were rebuilt in plumb. The cracked bracket and capitals are being replaced by fresh ones, after the completion of which the roof will be attended too.
	Rana-Kumbha Palace	The side walls and 3-storeyed rooms flanking the central hall of the heir-apparent's palace were carefully repaired. Half of the dome over the rooms had collapsed the side walls and wooden beams and lintels support less. The

		repairs included provision of concealed R.C.C. rings at the two floor levels. The fallen portion of the dome was rebuilt, the dome thus restored to its original shape.
	Palace of Padmini	The wood-work was coated with wood-preservative, and the garden in the courtyard extended.
	Kukreshwar Temple	The temple had been made water-tight last year(1956-57). This year the seepage of rain water into the foundations was stopped by the construction of a pavement around the temple and leveling of the surroundings.
	Rampura house	Over grown with jungle and with some of the walls collapsed, the house was attended to. The wall tops were made water-tight and the door jambs under pinned and the roof provided with fresh lime cement concrete. A proper approach road was laid as well.
1958-1959	Mahasati Complex	In the course of general clearance in the Mahasati enclosure four shrines and some ashes and charred bones were found. As Rajput ladies are believed to have committed sati in this enclosure, three trenches were laid here by Shri S.R Rao of the Western Circle of the Department to ascertain the truth of the tradition. Of the five structural phases noticed, Phase I was marked by a small shrine flanked by two other shrines, the architectural features of which would roughly indicate the eleventh century as their date. In Phase II another shrine seems to have been constructed. To the same Phase belonged a stone pavement and two foundation-walls. Phases III and IV were important for the point under investigation. Three shrines (pl. LII A) and an oblong brick enclosure (pl. LII B) externally reinforced by rubble and internally plastered were laid bare. Within the enclosure, a 6-in thick layer of ashes was noticed: it was also seen that its mud floor was burnt. Close by were three pits full of ashes. Another interesting structure was a paved platform over which stood a sati-stone (pl. LIIC). Two other loose sati-stones were also found
	Ratan Singh's palace	The modern accretions in the southern part of the palace of Ratan Singh, besides some near the inner gate and elsewhere were removed and the fallen parapet-wall on the south was rebuilt to a length of 60 ft.
	Kukreshwar temple	An apron, 8 ft wide, was provided to the north, west and a part of south around the Kukreshwar temple to stop the percolation of rain water into the foundation
	Shrinagar-chauri	The uneven pavement of the Shrinagar-chauri was dismantled and re-set and an apron 6 ft. wide, provided on the east, west and south. A hidden drain was provided for the easy flow of rain-water from the front side of the temple.
	Kumbha palace	The Nagar-khana, situated within Rana Kumbha's palace, was repaired by way of the replacement of broken stone lintels and pillars, renewal of the missing merlons and reconstruction of dislodged and cracked portions after the original (pl. CIV). Rusted iron clamps were replaced by copper ones. In the Zenana-mahal in Rana Kumbha's palace the group of titled balconies along the out-of-plumb rubble masonry wall was rebuilt. Tie-rods were inserted in two stages, one at the lower level below the balcony and the other at the top floor, to secure the framework of the balcony. The tops of all the ruined walls were made watertight.
1959-1960	Mahadeva Temple	The Mahadeva temple situated within Rana Kumbha's palace was repaired by the replacement of all the broken structural members like brackets and lintels and re-erection of the tilted pillars in a vertical position. The flat terrace was made watertight.
	Kumbha Palace	The repairs of Zenana-Mahal commenced last year were completed and the tilted balconies reset in their original position after the replacement of the cracked brackets below them and three lintels of the lower dome. Fresh lime concrete flooring was laid in the room after the removal of the dead lime-concrete. The open courtyard in front of the Mahal was excavated to its original level and a polished stone pavement was exposed to view. The removal of late accretions brought to light a platform in ashlar masonry having an ornamental kakshasama in front.

## 2b. History and Development

### CHITTORGARH

	Siva Temple	The spongy roof of the <i>sabha-mandapa</i> of the Siva temple behind the Mira Mahal was made watertight with new concrete after the resetting of the disturbed ceiling stones. The brick <i>shikhara</i> of the temple was underpinned in carved brickwork. The sunken and damaged stone pavement in the <i>garbha-griha</i> and <i>pradakshina-patha</i> was re-laid, and an apron of stone flooring was provided on the three sides of the temple. A concealed drain was also provided to drain out rain water.
	Patta Haveli	Extensive repairs were undertaken to Fattah's palace, by way of providing two rings of reinforced cement-concrete beams and pillars in the core of the superstructure of the walls of this three-storeyed structure at the places where wooden beams and pillars had originally existed. This necessitated the rebuilding of the masonry of the façade to keep the reinforced-concrete rings concealed within the masonry. Besides, the missing lintels were replaced by stone lintels, cracks filled, open joints in the masonry pointed and the existing plaster-patches repaired.
	Ratan Singh's Palace	A later accretion in the western part of Ratan Singh's palace was removed and the walls thus exposed were rendered watertight. The large terrace of the Zenana apartment was concreted after the removal of the dead lime-concrete. The bastion on the western side of the palace underpinned and wide cracks in its masonry filled by grouting and masonry.
	Ratnesvara temple	The displaced masonry of the tank by the side of the Ratnesvara temple was dismantled; the work of resetting it is in progress.
	Allah Kabra house	The jungle growth and the debris of the fallen structures of Allah Kabra's house were cleared and its original features brought to light. The main structure was underpinned and all cracks filled up. The broken or missing lintels of the doorways were replaced and the damaged stone flooring relaid with new ones. All the walls of the fallen structures were made watertight.
	Padmini Palace	Apart from these repairs, the lawns and garden in Padmini's palace were improved
	Mira Mahal	The ruined structures in front of the Mahal were made watertight and partially rebuilt.
1960-1961	Ratnesvara temple	Large scale repairs undertaken to the Ratnesvara temple, which had been in a very bad state of preservation, consisted of the taking down all the component members of the <i>sabha-mandapa</i> and reconstructing the same after restoring the tilted pillars in position. The reconstruction of the front wall of the temple was completed.
	Patta & Jaimal Havelis	The house of Jaimal, which had been in a dilapidated condition, was repaired by way of underpinning the fallen portions of walls, ceiling and staircases. The house of Patta was provided with concealed reinforced cement-concrete beams and pillars in the core of its walls in order to strengthen the structure. The missing flooring slabs of the ground-floor rooms were replaced.
	Kumbha Palace	The Sunken stone pavement of the maqarkhana courtyard in Rana Kumbhas Palace was reset on a cushion of cement concrete, retaining the original features and showing the different phases of construction.
	Mataji-Kund	The out of plumb masonry of the balcony of Mataji-Kund, which had been taken down previously, was restored on the original lines.
	Jata Shankar Temple	The exterior of the Jata Shankar Temple, cove red all over with moss and lichen was taken up for chemical treatment and the area over the <i>Shikhara</i> and <i>Chhatri</i> was cleaned and preserved. The stone surface over the <i>Mandapa</i> and the gate was cleaned and a preservative coating will be executed shortly.
1961-1962	Ratnesvara temple	The dismantling and resetting of the Ratnesvara temple, above the lintel-level, was continued (1960-61,p. 103) and completed. This work is an example of careful and effective conservation of a large-sized temple with a badly cracked and out-of-plumb fabric
	Sati gate and Ram-Pol	The eastern Sati gate and Ram-Pol were fully conserved by the provision of new members in place of broken one's and repairs to the bulges in the ashlar



		and rubble-wall in the case of Ram-Pol. The ashlar-masonry all around the eastern Sati gate was raised to the roof level. After the insertion of roof-slabs and capitals, a bed of cement-concrete was provided and a parapet-wall was constructed all round the terrace of the eastern Sati gate.
	Mahadev temple	Dislodged roof-stones and loose rubble-packing below the Mahadeva temple near Gaumukh were taken down and the fabric of the roof of the <i>sabha-mandapa</i> suitably repaired.
	Rampur house	The work of removing debris from within Rampura house and making the tops of walls watertight were taken up and completed.
	Jaimal House	After the clearance of jungle debris was removed for exposing the original features of Jaimal House. The exposed structure was made watertight by raising the tops of walls and providing lime-cement-concrete on the terrace.
	Chonda-house	Debris was removed for exposing the original features of Chonda-house. The tops of walls were made watertight and the masonry underpinned wherever needed. Stone lintels were provided to the door in place of missing ones.
	Alha-Kabra House	Fallen debris was removed from the wing of the gate of Alha-Kabra's House, thereby exposing its original structure. Damaged and sunken parts of the gate and its roof were repaired, grouted and made watertight.
	Rana Kumbha Palace and Jatashankar temple	The structures between Rana Kumbha's palace and Jatashankar temple, which had hitherto been covered with debris, were partially exposed. The nature of this structure is being studied and it will be conserved in due course. The main gate to this portion of the palace-complex was conserved.
	Khatan Rani palace	Debris was removed from the entire area of the Khatan Rani's palace and parts of walls were made watertight. The dome in the south-east corner was suitably repaired.
	Jatashankar temple	The chemical treatment of the exterior of the temple, Jata Shankar, begun previously was completed and the entire area was eliminated of moss and lichen. Preservation of stone surface with a suitable fixative was also completed. The treatment of the sculptured brackets of the central hall's ceiling in progress.
1962-1963	Alha Kabra house	In continuation of last year's work (1961-62) accumulated debris on the left side of Alha Kabra's house was cleared and structures which formed a part of the palace-complex were exposed. Damaged gate was provided with new stone pillars, capitals and lintels in place of missing ones. Modern accretions and encumbrances in the courtyard of the Durbar hall were pulled down and debris was cleared.
	Ratnesvara temple	The accumulation of rubble lying in front of the main gate of the temple was removed. Debris was also cleared from the annexed inner court and interesting structures with an underground cell were exposed. The extant portion of the corner-tower which was in imminent danger of collapse was strengthened. Exposed portions of the compound-walls of the courtyard were made watertight.
	Moti bazaar	The palace called Moti bazaar, behind the Topkhana, was cleared of debris and jungle, thereby exposing a row of shops with a verandah in front.
	Badi pol	A part of Badi Pole gate-complex was also exposed.
	Gaitesvara temple	Decayed and sunken floor of the courtyard and a part of <i>sabha-mandapa</i> of the Gaitesvara temple were taken out and provided with new flagstone flooring on a bed of lime-concrete. The compound wall was partially raised.
	Mahadeva temple	The broken lintel of the porch of the Mahadeva temple near Gaumukha was replaced after bringing the tilted pillar below it in plumb. The roof of the porch was made watertight.
	Rampura house	Further debris from Rampura house was cleared and the exposed tops of walls were made watertight. The main gate was also repaired.
	Khatan-Rani's house	The Debris of the fallen compound-wall of Khatan-Rani's house, overlooking the tank was cleared and the wall was restored high enough for the safety of the structure.
	Samidheshwara	Backside of Samidheshwara temple was completed. Remains of a number of

## 2b. History and Development

### CHITTORGARH

	temple	shrines and fragments of sculptures were exposed.
	Ghee ki baori	Jungle on all sides of the ghee tank was removed and big trees growing over the structure were removed. Debris inside the tank was removed and a number of interesting original features were exposed. A portion of the fallen wall near the entrance to the tank was restored.
	Jatashankar Temple	After the completion of the chemical conservation at the exterior of the temple, Jaya Shankara ; cleaning was extended to the bracket figures inside the dome which were finally given a preservative coat.
1963-1964	Moti-Bazar	Debris was removed from the area on the main road to Fateh Prakash palace, called Moti-Bazar, interesting structures comprising suites of shops on either flank, as also underground cells, came to light.
	Rana Kumbha Palace	Debris accumulated in the area near Mira Mahal in the Rana Kumbha's palace complex was cleared, exposing a gate at the corner near Genda House. Traces of compound-wall on the southern side of the palace were found.
	Alha-Kabra	The extant portion at the top of the gate-building of the house of Alha-Kabra was suitably repaired by the plugging in of the overhanging vault from below. The terraced roof of the gate was made watertight by providing a fresh layer of lime-concrete mixed with cement. The exposed tops of the walls were also made watertight.
	Gora and Badal house	The tops of the structures including that of two cabins of the house of Gora and Badal were made watertight. The area around the monument was cleared of vegetation and debris
	Ranga-Rasia-Ki Chhatri	Huge quantities of debris lying around the monument and the two towers called Ranga-Rasia-Ki Chhatri were removed and scattered stones were cleared. The over-hanging portions of the two towers were underpinned. The staircase of the towers which had got detached was anchored with the adjacent walls. Tops of the structures around the towers were made watertight.
	Ranga-Rasia-Ki Chhatri	The fallen portions of the wall of the Ghee Tank in the north-east corner were restored.
	Ghee Tank	The vaulted roof of the jail in the palace of Ratan Singh had developed a dangerous crack at the apex separating it from the terraced roof caused depression in the roof. The crack was suitably lugged in from inside after the provision of a proper support. The terraced roof was opened from the top and the cavities were filled in with rubble-masonry packing. The top of the entire roof was made watertight with a layer of fresh lime concrete mixed with cement and toned to match with the adjoining surface. The missing portion of the balcony of the Zenana-Mahal of the palace was restored in accordance with the original.
	Ratan Singh Palace	The disturbed stones of the shikhara of the Siva temple near Gaumukh were taken down and refixed at their original places. A few old stones lying at the site within the debris were also used in the work.
1964-1965	Rana Kumbha Palace	The southern portion of the compound-wall of Rana Kumbha's palace from the corner of the Tel tank to the Ganesh temple was traced out and reconstructed in dry rubble-masonry
1965-1966	Ratnesvara tank	Clearance of the area on the southern and western sides of the Ratnesvara tank was carried out, ashlar-wall and steps were exposed and the loose pieces were brought to original position and set along with sculptured niches.
1969-1970	Kumbha Palace,	The uneven stone flooring near the Nagar khana area in Rana Kumbha's Palace was reset with stones over a bed of lime-cement concrete. Lime cement concrete flooring was provided to one of the rooms in the western side of the palace to prevent seepage of rain water to the ground floor.
	Mira Palace	The decayed lime concrete flooring in the rooms of the Mira Mahal was made good.
	Kirti Stambh	A lightning-conductor was installed on the Kirti Stambh.
	Badi Pol	The damaged and uneven stones of the pavement of the Badi Pol gateway

		were replaced with the new manpura stones.
1970-1971	Inscriptions	A fragmentary record, found at Chittorgarh, containing only the portion of the text recording part of the date, is in all probability a record of Alauddin Khalji (late 13 <sup>th</sup> or early 14 <sup>th</sup> century AD).
	Padmini Palace	The decayed lime concrete flooring of the Mirror Room and the Rang Mahal of the palace was removed and a fresh concrete cushion for the new manpura stone flooring was provided. The damaged and decayed top portions of the walls of the adjoining structures were water tightened with the addition of hydrofuge in the mortar.
	Kumbha Palace	Removal of the decayed concrete flooring and provision of 1:2:4 cement-concrete cushion for a new flooring of manpura stones in the Zenana Mahal and in the north eastern part of the palace was taken up.
1971-72	Ratan Singh Palace	The dilapidated portions of the flooring of the Palace were set right. A part of the roof was water-tightened.
	Mahadeva Temple	The huge debris lying at the site was removed and its damaged pillars were renewed. Water tightening of the roof and repaving of the damaged flooring with new manpura stones were also taken up.
	Rana Kumbha Palace, Padmini Palace	The damaged flooring was also repaired.
1972-1973	Annapurna temples	The undulated pavements were removed and a proper flooring of Manpura stones was provided.
	Bhama Shah Haveli	Pavement was done by providing manpura stones on proper cement concrete cushion.
	Kalika Mata Temple	The undulating stone pavement was removed and reset by providing proper cement concrete cushion. The cracks in the <i>garbhagriha</i> and the <i>sabhamandapa</i> were rendered water-tight.
	Tulja Bhawani Temple	The out of plumb rubble masonry was dismantled and rebuilt as per the original. Similarly the flooring and the parts of the dome were also reset.
1973-1974	Ratansingh Tank	Ratansingh Tank - Random rubble masonry in the foundation and plinth was repaired with cement mortar.
1974-1975	Bagshi Jail	The out of plumb rubble stone masonry wall was dismantled and reconstructed in cement mortar.
	Bhama Shah haveli	The damaged and uneven flooring was reset by providing new manpura stones.
	Ratansingh tank	The out of plumb retaining wall on the southern side of the ghat was dismantled and reconstructed.
1975-1976	Tripoliya gate	Resetting the out of plumb ashlar masonry; replacing of the broken and missing lintels; and relaying in cement mortar, after removing the uneven and sunken pavement, over a cushion of concrete.
	Badi Pol	The dislodged ashlar stones of the roof and lintels in the Badi Pol were reset to their original position and the dead concrete was removed and re-laid with fresh concrete.
	Bhimlat tank	The debris around Bhimlat tank was removed and the out-of-plumb ashlar stone masonry of the wall was reset to plumb line.
	Rana Kumbha Palace	The damaged random rubble masonry of the subterranean passage of Rana Kumbha's palace was repaired.
1976-1977	Shiv temple	This inscription on the top of a Siva-head, carved on a stone pillar, found from the bed of the river ganbiri and now housed in the office of the Conservation Assistant of the Western Circle of the Survey, is in mixed Sanskrit and Prakrit language and in characters of the eighth century A.D and contains devotional verses on Siva.
	Bhimlat tank	The work of resetting the bulged and uneven ashlar stone masonry was



## 2b. History and Development

### CHITTORGARH

		carried besides clearing the debris and the vegetation growth.
	Khattan Vav	The work of resetting the bulged and uneven ashlar stone masonry was carried besides clearing the debris and the vegetation growth.
	Tel-ki-Baori	. The work of resetting the bulged and uneven ashlar stone masonry was carried besides clearing the debris and the vegetation growth.
	Surya Kund	.The work of resetting the bulged and uneven ashlar stone masonry was carried besides clearing the debris and the vegetation growth.
	Badi Pol	Replacing of the broken slabs of the roof and providing them with cement concrete was completed at Badi Pol.
	Tripoliya gate	The work of reconstructing the stone masonry, changing of the broken slabs of the roof and water tightening with fresh cement concrete was completed.
	Rana Kumbha Palace	The bulged and out of plumb ashlar masonry of the palace was dismantled and reconstructed as per the original. Missing stones of the <i>chhajja</i> and the pavement were replaced and conditioned.
	Patta Haveli	The work of replacing the missing lintels and stones of the flooring, providing of steps underpinning and pointing of the joints in the walls, was carried out.
	Padmini Palace	Resetting the out of plumb ashlar stone masonry, underpinning and pointing the joints in the walls were carried out. Besides, window-openings on the lake side were provided with iron grills.
	Rampura house	The work executed consisted of resetting of the missing ashlar stone masonry, reconstruction of the collapsed R.R masonry and laying of fresh concrete, underpinning and plastering of the walls.
	Shiv temple	The vegetation growth and debris were cleared and the dislodged stones of the brick <i>shikhara</i> and the <i>sabha-mandapa</i> of the Siva temple in the nursery were reset. The damaged flooring was removed and new flooring on concrete cushion was relaid.
1977-1978	Topkhana building, Badi Pol, Bhimlat tank, Tripoliya gate	Many monuments were taken up for repairs which included items like repairs to steps of the tank, pillars, roofs, lintels, etc.
	Padmini Palace	Besides maintaining the garden attached to the palace is nice condition, measures have been taken to tap water from the river bed order to have intensive horticultural operation inside the fort.
1978-1979	Fort wall	The fort walls were cleared from the growth of vegetation, big trees and thorny bushes. The fallen portion of the fort wall near Badal Mahal was restored in lime cement mortar.
	Kukreshwar Mahadev Temple	The out-of-plumb wall around the temple was dismantled and reconstructed in lime cement mortar. The missing flooring stones were replaced and old ones reset. The walls were also underpinned.
	Siva Temple	Dismantling and resetting of the out-of-plumb stone masonry, restoration of missing portion of <i>sabha-mandapa</i> , replacing stones wherever necessary were carried out.
1979-80	Annapurna Mata temple	The damaged floors on the ground floor and the first storey were dismantled and re laid.
	Badi pol	The missing ashlar stone masonry with carvings including stone paved flooring were restored as per the old patterns and designs.
	Bhimlat tank	The damaged <i>chhatra</i> was dismantled and reconstructed and repairs carried out to the out of plumb portions of the stone masonry.
	Charbhuj Temple:	The damaged and uneven flooring including the out of plumb and missing stone masonry had been removed and replaced by new stones on a concrete bed.
	Chota Mata temple	The bulged out and out of plumb portions of the <i>Shikhara</i> were dismantled and reconstructed matching with the original
	Ghee Ki Baori	The missing stone paved flooring and ashlar masonry of the walls were restored with new ones.
	Khatan Rani Mahal	The sunken stone-paved flooring and the damaged ashlar masonry were repaired with lime cement mortar keeping the joints recessed.

	Mahalakshmi Temple	The damaged floor was repaired after clearing the debris.
	Northern Sati gate	The missing stone slabs of the flooring were relaid on a concrete bed keeping conformity with the original.
	Siva temple near Gaumukh	The sunken and missing portions of the flooring, including the ashlar masonry had been repaired.
	Visvanatha Temple	The uneven and broken portion of the floor was relaid with new stones.
	Padmini palace	The small garden around the palace is being maintained nicely.
1980-1981	Annapurna mata temple	The compound of the temple was provided with stone pavement on lime concrete bed.
	Bhimlat tank	To prevent water percolation, bulged out and decayed ashlar masonry was dismantled and reset.
	Ghee-Ki-baori	Bulged-out stone masonry was dismantled and reset
	Padmini palace	The garden around the palace was maintained satisfactorily. The water supply system entrusted to the CPWD had almost been completed.
	Bhama Shah Palace	Systematic survey for landscaping around the palace has been undertaken
1982-1983	Kalikamata Temple	Concealed beautiful small sculptures and carvings of ceiling and pillars were exposed by removing thick coating of lime plaster and lime wash mechanically as well as using dilute acetic acid.
	Bhama Shah palace, Kumbha Palace, Padmini Palace	The major work of development for landscaping at the fort became possible. The gardens in the compound were under development.
1983-1984	Fort Wall	The portion of the fortification wall near Suraj Pole which had collapsed during the monsoon was rebuilt in random rubble masonry using the stones as per the original
	Jaimal Patta House, Suraj Kund, Kirti Stambh, Avadh Nath temple	New gardens around the important sites, covering an approximate area of 4 acres have been laid out.
1984-1985	Fort wall	In continuation of last year's work the portion of a fortification wall near Suraj Pol was rebuilt in random rubble masonry in lime mortar as per the original. The work is in progress.
	Rana Kumbha palace	The top of the fallen walls of the palace complex were water tightened.
	Padmini Palace	The Padmini Palace garden was maintained. The hilltop area was taken up for development. The work is in progress.
	Jaimal and Patta House, Kirti Stambh, Kumbha Palace	New gardens have been laid.
1985-1986	Kalika Mata temple	Chemical treatment work on the stone sculptures and carvings in the pradakshinapatha of the temple was carried out for the removal of old and hard incrustation of lime plaster using acetic acid which revealed obscure details of beautiful small sculptures and carvings. The chemically cleaned areas were preserved with 2-3% polyvinyl acetate solution in toluene
1986-1987	Rana Kumbha Palace	The broken stone lintels and slabs in asvasala in Rana Kumbha palace have been replaced by new ones and the terrace has been rendered watertight by laying fresh lime concrete as per original.
	Fort wall	Reconstruction of the fallen fortification well was continued.
	Kalika Mata Temple	The old hard incrustations of lime plaster on the walls of the pradakshinapatha of the temple were removed using different chemicals and the details of sculptures and carving exposed.
1987-88	Rana Kumbha palace	Restoration of missing <i>Kanguras</i> was carried out. Dismantling of decayed lime concrete and relaying the flooring in the shops, providing and fixing new sill stones in place of the missing ones in the openings of the shops was provided.
	Nagina Bazaar	Stones on the steps of the underground cells were provided.

## 2b. History and Development

### CHITTORGARH

	Fort wall	Reconstruction of the fallen portion of the fortification wall near the Ram pol was taken up.
1988-1989	Kumbha Palace, Moti Bazaar, Nagina Bazaar, Fort Wall	A special repair to Rana Kumbha palace, shops of Moti Bazaar and Nagina bazaar and reconstruction of the fallen fortification wall near Ram Pole was taken up. The work is in progress.
	Kalika Mata Temple	The stone sculptures and carvings of Kalika mata temple were subjected to chemical treatment using dilute aqueous solution of ammonia, teepol etc. for removal of dust, dirt, moss, lichens, etc. Dilute aqueous solution of acetic acid was used for removal of deposition of lime wash. Finally. the treated area was preserved by 3% solution of acrypol and dibutyl phthalate in toluene
	Plantation	Some new plantation was done at the garden inside the fort
1989-1990	Ratan Singh Palace, Padmini Palace	Pointing and repairs to the merlons and reconcerning the floors of the Ratan Singh palace were completed.  Padmini Palace- More fruit plants were introduced.
	Padmini Palace, Bhama Shah palace, Kumbha Palace, Kirti Stambh	More plants like dakelia, tuberose, gladiolus, foot ball lily, were introduced in the garden at Padmini Palace, Bhama Shah palace, Vijaya Stambh palace, Kirti Stambh and Kumbha Palace.
1991-1992	Shringar Chauri temple	The micro-biological growth from the outer surface of Shringar Chauri temple was eradicated with dilute solution of ammonia and teepol mixture. The lime deposits wherever present were removed by treatment with dilute acetic acid solution. The work is in progress.
1992-1993	Siva temple	Replacement of the broken beam, lintel and roof stone slab, laying of lime cement concrete on the roof and RR masonry parapet on the roof of the <i>inner sanctum</i> of small Siva temple near rattan Singh palace inside the fort was completed.
	Shringar Chauri temple	Eradication of dried micro-biological growth, hard calcarious dust deposition, etc. from the carvings and sculptures was continued by using dilute acetic acid with gentle brushing. The entire chemically treated area was given fungicidal and preservative treatment
1993-94	Bhama Shah Haveli	Dismantling and demolishing of the old bulged R.R masonry of the wall of the Haveli and reconstruction of the same in lime cement concrete after dismantling the old and pulverized lime concrete and pointing of joints of stone masonry were carried out.
	Mira temple	Chemical treatment on about 510 sqm of area on the exterior surface of stone surface of the temple was carried out for the removal of microbiological growth and accumulated dust.
	Parasvanath temple at Saat Bis Devri complex	The chemical treatment of about 420 sqm area on the exterior of north east face of the complex was carried out for the removal of vegetation growth and lime disposition using solution of ammonia, teepol, and acetic acid.
1994-1995	Mira Temple	The chemical treatment work was continued for removing the accretionary deposits from the surface of the temple. After thorough washing and fungicidal treatment, a preservative coat of 2% polymethyl methacrylate was applied on complete dry surface.
	Shringar Chauri temple	The exterior stone surface of the temple was chemically treated with ammonia solution mixed with a non-ionic detergent for the removal of the micro-vegetation growth, dust and dirt accretions. The cleaned area was subjected to fungicidal treatment followed by preservation with 2% polymethyl methacrylate in toluene.
	Parsvanath temple	The works of chemical treatment and preservation were taken up on the south east face of the temple. Micro- biological growth and lime accretions were removed from the exterior stone surface of the temple with the help of aqueous solution of ammonia teepol mixture and acetic acid solution respectively by using soft nylon brushes. Fungicidal treatment was given to prevent recurrence of vegetational growth. The cleaned and dried surface



		was finally preserved with 2% solution of polymethyl methacrylate in toluene
1995-1996	Parsvanatha temple	Chemical treatment of the temple was resumed by usual methods for the removal of moss, lichen, lime wash and dirt. Afterwards treated with fungicide and preserved finally.
	Saat Bis Devri group of temples.	The chemical treatment was resumed for the removal of micro biological growth and lime accretions from the exterior stone surface of Saat Devri group of temples.
	Kumbha Shyam Temple	Also, treatment of the temple was taken up on the N-East face of the main <i>Shikhara</i> using ammonia sol. The lime-coat patches were removed as well.
1996-1997	Kumbha Shyam Temple	Treatment on various structures of the temple was carried out for removing various accretions using different chemicals. Thick lime coatings were removed as well. The dried surface was given fungicidal treatment. The treatment and preservation work has been completed during the year on the exterior wall facing North-East about 100 sqm on the wall facing south-west and about 174sqm on a temple towards north and Garuda temple in the same complex. The work on the remaining area is in progress.
1997-1998	Jatashankar Mahadeva Temple	Chemical treatment work was carried out on the exterior surface of the temple decorated with beautiful sculptures and carving. These were chemically cleaned with 3-4% solution of ammonia mixed with non-ionic detergent. The cleaned surface was given fungicidal treatment with 2% solution of sodium pentachlorophenate. The work has been completed.
	Kumbha-Shyam Temple	In continuation of the last year's work, the remaining exterior area of the south-west face of the main <i>shikhara</i> was subjected to chemical treatment for the removal of moss, lichen and bacterial slime using solution of ammonia and non-ionic detergent. Lime coatings were removed with sol of acetic acid. The cleaned, dried surface was given fungicidal treatment. The work has been completed.
	Samideshvara Mahadeva	The work of treatment and preservation was started in order to remove the accretions of micro-vegetation growth, dust and dirt using ammonia and non-ionic detergent. Lime coatings were removed as well. Work is in progress.
	Saat Bis Devri, Jain group of temples	Chemical treatment work carried out on the exterior surface in order to get rid of micro-vegetation growth and other accretions using ammonia and detergent. The cleaned, dried surface was subjected to fungicidal treatment. Work completed.
	Gaumukh Kund	Pathways have been provided with paved stone flooring from Sati gate to Gaumukh Kund and from Samidheshvara Temple to Gaumukh.
1998-99	Ghee-ki-Baori	The base was partly exposed by clearing the <i>malba</i>
	Adbhutnatha Temple	The exterior stone surface was chemically treated for the removal of micro-vegetation growth and other accretions using 3-5% solution of aqueous ammonia and non-ionic detergent. The chemically cleaned and dried surface was given fungicidal treatment with 2% solution of sodium pentachlorophenate followed by preservation with 1 % solution of PMMA in toluene.
	Samidhesvara Mahadeva Temple	The exterior of north-east and south-west faces of the main <i>shikhara</i> and <i>mandapa</i> of the temple was subjected to chemical treatment and preservation. The microvegetational growth and other accretions were removed using 3-5% solution of aqueous ammonia and non-ionic detergent. Lime deposited within the carvings and beautiful designs was removed by chemico-mechanical method using dilute solution of acetic acid. The stone surface was treated. The work is complete.
1999-2000	Padmini palace	A portion of <i>kachcha</i> pathway was provided with stone flooring.
	Digambar Jain Temple	The beautiful sculptures and carvings under biological growth, dust and dirt were subjected to chemical treatment using mixture of 3-5% solution of liquid ammonia and 1% non-ionic liquid detergent. After thoroughly washing the cleaned surface, fungicidal treatment was given. Finally, after drying, the surface was preserved with

## 2b. History and Development

### CHITTORGARH

2.292

		Repellin super (potassium methyl siliconate) in suitable concentration and 1% solution of PMMA in toluene in double component system.
	Kukreshwar Mahadev Temple	The chemical cleaning work was started on exterior surface of the temple for the removal of moss, lichen, dust, dirt, bacterial slime and thick hard lime-coats from the stone surface and beautiful sculptures and carvings. Accretions from deep carvings and sculptures were removed with utmost care to save the delicate carvings. The entire surface was thoroughly washed with plenty of clean water. On treated and dried surface, fungicidal treatment was carried out.
2000-2001	Ghee-ki-Baori	The restoration work was taken up further by fixing missing stones of the wall in lime-cement-mortar after dressing as per the original.
	Patalesvara Temple	The exterior surface was subjected to chemical treatment for the removal of biological growth using mixture of ammonia and non-ionic detergent with soft nylon brushes. 2% sodium pentachlorophenate solution was applied as fungicidal treatment, followed by application of two coats of 1% PMMA in toluene. The work was completed.
	Ratnesvara Temple	The chemical treatment and preservation were undertaken on the exterior sandstone and lime-plastered surface of the main <i>shikhara</i> and <i>mandapa</i> of the temple for removal of biological growth and superficial accretionary deposits using 3-4% aqueous ammonia solution mixed with non-ionic detergent. Fungicidal treatment was given with 2% solution of sodium pentachlorophenate to arrest the reoccurrence of biological growth. The lime-plastered and stone surfaces were preserved with suitable preservative.
2001-2002	Rana Kumbha Palace	Barbed wire fencing with M.S gates at different locations was attended to. The ramp on the backside of the palace was repaired.
	Samidhesvara temple, Padmini Palace	The damaged flagstone flooring of miniature shrines was repaired.
	Siva temples	The chemical treatment and preservation work was undertaken on the exterior as well as interior surface of the temple's chhatris. Both the sandstone and limestone surfaces were treated with aqueous ammonia and non-ionic detergent mixture using soft nylon brushes. Hard calcareous deposits were removed with the help of dilute acetic acid. The fungicidal treatment was thereafter given on the thoroughly washed surface followed by application of preservative coat on dried surface. The work was completed. The chemical treatment and preservation work was carried out on the exterior stone surface on the similar lines as discussed above.
	Patalesvara Temple	The exterior surface of the temple was subjected to chemical treatment for the removal of biological growth by chemical-mechanical method using mixture of ammonia and non-ionic detergent with soft nylon brushes. 2% sodium pentachlorophenate solution was applied as fungicidal treatment, followed by application of two coats of 1% PMMA in toluene. The work was completed.
	Ratnesvara temple	The chemical treatment and preservation were undertaken on the exterior sandstone and lime-plastered surface of the main <i>shikhara</i> and <i>mandapa</i> of the temple for removal of biological growth and superficial accretionary deposits. Fungicidal treatment was given to arrest the recurrence of biological growth. The lime-plastered and stone surfaces were preserved with suitable preservative.
	Ghee-ki Baori	The restoration work of Ghee-ki Baori was taken up further by fixing missing stones of the wall in lime-cement-mortar after as per the original.
	Padmini palace	A portion of kachcha pathway in the palace was provided with stone flooring.
	Samidhesvara Temple	Improvement of rear area of Samidhesvara Temple is in progress

	Ghee-Ki-Baori	The bed of Ghee-Ki-Baori was also cleared by removing the earth.
	Digambar Jain Temple	The beautiful sculptures and carvings in the temple, near Kirti Stambh, under thick biological growth, dust and dirt were subjected chemical treatment. After thoroughly washing the cleaned surface, fungicidal treatment using 2% solution of sodium pentachlorophenate in water was given.
	Kukreshwar Mahadev Temple	The chemical cleaning work was started on exterior surface of the temple for the removal of moss, lichen, dust, bacterial slime and thick hard lime-coats from the stone surface and beautiful sculptures and carvings. Biological accretions were removed. Thick and hard lime-coating was removed by chemico-mechanical method. Accretions from deep carvings and sculptures were removed with utmost care to save the delicate carvings.
2009-2010	Fort Entrance	The newly prepared protection notice board of bi-lingual character in metal sheet has been provided near the main entrance of the site as it defines the prohibited and regulated area from the limit of the site. Suggestion box in matching sand stone provided to know the views/suggestions of the tourist. Rainbow type stone benches have been provided on site for visitors. Parking Stone has been fixed at the site for small vehicles. Direction boards in matching sandstone have been provided for the convenience of visitors. General cleaning and sweeping of the monument and its premises have been undertaken besides minor repairing works.
	Padmini Palace Complex	The missing and badly damaged <i>kangooras</i> of the <i>chhatri</i> have been replaced by new ones as per the original with the help of combination materials. The dead and decayed lime plaster of the <i>chhatri</i> 's dome has been removed and a fresh lime plaster has been provided as per the original. The badly damaged portion of the base of the <i>chhatri</i> has been restored with the help of combination materials.
	Padmini Palace	Flag stone flooring has been provided to the side gate of the Palace.
	Fortification Wall	The dilapidated and badly damaged portion of the fortification wall between Mrigavan to northern side was restored as per the original with the help of combination materials. The pointing was done from inner side of the fortification wall while top portion of the wall was water tightened, after removing the rank vegetation.



## 2b. History and Development

KUMBHALGARH

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## 2b. History and Development

### Kumbhalgarh



## 2b. History and Development

KUMBHALGARH

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● **Phase I: 2<sup>nd</sup> century BC -15<sup>th</sup> century AD**

As per local legend, Kumbhalgarh was known as Machchindrapur and was associated with King Samprati, a Jain Prince of Maurya dynasty around 2<sup>nd</sup> century BC who possibly built a fortress. However, there is no such archaeological and historical evidence till date to associate this place with Samprati (Dorje & Dimri 2008, p. 13). The Guhilas and Sisodia clans of Mewar knew of the site as being of strategic importance much before 15th century as they used to take refuge here during wartime. After the fall of Chittorgarh at the hands of Alauddin Khilji in AD 1303, the Sisodias of Mewar got directly associated with the site of Kumbhalgarh. Some remains on the site and the Mataji Temple seem to date from the period of 12<sup>th</sup> – 15<sup>th</sup> century AD or earlier.

● **Phase II: 15<sup>th</sup> – 17<sup>th</sup> century AD**

Kumbhalgarh played an important role in the history of Mewar, particularly from the time of Sisodia Rajput rulers Rana Kumbha in 15th century to Rana Pratap in the 17<sup>th</sup> century. The Fort of Kumbhalgarh (also called Kumbhalmergarh) was constructed between 1443 and 1458 AD during the reign of - Rana Kumbha (r. 1433-68 AD), as per planning principles of his chief architect-artisan Mandana. Rana Kumbha realized the strategic importance of the place and constructed the majestic fort here. He undertook major fort planning of the walls/bastions and repair, addition and reconstruction of gateways, along with construction of several temples during his reign. The successors of Rana Kumbha repaired this fort whenever they found the later capital of Udaipur unsafe and earlier capital of Chittorgarh untenable. Mahmud of Khilji (in 1442, 1458-59 and 1467 AD) and Akbar (in 1568 AD) attempted to capture the fort without success, though the fort was taken by a general of Akbar in 1578 AD for a short period.

● **Phase III: 17<sup>th</sup> – 18<sup>th</sup> century AD**

During this period, the Sisodias of Mewar maintained control over the Fort through alliance with the Mughals, following the Mewar-Mughal Treaty signed between Rana Amar Singh and Mughal Emperor Jehangir in 1615 AD. In 1764 AD, the fort was taken by Ratan Singh, a rival heir to the throne.

● **Phase IV: 18<sup>th</sup> - 20<sup>th</sup> century AD**

This phase saw alliance with the East India Company through and the signing of Subsidiary Alliance Treaty in 1818 under Maharana Bhim Singh of Mewar (r. 1778-1828 AD). Following the alliance, the fort was restored to the Maharana of Mewar, with the intervention of the British Political Agent Captain Tod when during Maratha disturbances, an armed band of ascetics who formed the garrison had revolted. The most important construction activity on site was undertaken during the reign of Maharana Fateh Singh (1884-1930 AD), when the Fateh Prakash Palace or Badal Mahal was built.

## 2b. History and Development

### KUMBHALGARH

#### ● **Phase V: 20<sup>th</sup> century AD onwards**

The fort was declared as a protected monument under the Archaeological Survey of India in 1951 AD, and conservation works have been undertaken consistently on the structures within the fort since 1957 AD, along with addition of few visitor facilities.

#### ● **Table 2b.3: Historic evolution of Kumbhalgarh Fort**

Phase I: 2 <sup>nd</sup> century BC- 15 <sup>th</sup> century AD			
Ruling Dynasty	Ruler holding the fort	Period/ year	Evolution of the Fort
Maurya, Guhilas and Sisodias of Mewar	Samprati	2 <sup>nd</sup> century BC - 15 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>• Ancient fortification ascribed to Samprati known as Machchindrapur (no physical evidences on site)</li> <li>• The Guhilas and Sisodias are known to have visited the site</li> <li>• Remains of an old wall</li> <li>• Remain of few structures and small fortress, one near Juna Bhilwara village and another near Pitaliya Shah Jain temple</li> <li>• Mataji temple</li> <li>• 13<sup>th</sup> century AD Jain Temple (from Golera group of temples)</li> </ul>
		1303 AD	<ul style="list-style-type: none"> <li>• Direct association of Sisodias of Mewar after 1303 AD. (sack of Chittorgarh)</li> </ul>
Phase II: 15 <sup>th</sup> – 17 <sup>th</sup> century AD			
Ruling Dynasty	Ruler holding the fort	Period/ year	Evolution of the Fort
	Mahmud of Khilji	1442	<ul style="list-style-type: none"> <li>• Attempted to capture the fort</li> </ul>
Sisodias of Mewar	Rana Kumbha	1443-58 AD	<ul style="list-style-type: none"> <li>• Rana Kumbha planned and constructed the entire fort as a composite with defence and residential structures</li> <li>• Fort walls and bastions</li> <li>• Entrance Gateways</li> <li>• Kumbha Palace</li> <li>• Ganesha Temple</li> <li>• Charbhuj Temple</li> <li>• Vedi temple complex</li> <li>• Neelkantha Mahadev Temple</li> <li>• Parshvanatha Temple</li> <li>• Bawan Devri Temple</li> <li>• Pitaliya Dev Temple</li> <li>• Mamadeo/Kumbha Shyam Temple</li> <li>• Golera Group of Temples</li> </ul>
	Mahmud of Khilji	1458-59 1467	<ul style="list-style-type: none"> <li>• Attempted to capture the fort</li> </ul>
	Rana Rai Mal	1468-1508 AD	<ul style="list-style-type: none"> <li>• Prithviraj ki Chhatri constructed near the gates of the fort, where Prince Prithviraj died (poisoned on return from visit to Sirohi, by his brother-in-law, Rao Jagmal of Sirohi)</li> <li>• In 1500 AD, 16 royal ladies committed Sati (self immolation) on pyre of Prince Prithviraj – sati stones on site could be from this period</li> </ul>
	Rana Sangram	1509-1527	<ul style="list-style-type: none"> <li>• Renovations in Neelkantha Mahadev Temple</li> </ul>

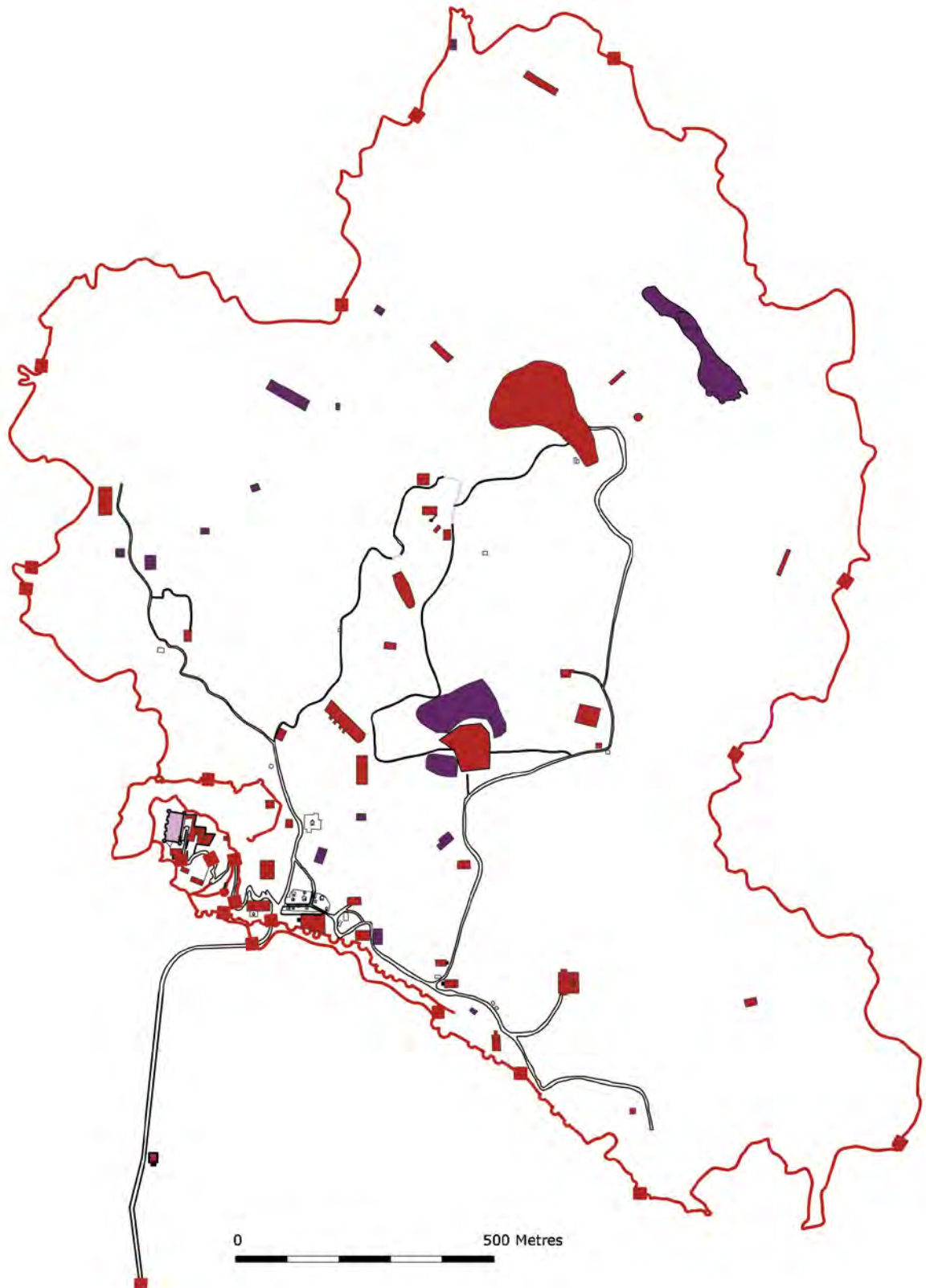
	Singh (Rana Sanga)		
	Rana Banbir Rana Udai Singh II	1536-67 AD	<ul style="list-style-type: none"> <li>Udai Singh (heir to the throne) brought here by Panna Dai (wet-nurse), taking refuge from Banbir and spent his childhood (11 rooms close to Nimboo Pol in anonymity). Asha Shah Devpura was the custodian of Kumbhalgarh Fort</li> <li>From 1535-40 AD, the joint forces of Mewar and Malwa gathered at Kumbhalgarh and a fierce battle took place at Maholi where Banbir was killed and Udai Singh was declared Maharana of Mewar</li> <li>Battle fought here between Chauhan ruler Maldeo of Marwar and Udai Singh II, Maldeo defeated</li> <li>Rana Pratap said to be born here in 1540 AD</li> </ul>
	Rana Pratap	r. 1572-97 AD	<ul style="list-style-type: none"> <li>Rana Pratap was crowned in 1572 AD at Gogunda, after which he held his court at Kumbhalgarh and maintained the Fort as his second capital</li> <li>Strengthened Kumbhalgarh</li> </ul>
		1578-79 AD	<ul style="list-style-type: none"> <li>Fort taken by Shahbaz Khan, a general of Akbar, but Rana Pratap escaped</li> <li>Badshah Baori</li> </ul>
		By 1583 AD	<ul style="list-style-type: none"> <li>Rana Pratap took the Fort back</li> </ul>
<b>Phase III: 17<sup>th</sup> – 18<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period/year	Evolution of the Fort
			Treaty signed with Mughals
Sisodias of Mewar	Rana Amar Singh I Rana Karan Singh Rana Jagat Singh Rana Raj Singh Rana Jai Singh	1615 – 98 AD	<ul style="list-style-type: none"> <li>In 1615 AD, Mewar-Mughal Peace treaty signed between Rana Amar Singh I and Jehangir</li> </ul>
	Rana Amar Singh II Maharana Ari Singh II	1764 AD	<ul style="list-style-type: none"> <li>In 1764 AD, Ratan Singh (son of Rana Raj Singh II) captured the Fort and set up a rival court here</li> </ul>
<b>Phase IV: 18<sup>th</sup> – 20<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period/year	Evolution of the Fort
			British Alliance
Sisodias of Mewar	Maharana Bhim Singh	1778-1828 AD	<ul style="list-style-type: none"> <li>Ratan Singh was dislodged from Kumbhalgarh with Maratha support</li> <li>Subsidiary Alliance Treaty signed with the East India Company on January 13, 1818 and Fort restored to Sisodias of Mewar (following period of unrest) with Captain (later Lt. Colonel) Tod as Political Agent</li> </ul>
	Maharana Fateh Singh	1884-1930 AD	<ul style="list-style-type: none"> <li>Pulled down some of the earlier buildings near Kumbha's Palace and constructed palace Fateh Prakash or Badal Mahal on the site</li> </ul>
<b>Phase V: 20<sup>th</sup> century AD onwards</b>			
Ruling Dynasty	Ruler holding the fort	Period/year	Evolution of the Fort
Sisodias of Mewar, Government of India	Maharana Bhupal Singh	1930-51 AD	<ul style="list-style-type: none"> <li>In April 1948, Mewar joined the newly formed Union of Rajasthan under Government of India</li> </ul>
	Archaeological Survey of India (ASI)	1951 AD	<ul style="list-style-type: none"> <li>Kumbhalgarh was notified as protected monument under the Archaeological Survey of India.</li> <li>Conservation works undertaken by ASI till present day along with introduction of visitor facilities (as listed in the following table)</li> </ul>



## 2b. History and Development

### KUMBHALGARH

2.300



0 500 Metres

-  PHASE I: 2nd CENTURY BC - 15th CENTURY AD
-  PHASE II: 15th - 17th CENTURY AD
- PHASE III: 17th - 18th CENTURY AD: NO CONSTRUCTION
-  PHASE IV: 18th - MID 20th CENTURY AD



HISTORIC EVOLUTION - KUMBHALGARH FORT

● Table 2b.4: 20<sup>th</sup> – 21<sup>st</sup> century Excavations and Conservation works by Archaeological Survey of India

Year	Area	Excavation/Conservation works undertaken
1957-58	Bawan Devri Temple	The temple, including 51 subsidiary shrines in the enclosure had suffered heavy damage due to jungle growth and leakage of water. After the removal of the debris of the shrines which had collapsed in the n-west corner of the temple, the plinths were rebuilt up to the basement of the shrines. Similarly the shrines in the south and s-west were reset in position, while the roofs of some were rendered watertight.
	Badal Mahal	The wood work in the palace, was coated with wood preservative.
	Group of Jain Temples	Some of the small Jain temples were attended too, by clearance of debris and construction of retaining walls to stop erosion of earth around the plinth. Repairs to the approach path were also executed.
1958-59	Bawan Devri Temple	The temple situated on the east side of the fort was cleared of vegetation and debris. The titled and dislodged shrines, 16 in number were dismantled and rebuilt with the same stones in lime-cement mortar. Necessary copper clamps were provided.
1961-1962	Golera temple	The spongy concrete of the roof of the Golera temple was taken down and fresh concrete was re-laid after thorough grouting the cracks.
1962-1963	Bawan Devri Temple	Roots from the dislodged <i>shikhara</i> of four shrines of the Bawan Devri temple were taken out after taking down the stones carefully which were restored to the original places in lime-cement mortar.
	Mamadeo temple	The tilted pillars and lintels of the Mamadeo temple were brought to their original positions.
	Pitaliya Devi temple	The decayed concrete of the dome of Pitalya-Devi temple was renewed with fresh lime-cement concrete after the removal of the roots. The fallen rubble-masonry from the edge of the flat roof of the <i>sabha-mandapa</i> was restored
1965-1966	Mamadeo temple	Excavation was carried out at Mamadeo temple, to expose the original pavement in front of the temple. The work of re-setting the out of plumb ashlar masonry of the compound wall was undertaken.
1969-1970	Bawan Devri temple	The dilapidated ashlar masonry and bulged <i>shikhara</i> together with missing portions of the eastern side of the Bawan Devri temple were taken up for restoration.
	Group of Jain Temples	Clearance of debris, excavation of the area surrounding the Jain group of temples near Bamanvav-Baori and resetting of the fallen loose sculptures of the <i>garbha-griha</i> were attended to. The dislodged ashlar masonry of the <i>garbha-griha</i> was made good and water tightening of the terrace and the dome was taken up.
	Topkhana	The eastern retaining wall of the Topkhana was reconstructed in random-rubble masonry
1970-1971	Bawan Devri temple	The eastern side shrines of the Bawan Devri temple were provided with ceiling stones, <i>chhajja</i> , lintels and coping stones wherever broken or missing.  Jain temple near Vijay Pol - The bulging portions were set right and the missing parts replaced with new stones. The <i>garbha-griha</i> was underpinned.
	Group of Jain Temples	Jain temple near Bawan Devri, the structural members of the <i>antarala</i> of the temple which had fallen was reset in their original position. The fallen dome of the <i>garbha-griha</i> was repaired and water tightened by providing a brick core under a casing of lime-cement mortar.
	Golera group of temples	Jain temple in Golera group of temples which was in a dilapidated condition, was reconstructed on the original lines. The architectural members and sculptures of the <i>mandovara</i> of the <i>garbha-griha</i> and <i>sabhamandapa</i> were recovered from the debris and reset in original positions. The dead lime concrete from the dome and the terrace of the <i>sabha mandapa</i> was removed and fresh lime-cement concrete provided to check percolation of rain water.

## 2b. History and Development

### KUMBHALGARH

2.302

1971-72	Jain temple near Vijay pol	In continuation of the previous year's work, conservation measures were taken up at the Jain temple near Vijay pol. All the out-of-plumb and the fallen architectural members were set in their respective position.
1973-74	Golera group of temples	The uneven pavement of the Golera temple no. 2 was repaired.
	Bawan Devri temple	Fallen and bulged out portions of the ashlar masonry walls of the Bawan devri temple was reset in lime-cement mortar, providing new dressed stones wherever necessary. The missing stone flooring on the western side was reconditioned.
	Group of Jain Temples	The debris and vegetation growth around the Jain temple group was cleared. Work of repairing random and dry rubble masonry, providing steps to the shrines, grouting of the cracks in domes, was attended to.
1974-1975	Bawan Devri temple	The dead mortar of the dome was replaced by the fresh mortar. The missing <i>chhajjas</i> were restored with new dressed ones as per the original, and the bulged coping stones and cornices were removed and reset.
	Golera group of temples	Golera temple 2 - The dislocated ashlar masonry was dismantled after properly documenting and resetting as per the original.
1975-1976	Kumbha Mahal	Decayed and worn-out wooden beams and planks of the ceiling of Rana Kumbha's palace were replaced by new ones and its roof re-laid with fresh concrete. The damaged portion of the wall was under-pinned and the joints in the masonry were pointed.
	Badal Mahal	The dead concrete was removed and re-laid with fresh concrete in the central hall of Badal Mahal.
	Group of Jain Temples	Out-of Plumb ashlar masonry of the Jain temples were reset to plumb line and dead concrete was removed and re-laid with fresh concrete.
1976-1977	Bawan Devri temple	The dome of the <i>sabha-mandapa</i> of the central shrine of the Bawan Devri temple was rendered watertight with cement concrete after the removal of dead concrete and filling the cracks with cement mortar and waterproofing compound.
	Golera group of temples	Loose architectural members in the <i>sabha-mandapa</i> of the Golera temple 5 were reset as per the original. Damaged ashlar stone masonry of the dome was dismantled and the work of reconstructing and water tightening with fresh cement concrete is in progress. Resetting of the out of plumb R. R masonry of the stair cabin wall and the parapet wall replacing and decayed wooden beams over the gate and planks in the ceiling by new ones and giving two coats of paints with wood preservative were carried out.
	Group of Jain Temples	In the Jain temple 3, coarse stone masonry was provided in the roof of the dome.
	Hanuman Pol	At Hanuman Pol stone pavement of the platform was repaired. Besides, two coats of paints with wood preservative were applied on the wooden doors.
	Prithvi Raj palace	Dislodged stone masonry of Prithvi Raj palace was reset, and the walls were plastered with fresh cement concrete. Two coats of wood preservative were applied on the doors and beams.
1977-78	Badal Mahal, Prithvi Raj Chhatri, Jain temple 3 and Golera temple	Of the monuments taken up for preservation inside the fort, mention may be made of the Badal Mahal, Prithvi Raj Chhatri, Jain temple 3 and Golera temple. Repairs included removal of spongy concrete of roof, relaying concrete for water tightening, removal of bulged portion of masonry and reconstructing with the same old stones, removing the stone flooring and relaying with proper slope and filling in missing portions and setting right the flight of steps. At the Badal Mahal, wooden portions were treated with preservative coats besides providing the lighting conductor.
1978-1979	Golera group of temples	The dilapidated steps of the entrance Golera temple no. 13 were reset in lime cement mortar. The decayed concrete from the roof was relaid in patches made watertight. The damaged masonry of the high plinth was restored.
1979-80	Badal Mahal	The wooden fixtures of the roof, doors and windows of the Badal Mahal were treated with preservatives. The fallen stone masonry was reset in lime-cement mortar.



	Golera group of temples	The out of plumb stone masonry of the Golera temple 7 was dismantled and reset in lime cement mortar. The uneven and sunken stone flooring was relaid on concrete bed matching with the original.
1980-1981	Golera group of temples	In order to prevent water seepage into foundation, a stone pavement was provided to the floor of the Golera temple no. 6. The out-of-plumb ashlar masonry was dismantled and reset while the damaged domes were provided with cement concrete as per the original.
	Nilakantha Mahadeva temple	Approach steps in random rubble masonry to the Nilakantha Mahadeva temple were also provided.
1989-1990	Approach road	Approach roads were provided from Vedi Mandir to Siva temple and towards Golera temple.
1992-1993	Fort wall	The fallen fortification near Dani Bhatta gate was restored in random rubble masonry as per original.
	Bawan Devri temple	Removing and resetting the loose stones of the Shikhara of Bawan Devri in lime mortar and cutting chases in the broken stone lintels of the corridors for providing the concealed girders were completed. Removal of loose mortar and raking out of the joints of stone courtyard and repointing the same is in progress.
	Golera group of temples	Clearance of fallen debris of the collapsed Sabha Mandapa of Golera temple 2 is in progress.
1993-94	Golera group of temples	In continuation of the last years's work, the debris of the collapsed Sabha Mandapa of the Golera temple 2 was cleared. Serviceable architectural members like columns, lintels and capital stones were sorted out and stacked. Reconstruction of the Sabha Mandapa was taken up by using available structural members after making necessary grooves and dressing of stones, clamps etc. The brick and stone masonry on the roof of Garbha Griha and the antarala was reconstructed as per original after dismantling the uneven dislodged layers. Sunken pointing carried out over the exterior and interior of ashlar stone surfaces of the temple from the plinth to roof level.
	Bawan Devri temple	Heavy lintels of Bawan Devri (join temple) which and cracked and was supported by stone masonry, walls in mud mortar were strengthened by providing concealed R.S joints. The gaps were filled with concrete; the outer surface of the lintels was finished in colour and shape matching with the original by imparting stone effect by way of chiseling the mud masonry support underneath.
	Badal Mahal	The old paint on the doors and windows of Badal Mahal was removed by rubbing. The surface hence was repainted with enamel shade to give an even shade.
1994-95	Bawan Devri temple	In continuation of last years's work, cracked heavy stone lintels of Bawan Deori was supported by stone masonry, mud mortar walls and strengthened by providing concealed R.S joints inside the broken stone lintels after cutting chases in the lintels and finishing the outer surface, matching the original in color and texture. Patch work and pointing the brick Shikhara have also been done.
	Approach road	Construction of pathway with R.R masonry in lime cement mortar brick zeera from Ram pol to Bhairon pol were carried out.
	Golera group of temples	Also, in continuation the reconstruction of Sabha Mandapa of Golera temple 2 upto lintel was completed. Dismantling of dislodged stone flooring around the temple and relaying of lime cement concrete were also carried out.
1995-1996	Approach road	Stone pathway with lime-cement-mortar from Rampol to Bhairon Pol and from Bhairon Pol to Nimbhu Pol was provided, after cutting and digging rocks and preparation of sub grade by cutting hard soil. Stone pathway was provided from Rampol to Vedi Temple and Ganesha temple to Laxmi Narain temple.
	Badal Mahal	Repairs of broken doors and windows in Badal Mahal.

## 2b. History and Development

### KUMBHALGARH

2.304

	Ganesha temple	- Loose masonry wall of Ganesha temple and adjoining area was repaired and reconstructed in lime-mortar.
1996-1997	Badal Mahal	Doors and windows of Badal Mahal wherever missing, replaced with new ones. Repairing of wooden windows and doors, cleaning of old glass-panes, replacing missing and broken glass planes with new ones and painting of wood work of openings have been done.
	Support wall near Ram pol	Dismantling of the bulged-out and damaged masonry support wall of the platform near Ram Pol, stacking of serviceable material and reconstruction of platform was done.
	Approach road	Approach roads from Bhairon Pol to Nimbu Pol and from Nimbu Pol to Tara Burj were provided in random rubble masonry. Also, approach road from Ram Pol to Vedi Temple was provided.
	Vedi temple	For parking, construction of parking space opposite Vedi Temple is in progress in random rubble masonry.
1997-1998	Vedi temple	Parking area developed near Vedi Temple by providing random rubble stone flooring.
	Approach road	A pathway of stone masonry provided between Nimbu Pol to Tara Burj and Badal Mahal going downwards.
1998-99	Badal Mahal	R.R. stone masonry work in lime-cement mortar for preparation of pathway at <i>zenana</i> portion of Badal Mahal after digging and cutting the rocks and removal of hard soil mixed with stone pieces etc. was done.
1999-2000	Approach road	Construction of approach road from Vedi Temple to Jain Temple with RR stone masonry in LCM with brick zeera to match with old structures after digging, cutting the hard rocks and removing hard soil mixed with stone boulders were carried out.
	Pagda pol	Restoration of old/missing RR stone masonry of tank in southern annexe at Pagda Pol, dismantling of loose decayed plaster and re-plastering were done as per original.
2000-2001	Chaugan Pol	Restoration of collapsed roof of Chaugan Pol was taken up by providing and fixing heavy <i>sal</i> wood beams including stone slab with brick <i>kharanja</i> and concreting over the stone slab.
2001-2002	Chaugan Pol	The dead plaster of the Chaugan Pol were removed and re-plastered with fresh one. The damaged <i>chhajja</i> stones were restored. Repairs to the wall adjoining the Chaugan Pol by underpinning the fallen patches and the joints were attended. Restoration of collapsed roof of Chaugan Pol was taken by providing and fixing heavy <i>Sal</i> wood beams including stone slab with brick <i>kharanja</i> (on edge) and concreting over the stone slab.
	Approach road	Construction of approach road from Vedi Temple to Jain Temple with random rubble stone masonry in lime cement mortar with brick <i>zeera</i> to match with old structures after digging, cutting the hard rocks and removing hard soil mixed stone boulders were carried out.
	Pagda pol	Restoration of old/missing random rubble stone masonry of tank in southern annexe at Pagda Pol, dismantling of loose decayed plaster and re-plastering were done as per original.
	Group of Jain Temples	The damaged plinth, steps and niches of the Jain temple were restored. The interlinking pathway provided.
2009-2010	Site Entrance-Signage and visitor facilities	Newly prepared bi-lingual protection notice board in metal sheet defining the prohibited and regulated area from the limit of the site, provided near the main entrance of the site. Suggestion box in matching sand stone provided to know the views/suggestions of the tourist. Rainbow type stone benches provided on site for visitors. Dust bin of latest design with department monogram has been provided to the premises. General cleaning and sweeping of the monument and its premises have been undertaken besides minor repairing works. Provided guide map of the Fort in matching sand stone at proper place for the convenience of the tourists. The structure of drinking water has been upgraded with modern facilities. The toilet block constructed by CPWD (under deposit scheme) was taken over by

		the department in the month of Nov.2009. However, it has not become functional since then due to scarcity of water. The correspondence is going on with village panchayat for a new connection as the <i>baori</i> 's of the fort is now dried up due to scanty rainfall in the region from last three years.
	Badva Baori	The bulged and out of plumb wall of the baori has been dismantled and re-set layer by layer with the help of new as well as old stones matching with the original in combination mortar. However, the debris clearance work was also undertaken towards north-east corner of the <i>baori</i> and found the remains of water tank for animals (locally called "Kheli"), which was restored with the help of combination materials.
	Reservoir No .2	The missing and badly damaged steps of reservoir have been restored with the help of combination materials, while the bulged out portion of the wall were dismantled and re-set as per the original. The badly damaged support wall was also repaired with the help of combination materials.



## 2b. History and Development

### Ranthambore



## 2b. History and Development

RANTHAMBORE

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● **Phase I: 5<sup>th</sup> – 12<sup>th</sup> century AD**

The fortress of Ranthambore is said to be initially constructed by Maharaja Jayanta in the 5th century AD. The Yadavas ruled over it until they were expelled by Prithviraj I, a Chauhan king who ruled Shakambhari (Sambhar) area of present Rajasthan in the 12th century AD. In 1105 AD, Prithviraj I is said to have donated golden cupolas for some Jain temples that pre-dated his reign and were already standing at Ranthambore. So, it was a well-established Jain holy site by the 12<sup>th</sup> century AD.

● **Phase II: 12<sup>th</sup> – early 14<sup>th</sup> century AD**

The fort fell into the hands of Sultan Iltutmish of Delhi after a siege around 1226 AD. Ranthambore was subordinated but not annexed to the Delhi Sultanate. Following the death of Iltutmish in 1236 AD, the Chauhan Rajput ruler Vagbhata rallied the Chauhans and other warriors of Ranthambore in a bid to retake Ranthambore supported by other dispossessed Rajput groups in the area and, the fort was besieged. The Sultanate's garrison within the fort were driven to dire straits due to lack of supplies as Chauhan supremacy apparently prevailed. It seems that Sultan Iltutmish's daughter Raziya Sultan (r.1236-40) had to send Malik Qutb-ud-din Hussain to help the beleaguered Turkish garrison sometime around 1238 AD. Eventually, the Sultanate forces evacuated Ranthambore and Vagbhata took control of the fortress. The Rajput Chauhan ruler Vagbhata ruled from Ranthambore as an independent chief for the next twelve years or so. He is credited with beautifying Ranthambore and constructing the temple of Bahar Deo, which was amongst the buildings destroyed during the sack of Ranthambore in 1301 AD, following Alauddin Khilji's victory. In 1248 AD, the leading commander of the Sultanate Ulugh Khan, later Sultan Balban of Delhi (r. 1266-86 AD) ravaged Vagbhata's kingdom, though the Sultanate forces failed to invest Ranthambore fort. While Vagbhata reigned as ruler of Ranthambore, one of the Sultanate deputy commanders, Baha-ud-din Aibak was killed trying to attack Ranthambore and the army commanded by him retired to Delhi in discomfiture (Hooja 2006, p. 299). The reign of Chauhan ruler Jait Singh (r. 1248/49-83 AD) lasted more than three decades and was considered the golden era for Ranthambore, with a lot of construction activity within the fort.

Chauhan ruler holdings like Ranthambore were important at the end of the 12<sup>th</sup> century. Ranthambore was ruled by Hammir Singh (r. 1283-1301AD), the Chauhan ruler of Ranthambore. A brave warrior and a patron of the arts, literature and architecture, Hammir was known for his charity and generosity too. Among others, Hammir built a three storey golden pavilion known as 'Pushyak' at Ranthambore (not present now). By the time Alauddin Khilji became the Sultan of Delhi, Ranthambore held the reputation of being an impregnable fort and a stronghold of the valiant. Around 1290-91 AD, Sultan Jalaluddin Khilji had been unable to capture it. The forces of Alauddin



## 2b. History and Development

### RANTHAMBORE

2.310

Khilji laid siege to the fort of Ranthambore and were forced to fall back.<sup>1</sup> On learning about the course of events, Alauddin Khilji personally led a strong force against the fort. By late summer in 1301 AD, it became apparent that the fort could not be held by its defenders much longer. Following the act of 'Jauhar' by the women and 'Shaka' by the men in July 1301 AD, the Chauhan clan of Ranthambore was wiped out and the fort was taken over by Alauddin Khilji. The fort was sacked and plundered at this time. Several of its buildings were razed to the ground. Meanwhile, having entrusted the fort to the care of Ulugh Khan, Alauddin Khilji himself returned to Delhi.

#### ● **Phase III: Early 14<sup>th</sup> -16<sup>th</sup> century AD**

The fort was captured by the Sisodia Rajputs of Mewar under Rana Hamir Singh (r. 1326–1364 AD) and Rana Kumbha (r. 1433–1468 AD). Mahmud Khilji targeted areas within Kumbha's sphere of influence, occupying Ranthambore in 1446 AD. After the reign of Rana Udai Singh I of Mewar (r. 1468–1473 AD) the fort passed to the Hada Rajputs of Bundi. In 1518-19 AD, the Sisodia Rajput ruler Rana Sanga (Rana Sangram Singh, r. 1509-1527 AD) of Mewar defeated Sultan of Malwa, Mahmud II and took possession of Ranthambore. Rana Sanga successfully stormed the almost impregnable Ranthambore, though ably defended by the Imperial general Ali. Sanga retained possession of Ranthambore allotting it to chiefs who paid tribute to the Rana. Before his death in 1528 AD, Rana Sanga allotted the fort of Ranthambore to two of his sons Vikramaditya and Udai Singh. Rana Ratan Singh (r. 1528-31 AD), the successor of Rana Sanga confirmed Ranthambore to be part of the estate of his half brother Vikramaditya (Hooja 2006, p. 457). It is said to have come under Babur in 1528 AD, following his victory in the Battle of Khanua (fought between Rajput confederacy led by Rana Sanga and Babur).

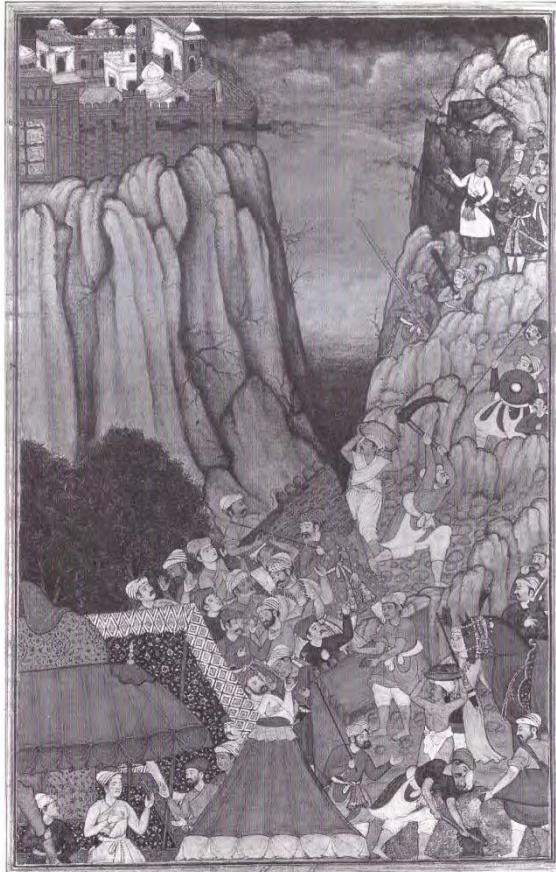
Sultan Ibrahim Lodi of Delhi (r. 1517-1526) made a bid to annex Ranthambore some years before his defeat at the hands of Babur in the First Battle of Panipat in 1526 AD. Sultan Bahadur Shah of Gujarat captured the fortress from 1532 to 1535 AD. In 1543 AD, Sher Shah Suri conquered Ranthambore and gave it to his son Salim Shah. During this time, Kidir Khan was the administrator of

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<sup>1</sup> Upon arrival, Ulugh Khan (commander of Alauddin Khilji) camped in the vicinity of the towering fortress and ordered his soldiers to construct the necessary platforms and batteries for the various engines of war like stone throwing catapults that were to be deployed in keeping with medieval warfare. Meanwhile, Hammir had completed his own preparations to withstand the siege. Yahya mentions Hammir to have 12,000 cavalry, several famous elephants and numerous infantry troops at his command while Amir Khusrau mentions his having about 10,000 horses. When the siege commenced, the Ranthambore forces let loose an unceasing shower of arrows and defensive projectiles at the enemy. One of these struck general Nusrat Khan (another commander of Alauddin Khilji) and he died at the main gate, known as the Naulakhi gateway of the fort. The sudden loss of such an able commander sent the Sultanate camp into shocked mourning. Taking the silence in the enemy camp as a sure sign of despondency, Hammir's troops exchanged their position of defence for one of attack. Their fierce attack forced Ulugh Khan and his army away from Ranthambore, and the besiegers were forced to fall back upon Jhain. On learning about the course of events from Ulugh Khan, Alauddin Khilji decided to personally lead a strong force against Hammir and his fortress, the stronghold of Ranthambore (Hooja 2006, p. 300, 304-308).

the place. Around 1553 AD, it was regained by Sisodia Rajputs of Mewar, though garrisoned and commanded by Rao Surjan Singh Hada, the ruler of Bundi<sup>2</sup>.

● **Phase IV: 16<sup>th</sup> – mid 20<sup>th</sup> century AD**



*Seige of Ranthambore by Akbar depicted in 'Akbarnama'.*

*Source: Tillotson 1991*

The Hada ruler surrendered the fort to the Mughal Emperor Akbar in 1569 AD and in Akbar's reign, Ranthambore became the first division (*sarkar*) in the province (*subah*) of Ajmer. Ranthambore was in the estate of Raja Jagannath Kachchwaha, of the Kachchwaha dynasty of Amber, a son of King Bharmal of Amber, the brother of King Bhagwant Das of Amber and the paternal uncle of Man Singh I of Amber, as part of the feudal estates allocated to him by the Mughal Emperor. Thereafter it was often given as *jagir* or feudal estate to various members of the Kachchwaha dynasty of Amber by successive Mughal emperors. Ranthambore was granted as feudal estate to Sawai Madho Singh I (r. 1750-1768) the ruler of Amber-Jaipur by the Mughal Emperor Ahmad Shah in 1753 AD and was a part of the territories of Jaipur.

In 1759 AD, the Fort was besieged by Gangadhar Tantia and his Marathas and was relieved by a contingent sent by the Amber-Jaipur ruler, led by Pratap Singh Naruka (Hooja 2006, p. 681). The area surrounding the fortress (Ranthambore National Park) became a hunting ground for the Rajput rulers of Jaipur. It remained part of Jaipur state until Indian Independence, after which it came under Government of India.

● **Phase V: Mid 20<sup>th</sup> century-present day**

The fort was notified as a protected monument under the Archaeological Survey of India in 1951 AD. Conservation works have been undertaken by the Archaeological Survey of India within the fort since its acquisition to the present day.

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<sup>2</sup> Another version says that the Hada ruler Rao Surjan Singh purchased the fort from Jhunjhar Khan, a *qiledar* of Muhammad Shah Adil (Jain, p. 334).

## 2b. History and Development

### RANTHAMBORE

● **Table 2b.5: Historic Evolution of Ranthambore Fort**

Phase I: 5 <sup>th</sup> – 12 <sup>th</sup> century AD			
Ruling Dynasty	Ruler holding the Fort	Period/year	Evolution of the Fort
Yadavas	Maharaja Jayant	5 <sup>th</sup> -11 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>Ranthambore founded in 944 AD</li> <li>Initial fort said to have been constructed</li> <li>Gupt Ganga</li> <li>Ganesh Temple</li> </ul>
Tatu Meenas or Chauhan Rajputs			
Phase II: 12 <sup>th</sup> – early 14 <sup>th</sup> century AD			
Ruling Dynasty	Ruler holding the Fort	Period/ year	Evolution of the Fort
			Invasion by Khilji Dynasty
Chauhans of Shakambhari and Ajmer <sup>3</sup>	Prithviraj I Govindraj Balhan	12 <sup>th</sup> - 13 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>Shiv temple</li> <li>Lost to Mohammad Ghori in 1192 AD</li> <li>Ramlalji temple</li> <li>Construction of Fort walls, strengthening of Fort, guard posts and Toran Dwar</li> </ul>
	Vagbhata	r.1238-48/49 AD	<ul style="list-style-type: none"> <li>Beautified Ranthambore and constructed the temple of Bahar Deo.</li> </ul>
	Jait Singh	r. 1248/49-1283 AD	<ul style="list-style-type: none"> <li>Granaries</li> <li>Golden era for Ranthambore, probably major building activity took place during this time</li> <li>32 pillar pavilion constructed to commemorate completion of 32 years of Chauhan Jait Singh's rule</li> </ul>
	Hammir Singh	1283-1301 AD	<ul style="list-style-type: none"> <li>Hammir Mahal</li> <li>Three storey golden pavilion known as 'Pushyak' (no physical evidence)</li> <li>Hammir Kachehri</li> <li>Expansion of Rani Mahal</li> <li>Area between the palace and Ganesh temple developed further – Padamla Talab/Padmavati Talab, Pushp Vatika</li> <li>Delhi gate, the area in vicinity</li> <li>Raghunath temple, Hathi, Naulakha Gate etc.</li> </ul>
Khilji Dynasty	Alauddin Khilji	1301 AD	<ul style="list-style-type: none"> <li>Fort was captured by Alauddin Khilji after performance of Jauhar and Shaka by the Chauhans of Ranthambore. The fort was then sacked and plundered, with many building razed to the ground (temple of Bahar Deo destroyed)</li> <li>Mosque constructed</li> <li>Sadrudin Ki Dargah</li> </ul>
Phase III: early 14 <sup>th</sup> – 16 <sup>th</sup> century AD			
Ruling Dynasty	Ruler holding the Fort	Period/ year	Evolution of the Fort
			Invaded by Sultanate and Sur Dynasty
Sisodias of Mewar	Rana Hammir	r. 1326-1364 AD	<ul style="list-style-type: none"> <li>The fort was captured by the Sisodias of Mewar under Rana Hammir Singh</li> </ul>

<sup>3</sup> Later descendants who made Ranthambore their permanent capital became known as the Chauhans of Ranthambore.



	Rana Kumbha	r. 1433-1468 AD	<ul style="list-style-type: none"> <li>The fort was captured by the Sisodias of Mewar under Rana Kumbha</li> <li>Substantial restructuring of the Fort may have been undertaken by Rana Kumbha, though more research is required. Hammir Chatri seems to be of this period.</li> </ul>
Hada Rajputs of Bundi		Post 1473 AD	<ul style="list-style-type: none"> <li>Taken by Sultan of Malwa</li> </ul>
Sisodias of Mewar	Rana Sanga Rana Ratan Singh Rana Vikramaditya Rana Banbeer Rana Udai Singh II	1518/19-1559 AD	<ul style="list-style-type: none"> <li>Rana Sanga took it from Sultan of Malwa, passed it as estate to his sons Vikramaditya and Udai Singh.</li> <li>Incomplete Chhatri started by Rani Karnavati (wife of Sisodia Rajput ruler Rana Sanga of Mewar) known as Hada Rani ki Chhatri</li> <li>Came under Babur in 1528 AD</li> <li>Construction of Sangeen Diwar</li> <li>Taken by the Sultan of Gujarat in 1530's</li> <li>Taken by Emperor Sher Shah Suri in 1543 AD</li> <li>Back under control of Sisodias of Mewar around 1553 AD</li> </ul>
<b>Phase IV: 16<sup>th</sup> – mid 20<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period/ year	Evolution of the Fort
			Mughal control (Akbar, Jahangir, Shah Jahan and Aurangzeb)
Kachchwaha Rajputs	Raja Jagannath	1569 AD	<ul style="list-style-type: none"> <li>Mughal Emperor Akbar captured the fort</li> <li>Fort given to Kachchwaha Rajputs as feudal estate</li> </ul>
		1569-1753 AD	<ul style="list-style-type: none"> <li>Construction of:                             <ul style="list-style-type: none"> <li>Palace of Raja Jagannath</li> <li>Chhatri of Jagrup<sup>4</sup>/Battis Khamba Chhatri</li> <li>Jain Temple with image of Mallinath</li> <li>Vithaldas<sup>5</sup> Chhatri</li> </ul> </li> </ul>
	Sawai Madho Singh I onwards	1753-1951 AD	<ul style="list-style-type: none"> <li>Taken by Marathas in 1759 AD</li> <li>Additions and alterations<sup>6</sup></li> <li>Construction of:                             <ul style="list-style-type: none"> <li>Badal Mahal,Supari Mahal, Dulha Mahal and Pachauri Mahal</li> <li>Jogi Mahal</li> </ul> </li> <li>Repairs to damaged doors, fort wall, in particular Naulakha gate</li> <li>Additional walls added around temples</li> </ul>
<b>Phase V: Mid 20<sup>th</sup> century AD – present day</b>			
Ruling Dynasty	Ruler holding the fort	Period/ year	Evolution of the Fort
Government of India	Not Applicable	1951 AD onwards	<ul style="list-style-type: none"> <li>Notified as protected monument under Archaeological Survey of India (ASI) in 1951 AD</li> <li>Conservation works undertaken by ASI till present day along with addition of visitor facilities (as listed in table 2b.6)</li> </ul>

<sup>4</sup> Jagrup was the son of Kachchwaha Raja Jagannath who died during his father's life time.

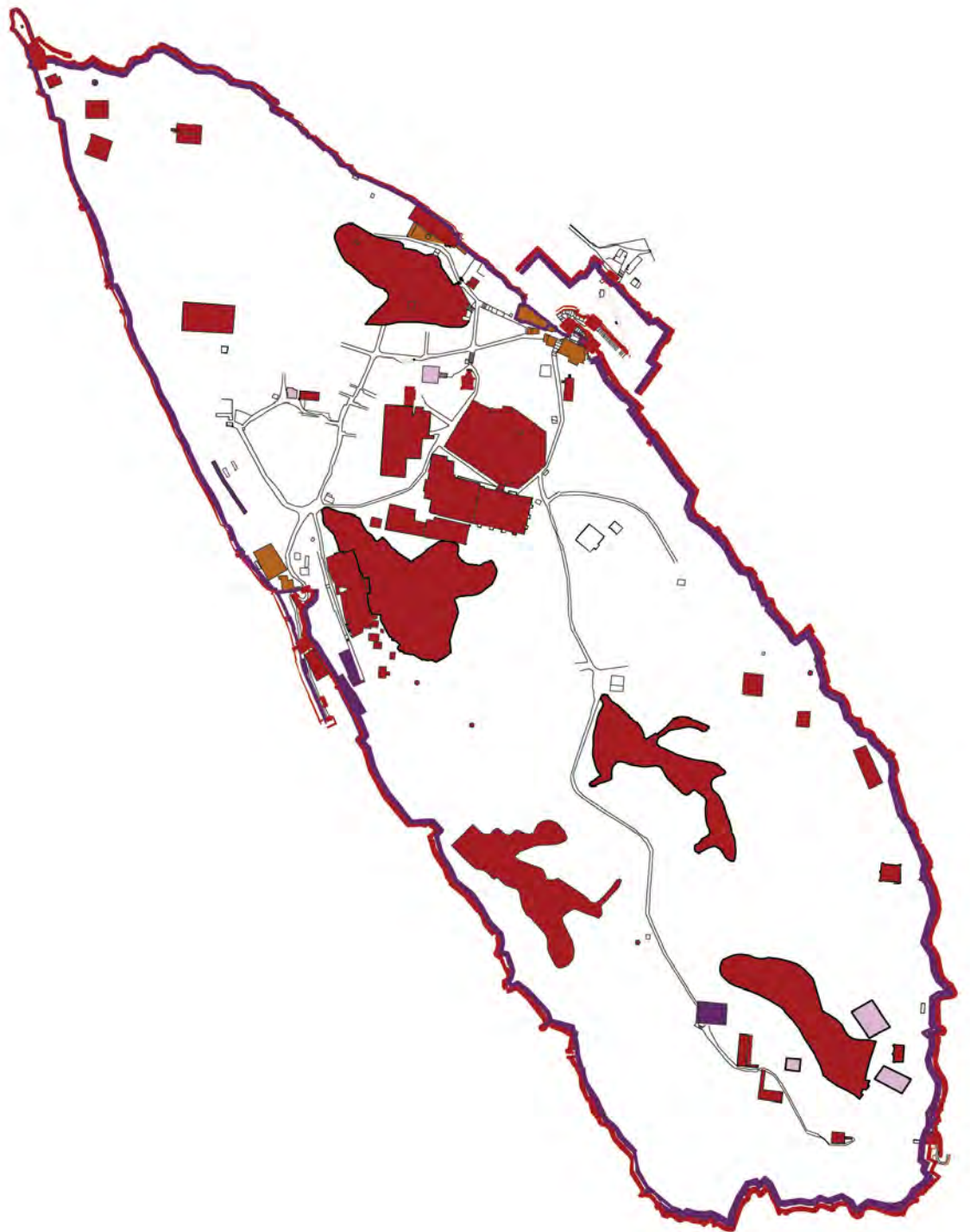
<sup>5</sup> Vithaldas Gauda was commander of the fort (*qiledar*) during reign of Mughal Emperor Shah Jahan.

<sup>6</sup> A plan of the additions and alterations which took place at Ranthambore after its coming in the hands of the Kachchwahas is available at the Kapaddwara, City Palace, Jaipur (Bahura & Singh 1990, p.12).

## 2b. History and Development

### RANTHAMBORE

2.314



0 500 1000 Metres

-  PHASE I: 5th - 12th CENTURY AD
-  PHASE II: 12th - 14th CENTURY AD
-  PHASE III: 14th - 16th CENTURY AD
-  PHASE IV: 16th - MID 20th CENTURY AD



HISTORIC EVOLUTION - RANTHAMBORE FORT

● Table 2b.6 : 20<sup>th</sup> – 21<sup>st</sup> century Excavations and Conservation works by Archaeological Survey of India

Year	Area	Excavation/Conservation works undertaken
1956-57	Entire Fort	Thick vegetation covering the entire area of this fort was partly cleared. As a first-aid measure to arrest further decay, all the cracks in the gateways, roofs and walls were grouted and filled with lime-cement mortar.
1959-60	Inscription found	A stone inscription dated <i>samvat</i> 1659, was discovered in the ruined structures of the fort. It records the consecration of a stepped well.
1961-62	Buried structures	Buried structures near the Badal Mahal were exposed, while cracks in the masonry were grouted with neat cement-mortar.
	Battis Khamba Chhatri	The open joints of rubble masonry of Battis Khamba Chhatri were pointed.
1963-64	Battis Khamba Chhatri	The decayed portion of the rubble-masonry floor of Battis Khamba Chhatri was re-set in proper position.
1970-71	Supari Mahal	Under a programme of special repairs to the Supari Mahal inside the fort, the work of grouting the cracks in the walls pointing of loose joints and restoration of fallen portions of walls was done.
1973-74	Epigraph found	A bilingual and damaged epigraph dated 1598 AD (order of Kachchwaha ruler Jagannath recorded) and another damaged epigraph dated 1613 AD (recording visit and order o Prince Mohan Das) found.
	Approach road	The approach road from entrance gate of the fort to the Ganesh Pol repaired by removing the old stone-pitching and replacing with dressed stone-pitching.
	Badi Kachehri	Pointing of the joints in the sandstone masonry was done matching with the original. The arched opening of the Hammir's court was fitted with an iron frame.
	Pushp Vatika	Approach road and boundary wall were repaired by removing old stones and replacing with the dressed stones matching with the original.
1974-75	General	An approach rubble-stone road was laid between Ganesh Pol and Andheri Gate. A railing around Siva Mastaka was provided and an approach road was laid. Another compound wall in rubble stone masonry was constructed around Pushpa-Vatika and the joints in the walls were pointed.
	Supari-Mahal	Doors and windows were provided to Supari-Mahal and walls were plastered as per the original.
	Badi Kachehri	The Plinth of Hammir's Badi Kachehri was exposed during debris clearance work. The gateways of Hammir's palace and chhatri were repaired by removing vegetation growth and grouting of cracks and pointing the masonry.
	Dargah	The ceiling of the Dargah in the fort was reconstructed.
1975-76	Gupt-Ganga	A flight of steps was provided to the Gupt-Ganga.
	Janwara-Bawnara granaries	Retaining wall was constructed to strengthen the ramps of Janwara-Bawnara granaries.
1978-79	Approach road	An approach road linking Badal Mahal to Dargah and other monuments within the fort was laid
1979-80	General	Apart from removing rank vegetation, the pathways including the entrance path of steps were repaired.
1983-84	Badi Kachehri	Roof of the side hall had fallen and the stone slabs used in the ceiling had been dislodged from their original position which were precariously placed and were in danger of falling down. Therefore, supporting pillars of stone set in mud were provided before reconstruction of the roof. Stone slabs were prepared and replaced in the ceiling. Iron dowels were also provided.
	Hammir Palace	The vegetation was cleared. The cracked stone lintels were reset and the key stones were fixed using epoxy resin. The partition walls of rubble stone masonry which had been provided at a later stage were dismantled and supporting pillars in rubble stone masonry were provided opening the roof from the top and fixing the girders. The work is in progress.
	Padmavati	The parapet wall of the Padam Talab had collapsed due to heavy rains and the



## 2b. History and Development

### RANTHAMBORE

2.316

	Talab, Sat Pol, Supari Mahal and Naulakha gate	three main gates of Sat Pol had fallen down. The parapet wall was rebuilt in random rubble masonry and set in lime-cement mortar. The repairs to the main gates of Sat Pol were also taken up. Besides iron girders, wooden doors and windows were provided to Supari Mahal. The work is in progress. The half-burnt wooden shutter of the Naulakha gate that had burnt down due to accidental fire was replaced by the new one.
1984-85	Badi Kachehri	In continuation of previous year's work the fallen portions of the arched roof was rebuilt with new stones in lime cement mortar as per the original and the top water tightened by laying random rubble masonry in lime cement mortar.
	Hammir Palace	In continuation of the work of previous year the broken and damaged stone lintels were chiseled and provided with concealed girders. The uneven open area of the country yard was leveled
	Gates	In continuation of previous year's work the wooden shutters of the other gates were repaired by replacing the damaged wooden members. The wood preservative was also applied.
1985-86	Badi Kachehri	The bulged stones of the outer wall were taken out and reset to plumb.
	Hammir Palace	Concealed steel girders were provided to the broken stone beams. The outer surface of the stone beams was finished to give an old effect matching with the original.
	Inner fortification	Missing portion of the inner fortification wall near Padmavati Talab was restored.
1986-1987	Survey of Pachauri Mahal, Hammir Palace, Badal Mahal, Rani Mahal	Notable buildings located in the Ranthambore fort in were surveyed with special reference to residential architecture. The fort has a number of remarkable architectural examples ranging from the 13 <sup>th</sup> to 19 <sup>th</sup> century AD. There are certain architectural and sculptural pieces reused in the later buildings which may be assigned to the earlier period, but their actual context is not known. The notable buildings surveyed in the fort include Pachauri Mahal, Hammir Mahal, Badal Mahal, Rani Mahal, pillared <i>chhatris</i> , some of them having ancient pillars etc.
	Badal Mahal, Hammir Palace and Chhoti Kachehri	The reconstruction work was done in Badal Mahal. The work of providing concealed steel girders in the broken stone beams and finishing the outer surface as per original in Hammir palace was continued. The collapsed roof of the central hall of the Chhoti Kachehri was restored.
1987-88	Hammir Palace	The work in Hammir Palace of providing steel girders in the broken stone beams and finishing the outer surface as per original was continued.
1989-1990	Hammir Palace	The repairs to the roof of the Hammir palace were in progress.
	Scientific clearance	Scientific clearance of the buried structure along the pathway from Andheri Gate to Battis Khamba Chhatri of the fort was in progress
	Dharamshala near Ganesh Temple	The work of random rubble masonry and fixing of G.I sheets to the roof of the dharamshala near Ganesh temple was also completed.
1990-91	Pathway	RR masonry work along the pathway from Andheri Gate to Battis Khamba Chhatri of the fort was in progress.
1991-1992	Treatment of collections	About eighty arms and weapons from the large collection kept in the rooms of Hammir palace of the fort were chemically treated for the removal of corrosion products and then preserved. The arms and weapons have components of various materials like iron, brass, wood, etc. The work is in progress.
1992-1993	Pathways	Earth-work excavation and construction of random rubble masonry pathway from Battis Khamba Chhatri to Padam Talab was taken up and completed.
	Badi Kachehri	The dismantled malba of roof concrete of Hammir Badi Kachehri was cleared off and re-laid in lime cement concrete. The dismantled floor of the Kachehri was also relaid in lime cement concrete. Providing random rubble masonry retaining wall and parapet to retain the soil, earth-work filling in front of the Kachehri and leveling the area was also completed.
	Treatment of collections	Chemical treatment and preservation of various arms and weapons of the fort was continued to check further corrosion.
1993-94	Site Museum	The repairs to an existing structure were undertaken for developing the building as a site museum. Damaged and decayed plaster was removed and replaced with

		fresh one. Cracked lime-cement terrace was removed and re-laid with a fresh layer. Broken stone <i>chhajjas</i> were replaced with new ones. Construction of random rubble masonry enclosure including fixing a steel gate at the entrance and fixing ornamental grill over the wall, fixing of wooden doors and windows in the building, providing plinth protection to random rubble masonry all around the structures were completed
	Fort wall and steps	The fort wall from Naulakha gate to Andheri gate was repaired by dismantling the old and damaged portion. The top of the wall was water tightened. Repairs to the steps were also carried out by dismantling the old as well as damaged and worn-out ones.
	Treatment of collections	Chemical treatment and preservation of arms, weapons, torn royal dresses, etc were continued by removing dust, harmful patinated accretions and dirt etc. the work is in progress.
1994-1995	Fort wall, steps and pathways	Dismantling of old worn-out steps/pathway leading to the fort and resetting the same as per the original, matching in colour, texture and material were carried out. Clearance of malba of fallen random rubble masonry-wall, sorting out the serviceable material, reconstruction of the collapsed wall near Ganesh Pol and Supari Mahal were taken up.
	Padmavati Talab	Dismantling of damaged enclosure-wall of Padamla Talab and restoration of dismantled/missing wall in R. R masonry, pointing and water-tightening of the top of the wall were undertaken.
1995-1996	Fort wall and pathways	Random rubble stone masonry approach road from Padamla Talab towards Ganesh temple was provided. Stone pathway added from Dargah towards Badal Mahal, work in progress. Restoration of decayed fortification wall from Naulakha gate to Andheri also carried out.
	Padmavati Talab	Random rubble stone masonry wall of Padamla Talab wherever missing was reconstructed. The top of the same was water tightened.
1996-1997	Pathways, Padmavati Talab and Rani Talab	Restoration of Padamla Talab, remodeling of old and worn-out pathway from Naulakha lake to Supari Mahal and damaged and loose portions of fortification wall with R.R masonry has been undertaken. In order to provide links between various structures inside the fort, construction of stone pathway in R.R masonry from Padamla Talab towards Ganesh Temple and from the tomb towards Badal Mahal has been made. The construction of pathway from Andheri Gate to Hammir Palace is also in progress. Repairs and restoration of the fallen portions of the masonry walls of Rani Talab has been carried out in random rubble masonry.
1998-1999	Fort wall	Restoration of fort wall from Supari Mahal to Delhi Gate was done partly as per original in R.R. stone masonry with lime-cement mortar.
1999-2000	Fort wall and landscape	Restoration of the fort-wall from Supari Mahal to Delhi Gate with RR masonry in Lime Cement Mix at fallen portions and sunk pointing the repaired stone masonry were carried out. Leveling of the area in front of Ganesh Temple was also carried out.
2001-2002	Gate and Fort wall	The disturbed and bulged wall of the main gate and side wall were repaired by underpinning and pointing. The top was also water tightened. Restoration of the fort-wall from Supari Mahal to Delhi Gate with random rubble masonry in lime cement mortar at fallen portions and sunk pointing the repaired stone masonry were carried out. Leveling of the area in front of Ganesh Temple was also carried out.
2009-2010	Signage and visitor facilities	Newly prepared bi-lingual protection notice board in metal sheet defining the prohibited and regulated area from the limit of the site, provided near the main entrance of the site. Bi-lingual cultural text of the site in matching sand stone with design has been provided for the knowledge of the tourist. Bi-lingual notification plates engraved on matching sandstone showing the year of notification along with department monogram has been fixed on either side of gate pillars. The newly prepared bi-lingual notice board in stone/metal sheet has been provided near the main entrance of the Fort. Bi-lingual Slogan Board in matching sand stone has been provided at different locations. The name of each and every monument of the Fort on matching sand stone in bi-lingual characters have been provided for the convenience of the tourist. Suggestion box in

## 2b. History and Development

### RANTHAMBORE

2.318

		matching sand stone provided to know the views/suggestions of the tourist. Rainbow type stone benches provided on site for visitors. Dust bin of latest design with department monogram has been provided to the premises. General cleaning and sweeping of the monument and its premises have been undertaken besides minor repairing works.
	Raghunath Temple	The out of plumb portion of the double storey structure of the temple was dismantled and re constructed to plumb as per the original, after replacing the broken roof slabs, beams and <i>chajja</i> stones. The water tightening work of the roof is in progress. An apron was provided all around the temple in R.R Stone and the joints were pointed in combination mortar, while platform of the temple was also restored in its original condition. The dead and detached lime plaster of the Verandah has been re plastered as per the original, after removing the dead and decayed plaster. Mild steel grill has been provided to all the openings of the Verandah to restrict the entry of animals.
	Sat Pol Gate	The random rubble stone masonry pathway between gate no.1 to gate no. 2 was completed in combination mortar, after removing the organic vegetation. The out of plumb and badly damaged portion of the fortification wall (inner side) towards forest area has been restored with the help of combination materials and matched them as per original. The fallen and washed out materials (approx 2 mts) accumulated at the east side gate of Sat Pol was completely removed up to surface level and a retaining wall of comfortable height was also constructed to restrict further erosion of the earth towards hill side. However, the restoration work of east gate of the Sat Pol gate is in progress.
	Naulakha Gate	G.I. pipe railing has been provided between Naulakha gate to Andheri gate for the convenience of tourist.
	Approach road	The approach pathway between Hathi Pol and Ganesh pol was widened while two resting places were developed on either side of the pathway so that tourist may take rest for some time and also take a picturesque view of the forest.
	Digambar Jain Temple	The replacement of missing and badly damaged Chajja stones is in progress. The dead and decayed lime plaster of the Prakara wall was removed carefully and re-plastering work in combination mortar is in progress.
	Hammir Palace	The uneven and sunken portion of the ramp in front of the main entrance of the palace was restored with the help of combination materials. The construction of apron in front of the palace is in progress.



## 2b. History and Development

### Gagron



## 2b. History and Development

GAGRON

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● **Phase I: 7<sup>th</sup> century – mid 15<sup>th</sup> century AD**

The fort also known as Dodgarh is said to have been built initially by Dor or Doda Rajputs and was taken over by the Khinchi Chauhan Rajputs in the 12<sup>th</sup> century. Khinchi Chauhan clan of Rajputs under their Raja Jait Singh successfully withstood a siege by Alauddin Khilji in 1234 AD. The fort went through 14 battles. Under the Khinchi Rajputs, Gagron was often attacked by numerous rivals and had witnessed two 'Jauhars' and 'Shakas'. The first was in 1423 AD, when the Rajput ruler Achaldas Khinchi (immortalised in the text '*Achaldas Khinchi ri Vachanika*') and his compatriots died fighting with Hoshang Shah, the Sultan of Malwa.

● **Phase II: 15<sup>th</sup>- 18<sup>th</sup> century AD**

The Sisodia Rajput ruler Rana Kumbha of Mewar (r.1433-1468 AD) disposed Mahmud Khilji, the Sultan of Malwa in 1439 AD and the fort came under the Sisodia Rajputs. The second Jauhar and Shaka occurred in 1444 AD, in which Achaldas's son Palhan-Si (sent away to safety before the 1423 'shaka') and Mewar's warrior Dheera fought Malwa's Mahmud Khilji. In 1519 AD, the fort is said to have been ruled under Bhim Karan (as per Muslim historians), who was eventually attacked by Mahmud Khilji, taken prisoner and put to death. Shortly after this, Mahmud Khilji was defeated by the Sisodia Rajput ruler Rana Sanga (Sangram Singh) of Mewar and the Sisodia Rajputs continued to hold Gagron till 1532 AD, when Sultan Bahadur Shah of Gujarat conquered and ruled over it for almost 30 years. In 1561 AD, the Mughal Emperor Akbar on his way to Malwa captured Gagron and the Mughals held it till the beginning of the 18<sup>th</sup> century. The brother of Bikaner's Raja Rai Singh, Prince Prithviraj who was popularly known as Peethal, actively sought and achieved recognition as a great warrior and was awarded the fiefdom of Gagron by the Mughals in recognition of his feats in the Mughal campaign against Kabul and the north-western territories in 1563 AD.<sup>1</sup>

● **Phase III: 18<sup>th</sup> – mid 20<sup>th</sup> century AD**

In 1715 AD, after Emperor Aurangzeb's death (in 1707 AD), as a grant from his successors, the citadel was gifted to Maharao Bhim Singh, the ruler of Kota belonging to Hada clan of Rajputs.

Gagron remained one of the favorite retreats of Zalim Singh Jhala (commander of the forces of Hada Rajputs of Kota from 1758 to 1826 AD) in the 19<sup>th</sup> century and he rebuilt a number of structures within the fort along with strengthening its fort walls during his time. In mid 19<sup>th</sup> century, the descendents of Zalim Singh Jhala (Jhala Rajputs) were given a separate state named as Jhalawar by the East India Company, under a subsidiary alliance and Gagron formed a part of Jhalawar.

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<sup>1</sup> Peethal is regarded as one of the most renowned poets and scholars of his era. Equally at home on the battle field and in the council chamber, Peethal is said to have been one of the famous 'nine gems' or nav-ratnas who graced emperor Akbar's court (Hooja 2006, pp. 346-347).



## 2b. History and Development

### GAGRON

#### ● **Phase IV: Mid 20<sup>th</sup> century onwards**

With India gaining independence in 1947, Jhalawar became a part of the state of Rajasthan under the Government of India. The fort was declared as a protected property of the Rajasthan State government in 1968. The Department of Archeology and Museums, Rajasthan has undertaken conservation works on the site since 2007.

#### ● **Table 2b.7: Historic evolution of Gagron Fort**

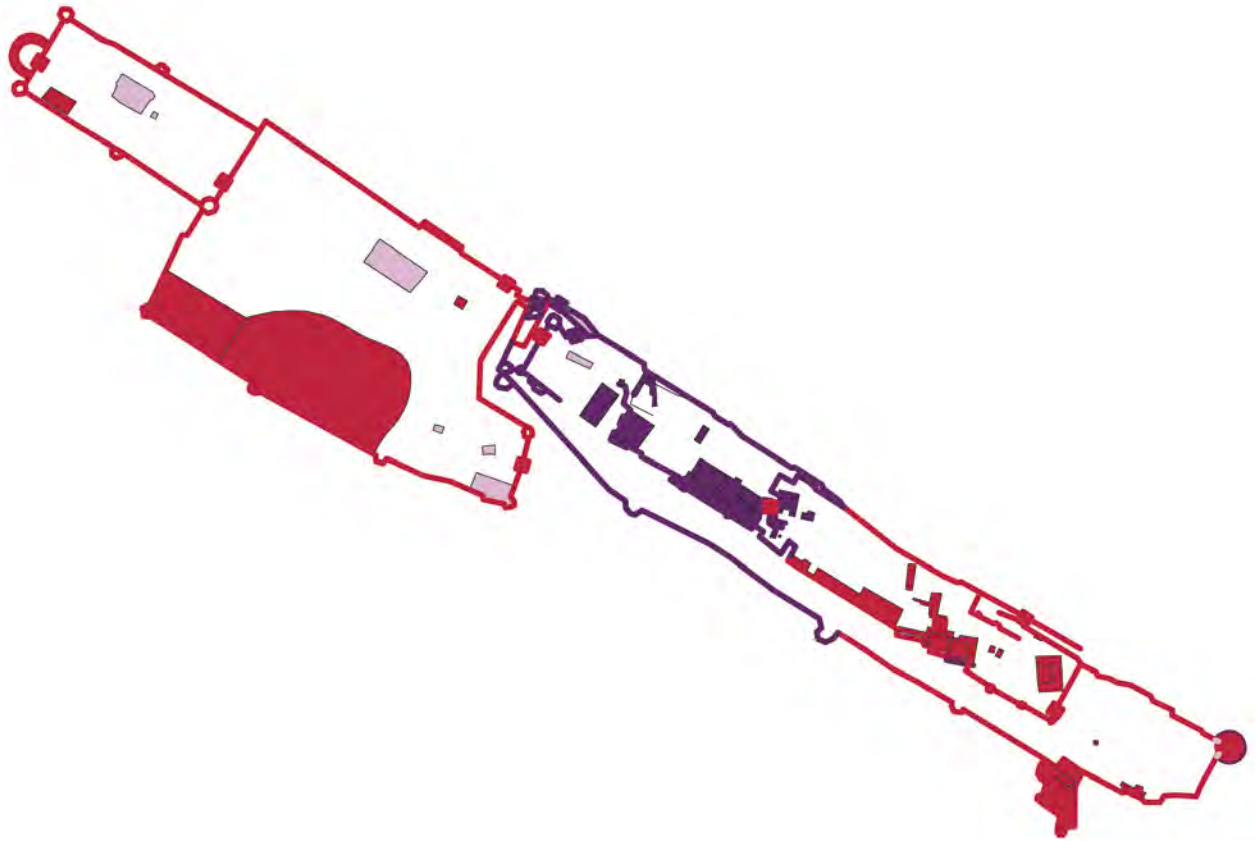
<b>Phase I: 7<sup>th</sup> – mid 15<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler Holding the Fort	Period / Year	Evolution of the Fort
			Fort taken by Sultanate of Malwa
Dor or Doda Rajputs		7 <sup>th</sup> - 11 <sup>th</sup> century AD	
Khinchi Chauhan clan of Rajputs.	Jaitra Singh Raja Achaldas Khinchi	12 <sup>th</sup> century – 1423 AD	<ul style="list-style-type: none"> <li>• Khinchi Rajputs were well entrenched at Gagron Fort</li> <li>• Inner fort wall, citadel</li> <li>• Resisted a siege by Alauddin Khilji (who besieged it unsuccessfully for 11 years)</li> </ul>
			<ul style="list-style-type: none"> <li>• Outer Fort wall and bastions constructed</li> <li>• Sultan Hoshang Shah of Malwa conquered it in 1423 AD, Jauhar and Shaka undertaken by the Khinchis</li> </ul>
<b>Phase II: 15<sup>th</sup> –18<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler Holding the Fort	Period / Year	Evolution of the Fort
			Taken and ruled by Sultanate of Malwa and Gujarat, followed by Mughal control with Rajput feudatories
Sisodias of Mewar	Rana Kumbha	1439-44 AD	<ul style="list-style-type: none"> <li>• Sisodia Rajput ruler Rana Kumbha annexed Gagron along with Didwana, Ranthambore, Sirohi, and Toda</li> <li>• Khinchis as feudatories holding the Fort</li> <li>• Thereafter, Mewar and Malwa were to fight many sanguine battles for its possession</li> <li>• Palhan-Si, Son of Achaldas Khinchi and Mewar's warrior Dheera fought against Mahmud Khilji</li> </ul>
Sultanate of Malwa	Mahmud Khilji	1444-69 AD	<ul style="list-style-type: none"> <li>• Took the Fort after Jauhar and Shaka were committed by Khinchi Rajputs in 1444 AD</li> <li>• Ruled over the Fort for next 25 years</li> </ul>
	Bhim Karan	Up to 1519 AD	<ul style="list-style-type: none"> <li>• Noted to rule over the Fort , killed by Sultan Mahmud Khilji of Malwa</li> </ul>
Sisodia Rajputs	Rana Sanga Rana Vikramaditya	1519-32 AD	<ul style="list-style-type: none"> <li>• Defeated Sultan of Malwa and took possession of Gagron</li> <li>• In 1532 AD, Rana Vikramaditya Surrendered the Fort to Sultan Bahadur Shah of Gujarat</li> </ul>
Sultanate of Gujarat	Bahadur Shah	1532-61 AD	<ul style="list-style-type: none"> <li>• Held the Fort for next three decades</li> </ul>
Rathore Rajputs	Prince Prithviraj	1561 - 1715 AD	<ul style="list-style-type: none"> <li>• Akbar captured Gagron from Malwa and handed it to Prithviraj the Rathore Rajput Prince, brother of Bikaner's Raja Rai Singh</li> </ul>




(under the Mughals)			<ul style="list-style-type: none"> <li>• Mausoleum, Dargah of Hazrat Hamiduddin Chishti-or 'Mitthe Saheb'</li> <li>• Bhairon Pol</li> <li>• Lal Darwaza</li> </ul>
<b>Phase III: 18<sup>th</sup> – mid 20<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler Holding the Fort	Period / year	Evolution of the Fort
			Mughal Alliance/ British Alliance
Hada Rajputs	Maharao Bhim Singh	1715 AD	<ul style="list-style-type: none"> <li>• Gagron gifted by Mughals to Maharao Bhim Singh in 1715 AD.</li> </ul>
	Maharao Ajeet Singh	1715 -1819 AD	<ul style="list-style-type: none"> <li>• Zalim Singh Jhala (faujdar of the Kingdom of Kota from 1758 to 1826 AD) led the forces of Kota to victory against Dhoondhar in 1761 AD at Bhatwara.</li> <li>• Ram Burj reconstructed</li> <li>• Gagron was favourite retreat of Zalim Singh Jhala and he rebuilt a number of structures, repaired and strengthened the fort</li> </ul>
	Maharao Chhatrasal		
	Maharao Guman Singh		
	Maharao Umaid Singh		
Jhala Rajputs	Maharaj Rana Madan Singh (Title given by British)	r. 1838-1845 AD	<ul style="list-style-type: none"> <li>• Subsidiary Alliance with East India Company</li> <li>• First ruler of the newly created separate state of Jhalawar</li> </ul>
	Zalim Singh II	1896 AD	<ul style="list-style-type: none"> <li>• Externed by the British</li> </ul>
	Maharaj Rana Bhawani Singh	r. 1899-1929 AD	<ul style="list-style-type: none"> <li>• Great patron of arts and music, education along modern line got impetus.</li> </ul>
<b>Phase IV: Mid 20<sup>th</sup> century AD onwards</b>			
Ruling dynasty	Ruler Holding the Fort	Period / year	Evolution of the Fort
Government of India	Not Applicable	1968 AD onwards	<ul style="list-style-type: none"> <li>• Fort stayed with Jhala Rajputs till after independence when it was declared a protected property of the Rajasthan State Government.</li> <li>• Conservation and Restoration plan formulated in 2007</li> <li>• Conservation works undertaken by Department of Archaeology and Museums, Rajasthan from 2008-10 (as listed in table 2b.8)</li> </ul>

## 2b. History and Development

### GAGRON

2.324



-  PHASE I: 7th - 15th CENTURY AD
-  PHASE II: 15th - 18th CENTURY AD
-  PHASE III: 18th - MID 20th CENTURY AD



HISTORIC EVOLUTION - GAGRON FORT



● Table 2b.8: 21<sup>st</sup> century Conservation works by Department of Archaeology and Museums, Rajasthan

Year	Area	Excavation/Conservation works undertaken
2008-10	Ruins	Structures located in front of main palace, near Krishna Dwar. Stone masonry in lime surkhi mortar- walls and stone slab roofing as per traditional practice.
	In side fort-wall (near Madhusudhan Mandir, Mahadev Mandir, Chaturbujnath Temple, Main Palace, Nakkarkhana Gate, Topkhana, Silekhana and Near Krishna Dwar ) and Open Chowks	Removal of vegetation: de- vegetation manually including uprooting of bushes and shrubs.
	At Madhusudhan Mandir, Mahadev Mandir, Chaturbujnath Temple, Main Palace, Nakkarkhana Gate, Topkhana, Silekhana and structures near Krishna Dwar	Replacing missing elements such as railing , brackets, <i>chhajja</i> stones: Dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar
	At Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple Mahadev Mandir, Chaturbujnath Temple, Main Palace, Nakkarkhana Gate, Topkhana, Silekhana and Structures Near Krishna Dwar	Repair/ consolidation of structural damage in floor, wall or roof: Providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri.
	At Madhusudhan Mandir, Ramchandra temple, Madanmohan temple, Mahadev mandir, Chaturbujnath temple, Main palace , Nakkarkhana gate, Topkhana, Silekhana, structures near Krishna Dwar and fort- wall etc.	Re pointing or grouting / tuman repairs: With grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.
	At Barud khana structures near entrance gate Madhusudhan Mandir, Ramchandra temple, Madanmohan temple, Mahadev Mandir, Chaturbujnath temple, Main palace, Nakkarkhana gate, Topkhana, Silekhana, structures near Krishna Dwar and fort- wall etc.	Removal of dead plaster and application of new plaster: Preparation of lime surkhi mortar with mortar mill adding gur, methi gugal as per traditional practice (Removing old / loose plaster from walls and cleaning the joints properly then applying various coats as per required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.)
	At Path way, Open Courtyards, Hanuman Akhara, Ram burj Baroodkhana, Structures near Entrance Gate Madhusudhan - Mandir, Ramchandra Temple, Madanmohan Temple Mahadev Mandir, Chaturbujnath Temple, Main Palace, Nakkarkhana Gate, Topkhana, Silekhana, and Structures Near Krishna Dwar	Relaying of flooring / paving: Providing and laying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in pattern over 30mm thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.
	Baroodkhana, Madhusudhan - Mandir, Ramchandratemple, Madanmohan Temple Mahadev- Mandir, Chaturbujnath Temple, Mainpalace, Nakkarkhana Gate, Topkhana and Madhusudhan - Mandir	Refinishing of walls (lime wash/araish/stone cladding): Preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course.

## 2b. History and Development

### GAGRON

2.326

Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple Mahadev Mandir, Chaturbhujnath Temple, Main -Palace, Nakkarkhana Gate, Silekhana and Topkhana	Reconstruction of surface decoration relief work: Stucco work in lime, Surkhi, mortar (1:2) as per traditional practices and design, the mortar should be prepared by grinding mill only. Making mebrab's Arches, pillars, decorative creepens, flower of small size etc. in lime surkhi plaster (1:2) as per old traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental design as per restoration nature of work.
Hanuman Akhara, Ram Burj Baroodkhana, Structures near Entrance Gate, Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple, Mahadev Mandir, Chaturbhujnath Temple, Main Palace, Fort-Wall, Topkhana, Silekhana and structures near Krishna Dwar	Random rubble stone masonry: Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation as per existing matching
Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple, Mahadev Mandir, Chaturbhujnath Temple, Main Palace, Topkhana and Silekhana	Addition of stone rain water spout: With dressed stone rain water spout as per existing matching and traditional practice
Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple Mahadev Mandir, Chaturbhujnath Temple	Wooden door shutters: Providing and fixing double leaf door shutters as per traditional pattern made of MP teak wood planks with Bini, Andheri and Adwa.
Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple, Mahadev Mandir	Chemical conservation of decorative sand stone work: Chemical treatment of sand stone (decorative sand stone parts to clean from yellowness, blackness, algal growth, dust, dirt oily accretions, lime & gypsum deposits, joining of gaps and application of preservative coating ( PVA ) to prevent algal growth and make the stone water proof.
Hanuman Akhara, Baroodkhana, Structures Near Entrance Gate Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple Mahadev Mandir, Chaturbhujnath Temple, Main Palace, Fort-Wall, Topkhana, Silekhana, and Ruined Structures Near Krishna Dwar	Clearance of debris from various structures: Clearance of debris from monuments by excavation up to depth 1.50 m to 2.00 m carefully without damaging the buried architectural parts of the temple and collect all the parts at proper place for study and re fixing at the time of restoration of the monument
Hanum Anakhara, Baroodkhana, Madhusudhan Mandir, Ramchandra Temple, Madanmohan Temple Mahadev Mandir, Chaturbhujnath Temple, Main Palace, Topkhana, Silekhana, and ruined Structures near Krishna Dwar	Adding dressed stone coping: Providing and fixing fine dressed sand stone dasa of approved stone dasa or coping of thickness 75 to 100 mm: Plain decorative as per existing matching at Gagrion fort. Lime kara work: Providing and applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface/ curved surface/ decorative stone pillars/ merlons in two coats not more than 6 mm thick.

## 2b. History and Development

Amber





## 2b. History and Development

AMBER

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● **Phase I: 10<sup>th</sup> –mid 16<sup>th</sup> century AD**

It is believed that Amber town was originally found by the Mina (also spelt Meena) tribal community in the region and, was eventually taken over by Kakildev, a Kachchwaha Rajput, who was descendant of Dulha Rai, the founder of Kachchwaha dynasty of Dhoondhar region of Rajasthan. Kakildev laid the foundations of the fortified walls of the future Kachchwaha capital of Amber. A descendent of Kakildev, Rajdev, made Amber his capital and for the next seven centuries Amber remained the capital of the Kachchwaha kingdom before it was finally supplanted by Jaipur, the city newly founded by Jai Singh II in 1727 AD. In the initial phase, the Amber fort existed only as a small structure known as the Purana Mahal (Old palaces), currently located just below the main palace on the western side.

● **Phase II: Mid 16<sup>th</sup> - early 17<sup>th</sup> century AD**

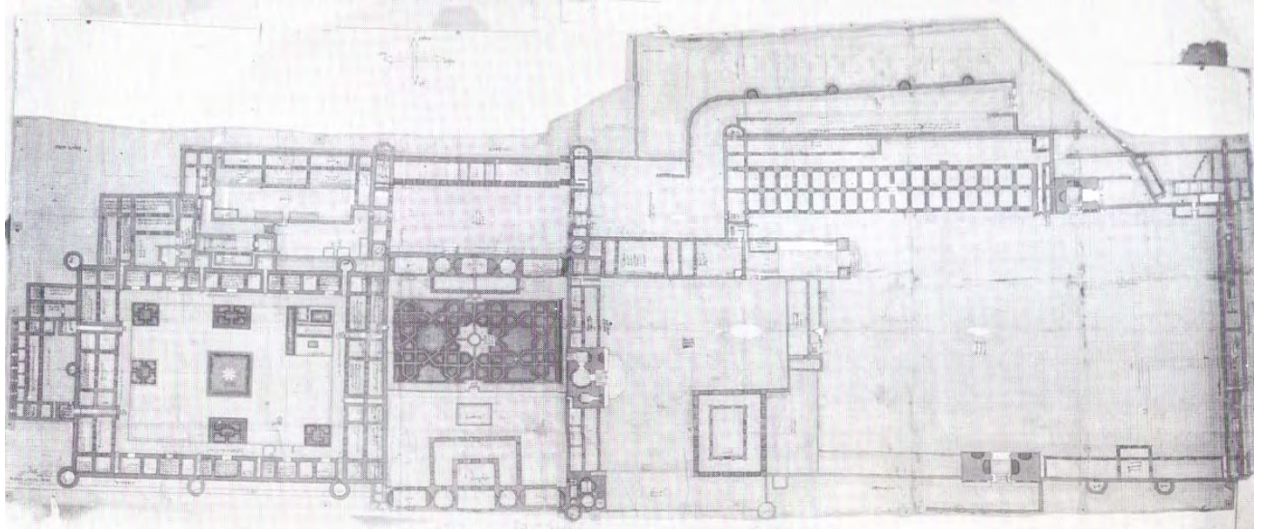
The reign of Kachchwaha ruler Bharmal (r. 1547-1574 AD) was to see the establishment of a new political equation of alliance between the Kachchwaha Rajputs of Amber and the Mughal Empire. The construction of the Amber palaces was begun in 1558 AD during the reign of Bharmal. As a result of the consistent Mughal alliance and secure political position since the time of Raja Bharmal, Amber Fort evolved into a palatial abode on the patterns of Mughal palaces and forts but with an interesting adaptation by the Rajputs. Bhagwant Das (r. 1574-1589 AD), a keen builder, encouraged the construction of few temples, palaces and pavilions in the vicinity but it was Man Singh (r. 1589-1614 AD) who first constructed the Man Mandir palace, the oldest block in the fort and installed the idol of the Shila Mata temple, as well as the priests who perform the associated religious rituals following his Bengal campaigns in 1604 AD as a commander of the Mughals.

The Kachchwaha ruler Mirza Raja Jai Singh, also referred to as Jai Singh I (r. 1622-1667 AD) is credited for the entire planning of Amber Fort- Palace as it exists now reflecting the amalgamation of Mughal ideas with Rajput idioms. Palatial spaces such as the Diwan-i-Am, and Sukh Mandir, Jai Mandir, Jass Mandir and Diwan-i-Khas, along with modifications in the palace constructed by Man Singh were carried out during his period. His reign also saw building of formal gardens in the Diwan-i-Khas court and two gardens just outside the Fort -Palace, over the Maota Lake, namely Dalaram Bagh and Kesar Kyari. This phase saw the direct influence of Mughal architecture and planning, along with use of exquisite building crafts as were used at the Delhi court of Mughal emperor Shah Jahan.

## 2b. History and Development

### AMBER

2.330



*Historic plan of Amber Fort with notes recording repairs and additions made between 1649 and 1681 AD.*

*Source: Gole 1989, p. 192*

#### ● **Phase III: 18<sup>th</sup> – mid 20<sup>th</sup> century AD**

Under Sawai Jai Singh (r. 1699-1743 AD, also referred to as Jai Singh II), Mughal influences were completely absorbed. In murals in a room of Bhojanshala of Amber Palace Complex, there is *siah kalam* painting. Another room shows oil painting from early 18<sup>th</sup> century, depicting pilgrim places of India. During the initial period of Jai Singh II, an imperial garrison of Emperor Bahadur Shah I (r. 1707-1712 AD) was established at Amber, but the three armies of Rajputs from Mewar, Marwar and Dhoondhar region forged an alliance to ensure the return of Amber to Jai Singh II in 1708 AD. Jai Singh II made additions to the Amber fort-palace such as restructuring the Suraj Pol and Chand Pol in the Jaleb Chowk area, and renovations to the Ganesh Pol. He was the last Kachchwaha dynasty ruler to use Amber as his capital before it moved to Jaipur.

After the shifting of the capital to Jaipur by Jai Singh II in 1728 AD, the Amber Palace and parts of the old town were largely deserted, though not fully abandoned. Various successive rulers continued the practice of staying at Amber for nine days during the important religious festival of Navratra. Following the advent of motorcar, which facilitated easy visits from Jaipur to Amber Palace complex and temples of Amber, this practice, was discontinued during the reign of Raja Madho Singh II. In 1818 AD a treaty of 'Subsidiary Alliance' was signed between the Kachchwaha ruler and the East India Company.



● **Phase IV: Mid 20<sup>th</sup> century AD onwards**

In 1948, the state came under the Government of independent India. The Amber Fort was declared as a protected monument under the State Department of Museums and Archaeology, Rajasthan in 1968. It was only after the advent of tourism following the India's Independence that, Amber fort and palaces gradually began to be frequented afresh by a large number of daily visitors. Minor repairs were carried on site since then. An ambitious Conservation Plan was prepared for the site in 2005, following which, large-scale conservation works were undertaken, along with introduction of visitor facilities, by the Department of Archaeology and Museums, Rajasthan and a special body created for this purpose i.e. the Amber Management and Development Authority.

**Table 2b.9: Historic evolution of Amber Fort**

<b>Phase I: 10<sup>th</sup>-mid 16<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler Holding the Fort	Period /year	Evolution of the fort
			Mughal Alliance
Meena community		967 AD	<ul style="list-style-type: none"> <li>• A flourishing settlement</li> </ul>
Early Kachchwahas	Kakil Dev	Early 11 <sup>th</sup> century AD	<ul style="list-style-type: none"> <li>• Believed to have laid the foundations of the fortifications of Amber</li> </ul>
	Raj Dev	1179-1216 AD	<ul style="list-style-type: none"> <li>• Capital shifted to Amber from Khoh</li> </ul>
	Uddra Ram Chandra Sen	1439-1502 AD	<ul style="list-style-type: none"> <li>• Rana Kumbha destroyed the town of Amber</li> </ul>
<b>Phase II: Mid 16<sup>th</sup>-17<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler Holding the Fort	Period / year	Evolution of Fort
			Mughal Alliance
Kachchwahas	Bharmal	1547-74 AD	<ul style="list-style-type: none"> <li>• Palaces in Amber (on hill slopes)</li> <li>• Mughal alliance established through marriage of Kachchwaha ruler Bharmal's daughter and Mughal Emperor Akbar.</li> </ul>
	Man Singh I	1589-1614 AD	<ul style="list-style-type: none"> <li>• Construction of palaces and strengthened fortifications</li> <li>• Temple of Shila Devi</li> <li>• Man Singh Mahal/Man Mandir Palace</li> <li>• Man Singh Mahal Chowk</li> </ul>
	Mirza Raja Jai Singh (Jai Singh I)	1622-67 AD	Additions made to the main palace <ul style="list-style-type: none"> <li>• Diwan-I-am</li> <li>• Diwan-I-Khas</li> <li>• Shish Mahal</li> <li>• Jas Mandir</li> <li>• Bhojanshala</li> <li>• Dalaram Bagh</li> <li>• Kesar Kyari</li> <li>• Sukh Niwas</li> <li>• Renovations to Man Singh Mahal</li> <li>• Jaleb Chowk</li> <li>• Ganesh Pol</li> </ul>

## 2b. History and Development

### AMBER

2.332

			<ul style="list-style-type: none"> <li>• South Courts</li> <li>• West Courts</li> </ul>
<b>Phase III: 18<sup>th</sup> - mid 20<sup>th</sup> century AD</b>			
<b>Ruling Dynasty</b>	<b>Ruler Holding the Fort</b>	<b>Period / year</b>	<b>Evolution of the Fort</b>
			<b>Mughal Alliance</b>
Kachchwahas	Sawai Jai Singh II	1699-1743 AD	<ul style="list-style-type: none"> <li>• Panna Miyan Ki Haveli</li> <li>• The palace completed in the early 18<sup>th</sup> century</li> <li>• Suraj Pol, Chand Pol</li> <li>• Renovation of Ganesh Pol</li> <li>• The capital was shifted to Jaipur in 1728 AD</li> </ul>
Kachchwahas	Sawai Ishwari Singh Sawai Madho Singh Sawai Prithvi Singh Sawai Pratap Singh Sawai Jagat Singh Sawai Jai Singh III Sawai Ram Singh II Sawai Madho Singh II Sawai Man Singh II	1818-1947 AD	<ul style="list-style-type: none"> <li>• Subsidiary Alliance Treaty signed with the East India Company in 1818 AD</li> </ul>
<b>Phase IV: Mid 20<sup>th</sup> century onwards</b>			
<b>Ruling Dynasty</b>	<b>Ruler Holding the Fort</b>	<b>Year</b>	<b>Evolution of the Fort</b>
Government of India	Not Applicable	1948	<ul style="list-style-type: none"> <li>• The state of Jaipur joined the Union of states forming Rajasthan in independent India</li> </ul>
		1968 AD	<ul style="list-style-type: none"> <li>• Declared Protected Monument under the Department of Archaeology and Museums, Rajasthan</li> </ul>
		2005	<ul style="list-style-type: none"> <li>• Conservation Plan prepared</li> </ul>
		2006-2010	<ul style="list-style-type: none"> <li>• Conservation works undertaken and visitor facilities introduced (as listed in table 2b.10)</li> </ul>



- PHASE I: 10th - MID 16th CENTURY AD
- PHASE II: MID 16th - 17th CENTURY AD
- PHASE III: 18th - MID 20th CENTURY AD



HISTORIC EVOLUTION - AMBER FORT



## 2b. History and Development

### AMBER

2.334

**Table 2b.10 : 20<sup>th</sup> - 21<sup>st</sup> century Conservation works by Department of Archaeology and Museums, Rajasthan**

Year	Area	Excavation/Conservation works undertaken
1955-56	Archaeological Gardens	The gardens inside the Amber palaces were maintained by the Rajasthan state and steps were taken to provide Mohan Bari garden outside the palaces with a motor –pump.
1967-68	Bhojanshala	Paintings of floral designs on the lower portion of the walls of Bhojanshala were cleaned and preserved
1971-72	Jaleb Chowk	The Jaleb Chowk of the palaces was developed on the old pattern of Dalaram garden below. All the gardens were properly maintained.
1972-73	Bhojanshala	Wall paintings inside Bhojanshala of the palaces were chemically cleaned, restored and preserved. Layers of whitewash which had been applied on the 3 panels of painting on the walls were scientifically removed and the paintings exposed. Paintings on 3 wooden doors were chemically conserved.
1981-82	Ganesh poll	Paintings on the façade were consolidated and preserved. Oil paintings inside the Banyan Shale have been restored partly.
2006 – 2010	Panna Mian ki Haveli & West side of Amber Palace	Reconstruction of ruined structures : Tuman Masonry in lime surkhi mortar and stone chips; Stone masonry in lime surkhi mortar
	Outer east façade, west façade, north façade and south facade	Removal of vegetation : De-vegetation - manually including uprooting of bushes and shrubs
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahan and whole exit area	Replacing missing elements such as railing, brackets, hajji stones: Dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahan and whole exit area	Repair/consolidation of structural damage in floor, wall or roof : Providing and laying lime <i>dhar</i> as per traditional practice with lime surkhi mortar with <i>gur, methi, gugal, hemp and bilgiri</i> etc.
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahal and whole exit area, Panna Meena ki haveli, tunnel	Re-pointing or grouting: With grinded lime <i>surkhi</i> mortar and lime <i>kara mortar</i> , including cleaning the loose joints and packing the joints with pieces of bricks/stones.
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahal and whole exit area	Removal of dead plaster and application of new plaster: Preparation of lime surkhi mortar with mortar mill adding <i>gur, methi gugal</i> as per traditional practice (Removing old / loose plaster from walls and cleaning the joints properly then applying various coats as per required, each coat done after seven days and not more than 15mm.then final coat of lime <i>loi</i> as finishing coat.)
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahal and whole exit area	Relaying of flooring/ paving: Providing and laying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with <i>masaldar lime putty</i> and stone powder with pigment to match shade of stone.
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahal and	Refinishing of walls (lime wash/araish/ stone cladding): Preparation of lime <i>khameera</i> with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding <i>gugal</i> and <i>gondh</i> mixing properly. Applying three or four coats with fine brushes

Year	Area	Excavation/Conservation works undertaken
	whole exit area, entire outer facade	including base course.
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahal and whole exit area	Reconstruction of surface decoration - relief work: Stucco work in lime, Surkhi, mortar (1:2) as per traditional practices and design, the mortar should be prepared by grinding mill only.
	Sheesh Mahal, Singh Pol, Ganesh Pol, Suhag mandir, Man Singh Mahal, Rang meal	Restoration of art work (murals, glass mosaic etc.): Conservation of fresco paintings in monuments by cleaning of the painted surface from dust, dirt, greasy and oily accretions etc. with the help of suitable chemicals; removal of cracks and holes; consolidation of flaking painted layer; filling of the lacunae in the plaster; treatment of salt effect and providing a preservative coating. Restoration of <i>Jamia</i> glass/stained glass by cleaning them with the help of chemicals; replacement of the broken glasses with the original type; filling of POP along the edges acc.
	Dill-e-anagram Bag, Rambagh, Kesar Kyari	Landscaping: Development of existing lawns, Plantations of traditional plants 7 trees.
	Jaleb Chowk, Diwan-i-Am, Diwan-i-Khas, Man Singh Mahal and whole exit area	Signage: Traditional white <i>Dholpur</i> stone
	Jaleb Chowk, Man Singh Mahal, Kesar Kyari, Dalaram Bagh	Addition or improvement of Tourist facilities (reception/interpretation centre, toilets, benches, gates, railings, resting areas, drinking water facility etc.): Cast-iron benches, aquaguards and water coolers for water huts, highly hygienic toilets

## 2b. History and Development

### Jaisalmer





## 2b. History and Development

JAISALMER

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● **Phase I: 12<sup>th</sup> – 13<sup>th</sup> century AD**

Remains of the structures dating this period are although few, but are quite prominent.

The present Annapurna Temple, Jaisaloo Well and Ganesh Prole are the only structures built in this early phase of Fort that survive today. According to local historian N K Sharma, beneath the Annapurna Temple is the original temple where Rawal Nath performed the tilak ceremony for the king before he ascended the throne.

Jaisaloo is believed to be the oldest well in the Fort. Local legend has it that Lord Krishna and Arjun were passing by the spot where the well is now located, when Arjun became thirsty. No water was available anywhere, so Lord Krishna struck the ground with his sudarshan chakra and dug a well for Arjun to quench his thirst. The local people later called this well Jaisaloo, after Maharawal Jaisal, the founder of Jaisalmer Fort.

● **Phase II: 13<sup>th</sup> – early 14<sup>th</sup> century AD**

In the second phase, the fortification walls were constructed for defense purposes, beginning with the inner bastion walls. The royal palaces and the adjoining area of the present day neighborhood of Kotary Pada also came into existence around this time. Kotary Pada, located at the highest level of the Fort, was essentially developed as residential quarters for the service class attached to the royal palaces, viz courtesans, etc. By the end of the 14th century, the reconstruction and reinforcement of the inner fortification walls also commenced. This was for the placement of artillery and ammunition, in addition to the stone balls and cylinders that were earlier used as rolling missiles and are, even today, visible on the crenellations of the Fort.

**Phase III: 14<sup>th</sup> – 17<sup>th</sup> century AD**

- The third phase saw the construction of the Jain temples and the adjoining areas (present day Dhunda Pada). Construction of the outer fortification walls and mori was also completed in this phase. The oldest of the Jain temples, Sh. Chintamani Parsavnath Jain Mandir, dates back to 1389 AD and was built over 84 years. The other Jain temples built during this period are:

- Sh. Shital Nath Jain Temple, 1470 AD
- Sh. Mahaveer Swami Jain Temple, 1473 AD
- Sh. Sambhavnath Temple, 1497 AD
- Gyan Bhandar, 1500 AD
- Sh. Chandra Prabhu Swami Temple, 1509 AD
- Sh. Shanti Nath Temple, 1536 AD
- Sh. Rishabh Dev Jain Temple, 1536 AD

## 2b. History and Development

### JAISALMER

The solitary haveli of this neighborhood, also known as the 'Royal House' and presently known as 'Suraj Haveli', dates back to 1526 AD. During the reign of Maharawal Bhim (1577 – 1613 AD), two ornamental gateways Suraj prole and Hawa prole were added to the original gateway, Ganesh prole. The royal palaces were further extended and as the load on the original construction increased, it is believed that one of the palace walls cracked. As a result, Hawa prole, was built; which acts as a separation between the royal palaces, yet connects them at the top levels.

The Hindu Vaishnava temples were also built around this time. The oldest, Shiv temple, presently called the Ratneshwar Mahadeo temple, dates back to 1490 AD. The other temples, Sh. Laxmi Nath temple and Surya temple date back to 1494 and 1496 AD respectively.

#### ● **Phase IV: 18<sup>th</sup> – 19<sup>th</sup> century AD**

The fourth phase of evolution begins with the reign of Maharawal Akhey Singh (1722 to 1761 AD). The gateway near Gopa Chowk, now known as Akhey prole and the connecting wall adjoining the main Fort wall are from this phase. Akhey prole is the only entry and exit into the Fort. The connecting walls which were added later, (locally known as thokars), act as buttresses to the original Fort walls. The gateway and the wall enclose an open space or chowk within the Fort, which was used for royal processions.

During this period, the neighborhood of Junga Pada, Chaughan Pada, Kund Pada etc. were developed. As the fortress developed and got crowded, people left the citadel and moved out onto the talahatti (lower slopes) and areas around the Fort. They constructed houses, laid streets and formed mohallas according to their clan or profession.

Skilled craftsmanship of this period is visible in the cluster of five decorative mansions of the royal palaces defining the chowta or the main square known as Dushera Chowk.

These include:

- Rangmahal and Motimahar built by Maharawal  
Mulraj-II
- Sarvottamvilas built by Maharawal Akhey Singh
- Gajvilas built by Maharawal Gaj Singh
- Jawahar Vilas built by Maharawal Bairisal

#### ● **Phase V: 19th – mid 20th century AD**

Towards the end of the 19th Century, the magnificent appearance of the Fort diminished substantially due to encroachments. Maharawal Bairisal shifted the royal residence from Gajvilas within the fortress to the newly built palace at Amarsagar located at the base of the Fort and from that point onwards the pomp and splendor attached to the royal palaces started fading.



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- **Phase VI: Mid 20<sup>th</sup> century to present day**

In 1948, the state of Marwar merged in to the Union of Rajasthan, as part of Independent India and the fort became a protected monument in 1956 AD. Conservation works have been undertaken by the Archaeological Survey of India consistently, along with addition of visitor facilities.

## 2b. History and Development

### JAISALMER

● **Table 2b.1: Historic evolution of Jaisalmer Fort**

Phase I: 12 <sup>th</sup> – 13 <sup>th</sup> century			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
Bhatti Rajputs	Rawal Jaisal Rawal Salivahan Rawal Bijal Rawal Kelan Rawal Chachigdev Rawal Karan Rawal Lakhansen Rawa Punyapal	1156 A.D. (12 <sup>th</sup> – 13 <sup>th</sup> century AD)	<ul style="list-style-type: none"> <li>Laid the foundation of Jaisalmer fort and city in 1156 AD</li> <li>Established Jaisalmer as the final capital city of the Bhatias</li> <li>The present Annapurna Temple, Jaisaloo Well and Ganesh Prole are the structures built in this phase</li> <li>Jaisaloo is believed to be the oldest well in the Fort.</li> <li>The local people later called this well Jaisaloo, after Maharawal Jaisal, the founder of Jaisalmer Fort.</li> </ul>
Phase II: 13 <sup>th</sup> – early 14 <sup>th</sup> century AD			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
			Siege and control by Sultanate of Delhi (Khiljis and Tughlaqs)
Bhatti Rajputs	Rawal Jait Singh	1213-1303	<ul style="list-style-type: none"> <li>The fortification walls were constructed for defense purposes, beginning with the inner bastion walls.</li> <li>Royal palaces in the present day neighborhood of Kotary Pada came into existence .</li> </ul>
Khilji Dynasty	Alauddin Khilji Khizr Khan	1303-1314 AD	<ul style="list-style-type: none"> <li>In 1303 AD, the Fort was taken by Alauddin Khilji after Jauhar (ceremonial self immolation on funeral pyre) by the women of the fort and suicidal charge by the warriors till they met their end</li> </ul>
Bhatti Rajputs	Duda & Trilok Singh Gharsi Singh Kehar	1321-1406 AD	<ul style="list-style-type: none"> <li>King Duda is said to have repaired the fort of Jaisalmer in the late 13th / early 14th century. The fortification walls were constructed during this period for defense purposes, beginning with the inner bastion walls.</li> <li>At the end of 14th century, the reconstruction and reinforcement of the inner fortification walls commenced.</li> <li>This was place for placement of artillery and ammunition, in addition to the stone balls and cylinders that were earlier used as rolling missiles and are, even today, visible on the crenellations of the Fort.</li> </ul>

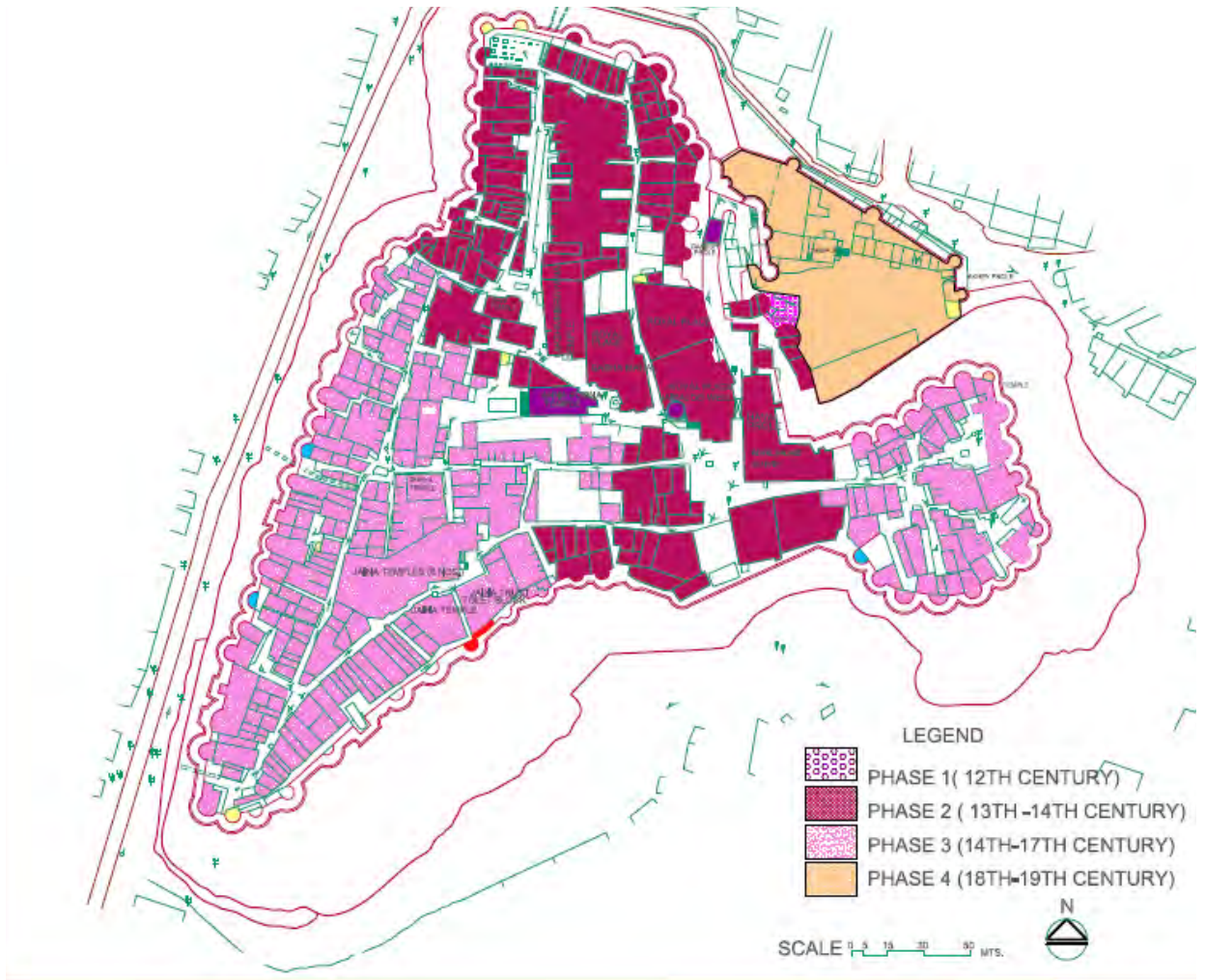
			<ul style="list-style-type: none"> <li>The construction of Gadisar Lake in 1340 was a major development for the city.</li> </ul>
<b>Phase III: 14<sup>th</sup> – 17<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
			Invasion by Sultanate of Gujarat
Bhatti Rajputs	Maharawal Laxman Maharawal Vairisi Maharawal Chachigdev II Devidas	1336- 1433 AD	<ul style="list-style-type: none"> <li>Construction of the Jain temples and the adjoining areas (present day Dhunda Pada)</li> <li>Construction of the outer fortification walls and mori was also completed in this phase.</li> <li>The oldest of the Jain temples, Sh. Chintamani Parsavnath Jain Mandir, dates back to 1389 AD and was built over 84 years. The other Jain temples built during this period are:                             <ul style="list-style-type: none"> <li>Sh. Shital Nath Jain Temple, 1470 AD</li> <li>Sh. Mahaveer Swami Jain Temple, 1473 AD</li> <li>Sh. Sambhavnath Temple, 1497 AD</li> </ul> </li> <li>The oldest, Shiv temple, presently called the Ratneshwar Mahadeo temple, dates back to 1490 AD. The other temples, Sh. Laxmi Nath temple and Surya temple date back to 1494 and 1496 AD respectively.</li> <li>Gyan Bhandar, 1500 AD</li> <li>Sh. Chandra Prabhu Swami Temple, 1509 AD</li> <li>Sh. Shanti Nath Temple, 1536 AD</li> <li>Sh. Rishabh Dev Jain Temple, 1536 AD</li> <li>'Suraj Haveli', dates back to 1526 AD</li> </ul>
	Maharawal Bhim (1577 – 1613 AD)		<ul style="list-style-type: none"> <li>two ornamental gateways Suraj prole and Hawa prole were added to the original gateway</li> <li>Extension of the royal palaces increased the load on the original structure, due to which one of the palace walls cracked, As a result, Hawa prole, was built; which acts as a separation between the royal palaces, yet connects them at the top levels.</li> </ul>
<b>Phase IV: 18<sup>th</sup> – 19<sup>th</sup> century AD</b>			
Ruling Dynasty	Ruler holding the fort	Period of rule	Evolution of the Fort
			Mughal control
Bhatti Rajputs	Maharawal Akhey Singh	(1722 to 1761 AD)	<ul style="list-style-type: none"> <li>The gateway near Gopa Chowk, now known as Akhey prole and the connecting wall adjoining the main Fort wall are from this phase</li> <li>The connecting walls which were added later, (locally known as thokars), act as buttresses to the original Fort walls</li> <li>Neighborhoods of Junga Pada, Chaughan</li> </ul>



## 2b. History and Development

### JAISALMER

			<p>Pada, Kund Pada etc. were developed.</p> <ul style="list-style-type: none"> <li>As the fortress developed and got crowded, people left the citadel and moved out onto the talahatti (lower slopes) and areas around the Fort. They constructed houses, laid streets and formed mohallas according to their clan or profession.</li> </ul>
			<ul style="list-style-type: none"> <li>Few decorative mansions of the royal palaces came up in this era, on the the main square known as Dushera Chowk.</li> <li>These include: <ul style="list-style-type: none"> <li>Rangmahal and Motimahal built by Maharawal Mulraj-II</li> <li>Sarvottamvilas built by Maharawal Akhey Singh</li> <li>Gajvilas built by Maharawal Gaj Singh</li> <li>Jawahar Vilas built by Maharawal Bairisal</li> </ul> </li> </ul>
<b>Phase V: 19<sup>th</sup> – mid 20<sup>th</sup> century onwards</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
			British Subsidiary Alliance
Bhatti Rajputs in treaty with Britishers			<ul style="list-style-type: none"> <li>Towards the end of the 19th Century, the magnificent appearance of the Fort diminished substantially due to encroachments. <b>Maharawal Bairisal</b> shifted the royal residence from Gajvilas within the fortress to the newly built palace at Amarsagar located at the base of the Fort and from that point onwards the pomp and splendor attached to the royal palaces started fading.</li> </ul>
	MaharawaBairisal Singh		<ul style="list-style-type: none"> <li>The later structures from the 19th century – Gaj Vilas (from reign of Maharawal Gaj Singh, 1820–1846) and Moti Mahal show decoration with greatly proliferated surfaces, the heaviness of the earlier phase replaced by intense richness in surface treatment. Decorative carving continued in Jaisalmer up to the 20th century without decline in artistic value unlike the case in other region.</li> </ul>
<b>Phase VI: Mid 20<sup>th</sup> century – present day</b>			
Ruling Dynasty	Ruler holding the fort	Period / year	Evolution of the Fort
Government of India	Archaeological Survey of India	1956-2010	<ul style="list-style-type: none"> <li>Jaisalmer Fort notified as protected monument under ASI in 1956 AD Conservation works undertaken by the ASI and visitor facilities added (as listed in table 2b.2).</li> </ul>



HISTORIC EVOLUTION MAP---JAISALMER FORT

## 2b. History and Development

### JAISALMER

2.346

● **Table 2b.2: 20<sup>th</sup> – 21<sup>st</sup> century Excavations and Conservation works by Archaeological Survey of India**

Year	Area	Excavation/conservation works undertaken
1979-80	Fort wall	Out of plumb masonry of the Fort was dismantled and reconstructed. The outlet channels, which were filled with silt, were cleared of debris and the outlets were repaired. Rough chiseled ashlar masonry was also repaired at some places.
1980-81	Fort wall	In continuation of the previous year's work, ashlar masonry of the western fortification wall, adjoining the bastion was dismantled and rebuilt.
1981-82	Patwa Haveli'	Conservation work was carried out at 'Patwa Haveli' and the museum.
1982-83	Bastion near Nidhi prole	The bulging section of the bastion near Nidhi prole was dismantled and rebuilt in lime cement mortar. Damaged stones were replaced with new ones.
1983-84	Lower fortification wall	Bulged and decayed masonry of the lower fortification wall near Nidhi prole was dismantled after numbering the stones. Dismantled stones were reset in lime cement mortar. New stones dressed as per the original design were also used wherever required and the wall was properly aligned. The approach road inside the Fort between Hawa prole and Suraj prole was repaired giving it the correct slope and gradient. The area in front of Nidhi prole was developed by providing ashlar masonry and enclosed by iron grill.
1984-85	Lower fortification wall	Bulged and decayed portion of the lower Fort wall near old bus stand was dismantled after documenting the exact position of each stone for reassembly. The wall was rebuilt in lime cement mortar after redressing the weathered stones. The rubble masonry wall at the top was rebuilt with proper alignment and new stones of a bigger size.
	Road between Ganesh prole and Suraj prole	The approach road inside the Fort, between Ganesh prole and Suraj prole was repaired by removing worn-out and uneven stones and redressing them and relaying them in lime cement mortar. Proper slope and gradient for the road was also maintained.
1985-86	Bastion of the upper Fort wall	The cracked and bulging bastion of the upper Fort wall was reset.
	Pathway from Nidhi prole to Suraj	The undulated pathway from Nidhi prole to Suraj prole was dismantled and reset in lime cement mortar at the prescribed gradient. The open drain along the path was covered by laying underground pipes.
1986-87	Sambhavnath temple	Chemical treatment and preservation of the stone carvings and sculptures inside Sambhavnath temple were carried out.



1987-88	Bastion of the upper fortification wall	The work of restoring the cracked and bulged bastion of the upper fortification wall was continued.
1988-89	Lower fortification	The bulged out and damaged portions of the lower fortification wall was dismantled and reconstructed.
1989-90	Lower Fort wall	Work of dismantling and reconstructing bulged out and damaged lower Fort wall was taken up.
1990-91	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled, the serviceable material sorted out, and the wall rebuilt with old and new stones with proper alignment.
1991-92	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled, the serviceable material sorted out, and the wall rebuilt with properly dressed stones in lime cement mortar. The wall was also provided with weep holes.
1992-93	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled and reconstructed in random rubble masonry. Collapsed ashlar stone masonry was reset.
1993-94	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled and reconstructed in random rubble masonry. Collapsed ashlar stone masonry was reset.
1994-95	fortification wall	Bulged and weathered masonry of the wall was dismantled up to 10 meter height with the help of a chain pulley, and was reconstruction using ashlar masonry for the facing and random rubble masonry in lime cement mortar as the core wall. The wall was given proper alignment, provided with weep holes and built using old serviceable stones, properly dressed, as well as, new stones. Reconstruction of the dismantled portion of the collapsed lower Fort wall along Shiv Marg was also taken up.
1995-96	Lower Fort wall	The collapsed portion of the lower Fort wall was restored with ashlar stone masonry using dressed stones.
1996-97	Lower Fort wall	A portion of the lower Fort wall that had bulged and was out of plumb was dismantled, serviceable material sorted out for reuse and the wall reconstructed as per the original pattern.
1997-98	Lower Fort wall	The portion of decayed lower Fort wall with ashlar stone masonry facing was reconstructed.
1998-99	Lower Fort wall	The collapsed portion of lower fortification wall on the northern side was reconstructed partly with ashlar masonry of heavy stone in two line dressing for facing and rubble stone wall inside in lime cement mortar. Restoration of lower fortification wall was partly undertaken at the north eastern and eastern side ring road by ashlar masonry of heavy stones for facing, and big size rubble stone masonry wall inside with lime cement mortar.

## 2b. History and Development

### JAISALMER

1999-2000	Lower Fort wall	The collapsed, decayed and bulged portion of lower fortification wall was dismantled and reconstructed partly with ashlar masonry of heavy stones in two line dressing for facing and partly in rubble stone in interior of the wall. Also loose and decayed ashlar masonry stones of the upper bastion were taken out and new dressed stones fixed in lime cement mortar.
2000	Restoration of the lower fortification wall	Due to unauthorized construction of a restaurant and deposition of debris, a portion of the lower fortification wall near the old jail building had collapsed on October 17, 1997. The collapsed portion of the wall was restored at a cost of Rs. 5 lakh.
		Due to heavy rain on August 1, 1999, lower and upper fortification walls were damaged at three places. Out of these, restoration of the collapsed portion of the lower fortification wall at the southern side was completed
		Another portion of the lower fortification wall, opposite the Police Chowki, which had collapsed due to heavy rain, is being restored and about 25 % of work is completed.
	Restoration of lower fortification wall opposite the taxi stand, which was in progress, was completed	
Strengthening of bastions	After the collapse of two bastions of the upper fortification wall and lower fortification wall, the whole Fort was thoroughly examined and certain bastions and wall portions were identified for urgent strengthening. These bastions were strengthened by underpinning. At certain places, the base rock was found exposed and eroded, the gaps in the exposed rock were filled and the rock covered to stop any further damage.	
Minor repairs	Minor repairs like filling up of joints, replacement of damaged stones, dismantling of dangerous parapet walls etc. was carried out from time to time, as and when the need arose.	
2000 - 2001	lower fortification wall	Fortifications were repaired
2001-2003	fortification wall	The portion of the upper and the lower Fort walls that had collapsed were reconstructed.
		The cracks and cavities in the walls were also stitched and filled up wherever required. The ramp (mori), in between the inner and outer Fort walls, wherever accessible was also repaired and the top surface made water tight.
2005-10	Toe wall	Excavation and exposition of the original toe wall at places where it was either covered up or hidden due to raised levels of the adjoining roads and of its reconstruction where it was destroyed in the process. Work of rebuilding of the toe wall was in progress along the south west portion of the Fort. Largely new stone was used in the reconstruction, strengthened with the use of cement mortar and bedding. Detailed documentation is available with the ASI

	Pitching wall	The rebuilding of the pitching wall is an ongoing process. In recent years, this rebuilding of the pitching wall has been extensive, as is evident in the significant amount of new stone that has been introduced. No effort is being made to save the Fort's historic fabric through consolidation of the original stone. Failed sections are being rebuilt as a retaining structure and not in accordance with the original pitching, which was not intended to act as a retaining wall.
2010	Restoration of Pitching Wall Trial Project	Badly damaged, decayed, tilted and dislodged dry masonry pitching wall length of 10 mtr in Section-I was reset the ashlar stone wall with the help of new as well as old stone on a cement concrete base, clamping of stone members
2011	outer fortification wall from Khirki Pada to Kanwar Pada	Conservation and Restoration



**Justification  
for Inscription**





### 3.1.a Brief Synthesis

The 'Hill Forts of Rajasthan' is a serial property formed by 6 Hill Fort sites in Rajasthan. The selected six hill forts sites represent the various categories (physiographical, centre of power, sacred & urban settlement) of Rajput military architecture, adapted to the whole range of the Rajput kingdom's physiographical terrain, including mountains, forests, water, and desert forts. Each of these forts represents the single most outstanding and exceptional representations of these categories.

- The Hill Fort of **Chittorgarh** comprises 305 hectares of land area with the buffer zone having an additional area of 440 hectares. It is located on the top of a high hilly outcrop of the Aravallis about 609 metres above sea level on the eastern edge of the city of Chittorgarh. The property has a perimeter of about 4.5 km. The hill that forms the boundaries of the buffer zone is about 2 km long and 155 m wide.

- **Kumbhalgarh Fort**, located in district Rajsamand of Rajasthan State comprises approximately 268 hectares of land area with the buffer zone having an additional area of 1338 Hectares. It is situated on a hill peak of the Aravalli range at a varying altitude of about 500 -1300 m above sea level. The buffer zone comprises part of the surrounding Kumbhalgarh Wildlife Sanctuary and takes into account aspects such as the viewing points from the surrounding hills and historic watch towers in the vicinity.

- **Ranthambore Fort** located on the top of the Thambhor hill is on one edge of the thick dense forest of the National Park of Ranthambore. The reserve forest lies on the junction of Aravali and Vindhya range of mountains just 14 km from city of Sawai Madhopur in eastern Rajasthan and sprawls over a varying and undulating landscape. The property comprises of approximately 102 hectares of land area with the buffer zone having an additional area of 372 hectares. The buffer zone includes the entire hill on which the fort stands along with surrounding water bodies of the Padam Talav, Malik -Talav and Raj Bagh visible from the north eastern edge of the fort.

-**Gagron Fort** located about 10 km from the town of Jhalawar rests on the crest of the Vindhyan hill range surrounded by the waters of the Ahu and Kali Sindh rivers on three sides. The property within the fortification comprises of 23 hectares with a surrounding Buffer Zone of 722 hectares including the surroundings of the nearby hills and the river bend in the northern side of the fort.

- **Amber Fort** is located in a valley formed by a range of Aravallis known as Kalikho Hills and placed on the hill below the connecting fort of Jaigarh, a few kms to the north of the city of Jaipur. It comprises of approximately 30 hectares of land area with the proposed buffer zone having an additional area of 498 hectares including part of the Nahargarh Wildlife Sanctuary and the entire town of Amber located down in the valley below the Fort.

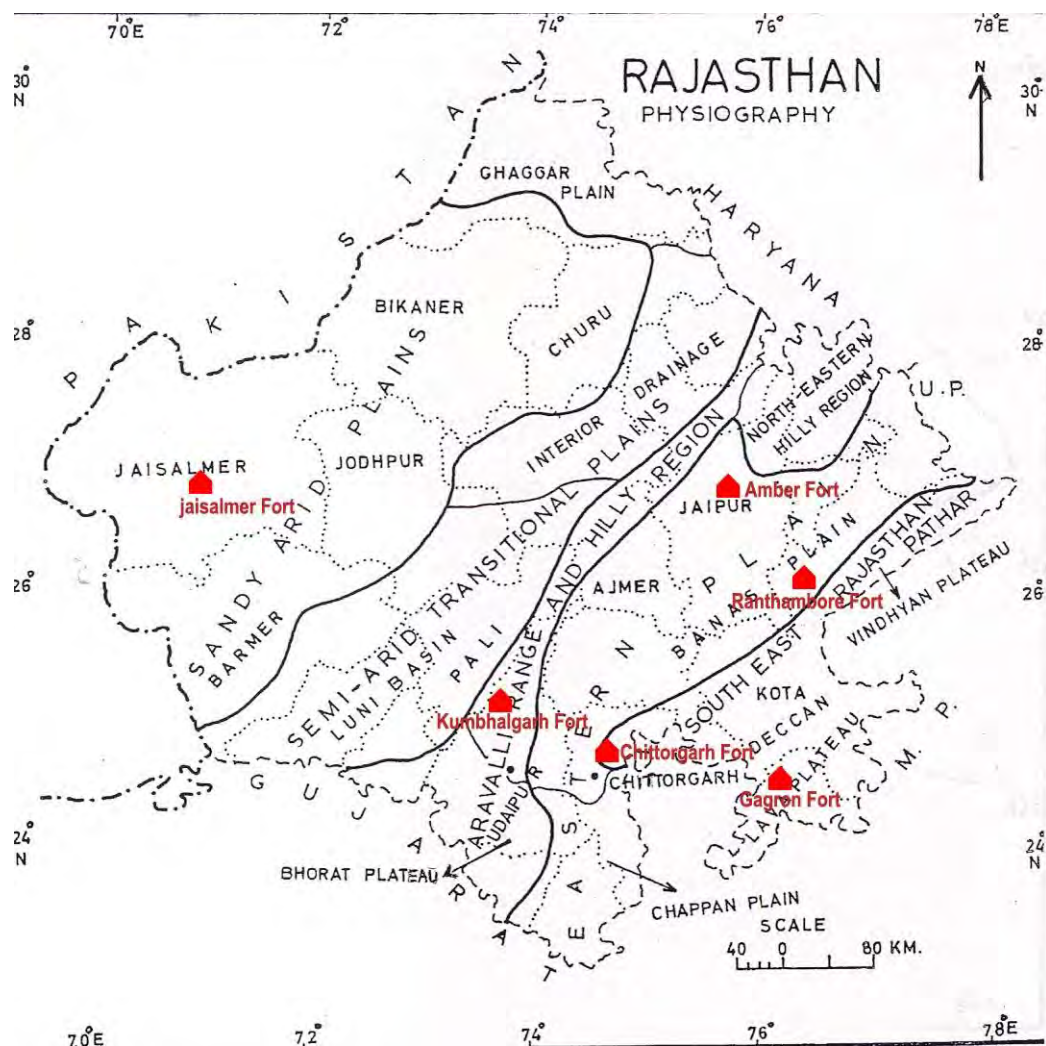
- **Jaisalmer Fort**, located in district Jaisalmer of Rajasthan State comprises approximately 8 hectares of land area with the buffer zone having an additional area of 89 Hectares. It is situated on Trikuta Hill rising 76 meters above the surrounding plain.

### 3. Justification for Inscription

Each of the six hill forts represents all the key attributes that distinguish Rajput hill forts. The key attributes are described below:

#### Physiographical

The forts are adapted to and optimise various kinds of hill terrain, including the summit and the slope & valley of semi-arid hills, forested hills, desert hills and hills protected by water. There are several aspects to the adaptation and optimisation of the sites, which include military matters, strategic planning and the collection, storage and distribution of water.



Location of the 6 forts in various physiographic regions of Rajasthan  
Source of base map: Hooja 2006

#### Centres of power

The forts have strong associational values as centres of Rajput power and control, as centres of Rajput courtly culture and patronage, and as former centres of learning, art and music. The forts, together with the palaces and other buildings they contain, all embody this power and courtly culture in Rajput architecture. The Rajput architecture was eclectic (drawing inspiration from antecedents and



neighbours) together with its degree of influence over later regional styles (such as Maratha architecture) do make it distinctive.

### **Sacred**

The selected sites include temples or other sacred buildings/spaces, not merely as adjuncts to the palaces and other settlements but often predating them, and outlasting them in use. 'Shaka' performed by men along with "Jauhar" by women in many of these forts is another important event carried in the memories by the people and these spots which in the fort are considered sacred and revered till date.

### **Urban Settlements**

Most forts were designed to protect the populace and not only the court and military guard. Many were of enormous size (with walls extending to over 20km). Most had had extensive settlements within the walls, some of which have persisted to the present day. These residential and sacred elements went beyond the expected military functions of forts. In some cases there was also a mercantile element, as the forts were centres of production and of distribution and trade that formed the basis of their wealth.

The combination of these four attributes the basis of the OUV of Rajput hill forts, established through the judicious selection of this series of six hill forts, that satisfies all the attributes and where each of the sites reflected one or more of the attributes in an exceptional manner.

**"These forts thus form a complete and coherent group that demonstrates Outstanding Universal Value as a series through representing all the essential attributes of Rajput Hill Forts in an exceptional way".**

The 6 hill forts satisfy all the attributes and each also contributes to at least one of the five attributes in an exceptional way as follows:

1. **Chittorgarh.** As a centre of power of Rajputs, it is distinctive from the other forts. As the former capital of the Sisodia clan and the target of three famous historical sieges, the site is strongly imbued with associational values attaching to Rajput history and folk lore. Furthermore the sheer number and variety of architectural remains of early date (ranging from the 8<sup>th</sup> to the 16<sup>th</sup> centuries) mark it as an exceptional fort in its scale and monumentality comparable to very few other Indian forts.
2. **Kumbhalgarh.** Its distinctive contribution arises from it having been constructed in a single process and (apart from the palace of Fateh Singh, added later) retains its architectural coherence. Its design is attributed to an architect known by name – Mandan – who was also an author and theorist at the court of Rana Kumbha in Chittor (another fort in the series). This combination of factors is highly exceptional.

### 3. Justification for Inscription

3.6

3. **Ranthambore.** Situated in the middle of forest, it is an established example of Forest Hill Fort and in addition, the remains of the palace of Hammir are among the oldest surviving structures of an Indian palace.
4. **Gagron.** Its distinctive contribution to the series arises from it being exemplary of its type of river-protected fort included in the nomination. In addition its strategic location in a pass in the hills gave it enhanced significance in the control of trade routes.
5. **Amber.** Its distinctive contribution is the representation of a key phase (17<sup>th</sup> century) in the development of a common Rajput-Mughal court style, embodied in the buildings and gardens added to Amber by Mirza Raja Jai Singh I. The immediate defence structures of the fort are added to the nominated property which elaborates the self-defence mechanism of the fort.
6. **Jaisalmer.** It is the only example included in the nomination of a hill fort in desert terrain. The extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it an important (and in some respects even unique) example of a sacred and secular (urban) fort.

This set of medieval and post medieval Hill Forts narrates centuries of political, cultural (including religious), social and architectural evolution associated with the ruling Rajput caste in the history of India. The series stands as testimony to the formation of princely states, development of Rajput ideologies and Rajput defense architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the Sultanate period rulers and Mughal Emperors of Central India.

Each of the six components demonstrates a distinctive feature of fort planning on a unique hilly terrain; also each fort exhibit technological adaptations utilizing the wealth of natural resources such as solid bedrock of mountains and slopes, valleys, forest, desert and water catchment areas in the most strategic geographic setting.

S. No.	Name of Fort	Typology	Physiographic Zone
1	Kumbhalgarh Fort	Hill Slope	Aravalli Range and Hilly Region
2	Chittorgarh	Hill Summit (Plateau)	Eastern Plain
3	Amber	Hill Valley	
4	Ranthambore	Hill Forest	North Eastern Hilly Region
5	Gagron	Hill Water	South East Rajasthan Pathar
6	Jaisalmer Fort	Hill Desert	Sandy Arid Plains

Table 3.1: Physiographic distribution of the 6 Hill Forts

Each hill fort is a conglomerate of defence mechanisms comprising of single or multiple tier battlemented fortification walls, gates and bastions and other supporting structures such as palaces,

stables, armoury, barracks, storage areas, water systems, temples and gardens, all strategically adapted to the natural terrain for defence and sustainance.

Chittorgarh is located on a hill top with a network of 84 water structures, Kumbhalgarh is unique in its location amidst the Aravalli range hilly region that divides Rajasthan into eastern and western regions, Ranthambore is planned on a hill in the heart of a dense forest ensuring that the fort remained visually obscure, Gagron is a fort located on a hill at the confluence of two rivers with a moat, while Amber is a later evolved citadel in the hill valley along the Maota Lake in the eastern plain. Jaisalmer is strategically located over a desert hill surrounded with wide sandy plains with 99 bastions. The fort planning in each case responds to an in depth understanding of the geographic terrain and natural contours observed in the strategic placement of defence mechanisms and elaborate rain water harvesting systems constructed within each fortification. The elaborate rain water harvesting systems at Chittorgarh, Kumbhalgarh and Ranthambore are still functional till date.



#### **3.1b Criteria under which inscription is proposed (and justification for inscription under these criteria)**

Based on the indepth analysis of the 6 hill forts, following are the criteria proposed to justify the inscription:

***Cultural Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design***

The Hill Forts of Rajasthan exhibit an important interchange of Princely Rajput ideologies in fort planning, art and architecture from the early medieval to late medieval period within the varied physiographic and cultural zones of Rajasthan. The forts trace the development of Rajput architecture and technology, monumental arts and landscape design that subsequently influenced the architectural development in Rajasthan and Central India for centuries.

**a) Planning principles** which evolved into the late medieval Rajput Fort-Palace typology with integration of Mughal ideas: As a significant typology of fortifications as per ancient Indian treatises such as 'Arthashastra' by Kautilya and 'Manusmriti' by Manu from 350 BC onwards, these six components represent the development of the Giri Durg or hill fort typology, combined with other types of fort typologies such as Van Durg (Forest Fort), Jal Durg (Water Fort) and Maru Durg (Desert Fort). The earliest layers of Chittorgarh and Ranthambore reflect early medieval fort planning with massive fortifications and a single eastern gate for access; which later developed into advanced 15<sup>th</sup> century medieval fort planning features under Rana Kumbha to incorporate aspects such as location of the palace on the highest point with additional fortification and placement of a ramp with series of gateways to access the fort. These features were adapted in a number of medieval forts across Rajasthan and India and are observed in all six components of the serial property. However, Amber is more of a representative of the last stage of Rajput fort planning i.e. the late medieval fort-palace that was borne out of the Rajput-Mughal alliance and a regional adaptation of the Mughal palace typology on the hilly terrain of earlier forts.

Comparable hill forts to Ranthambore reflecting the early medieval period of Rajput fort planning at state level are Jalore and Siwana and, at national level are Bandhavgarh in Madhya Pradesh and Kalinjar in Uttar Pradesh. Comparable medieval fort planning to Chittorgarh is observed in Jaisalmer Fort in the state of Rajasthan and Gwalior fort in Madhya Pradesh. Kumbhalgarh as an ideal 15<sup>th</sup> century fort of Rana Kumbha is comparable to Achalgarh Fort built in a similar manner in a single phase of history. Forts such as Mehrangarh and Taragarh at Bundi in Rajasthan and the Man Mandir palace portion of Gwalior fort are comparable to Amber as they exhibit the development of regional 17<sup>th</sup> century Rajput styles integrating Mughal symmetrical plans, formal char bagh gardens, building

arts, inlay and tile works thus establishing a new era of Rajput Fort-Palace typology that continued to be practiced till as late as the 19<sup>th</sup> and early 20<sup>th</sup> centuries in parts of Rajasthan and Central India.

**b) Rajput defense architecture:** The six components demonstrate the development of defense mechanisms from the 11<sup>th</sup> to the 18<sup>th</sup> centuries in Rajput fort planning. Beyond the strategic geographical placement of the forts on hill tops combined with extra defense ring of water in Gagron or forests in Kumbhalgarh and Ranthambore, the forts were further protected through a system of thick stone walls with merlons, loopholes at multiple levels for shooting arrows, bastions and typically, a series of gates placed strategically. Moats were used occasionally in the Hill Forts (in Ranthambore and Gagron), as their absence was compensated with scarped hill slopes to make them steeper. The 12<sup>th</sup>-15<sup>th</sup> century fortifications of Chittorgarh, Kumbhalgarh, Ranthambore and Gagron are manifestations of the pre-firearm Rajput techniques of warfare. Later modifications in the form of small square openings for handguns are also observed in the parapets of walls at Ranthambore. Kumbhalgarh presents special 15<sup>th</sup> century innovations in fort walls, bastions with talus having special slope to prevent escalade, merlon and loophole designs of various types strategically designed as per location of the fort wall and anti elephant spikes of a peculiar design. Comparable military structures are observed in state level forts of Jaisalmer, Jalore, Achalgarh and Taragarh at Bundi while other exemplars of Rajput fortifications including Kalinjar in Uttar Pradesh and Gwalior in Madhya Pradesh.

**c) Architectural styles and building crafts:** The Hill Forts of Rajasthan reflect the continuity of the Hindu architectural tradition in secular structures. The built form of the Hill Forts exhibits a vocabulary of secular forms of the Hindu tradition as seen in the 13<sup>th</sup> century Hammir palaces and 15<sup>th</sup> century palaces at Chittorgarh. In the 15<sup>th</sup> and early 16<sup>th</sup> centuries, the region occupied by the Rajput clans was bordered by independent Muslim sultanates, including Malwa and Delhi and an exchange of architectural vocabulary is observed in this period though set within the essential framework of Hindu planning principles used for the forts. The political stance of resistance to Mughals by the Sisodia Rajputs is clearly reflected in the initial fort architecture of Chittorgarh and Kumbhalgarh where planning, architectural form and styles exhibit Hindu traditions – using trabeate systems of construction and Hindu iconography. Kirti Stambh and Vijay Stambh at Chittorgarh are monuments par excellence showing craftsmanship in Hindu architecture from the 12<sup>th</sup> and 15<sup>th</sup> century AD. Rajput secular architecture reflected in the Hill Forts had a direct influence on development of Sultanate and Mughal architecture. During this period, the Islamic elements were combined with Rajput vocabulary to develop the Mughal style. At Fatehpur Sikri, the suburban fortified residence of the court (1571-1585 AD) built by Akbar, the asymmetric

### 3. Justification for Inscription

3.10

layout and intricate stonework reflects traditions of Rajput architecture. This influence is further observed in the mature Mughal architecture of Red Fort at Delhi, during the period of Mughal Emperor Shah Jahan. On the other hand, Amber reflects a distinct exchange with and adaptation of the Mughal Palace vocabulary with the Diwan-i-Aam or hall of public audience (said to be executed by masons trained in Akbari style by Mughal overseers) and Diwani -Khas or hall of private audience spread out on the earlier hilly terrain of a Rajput Fort. Sheesh Mahal at Amber reflects a matured synthesis between Mughal and Rajput arts with embellishments such as murals and inlay work.

Particular elements contributed by each of the six forts and their comparison to other examples of Rajput defense architecture at state and national level

Hill Forts		Developments in Fort Planning	Development of defense systems in Rajput Forts	Establishment of Rajput architectural form and style and its development by integrating Hindu traditions with Sultanate and Mughal ideas over Centuries
Property for Serial Nomination	Chittorgarh	Reflects two layers of fort planning; initial 7 <sup>th</sup> century early Rajput fortification with single access gate Suraj Pol and, later 15 <sup>th</sup> century Rajput mature phase Fort Planning	Medieval Rajput systems of defense with fortifications - scarps, semicircular bastions, series of gates, carved false merlons and extra fortification for inner palace. Large square embrasures added later for cannons.	Architectural elements derived from earlier Hindu (Gupta period) and Jain temple traditions (In Kumbhashyam and Mirabai temple, Vijay Stambh, Kirti Stambh); later integrates with contemporary sultanate features like vaulted substructure, domes, pointed arches in Kumbha and Kanwarpada palace
		Established principles of fort planning and a regional Rajput architectural vocabulary that influenced secular architecture of monuments across Rajasthan and Central India for centuries		
	Kumbhalgarh	Hill fort with forest buffer and idealistic 15 <sup>th</sup> century Rajput Fort planning with an inside fortified palace	Wide fort walls, bastions with thick talus to prevent escalade, series of gates with anti elephant spikes, watch towers, strategic variation in merlons and loopholes as per location	Architectural elements are like crystallized concepts of 15 <sup>th</sup> century medieval Rajput principles that were written, prescribed and demonstrated across temples and palace structures within the fort.
		Kumbhalgarh fort is Constructed in single process (except palace of Fateh Singh) and is a classic example of "Mandan principles of architecture.		
	Ranthambore	Overhanging cliffs and dense forest used as a barrier. Early medieval Rajput Fort planning with a central palace. sacred underground stream and limited access points	Precipitous climb to fort through series of gates with barbican, connections to escape tunnel. Thick crenellated fortification wall with single loopholes in middle of merlons for firearms like handguns.	Essentially trabeate construction systems derived from Hindu and Jain temple architecture used in the 13 <sup>th</sup> century Hammir palace and hall structures. Later structures such as Haveli temples, Badal Mahal, Supari Mahal adapt architectural vocabulary from Amber and Jaipur
		Its defence planning was based on forest fort. Hamir Paalce is the oldest extant Hindu Palace in India		
	Gagron	A water-hill fort with double fortification on three sides except on the river side.	Complex crosslet split loopholes in merlons. Bastions with modified parapets for cannons.	Gates are from earlier period Hindu vocabulary while 19 <sup>th</sup> c palace structures and Haveli temples with cusped arches reflect Late Rajput style of
		Its an distinctive example of a water hill fort amongst Rajput hill forts and controlled important water and land trade routes		



Amber	Citadel as fort where planning reflects superposition of Mughal palace spaces on regional topography	Outer façade of main palace complex serves as fortification wall. Octagonal bastions topped with domed pavilions.	Symmetrical palaces with formal gardens around rectangular courts as evolved by the Mughals in the Indian context. Integration of Mughal ideas to establish late medieval Rajput style
	Established distinctive principles for Rajput fort-palace planning by development of common Rajput-mughal court style, embodied in the buildings and introduction of gardens.		
Jaisalmer	Presents a unique planning of medieval Rajput desert hill fort with a central palace structure, wells, temples and close knit fabric of residences	Two layers of fortification with a walkway between the two. Wide merlons. Small balconies projecting from the inner wall bastions built in dry masonry with no mortar.	Palace complex with spaces arranged around an irregular court from which streets radiate. Extremely delicate stone carving in palace structures and temples evolved as a regional Rajput style for Marawar desert region
	An distinctive example of desert hill fort type, with 99 bastions for its defence and an extensive township contained within it from the outset, still inhabited today, along with group of jain temples makes it an important example of sacred and secular fort.		

Hill Forts	Developments in Fort Planning	Development of Defense systems in Medieval Forts	Establishment of Rajput architectural vocabulary as an exchange of ideas over centuries from Hindu to Islamic period	
Comparable State Level Hill Forts	Mehrangarh	Palace complex along northern fort wall has an articulated façade reflecting late medieval 17 <sup>th</sup> century Fort-palace planning	High vertical fort walls with sharp corners being devoid of bastions.	
	Established principles for 17 <sup>th</sup> century Rajput fort-palace planning and art and architectural styles that were emulated across Marwar cultural zone of Rajasthan			
	Jalore	Early Rajput fort planning with a single gate and access point	Thick crenellated walls with walkway, evidence of use of cannons	Palaces with stone carving, glass and mirror inlay work on walls and ceilings, decorative flooring and wall decorations show blend of 17 <sup>th</sup> century Rajput Mughal features
	Taragarh, Bundi	Two layers of planning. First layer is medieval with Taragarh fort walls sprawled across hills and second layer as late medieval is the Palace complex along northern Fort wall, forming a distinct articulated façade reflecting 17 <sup>th</sup> century Fort-palace planning	Palace complex with unifying outer wall and a fortification wall around. Crenallated walls across the hill contours. Enormous bastion Bhim Burj, that housed a huge cannon. Palace gates with octagonal bastions topped with domed pavilions.	Zenana and Mardana palace blocks show Integration of Islamic and Hindu elements in a regional Hadoti style. Use of pointed arch, dome and column beam construction. Mid 18th century murals in Chitrashali. Inlay work in Bada Mahal. Carved stone screens in Zenana. Stone carving in gate (with elephant motif) to Palace and remaining Palace surfaces.
	Established principles for 17 <sup>th</sup> century Rajput fort-palace planning and art and architectural styles that were emulated across Hadoti cultural zone of Rajasthan			
	Achalgarh	Single phase of 15 <sup>th</sup> century Medieval Rajput Fort Planning	Massive battlement walls characteristic of Kumbha's period and Kumbhalgarh	Few Jain temples, palace structures and Islamic monuments
Served as a reference source for fort planning and temple architecture in Rajasthan like Kumbhalgarh.				
Bala Kila	14 <sup>th</sup> century fortifications spread across undulating slopes of a hill, surrounded by forest	Thick fort walls with a bastion for cannon.	Temple architectural vocabulary similar to 15 <sup>th</sup> century temples at Kumbhalgarh	
Served as a reference for fortifications in the Mewar Brij cultural zone of Rajasthan.				

### 3. Justification for Inscription

3.12

Hill Forts		Developments in Fort Planning	Development of Defense systems in Medieval Forts	Establishment of Rajput architectural vocabulary as an exchange of ideas over centuries from Hindu to Islamic period
Comparable Forts of Rajput Origin at National Level	Bandhavgarh, Madhya Pradesh	Early medieval Hill Fort planning on plateau in dense forest - with large number of water tanks and sacred stream	Steep path cut into rock for access; 11th century Gate Karan Pol, small to restrict entry of elephants.	Oldest temple built in local Kalchuri style. Combination of rock cut and structural construction. Monolithic stone sculptures; richly carved pillared verandahs in Moti Mahal,
	Kalinjar, Uttar Pradesh	Early medieval Rajput Fort planning as Hill-Forest fort with sacred underground stream as focal point	Thick fort walls on scarps with single loopholes, steep slope and turns to approach with a series of 7 gates	Unique temple form with use of onion domes, pointed and cusped arches in Venkat Bihari Temple, Monolithic rock sculptures, Stone carving in Neelkanth Mahadev Temple
		Bandhavgarh and Kalinjar served as references for medieval defense fortifications of Central India.		
	Gwalior, Madhya Pradesh	Older fort is sprawled across the hill plateau reflecting remains of early medieval Rajput fort planning while the later Main Palace placed on edge of fort wall shows late medieval fort-palace planning	Fortifications on scarps with layers from 10 <sup>th</sup> -17 <sup>th</sup> centuries. Use of decorative carved bands on fort walls from later period and slim tapering bastions, with brightly coloured glazed tiles - visible influence from Sultanate architecture of Chanderi and Mandu in Malwa. Bastions topped with domed pavilions and use of delicate parapet.	8th century Teli ka Mandir shows integration of north and south India temple style. 9th century Chaturbhuj Temple and monolithic rockcut temple are Hindu in style. Monolithic rock sculptures of Jain Tirthankars, Integration of Islamic and Hindu architectural elements in the form of vaulted chambers stone screens, false arches, serpentine brackets and tile work in the Man Mandir Palace
		Established principles of fort planning for Central India, ruled by Rajputs, Mughals and Marathas for long periods and has well evolved architectural vocabulary integrating Hindu, Jain, Sultanate and Mughal styles that influenced monuments of Central India for centuries		
	Datia, Madhya Pradesh	Fortified palace complex on hill top showing 17 <sup>th</sup> century Medieval Rajput Planning with regional variations	Use of octagonal bastions on corners, decorative merlons and carved balconies topped with domes projecting from the external fortification wall (ill suited for defense).	Integration of Hindu and Islamic features in characteristic Bundela style. Completely symmetrical square plan with four square within - like the charbagh. Use of ribbed domes - round columns, lattice screens, pointed arch as well as flat lintels on brackets
Established regional Bundela architectural vocabulary that influenced architecture in the Bundelkhand region of Madhya Pradesh				

#### **Reflect Hindu fort planning principles and Rajput military architecture**

- Typology in continuity with ancient to medieval Hindu concepts:** The hill fort has been considered as a significant defended typology of fortifications as per ancient Indian treatises such as 'Arthashastra' by Kautilya and 'Manusmriti' by Manu from 350 BC onwards. Reinterpreting the ancient treatises, the 15<sup>th</sup> century text, 'Raj Vallabh' by the chief architect-artisan of Sisodia ruler Rana Kumbha of Mewar mentions 15 kinds of forts based on shapes, location of water bodies nearby and topography; it specifies four types, of which the hill fort is categorized as the best typology of forts and it is suggested that this should be made on the highest hill so that it remains completely inaccessible to the enemy. Another category of forts is the Vanadurg or forest fort. These 6 Hill Forts for nomination represent the development of the Giri-durg or hill fort typology, combined with other types of defense modes.

Table 3.3: Typology of the 6 forts as per Hindu texts such as 'Arthashastra' and 'Raj Vallabh'

S. No.	Name of Property	Giridurg (Hill fort)	Jaldurg (Water fort)	Vanadurg (Forest fort)	Marudurg (Desert fort)
1	Chittorgarh				
2	Kumbhalgarh				
3	Ranthambore				
4	Gagron				
5	Amber				
6	Jaisalmer				

- **Fort planning:** Rajput fort planning is essentially derived from Hindu guidelines and principles with significant characteristics being:
  - Location of the royal abode on the highest and safest point of the terrain with extra layer of fortifications around them. Within this palace complex, the religious area for personal use by the royal family would occupy the highest and focal point.
  - Location of temples and religious structures on other peaks of the terrain.
  - Placing a series of 5 or 7 gateways to enter into the fort with Suraj Pol (Sun Gate), as the eastern gateway into the fort.
  - Location of habitation at lower level near arable land with presence of water structures making water available for agriculture.

**Reflect synthesis of architectural styles and building crafts in Medieval Period in North-western India**

- **Development of Rajput secular architecture:** The Hill Forts of Rajasthan reflect the continuity of the Hindu architectural tradition in secular structures.<sup>1</sup> Despite the widespread Muslim authority in 15th century India, the architectural style from 12<sup>th</sup> -15<sup>th</sup> century in the Forts of Rajasthan is a reflection of the relative political independence maintained by the Rajput kingdoms (especially Mewar) in Rajasthan. The built form of the Hill Forts exhibits a vocabulary of secular forms of the Hindu tradition as seen in the 15<sup>th</sup> century AD palaces at Chittorgarh that are the earliest existing palace structures in the country. In the 15<sup>th</sup> and early 16<sup>th</sup> centuries the region occupied by the Rajput clans was bordered by independent Muslim sultanates, including Malwa and Delhi and an exchange of architectural vocabulary is observed in this period though set within the essential framework of Hindu planning principles for the forts.
- **Adaptations according to the political environment:** Of the Rajput clans, the Sisodias of Mewar are renowned for consistently resisting the tempting rewards of succumbing to Mughal suzerainty. Though Akbar sacked their fortress capital of Chittor in 1567 AD, they were undaunted and founded a new capital at Udaipur. They resisted Mughal dominance until the



### 3. Justification for Inscription

3.14

reign of his successor and even then they disdained active service for the Mughals, considering that it would involve an intolerable loss of Rajput dignity. This political stance of the Sisodia Rajputs is clearly reflected in the fort architecture of Chittorgarh and Kumbhalgarh where planning, architectural form and styles exhibit Hindu traditions. The Kachchwaha Rajputs of Amber in contrast, readily aligned themselves with the Imperial Mughal rule with an evident adaptation of Mughal spaces and architectural styles in Amber though yet again, these ideas were embedded on the hilly terrain of Amber within the context of prior Hindu Rajput fort planning.

**Influence on Mughal architecture:** Rajput secular architecture reflected in the Hill Forts had a direct influence on development of Mughal architecture, starting from the reign of the Mughal Emperor Akbar. During this period, the Islamic elements were combined with Rajput vocabulary to develop the Mughal style. At Fatehpur Sikri, the suburban fortified residence of the court (1571-1585 AD) built by Akbar, the asymmetric layout seems to reflect traditions of Rajput planning. This influence is further observed in the mature. Mughal architecture of Red Fort at Delhi, during the period of Mughal Emperor Shah Jahan.

- **Building crafts:** The buildings arts and crafts of the Rajasthan, patronised by the Rajputs in the medieval period were epitomised in the palaces within the Hill Forts serving as capitals of Rajput kingdoms. The Kirti Stambh and Vijay Stambh at Chittorgarh are monuments par excellence showing craftsmanship in Hindu architecture from the 12<sup>th</sup> and 15<sup>th</sup> century AD. Temples within the forts of Kumbhalgarh, Chittorgarh and Ranthambore reflect exquisite stone craftsmanship. Sheesh Mahal at Amber reflects a matured synthesis between Mughal and Rajput arts with embellishments such as murals and inlay work. At Amber, the *diwan-i-am* or hall of public audience (probably executed by masons trained in Akbari style by Mughal overseers) and *diwan-i khas* or hall of private audience, clearly depict the influence of Mughal courts in building crafts.

<sup>1</sup> Hindu Rajput architecture is an anomaly: it is the most highly developed late Hindu architecture – a Hindu art form dating from what is described as the Muslim period (Tillotson 1999, p. 11).

**Represent evolution of various Rajput architectural typologies**

**Palace form:** The Rajput palaces within the 6 Hill Forts were not the creation of an individual designer, but of a co-operative group of craftsmen and show regional differences reflecting individual interpretations of the style in each cultural zone. The Rajput palace style of the mid-fifteenth to the mid-seventeenth centuries reiterates earlier Indian palace forms as depicted in literary and pictorial sources.<sup>2</sup> Other records on secular Hindu buildings from the pre-medieval period, refer to an inner region of the palace with private council chamber or *sabha niwas* evolved from the *sabha mandapa* in the traditional temple form that is found as *sabha* in Kumbha's Palace, and later seen as *diwan-i-khas* in Mughal palaces) and the women's quarters; outer regions of the palace that contain a hall of public audience or *sarvato bhadra* (referred to as *diwan-i-am* later with Mughal influence) defined as a hypostyle hall in a courtyard, accessible to the public and a separate *kanwar pade ka mahal* (palace of the heir apparent). All these features are present in the earliest palaces at Chittorgarh and Kumbhalgarh. Other features described as part of the palace were a garden with trees, a water garden, a bathing pavilion, a private royal temple and a chitrashali or picture gallery that are found in later 17<sup>th</sup> century constructions of Rajput palaces within these Hill Forts. Padmini's island retreat at Chittorgarh, that is known to have existed in 1300 shows that there already existed at this early date the idea of siting a pleasure palace in the middle of a lake, an idea developed with such splendour in the 17<sup>th</sup> and 18<sup>th</sup> centuries in Udaipur, Jaipur, Deeg and other Rajput fiefdoms.

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<sup>2</sup> The Indian palace form from 6<sup>th</sup> century AD, is depicted in frescoes of Ajanta Caves (a World Heritage Site in Maharashtra).

- **Hindu and Jain temple architecture:** As seats of Rajput rulers who patronized Jainism and Hinduism, a number of Hindu and Jain temples were constructed within the 6 Hill Forts. Dating from the 8<sup>th</sup> century AD onwards, the typical Hindu architectural vocabulary of these comprises of temple columns, *jharokhas* (balconies), *jaalis* (screens) and flower bosses, richly carved brackets and corbels (supporting some of the balconies) and *chajjas* (sunshades). These features are intermixed with profuse decorative carving depicting religious subjects with a great concern for symmetry and a heavy massing of forms. From the 700 AD period onwards, the Jain usage of Hindu iconography and vice versa is also noticeable in these temples, with composite iconography becoming a part of the sculptural tradition in different parts of Rajasthan. The *vedi* complex and Neelkanth Mahadev temple at Kumbhalgarh reflects a modified architectural form and typology (with use of dome) of religious structures for performance of *yagnas* (Hindu fire ritual). A number of Hindu and Jain temples from the 13<sup>th</sup>-15<sup>th</sup> century period at Kumbhalgarh show varying plan forms, charting the development of the temple form through the period. Numerous 15th-century shrines at Chittorgarh and at Kumbhalgarh exemplify the Shekhari and Bhumija modes (Hardy 2007, pp. 117-119). The Hindu and Jain temples at the sites are beautifully illustrative of the evolution of north Indian Nagara temple architecture. Chittorgarh contains important remains from the 8th and 9th centuries, and the 11<sup>th</sup>/12th-century Samiddheshvara temple is a pristine example of the Shekhari mode of Nagara at the climax of its development.
- **Indigenous water systems:** The 6 Hill Forts show water systems developed indigenously respecting the natural drainage and catchment areas of the hilly terrain. These were a combination of man-made and natural systems, resulting in facilitating access to water for use by the habitants of the Hill Forts and for irrigation of crops and gardens. The system of ten dams and more than twenty step wells at Kumbhalgarh (with a number of water tanks and *kunds* located in the lower reaches where agricultural activities could be carried out), 84 water structures at Chittorgarh (dated from 5<sup>th</sup>/7<sup>th</sup> century AD onwards), 22 of which are still effective and in use<sup>3</sup> and the step wells, *kunds* and ponds at Ranthambore depict well planned and elaborate mechanisms put in place for rain water harvesting as there was no other source of water available at these locations. Amber Fort exhibits mature water supply systems with Mughal influence where water from the Maota Lake at the foothill was drawn up by a series of pulley lifts and used for various purposes in the palace like *hammams* (Mughal pattern baths) and fountains. Channels and clay pipes were utilized to move the water throughout the palace. Jaisalmer has series of wells located in different parts of the fort. It is said, that few of these well never dries.

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<sup>3</sup> The water harvested within the fort is surplus during periods of good rainfall and is diverted to the Public Health and Engineering Department.



- **Garden typology:** The clusters of custard apple trees, orchards and existing water bodies in Kumbhalgarh and few patches at Chittorgarh give an idea of informal Hindu period gardens and forest areas of medieval times. The Hindu garden form prior to Mughal influence retained the informality of the hilly terrain while later 17<sup>th</sup> century formal gardens at Amber Fort reflect the synthesis of garden form with evident Mughal influence in the use of the char-bagh concept, symmetry and geometric forms.
- **Cultural Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared**

The Hill Forts of Rajasthan are an exceptional testimony to the Rajput cultural tradition and the socio-economic strata of Rajasthan. These forts are architectural manifestations of Rajput valour, bravery, feudalism and cultural traditions documented in several historic texts and paintings of the medieval and late medieval period in India. The Six components bear an exceptional testimony to the cultural traditions of the ruling Rajput clans and patronage provided by them towards development of religion, arts and literature in the region of Rajasthan over centuries.
- a) Rajput clans as symbols of valour: The new clan of Rajputs emerged during the 7<sup>th</sup> century onwards as a warrior class in the region of Rajasthan and Central India, with huge armies and bodyguards forming a barrier to foreign invasions in western India. There are a number of legends related with the various personalities of Rajput clans associated with the six Hill Forts that record this spirit of warriorship. The forts are witness to traditions of warfare of Rajputs from early to late medieval period for example, the history of Ranthambore records forces letting loose an unceasing shower of arrows and defensive projectiles from the fort at the forces of Alauddin Khilji during the siege in 1300. Similar records are available for Chittorgarh and Gagron. The Rajputs continued to favour the older style of war that used war elephants in open engagements and the perpetuation of the psychology that death in battle was a glorious and desirable end for the life of any Rajput warrior. Rajput valour during wars is also recorded in comparable state level forts of Jaisalmer, Jalore and Mehrangarh and, the Central India forts of Kalinjar in Uttar Pradesh and Bandhavgarh, Gwalior in Madhya Pradesh.
- b) Rajput rituals of warfare - Jauhar and Shaka: The Hill Forts of Ranthambore, Chittorgarh and Gagron are sites where 'Jauhar' (self immolation of womenfolk rather than subjugating to the enemy) and 'Shaka' (warriors charging out of the fort to fight till death, following Jauhar) were performed a number of times, recording a cultural tradition of the Rajputs for whom pride and valour was more important than life. This is corroborated by excavations undertaken at Chittorgarh in 1958-59. Comparable forts contributing to this value are Jaisalmer and Jalore in Rajasthan and Gwalior in Madhya Pradesh.

### 3. Justification for Inscription

3.18

**Table 3.4: Chronology of Jauhar and Shaka committed at 4 of the 6 Hill Forts**

Name of Property	Rajput clan that committed jauhar and shaka	Fort invaded by	Year
Chittorgarh	Guhilas of Mewar	Sultan Alauddin Khilji of Delhi	1303 AD
	Sisodias of Mewar	Sultan Bahadur Shah of Gujarat	1535 AD
		Mughal Emperor Akbar	1567 AD
Ranthambore	Chauhans of Shakambhari	Sultan Alauddin Khilji of Delhi	1301 AD
Gagron	Khinchi Chauhans	Sultan Hoshang Shah of Malwa	1423 AD
		Sultan Mahmud Khilji of Malwa	1444 AD
Jaisalmer	Bhati	Sultan Alauddin Khilji of Delhi	1315 AD

c) Represent development of religion, art, music and literature under Rajput patronage: The Hill Forts of Chittorgarh, Kumbhalgarh, Ranthambore and Amber were focal points of growth of Jainism and Hinduism from 8<sup>th</sup> to 15<sup>th</sup> centuries and also stand as testimony to the growth of several regional art forms such as frescoes, stone carving, miniature paintings, inlay work, treatise on architecture, sculpture and music etc.

***Cultural Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.***

The Hill Forts of Rajasthan are not just monumental structures which explain the architecture and developments of a culture but also are the living testimony of the associational values attached of the people with them. The complete planning of the fort is an outcome of the belief systems which guided rulers from selection of the site for the fort to planning of different components within it including its defence mechanism which represents the rajputana culture.

Rajputs followed their religion with faith and preferred death over compromising their faith or beliefs. It is documented that in many wars fought at these forts, enemy used this tactic to weaken the rajputs during attacks, like contaminating water with cow flesh, which make the water reservoir unfit for drinking. There are several temples and religious structures constructed inside the fort, some of these temple were devoted to “kul Devi” (incarnation of Shakti), which is considered a protective diety for the fort/royal clan. Most of these temples are still living and worshiped even after the forts are abandoned or not in use by the royal families. Festivals and rituals are still been celebrated at these temples, which bring life back to the deserted forts.

Most of these believes were integral and bound with the religion and some were inherited by the community over centuries.

Each fort has Series of gates, which were named based on their purpose and believes associated with them. Like Suraj (Sun) pol (gate) is the main entrance gate to the fort, which faces east.

The event of "*Jauhar*" dring the wars is a resultant of the strong believes of women preferring death instead of getting disgraced by the enemy. Following Jauhar, the men of the fort courageously open the gates of the fort and attack the enemy and fight until death. The spots where Jauhar took place within the fort are still revered by the people.



### 3.1.c Statement of Integrity

The six hill forts as components of the serial nomination individually contribute to the Outstanding Universal Value and, collectively present a representative range that covers the span of geographical, historical, social and architectural significance that contribute to the Outstanding Universal Value of this serial nomination.

Collectively, the Six components of the Hill Forts of Rajasthan demonstrate a relationship that enables a full understanding of the formation of princely states, development of Rajput ideologies and Rajput architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the foreign invaders, Sultanate period rulers and Mughal Emperors of Central India. The six components of the Hill Forts along with their buffer zones constitute the most authentic, best conserved and most representative sites of Rajput military architecture of medieval India.

Each component contributes to the Outstanding Universal Value with advanced construction techniques exploiting natural contours for defense, unique social associations with Rajput courtly life, and most sophisticated and evolved examples of secular Hindu Rajput architecture and technological adaptations utilizing the wealth of natural resources in an extraordinary geographical setting. Historically, the six components epitomise the resistance of Rajputs to the Islamic incursions and are important records of the political situation of the period, marked by the alternate strife and subjugation from the Sultanate and the Mughal Empire and friction amongst the Rajput Kingdoms ruled by various clans. Architecturally, the six components trace the development of the hill fort typology and the evolution of the Rajput Architectural Style from the 13<sup>th</sup> to the 19<sup>th</sup> centuries exhibiting indigenous Hindu principles of fort planning and palace architecture with subsequent exchange with the Sultanate, Mughal and British styles to establish a regional vocabulary that subsequently impacted development in Rajasthan and Central India.

**The links between the six components** of the property are briefly summarized as:

- a. **Physiographical & Cultural link:** All the six components are adapted to and optimise various kinds of hill terrain, including the summit and the slope & valley of semi-arid hills, forested hills, desert hills and hills protected by water. Based of site specificity these fort had adaptated and optimized to include defence matters, strategic planning and the collection, storage and distribution of precious water. The six component represented belongs to five cultural subzones within the overall cultural context of Rajasthan as a region. These cultural links are established since centuries and are strongly recognized by the locals and visitors till date.

Routes covering the six components are currently part of important tourist circuits through each cultural subzone as promoted by the Government of Rajasthan.

- b. **Centre of Power:** All The six forts have strong associational values as centres of Rajput power and control in their specifi region, but with the independence of India and adoption of democracy fort lost their importance.
- c. **Urban Settlements:** The selected six forts were designed to protect the populace. These forts had extensive settlements within the fort walls and city wall, some of which have persisted to the present day. These residential and sacred elements went beyond the expected military functions of forts. In some cases there was also a mercantile element, as the forts were centres of production and of distribution and trade that formed the basis of their wealth.
- d. **Sacred:** All six components include temples and other sacred sites / buildings. The inception of these fort on specific hills itself is based on the strong beliefs and the hills themselves are considered scred. The beliefs are still integral to the culture of the region and most of the temples are still visited and worshiped by locals.

Each of the six components of the Hill Forts Rajasthan are representative and integral of the evolution of Rajput architectural typologies.

- a) **Defence architecture:** The six components of Hill Forts of Rajasthan collectively present a wide range of Rajput defense typology ranging from the early medieval to the late medieval times including a variation in the thick fort walls capped by a stylistic range of merlons and loopholes (variations in loopholes are exemplary in Chittorgarh, Kumbhalgarh where they strategically change shapes as per location, Ranthambore where later square loopholes are designed firearms and Gagron which presents unique crosslet split loopholes at intervals) , series of gates in Hindu and Islamic style (recording siege and Islamic interventions as observed in Ranthambore, Chittorgarh and Gagron), use of moats in Ranthambore and Gagron, semicircular or D shaped bastions in Chittorgarh, Ranthambore and Gagron, octagonal in Amber and a unique variation with talus slope to prevent escalade in Kumbhalgarh. Besides, the location of gates at turns so that enemy on elephant/horseback cannot hit the gates with great force and barbican/anti elephant spikes on the massive gates are other defense strategies incorporated in these forts. Watch towers such as Tara Burj were specially introduced inside the fort in case of Kumbhalgarh. While the earlier forts have artillery storage areas near the bastions at times (Chittorgarh, Ranthambore) later developments in these forts show storage areas like Topkhana (cannon storage),

### 3. Justification for Inscription

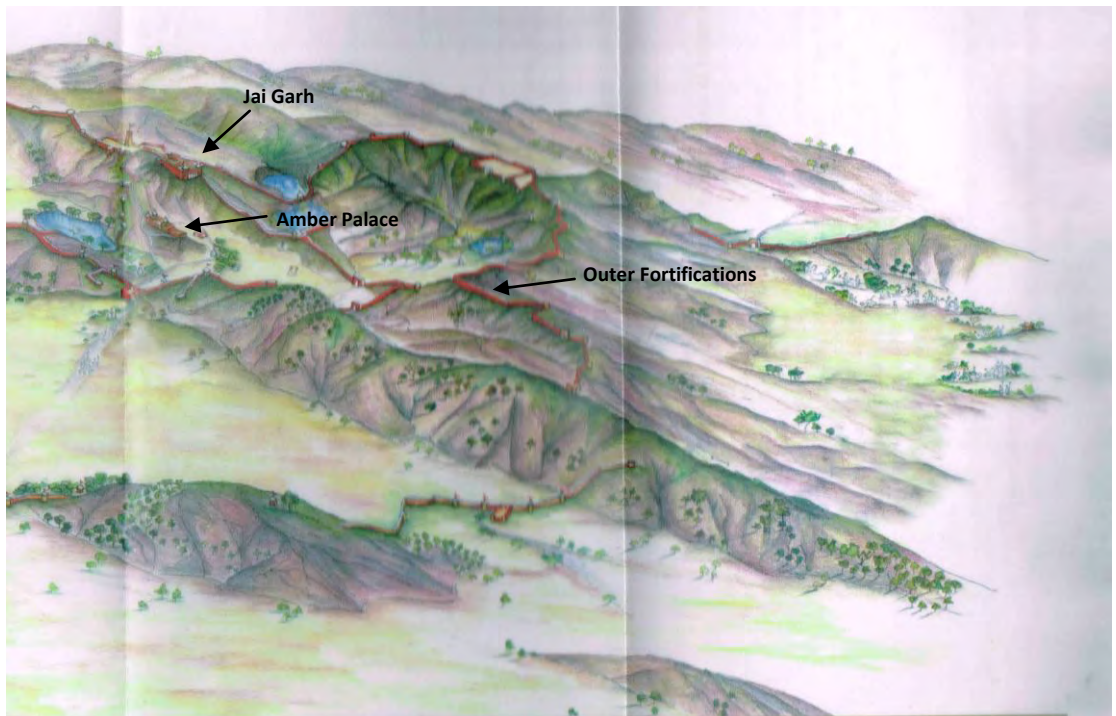
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Silekhkhana (artillery storage) and Barudkhana (gunpowder storage). These structures are present as later period constructions in Chittorgarh, Kumbhalgarh and Gagron. Jaisalmer also had series of gates on the approach and 99 bastions along its fortification, which made it unpenetrable.



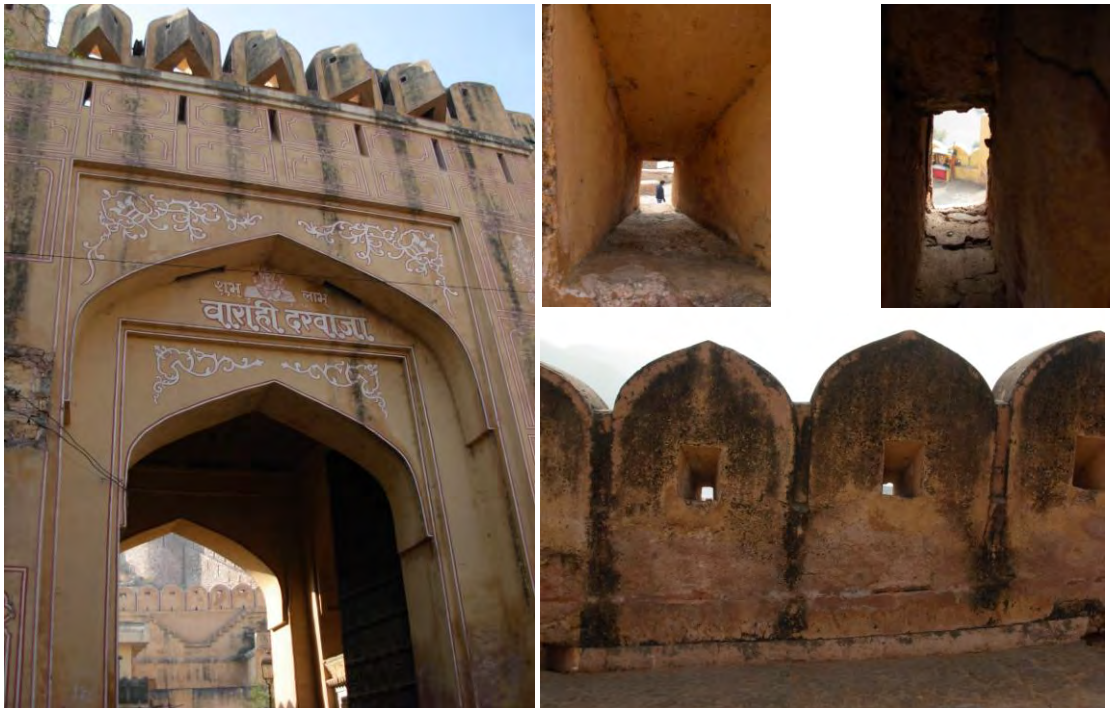
View of hill Gagron fort, it was built at a strategic & sacred location. The fort design planning exploited the natural terrain to best of its defence.

Source: Dilmeet Garewal



Source: Dilmeet Garewal





Amber palace is well fortified with series of fortification walls and defence structures, including observation & signal posts. The innermost defence for the fort comprises of series of gates and ramparts with loopholes which strategically point on the approach to the palace.

Source: Munish Pandit

**Palace form:** Collectively, the six components present a range of Rajput palace typology across centuries transforming from the medieval period cocooned palace spaces with an inside fortification to the late medieval palaces located alongside the fortifications at the highest points with frontal picturesque view . Spatial variations are observed from Hindu trabeate style (column and beam) colonnaded halls of early medieval period (Hammir palace at Ranthambore) to adaptation of arcuate structural systems in medieval period ( Kumbha palace at Chittorgarh and Kumbhalgarh) which further develop into cusped arched spaces with elaborate decorative artworks during the late medieval times (Amber Palace spaces).

The Rajput palace style of the mid fifteenth to the mid-seventeenth centuries reiterates earlier Indian palace forms as depicted in literary and pictorial sources. Records on secular Hindu buildings from the pre-medieval period, refer to an inner region of the palace with private council chamber or sabha niwas evolved from the sabha mandapa in the traditional temple form that is found as sabha in Kumbha's Palace in Chittorgarh and the women's quarters; outer regions of the palace that contain a hall of public audience or sarvato bhadra in Chittorgarh(defined as a hypostyle hall in a courtyard, accessible to the public and a separate kanwar pade ka mahal (palace of the heir apparent). All these features are present in the earliest palaces at Chittorgarh and Kumbhalgarh while Ranthambore ruins record the Hammir

Palace and Rani ka Mahal in a similar Hindu tradition of construction. Padmini's island retreat at Chittorgarh, that is known to have existed in 14<sup>th</sup> century though current structure dates from a later period but it shows that there already existed at this early date the idea of siting a pleasure palace in the middle of a lake, an idea developed with such splendour in the 17<sup>th</sup> and 18<sup>th</sup> centuries in Udaipur, Jaipur, Deeg and other Rajput fiefdoms (Tillotson, 1985). Palace structures at Amber reflect the later Palace typology with Mughal ideas of Diwan-i-Aam (Hall of public audience) and Diwan-i-Khas (Hall of private audience) and special pleasure spaces such as Sheesh Mahal, Sukh Mahal with glass inlay, water channels. Later structures such as Badal Mahal at Kumbhalgarh and Ranthambore, Fateh Prakash at Chittorgarh and Mardana- Zenana (Men-Women) palace spaces at Gagron exhibit the late medieval Rajput ideas of palaces as regional adaptations incorporating Mughal influences of symmetrical spaces at picturesque locations.

c) **Religious Structures:** As seats of Rajput rulers who patronized Jainism and Hinduism, a number of Hindu and Jain temples were constructed within the six components. Dating from the 8<sup>th</sup> century onwards, the typical Hindu architectural vocabulary of these comprises of temple columns, jharokhas (balconies), jaalis (screens) and flower bosses, richly carved brackets and corbels (supporting some of the balconies) and chajjas (sunshades). From the 700 AD period onwards, the Jain usage of Hindu iconography and vice versa is also noticeable in these temples, with composite iconography becoming a part of the sculptural tradition in Rajput architecture. The vedi complex and Neelkanth Mahadev temple at Kumbhalgarh reflects a modified architectural form and typology (with use of dome) of religious structures for performance of yagnas (Hindu fire ritual). A number of Hindu and Jain temples from the 13<sup>th</sup> -15<sup>th</sup> century period at Kumbhalgarh show varying plan forms, charting the development of the temple form through the period. Numerous 15th-century shrines at Chittorgarh and at Kumbhalgarh exemplify the Shekhari and Bhumija modes (Hardy 2007, pp. 117- 119). The Hindu and Jain temples at the sites are beautifully illustrative of the evolution of north Indian Nagara temple architecture. Chittorgarh contains important remains from the 8th and 9<sup>th</sup> centuries, and the 11th/12th-century Samiddheshvara temple is a pristine example of the Shekhari mode of Nagara type. While Chittorgarh and Kumbhalgarh are the major repositories of Rajput temple architecture amongst the five components, Ranthambore also has few Jain temples and the Amber town in buffer zone of Amber Fort presents a similar repository of temples dating from 10<sup>th</sup> century onwards. Ranthambore and Gagron also include the later Haveli type temples with courtyards, a late

medieval typology introduced by the Vaishnava sect. Most of the temples in all five components are functional till date and represent the living heritage of Rajasthan.

Ranthambore and Gagron also incorporate few Islamic monuments such as the early 14<sup>th</sup> century Sadruddin ki Dargah and mosque at Ranthambore and the 16<sup>th</sup> century Mitthi Saheb Dargah at Gagron which are also living monuments within the components.

d) **Havelis and houses:** Two of the forts i.e. Chittorgarh and Amber have significant examples of the houses of chiefs and nobles who served the rulers. The 15<sup>th</sup> century residences of Bhama Shah and Chonda, 16<sup>th</sup> century Havelis of Patta and Jaimal in Chittorgarh , 13<sup>th</sup> century remains of Sanghi ki Haveli and Pandit ki Haveli in Ranthambore and the 18<sup>th</sup> century Panna Miyan ki Haveli in Amber give a fair idea of the changing architectural form of a nobles' residence within the medieval forts and late medieval fort-palaces. Residential quarters for the subordinate were often incorporated at the end of palace structures as observed in the rooms around Jaleb Chowk in Amber.

e) **Settlements:** While the historic forts of Chittorgarh, Kumbhalgarh, Ranthambore and Gagron primarily served as a place of refuge for the agrarian population in the nearby areas during wars, each fort also had a settlement within its fortification. Some tangible records of the earliest settlements exist though most of these would have been temporary structures. The Bhil settlement in Kumbhalgarh, Gagron village within the Gagron fort and Changeri village nearby, settlements within and adjunct to Suraj Pol in Chittorgarh, habitation near Ganesh village in Ranthambore and Amber town in the valley below Amber Fort give some idea of the historic settlements within and adjunct to the forts. At Jaisalmer, the settlement still exists and is living.

f) **Memorials and chatris:** The victory memorials of a war such as the Vijay Stambh at Chittorgarh and the Cenotaphs (Chatris) which is an important Rajput typology commemorating the Rajput rulers are observed in Ranthambore (Battis Khamba Chatri, Hada Rani Chatri, Vithal Das Chatri), at Kumbhalgarh (Prithviraj ki Chatri) are significant examples of architectural expressions and typologies emerging out of the Rajput military culture. The cenotaphs of Kachchwaha royals were located in a separate complex at a distance from the main fort-palace of Amber though a single chatri of one ruler exists at the bottom of the fort-palace near Maota lake.

e) **Indigenous water systems:** The defense strategy of hill forts was essentially dependent on a network of water systems within the fort for long time sustenance during wartime. Kumbhalgarh is recorded to have been conquered once because the enemy was successful in



### 3. Justification for Inscription

3.26

poisoning the water bodies inside the fort with help of an insider. The five components incorporate indigenously evolved water systems that respect the natural drainage and catchment areas of the hilly terrain. These were a combination of man-made and natural systems, resulting in facilitating access to water for use by the habitants of the Hill Forts and for irrigation of crops and gardens. The system of ten dams and more than twenty step wells at Kumbhalgarh (with a number of water tanks located in the lower reaches where agricultural activities could be carried out), 84 water structures at Chittorgarh (dated from 5<sup>th</sup> /7<sup>th</sup> century AD onwards), 22 of which are still effective and in use<sup>3</sup> and the step wells, tanks and ponds at Ranthambore depict well planned and elaborate mechanisms put in place for rain water harvesting as there was no other source of water available at these locations. Amber Fort exhibits mature water supply systems where water from the Maota Lake at the foothill was drawn up by a series of pulley lifts and used for various purposes in the palace for hammams (Mughal pattern baths) and garden fountains. Channels and clay pipes were utilized to move the water throughout the palace. Gagron itself is a water fort at the confluence of two rivers with an interesting use of water moat to defend the main approach to the fort.

Ranthambore too has an interesting network of large water bodies, stepwells and tanks besides the presence of a sacred underground stream (Gupt Ganga) associated with ancient fort planning in the region. Additionally, the fort displays interesting 13<sup>th</sup> century storage structures for granaries that served as a source of food supplies for people within the fort during wars that lasted for months.

The above range of typological elements developed within the six components of the Hill Forts of Rajasthan over centuries illustrate the ingenuity of medieval defense architecture mechanisms, protection of royal abodes, development of living spaces, evolution of religious structures, memorials, service spaces and infrastructure for wars that collectively contribute to the Outstanding Universal Value of the Hill Forts of Rajasthan.

Table showing contribution to the Integrity of the serial property

S. No.	Component of the Serial Property	Significant contribution to OUV	Enhancing Integrity or completeness to the series
1	Chittorgarh	The largest and grandest fort in Rajasthan and India, nationally recognized as an icon of Rajput bravery in India recording centuries of resistance to foreign invasions along with being a repository of architectural exemplars of Medieval Rajput period	Important to include as the most impressive Rajput fort planning of the prime Medieval phase and as a hill fort iconic of Rajput valour and traditions of Mewar cultural zone.
2	Kumbhalgarh	Contributes to unique Rajput fort planning and defense architectural innovations of the 15 <sup>th</sup> century	Important to include as an exemplary Rajput fort planned in a single phase of history with prescribed fort planning principles and architectural guidelines written by the 15 <sup>th</sup> century architect Mandan that are referred to till date by traditional crafts persons in the region.
3	Ranthambore	First indomitable Rajput Hill fort recorded in History of India and testimony to the early medieval Rajput Fort Planning	Important to include as a representative of ancient/early medieval phase of Rajput Forts with oldest Hindu Palace structure in a dense forest setting
4	Gagron	Water as defense strategy with medieval hill fort typology and an important record of Rajput valour during wars	Important to include as a unique variation in the defense strategy of Rajput Hill Forts typology as a water fort controlling water and land trade route
5	Amber	Adaptation of later Mughal palace planning on a Hill as an excellent example of Rajput Fort –Palace planning principles of 17 <sup>th</sup> century. Contributes to the establishment of late Rajput architectural forms and styles.	Important to include as a Hill Valley fort representative of extraordinary craftsmanship of late medieval Rajput Palace structures and gardens
6	Jaisalmer	Desert fort with strong defence, has 99 bastions, constructed in dry masonry. It's a living fort and still people live it.	Important to include as a unique fort representing desert hill fort typology and performed as a fort protecting the important trade route from west for centuries.

The Outstanding Universal Value of the Hill Forts of Rajasthan lies firmly in the six components and the continuing relationship with their settings. The buffer zone of each of the components encloses landscapes that have a high degree of integrity and protect the relationship between the sites and their settings that contribute to their Outstanding Universal Value.

### 3. Justification for Inscription

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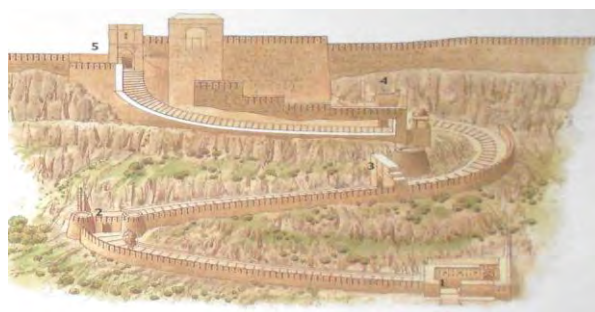
Integrity of each component is elaborated below:

#### Chittorgarh

**Planning and Landscape:** Introduction of new species of plants in the gardens and laying out of parking area, approach roads and pathways have altered the landscape within the complex. Starting in 1955-56 small gardens were laid within the site in areas where water was available. In 1982-85, after completion of water scheme within the complex, gardens were developed in 4 acres of land while in 1990-91, more plants like dahlia, tuberose, gladiolus, foot ball lily, were introduced in the gardens. Recent landscape issues are noted in the Management Plan (Refer Annexure I).

**Built fabric:** Due to the forced abandonment of the Fort of Chittorgarh (and shifting of capital of Mewar to Udaipur) in the 16<sup>th</sup> century, after which the Imperial Mughal rulers did not allow the Sisodia rulers of Mewar to undertake any kind of repair or construction activity<sup>4</sup> very few additions were made to the original structure except for palace structures added in the 19<sup>th</sup> - 20<sup>th</sup> century during the reign of Maharana Fateh Singh of Mewar. Hence, the Fort primarily has structures dating prior to 1567 AD with few structures rebuilt in the 19<sup>th</sup>- 20<sup>th</sup> century that can be easily distinguished due to the marked difference in the architectural style. A few 20<sup>th</sup> century structures added include a toilet complex, a radio relay station and a traditional guesthouse (*dharamshala*).

The original construction material and substance in historic structures is retained, though at some places the repairs were carried out with cement and reinforced cement concrete. This alters the authenticity in terms of material and substance, though such interventions were accepted conservation norms and have been recorded by the Archaeological Survey of India. Visitor facilities like signage, benches, railings etc. have been added in 2009-2010.



Design and planning of the access ramp to the fort makes it impossible for elephants to scale and attack the gates.

**Source:** Nossov, Konstantin & Delf, Brian 2006, Indian Castles 1206-1526: The Rise and Fall of the Delhi Sultanate (Illustrated ed.), Osprey Publishing.



Aerial View of Chittorgarh fort, over the top of the hill.

**Source:** Kapoor, P. and Singh, K., Royal Rajasthan, London, New Holland, 2007

<sup>4</sup> The two occasions when the Sisodia rulers attempted to undertake strengthening of fortifications, in 1643 and 1654 respectively, the additions were demolished by the Mughal forces.



### Kumbhalgarh

**Planning and Landscape:** A number of approach roads have been added since 1989 from Vedi Mandir to Siva Temple, Jain Temple and towards Golera temples, from Ram Pol to Bhairon Pol, Bhairon Pol to Nimbhu Pol, Nimbhu Pol to Tara Burj and Badal Mahal, These have been laid in random rubble stone masonry in lime cement mortar with brick zeera to match with old structures after digging, cutting the hard rocks and removing hard soil mixed with stone boulders were carried out. From 1996 to 1998, a parking area was added near the Vedi temple complex, by proving random rubble stone flooring. The original water systems and orchards are still in place.

**Built Fabric:** Due to distraction from building activity at Kumbhalgarh Fort since the 16<sup>th</sup> century, very few additions were made to the original structure except for palace structures added in the 19<sup>th</sup> - 20<sup>th</sup> century during the Maharana Fateh Singh of Mewar. Hence, the Fort primarily has structures from the 16<sup>th</sup> century with no intervention and a palace structures rebuilt in the 19<sup>th</sup> - 20<sup>th</sup> century that can be easily distinguished due to the marked difference in the architectural style. Conservation works by the Archaeological Survey of India started at the site in 1957 and are recorded well. Visitor facilities like signage, benches, railings etc. have been added in 2009-2010.



Design and planning of the bastions and ramparts was key feature to its defence.

Source: DRONAH



Profile of fort wall indicates the very nature of this hill-valley fort.

Source: DRONAH

### 3. Justification for Inscription

3.30

#### Ranthambore

**Planning and landscape:** A number of approach roads connecting various structures were repaired and added to the site, such as entrance gate to Ganesh Pol, to Andheri Pol, to Siva Mastaka, Andheri Gate to Hammir Palace and Battis Khamba Chhatri, continuing to Padam Talav and further to Ganesh Temple, Naulakha lake to Supari Mahal and Badal Mahal to Dargah. The approach pathway between Hathi Pol and Ganesh pol was widened while two resting places were developed on either side of the pathway. Scientific clearances of buried structures were also undertaken.

**Collections:** From 1991 to 1994, chemical treatment and preservation of the collection of about 80 arms and weapons, torn royal dresses, etc was undertaken by removing dust, harmful patinated accretions and dirt.

**Built Fabric:** Conservation works have been undertaken by the Archaeological Survey of India since 1956 and are recorded well in the annual reports. The use of steel girders was required for structural consolidation of Hammir Mahal and iron dowels and frames were provided at other locations, while epoxy resin was used to set key stones. Besides, all works were carried out in matching materials and techniques. In 1993-94, an existing structure was repaired and developed as a site museum for display of the collections. Visitor facilities like signage, benches and railings were added in 2009-2010.



Construction of high step walls emerging in the dense forest was a surprise element to the enemy which made it impregnable.

**Source:** DRONAH



Aerial view of Ranthambore Fort is self explanatory as a hill-forest fort.

**Source:** Singh, Ranbir, 2010, Ranthambore –The impregnable Fort, Jaipur Publication Scheme, Jaipur

**Gagron**

**Planning and landscape:** There has been no intervention in planning and landscape since 1968 within the property.

**Built form:** No new structures have been added within the property since its coming under state protection. The conservation works from 2008-10 were carried out by using traditional material and techniques as per the original fabric. An issue affecting the authenticity is the replacement of exterior plaster of parts of Gagron Fort by new lime plaster and new lime wash, as the principle of minimal intervention was not followed and has caused loss of patina. A photographic documentation of the structures before and after the conservation work was carried out by the Department of Museums and Archaeology.



High walls rising from the hill rock close to the river, provide practically no ground to enemy, a was its distinctive feature of defence.

**Source:** Dilmeet Garewal

View Gagron Fort, an exemplary of water fort.

**Source:** DRONAH



Map Showing trade routes passing through Rajasthan and location of Gagron Fort, on one of important trade route leading to central and southern India.

**Source:** DRONAH



### 3. Justification for Inscription

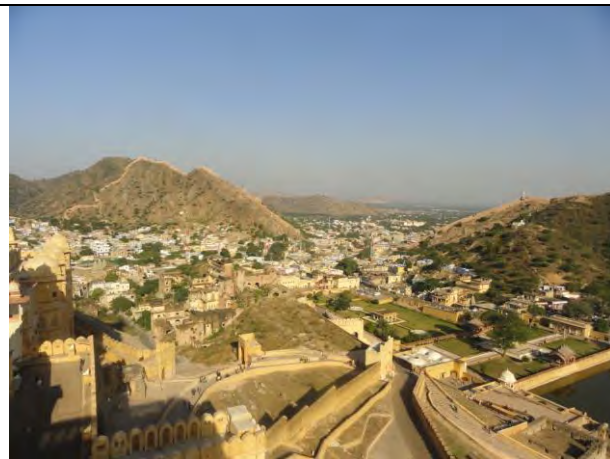
3.32

#### Amber

**Planning and landscape:** The gardens within the site have been maintained by the state of Rajasthan since 1955 AD. In 1971-72 AD, a garden on the planning pattern of the Dalaram Bagh on the Maota Lake was added in the Jaleb Chowk that was originally a parade ground. During the 2006-10 conservation works, the garden was removed and flooring relaid for it to resume its original form.

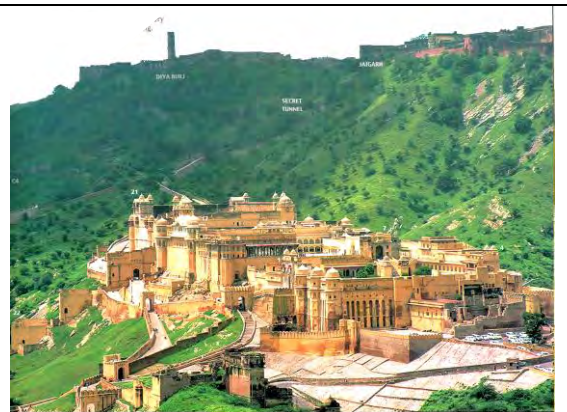
#### **Built Fabric:**

The earliest dateable structures are from the 16<sup>th</sup> century while few of the structures have a much later vocabulary (18<sup>th</sup> -19<sup>th</sup> century) due to transformations and rebuilding. Conservation works undertaken 1967 onwards included cleaning and preservation of art works (frescoes) in Bhojan Shala and Ganesh Pol. The building conservation works were carried primarily in 2006-10, with the use of traditional materials and techniques. An issue affecting the authenticity is the replacement of exterior plaster of the entire Amber Fort by new lime plaster and new lime wash, as the principle of minimal intervention was not followed and has caused loss of patina. Visitor facilities were added or improved in the form of cast-iron benches, drinking water facilities and toilets and signage added in white Dholpur stone for significant structures within the site, from 2006-10.



Inclusion of extended gardens from the palace was a distinctive feature of Amber.

**Source:** DRONAH



View of Amber, situated in the valley.

**Source:** Dilmeet Garewal

**Jaisalmer**

**Planning and Landscape:** the basic layout of the fort as it was designed in the medieval period is still intact, including the street layouts, public squares, fortification etc. there are no major landscape interventions undertaken at the site as there were no green areas designed / planned inside the fort.

**Built fabric:** In past century there were no major changes in the built fabric of the fort. All major buildings/palaces are intact and no substantial addition / alterations were done. Many houses have undergone additions / alterations as some of them are converted into guest houses, but these changes are not substantial to alter the basic built fabric of the fort, moreover in most of the cases, local stone has been used, which is the traditional material for construction and is compatible with the built environs.

The original construction material and substance in historic structures is retained, though at some places the repairs were carried out with cement and reinforced cement concrete.

The visual integrity of all 6 forts remains intact and their settings retain the original landscape with no disturbing development in the immediate surroundings.



Living Settlement within the fortification of the fort, Closely spaced bastions (99 in all) was its distinctive feature of defence.  
**Source:** Kapoor, P. and Singh, K., Royal Rajasthan, London, New Holland, 2007



Aerial view of Jaisalmer Fort, which dominates the large flat desert around it.  
**Source:** Kapoor, P. and Singh, K., Royal Rajasthan, London, New Holland, 2007

#### **Summary of integrity**

##### **Planning and landscape:**

Prior to coming under national or state protection, the 6 forts maintained planning principles and landscape ranging from 13<sup>th</sup> to 19<sup>th</sup> century AD, under the Rajput rulers. While Chittorgarh and Kumbhalgarh saw no change since 16<sup>th</sup> century, the original planning and landscape were maintained at Ranthambore, Gagron and in later additions. At Jaisalmer since it's a living fort, changes in the residential buildings were noticed but majorly ramparts and main buildings of the fort remained unchanged. During the 20<sup>th</sup> - 21<sup>st</sup> century works at Chittorgarh new gardens were added and a garden introduced in Jaleb Chowk at Amber. Another essential intervention has been addition of approach roads at Chittorgarh, Kumbhalgarh, Ranthambore for easy access.

##### **Built Fabric:**

- **Form and Design:** The form and design of structure has remained the same after 19<sup>th</sup> century, till the time additions were made by the Rajput rulers.
- **Material and substance:** All the 6 forts retain their original construction material and substance. A few structures within Chittorgarh, Kumbhalgarh and Ranthambore Forts have seen alteration in the 20<sup>th</sup> century, in terms of use of non traditional materials such as cement and steel, while in Gagron and Amber completely traditional materials have been used in all conservation works, though replacement of original plaster is debatable in some areas.

##### **Function:**

The Forts were originally defense structures that also housed the royal family. However, housing the administrative set up of the chiefdom/ kingdom partly lost its significance in the 19<sup>th</sup> century, with the British controlling most of India and further in the 20<sup>th</sup> century as India gained its Independence from the British and became a republic with the Rajput kingdoms dissolved in to the modern state of Rajasthan. Today, these forts are protected monuments under the government and are open to tourists as icons of history.

##### **Location:**

All the Hill Forts are located in their original positions within the geographical context of Aravalli range of mountains.



### 3.1.d Statement of Authenticity

The six hill forts as components of the serial nomination represent significant level of authenticity which is expressed in OUV of the Serial nomination collectively as well as for each individual component in terms of their physiography, centre of power, sacredness and urban settlements. Also these components have also retained significant level of authenticity in terms of form & Design, Materials and Substance, Use and Function, Location etc.

Architecturally, the six components trace the development of the hill fort typology and the evolution of the Rajput Architectural Style exhibiting indigenous Hindu principles of fort planning and palace architecture with subsequent exchange with the Sultanate, Mughal and British styles to establish a regional vocabulary that subsequently impacted development in Rajasthan and Central India.

The Outstanding Universal Value of the Hill Forts of Rajasthan lies firmly in the six components and the continuing relationship with their settings. The buffer zone of each of the components encloses landscapes that have a high degree of integrity and protect the relationship between the sites and their settings that contribute to their Outstanding Universal Value.

Statement of Authenticity of each component is elaborated below:

#### **Chittorgarh**

**Planning and Landscape:** Introduction of new species of plants in the gardens and laying out of parking area, approach roads and pathways have altered the landscape within the complex. Starting in 1955-56 small gardens were laid within the site in areas where water was available. In 1982-85, after completion of water scheme within the complex, gardens were developed in 4 acres of land while in 1990-91, more plants like dahlia, tuberose, gladiolus, foot ball lily, were introduced in the gardens. Recent landscape issues are noted in the Management Plan (Refer Annexure I).

**Built fabric:** Due to the forced abandonment of the Fort of Chittorgarh (and shifting of capital of Mewar to Udaipur) in the 16<sup>th</sup> century, after which the Imperior Mughal rulers did not allow the Sisodia rulers of Mewar to undertake any kind of repair or construction activity<sup>5</sup> very few additions were made to the original structure except for palace structures added in the 19<sup>th</sup> - 20<sup>th</sup> century during the reign of Maharana Fateh Singh of Mewar. Hence, the Fort primarily has structures dating prior to 1567 AD with few structures rebuilt in the 19<sup>th</sup>- 20<sup>th</sup> century that can be easily distinguished due to the marked

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<sup>5</sup> The two occasions when the Sisodia rulers attempted to undertake strengthening of fortifications, in 1643 and 1654 respectively, the additions were demolished by the Mughal forces.

### 3. Justification for Inscription

3.36

difference in the architectural style. A few 20<sup>th</sup> century structures added include a toilet complex, a radio relay station and a traditional guesthouse (*dharamshala*).

The original construction material and substance in historic structures is retained, though at some places the repairs were carried out with cement and reinforced cement concrete. This alters the authenticity in terms of material and substance, though such interventions were accepted conservation norms and have been recorded by the Archaeological Survey of India. Visitor facilities like signage, benches, railings etc. have been added in 2009-2010. The authenticity and/or integrity of built fabric for each component is analysed in the following table.

**Table 3.16: Analysis of conservation works for authenticity and/or integrity of built fabric of site components at Chittorgarh**

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
	<b>Fort wall &amp; Bastions</b>			
F1	Fort Wall	<ul style="list-style-type: none"> <li>Clearing of vegetation</li> <li>Restoration of fallen portions</li> <li>Pointing of wall from inside</li> <li>Top portion of wall water tightened</li> </ul>	●	●
F2	Banbir Wall	<ul style="list-style-type: none"> <li>Underpinned at places</li> <li>Consolidated by the removal of two courses of loose stones and re-laying in cement</li> <li>Hollows filled with concreted mortar</li> <li>fallen façade of Navlakha Bhandar was replaced by a concrete roof</li> <li>The cracks in the vaulted semi-circular chamber in the bastion grouted and joints pointed</li> </ul>	●	●
	<b>Gates</b>			
G1	Paidal pol	No work recorded	●	●
G2	Bhairon pol	No work recorded	●	●
G3	Hanuman pol	No work recorded	●	●
G4	Ganesh pol	No work recorded	●	●
G5	Jorla pol	No work recorded	●	●
G6	Laxman pol	No work recorded	●	●
G7	Ram pol	No work recorded	●	●
G8	Suraj pol	No work recorded	●	●
G9	Badi pol	<ul style="list-style-type: none"> <li>Rebuilding of loose rubble masonry of the side parapet walls, fallen portions, plinth and pavilion where guard rooms once existed</li> <li>Pointing of joints in the masonry</li> <li>A part exposed in clearance</li> <li>Dislodged ashlar stones of the roof and lintels reset to their original position, broken roof slabs replaced and cement concrete laid over, missing ashlar stone masonry with carvings including stone paved flooring restored as per the old patterns and designs</li> <li>Dead concrete removed, re-laid with fresh concrete.</li> </ul>	●	●
G10	Tripolia Gate	<ul style="list-style-type: none"> <li>Water tightening of flanking walls</li> <li>Reconstruction of dilapidated domes</li> <li>Bulges in the masonry rectified by putting back in position the disjointed architectural members.</li> <li>Cracked, broken or missing lintels replaced.</li> <li>Resetting the out of plumb ashlar masonry</li> <li>broken roof slabs replaced and cement concrete laid over,</li> </ul>	●	●
G11	Lakhota Bari	No work recorded	●	●
	<b>Palace Area</b>			
P1	Kumbha Palace & Mira Bai's palace	<ul style="list-style-type: none"> <li>Water tightening of top of walls</li> <li>Repairs in overhanging dome of palace by rebuilding support wall and reconstructing the dome as per original</li> <li>Underground chambers revealed, debris cleared</li> <li>Repairs with provision of concealed reinforced cement concrete rings at the two floor levels and rebuilding of fallen portion of the dome, restoring it to its original shape.</li> <li>Replacement of broken lintels and pillars</li> <li>Renewal of missing merlons and reconstruction of dislodged and cracked portions after the original.</li> <li>Rusted iron clamps replaced by copper ones.</li> <li>Titled balconies rebuilt, tie-rods were inserted in two stages, to secure the framework of the balcony. Tilted balconies reset in their original position after the replacement of the cracked brackets below them and three lintels</li> </ul>	●	●



### 3. Justification for Inscription

3.38

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<p>of the lower dome.</p> <ul style="list-style-type: none"> <li>Laying of fresh lime concrete after the removal of the dead lime-concrete.</li> <li>Removal of late accretions brought to light a platform in ashlar masonry having an ornamental kakshasama in front.</li> <li>The Sunken stone pavement reset on a cushion of cement concrete, retaining the original features and showing the different phases of construction</li> <li>Clearance of debris and exposure of structures and original stone pavements</li> <li>portion of compound-wall traced out and reconstructed in dry rubble-masonry</li> <li>Uneven stone flooring reset with stones over a bed of lime-cement concrete.</li> <li>Lime cement concrete flooring was provided to one of the rooms in the western side of the palace to prevent seepage of rain water to the ground floor.</li> <li>Decayed lime concrete flooring in the rooms of the Mira Mahal was made good.</li> <li>Removal of the decayed concrete flooring and provision of 1:2:4 cement-concrete cushion for a new flooring of Manpura stones in the Zanana Mahal and in the north eastern part of the palace was taken up.</li> <li>The damaged flooring was also repaired.</li> <li>The damaged random rubble masonry of the subterranean passage of Kumbha's palace was repaired.</li> <li>The bulged and out of plumb ashlar masonry of the palace was dismantled and reconstructed as per the original. Missing stones of the chhajja and the pavement were replaced and conditioned.</li> <li>Landscaping and laying of new gardens</li> <li>Water tightening of top of walls</li> <li>Replacement of missing lintels and slabs</li> <li>Lime concrete laid on terrace for water tightening</li> <li>Restoration of missing merlons was carried out.</li> <li>Barbed wire fencing with M.S gates at different locations was attended to. The ramp on the backside of the palace was repaired.</li> </ul>		
P2	Ratan Singh's Palace	<ul style="list-style-type: none"> <li>Removal of modern accretions</li> <li>Water tightening of exposed walls</li> <li>Rebuilding of fallen walls</li> <li>Concrete laid on terrace</li> <li>Bastion underpinned</li> <li>wide cracks in its masonry filled by grouting and masonry</li> <li>Dangerous crack in vaulted roof of the jail suitably lugged in from inside after the provision of a proper support.</li> <li>Terraced roof opened from the top and the cavities filled in with rubble-masonry packing.</li> <li>The top of the entire roof was made watertight with a layer of fresh lime concrete mixed with cement and toned to match with the adjoining surface.</li> <li>The missing portion of the balcony of the Zanana-Mahal of the palace was restored in accordance with the original</li> <li>Dilapidated portions of the flooring of the Palace were set right</li> <li>A part of the roof was water-tightened</li> </ul>	●	●
P3	Padmini Palace & Khattan Mahal	<ul style="list-style-type: none"> <li>Immediate repairs were carried out</li> <li>Debris removed and parts of walls made watertight.</li> <li>Dome in the south-east corner was suitably repaired.</li> <li>Decayed lime concrete flooring removed and a fresh concrete cushion for the new Manpura stone flooring was provided.</li> <li>Damaged and decayed top portions of the walls of the adjoining structures water tightened with the addition of hydrofuge in the mortar.</li> <li>Resetting the out of plumb ashlar stone masonry</li> <li>underpinning and pointing the joints in the walls</li> <li>Window-openings on the lake side were provided with iron grills.</li> <li>A portion of <i>kachcha</i> pathway was provided with stone flooring.</li> <li>Damaged flagstone flooring of miniature shrines repaired.</li> <li>Missing and damaged merlons of the <i>chhatri</i> replaced by new ones as per the original with the help of combination materials.</li> <li>Dead and decayed lime plaster of the <i>chattri's</i> dome removed and fresh</li> </ul>	●	●

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		lime plaster provided as per the original. <ul style="list-style-type: none"> <li>Damaged portion of the base of the <i>chhatri</i> restored with the help of combination materials.</li> <li>Flag stone flooring has been provided to the side gate of the Palace</li> </ul>		
P4	Fateh prakash	<ul style="list-style-type: none"> <li>Immediate repairs carried out</li> <li>Entrance gateway rendered water tight by rubble packing and lime cement concrete on the terrace. The wall tops were treated and debris removed</li> <li>replacement of missing lintels and stones of the flooring, providing of steps underpinning and pointing of the joints in the walls</li> </ul>	●	●
	Haveli/House			
H1	Patta & Jaimal's Havelis	<ul style="list-style-type: none"> <li>Patta Haveli thoroughly conserved after a preliminary jungle-clearance and removal of heaps of foreign stones.</li> <li>Decayed concrete on the dome of the entrance gate substituted by a fresh one.</li> <li>Enclosure and parapet rebuilt in rubble masonry up to the necessary heights.</li> <li>Cracks in the dome were grouted and the sagging arches in the pavilion rebuilt after the original design.</li> <li>In Patta Haveli, Extensive repairs were undertaken by way of providing two rings of reinforced cement-concrete beams and pillars in the core of the superstructure of the walls where wooden beams and pillars had originally existed.</li> <li>Rebuilding of the masonry of the façade to keep the reinforced-concrete rings concealed within the masonry.</li> <li>Missing lintels replaced by stone lintels</li> <li>Cracks filled, open joints in the masonry pointed and the existing plaster-patches repaired.</li> <li>In house of Jaimal, repairs by underpinning the fallen portions of walls, ceiling and staircases.</li> <li>House of Patta provided with concealed reinforced cement-concrete beams and pillars in the core of its walls in order to strengthen the structure. The missing flooring slabs of the ground-floor rooms were replaced</li> <li>After the clearance of jungle debris was removed for exposing the original features of Jaimal House.</li> <li>The exposed structure was made watertight by raising the tops of walls and providing lime-cement-concrete on the terrace.</li> </ul>	●	●
H2	Bhama Shah's haveli	<ul style="list-style-type: none"> <li>Pavement was done by providing manpura stones on proper cement concrete cushion.</li> <li>Dismantling and demolishing of the old bulged random rubble masonry of the wall and reconstruction of the same in lime cement concrete after dismantling the old and pulverized lime concrete and pointing of joints of stone masonry were carried out.</li> </ul>	●	●
H3	Alha Kabra's House	<ul style="list-style-type: none"> <li>The jungle growth and the debris of the fallen structures of the house were cleared and its original features brought to light.</li> <li>The main structure was underpinned and all cracks filled up</li> <li>The broken or missing lintels of the doorways were replaced and the damaged stone flooring relaid with new ones</li> <li>All the exposed tops of walls of the fallen structures were made watertight</li> <li>Damaged and sunken parts of the gate and its roof were repaired, grouted and made watertight</li> <li>Damaged gate provided with new stone pillars, capitals and lintels in place of missing ones.</li> <li>Modern accretions and encumbrances in the courtyard of the Darbar hall were pulled down and debris was cleared.</li> <li>The extant portion at the top of the gate-building of the house repaired by the plugging in of the overhanging vault from below. The terraced roof of the gate was made watertight by providing a fresh layer of lime-concrete mixed with cement.</li> </ul>	●	●
H4	Chonda's House	<ul style="list-style-type: none"> <li>Debris was removed for exposing the original features of Chunda-house</li> <li>The top of walls were made watertight</li> <li>Masonry underpinned wherever needed</li> <li>Stone lintels were provided to the door in place of missing ones</li> </ul>	●	●
H5	Rampur Bhanpur Haveli	<ul style="list-style-type: none"> <li>wall tops were made water-tight</li> <li>Door jambs under pinned and the roof provided with fresh lime cement concrete</li> <li>A proper approach road was laid</li> </ul>	●	●

### 3. Justification for Inscription

3.40

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<ul style="list-style-type: none"> <li>main gate repaired</li> <li>Resetting of the missing ashlar stone masonry</li> <li>Reconstruction of the collapsed random rubble masonry</li> <li>Laying of fresh concrete</li> <li>Underpinning and plastering of the walls</li> </ul>		
	Gora and Badal house	<ul style="list-style-type: none"> <li>The tops of the structures made watertight</li> <li>The area around the monument was cleared of vegetation and debris</li> </ul>	●	●
	<b>Religious Structures</b>			
R1	Kalika mata Temple	<ul style="list-style-type: none"> <li>Uneven stone pavement removed and reset by providing proper cement concrete cushion.</li> <li>Cracks in the garbhagriha and the sabhamandapa rendered water-tight</li> <li>Concealed beautiful small sculptures and carvings of ceiling and pillars were exposed by removing thick coating of lime plaster and lime wash mechanically as well as using dilute acetic acid</li> <li>Chemical treatment work on the stone sculptures and carvings carried out for the removal of old and hard incrustation of lime plaster using acetic acid which revealed obscure details of beautiful small sculptures and carvings</li> <li>Chemical treatment of stone sculptures and carvings using dilute aqueous solution of ammonia, teepol etc. for removal of dust, dirt, moss, lichens, etc. Dilute aqueous solution of acetic acid was used for removal of deposition of lime wash</li> </ul>	●	●
R2	Kumbha – Shyam Temple and Mira Bai Temple	<ul style="list-style-type: none"> <li>For the removal of moss, lichen and bacterial slime treatment using solution of ammonia and non-ionic detergent. Lime coatings were removed with sol of acetic acid.</li> <li>Dried surface given fungicidal treatment</li> <li>Preservative coat of 2% polymethyl methacrylate applied on complete dry surface</li> </ul>	●	●
R3	Samidhesvara temple	<ul style="list-style-type: none"> <li>Approach is being provided to the temple.</li> <li>Remains of a number of shrines and fragments of sculptures were exposed</li> <li>Treatment to remove the accretions of micro-vegetation growth, dust and dirt using 3-5% solution of aqueous ammonia and non-ionic detergent.</li> <li>Lime coatings within the carvings and beautiful designs removed by chemico-mechanical method using dilute solution of acetic acid</li> <li>The stone surface was treated</li> <li>damaged flagstone flooring of miniature shrines was repaired. Improvement of rear area of Samidhesvara Temple is in progress</li> </ul>	●	●
R4	Brick temple	No work recorded	●	●
R5	Shringar Chauri	<ul style="list-style-type: none"> <li>Immediate repairs were carried out</li> <li>sides covered by Banbir's wall were exposed</li> <li>The door-frame, which had gone out of plumb was reset in position.</li> <li>vertical cracks in the outer façade and door jambs were grouted.</li> <li>Decayed concrete and loose stones were removed from the dome, which had also to be partly rebuilt on original lines. The entire surface of the dome and terrace was re-laid with concrete mortar.</li> <li>Missing <i>chhajja-stones</i> were replaced and rusted iron clamps replaced by copper ones.</li> <li>uneven pavement dismantled and re-set and an apron 6 ft. wide, provided on the east, west and south</li> <li>A hidden drain was provided for the easy flow of rain-water from the front side of the temple.</li> <li>micro-biological growth from the outer surface of the temple was eradicated with dilute solution of ammonia and tee pol mixture</li> <li>lime deposits removed by treatment with dilute acetic acid solution and gentle brushing</li> <li>entire area was chemically treated and given fungicidal and preservative treatment with 2% polymethyl methacrylate in toluene</li> </ul>	●	●
R6	Saat Bis Devri	<ul style="list-style-type: none"> <li>chemical treatment for the removal of micro biological growth and lime accretions from the exterior stone surface</li> <li>The cleaned, dried surface was subjected to fungicidal treatment. Work completed.</li> </ul>	●	●
R7	Kshemankari temple	No work recorded	●	●
R8	Adbuthnath temple	<ul style="list-style-type: none"> <li>water tightening after the resetting of the sikhara-stones and provision of</li> </ul>	●	●



S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		rubble packing to the core of the southern wall and door frame <ul style="list-style-type: none"> <li>Steps built up and provision was made to drain of rain-water</li> <li>exterior stone surface chemically treated for removal of micro-vegetational growth and other accretions using 3-5% solution of aqueous ammonia and non-ionic detergent</li> <li>The chemically cleaned and dried surface was given fungicidal treatment with 2% solution of sodium pentachlorophenate followed by preservation with 1 % solution of PMMA in toluene</li> </ul>		
R9	Digambar Jain Temple	<ul style="list-style-type: none"> <li>Sculptures and carvings in the temple subjected chemical treatment using mixture of 3-5% solution of liquid ammonia and 1% non-ionic liquid detergent.</li> <li>After thoroughly washing the cleaned surface, fungicidal treatment using 2% solution of sodium pentachlorophenate in water was given</li> </ul>	●	●
R10	Ganesh temple and	No work recorded	●	●
R11	Naag Chandereshwar temple	No work recorded	●	●
R12	Shiva temple	<ul style="list-style-type: none"> <li>Toe wall was built up to retain the Temple</li> <li>Spongy roof of the sabha-mandapa made watertight with new concrete after the resetting of the disturbed ceiling stones.</li> <li>The brick sikhara of the temple was underpinned in carved brickwork.</li> <li>The sunken and damaged stone pavement in the garbha-griha and pradakshina-patha was re-laid, and an apron of stone flooring was provided on the three sides of the temple.</li> <li>A concealed drain was also provided to drain out rain water.</li> <li>The disturbed stones of the sikhara taken down and refixed at their original places. A few old stones lying at the site within the debris were also used in the work</li> <li>The vegetation growth and debris were cleared and the dislodged stones of the brick sikhara and the sabha-mandapa reset</li> <li>The damaged flooring was removed and new flooring on concrete cushion was relaid</li> <li>Dismantling and resetting of the out-of-plumb stone masonry</li> <li>Restoration of missing portion of sabha-mandapa, replacing stones wherever necessary</li> <li>Replacement of the broken beam, lintel and roof stone slab, laying of lime cement concrete on the roof and RR masonry parapet on the roof of the antarala</li> <li>The sunken and missing portions of the flooring, including the ashlar masonry had been repaired.</li> <li>Chemical treatment and preservation work was undertaken on the exterior as well as interior surface of the temple's <i>chhatris</i>. Both the sandstone and limestone surfaces were treated with aqueous ammonia and non-ionic detergent mixture using soft nylon brushes.</li> <li>Hard calcareous deposits were removed with the help of dilute acetic acid.</li> <li>The fungicidal treatment given on the thoroughly washed surface followed by application of preservative coat on dried surface.</li> </ul>	●	●
R13	Jata Shankar temple	<ul style="list-style-type: none"> <li>collapsed side walls of the plinth rebuilt</li> <li>open joints in the roof of the pavilion pointed</li> <li>dislodged stones of the Sikhara reset in lime-cement</li> <li>Flight of steps repaired</li> <li>Plinth wall built up to its original height and dry-rubble pitching provided to ward off erosion</li> <li>Resetting of pavement stones,</li> <li>Remains of subsidiary shrines exposed and duly preserved.</li> <li>Chemical treatment of exterior with 3-4% solution of ammonia mixed with non-ionic detergent</li> <li>Cleaned surface given fungicidal treatment with 2% solution of sodium pentachlorophenate</li> <li>Preservation of stone surface with a suitable fixative</li> </ul>	●	●
R14	Shiva temple II	No work recorded	●	●

### 3. Justification for Inscription

3.42

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
R15	Pataleshwar Temple	<ul style="list-style-type: none"> <li>Later accretions abutting against the temple and debris removed, exposing sculptures and mouldings in the plinth and mandovara</li> <li>Roof water-tightening</li> <li>replacement of missing stone pavements</li> <li>collapsed porch rebuilt on the original lines</li> <li>Exterior surface subjected to chemical treatment for the removal of biological growth using mixture of ammonia and non-ionic detergent with soft nylon brushes.</li> <li>2% sodium pentachlorophenate solution applied as fungicidal treatment, followed by application of two coats of 1% PMMA in toluene</li> </ul>	●	●
R16	Mahadev temple	<ul style="list-style-type: none"> <li>Replacement of all the broken structural members like brackets and lintels</li> <li>Re-erection of the tilted pillars in a vertical position</li> <li>Flat terrace made watertight</li> <li>Dislodged roof-stones and loose rubble-packing taken down and fabric of the roof of the sabha-mandapa suitably repaired</li> <li>Huge debris lying at the site was removed and its damaged pillars were renewed.</li> <li>Repaving of the damaged flooring with new Manpura stones</li> </ul>	●	●
R17	Laxminarayan temple	No work recorded	●	●
R18	Charbhuj Temple	<ul style="list-style-type: none"> <li>Damaged and uneven flooring including the out of plumb and missing stone masonry removed and replaced by new stones on a concrete bed</li> </ul>	●	●
R19	Neelkanth Mahadev temple	No work recorded	●	●
	Temple of Mokajji	<ul style="list-style-type: none"> <li>Repairs carried out to <i>shikhara</i> by Mewar Darbar</li> </ul>	●	●
	Kukkutesvara temple	<ul style="list-style-type: none"> <li>Grouting cracks and closing gaps in the <i>Sikhara</i></li> <li>Rubble packing provided for the domes</li> <li>Decayed concrete lime plaster removed and replaced by a fresh layer of the same material</li> <li>Seepage of rain water into the foundations stopped by the construction of a pavement around the temple (8 feet wide apron) and leveling of the surroundings</li> <li>Out-of-plumb wall around the temple dismantled and reconstructed in lime cement mortar</li> <li>Missing flooring stones replaced and old ones reset</li> <li>Walls were underpinned</li> <li>Chemical cleaning work on exterior surface for the removal of moss, lichen, dust, dirt, bacterial slime and thick hard lime-coats from the stone surface and beautiful sculptures and carvings.</li> <li>The entire surface was thoroughly washed with plenty of clean water. On treated and dried surface, fungicidal treatment was carried out</li> <li>completely dried surface was preserved using double component system</li> </ul>	●	●
	Ratnesvara temple	<ul style="list-style-type: none"> <li>Displaced masonry of the tank by the side of the Ratnesvara temple was dismantled and reset</li> <li>Taking down all the component members of the sabha-mandapa and reconstructing the same after restoring the tilted pillars in position</li> <li>Reconstruction of the front wall of the temple was completed</li> <li>Dismantling and resetting of the temple, above the lintel-level, was continued and completed. This work is an example of careful and effective conservation of a large-sized temple with a badly cracked and out-of-plumb fabric.</li> <li>Accumulation of rubble removed, debris cleared, interesting structures with an underground cell were exposed</li> <li>Part of corner-tower was strengthened</li> <li>Exposed portions of the compound-walls of the courtyard were made watertight</li> <li>Chemical treatment undertaken on the exterior sandstone and lime-plastered surface of the main <i>sikhara</i> and <i>mandapa</i> for removal of biological growth and superficial accretionary deposits</li> <li>Fungicidal treatment given with 2% solution of sodium pentachlorophenate to arrest the reoccurrence of biological growth</li> <li>Lime-plastered and stone surfaces preserved with suitable preservative</li> </ul>	●	●
	Galtesvara temple	<ul style="list-style-type: none"> <li>Decayed and sunken floor of the courtyard and a part of sabha-mandapa of</li> </ul>	●	●

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<p>the Galtesvara temple were taken out and provided with new flagstone flooring on a bed of lime-concrete</p> <ul style="list-style-type: none"> <li>compound wall was partially raised</li> </ul>		
	<b>Chhatris/ Cenotaphs</b>			
C1	Kirti Stambh	<ul style="list-style-type: none"> <li>Dismantling with the crowning pavilion and about 15ft of masonry below removed</li> <li>Carving new stones to replace those broken, as these as made were laid out and fitted to the old ones on the ground at the base. The stones were prepared for several courses before the erection of them was executed.</li> <li>Carving was done by local masons with genuine architectural quality</li> <li>crowning <i>chhatri</i> made almost entirely new, with roof (made from stones found near the base) was left hollow to reduce the weight on the pillars</li> <li>lightning conductor was put up and new stones coloured to harmonize with the old</li> <li>ground around the tower was leveled and cleaned, the adjoining temple cleared of creepers and the stairways to its chabuttra repaired</li> <li>Struts (<i>toranas</i>), spanning the pillars of the canopy laid as originally existed in 1883</li> <li>Around the margin of the platform, on which the pillars stand, low parapet wall restored</li> </ul>	●	●
C2	Vijaya Stambh	<ul style="list-style-type: none"> <li>In 1927-28, original base reliefs restored in a manner entirely in conflict with the archaeological needs</li> <li>In 1935-36 side walls of the plinth with the stairs were satisfactorily repaired by replacing broken stones by new ones, an attempt to recover the sculptures and relief on slabs was taken which proved to be inappropriate and hence was seized</li> <li>ground near tower cleared where it was found that there were hollows in the rubble masonry of the foundation, supporting walls on the west and south sides provided, after thorough grouting of the cracks and fissures in the foundation, hollows were plugged with stones of suitable sizes and a 3ft wide toe wall in rubble masonry was built up. The flanking walls were similarly supported.</li> <li>modern structure around demolished</li> <li>Missing flooring of the Sati gate area was restored in keeping with the original</li> <li>Systematic survey for landscaping</li> <li>Repair and restoration of the random rubble masonry wall for parking area near the tower by dismantling the old bulged-out wall, reconstruction of the same and spreading of murrum in the parking area, random rubble stone masonry wall around the parking area restored</li> <li>Stone approach road from Vijaya Stambha to Samidhesvara Temple provided by laying stone slabs</li> <li>Mild steel grill railing over dwarf wall along the road adjoining to Vijaya Stambha provided</li> </ul>	●	●
C3	Mahasati Complex	<ul style="list-style-type: none"> <li>Underpinning the dangerously overhanging portion of the high plinth in rugged masonry of Sati temple, <i>pradakshina-patha</i> around sanctum restored, beautifully carved door-jambs reset in plumb, bulged masonry of the side walls taken down and re-set in plumb with ashlar-veneering security held</li> <li>The damaged niches were repaired by the replacement of missing stones and the fixing in position of the dislodged sculptures</li> <li>High-plinth walls of the platforms on the western side rebuilt in plumb</li> <li>cracked bracket and capitals replaced by fresh ones</li> <li>Extensive clearance was undertaken around the enclosure</li> <li>Approaches to the monuments were dressed and moun spread over them</li> <li>Eastern Sati gate and Ram-Pol fully conserved by provision of new members in place of broken one's and repairs to the bulges in the ashlar and rubble-wall in the case of Ram-Pol.</li> <li>Ashlar-masonry all around the eastern Sati gate raised to the roof level, insertion of roof-slabs and capitals, bed of cement-concrete provided and parapet-wall constructed all round the terrace of the eastern Sati gate</li> <li>Missing stone slabs of the flooring were relaid on a concrete bed keeping conformity with the original</li> </ul>	●	●
C4	Rang Rasia ki Chhatri	<ul style="list-style-type: none"> <li>Huge quantities of debris around removed and scattered stones were cleared</li> <li>The over-hanging portions of the two towers were underpinned</li> </ul>	●	●



### 3. Justification for Inscription

3.44

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<ul style="list-style-type: none"> <li>The staircase of the towers which had got detached was anchored with the adjacent walls.</li> <li>Tops of the structures around the towers were made watertight</li> </ul>		
	Stores			
S1	Topkhana	No work recorded	●	●
	Gardens			
B1	Garden at Kumbha's palace	No work recorded	●	●
B2	Garden at Padmini palace	<ul style="list-style-type: none"> <li>Small gardens were laid round the palace. The growth of small gardens in the compounds of the monuments, where water-supply was easily available, was encouraged.</li> <li>The wood-work was coated with wood-preservative, and the garden in the courtyard extended</li> <li>Lawns and garden in Padmini's palace were improved</li> <li>More plants like dakelia, tuberose, gladiolus, foot ball lily, were introduced in the garden</li> </ul>	●	●
B3	Mrigvan (forest area)	No work recorded	●	●
	Water Structures			
W1	Gomukh Kund	<ul style="list-style-type: none"> <li>Pathways provided with paved stone flooring from Sati gate to Gomukh Kund and from Samidheshvara Temple to Gomukh.</li> </ul>	●	●
W2	Kukreshwar Kund	No work recorded	●	●
W3	Chatrang ka talab	No work recorded	●	●
W4	Sukha dia talab	No work recorded	●	●
W5	Bhimlat Kund	<ul style="list-style-type: none"> <li>The debris around tank removed, clearance of vegetation growth</li> <li>Out-of-plumb ashlar stone masonry of the wall was dismantled and reset to plumb line to prevent water percolation</li> <li>The damaged chhatri was dismantled and reconstructed and repairs carried out to the out of plumb portions of the stone masonry</li> </ul>	●	●
W6	Khattan baori	No work recorded	●	●
W7	Hathi kund	No work recorded	●	●
W8	Fatta tank	No work recorded	●	●
W9	Padmini talab	No work recorded	●	●
W10	Tank	No work recorded	●	●
W11	Ghee ki baori	<ul style="list-style-type: none"> <li>Jungle on all sides of the ghee tank was removed and big trees growing over the structure were removed.</li> <li>Debris inside the tank was removed and a number of interesting original features were exposed, bed of tank cleared by removing earth</li> <li>Portions of the fallen wall restored.</li> <li>Bulged-out stone masonry was dismantled and reset</li> <li>Fixing missing stones of the wall in lime-cement-mortar after dressing as per the original.</li> </ul>	●	●
W12	Ratan singh tank	<ul style="list-style-type: none"> <li>Random rubble masonry in the foundation and plinth was repaired with cement mortar.</li> <li>The out of plumb retaining wall on the southern side of the ghat was dismantled and reconstructed.</li> </ul>	●	●
W13	Rathoria tank	No work recorded	●	●
W14	Annapurna kund	No work recorded	●	●
W15	Bolia talab	No work recorded	●	●
W16	Kumaria talab	No work recorded	●	●
W17	Baori	No work recorded	●	●
W18	Tel ki baori	<ul style="list-style-type: none"> <li>Resetting the bulged and uneven ashlar stone masonry was carried besides clearing the debris and the vegetation growth</li> </ul>	●	●
W19	kund	No work recorded	●	●
W20	Suraj kund	<ul style="list-style-type: none"> <li>Resetting the bulged and uneven ashlar stone masonry was carried besides clearing the debris and the vegetation growth</li> </ul>	●	●
	Ratnesvara tank	<ul style="list-style-type: none"> <li>Clearance of the area on the southern and western sides of the tank carried out, ashlar-wall and steps were exposed and the loose pieces were brought to original position and set along with sculptured niches</li> </ul>	●	●
	Others			
M1	Telang ki Gumti	No work recorded	●	●
M2	Chogania	No work recorded	●	●
M3	Bakshi Jail	No work recorded	●	●
M4	Moti Bazaar	<ul style="list-style-type: none"> <li>Clearance of debris and jungle, exposing a row of shops with a verandah in front.</li> </ul>	●	●

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<ul style="list-style-type: none"> <li>• Interesting structures comprising suites of shops on either flank, as also underground cells exposed</li> <li>• Repairs undertaken</li> </ul>		
M5	Nagina bazaar	<ul style="list-style-type: none"> <li>• Stones on the steps of the underground cells were provided</li> <li>• Repairs undertaken</li> </ul>	●	●

● Authenticity retained

● Authenticity altered

### Kumbhalgarh

**Planning and Landscape:** A number of approach roads have been added since 1989 from Vedi Mandir to Siva Temple, Jain Temple and towards Golera temples, from Ram Pol to Bhairon Pol, Bhairon Pol to Nimbhu Pol, Nimbhu Pol to Tara Burj and Badal Mahal, These have been laid in random rubble stone masonry in lime cement mortar with brick zeera to match with old structures after digging, cutting the hard rocks and removing hard soil mixed with stone boulders were carried out. From 1996 to 1998, a parking area was added near the Vedi temple complex, by providing random rubble stone flooring. The original water systems and orchards are still in place.

**Built Fabric:** Due to distraction from building activity at Kumbhalgarh Fort since the 16<sup>th</sup> century, very few additions were made to the original structure except for palace structures added in the 19<sup>th</sup> - 20<sup>th</sup> century during the Maharana Fateh Singh of Mewar. Hence, the Fort primarily has structures from the 16<sup>th</sup> century with no intervention and a palace structures rebuilt in the 19<sup>th</sup> - 20<sup>th</sup> century that can be easily distinguished due to the marked difference in the architectural style. Conservation works by the Archaeological Survey of India started at the site in 1957 and are recorded well. Visitor facilities like signage, benches, railings etc. have been added in 2009-2010. The authenticity and/or integrity of built fabric for each site component is analysed in the following table.

### 3. Justification for Inscription

3.46

**Table 3.17: Analysis of conservation works for authenticity and/or integrity of built fabric of site components of Kumbhalgarh**

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
	<b>Fort wall &amp; Bastions</b>			
F1	Fort Wall near Ram pol	<ul style="list-style-type: none"> <li>reconstruction of the collapsed portion</li> </ul>	●	●
F1	Fort wall	<ul style="list-style-type: none"> <li>Fallen fortification near Daini Batta gate was restored in random rubble masonry as per original</li> </ul>	●	●
F2	Bastions of old Fort wall	No work recorded.	●	●
F3	Tara Burj	No work recorded.	●	●
	<b>B. Gates</b>			
G2	Hanuman Pol	<ul style="list-style-type: none"> <li>Stone pavement of platform repaired</li> <li>Two coats of paints with wood preservative applied on the wooden doors</li> </ul>	●	●
G3	Ram pol	<ul style="list-style-type: none"> <li>Dismantling of the bulged-out and damaged masonry support wall of the platform near Ram Pol</li> <li>stacking of serviceable material and reconstruction of platform</li> </ul>	●	●
G4	Vijay pol	No work recorded	●	●
G5	Bhairon pol	No work recorded	●	●
G6	Nimbu pol	No work recorded	●	●
G7	Chaugan Pol	<ul style="list-style-type: none"> <li>Restoration of collapsed roof of Chaugan Pol by providing and fixing heavy <i>sal</i> wood beams including stone slab with brick <i>kharanja</i> and concreting over the stone slab</li> <li>Dead plaster removed and re-plastered with fresh one</li> <li>Damaged <i>chhajja</i> stones were restored</li> <li>Repairs to the wall adjoining the Pol by underpinning the fallen patches and joints</li> </ul>	●	●
G8	Pagda pol	No work recorded	●	●
G9	Ganesh pol	No work recorded	●	●
G10	Rani chura ki bari	No work recorded	●	●
G11	Juna Bavji ki bari	No work recorded	●	●
G12	Suraj pol bari	No work recorded	●	●
G13	Dani Bhatta gate	No work recorded	●	●
G14	Dudh Talai ki bari	No work recorded	●	●
G15	Sandh ki bari	No work recorded	●	●
G16	Sandh ka pol	No work recorded	●	●
G17	Sankhila Nahar ki bari	No work recorded	●	●
G18	Bagga pol	No work recorded	●	●
G19	Big Tedda bari	No work recorded	●	●
G20	Small Tedda bari	No work recorded	●	●
G21	Harbara ki bari	No work recorded	●	●
G22	bari	No work recorded	●	●
	<b>C. Palace Area</b>			
P1	Kumbha Mahal	<ul style="list-style-type: none"> <li>Decayed and worn-out wooden beams and planks of the ceiling replaced by new ones</li> <li>Roof re-laid with fresh concrete</li> <li>Damaged portion of the wall under-pinned and joints in masonry pointed</li> </ul>	●	●



S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
P2	Badal Mahal	<ul style="list-style-type: none"> <li>Wooden fixtures of the roof, doors and windows treated with preservatives</li> <li>Dead concrete removed and re-laid with fresh concrete in the central hall of Badal Mahal</li> <li>Removal of spongy concrete of roof, relaying concrete for water tightening, removal of bulged portion of masonry and reconstructing with the same old stones</li> <li>Removal of stone flooring and relaying with proper slope</li> <li>Filling in missing portions and setting right the flight of steps.</li> <li>The fallen stone masonry was reset in lime-cement mortar</li> <li>Removal of old paint on the doors and windows by rubbing and surface repainted with enamel shade to give an even shade</li> <li>Repairs of broken doors and windows and missing ones replaced with new ones</li> <li>Cleaning of old glass-panes, replacing missing and broken glass planes with new ones</li> <li>walls plastered with fresh cement concrete</li> </ul>	●	●
P3	Prithvi Raj palace	<ul style="list-style-type: none"> <li>Dislodged stone masonry of Prithvi Raj palace reset</li> <li>Two coats of wood preservative applied on the doors and beams</li> </ul>	●	●
D.	Haveli/Palace	No work recorded.	●	
E.	Religious Structures			
R1	Pitaliya -Devi temple	<ul style="list-style-type: none"> <li>Decayed concrete of the dome renewed with fresh lime-cement concrete after the removal of the roots</li> <li>fallen rubble-masonry from the edge of the flat roof of the <i>sabha-mandapa</i> restored</li> </ul>	●	●
R2	Miniature shrine near Pitaliya Shah	No work recorded	●	●
R3	Suraj Devri	No work recorded		
R4	Mamadeo temple	<ul style="list-style-type: none"> <li>Tilted pillars and lintels brought to their original positions</li> <li>Excavation carried out at the Temple, to expose the original pavement in front of the temple</li> <li>Re-setting the out of plumb ashlar masonry of the compound wall</li> </ul>	●	●
R5	Shrine near Mamadeo temple	No work recorded	●	●
R6	Golera group of temples	<ul style="list-style-type: none"> <li>Spongy concrete of the roof of the Golera temple taken down and fresh concrete re-laid after thorough grouting the cracks</li> <li>Jain temple reconstructed on the original lines - architectural members and sculptures recovered from the debris and reset in original positions. The dead lime concrete from the dome and the terrace was removed and fresh lime-cement concrete provided to check percolation of rain water</li> <li>Uneven pavement of the Golerao temple no. 2 repaired, dislocated ashlar masonry dismantled after properly documenting and resetting as per the original</li> <li>Loose architectural members in the <i>sabha-mandapa</i> of the Golera temple 5 reset as per the original. Damaged ashlar stone masonry of the dome dismantled, reconstruction and water tightening with fresh cement concrete</li> <li>Resetting of the out of plumb random rubble masonry of the stair cabin wall and the parapet wall</li> <li>Decayed wooden beams over the gate and planks in the ceiling replaced by new ones and two coats of paints applied with wood preservative</li> <li>Dilapidated steps of the entrance Golera temple no. 13 reset in lime cement mortar, decayed concrete from the roof relaid in patches and made watertight, damaged masonry of the high plinth restored</li> <li>Out of plumb stone masonry dismantled and reset in lime cement mortar,</li> <li>Uneven and sunken stone flooring relaid on concrete bed matching with the original</li> <li>Stone pavement provided to the floor of the Golera temple no. 6 to check water percolation</li> <li>damaged domes provided with cement concrete as per the original</li> <li>Clearance of fallen debris, serviceable architectural members like columns, lintels and capital stones sorted out and stacked</li> <li>Reconstruction of the Sabha Mandapa was taken up by using available structural members after making necessary grooves and dressing of stones, clamps etc.</li> <li>Dismantling of dislodged stone flooring around the temple and relaying of lime cement concrete</li> </ul>	●	●

### 3. Justification for Inscription

3.48

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
R7	Two miniature shrines on the east of Badva talab	No work recorded	●	●
R8	Miniature shrine near Langan baori	No work recorded	●	●
R9	Juna Bhilawara temple	No work recorded	●	●
R10	Bawan Devri Temple	<ul style="list-style-type: none"> <li>• Removal of debris of the shrines that had collapsed in the n-west corner of the temple</li> <li>• Plinths rebuilt up to the basement of shrines</li> <li>• Shrines in the south and s-west reset in position, roofs of some were rendered watertight</li> <li>• Temple situated on the east side of the fort cleared of vegetation and debris.</li> <li>• Titled and dislodged shrines, 16 in number dismantled and rebuilt with the same stones in lime-cement mortar</li> <li>• Necessary copper clamps provided</li> <li>• Roots from the dislodged <i>shikhara</i> of four shrines taken out after taking down the stones carefully and restored to the original places in lime-cement mortar</li> <li>• dilapidated ashlar masonry and bulged <i>shikhara</i> together with missing portions of the eastern side taken up for restoration</li> <li>• Eastern side shrines provided with ceiling stones, <i>chhajja</i>, lintels and coping stones wherever broken or missing</li> <li>• Fallen and bulged out portions of ashlar masonry walls reset in lime-cement mortar, providing new dressed stones wherever necessary</li> <li>• missing stone flooring on the western side was reconditioned</li> <li>• Dead mortar of the dome replaced by the fresh mortar</li> <li>• Missing <i>chhajjas</i> were restored with new dressed ones as per the original and bulged coping stones and cornices removed and reset</li> <li>• Dome of the <i>sabha-mandapa</i> of the central shrine rendered watertight with cement concrete after the removal of dead concrete and filling the cracks with cement mortar and waterproofing compound</li> <li>• Removing and resetting the loose stones of the Sikhara in lime mortar</li> <li>• Cutting chases in the broken stone lintels of the corridors for providing the concealed girders</li> <li>• Removal of loose mortar and raking out of the joints of stone courtyard and repointing</li> <li>• Cracked heavy lintels supported by stone masonry</li> <li>• Walls in mud mortar strengthened by providing concealed R.S joints, gaps \filled with concrete; the outer surface of the lintels was finished in colour and shape matching with the original by imparting stone effect by way of chiseling the mud masonry support underneath.</li> <li>• Patch work and pointing the brick Sikhara</li> </ul>	●	●

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
R11	Group of Jain Temples	<ul style="list-style-type: none"> <li>clearance of debris and construction of retaining walls to stop erosion of earth around the plinth</li> <li>Repairs to the approach path</li> <li>Excavation of the surrounding area and resetting of the fallen loose sculptures of the <i>garbha-griha</i></li> <li>dislodged ashlar masonry of the <i>garbha-griha</i> was made good</li> <li>water tightening of the terrace and the dome</li> <li>Fallen structural members of the <i>antarala</i> reset in their original position.</li> <li>fallen dome of the <i>garbha-griha</i> repaired and water tightened by providing a brick core under a casing of lime-cement mortar</li> <li>All out-of-plumb and the fallen architectural members set in their respective position.</li> <li>Clearance of vegetation</li> <li>steps provided to the shrines,</li> <li>grouting of the cracks in domes</li> <li>Out-of Plumb ashlar masonry reset to plumb line and dead concrete removed and re-laid with fresh concrete</li> <li>In the Jain temple 3, coarse stone masonry provided in the roof of the dome</li> <li>damaged plinth, steps and niches of the Jain temple were restored</li> <li>Interlinking pathway provided</li> </ul>	●	●
R12	Mataji/Kheda Devi temple	No work recorded	●	●
R13	Nilakantha Mahadeva temple	<ul style="list-style-type: none"> <li>Approach steps added in random rubble masonry to the Nilakantha Mahadeva temple</li> </ul>	●	●
R14	Parsvanatha temple	No work recorded	●	●
R15	Vedi temple complex	<ul style="list-style-type: none"> <li>Development of parking space opposite Vedi Temple in random rubble stone flooring</li> </ul>	●	●
R16	Ganesha temple	Loose masonry wall of Ganesha temple and adjoining area was repaired and reconstructed in lime-mortar.	●	●
R17	Charbhuj temple	No work recorded	●	●
R18	Shiv temple	No work recorded	●	●
R19	Ooladhar ki Devri	No work recorded	●	●
R20	Temple ruins	No work recorded	●	●
<b>F.</b>	<b>Chhatris/Cenotaphs</b>			
C1	Prithvi Raj Chhatri	<ul style="list-style-type: none"> <li>removal of spongy concrete of roof</li> <li>relaying concrete for water tightening</li> <li>removal of bulged portion of masonry and reconstructing with the same old stones</li> <li>Removing the stone flooring and relaying with proper slope and filling in missing portions and setting right the flight of steps</li> </ul>	●	●
C2	Birth place of Rana Pratap	No work recorded	●	●
<b>G.</b>	<b>Stores</b>			
S1	Topkhana	<ul style="list-style-type: none"> <li>eastern retaining wall of the Topkhana was reconstructed in random-rubble masonry</li> </ul>	●	●
<b>H.</b>	<b>Gardens</b>			
B1	Orchards in the fort – with fruit trees	No work recorded	●	●
<b>I.</b>	<b>Water Structures</b>			
W1	Badva Bund	<ul style="list-style-type: none"> <li>bulged and out of plumb wall dismantled and re-set layer by layer with the help of new as well as old stones matching with the original in combination mortar</li> <li>debris clearance work undertaken towards north-east corner of the <i>baoli</i> and found the remains of water tank for animals (locally called "Kheli") , which was restored with the help of combination materials</li> </ul>	●	●
W2	Chipola bund	No work recorded	●	●
W3	Phootiya bund	No work recorded	●	●
W4	Vamanik ka bund	No work recorded	●	●
W5	Dudhla talab	No work recorded	●	●



### 3. Justification for Inscription

3.50

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
W6	Langan Baori	No work recorded	●	●
W7	Baori near Golera temples	No work recorded	●	●
W8	Rana or Badva baori	No work recorded	●	●
W9	Suraj pol ki baori	No work recorded	●	●
W10	Sandh kotdi dam	No work recorded	●	●
W11	Badshahi baori	No work recorded	●	●
W12	Baori(s)	No work recorded	●	●
W13	Bandh(s)	No work recorded	●	●
W14	Kund near Pagra pol	<ul style="list-style-type: none"> <li>Restoration of old/missing RR stone masonry of tank in southern annexe at Pagra Pol, dismantling of loose decayed plaster and re-plastering were done as per original.</li> </ul>	●	●
<b>M.</b>	<b>OTHERS</b>			
M1	Stables	No work recorded.	●	●
M2	Barracks	No work recorded.	●	●

● Authenticity retained

● Authenticity altered

#### Ranthambore

**Planning and landscape:** A number of approach roads connecting various structures were repaired and added to the site, such as entrance gate to Ganesh Pol, to Andheri Pol, to Siva Mastaka, Andheri Gate to Hammir Palace and Battis Khamba Chhatri, continuing to Padam Talav and further to Ganesh Temple, Naulakha lake to Supari Mahal and Badal Mahal to Dargah. The approach pathway between Hathi Pol and Ganesh pol was widened while two resting places were developed on either side of the pathway. Scientific clearances of buried structures were also undertaken.

**Collections:** From 1991 to 1994, chemical treatment and preservation of the collection of about 80 arms and weapons, torn royal dresses, etc was undertaken by removing dust, harmful patinated accretions and dirt.

**Built Fabric:** Conservation works have been undertaken by the Archaeological Survey of India since 1956 and are recorded well in the annual reports. The use of steel girders was required for structural consolidation of Hammir Mahal and iron dowels and frames were provided at other locations, while epoxy resin was used to set key stones. Besides, all works were carried out in matching materials and techniques. In 1993-94, an existing structure was repaired and developed as a site museum for display of the collections. Visitor facilities like signage, benches and railings were added in 2009-2010. The authenticity and/or integrity of built fabric for each component is analysed in the following table.

**Table 3.18: Analysis of conservation works for authenticity and/or integrity of built fabric of site components of Kumbhalgarh**

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
	<b>Fort wall &amp; Bastions</b>			
F1	Fort wall and steps	<ul style="list-style-type: none"> <li>The fort wall from Naulakha gate to Andheri gate repaired by dismantling damaged portion and fallen portions of Supari Mahal to Delhi Gate repaired as per original in random rubble stone masonry with lime-cement mortar and sunk pointing</li> <li>Top of the wall water tightened</li> <li>Repairs to steps carried out by dismantling the damaged and worn-out ones and resetting the same as per the original, matching in colour, texture and material</li> <li>Clearance of debris of fallen random rubble masonry-wall, sorting out the serviceable material, reconstruction of the collapsed wall near Ganesh Pol and Supari Mahal</li> <li>Disturbed and bulged wall of the main gate and hide wall repaired by underpinning and pointing.</li> <li>Missing portion of the inner fortification wall near Padam Talav was restored</li> <li>Out of plumb and badly damaged portion of the fortification wall (inner side) towards forest area restored with the help of combination materials and matched as per original</li> </ul>	●	●
F2	Gun Points	No work recorded	●	●
F3	Remains of old wall	No work recorded	●	●
<b>B.</b>	<b>Gates</b>			
G1	Naulakha Pol	<ul style="list-style-type: none"> <li>Half-burnt wooden shutter of the Naulakha gate that had burnt down due to accidental fire replaced by the new one</li> <li>G.I. pipe railing provided between Naulakha gate to Andheri gate for the convenience of tourist</li> </ul>	●	●
G2	Hathi pol	<ul style="list-style-type: none"> <li>Wooden shutters repaired by replacing the damaged wooden members, wood preservative applied</li> </ul>	●	●
G3	Ganesh pol	<ul style="list-style-type: none"> <li>Wooden shutters repaired by replacing the damaged wooden members, wood preservative applied</li> </ul>	●	●
G4	Andheri pol	<ul style="list-style-type: none"> <li>Wooden shutters repaired by replacing the damaged wooden members, wood preservative applied</li> </ul>	●	●
G5	Suraj pol	<ul style="list-style-type: none"> <li>Wooden shutters repaired by replacing the damaged wooden members, wood preservative applied</li> </ul>	●	●
G6	Sat pol	<ul style="list-style-type: none"> <li>repairs to 3 main gates of Sat Pol that had fallen down</li> <li>fallen and washed out materials accumulated at the east side gate of Sat Pol was completely removed up to surface level</li> <li>retaining wall constructed to restrict further erosion of the earth towards hill side</li> <li>restoration work of east gate of the Sat Pol</li> </ul>	●	●
G7	Delhi gate	<ul style="list-style-type: none"> <li>Wooden shutters repaired by replacing the damaged wooden members, wood preservative applied</li> </ul>	●	●
<b>C.</b>	<b>Palace Area</b>			
P1	Supari Mahal	<ul style="list-style-type: none"> <li>Grouting cracks in walls, pointing of loose joints and restoration of fallen portions of walls</li> <li>Iron girders, wooden doors and windows provided and</li> <li>Walls plastered as per the original</li> </ul>	●	●
P2	Dulha Mahal	No work recorded	●	●
P3	Rani Mahal	Notable buildings located in the Ranthambore fort were surveyed with special reference to residential architecture	●	●
P4	Hammir Mahal	<ul style="list-style-type: none"> <li>Clearance of vegetation</li> <li>Cracked stone lintels reset</li> <li>Key stones were fixed using epoxy resin</li> <li>Partition walls of rubble stone masonry which had been provided at a later stage were dismantled and supporting pillars in rubble stone masonry were provided opening the roof from the top and fixing the girders</li> </ul>	●	●

### 3. Justification for Inscription

3.52

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<ul style="list-style-type: none"> <li>Broken and damaged stone lintels were chiseled and provided with concealed steel girders</li> <li>Concealed steel girders provided to the broken stone beams. The outer surface of the stone beams was finished to give an old effect matching with the original</li> <li>The uneven open area of the courtyard was leveled</li> <li>uneven and sunken portion of the ramp in front of the main entrance of the palace restored with the help of combination materials</li> <li>Construction of apron in front of the palace</li> </ul>		
P5	Badal mahal	<ul style="list-style-type: none"> <li>Survey and reconstruction</li> </ul>	●	●
P6	Pachauri Mahal	<ul style="list-style-type: none"> <li>Survey</li> </ul>		●
<b>D.</b>	<b>Haveli/House</b>			
H1	Sanghi ki Haveli	No work recorded	●	●
H2	Baranala house	No work recorded	●	●
<b>E.</b>	<b>Religious Structures</b>			
R1	Dargah of Qazi Pir Sadr-ud-din	No work recorded	●	●
R2	Raj Mandir	No work recorded	●	●
R3	Banke Bihari temple	No work recorded	●	●
R4	Sita Ran temple	No work recorded	●	●
R5	Laxmi temple	No work recorded	●	●
R6	Laxmi Narayan temple	No work recorded	●	●
R7	Kalika Mata temple	No work recorded	●	●
R8	Patal Bhairav temple	No work recorded	●	●
R9	Annapurna temple	No work recorded	●	●
R10	Shiv Temple	No work recorded	●	●
R11	Ganesh temple	<ul style="list-style-type: none"> <li>Leveling of the area in front of Ganesh Temple</li> </ul>	●	●
R12	Peer baba ka Sthan	No work recorded	●	●
R13	Hanuman temple	No work recorded	●	●
R14	Digambar Jain temple	<ul style="list-style-type: none"> <li>Replacement of missing and badly damaged <i>chajja</i> stones</li> <li>dead and decayed lime plaster of the <i>prakara</i> wall removed carefully and re-plastering work in combination mortar</li> </ul>		●
R15	Raghnath temple	<ul style="list-style-type: none"> <li>out of plumb portion of the double storey structure of the temple dismantled and re constructed to plumb as per the original</li> <li>Replacing of broken roof slabs, beams and <i>chajja</i> stones</li> <li>water tightening of roof</li> <li>Apron provided all around the temple in random rubble stone and the joints pointed in combination mortar</li> <li>Platform of temple restored in its original condition</li> <li>Dead and detached lime plaster of the verandah re-plastered as per the original, after removing the dead and decayed plaster</li> <li>M.S.grill provided to all the openings of verandah to restrict the entry of animals</li> </ul>	●	●
R16	Mosque	No work recorded	●	●
R17	Dargah	<ul style="list-style-type: none"> <li>ceiling reconstructed</li> </ul>	●	●
<b>F</b>	<b>Chhatris/Cenotaphs</b>			
C1	Battis Khamba Chhatri	<ul style="list-style-type: none"> <li>Open joints of rubble masonry pointed</li> <li>Decayed portion of the rubble-masonry floor re-set in proper position</li> </ul>	●	●
C2	Hada Rani Chhatri	No work recorded	●	●
C3	Chhatri to the south of Bhanwara janwara granaries	No work recorded	●	●
C4	Chhatri near Bhanwara janwara granaries	No work recorded	●	●
C5	Hanuman Chhatri	No work recorded	●	●
C6	Chhatri	No work recorded	●	●



S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
C7	Graves	No work recorded	●	●
C8	Tomb	No work recorded	●	●
<b>G</b>	<b>Stores</b>			
S1	Bhanwara and Janwara granaries	<ul style="list-style-type: none"> <li>Retaining wall constructed to strengthen the ramps of Janwara-Banwara granaries</li> </ul>	●	●
S2	Namak ka Kotha	No work recorded	●	●
<b>H</b>	<b>Gardens</b>			
G1	Garden	No work recorded	●	●
G2	Old Garden	No work recorded	●	●
G3	Pushpa Vatika Pushp-Vatika	<ul style="list-style-type: none"> <li>Approach road and boundary wall repaired by removing old stones and replacing with the dressed stones matching with the original</li> <li>Compound wall in rubble stone masonry constructed around Pushpa-Vatika and the joints in the walls were pointed</li> </ul>	●	●
<b>I</b>	<b>Water Structures</b>			
W1	Badda Sagar	No work recorded	●	●
W2	Gupt-Ganga	<ul style="list-style-type: none"> <li>A flight of steps provided to the Gupt-Ganga</li> </ul>	●	●
W3	Sukh Sagar	No work recorded	●	●
W4	Jangali Talab	No work recorded	●	●
W5	Padmavati Talab	<ul style="list-style-type: none"> <li>Fallen parapet wall was rebuilt in random rubble masonry and set in lime-cement mortar</li> <li>Dismantling of damaged enclosure-wall of and restoration of dismantled/missing wall in random rubble masonry, pointing and water-tightening of the top of the wall were undertaken</li> </ul>	●	●
W6	Rani talab	<ul style="list-style-type: none"> <li>Repairs and restoration of the fallen portions of the masonry walls carried out in random rubble masonry</li> </ul>	●	●
W7	Well	No work recorded	●	●
W8	Kund	No work recorded	●	●
W9	Bandh	No work recorded	●	●
W10	Tank	No work recorded	●	●
	<b>Others</b>			
M1	Chhoti Kachehri	<ul style="list-style-type: none"> <li>collapsed roof of the central hall restored</li> </ul>	●	●
M2	Badi Kachehri	<ul style="list-style-type: none"> <li>Pointing of the joints in the sandstone masonry done matching with the original</li> <li>Arched opening of the Hammir's court fitted with an iron frame</li> <li>Plinth exposed during debris clearance work</li> <li>Gateways of Hammir's palace and <i>chhatri</i> repaired by removing vegetation growth and grouting of cracks and pointing the masonry</li> <li>Fallen roof of side hall had fallen and dislodged ceiling stone slabs precariously placed and were in danger of falling down.</li> <li>Reconstruction of fallen roof with new stones in lime cement mortar as per the original</li> <li>Top water tightened by laying random rubble masonry in lime cement mortar</li> <li>Stone slabs prepared and replaced in the ceiling</li> <li>Iron dowels were also provided</li> <li>Bulged stones of the outer wall were taken out and reset to plumb</li> <li>Dismantled debris of roof concrete cleared</li> <li>Dismantled floor and roof relaid in lime cement concrete</li> <li>Random rubble masonry retaining wall and parapet added to retain the soil, earth-work filling in front of the Kachehri and leveling the area completed</li> </ul>	●	●
M3	Phasi ghar	No work recorded	●	●
M4	Balam ki Beddi	No work recorded	●	●
	Site Museum	<ul style="list-style-type: none"> <li>Damaged and decayed plaster was removed and replaced with fresh one</li> <li>Cracked lime-cement terrace was removed and re-laid with a fresh layer</li> <li>Broken stone <i>chhajjas</i> replaced with new ones</li> <li>Construction of random rubble masonry enclosure including fixing a steel gate at the entrance and fixing ornamental grill over the wall, fixing of wooden doors and windows in the building</li> <li>Provision of plinth protection to random rubble masonry all around the structure</li> </ul>	●	●

● Authenticity retained

● Authenticity altered

### 3. Justification for Inscription

3.54

#### Gagron

**Planning and landscape:** There has been no intervention in planning and landscape since 1968 within the property.

**Built form:** No new structures have been added within the property since its coming under state protection. The conservation works from 2008-10 were carried out by using traditional material and techniques as per the original fabric. An issue affecting the authenticity is the replacement of exterior plaster of parts of Gagron Fort by new lime plaster and new lime wash, as the principle of minimal intervention was not followed and has caused loss of patina. A photographic documentation of the structures before and after the conservation work was carried out by the Department of Museums and Archaeology. The authenticity and/or integrity of built fabric for each component is analysed in the following table.

**Table 3.19: Analysis of conservation works for authenticity and/or integrity of built fabric of site components of Gagron**

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
	<b>Fort wall &amp; Bastions</b>			
F1	Outer Fortification Wall	<ul style="list-style-type: none"> <li>Repointing or grouting / tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones</li> <li>Removal of dead plaster and application of new plaster, preparation of lime surkhi mortar with mortar mill adding gur, methi gugal as per traditional practice (Removing old / loose plaster from walls and cleaning the joints properly then applying various coats as per required)</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> </ul>	●	●
F2	Inner Fortification Wall	<ul style="list-style-type: none"> <li>Removal of vegetation manually including uprooting of bushes and shrubs.</li> </ul>	●	●
F3	Chunda Burj	No work recorded	●	●
F4	Goverdhan Burj	No work recorded	●	●
F5	Lakshman burj	No work recorded	●	●
F6	Ram Burj	<ul style="list-style-type: none"> <li>Providing and laying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone</li> </ul>	●	●
F7	Bastion	No work recorded	●	●
F8	Karishma tower	No work recorded	●	●
F9	Cannon stand	No work recorded	●	●
	<b>Gates</b>			
G1	Suraj Pol	No work recorded	●	●
G2	Ganesh Pol	No work recorded	●	●
G3	Nakkar Khana gate	<ul style="list-style-type: none"> <li>Removal of vegetation manually including uprooting of bushes and shrubs</li> <li>Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi</li> </ul>		

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		mortar with gur, methi, gugal, hemp and belgiri. <ul style="list-style-type: none"> <li>• Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>• Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>• Providing and laying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>• Finishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>• Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> </ul>		
G4	Lal Darwaza	No work recorded	●	●
G5	Bhairu Pol	No work recorded	●	●
G6	Krishna Dwar	No work recorded	●	●
G7	Purva dwar	No work recorded	●	●
G8	River gate	No work recorded	●	●
G9	Gate near Karishma tower	No work recorded	●	●
G10	Gate	No work recorded	●	●
	<b>Chhatris/Cenotaphs</b>			
C1	Jattarmal ki chhatri	No work recorded	●	●
C2	Ganesh chhatri	No work recorded	●	●
C3	Chhatri near Madhusudan temple	No work recorded	●	●
	<b>Palace Area</b>			
P1	Sheesh Mahal	No work recorded	●	●
P2	Darikhana	No work recorded	●	●
P3	Zenana and Mardana Mahal Main Palace	<ul style="list-style-type: none"> <li>• Removal of manually including uprooting of bushes and shrubs</li> <li>• Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>• Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri.</li> <li>• Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>• Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>• Providing and laying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>• Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>• Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>• Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls )</li> </ul>	●	●



### 3. Justification for Inscription

3.56

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<ul style="list-style-type: none"> <li>Addition of dressed stone rain water spout as per existing matching and traditional practice</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>		
	<b>Religious Structures</b>			
R1	Madan Mohan Temple	<ul style="list-style-type: none"> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>Laying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls )</li> <li>Addition of dressed stone rain water spout as per original, using traditional practices</li> <li>Providing and fixing double leaf door shutters as per traditional (deshi pattern) made of MP teak wood planks with Bini, Andheri and Adwa etc</li> <li>Chemical treatment of sand stone, joining of gaps and application of preservative coating to prevent algal growth and make the stone water proof</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>	●	●
R2	Hanuman Temple	No work recorded	●	●
R3	Ramchandrajji Temple	<ul style="list-style-type: none"> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>Refinishing of walls by preparation of lime khameera with lime putty and</li> </ul>	●	●

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<p>stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</p> <ul style="list-style-type: none"> <li>Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>Addition of dressed stone rain water spout as per original, using traditional practices</li> <li>Providing and fixing double leaf door shutters as per traditional (deshi pattern) made of MP teak wood planks with Bini, Andheri and Adwa etc</li> <li>Chemical treatment of sand stone, joining of gaps and application of preservative coating to prevent algal growth and make the stone water proof</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>		
R4	Mosque	No work recorded	●	●
R5	Ganesh temple	No work recorded	●	●
R6	Madhusudan temple	<ul style="list-style-type: none"> <li>Removal of vegetation manually including uprooting of bushes and shrubs</li> <li>Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more then 15mm. Then final coat of lime as finishing coat.</li> <li>Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>Addition of dressed stone rain water spout as per original, using traditional practices</li> <li>Providing and fixing double leaf door shutters as per traditional (deshi pattern) made of MP teak wood planks with Bini, Andheri and Adwa etc</li> <li>Chemical treatment of sand stone, joining of gaps and application of preservative coating to prevent algal growth and make the stone water proof</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved</li> </ul>	●	●

### 3. Justification for Inscription

3.58

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<p>stone of thickness 75 to 100 mm, as per original</p> <ul style="list-style-type: none"> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>		
R7	Chaturbujnath temple	<ul style="list-style-type: none"> <li>Removal of vegetation manually including uprooting of bushes and shrubs</li> <li>Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>Addition of dressed stone rain water spout as per original, using traditional practices</li> <li>Providing and fixing double leaf door shutters as per traditional (desi pattern) made of MP teak wood planks with Bini, Andheri and Adwa etc</li> <li>Chemical treatment of sand stone, joining of gaps and application of preservative coating to prevent algal growth and make the stone water proof</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>	●	●
R8	Dargah	No work recorded	●	●
	<b>Stores</b>			
S1	Barud Khana	<ul style="list-style-type: none"> <li>Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>	●	●
S2	Top Khana	<ul style="list-style-type: none"> <li>Removal of vegetation manually including uprooting of bushes and shrubs</li> <li>Replacing missing elements such as railing, brackets, chhajja stones by</li> </ul>	●	●



S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<p>dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</p> <ul style="list-style-type: none"> <li>• Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>• Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>• Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>• Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>• Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>• Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>• Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>• Addition of dressed stone rain water spout as per original, using traditional practices</li> </ul>		
S3	Sileh Khana	<ul style="list-style-type: none"> <li>• Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>• Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>• Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones</li> <li>• Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>• Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>• Reconstruction of surface decoration relief work by making mebrab's Arches, pillars, decorative creepers, flower of small size etc. in lime surkhi plaster (1:2) as per traditional practices (Arches, Mehrab's) in three coats for base course and subsequent course then making ornamental flowering /design etc, as per original</li> <li>• Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>• Addition of dressed stone rain water spout as per original, using traditional practices</li> <li>• Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>• Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>• Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>	●	●
	<b>Water Structures</b>			
W1	Jauhar Kund	No work recorded	●	●
W2	Baori	No work recorded	●	●
W3	Well	No work recorded	●	●
	<b>Habitation</b>			

### 3. Justification for Inscription

3.60

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
D1	Gagron Village	No work recorded	●	●
	<b>Others</b>			
M1	Raniwas-School building	No work recorded	●	●
M2	Tibari	No work recorded	●	●
M3	Chowkidar Cabin	No work recorded	●	●
M4	Stable	No work recorded	●	●
	Hanuman Akhara	<ul style="list-style-type: none"> <li>Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone</li> <li>Random rubble stone masonry in grinded lime surkhi mortar 1:2 for foundation / superstructure as per existing matching etc (reconstruction of damaged walls)</li> <li>Clearance of debris excavation up to depth 1.50 mtr to 2.00 mtr carefully without damaging the buried architectural parts and collect all the parts for study and re fixing at the time of restoration of the monument</li> <li>Providing and fixing fine dressed sand stone coping (dasa) of approved stone of thickness 75 to 100 mm, as per original</li> <li>Applying lime Kara 1 lime putty : 2 zikki as per traditional practice on plain flat surface, curved surface, decorative stone pillars, merlons in two coats not more than 6 mm thick</li> </ul>	●	●

- Authenticity retained  
 ● Authenticity altered

#### Amber

**Planning and landscape:** The gardens within the site have been maintained by the state of Rajasthan since 1955 AD. In 1971-72 AD, a garden on the planning pattern of the Dalaram Bagh on the Maota Lake was added in the Jaleb Chowk that was originally a parade ground. During the 2006-10 conservation works, the garden was removed and flooring relaid for it to resume its original form.

#### **Built Fabric:**

The earliest dateable structures are from the 16<sup>th</sup> century while few of the structures have a much later vocabulary (18<sup>th</sup> -19<sup>th</sup> century) due to transformations and rebuilding. Conservation works undertaken 1967 onwards included cleaning and preservation of art works (frescoes) in Bhojan Shala and Ganesh Pol. The building conservation works were carried primarily in 2006-10, with the use of traditional materials and techniques. An issue affecting the authenticity is the replacement of exterior plaster of the entire Amber Fort by new lime plaster and new lime wash, as the principle of minimal intervention was not followed and has caused loss of patina. Visitor facilities were added or improved in the form of cast-iron benches, drinking water facilities and toilets and signage added in white Dholpur stone for significant structures within the site, from 2006-10. The authenticity and/or integrity of built fabric are analysed in the following table.

**Table 3.20: Analysis of conservation works for authenticity and/or integrity of built fabric of site components of Amber**

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
	<b>Fort wall &amp; Bastions</b>			
F1	Outer Fort Wall and Palace Walls with bastions	No work recorded	●	●
	<b>Gates</b>			
G1	Suraj Pol	No work recorded	●	●
G2	Chand Pol	No work recorded	●	●
G3	Sinh Pol	<ul style="list-style-type: none"> <li>Conservation of fresco paintings by cleaning of the painted surface from dust, dirt, greasy and oily accretions etc. with the help of suitable chemicals; removal of cracks and holes; consolidation of flaking painted layer; filling of the lacunae in the plaster; treatment of salt effect and providing a preservative coating.</li> <li>Restoration of <i>Jamia</i> glass/stained glass by cleaning them with the help of chemicals; replacement of the broken glasses with the original type; filling of POP along the edges</li> </ul>	●	●
G4	Ganesh Pol	<ul style="list-style-type: none"> <li>In 1981-82, paintings on the façade were consolidated and preserved</li> <li>In 2006-10 works, conservation of fresco paintings undertaken in monuments by cleaning of the painted surface from dust, dirt, greasy and oily accretions etc. with the help of suitable chemicals; removal of cracks and holes; consolidation of flaking painted layer; filling of the lacunae in the plaster; treatment of salt effect and providing a preservative coating</li> <li>Restoration of <i>Jamia</i> glass/stained glass by cleaning them with the help of chemicals; replacement of the broken glasses with the original type; filling of POP along the edges.</li> </ul>	●	●
G5	South Pol	No work recorded	●	●
G6	Tripolia gate	No work recorded	●	●
G7	Bhairu Pol	No work recorded	●	●
G8	Dhruva Pol	No work recorded	●	●
	<b>Palace Area</b>			
P1	Jaleb Chowk	<ul style="list-style-type: none"> <li>The Jaleb Chowk was developed on the old pattern of Dalaram garden</li> <li>The garden was removed as per original form and stone flooring laid</li> </ul>	●	●
P2	Diwan-i-am	<ul style="list-style-type: none"> <li>Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> <li>Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>Reconstruction of surface decoration relief involved stucco work in lime, Surkhi, mortar (1:2) as per traditional practices and design, the mortar prepared by grinding mill</li> </ul>	●	●
P3	Diwan-i-khas	<ul style="list-style-type: none"> <li>Replacing missing elements such as railing, brackets, chhajja stones by dismembering of damaged parts carefully and replaced with new parts as per existing matching, fixing in grinded lime surkhi mortar</li> <li>Repair/consolidation of structural damage in floor, wall and roof by providing and laying lime dhar as per traditional practice with lime surkhi mortar with gur, methi, gugal, hemp and belgiri</li> <li>Repointing or grouting/tuman repairs with grinded lime surkhi mortar and lime kara mortar, including cleaning the loose joints and packing the joints with pieces of bricks/stones.</li> </ul>	●	●



### 3. Justification for Inscription

3.62

S.No	Area	Excavation/Conservation works undertaken	Authenticity	
			Form and design	Material and substance
		<ul style="list-style-type: none"> <li>Removal of dead plaster, cleaning the joints properly and applying various coats of lime plaster as required, each coat done after seven days and not more than 15mm. Then final coat of lime as finishing coat.</li> <li>Relaying lime concrete as a base of flooring then fixing stone slab flooring of approved shade in approved pattern over 30mm.thick grinded lime surkhi mortar and jointed with masaldar lime putty and stone powder with pigment to match shade of stone.</li> <li>Refinishing of walls by preparation of lime khameera with lime putty and stone pigment by slaking of lime at least 15 days and changing water every day adding gugal and gondh mixing properly. Applying three or four coats with fine brushes including base course</li> <li>Reconstruction of surface decoration relief involved stucco work in lime, Surkhi, mortar (1:2) as per traditional practices and design, the mortar prepared by grinding mill</li> </ul>		
P4	Man Singh Mahal	<ul style="list-style-type: none"> <li>From 1972-73, layers of whitewash which had been applied on the 3 panels of painting on the walls were scientifically removed and the paintings exposed. Paintings on 3 wooden doors were chemically conserved.</li> <li>Zenana partitions were removed in 2007-08.</li> </ul>	●	●
P5	Rang mahal	<ul style="list-style-type: none"> <li>Conservation of fresco paintings in monuments by cleaning of the painted surface from dust, dirt, greasy and oily accretions etc. with the help of suitable chemicals; removal of cracks and holes; consolidation of flaking painted layer; filling of the lacunae in the plaster; treatment of salt effect and providing a preservative coating.</li> <li>Restoration of <i>Jamia</i> glass/stained glass by cleaning them with the help of chemicals; replacement of the broken glasses with the original type; filling of POP along the edges acc.</li> </ul>	●	●
	<b>Haveli/House</b>			
H1	Panna Miyan Ki Haveli	<ul style="list-style-type: none"> <li>Reconstruction in Tuman Masonry in lime surkhi mortar and stone chips; Stone masonry in lime surkhi mortar</li> <li>Re-pointing or grouting with grinded lime <i>surkhi</i> mortar and lime <i>kara mortar</i>, including cleaning the loose joints and packing the joints with pieces of bricks/stones</li> </ul>	●	●
	<b>Religious Structures</b>			
R1	Shila Mata Temple	No work recorded	●	●
R2	Temple (Man Singh Mahal)	No work recorded	●	●
	<b>Stores</b>			
S1	Palki khana	No work recorded	●	●
S2	Stables	No work recorded	●	●
	<b>Gardens</b>			
B1	Dalaram Bagh	<ul style="list-style-type: none"> <li>Maintenance of and development of garden since 1955</li> <li>Lighting</li> </ul>	●	●
B2	Ram Bagh	<ul style="list-style-type: none"> <li>Maintenance of and development of garden since 1955</li> </ul>	●	●
B3	Kesar Kyari	<ul style="list-style-type: none"> <li>Maintenance of and development of garden since 1955</li> </ul>	●	●
	<b>Water Structures</b>			
W1	Water system to get water up from Maota lake	<ul style="list-style-type: none"> <li>Restored in 2008-09</li> </ul>	●	●
W2	Hammam	No work recorded	●	●
	<b>Others</b>			
M1	West court	No work recorded	●	●
M2	South court	No work recorded	●	●
M3	Bhojan Shala/Dining hall	<ul style="list-style-type: none"> <li>In 1967-68, paintings of floral designs on the lower portion of the walls of Bhojan Shala were cleaned and preserved</li> <li>In 2006-10, wall paintings were chemically cleaned, restored and preserved</li> </ul>	●	●
M4	Barracks & Attendant Quarters	No work recorded	●	●

● Authenticity retained

● Authenticity altered

**Jaisalmer**

**Planning and landscape:** The fort is planned following the form of the hill. It has not been changed since inception. Minor changes were undertaken by some house owners by constructing toilets in the open areas, but overall no major change has been noticed in its planning and street layouts. Most of the squares designed for public / community gathering remained unchanged. Paving of the streets in some areas has been replaced, but the materials remained the same.

**Built Fabric:**

All major buildings and palaces within the fort remained unchanged. The use of these buildings has been changed to museums in recent times. Some of the houses were converted to guest houses. Primarily main material for any addition/ alteration undertaken by the houses is local stone only, which is the original building material. ASI has undertaken conservation of the fort wall and retaining wall, using local stone only.

Year	Area	Excavation/conservation works undertaken	Authenticity	
			Form and Design	Material and Substance
1979-80	Fort wall	Out of plumb masonry of the Fort was dismantled and reconstructed. The outlet channels, which were filled with silt, were cleared of debris and the outlets were repaired. Rough chiselled ashlar masonry was also repaired at some places.	●	●
1980-81	Fort wall	In continuation of the previous year's work, ashlar masonry of the western fortification wall, adjoining the bastion was dismantled and rebuilt.	●	●
1982-83	Bastion near Nidhi prole	The bulging section of the bastion near Nidhi prole was dismantled and rebuilt in lime cement mortar. Damaged stones were replaced with new ones.	●	●
1983-84	Lower fortification wall	Bulged and decayed masonry of the lower fortification wall near Nidhi prole was dismantled after numbering the stones. Dismantled stones were reset in lime cement mortar. New stones dressed as per the original design were also used wherever required and the wall was properly aligned. The approach road inside the Fort between Hawa prole and Suraj prole was repaired giving it the correct slope and gradient. The area in front of Nidhi prole was developed by providing ashlar masonry and enclosed by iron grill.	●	●
1984-85	Lower fortification wall	Bulged and decayed portion of the lower Fort wall near old bus stand was dismantled after documenting the exact position of each stone for reassembly. The wall was rebuilt in lime cement mortar after redressing the weathered stones. The rubble masonry wall at the top was rebuilt with proper alignment and new stones of a bigger size.	●	●
	Road between Ganesh prole and Suraj prole	The approach road inside the Fort, between Ganesh prole and Suraj prole was repaired by removing worn-out and uneven stones and redressing them and relaying them in lime cement mortar. Proper slope and gradient for the road was also maintained.	●	●
1985-86	Bastion of the upper Fort wall	The cracked and bulging bastion of the upper Fort wall was reset.	●	●

### 3. Justification for Inscription

3.64

	Pathway from Nidhi prole to Suraj	The undulated pathway from Nidhi prole to Suraj prole was dismantled and reset in lime cement mortar at the presubscribed gradient. The open drain along the path was covered by laying underground pipes.	●	●
1986-87	Sambhavnath temple	Chemical treatment and preservation of the stone carvings and sculptures inside Sambhavnath temple were carried out.	●	●
1987-88	Bastion of the upper fortification wall	The work of restoring the cracked and bulged bastion of the upper fortification wall was continued.	●	●
1988-89	Lower fortification	The bulged out and damaged portions of the lower fortification wall was dismantled and reconstructed.	●	●
1989-90	Lower Fort wall	Work of dismantling and reconstructing bulged out and damaged lower Fort wall was taken up.	●	●
1990-91	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled, the serviceable material sorted out, and the wall rebuilt with old and new stones with proper alignment.	●	●
1991-92	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled, the serviceable material sorted out, and the wall rebuilt with properly dressed stones in lime cement mortar. The wall was also provided with weep holes.	●	●
1992-93	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled and reconstructed in random rubble masonry. Collapsed ashlar stone masonry was reset.	●	●
1993-94	Lower fortification wall	Bulging and damaged part of the lower fortification wall was dismantled and reconstructed in random rubble masonry. Collapsed ashlar stone masonry was reset.	●	●
1994-95	fortification wall	Bulged and weathered masonry of the wall was dismantled up to 10 meter height with the help of a chain pulley, and was reconstruction using ashlar masonry for the facing and random rubble masonry in lime cement mortar as the core wall. The wall was given proper alignment, provided with weep holes and built using old serviceable stones, properly dressed, as well as, new stones. Reconstruction of the dismantled portion of the collapsed lower Fort wall along Shiv Marg was also taken up.	●	●
1995-96	Lower Fort wall	The collapsed portion of the lower Fort wall was restored with ashlar stone masonry using dressed stones.	●	●
1996-97	Lower Fort wall	A portion of the lower Fort wall that had bulged and was out of plumb was dismantled, serviceable material sorted out for reuse and the wall reconstructed as per the original pattern.	●	●
1997-98	Lower Fort wall	The portion of decayed lower Fort wall with ashlar stone masonry facing was reconstructed.	●	●
1998-99	Lower Fort wall	The collapsed portion of lower fortification wall on the northern side was reconstructed partly with ashlar masonry of heavy stone in two line dressing for facing and rubble stone wall inside in lime cement mortar. Restoration of lower fortification wall was partly undertaken at the north eastern and eastern side ring road by ashlar masonry of heavy stones for facing, and big size rubble stone masonry wall inside with lime cement mortar.	●	●
1999-2000	Lower Fort wall	The collapsed, decayed and bulged portion of lower fortification wall was dismantled and reconstructed partly with ashlar masonry of heavy stones in two line dressing for facing and partly in rubble stone in interior of the wall. Also loose and decayed ashlar masonry stones of the upper bastion were taken out and new dressed stones fixed in lime cement mortar.	●	●
2000	Restoration of the lower fortification wall	Due to unauthorized construction of a restaurant and deposition of debris, a portion of the lower fortification wall near the old jail building had collapsed on October 17, 1997. The collapsed portion of the wall was restored at a cost of Rs. 5 lakh.	●	●



		Due to heavy rain on August 1, 1999, lower and upper fortification walls were damaged at three places. Out of these, restoration of the collapsed portion of the lower fortification wall at the southern side was completed	●	●
		Another portion of the lower fortification wall, opposite the Police Chowki, which had collapsed due to heavy rain, is being restored and about 25 % of work is completed.	●	●
		Restoration of lower fortification wall opposite the taxi stand, which was in progress, was completed	●	●
	Strengthening of bastions	After the collapse of two bastions of the upper fortification wall and lower fortification wall, the whole Fort was thoroughly examined and certain bastions and wall portions were identified for urgent strengthening. These bastions were strengthened by underpinning. At certain places, the base rock was found exposed and eroded, the gaps in the exposed rock were filled and the rock covered to stop any further damage.	●	●
	Minor repairs	Minor repairs like filling up of joints, replacement of damaged stones, dismantling of dangerous parapet walls etc. was carried out from time to time, as and when the need arose.	●	●
2000 - 2001	lower fortification wall	Fortifications were repaired	●	●
2001-2003	fortification wall	The portion of the upper and the lower Fort walls that had collapsed were reconstructed.	●	●
		The cracks and cavities in the walls were also stitched and filled up wherever required. The ramp (mori), in between the inner and outer Fort walls, wherever accessible was also repaired and the top surface made watertight.	●	●
2005-10	Toe wall	Excavation and exposition of the original toe wall at places where it was either covered up or hidden due to raised levels of the adjoining roads and of its reconstruction where it was destroyed in the process. Work of rebuilding of the toe wall was in progress along the south west portion of the Fort. Largely new stone was used in the reconstruction, strengthened with the use of cement mortar and bedding. Detailed documentation is available with the ASI	●	●
	Pitching wall	The rebuilding of the pitching wall is an ongoing process. In recent years, this rebuilding of the pitching wall has been extensive, as is evident in the significant amount of new stone that has been introduced. No effort is being made to save the Fort's historic fabric through consolidation of the original stone. Failed sections are being rebuilt as a retaining structure and not in accordance with the original pitching, which was not intended to act as a retaining wall.	●	●
2010	Restoration of Pitching Wall Trial Project	Badly damaged, decayed, tilted and dislodged dry masonry pitching wall length of 10 mtr in Section-I was reset the ashlar stone wall with the help of new as well as old stone on a cement concrete base, clamping of stone members	●	●
2011	outer fortification wall from Khirki Pada to Kanwar Pada	Conservation and Restoration	●	●

### Summary of Authenticity

#### **Planning and landscape:**

Prior to coming under national or state protection, the 6 forts maintained planning principles and landscape ranging from 13<sup>th</sup> to 19<sup>th</sup> century AD, under the Rajput rulers. While Chittorgarh and Kumbhalgarh saw no change since 16<sup>th</sup> century, the original planning and landscape were maintained at Ranthambore, Gagron and in later additions. At Jaisalmer since it's a living fort, changes in the residential buildings were noticed but majorly ramparts and main buildings & temples of the fort remained unaltered. During the 20<sup>th</sup> - 21<sup>st</sup> century works at Chittorgarh new gardens were added and a garden introduced in Jaleb Chowk at Amber. Another essential intervention has been addition of approach roads at Chittorgarh, Kumbhalgarh, Ranthambore for easy access.

#### **Built Fabric:**

- **Form and Design:** The form and design of structure has remained the same after 19<sup>th</sup> century, till the time additions were made by the Rajput rulers.
- **Material and substance:** All the 56 forts retain their original construction material and substance. A few structures within Chittorgarh, Kumbhalgarh and Ranthambore Forts have seen alteration in the 20<sup>th</sup> century, in terms of use of non traditional materials such as cement and steel, while in Gagron and Amber completely traditional materials have been used in all conservation works, though replacement of original plaster is debatable in some areas.

#### **Function:**

The Forts were originally defense structures that also housed the royal family. However, housing the administrative set up of the chiefdom/ kingdom partly lost its significance in the 19<sup>th</sup> century, with the British controlling most of India and further in the 20<sup>th</sup> century as India gained its Independence from the British and became a republic with the Rajput kingdoms dissolved in to the modern state of Rajasthan. Today, these forts are protected monuments under the government and are open to tourists as icons of history.

#### **Location:**

All the Hill Forts are located in their original positions within the geographical context.

### 3.1.e Protection and Management requirements

Various attributes for protection and management of the six hill forts are elaborated below:

#### a Ownership

**Table 3.1 – Categories of land ownership of 5 Hill Fort sites of the nominated property**

S. No.	Name of Fort Site	Ownership
1	Chittorgarh	<ul style="list-style-type: none"> <li>• Archaeological Survey of India, Government of India</li> <li>• Department of Forest, Government of Rajasthan</li> <li>• Department of Archaeology, Government of Rajasthan</li> <li>• Private</li> </ul>
2	Kumbhalgarh	<ul style="list-style-type: none"> <li>• Department of Forest, Government of Rajasthan</li> <li>• Private</li> </ul>
3.	Ranthambore	<ul style="list-style-type: none"> <li>• Department of Forest, Government of Rajasthan</li> </ul>
4	Gagron	<ul style="list-style-type: none"> <li>• Department of Archaeology and Museums, Government of Rajasthan</li> <li>• Private</li> </ul>
5	Amber	<ul style="list-style-type: none"> <li>• Department of Archaeology and Museums, Government of Rajasthan</li> </ul>
6	Jaisalmer	<ul style="list-style-type: none"> <li>• Archaeological Survey of India, Government of India</li> <li>• Private</li> </ul>

#### b Protective designation

All the Six hill forts are protected under the legal provisions. Jaisalmer, Chittorgarh, Kumbalgarh and Ranthambore are protected under Act of Government of India, The Ancient and Historical Monuments and Archaeological Sites and Remains (Declaration of National Importance) Act, 1951 (No LXXI of 1951), AMASR Amendment, 2010. Amber and Gagron are protected under state legislation, Rajasthan Monuments, Archaeological, Sites and Antiquities (Act, 1968), Government of Rajasthan. Both these act are sufficient for the protection of cultural heritage.

The management strategy for the 6 Hill Forts of Rajasthan essentially evolves from two basic premises:

- a) The existing legislation and policy framework for the protection of these 6 Hill Fort sites at National, State and Local level and,
- b) The existing management regime for conservation of protected sites established by Archeological Survey of India through its years of experience in the field.

The 6 Hill Fort sites are comprehensively protected and managed under a management system that is endorsed by the Archaeological Survey of India, the Department of Art and Culture, Government of Rajasthan and the Department of Forest, Government of Rajasthan and local bodies. The framework



### 3. Justification for Inscription

3.68

comprises legislative regimes applicable on the 6 hill fort sites across Rajasthan State at three levels of government i.e. Central, State and Local along with a management plan for each of the fort site and, a range of other strategies to ensure the highest level of protection for the sites. (Refer Annexure 1 for Management Plan of all Fort sites and endorsements of the Management Framework)

Hill Fort Sites	Chittorgarh	Kumbhalgarh	Ranthambore	Amber	Gagron	Jaisalmer
Management framework for hill forts sites	Apex advisory committee for steering the Management Framework ( State level)					
	Management Plan for Chittorgarh	Management Plan for Kumbhalgarh	Management Plan for Ranthambore	Management Plan for Amber	Management Plan for Gagron	Management Plan for Jaisalmer ( Ongoing)
Planning Authority	National Monument Authority/ASI			State Archeology, Rajasthan		National Monument Authority/ASI
Legislation property	AMASR Act,1958 and Amendment 2010			State Archeology Act, 1961		AMASR Act,1958 and Amendment 2010
Buffer Zone	State Forest Act, 1953					
	Chittorgarh Master Plan				Jaipur Master Plan	

#### **Representation of the Management Strategy for the Six Hill Fort Sites of Rajasthan**

A State Level Apex Advisory Committee will oversee the implementation of this Management Framework for Hill Forts of Rajasthan under the chairmanship of the Chief Secretary, Rajasthan with representations from various stakeholders/ owners of all 6 Hill Fort sites. The framework has the following objectives;

- To accompany the 6 Hill Forts of Rajasthan in their own local management and to coordinate the cross-cutting initiatives for the serial nomination
- To initiate specific projects for the 6 Hill Forts such as:
  - a) Sharing of research and documentation practices
  - b) Sharing of conservation and management practices
  - c) Addressing common interpretive resources

The criteria (ii), (iii) and (vi) for this series are applicable on all 6 hill forts and the OUV stated here forms the basis for protection and management of the series. This will be used to guide the works under Management framework of each fort site, which will be closely monitored by Fort Apex Committee. The management framework aims to promote new thinking in managing properties in a serial nomination in India without taking anything from the autonomy of each site.

**Policies and programmes related to the presentation and promotion of the property**

ASI and the Department of Archaeology and Museums, Rajasthan will jointly work on programmes related to presentation and promotion of the serial property of Five six Hill Forts of Rajasthan as this is also a mandate of the Hill Forts Management Framework. Specific projects for the 6 Hill Forts to be initiated through the framework and steering committee relate to:

- d) Sharing of research and documentation practices
- e) Sharing of conservation and management practices
- f) Addressing common interpretive resources

A common website will be specifically designed for the Hill Forts of Rajasthan and, international level associations with organisations such as the Fortress Studies Group for knowledge exchange will be developed. The common interpretation policies included in the Management Plan for each fort will be used to develop specific programmes for the promotion of the serial nomination. These include:

- a) Facilities to increase intellectual access to the Hill Forts of Rajasthan will cater to the widest range of visitor community including the local residents, domestic and international visitors. Intellectual access will consider special segments as per gender, age and abilities of visitors. They will be encouraged to explore and learn about the physical and cultural aspects of the forts.
- b) Interpretation programmes and messages will have primary regard for the OUV of the property.
- c) Messages to be conveyed in interpretation will be developed in consultation with all involved in developing, managing and delivering that interpretation.
- d) The approach to interpretation will extend beyond the site itself, providing an understanding of the place in its context of the Serial Nomination.
- e) Regular research and evaluation will continue to inform all interpretive activities
- f) Special training to guides will be given and special brochures that narrate authentic, historic information will be made available to the tourists.
- g) The existing scholarship on Hill Forts will be systematically compiled and made available to the visitors through a website and research centre for the serial nomination.

### 3.2 Comparative analysis (including state of conservation of similar properties)

#### ***Regional Level***

The state of Rajasthan that comprises of the kingdoms held by medieval Hindu Rajput rulers in north-western India has numerous forts that served as strongholds of the local rulers. The local geography, with the presence of the Aravalli mountain range running through the region (in eastern and south-eastern parts) enabled development of Hill Forts from the period starting from 2<sup>nd</sup> century BC up to 17<sup>th</sup>-18<sup>th</sup> century AD. The region is divided into two parts by the Aravalli mountain range— eastern (hilly, fertile and semi-humid identified as cultural zones of Dhoondhar, Mewar, Mewat-Brij, Hadauti and Vagad) and western (arid and semi-arid region identified as the cultural zones of Marwar, with subzones of Marwar, Shekhawati, Merwara and Godwad) Rajasthan and the 5 nominated Hill Forts are representatives from various physiographic regions and cultural zones in eastern Rajasthan. The significant Hill Forts of Marwar cultural zone of western Rajasthan such as Jaisalmer Fort and Mehrangarh Fort of Jodhpur may be considered for an extension of the serial nomination subsequently, conditional to improved management and state of preservation.

In terms of stylistic development, the Hill Forts can be divided as early Rajput and mature Rajput types. Early Hill Forts were constructed in Rajput history such as the Bhatner Fort at Hanumangarh, Timangarh Fort south of Bayana, Taragarh Fort at Ajmer and Ahar Fort near Udaipur. The Achalgarh Fort at Mt. Abu has layers of history from the 11<sup>th</sup> century and the 15<sup>th</sup> century, while the Mandore Fort may have even earlier fabric, though they do not have any surviving structures and can be explored only through archaeological studies. The mature Rajput style can be seen in the fort palaces of Udaipur, Bikaner, Dungarpur, Bundi and Kota as in Jaisalmer and Mehrangarh, Jodhpur.



As a process of comparison, following list of forts in table 1 indicate significant forts in Rajasthan based on the detailed research on the subject. (Refer to complete bibliography in section 7e of this document).

<b>TABLE 1 : LIST OF MOST SIGNIFICANT FORTS IN RAJASTHAN (showing location in physiographic and cultural zones)</b>					
<b>S. No.</b>	<b>Name of Fort</b>	<b>Cultural Zone</b>	<b>Protection Status/Ownership</b>	<b>Geographical/ Physiographic Zone</b>	
1	Kumbhalgarh	Mewar Zone	ASI Protected	Aravalli Range and Hilly Region	
2	City Palace, Udaipur	Mewar Zone	Private and Unprotected		
3	Sajjangarh	Mewar Zone	State Protected		
4	Basantgarh	Mewar Zone	ASI Protected		
5	Achalgarh	Marwar Zone	ASI Protected		
6	Dungarpur	Vagad Zone	Private and Unprotected		
7	Chittorgarh	Mewar Zone	ASI Protected	Eastern Plain	
8	Mandalgarh	Mewar Zone	State Protected		
9	Amber	Dhoondhar Zone	State Protected		
10	Jaigarh	Dhoondhar Zone	State Protected		
11	Nahargarh	Dhoondhar Zone	Private and Unprotected		
12	Ramgarh	Dhoondhar Zone	State Protected		
13	Shahbad	Dhoondhar Zone	State Protected		
14	Kelwara	Dhoondhar Zone	State Protected		
15	Nayla	Dhoondhar Zone	Private and Unprotected		
16	Chomu	Dhoondhar Zone	Private and Unprotected		
17	Deeg Fort and Palace	Mewat-Brij Zone	ASI and State Protection		
18	Kumher, Bharatpur	Mewat-Brij Zone	State Protected		
19	Bayana, Bharatpur	Mewat-Brij Zone	ASI Protected		
20	Weir, Bharatpur	Mewat-Brij Zone	State Protected		
21	Lohagarh, Bharatpur	Mewat-Brij Zone	ASI Protected		
22	Shergarh, Dholpur	Mewat-Brij Zone	ASI Protected		North Eastern Hilly Region
23	Timargarh	Mewat-Brij Zone	State Protected		
24	Ranthambore	Mewat-Brij Zone	ASI Protected		
25	Khander	Mewat-Brij Zone	Private and Unprotected		
26	Bala Kila	Mewat-Brij Zone	State Protected		
27	Neemrana	Mewat-Brij Zone	Private and Unprotected		
28	Bhangarh	Mewat-Brij Zone	ASI Protected		
29	Kankawadi	Mewat-Brij Zone	State Protected		
30	Rajgarh, Alwar	Mewat-Brij Zone	State Protected		
31	Indore, Alwar	Mewat-Brij Zone	State Protected	South East Rajasthan Pathar	
32	Gagron	Hadauti Zone	State Protected		
33	Darra Fort, Kota	Hadauti Zone	State Protected		
34	Taragarh, Bundi	Hadauti Zone	Private and Unprotected		
35	Shergarh, Baran	Hadauti Zone	State Protected		
36	Bhainsoragarh	Mewar/ Hadauti	Private and Unprotected	Sandy Arid Plains	
<b>S. No.</b>	<b>Name of Fort</b>	<b>Cultural Zone</b>	<b>Protection Status/Ownership</b>		<b>Geographical/ Physiographic Zone</b>
37	Jaisalmer Fort	Marwar Zone	ASI Protected		Sandy Arid Plains
38	Junagarh, Bikaner	Marwar Zone	Private and Unprotected		
39	Pokhran	Marwar Zone	Private and Unprotected		
40	Ghotaru, Jaisalmer	Marwar Zone	State Protected		
41	Kishangarh Fort	Marwar Zone	State Protected		
42	Bhatner Fort, Hanumangarh	Marwar Zone	ASI Protected		Ghaggar Plain
43	Jalore	Marwar Zone	State Protected		
44	Siwana, Barmer	Marwar Zone	<b>State Protected</b>		
45	Nagaur Fort	Jangal/Ahichhatrapur	<b>Private and Unprotected</b>		
46	Taragarh, Ajmer	Jangal/Ahichhatrapur	<b>ASI Protected</b>		

### 3. Justification for Inscription

3.72

47	Akbar's Fort, Ajmer	Jangal/Ahichhatrapur	ASI Protected	Semi Arid Transitional Plains
48	Mandore, Jodhpur	Marwar Zone	State Protected	
49	Mehrangarh, Jodhpur	Marwar Zone	Private and Unprotected	
50	Sojat Fort, Pali	Marwar Zone	State Protected	
51	Roa Dudgarh	Marwar Zone	State Protected	
52	Fatehpur	Marwar Zone	State Protected	
53	Lacchmangarh, Sikar	Marwar Zone	State Protected	
54	Mukundgarh, Jhunjhunu	Marwar Zone	Private and Unprotected	

#### Forts that exhibit Primary Characteristics of Rajput Military Architecture

Since Rajasthan has more than hundred forts/fortresses/castles and watch posts of varying scale, proportion and significance (with 54 of the most significant ones as listed in Table 1 above); it is important to establish the key characteristics of Rajput Military Architecture that are integral to the making of a Rajput Fort for further selection:

- (i) Rajput Military Architecture recognises the Forts located on Hill (Hill Forts) as the most superior mode of defence. This key concept of Rajput Military Architecture is evident in the location of maximum forts in Rajasthan on hills, hilly terrain, outcrop or an elevated mound. The landscape of Rajasthan is dotted with fortifications on almost every hill as quoted by several authors (Misra p.v, Sarkar, p.148). This fact applies even to the typology of few ground forts observed in a particular physiographic region of arid plains in Rajasthan such as Nagaur, Junagarh, Fatehpur and Lachmangarh which are located on the highest mound/elevation available in the surrounding flat terrain.
- (ii) Rajput rulers built several forts with the purpose of
  - a) to control the conquered kingdoms for which the monitoring from hill top fortifications often interconnected served useful and,
  - b) to serve as a citadel and protect local inhabitants of surrounding settlements during need. Though important as strategic military centres, these forts also served as residential headquarters of the rulers as well as towns with markets and houses of civil population. Hence, a typical Rajput Fort primarily comprises of four parts:
    - 1) Defense Mechanisms including fort walls, bastions, gateways, armoury, water-systems and granaries for long term sustenance during siege emergency or droughts/floods
    - 2) Exclusive ground area for shelter of inhabitants from surroundings during siege, emergency or droughts/floods
    - 3) Soldiers' Quarters, Houses, Bazzars, temples and public spaces for fort residents associated with the maintenance and functioning of the fort and royals
    - 4) Royal Quarters (For the ruler and the ladies of the house)

The initial list of 54 forts is further examined considering the presence of key characteristics of Rajput Military Architecture i.e. a selection of primarily hill forts that are designed as citadels for defence and shelter. This results in exclusion of a number of Forts from the initial inventory such as Sajjangarh which was temporary abodes for pleasure, Nahargarh which was an extended fortification for Jaipur, few 18<sup>th</sup> c forts not belonging to the Rajput clan such as Kumher, Wier, Deeg and Lohagarh in Bharatpur, Akbar's Fort in Ajmer, Fatehpur under Kayamkhani Nawabs and, few forts of smaller fiefdoms that do not have characteristic elements of a citadel as formed in major Rajput Kingdoms and capitals. We thus arrive at a list of 24 most significant Forts of Rajasthan that have all key characteristics of Rajput Military Architecture presented in Table 2 on next page.

S. No.	Name of Fort	Cultural Zone	Protection Status/Ownership	Geographical/Physio graphic Zone
1	Kumbhalgarh	Mewar Zone	ASI Protected	Aravalli Range and Hilly Region
2	City Palace, Udaipur	Mewar Zone	Private and Unprotected	
3	Basantgarh	Mewar Zone	ASI Protected	
4	Achalgarh	Marwar Zone	ASI Protected	
5	Chittorgarh	Mewar Zone	ASI Protected	Eastern Plain
6	Mandalgarh	Mewar Zone	State Protected	
7	Amber - Jaigarh*	Dhoondhar Zone	State- Private/Unprotected	
8	Bayana	Mewat-Brij Zone	ASI Protected	
9	Shergarh, Dholpur	Mewat-Brij Zone	ASI Protected	
10	Ranthambore	Mewat-Brij Zone	ASI Protected	North Eastern Hilly Region
11	Bala Kila	Mewat-Brij Zone	State Protected	
12	Gagron	Hadauti Zone	State Protected	South East Rajasthan Pathar
13	Taragarh, Bundi	Hadauti Zone	Private and Unprotected	
14	Shergarh, Baran	Hadauti Zone	State Protected	
15	Bhainsoragarh**	Mewar/ Hadauti	Private and Unprotected	Sandy Arid Plains
16	Jaisalmer	Marwar Zone	ASI Protected	
17	Junagarh	Marwar Zone	Private and Unprotected	
18	Siwana	Marwar Zone	State Protected	
19	Bhatner	Marwar Zone	ASI Protected	Ghaggar Plain
20	Jalore	Marwar Zone	State Protected	Semi Arid Transitional Plains
21	Nagaur	Jangal/Ahichhatrapur	Private and Unprotected	
22	Taragarh, Ajmer	Jangal/Ahichhatrapur	ASI Protected	
23	Mandore	Marwar Zone	ASI Protected	
24	Mehrangarh	Marwar Zone	Private and Unprotected	

*\*This table includes Amber-Jaigarh as a single component since these were interlinked functionally for defense and collectively present the characteristics of a single Rajput Fort.*

*\*\*Bhaisonragarh is a fiefdom fort but it is included here since it is one of the few examples of a hill water fort in Rajasthan showing interesting physiographic adaptation*

The map of Rajasthan on next page showing the 54 Forts listed in the initial inventory and 24 forts from Table 2 indicates an overall higher concentration of forts in the south eastern region of Rajasthan



### 3. Justification for Inscription



Map 01: Map showing location of significant Forts in Rajasthan, India (in different physio-graphic and cultural zones)

### Outstanding Forts that reflect the ingenuity of Rajput Defence Architecture

The ingenuity of Rajput Military Architecture resides in creating the best defense strategy in the medieval pre armoury warfare period based on two basic parameters outlined earlier in this document:

- a) An in-depth understanding of the physiographic terrain in order to adapt it best for the placement and planning of the fort often rendering it completely **inaccessible** to the enemy
- b) Manmade military innovations in fort architecture that were well integrated with the natural defense features of the terrain to make the fort completely **impregnable** to the enemy

Considering the above two parameters, the list of 24 forts in Table 2 is evaluated separately on both these parameters to arrive at a final selection of the Rajput Forts with most outstanding Military Architecture.

Table 3.5 -Table showing comparison of the testimony the individual components provide to the Rajput warrior clan as compared to other forts

Rajput Forts		Records of famous battles/siege in history glorifying Rajput warriorship	Valour of a particular Rajput ruler/warrior personality recorded in regional/ national history	Rajput rituals of warfare recorded in regional/national history	Rajput patronage to art, religion, music and literature
Property for Serial Nomination	Chittorgarh	Seige of 1303 by Ala-ud-din Khilji  Seige of 1535 by Sultan of Gujarat Seige of 1567 by Emperor Akbar	Rana Ratan Singh  Rathore chiefs Jaimal and Patta	Jauhar and Shaka ritual in seige of 1303 , 1535 and 1567	Focal point for growth of Jainism and Hinduism;  Association with poetess Mira Bai
	Kumbhalgarh	Attack by Mahmud of Khilji (in 1442, 1458-59 and 1467 AD) - unsuccessful Attack by Mughal Emperor Akbar (in 1568 AD) - unsuccessful	Rana Kumbha  Rana Pratap who fiercely opposed	XFew sati sculptures but no record of Jauhar and Shaka	Focal point for growth of Jainism and Hinduism Treatise on arts, architecture and literature undermusic,Rana Kumbha/Mandana
	Ranthambore	Seige by Sultan Iltutmish of Delhi around 1236.	Chauhan ruler Vagbhat	Jauhar and Shaka by Chauhans of Ranthambore in 1301	Focal point for growth of Jainism and Hinduism

### 3. Justification for Inscription

3.76

		Seige by Chauhan Rajput Vagbhat against Sultanate army (1238 AD) Attack by Sultan Jalaluddin Khilji around 1290-91 AD - unsuccessful Seige and sack of the Fort in 1301 by Alaud-din Khilji Seige by Akbar in 1569. Seige by Gangadhar Tantia and Marathas in 1759.	Chauhan ruler Hammir		Golden era of architecture under Jait Singh Arts, literature, architecture at the court of Hammir Chauhan
	Gagron	Siege by Alauddin Khilji in late 13th c after 11 unsuccessful attacks Seige by Hoshang Shah, the Sultan of Malwa in 1423 Seige by Malwa's Sultan Mahmud Khilji in 1444	Khinchi Rajput ruler Jait Singh  Rajput ruler Achaldas Khinchi Khinchi Rajput ruler Palhan-Si and Mewar's warrior Dheera	Jauhar and Shaka by Khinchi Chauhans in 1423 and 1444.	19th - 20th century arts, music and education under Jhala Rajputs
	Amber	no significant attack or seige	Kachchwaha rulers such as Man Singh, Mirza Raja Jai Singh and Sawai Jai Singh II as army commanders of Mughals	no records	Patronage to arts, literature and building crafts - Amber School of Painting

Rajput Forts		Records of famous battles/siege in history glorifying Rajput warriorship	Valour of a particular Rajput ruler/warrior personality recorded in regional/ national history	Rajput rituals of warfare recorded in regional/national history	Rajput patronage to art, religion, music and literature
Comparable State Level Hills Forts	Jaisalmer	7 year long seige by Ala-ud-din Khilji, he captured the Fort in 1293 Seige by Sultan Ferozshah	Rana Ratan Singh Rathore chiefs Jaimal and Patta	Jauhar and Shaka riutal in seige of	Focal point for growth of Jainism and Hinduism; Association with poetess Mira Bai
	Mehrangarh	Sher Shah Suri in 1542 (unsuccessful)  Seige by Akbar in mid 16th century	Rathore Rajput ruler Rao Jodha Soldier Kirat Singh Soda	no record	Marwar school of Painting



		Victory over Mughals in 1707 Attack by Jaipur army - early 19th c			
	Jalore	Defended in 1228 when circled by Iltutmish Captured by Ala-ud-din Khilji in 1311	Ruler Udaysimha who defended the fort in 1228;  Ruler Kanhad Dev Songara and his son died defending the Fort	Jauhar committed in 1311	Important centre of Jainism
	Bundi	no record	Several Hada Rajputs of Bundi fought battles for the Mughals	no record	Building crafts (frescoes, stone carving), miniature painting
	Achalgarh			No significant record	Centre for Jainism
	Balakila	no record	Ruler Hassan Khan Mewati died fighting in first Battle of Khanwa against Babur in 1527	None	No major contribution
	Taragarh, Ajmer	no record	Prithviraj Chauhan who ruled Ajmer and Delhi in late 12th c - led forces in 2 Battles of Tarain	None	None
Comparable National Level Hill Forts of Rajput origin	Bandhavgarh	Sikander Lodi in 1494 and 1499 (failed to take the Fort from Rajputs)	Rajput ruler Raja Bhedchandra Dev	No record	No record
	Kalinjar	Seige by Mahmud of Ghazni in 1023 Captured by Sher Shah Suri in 1545	Chandela Rajputs	No record	Important as Hindu holy place
	Gwalior	Captured by Iltutmish in 1232  Captured by Bir Singh Deo in 1398 Captured by Ibrahim Lodhi in 1518	Tomar Rajput Bir Singh Deo  Bir Vikramaditya fought against Babur at Battle of Panipat	Jauhar committed by Parihari Rajputs in 1232 AD	Patronage to music (Dhrupad) under Raja Man Singh Tomar
	Datia	no record	no record	no record	Patronage to Bundela arts, music and architecture

### a) Rajput Forts Typology as per adaptations to the Physiographic Terrain for defence

The earliest Hindu treatise of Arthashastra by Kautilya (written between 4<sup>th</sup> c BC to 2<sup>nd</sup> c AD) prescribes 4 primary types of forts i.e. **Hill Fort, Water Fort, Forest Fort and Desert Fort**. The textual treatise in later periods in Indian history further extend these 4 basic types into more types based on addition of earthen embankments and human elements to include -earth fort (fort on ground/plain) and human fort (fort protected by an army of men). The hill fort has been considered as a significant defended typology of forts as per ancient Indian treatises such as 'Arthashastra' by Kautilya and 'Manusmriti' by Manu from 350 BC onwards. Reinterpreting these ancient treatises, the 15<sup>th</sup> century text 'Raj Vallabh' that was prevalent in Rajasthan also specifies four basic types, of which the hill fort is categorized as the best typology of forts. The 4 basic types of forts are also equated with a parallel categorisation of forts based on a) Physiographical terrain and b) Manmade features. For example, a Water Fort as prescribed in the texts is a fort surrounded by sea or river/s as a defence mode yet, it can also be a manmade fort using moats filled with water on all sides. Similarly, the Hill Fort type variations (in textual treatise and in practice) are recognised by the location of fort on a summit of a hill, on the hill slope or in the valley showing adaptability to various forms of hilly terrain. (Nossov, p.8-9 and Sarkar, p.146).

**While it is useful to refer to the prescribed models in the treatise to some extent, the Rajput fort typology needs to be recognised as per its adaptation of the physiographical terrain (as its first mode of defense).** The Rajasthan region is roughly divided into two parts by the Aravalli mountain range; the eastern (hilly, fertile and semi-humid) and western (arid and semi-arid desert region). **The Rajput Fort typologies as per adaptations to the physiographic terrain can be categorised into 7 types: Hill Summit Fort, Hill Slope Fort, Hill Valley Fort, Hill Forest Fort, Hill Water Fort, Hill Desert Fort and Ground Fort (Elevated).** Table 3 below marks the fort typology recognised within the physiographic terrain for the 24 most significant forts of Rajasthan. In total about 7 primary typologies of Rajput Forts are observed in the 7 physiographic zones of Rajasthan. The most outstanding adaptations to the terrain of a type for defense in a particular physiographic zone are observed in 13 of the 24 forts as indicated in the Table 3 in bold.

S. No.	Name of Fort	Strategic location for defence	Physiographic Zone
1	<b>Kumbhalgarh</b>	<b>Hill Slope</b> (on several hill ranges) (Outstanding use of the concentric circles of hill ranges to locate and control the fort. Structures inside are spread on natural contours and slopes across the terrain)	<b>Aravalli Range and Hilly Region</b>
2	CityPalace,Udaipur	Hill Valley with Water (lake)on one side	
3	<b>Basantgarh*</b>	<b>Hill Slope</b>	
4	<b>Achalgarh*</b>	(Impressive use of the Hill slopes for laying of the fort walls)	
5	<b>Chittorgarh</b>	<b>Hill Summit</b> (One of the most strategic fort location on an isolated rocky plateau of monumental scale with an area of 340 Hectares on the summit)	

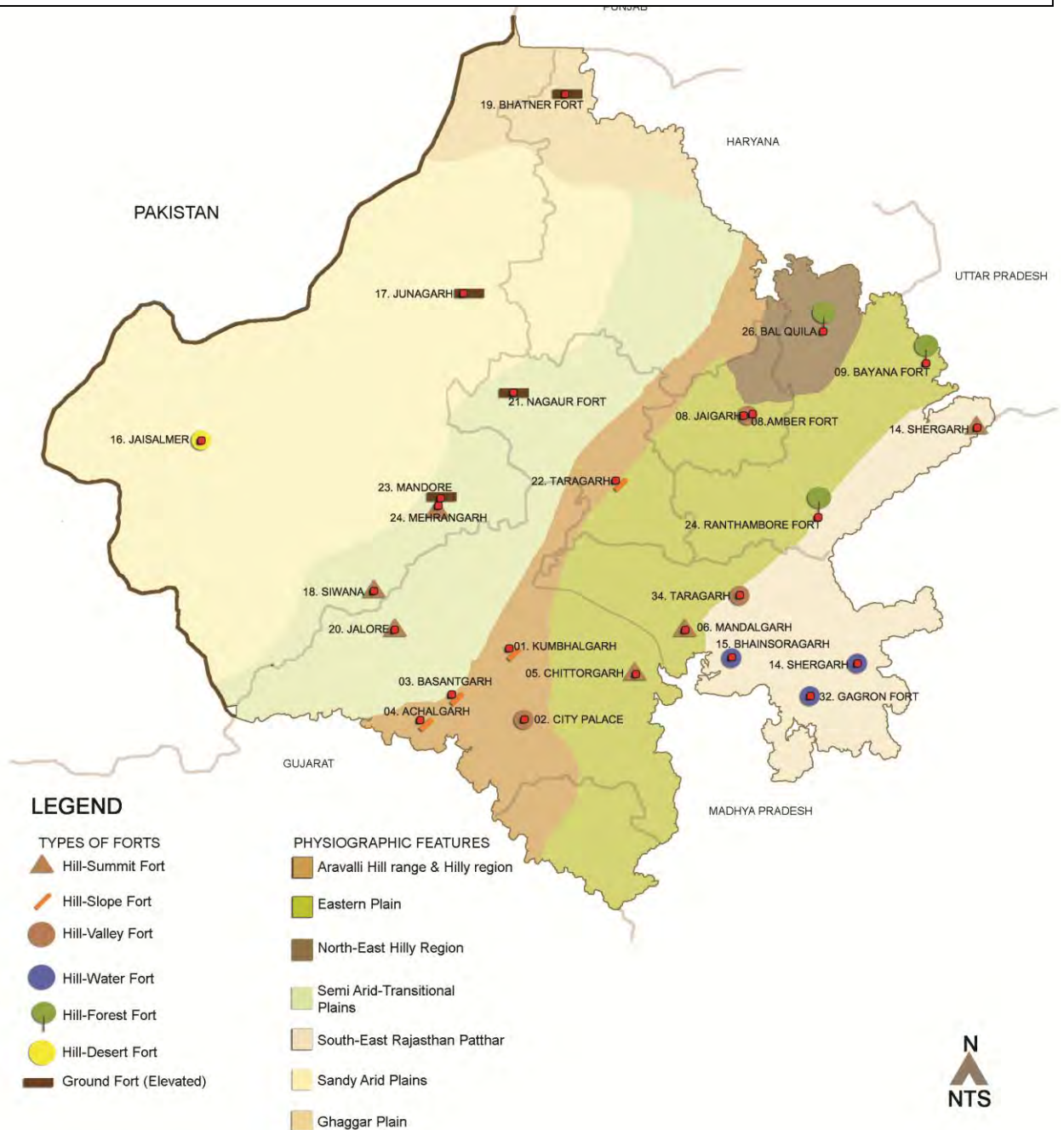
6	Mandalgarh	Hill Summit (Plateau)	Eastern Plain
7	<b>Amber - Jaigarh</b>	<b>Hill Valley</b> (Outstanding use of the hilly terrain to locate palace areas of Amber and the town completely protected with watch posts on surrounding hill ranges and Jaigarh on summit for protection)	
8	Bayana, Bharatpur	Hill Forest	
9	Shergarh, Dholpur	Hill Summit	
10	<b>Ranthambore</b>	<b>Hill Forest</b> (Outstanding use of the steep and almost vertical hills of Thambor as precipices for defence, additionally protected by one of the thickest forest areas)	North Eastern Hilly Region
11	Bala Kila	Hill Forest	
12	<b>Gagron</b>	<b>Hill Water</b> (Outstanding use of the hilly outcrop completely protected on 3 sides by rivers with creation of a water moat on the fourth side)	South East Rajasthan Pathar
13	<b>Taragarh, Bundi</b>	<b>Hill Valley</b> (Outstanding use of the hill ranges and lower valley areas with palace areas of Bundi and town in the valley completely protected with watch posts in surrounding hill ranges)	
14	Shergarh, Baran	Hill Water (one side)	
15	Bhainsoragarh	Hill Water (three sides)	
16	<b>Jaisalmer Fort</b>	<b>Hill Desert</b> (Outstanding use of a triangular hilly outcrop on the desert to create an impregnable desert fort)	Sandy Arid Plains
17	Junagarh, Bikaner	Ground (Elevated)	
18	<b>Siwana, Barmer*</b>	<b>Hill Summit</b> (Impressive use of the Hill crest for laying of the fort walls)	
19	Bhatner Fort	Ground (Elevated)	Ghaggar Plains
20	<b>Jalore, Pali*</b>	<b>Hill Summit</b> (Impressive use of the Hill crest for laying of the fort walls)	Semi Arid Transitional Plains
21	Nagaur	Ground (Elevated)	
22	<b>Taragarh, Ajmer*</b>	<b>Hill Slope</b> (Impressive use of the Hill crest for laying of the fort walls)	
23	Mandore, Jodhpur	Ground (Elevated)	
24	<b>Mehrangarh</b>	<b>Hill Summit</b> (Outstanding use of the steep and almost vertical hills as precipices for defence)	

\* Though these forts exhibit excellent adaptation to the terrain, they are not as extant as other forts marked for their outstanding adaptations and thus fall short in terms of integrity of individual component in specific cases.



### 3. Justification for Inscription

It is observed that specific fort typologies emerged pertaining to particular physiographic features and some general conclusions can be made in this regard. The **Western Plains** (Desert region) have Hill Fort (on rocky outcrops) or Ground Elevated Forts. The **Aravalli Hill Ranges** in Central Rajasthan that divide the State into two distinct geographical regions have best examples of Hill Fort adaptations on slopes. The **Eastern Plains** area in Rajasthan has Hill Forts in valley locations and Hill Forest Forts while the **South eastern Pathar** shows predominance of Hill Water Forts. It may also be noted that Ground Elevated Forts do not exhibit any outstanding adaptations for defence to the terrain as these forts primarily depended on military architecture of the fort and the manpower of army.



Map 02: Map showing distribution of Forts with outstanding adaptation of Physiographic Terrain for defence and Shelter

**b) Forts with Outstanding manmade innovations of Rajput Defense Architecture** that were well integrated with the natural defense features of the terrain

The Rajput Forts demonstrate an important phase of development of defense mechanisms from the 8<sup>th</sup> to the 18<sup>th</sup> centuries in Rajput Military Architecture. Beyond the strategic geographical placement of the forts and their adaptations to unique terrain; the forts were further protected through a system of thick walls with merlons, loopholes at multiple levels for shooting arrows, bastions and typically, a series of gates placed strategically. Moats were used occasionally as their absence was compensated with scarped hill slopes to make them steeper. The primary defense features of a Rajput fort include:

- i) Ditches/Moats
- ii) Walls or Ramparts
- iii) Bastions or Towers
- iv) Gates
- v) Merlons, Loopholes and Machicolations
- vi) Workshops to prepare armoury/cannons and underground passages for escape
- vii) Provision of Water systems and Grains as supply during siege

These defense features are examined for the 24 most significant Rajput forts along with major siege and reasons for losing the battles as below:

TABLE 4: FORTS WITH OUTSTANDING MILITARY INNOVATIONS AND DEFENSE SYSTEMS				
S. No.	Name of Fort	Sieges and Surrender	Military Innovations and Defense Mechanisms	Outstanding Value
1	Chittorgarh (11 <sup>th</sup> -15 <sup>th</sup> c walls though origin is 8 <sup>th</sup> c)	Conquered by deceit in 14 <sup>th</sup> c after 25 weeks of siege. And conquered twice in 16 <sup>th</sup> c with mining, use of gunpowder and artillery	<b>Outstanding ramparts with semi circular bastions in scale and design, the only one of a kind in a Rajput Fort (7<sup>th</sup>c- 16<sup>th</sup>c). Magnificent ascent with 7 gates</b> , few showing relief works of battles. Solid parapet with merlons shown in relief, <b>unique lotus shaped loopholes</b> and later embrasures for cannons. Water systems with 82 water bodies of varying sizes, 20 of which are still functioning	Outstanding medieval Rajput systems of defense, the only one of its kind. Accepted as one of the most indomitable forts in history of India
2	Kumbhalgarh (15 <sup>th</sup> c walls)	Conquered only once for a very short time despite several attacks in 15 <sup>th</sup> and 16 <sup>th</sup> c. Conquered after severing water supply	Most <b>outstanding ramparts and bastions</b> (from 15 <sup>th</sup> c). <b>in scale and width</b> recognised as the third largest in the world The <b>bastions have special Talus to prevent escalades</b> , one of its kind in India. Gateways possess <b>peculiar anti elephant spikes</b> . Presence of secret passages, exhaustive systems for water supplies through network of stepwells.	Unique elements of Rajput Military Architecture not observed in any other fort of Rajasthan or India
3	Ranthambore (13 <sup>th</sup> -15 <sup>th</sup> c walls though origin is 10 <sup>th</sup> c)	Several long sieges were attempted in 13 <sup>th</sup> ,14 <sup>th</sup> ,16 <sup>th</sup> and 18 <sup>th</sup> c. Was conquered initially by deceit of	Outstanding military features such as high and thick crenallated walls on precipices, specially designed ascent with barbicans, gates and turnings to avoid elephant attacks, unique design of Toran Pol and Andehri Pol to avoid attacks, single loopholes in merlons showing	The outstanding military features are the curtain walls and the defence strategy for

### 3. Justification for Inscription

3.82

		internal soldiers.	later innovations for firearms like handguns, machicolations escape tunnels, monumental granaries and a network of water bodies for water supply.	each gate that rendered the fort inaccessible to 70 invaders in the course of its history.
4	Gagron (12 <sup>th</sup> c)	Several long sieges are recorded including Khilji's 11 unsuccessful attempts. Finally, it was conquered by polluting water	Double layer of fortifications on one side not protected by the river. Bastions with modified parapets for cannons.	Double fortifications with specially designed embrasures for cannons
5	Amber (16 <sup>th</sup> -18 <sup>th</sup> c walls, though origin is 10 <sup>th</sup> c)	Attacked only once and never conquered	Outstanding military innovations including the presence of a cannon foundry of the 16 <sup>th</sup> century and specially designed loopholes with tripartite divisions for guns. Water systems, granaries, interlinking passages from Amber to Jaigarh and the presence of the largest canon in world made in the existing foundry are some unique features	Loopholes for guns and Cannon factory of 16 <sup>th</sup> c are important records of advancement in Rajput Military Architecture
6	Jaisalmer Fort (12 <sup>th</sup> -16 <sup>th</sup> c)	Records 7 year long siege by Khilji. Finally captured in 8 <sup>th</sup> year after the Bhati king died.	Outstanding ramparts with, two layers of fortification with a walkway, wide merlons and 99 bastions; all built in dry masonry with no mortar. Seven wells inside the fort, living quarters and other supplies along with system of water supply from an outside reservoir. Could sustain a siege for 8 years.	Outstanding fort architecture, ramparts and unique double storied 99 bastions in dry masonry, one of its kind in Rajput Architecture



c) **Forts that reflect the ingenuity of Rajput Defence Architecture:**

An overlapping of Forts qualifying all typologies as per the range of Rajput Kingdom's Physiographic terrain (Table 3) and outstanding innovations of Rajput Defense Architecture (Table 4) results in the following:

<b>S. No</b>	<b>Name of Fort</b>	<b>Typology and Strategic location for defence</b>	<b>Physiographic Zone</b>
1	Kumbhalgarh Fort	Hill Slope (on summit and slope with several hill ranges)	Aravalli Range and Hilly Region
2	Chittorgarh	Hill Summit (Plateau)	Eastern Plain
3	Amber - Jaigarh	Hill Valley (palaces in the valley with watch posts, fortifications on surrounding hilla)	
4	Ranthambore	Hill Forest	North Eastern Hilly Region
5	Gagron	Hill Water	South East Rajasthan Pathar
6	Jaisalmer Fort	Hill Desert	Sandy Arid Plains

A second layer of significant forts is identified as Basantgarh, Achalgarh, Taragarh at Bundi, Jalor, Taragarh at Ajmer and Nagaur that too show impressive adaptation to the terrain and/or military architectural innovations but not outstanding features.

Additional values for the seven selected forts in the above table may be attributed as per a) Representativeness of Cultural Zones and b) Development of Rajput Architectural Style as shown in the table on next page. Thus the final 6 selected forts (Kumbhalgarh, Chittorgarh, Amber-Jaigarh, Ranthambore , Gagron and Jaisalmer) represent five of the major cultural zones including Mewar and Marwar, the two most prominent Rajput Kingdoms (others such as Vagad, Godwad, Shekhawati, Merwara are smaller with lesser concentration of forts). The selected forts additionally represent some of the most important Rajput sub clans thus narrating the stories of political strife and subjugation as well as architectural development under each rule.

### 3. Justification for Inscription

TABLE 6: FINAL LIST OF FORTS WITH CULTURAL ZONE AND RAJPUT RULING CLANS				
S. No	Name of Fort	Cultural Zone	Rajput Sub clan	Developments in Rajput Architecture
1	Kumbhalgarh	Mewar Zone	Sisodia	Unique building types and architectural styles that were evolved and executed for the first time in Rajput Period as prescribed by Mandan in 15 <sup>th</sup> c
2	Chittorgarh	Mewar Zone		Unique building types architectural styles that evolved from 8 <sup>th</sup> -16 <sup>th</sup> c and became a benchmark for Rajput architecture for many centuries
3	Amber - Jaigarh	Dhoondhar Zone	Kachchwaha	Architectural amalgamation of the Mughal-Rajput planning and details along with features from Bengal architecture thus marking a new era in development of Rajput Style.
4	Ranthambore	Mewat-Brij Zone	Chauhans, Sisodia, Hada and Kachchwaha	Unique examples of 13 <sup>th</sup> century palace and hall structures reflecting the types and styles of early Rajput Period
5	Gagron	Hadauti Zone	Khinchi and Hada subclan	Architectural styles largely of Late Rajput style of Hadoti region
6	Jaisalmer	Marwar Zone	Bhati	Unique architectural style with delicate stone carving in palace structures and temples evolved as a regional Rajput style for Marwar

Beside these six forts, some other conspicuous forts in Rajasthan which might have potential but cannot be considered as part of this series since these does not qualify on attributes identified for the series. Thus the forts of Junagadh (Bikaner) and Ahichhatragarh (Nagaur) were excluded as they are built on level terrain and are not hill forts. Mehrangarh (Jodhpur) is built on a hill but it never included a substantial settlement for a section of the civilian population, being essentially a citadel for the protection of the court and its guard. Therefore at present Ranthambore, Kumbhalgarh, Chitorgarh, Gagron Amber and Jaisalmer are the most representative Hill Forts in the region.

#### Inferences from the Regional Comparative Analysis

- The 6 Hill Forts are significant Rajput strongholds in the region of eastern Rajasthan located in 4 geographic/physiographic zones and represent military planning overlaid in response to the topography within the zone.
- These 6 Hill Forts show historical layers, standing on sites that were seen as strategically important from the ancient period up to the end of the medieval period.
- These 6 Hill Forts are the most extant examples of military architectural form and style prevalent in four important cultural zones in eastern Rajasthan over the period.

### **National Level**

Across India, the range of fortifications that were strongholds of local clans or larger empires through history can be divided into ancient fortified cities, medieval forts and post medieval European forts.

**Ancient fortified cities:** Fortified cities were common in India by the 4<sup>th</sup> century BC. These were located on the plains, usually in river valley systems such as those of Yamuna (Mathura), Ganga (Rajariha, Kausambi and Pataliputra) and Narmada (Ujjain). All of these are in the form of archaeological remains.

- Megasthenes, an ambassador of Seleucus I Nicator to the court of Chandragupta Maurya in around 300 BC describes Pataliputra as being guarded by a ditch with wooden walls. The fort had 570 towers and 54 gates with colonnaded halls decorated with gold and silver. One such hall has been excavated and is one of the oldest stone structures in India.
- One of the oldest and most well preserved of such structures are the excavated ruins of ancient fortifications at Sisupalgarh in Orissa. It is estimated to date from the 3rd century BC and was in occupation for a thousand years at least. Outlines of the fort indicate it had eight gates and thick walls. The western gate was quite elaborate. In 2005, sonar analysis suggested the presence of a deep moat around the fort.
- Investigations at Kausambi and Sravasti in Central India from 6<sup>th</sup> century BC have revealed earthen ramparts, brick wall, moats, and gates that formed part of their defenses. Traces of huge walls of burnt brick, which look like they have been battered were found at Kausambi.

**Medieval forts:** The medieval history of India is dominated by the rule of the Sultanate at Delhi, followed by the imperial rule of Mughals. The prevalence of hills forts that comprised of fortifications made out of stone (earthen ramparts faced with stone, stone facing with earth mixed with rubble between or rubble built wall fastened with mortar) is a common phenomena in medieval India. The period between mid 14<sup>th</sup> and early 16<sup>th</sup> century saw the weakening of the Delhi Sultanate, localizing it to the Gangetic plain and division of the rest of the country into Rajput kingdom, Malwa (Mandu), Gujarat (Anhilwada Patan and later Ahmedabad), Sorath, Khandesh (Burhanpur), Vijaynagar, Bahmani Kingdom, Gondwana, Bengal and Orissa. Most of these were Islamic kingdoms, with the exception of Vijaynagar and Rajput Kingdoms that were Hindu holdings. Though Vijaynagar had an exemplary palace complex (16<sup>th</sup> century) and other significant Hindu structures, there is no evidence of a hill fort. The architecture of the Islamic kingdoms was essentially Islamic (Persian) in character, with regional craftsmanship integrated. The Mughal forts had an impact on stylistic development of forts and palaces across the country and the Maratha and Sikh Forts showed regional variations, dependent on the political scenario.

**Post-medieval European forts:** The medieval and post medieval European forts (starting from 15<sup>th</sup> century AD) were essentially coastal forts with a completely different form and defense mechanism from



### 3. Justification for Inscription

the medieval hill fort. From the 15<sup>th</sup> century onwards, Portuguese forts were established in Daman, Diu, Vasai, Cochin and Bassein along the West Coast of India. French and Danish coastal forts were also developed. With the advent of the East India Company, the British established trading posts along the coast. The need for security against local rajas as well as other European rival nations led to the construction of forts at each post. Mumbai fort, Fort William in Kolkata, Fort St George in Chennai were the main bastions constructed. These cities developed from the small townships outside the forts.

Parsimony of the East India Company, non-availability of trained engineers and use of local materials and artisans resulted in the simple design and construction initially. The vulnerability of these earlier forts, hostilities with the French and the growing might of the Company resulted in stronger and more complex designs for the second round of construction, the design of Fort St George reflecting the influences of the French engineer Vauban. While there are stylistic variations amongst the European Forts from the 15<sup>th</sup> - 19<sup>th</sup> century period and as per nationality, they are not comparable to the Hill Forts of Rajasthan and form a separate set.

#### **Categories under medieval forts**

Further under the medieval forts of India, regional categories have been devised for analysis as Rajput Forts under which the Hill Forts of Rajasthan fall, Sultanate forts, Southern Kingdoms, Mughal forts, Maratha forts, Sikh forts, Northern forts and Eastern forts.

**Rajput forts:** Rajput forts originating from ancient period such as Kalinjar in Uttar Pradesh and Bandhavgarh in Madhya Pradesh are some of the earliest examples of Hill Forts, but the secular structures from the early medieval period have not survived and only parts of fortification and some gates exist today, besides temples and water bodies. The representatives of the early phase of Rajput civil architecture – Chittorgarh and Kumbhalgarh bear roots and references from surviving gates of the fortifications in Dabhoi, Gujarat, fortified by Solanki Rajputs around 1100 AD and the Palace of Raja Kirti Singh of Gwalior (1454-59 AD). Gwalior (14<sup>th</sup>-15<sup>th</sup> century), Orchha and Datia reflect a synthesis of Hindu and Islamic forms that became characteristic of the Rajput style. The Rana Kumbha's palace at Chittorgarh establishes the identity of the Rajput architecture as distinct from the sultanate architecture of Mandu and the Delhi tombs of Tughlaq and Sayyid Sultans from the same period. The Rajput Hill Forts reflect defense mechanism suited to the traditional Rajput system of warfare exploiting the natural hilly terrain of the region.

The strong cultural identity of Rajasthan as the land of Rajputs makes the Hill Forts of Rajasthan as the core representatives of Rajput forts in a series. The Rajput forts from Uttar Pradesh, Madhya Pradesh and Gujarat need to be recognised as part of their own regional identities.

Table 3.7: Rajput forts

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures	
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD		
Bandhavgarh, Madhya Pradesh	On hill top within forest	Regional - Hindu							17th c. AD	Ruins of Fort wall, 1 gate, large number of stepped water reservoirs, 3 temples, palace, jail, parade ground, barracks	
Hill Forts of Rajasthan	Hill top (surrounded by river/forest in three cases)	Regional Hindu with Islamic influence	2nd c. BC							19th c. AD	Fort wall, bastions, gateways, palaces, pavilions, water structures, temples, gardens, baths, stores, residences of nobles, armoury, stables, halls of audience
Kalinjar, Madhya Pradesh	On Vindhya Hills	Hindu, with later additions in Mughal period		1st c. AD			10th c. AD				Ruins of Fort wall, 7 gates, 3 stepped water reservoirs, 2 temples
Ajaigarh, Madhya Pradesh	Hill	Hindu					9th c. AD	13th c. AD			Ruins of Fort wall, bastions and temples
Champaner - Pavagadh, Gujarat	On Pavagadh Hill	Regional style					10th c. AD		16th c. AD		Ruins and intact structures - Series of 3 fortifications, 8 gates, 5 mosques, temples, Tombs, stepped well, tank
Gwalior, Madhya Pradesh	Hill	Earlier palaces in Hindu Rajput style and later Mughal structures					8th c. AD			19th c. AD	Fort wall, bastions, 4 gates, palaces, temples, water bodies
Dabhoi, Gujarat		Regional - Hindu						13th c. AD			Ruins of parts of fort wall and 4 gates
Orchha, Madhya Pradesh	Bank of River Betwa	Regional architecture and Mughal decorative arts							16th c. AD		Well preserved Fort wall, 3 palaces, garden
Datia, Madhya Pradesh	Rocky hill	Mughal symmetry, regional form							16th - 17th c. AD		Well preserved fortified palace
Jhansi, Uttar Pradesh	On Bangara hill	Regional - Indo-Islamic							17th c. AD	19th c. AD	Fort wall with 22 bastions, 10 gates, palace, pavilions, jail, temples, graves, execution tower

### 3. Justification for Inscription

**Sultanate Forts:** The Hill Forts at Mandu (15<sup>th</sup> century), Golconda (16<sup>th</sup> century) and Daulatabad (14<sup>th</sup> century) are some significant examples of Islamic Hill Forts. The construction of a citadel in the centre and putting in more area between the citadel and the walls was characteristic of Muslim forts (influenced in turn by the Norman motte and bailey), as seen in the Golconda fort. Tughlaqabad, built on a hillock by Ghiyas-ud-din Tughlaq, the founder of Tughlaq Dynasty in 1321 AD at Delhi and abandoned in 1327 AD shows typical characteristics of Tughlaq fortifications with a thick solid base, a variation of which is seen in the bastions of the 15<sup>th</sup> century Kumbhalgarh Fort (one of the 5 nominated).

**Table 3.8: SULTANATE FORTS**

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures	
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD		
Mandu, Madhya Pradesh	Crest of Vindhyan range	Earlier Hindu layer, mostly Islamic architecture			6th c. AD				17th c. AD		Fort wall, 5 gates, palaces, water tanks, artificial lakes, tomb, mosque, hall of audience
Gulbarga, Deccan/ Karnataka	Plateau land	Regional Indo - Islamic			6th c. AD				16th c. AD		Fort wall and bastions, mosques, arches, gardens and the palaces
Kirti Durg, Chanderi, Madhya Pradesh	Banks of River Betwa	Islamic forms with Hindu craftsmanship					10th c. AD	15th c. AD			Fort walls, 4 gates, 4 palaces, mosque, haveli, temple,
Tughlaqabad, Delhi	Hill	Islamic						14th c. AD			Ruins of Fort wall, 61 bastions, 13 gates, water tank, mosque
Kotla Feroz Shah, Delhi	Banks of River Yamuna	Islamic						14th c. AD			Intact structures and ruins - Fort wall, bastions, gate, pigeon tower, hall of audience, palaces, garrison quarters, mosque, step well
Daulatabad, Deccan	Hill	Islamic						12th - 14th c. AD			Fort walls, defense tower, gates, step well, mosque, tunnel,
Bidar, Deccan/ Karnataka	Edge of an oblong shaped plateau	Regional Indo - Islamic						15th c. AD			Fort wall, 3 moats, 37 bastions, 7 gates, tower, garden, baths, 3 palaces
Burhanpur, Madhya Pradesh		Faruqi (Islamic) and Mughal						14th c. AD	18th c. AD		Tombs, bath, pavilion, palace
Jaunpur, Uttar Pradesh	On mound of earlier fort Kerar Kot	Islamic (Bengal style mosque)						14th c. AD	18th c. AD		Fort wall, gates, Turkish bath, mosque, pillar with inscription



Bijapur, Deccan/ Karnataka	Plains	Regional Indo - Islamic					15th c. AD	17th c. AD		Inner and outer fort walls and 106 bastions, moat, 5 gates, palaces, mosques, tombs and gardens
Murud Janjira, Maharashtra	Island in Arabian Sea	Regional Islamic					15th c. AD	17th c. AD		Fort wall and bastions, gate, palace, mosque, water tanks, wells
Golconda, Andhra Pradesh		Islamic					14th c. AD		19th c. AD	Outer Fort wall with 8 gateways and 87 bastions, inner citadel wall with 1 gateway, water system, acoustic device, armories, magazines, mosques, granaries, reservoirs and audience chambers, palaces

**Southern Kingdoms:** The southern political landscape from 14<sup>th</sup> - 15<sup>th</sup> century was dominated by the Hindu empire of Vijaynagara kingdom that controlled a large part of the current states of Karnataka, Andhra Pradesh, Tamil Nadu and Kerala. The fortified cities of Hampi and Chitradurg were capitals of the Vijaynagara rulers and citadels show a regional style essentially Hindu in character, with assimilation of some Islamic forms. The Hill Forts of Gingee and Chitradurg reflect fortifications straddling across a number of hills and show a regional Hindu style with some Islamic features integrated. Other forts have Indo-Islamic and later added European vocabulary.

### 3. Justification for Inscription

3.90

**Table 3.9: Southern Kingdoms**

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Bekal Fort, Kerala	Sea front	Regional				9th c. AD			19th c. AD	Fort walls and bastions, gates, tank, tunnel h, magazine, wide ramp leading to the observation tower
Chandragiri, Andhra Pradesh	Rocky terrain	Regional Indo-Saracenic architecture of Vijayanagara style				10th c. AD		18th c. AD		8 ruined temples, two palaces, other ruined structures
Hampi, Karnataka	Rocky outcrop	Regional Indo-Saracenic architecture of Vijayanagara period					14th - 15th c. AD			Fort wall, ceremonial enclosure, 2 palaces, stable, temples
Warangal, Andhra Pradesh	Plains	Regional Indo-Saracenic					12th c. AD			three concentric fortifications, with the inner stone fortification containing 45 bastions and gateways at the four cardinal points; temples and a palace
Chitradurga, Karnataka	Straddling seven hills	Regional					14th c. AD	18th c. AD		Massive walls encircling the palace with majestic guarded gateways, magazines, water storage tanks, bastions at regular intervals.
Vellore, Tamil Nadu	Banks of River Palar	Regional Hindu, later Islamic and British					14th c. AD		19th c. AD	Fort wall and bastions, main gate, temples, palaces, mosque, church
Dindigul Fort, Tamil Nadu	Rock overlooking the valley	Hindu, Islamic and British					14th c. AD		19th c. AD	Fort wall and gates, free standing bastion,
Tirumayam Fort, Pudukkottai, Tamil Nadu	Hill	Regional Hindu, with later British additions						17th c. AD	19th c. AD	Fort wall and gates, bastion, temples
Gingee, Tamil Nadu	Around 3 hills	Regional - Hindu with some Islamic forms						16th - 18th c. AD		Outer and inner fortifications, gates, palace complex, pavilions, halls of audience, water system with 3 tanks, temples, mosque, parade ground, prisoner's well, granaries, stores, magazine, treasury, flag staff
Srirangapatnam, Karnataka	Island in River Kaveri	Regional, Indo-Islamic						18th c. AD	19th c. AD	Fort wall, gateways, palace, tomb, mosque, garden, parade ground, temple

**Mughal Forts:** Mughal forts from the 16<sup>th</sup> to 18<sup>th</sup> century period were located on river banks and used the river as a means of defense, showing a distinct deviation from the hill fort typology seen in Rajput and Sultanate forts. The fortifications are more stylised with used of red sandstone facing as opposed to local stone masonry used in Rajput and Sultanate forts and the secular architecture uses elements from Rajput architecture. The stylistic variation from the period of Emperor Akbar to Jahangir and then Shah Jahan is clearly evident, with use of Islamic and regional (Rajput) forms in juxtaposition and asymmetrical planning in Akbar’s period being replaced with a well absorbed mature synthesis of the varying forms and techniques, symmetrical planning and stress on building crafts and formal garden design. The Red Fort Delhi, Red Fort Agra and Fatehpur Sikri are three significant forts of Mughal period that are World Heritage Sites. The Rajput and Mughal forts show interdependence in development of architectural style and planning from the 16<sup>th</sup> to 19<sup>th</sup> century. With the introduction of artillery in the 16th century there were several changes to the construction and design of forts. These changes were similar to the changes that took place in Western forts with the advent of gunpowder, i.e. the lowering of walls, thickening of walls, further pushing out of bastions etc. (Fass 1986, p. 16).

**Table 3.10: Mughal forts**

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Agra Fort, Uttar Pradesh	Along River Yamuna	Mughal						15th c. AD	18th c. AD	Fort walls, bastions and gats, palaces, pavilions, audience halls, stepped well. More than 24 structures
Purana Qila	Along River Yamuna	Mughal							16th c. AD	Ruins with remaining structures - Fort wall with 9 bastions, 3 gateways, mosque and library
Fatehpur Sikri, Uttar Pradesh		Mughal Akbari							16th c. AD	Fortwall, bastions, gates, palaces, pavilions, tombs, mosque, baths, barracks, stores. More than 90 structures
Lal Qila, Delhi	Along River Yamuna	Mughal							17th c. AD	Fort wall and bastions, 2 gates, Chhatta Bazaar, Naubat or Naqqar Khana, Diwan-i-'Am, Mumtaz Mahal, Rang Mahal, Khas Mahal, Muthamman-Burj, Diwan-i-Khas, Hammam, Moti Masjid, Hayat-Bakhsh Garden and Pavilions



### 3. Justification for Inscription

**Maratha Forts:** The 17<sup>th</sup> century saw the rise of the Marathas and a number of Hill Forts were established in Maharashtra state during the period (especially under Shivaji) such as Lohagad near Pune, Karnala near Panvel (Raigad District), Kamalgad in Wai Taluka, Sajjangad in Satara. Except for Raigarh that was used as the capital of the Maratha Kingdom, and Maheshwar, the seat of Holkars, the forts were more of defensive posts of the 17<sup>th</sup> - 18<sup>th</sup> century period, with basic defensive and supporting structures, unlike the Rajput forts. The Marathas were the first Hindu rulers to have built an island fort (17<sup>th</sup> century AD, Sindhudurg), involving Portuguese principles.

**Table 3.11: Maratha forts**

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Shivneri, Maharashtra	Steep hill	Regional Indo-Islamic							16th - 18th c. AD	Intact structures and ruins of Fort wall, bastions, gates, palace, mosque, tomb, temple and water body
Raigarh, Maharashtra	Step hill of Sahyadri mountain range	Regional Indo-Islamic					11th c. AD		18th c. AD	Intact structures and ruins of Fort walls and bastions, gates, temples, citadel, market, water body
Lohagarh, Maharashtra	Side range of Sahyadri mountains	Regional Indo-Islamic	1st c. AD						18th c. AD	Intact structures and ruins of Fort walls and bastions, gates, temple, water tanks, tomb, granaries
Vijaydurg, Maharashtra	Hill at mouth of River Vaghotan, on promontory into the sea	Regional Indo-Islamic						13th c. AD	18th c. AD	Intact structures and ruins of Three layer fortifications, 27 bastions, gateways, wells and water tanks, underground/sea tunnel
Sindhudurg, Maharashtra	On rocky island at sea	Regional and Portugese							17th c. AD	Intact structures and ruins of Fort walls and 47 bastions, gates, temple, water reservoirs
Maheshwar, Madhya Pradesh	Isolated hillock on banks of River Narmada	Regional synthesis of Hindu and Mughal							18th c. AD	Fort walls and bastions, Palace complex, temple

**Sikh Forts:** The Fort of Bhatinda on the edge of the Thar Desert has significantly high brick fortifications of a distinct formidable form, on lines of early medieval fortifications, with later addition of structures in the Sikh style. The 18<sup>th</sup> century AD Sikh forts, located in the plains, with multiple rings of fortifications, show an elaborate regional style that used elements from the prevalent Mughal architecture.

**Table 3.12: Sikh forts**

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Bhatinda, Punjab	On a boat shaped landmass at the edge of Thar desert		2nd c. AD						18th c. AD	Brick walls of exceptional scale and strength, with 4 large bastions and 32 smaller ones, straight flights of stairs, Sikh temple
Qila Mubarak, Patiala, Punjab	Plains	Sikh (Mughal forms and indigenous craftsmanship)							18th c. AD	Fort wall, 4 large and 32 small bastions, temple, Sikh temple, Durbar Hall, palace structures
Gobindgarh, Amritsar, Punjab	Plains	Sikh (with Mughal forms, later Colonial structures)							18th c. AD, 19th c. AD	Fort wall and bastions, treasury, barracks
Bahadurgarh, Punjab	Plains	Sikh							19th c. AD	Double layer of fortification, succession of entrances, Sikh temples, mosque, royal apartments

**Northern forts:** The Hill Forts in the northern region (Himachal Pradesh and Jammu and Kashmir) have layers from early medieval period with subsequent Mughal layers in case of Kangra and Nurpur and typical regional form of Ladakh (Tibet influence) in case of Bagso.

**Table 3.13: Northern forts**

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Bagso, Ladakh, Jammu and Kashmir	On mud hillock	Regional						15th c. AD		Ruins of Fort wall, temples, watch towers
Nurpur, himachal Pradesh	Hill	Hindu, Mughal and regional				8th c. AD			18th c. AD	Ruins of Parts of fort wall, gates
Kangra, Himachal Pradesh	Atop precipitous hill on the confluence of two rivers	Hindu, Mughal and regional				9th c. AD			19th c. AD	Ruins and dilapidated structures of Fort wall, watch tower, stepwell, 5 gates, 4 temples, 1 mosque

**Eastern Forts:** Rampur (Uttar Pradesh) and Gaur (West Bengal) are located on river sides and show regional styles, with strong Mughal influence in Rampur (18<sup>th</sup> century AD) and synthesis of Bengali and Islamic style in Gaur (14<sup>th</sup> century AD).

Table 3.14: Eastern forts

Name of Group of Forts/ Fortifications	Physiographic location	Architectural Form and Style	Period of Origin							Present Status/ Existing structures	
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD		
Ramnagar, Uttar Pradesh	Riverfront	Blend of Hindu and Islamic							18th c. AD		Fort wall, Durbar Hall, temples
Gaur, West Bengal	Riverfront	Confluence of Bengali and Islamic						14th c. AD			2 gates, 5 mosques, 2 towers, 2 tombs, one water tank

### Inferences from the National Comparative Analysis

- The Hill Forts as a typology is seen during the medieval period across the country in Rajput forts, Sultanate forts such as Daulatabad and Golconda; southern forts such as Gingee and Chitradurg; northern forts such as Kangra and Nurpur and the numerous Maratha forts in Maharashtra.
- The strong cultural identity of Rajasthan as the land of Rajputs makes the Hill Forts of Rajasthan the core representatives of Rajput Hill Forts; hence the comparable Rajput Hill Forts from other states such as Madhya Pradesh, Uttar Pradesh and Gujarat need to be recognised as part of their own cultural identities.
- The Hill Forts of Rajasthan represent the earliest and the most intact group of Hindu forts located on hill tops, with a regional character, assimilating some features from Sultanate and Mughal architecture.

### International Level Comparative Analysis including Listed World Heritage Sites

The earliest Hill Forts outside India have existed from the late Iron age in Europe, such as Dacian Fortresses in Romania (1<sup>st</sup> century BC-1<sup>st</sup> century AD); Lambert's castle, Dorset, England and Brent Knoll and Alcmoennis, Kelheim, Germany that depict various forms of Hill Forts such as univallate or multivallate and interfluvial; and Baltic Hill Forts of Lithuania (1<sup>st</sup> -14<sup>th</sup> century AD), all present in the form of archaeological remains that may or may not have been partly reconstructed.

The fortifications of China in the form of the Great Wall (220 BC-1644 AD), the formidable defensive structures built to ward off invasion of the Celestial Empire by barbarians with fortresses built at strategic points, to defend the towns, passes, or fords is comparable to the Hill Forts of Rajasthan in the ideology of developing fortifications to resist foreign invasion and the overlay of the fortifications on a hilly terrain, though the scale, form and style of the defense mechanism is quite different. The Ancient fortifications of Central Korea are another example of an Asian defense system comprising of fortresses



located on mountains, with historical layers from 5<sup>th</sup> to 19<sup>th</sup> century AD. The fortresses in the hilly terrain of Tibet (known as dzongs) from 7<sup>th</sup> - 17<sup>th</sup> century are another regional set of defenses in Asia.

The Parthian Fortresses of Nisa (3<sup>rd</sup> century BC- 3<sup>rd</sup> century AD) in Turkmenistan constructed at the foot of hills and the Great Wall of Gorgan (5<sup>th</sup>-6<sup>th</sup> century AD) in Iran with a system of 30 forts along the wall are early examples from Central Asia that exist as archaeological remains.

Medieval castles of Portovenere, Cinqu Terre and the islands in Italy are examples of castles located on steep hilly terrain from the 7th-16th century AD period that are still intact, while the Western Stone Forts of Ireland from 8th - 12th century AD period are from the late Iron Age typology of Hill Forts that existed in a later time frame. Medieval castles and fortified cities were prevalent in Europe from 10th century onwards up to the 15th century AD, such as the city of Luxemburg; Castles and Fort Wall of King Edward in Gwynedd, North Wales; and Crusader fortresses in Israel (that were instrumental in resisting Islamic occupation in the 12<sup>th</sup> century AD).

The Bahla Fort from 12<sup>th</sup>-15<sup>th</sup> century AD is the earliest extant fort of the Sultanate of Oman, while the Rohtas Fort in Pakistan is a 16<sup>th</sup> century Fort that has Mughal- Rajput links, as the Kachchwaha Rajput rulers (who held Amber Fort, one of 5 nominated Hill Forts of Rajasthan) under Mughal alliance were posted there in the 17<sup>th</sup> century and even initiated massive repairs and fresh construction, including that of palaces at the Fort. The Hill Forts of Rajasthan, with extant military and secular architecture that dates from the 12<sup>th</sup>- 18<sup>th</sup> century AD period sit parallel to these examples from a chronological perspective and in terms of linkages in architectural form and style.

With the rise of the European Colonial powers across the world, the period from 15th century AD up to 19th century saw construction of European style forts that were mostly coastal strongholds and showed a shift of defense mechanism from the medieval Hill Forts, epitomized by the fortifications of Vauban.

The series of fortifications, forts and fortresses that are part of the World Heritage List or the Tentative list have been analysed in the following table in terms of their physiographic location, predominant architectural form and style and period of origin to enable a comparison with the nominated 'Hill Forts of Rajasthan' as an ensemble.

### 3. Justification for Inscription

3.96

Table 3.15: Comparative table of Hill Forts on World Heritage List and Tentative List

Name of Group of Forts/ Fortifications	Physiographic location	Military Architectural Form and Style	Period of Origin of fortifications and supporting military architecture							Present Status
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Dacian Fortresses of the Orastie Mountains, Romania Ref: 906 Criteria: (ii)(iii)(iv)	Plateaus on hill summits	Classical - Dacian	1st c. BC and AD							Well preserved remains
Parthian Fortresses of Nisa, Turkmenistan Ref: 1242 Criteria: (ii)(iii)	Foot of mountains	Parthian Empire - Central Asia	3rd c. BC	3rd c. AD						Archaeological remains, partially reconstructed
Hill Forts of Rajasthan	Hill tops	Indian - Rajput	2nd c. BC						19th c. AD	Good state from 7th c. onwards
Hill forts within Kernavė Archaeological Site, Lithuania Ref: 1137 Criteria: (iii)(iv)	On sandy hills	European - Baltic	1st c. AD				14th c.			Archaeological remains, partially reconstructed
Ancient Mountain Fortresses in Central Korea Ref.: 5488 Criteria: (iii)(iv)(v)	Mountains	Korean		470					1836	Structures intact
Medieval castles within Portovenere, Cinque Terre, and the Islands, Italy Ref: 826 Criteria: (ii)(iv)(v)	Steep hill tops	Italian			7th c. AD			16th c. AD		Structures intact
Western Stone Forts, Ireland Ref.: 5525 Criteria: (iii)(iv)(v)	Plains and plateaus	European - Irish				700-1100 AD				Well preserved remains
City of Luxembourg: Its old quarters and fortifications, Luxembourg Ref: 699 Criteria: (iv)	Fortified city that originated with the construction of the castle	European - various				963 AD				Fortifications dismantled in 1867 AD
Three Castles, Defensive Wall and Ramparts of the Market-Town of Bellinzona, Switzerland Ref: 884 Criteria: (iv)	Rocky peak/ promontory	European - Swiss				10th c. AD			19th c. AD	Structures intact
Castles and Town Walls of King Edward in Gwynedd, North Wales Ref: 374 Criteria: (i) (iii) (iv)	Cliff top, rocky promontory, coastal flat plain	European - English					1283			Good state of preservation
The Crusader Fortresses, Israel Ref.: 1491 Criteria: (iv)(v)(vi)	Hills and rocky promontory	European								Ruins
Port, Fortresses and Group of Monuments, Cartagena, Colombia Ref: 285 Criteria: (iv)(vi)	Rocky crag and passes	European - Spanish								Good state of preservation

Name of Group of Forts/ Fortifications	Physiographic location	Military Architectural Form and Style	Period of Origin of fortifications and supporting military architecture							Present Status
			upto 2nd century AD	3rd - 5th century AD	6th - 7th century AD	8th - 11th century AD	12th - 15th century AD	16th - 18th century AD	19th - 20th century AD	
Old Havana and its Fortifications, Cuba Ref: 204 Criteria: (iv) (v)	Fortified port town	European - Spanish						1632		Fortress and Palace restored
Fortifications of Vauban, France Ref: 1283 Criteria: (i) (ii) (iv)	Some of the 12 in the series in mountaneous region	European - French						1633-1707		Good state of preservation
Fortifications on the Caribbean Side of Panama: Portobelo-San Lorenzo, Panama Ref: 135 Criteria:(i) (iv)	Harbour	Spanish - Colonial						1596 AD onwards		Poor State of preservation
Old Town of Galle and its Fortifications, Sri Lanka Ref: 451 Criteria:(iv)	Fortified port town	European with use of South East Asian traditions								Good state of preservation
Historic Town of St George and Related Fortifications, Bermuda Ref: 983 Criteria:(iv)	Coastal	European - Colonial English						17th - 20th c. AD		Structures intact
Forts and Castles, Volta, Greater Accra, Central and Western Regions, Ghana Ref: 34 Criteria:(vi)	Coastal	European - Swedish, Dutch, Danish, Portugese and English						1649, 1652, 1661		Remain of earliest fabric, while late 16th - 17th century fabric exists
St. George Fortified System, Grenada Ref.: 1926 Criteria: (ii)(iv)	Along coast and on hills around	European - French and British								3 of the forts intact
Victoria Lines Fortifications, Malta Ref.: 1114 Criteria: (i)(ii)(iii)	Cliffs along the Great fault line	European - British								Intact

 On World Heritage List

 On Tentative List

 Nominated

A number of other individual forts or castles are part of the World Heritage List, but fall under the broad typologies already discussed and have not been analysed in individual capacity in this comparative study, since the focus is on defensive settlements of Hill Forts in with clan origins.



#### **Inferences from the International Comparative Analysis**

- The Hill Forts of Rajasthan are an exceptional corpus of medieval defence architecture in India and South Asia region of the world, in keeping with the fact that there is little representation of Asian examples of such series of medieval fortifications indigenous to the regions in the World Heritage List and Tentative List.
- The Hill Forts of Rajasthan depict the earliest series of Rajput hill forts. Comparable examples in this respect are the Hill Forts of Lithuania but they exist only as archaeological remains and the Korean Mountain Fortresses that are still intact.
- Some of the examples from medieval period (10<sup>th</sup> - 15<sup>th</sup> century AD) are similar to the Hill Forts of Rajasthan as they are defensive settlements of stone construction with clan origins but most of these as conglomerates are based in Europe and surrounding region. Most of the examples that originated 16<sup>th</sup> century onwards are representative of European military architecture, supplanted to the Colonial settlements established across various countries of the world from 16<sup>th</sup> to 19<sup>th</sup> century AD.
- The Hill Forts of Rajasthan are the only extant examples of a series of Hindu strongholds in the world that retained their strategic significance over such a long span of time.

### 3.3 Proposed Statement of Outstanding Universal Value

#### **Brief Synthesis: OUV of the series**

The six hill forts not only exhibit an important phase of development of an architectural typology based on established “traditional Indian principles” principles but also bear exceptional testimony to the cultural traditions of Rajputs. The strong living traditions and belief systems along with their associational values with the built fabric of these forts make them unique and of outstanding universal significance.

The key attributes that distinguish Rajput hill forts were deemed to fall into four main overlapping categories and to reflect different geographical areas. **(ICOMOS advisory mission recommendation)**

**Physiographical.** The forts are adapted to and optimise various kinds of hill terrain, including the summit and the slope of semi-arid hills, forested hills, desert hills and hills protected by water. There are several aspects to the adaptation and optimisation of the sites, which include military matters, strategic planning and the collection, storage and distribution of water.

**Centres of power.** The forts have strong associational values as centres of Rajput power and control, as centres of Rajput courtly culture and patronage, and as former centres of learning, art and music. The forts, together with the palaces and other buildings they contain, all embody this power and courtly culture in Rajput architecture. The vocabulary of architectural forms and of ornaments shares much common ground with other regional styles, such as Sultanate and Mughal architecture, so it might be an exaggeration to call the Rajput style ‘unique’. But the particular manner in which Rajput architecture was eclectic (drawing inspiration from antecedents and neighbours) together with its degree of influence over later regional styles (such as Maratha architecture) do make it distinctive.

**Sacred.** It was observed that many if not all the selected sites include temples or other sacred buildings, not merely as adjuncts to the palaces and other settlements but often predating them, and outlasting them in use. The fact that Rajput hill forts are also sacred sites was deemed to be another distinctive feature.

**Urban Settlements.** Most forts were designed to protect the populace and not only the court and military guard. Many were of enormous size (with walls extending to over 20km). Most had had extensive settlements within the walls, some of which have persisted to the present day. These residential and sacred elements went beyond the expected military functions of forts. In some cases

### 3. Justification for Inscription

3.100

there was also a mercantile element, as the forts were centres of production and of distribution and trade that formed the basis of their wealth.

**“These forts thus form a complete and coherent group that demonstrates Outstanding Universal Value as a series through representing all the essential attributes of Rajput Hill Forts in an exceptional way”.**

The 6 hill forts satisfy all the attributes and each also contributes to at least one of the five attributes in an exceptional way as follows:

7. **Chittorgarh.** As a centre of power of Rajputs, it is distinctive from the other forts. As the former capital of the Sisodia clan and the target of three famous historical sieges, the site is strongly imbued with associational values attaching to Rajput history and folk lore. Furthermore the sheer number and variety of architectural remains of early date (ranging from the 8<sup>th</sup> to the 16<sup>th</sup> centuries) mark it as an exceptional fort in its scale and monumentality comparable to very few other Indian forts.
8. **Kumbhalgarh.** Its distinctive contribution arises from it having been constructed in a single process and (apart from the palace of Fateh Singh, added later) retains its architectural coherence. Its design is attributed to an architect known by name – Mandan – who was also an author and theorist at the court of Rana Kumbha in Chittor (another fort in the series). This combination of factors is highly exceptional.
9. **Ranthambore.** Situated in the middle of forest, it is an established example of Forest Hill Fort and in addition, the remains of the palace of Hammir are among the oldest surviving structures of an Indian palace.
10. **Gagron.** Its distinctive contribution to the series arises from it being exemplary of its type of river-protected fort included in the nomination. In addition its strategic location in a pass in the hills gave it enhanced significance in the control of trade routes.
11. **Amber.** Its distinctive contribution is the representation of a key phase (17<sup>th</sup> century) in the development of a common Rajput-Mughal court style, embodied in the buildings and gardens added to Amber by Mirza Raja Jai Singh I. The immediate defence structures of the fort are added to the nominated property which elaborates the self-defence mechanism of the fort.
12. **Jaisalmer.** It is the only example included in the nomination of a hill fort in desert terrain. The extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it an important (and in some respects even unique) example of a sacred and secular (urban) fort.



This set of medieval and post medieval Hill Forts narrates centuries of political, cultural (including religious), social and architectural evolution associated with the ruling Rajput caste in the history of India. The series stands as testimony to the formation of princely states, development of Rajput ideologies and Rajput defense architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the Sultanate period rulers and Mughal Emperors of Central India.

Each selected hill fort site is of exceptional with advanced construction techniques exploiting natural contours for defense, unique social associations with Rajput courtly life, most sophisticated and evolved examples of secular Hindu Rajput architecture and technological adaptations utilizing the wealth of natural resources in an extraordinary geographical setting within the varied physiographical terrain of Rajasthan, the land of Rajput clan.

#### **Detailed Outstanding value for each fort**

##### **Chittorgarh Fort**

The Fort exhibits fort planning and architecture with its ensemble of exemplary buildings ranging from the largest span of medieval period (8th -16th centuries) in a remarkable spread of flat hill-summit to command the surroundings.

The hill fort of Chittorgarh represents the genius of Rajput military architecture in the medieval period of Indian History. Raised in local stone masonry, on the solid rock of an Aravalli outcrop, it exemplifies a role model of hill fort typology and the evolution of the Rajput Architectural Style of Mewar cultural region in Rajasthan from the 8<sup>th</sup> century to the 16<sup>th</sup> century. The fort is an important record of the political situation of the period, marked by the alternate strife and subjugation from the western invaders, Sultanate and the Mughal Empire. The fort of Chittorgarh is an icon of the unbending streak and incomparable valour of the Guhila and Sisodia Rajputs with the story of each siege manifested in its varied architectural forms. Chittorgarh is an exceptional testimony to the Rajput cultural tradition of immense fighting spirit documented in several historic texts and paintings of the medieval and post medieval period by the local bards and artists. It is one of the largest forts in India renowned for its indomitability in history. It constitutes monumental and impressive medieval defence settlements of the Rajput clan in Rajasthan contributing specifically to the attribute "Centre of Power".

##### **Kumbhalgarh Fort**

The fort is an ideal representation of Mandan's designs in the most complete manner, almost a text-book manifestation of a Rajput Classical Fort built in a single phase of construction that sets it apart from other forts and highlights its contribution to the OUV.

Kumbhalgarh is a unique representative of the hill fortifications of medieval India. Conceived and built

### 3. Justification for Inscription

3.102

in a single significant phase in Rajput history, it epitomises the valour of Rajput clan of Sisodia rulers and their ingenuity in planning and design of hill fort architecture derived from Hindu principles. It is a testimony to the glorious era of the Rajput ruler Rana Kumbha in the 15<sup>th</sup> century AD and relates to principles and ideas in various disciplines that were borne, evolved and manifested in this important fort complex with achievements in art, crafts, music, literature and architecture.

Kumbhalgarh is a hill fort site exhibiting advanced construction techniques exploiting natural terrain and contours for defence with extraordinary design of fort walls (said to be the third largest after Great Wall of China and great wall of Gogran in Iran), unique bastions integrating sloping talus.

#### **Ranthambore Fort**

Ranthambore fort embodies the most primal methods of medieval war-fare, which was completely dependent on exploitation of natural terrain and features (including forest). Additionally, it contains authentic remains of a 13th Century Palace (of Hamir) as the oldest tangible remains of a Hindu Palace in India.

The Fort is located on a hill in the heart of a dense forest represents the 'forest fort' typology of forts in combination with the 'hill fort' typology and is a masterpiece of ingenuity, ensuring that the natural terrain around the fort allows it to be visually obscure from enemies. The ensemble of fortifications, gateways, palace structures, water bodies within Ranthambore fort exemplify Rajput fort planning on the hilly terrain. It exhibits characteristics of a strong defensive military stronghold of the Rajputs in the Mewar Brij cultural zone of Rajasthan with technological adaptations utilizing the natural resources of water bodies and mountains in the eastern plain of Rajasthan. Ranthambore is an exceptional testimony to the Rajput cultural traditions of Rajasthan recording warfare, sacrifices and building activities of three major Rajput clans and sub clans of the Chauhans, Sisodias and the Kachchwahas. Loss of the Fort from the hands of the Rajputs in 14<sup>th</sup> and 16<sup>th</sup> century AD were significant events that changed the political landscape of India, with respect to the strengthening of the Imperial rule of the Sultanate and Mughals in the national context.

#### **Gagron Fort**

Located critically at the confluence of 2 rivers, the Gagron Fort historically marks one of the most strategic defence location on a peculiar terrain controlling movement patterns on trade routes connecting the northern India to the Deccan. Located on lower elevation of the Vindhyan range, this fort exhibits ingenuity in use of terrain and the natural resource of water for its defense.

Gagron exemplifies one of the most unique, picturesque and strategic geographical location of a defensive hill fort with an additional characteristics of a water fort, being located at the confluence of two rivers and surrounded by water on three sides. It is an authentic example from the south eastern physiographic and Hadauti cultural zone within Rajasthan. The fort epitomise the resistance of Rajputs to

the Islamic incursions and subsequent assimilation of foreign influences in fort planning and palace architecture with its historical record of 14 attacks countered by the Khinchi Chauhans and Sisodia Rajputs and later alliances with Mughals and the British by the Rathore, Hada and Jhala sub clans of the Rajputs. It stands as a testimony to the formation of princely states of Jhalawar, development of Rajput ideologies and Rajput architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the Sultanate period rulers and Mughal Emperors of Central India.

Gagron together with Kumbhalgarh & Chittor and were guarding the southern frontiers against the Malwa Sultans. This fort was a very critical outpost for Rajputs against the growing Sultanate dominance. (Map – Rajputana surrounded by the Sultanate rulers in Medieval times) It was only the accession of Gagron that allowed Allaudin to expand southwards. (The chieftains in the region were not in unison with the ruler. Even the Bhils backtracked during siege, which resulted in the failure of the defence system) after the fall of Gagron, Khalji infiltrated Hadauti region and eastern borders of Mewar. For the Khaljis, Gagron in combination with Mandalgarh (further west) would be an ideal seat to command route to Malwa.

### **Amber Fort**

The fort embodies the highest point of Rajput eclecticism marking the syncretism of Rajput-Mughal architectural and planning principles for palace spaces and gardens, water systems, artworks and building crafts. It has a distinctive split-level Hill Valley planning where the palatial quarters are located on the valley (Amber Fort) and the garrison is located on a higher elevation (Jaigarh) to command the valley.

Amber fort strategically located and built on the old Kalikho hills of the oldest mountain range, the Aravallis in the region is an excellent representative of the late medieval citadels of the Rajput warrior clans of Rajasthan. It reflects the changing political strategy of the Rajputs with subsequent assimilation of foreign influences in fort planning and palace architecture. Amber fort establishes the later development of the fort -palace typology and the maturation of Rajput Mughal architectural style from the 17<sup>th</sup> century. It is an important record of the political situation of the Kachchwaha Rajputs, marked by the alternate strife and subjugation from the Mughal Empire and friction amongst the Rajput Kingdoms ruled by various clans. Amber is selected as an authentic, best conserved and most representative example of late medieval hill fort architecture from the eastern physiographic and Dhoondhar cultural zones within Rajasthan.



### 3. Justification for Inscription

3.104

#### **Jaisalmer Fort**

The hill fort of Jaisalmer has an extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it a unique example of a sacred and secular (urban) fort. The Fort exhibits fort planning and architecture with its ensemble of exemplary buildings and stone carvings. With large desert plains around it, the Jaisalmer fort represents the genius of Rajput military architecture in the medieval period with series of fortifications and 99 bastions to protect itself from the invaders. The fort is an important record of the socio-political and trade development in the region. As one of the unique forts in India renowned for its indomitability in history, it singularly contributes to all selected criterion.

#### **Justification of Criteria**

The Serial nomination fulfills criteria (ii) (iii) and (vi).

Criteria (ii): The Hill Forts of Rajasthan exhibit an important interchange of Princely Rajput ideologies in fort planning, art and architecture from the early medieval to late medieval period within the varied physiographic and cultural zones of Rajasthan. The forts trace the development of Rajput architecture and technology, monumental arts and landscape design that subsequently influenced the architectural development in Rajasthan and other parts of India for centuries. The nominated Hill forts of Rajasthan, exhibit an important interchange of values, early medieval to late medieval period within Rajputana (Rajasthan), (cultural zone of rajputs), on developments in architecture, monumental arts and planning.

Criteria (iii): The Hill Forts of Rajasthan are an exceptional testimony to the Rajput cultural tradition and the socio-economic strata of Rajasthan. These forts are architectural manifestations of Rajput valour, bravery, feudalism and cultural traditions documented in several historic texts and paintings of the medieval and late medieval period in India. The Six components bear an exceptional testimony to the cultural traditions of the ruling Rajput clans and patronage provided by them towards development of religion, arts and literature in the region of Rajasthan over centuries.

Criteria (vi): The Hill Forts of Rajasthan are the living testimony of the associational values attached of the people with them. The complete planning of the fort is an outcome of the belief systems which guided rulers from selection of the site for the fort to planning of different components within it including its defence mechanism which represents the rajputana culture. Most of these believes were integral and bound with the religion and some were inherited by the community over centuries.

The event of “*Jauhar*” during the wars is a resultant of the strong believes of women preferring death instead of getting disgraced by the enemy. Following *Jauhar*, the men of the fort courageously open the gates of the fort and attack the enemy and fight until death. The spots where *Jauhar* took place within the fort are still revered by the people.

### **Statement of Integrity**

Collectively, the Six components of the Hill Forts of Rajasthan demonstrate a relationship that enables a full understanding of the formation of princely states, development of Rajput ideologies and Rajput architectural style over successive periods, myriad political conflicts, battles and alliances between the ruling Rajput clan vis a vis the foreign invaders, Sultanate period rulers and Mughal Emperors of Central India. The six components of the Hill Forts along with their buffer zones constitute the most authentic, best conserved and most representative sites of Rajput military architecture of medieval India.

Each component contributes to the Outstanding Universal Value with advanced construction techniques exploiting natural contours for defense, unique social associations with Rajput courtly life, and most sophisticated and evolved examples of secular Hindu Rajput architecture and technological adaptations utilizing the wealth of natural resources in an extraordinary geographical setting.

### **Statement of Authenticity**

The six hill forts as components of the serial nomination represent significant level of authenticity which is expressed in OUV of the Serial nomination collectively as well as for each individual component in terms of their physiography, centre of power, sacredness and urban settlements. Also these components have also retained significant level of authenticity in terms of form & Design, Materials and Substance, Use and Function, Location etc

### **Requirements for Protection and Management**

The criteria (ii), (iii) and (vi) for this series are applicable on all 6 hill forts and the OUV stated here forms the basis for protection and management of the series. This will be used to guide the works under Management framework of each fort site, which will be closely monitored by Fort Apex Committee. The management framework aims to promote new thinking in managing properties in a serial nomination in India without taking anything from the autonomy of each site.



A large, multi-tiered stone fortification, likely a palace or citadel, is situated on a hillside. The structure features a prominent domed tower on the left and several smaller domes and towers. The fortification is built with light-colored stone and has a crenellated top. The hillside is covered in green vegetation, and the sky is clear and blue.

# State of Conservation and Factors Affecting the Property



#### **4.a Present state of conservation**

##### **Chittorgarh**

The current state of conservation of monuments within the fort is good as ASI has been continuously working on restoration of individual monuments within the fort since 1899, much before its formal acquisition in 1956 as recorded well in Indian Archaeology Review Publications of ASI (Refer Annexure III). A brief summary of the conservation works undertaken by ASI since the monument was declared protected in 1956 till 2009 are covered in the 'History of conservation works' in Part 2 of the Management Plan for Chittorgarh (Refer Annexure I).

General cleaning and sweeping of the fort site and its premises have been undertaken besides minor repairing works in 2009-2010. Overall landscape and setting exists as per original though few gardens around historic structures have been developed later, which may need to be merged with the historic character of the fort. The dilapidated and badly damaged portion of the fortification wall between Mrigavan to northern side was restored as per the original with the help of combination materials. The Padmini Palace Complex has been recently restored with replacement of the missing and badly damaged architectural elements as per the original with the help of combination materials. The dead and decayed lime plaster of the dome has been removed and a fresh lime plaster has been provided as per the original. The badly damaged portion of the base of the dome has been restored with the help of combination materials. Northern side gate in the palace complex has been restored. The uneven and sunken stone flooring of the gate was removed and fresh stone slabs were laid, after giving proper slope as per the original. Works like stitching of cracks, underpinning and water tightening were done wherever necessary. Flagstone flooring has been provided at the back side of the gate of Padmini Palace. Few step-wells within the fort property are currently under restoration. The conservation works for the step-wells includes the consolidation of the walls and replacement of damaged stones on the walls with matching ones.

##### **Proposed conservation works:**

Next phase of conservation and development works will include: restoration of remaining water structures in the fort, completion of works at Ratan Singh Palace and Kumbha Palace, restoration and reuse of Topkhana as a museum, conversion of stores as ASI guesthouse, cleaning and recording of fragmented architectural elements from site for display and development of booking office and viewpoints on site.

## 4. Present state of conservation and factors affecting the property

### 4.a Present state of conservation

#### Kumbhalgarh

The state of conservation of monuments in terms of planning and built fabric within the fort is very good, as ASI has been continuously working on restoration of individual monuments within the fort since 1957, soon after its formal acquisition in 1951. All works are recorded well in Indian Archaeology Review Publications of ASI (Refer Annexure III). A brief summary of the conservation works undertaken by ASI since the monument was declared protected in 1951 till 2009 are covered in the 'History of conservation works' in Part 2 of the Management Plan (Refer Annexure I). A brief survey of the recent and ongoing works is presented below:

The historic structures within the fort are spread across the forest area, orchards and agricultural fields and are accessed through pathways, being constructed recently by ASI to facilitate visitor access to all structures. Most of the setting retains the authentic rural-forest ambience except a few areas in the vicinity of the structures where ASI has undertaken some horticulture activity and created gardens. It may be feasible to review the new gardens around the historic structures and tone it down to merge with the rural forest setting.

General cleaning and sweeping of the monument site and its premises have been undertaken besides minor repairing works in 2009-2010. More recently, chemical cleaning (wash) of the fort wall (from Ram Pol to the Vijay Pol) is completed. Pointing is completed in part of the fort wall on eastern side. In Badva Baoli, the bulged and out of plumb wall of the stepwell has been dismantled and re-set layer by layer with the help of new as well as old stones matching with the original in combination mortar. In Reservoir No. 2, the missing and badly damaged steps of the reservoir have been restored with the help of combination materials, while the bulged out portion of the wall were dismantled and re-set as per the original. The badly damaged support wall was also repaired with the help of combination materials.

#### **Proposed conservation works:**

Future conservation works that are planned to be taken up in the next phase include: the restoration of all remaining reservoirs and water structures, cleaning and restoration of remaining fort wall and gates. Development works such as signage and more pathways to access historic structures within the fort. Restoration of Golera temples is being undertaken on prioritized basis for 2013.

#### 4.a Present state of conservation

##### Ranthambore

Restoration work on few monuments within the fort has been completed by ASI since the property was declared protected in 1951. However, the number of structures within the fort is large and their maintenance requires extra efforts in the forest surrounds. All works are recorded well in Indian Archaeology Review Publications of ASI (Refer Annexure III). A brief summary of the conservation works undertaken by ASI since the monument was declared protected in 1951 is presented in the 'History of conservation works' in Part 2 of the Management Plan (Refer Annexure I). General cleaning and sweeping of the monument site and its premises have been undertaken besides minor repairing works in 2009-2010.

The out of plumb portion of the double storey structure of Raghunath Temple was dismantled and re constructed to plumb as per the original, after replacing the broken roof slabs, beams and sunshade stones. The water tightening work of the roof was done. An apron was provided all around the temple in random rubble stone while platform of the temple was restored to its original condition. The dead and detached lime plaster of the verandah has been re plastered as per the original. Mild steel grill has been provided to all the openings of the verandah to restrict the entry of animals. At Sat Pol Gate, the random rubble stone masonry pathway between gate no.1 to gate no. 2 was completed in combination mortar. The out of plumb and badly damaged portion of the fortification wall (inner side) towards forest area has been restored with the help of combination materials and matched as per original. At the east side of Sat Pol, a retaining wall of comfortable height was also constructed to restrict further erosion of the earth towards hill side. The replacement of missing and badly damaged sunshade stones and *chatri* is in progress at the Digamber Jain Temple. The dead and decayed lime plaster of the wall was removed carefully and re-plastering work in combination mortar is in progress. At Hammir Mahal, the uneven and sunken portion of the ramp in front of the main entrance of the palace was restored with the help of combination materials and the construction of apron in front of the palace is in progress. Missing *jalis* in Karauli sandstone were restored/ replaced as per original pattern in 2010.

##### Proposed Conservation Works

Substantial conservation works will be focused in the next phase, in important palace structures such as the Hammir Palace, Rani Mahal, Badal Mahal etc. that show serious structural damages. Granaries are being cleaned and access to smaller *chattris* and ruins on site are being provided. Most of the gates are restored and remaining few will be restored in the next phase. The Sukh Sagar will be cleaned. Restoration work on Hammir Palace was started by ASI in November 2012



## 4. Present state of conservation and factors affecting the property

4.6

### 4.a Present state of conservation

#### Gagron

Substantial conservation works were undertaken for Gagron Fort by the Department of Archaeology and Museums, Rajasthan from 2007-2010. Prior to that, the fort was occasionally visited and not in good condition despite being declared a state protected monument since 1968. A brief summary of the recent works is presented below, while the complete conservation reports are annexed at the end of the dossier ([Refer Annexure II and Annexure IV](#)).

The setting and landscape character of the fort is retained after completion of conservation works. Caturbhujnath Mandir, Madan Mohan Mandir, Suraj Pole: Damaged walls were repaired, plinth of verandah consolidated, ceiling painting was reinstated, wall cracks filled with lime mortar, walls were lime plastered and finished with lime wash. Tulsi area was restored, decorative niches repaired and restored and lime stucco work around *chattris* was restored after repair of *chatri*.

Guard's room and Naqqarkhana Gate: Loose lime plaster was removed and replaced. Recent interventions such as electric wiring were removed. Seepage on walls was addressed. Damaged stone *chajjas* were restored/replaced with matching stone.

Fort Wall: Excess vegetation from Fort Wall was cleared. Fort Wall damaged, and fallen at various places was reinstated in random rubble masonry in lime mortar. All existing vertical cracks were repaired with lime mortar and loose masonry was restored with matching stone pieces. Lime plaster work and repair of crenellations was also completed. Damaged platforms near fort walls were repaired. Blocked openings were opened up, falling lime plaster reinstated

Madhusudan Temple: Damaged wooden beams were cleaned, repaired and consolidated. Vegetation and algae on wall surfaces was removed. Recent interventions in cement were removed from stone columns. Damaged stone pieces from floors were removed. Missing stone parapets on *jharokhas* were replaced by new ones in matching stone.

Main Palace: Inside of palace was cleaned of all bats and bat guano. Disjointed ceiling stones were readjusted. Terracing was redone in lime. All cracks in the inside walls were repaired and broken lime plaster was restored. Damaged *jharokhas* and arches were restored. Missing stone pieces on the floor were replaced. Missing steps and railings were replaced with matching stone pieces. Few embellishments found on walls were retained. Seepage on exterior walls was addressed and lime plaster restored with finish of lime wash.

Raniwas School Building: Damaged *chajjas* were repaired, algae removed from the walls, damaged plaster was removed and walls were replastered in lime.

Silehkhana and Topkhana, Barudkhana and ruins near Purva Dwar: Damaged walls and roofs were replaced and restored. Loose masonry restored in RR and lime. Terracing of roofs was done in lime dhar. Walls were plastered in lime after all repair work and finished with lime wash. Pointing work was done in ramp.

Ruins near Krishna Dwar, Ruins near Palace, Ruins of Sheesh Mahal were consolidated and repaired.

**Proposed conservation works:**

The fort has been recently restored and no immediate conservation works are envisaged at present. However, all development works for reuse of the fort as a tourist destination will be undertaken in the next phase.

## 4. Present state of conservation and factors affecting the property

4.8

### 4.a Present state of conservation

#### Amber

One of the most significant large scale conservation works was taken up by the Government of Rajasthan from 2004-2009 for conservation of the entire Amber Fort-Palace Complex. A Conservation Master Plan for the entire complex was prepared with comprehensive condition assessment of all components and structures within the fort-palace complex. The detailed report of condition assessment is added in the annexure along with images showing completed restoration works.

(Refer Annexure II and Annexure IV)

The conservation works for entire fort complex included restoration of the extensive fort walls, conservation of historic Rajput-Mughal gardens, repairs and restoration of all palace courtyards and palace spaces, demonstration of historic water works, restoration of artworks including mirror inlay and wall paintings in various spaces of the palace complex and lighting of the fort, signage and visitor facilities. Excavations during the work also revealed hidden tunnel leading to the upper fort of Jaigarh and 18<sup>th</sup> century toilet blocks which were restored to original shape. Developmental works such as Sound and Light Show, better visitor movement; improved visitor facilities were also included. The fort has substantially transformed in the last four years and a step by step record of the conservation works is provided in the annexure. General approach for conservation works was specified as per architectural elements and is presented below:

The damages that have occurred in the palace were considered of two kinds. One is the damage to the built environment due to ageing and lack of maintenance while the other is damage due to misuse. Comparatively, structural damage was limited to certain areas. The palace had suffered mostly due to gross misuse, neglect and lack of regular upkeep. Condition assessment of entire palace with various structures and spaces was done in following subheads to outline a general approach for restoration:

**Structural:** Except for a few places, there was no serious structural damage in the four main courts. Minor structural damages due to differential settlements and later interventions were addressed adequately in the conservation works.

**Roofs, *chhajjas* and projections:** The elements of the roofs are surfaces, stone slabs, terraces, slopes and drains. Leaking roofs were a primary concern since they weaken the overall structure and also cause damage to spaces below including paintings in some areas. Bitumen waterproofing laid in 1990's



was removed from terraces and traditional waterproofing with lime dhar was done on all terraces with proper slope. Stone *chajjas* wherever damaged were repaired with matching stone pieces.

Beams, arches and brackets: Most of the stone beams were intact except the ones at the water lifting system where the damage is caused in the wooden beams which have decayed over time. These were replaced by matching ones.

Walls: The structural walls in the Amber palace were comparatively in a stable condition. The problems associated with them were mainly of a surface level. Foundation walls in the basements need strengthening. They were grouted and strengthened with *tuman* masonry technique.

The massive external walls had several problems. They were defaced the maximum. They are also subject to wear and tear due to the weather. The addition of services has also caused problems of breaking, cracking etc. in the walls. As part of the recent conservation works, all external walls were plastered with lime after removal of the damaged plaster and finished with final lime wash or *khamira*.

Columns and pillars: The plaster on the pillars and columns had deteriorated. In some cases like in the Bhojan shala, (dining area) the columns had shown cracks at their base because of the rusting of iron clamps and dowels joining two pieces of stones. These were replaced by new clamps moulded on site itself.

Jalis: The *jalis* have been given different treatment in palace spaces. Some are stone carved where as some are lime plastered. Few are even made out of lime mortar and few others of Plaster of Paris. There are exquisite *jalis* with mica infill used as glass pieces next to the Ganesh Pol overlooking the Diwan-i-Aam court. Since the craftsmanship is available in Jaipur, master craftsmen were engaged to restore all *jaalis* in matching traditional materials of lime or stone.

Doors and windows: The large doors in the gateways were more or less intact with only some ageing effects seen on the wood. However, it was the smaller doors, especially windows that had deteriorated. In some places the shutters were completely missing, decayed or were stolen. In many places the hardware had rusted causing damage. All damaged pieces were restored and missing shutters were replaced by matching ones in timber with new hardware.

Flooring: Most of the external floors are either rough stone or prepared in lime mortar (local variations are *dhar*, *kada* and *araish*). The internal floors, especially in important areas like the king's palaces

## 4. Present state of conservation and factors affecting the property

4.10

have marble floors with patterns. In the stone floors, damage was of the nature of chipping and natural wear and tear which was replaced with matching stone wherever feasible.

In the areas with lime flooring, the deterioration was much more. Depending on the extent of damage in each area, the lime flooring was repaired or completely redone as local skills for lime flooring are available.

Staircases, ramps: Most of the stairs and ramps are enclosed spaces and were dark since *jalis* that provided light and ventilation were blocked. These are now opened in the interest of the visitors in few places resulting in a beautiful subdued quality of light filtering onto the ramps besides allowing the view towards Jaigarh Fort. Damages in stairs were again similar to those of the flooring with minor chipping and wear and tear due to tourist movement. All staircases were restored.

Finishes: Historically lime was used as the building material for wall finishes. At Amber, the finest quality *araish* plaster is used for inner walls. Well matured lime putty was used with marble dust to generate this finish. The result is a finish which is as hard as marble, as smooth, and a lustrous but joint less. It was rubbed over several layers. This is a labour intensive and time consuming technique. In today's context, it is only viable when there is time and availability of high funding – this work was taken up in several areas in Amber Palace. The other kind of finish on stone walls is called '*khamira wash*' in the local language which was done for exterior surfaces.

Since the stone of the built fabric has a comparatively high content of mica, it does not allow the plaster to bond with the stone and thus at most places the lime plaster has peeled off from the surfaces. This then gets compounded by dampness, leakage, cracking of the stone etc. Even new plaster which replaces the older one does not hold very well. This is the most recurrent problem of the complex and crucial to the long term conservation planning.

Embellishments: This palace has a fairly large variety of embellishments such as paintings, frescos, Plaster of Paris, mirror work, filigree work, etc. Much of the filigree work is of the finest quality, work of highly skilled craftsmen. Few of the art works and embellishments were restored between 2207-2010 and the work is ongoing.

### **Proposed conservation works**

Works listed in the Phase II of the Conservation Master Plan 2005 will be undertaken in the next phase primarily comprising of restoration of remaining building arts work and other developmental works.

(Refer Annexure IV - Amber Palace Conservation Initiative 2005 for list of Phase II works)

## **4.a Present state of conservation**

### **Jaisalmer Fort**

As Jaisalmer Fort is a centrally protected historical monument, a sustained conservation effort has been carried out by the ASI over the years. It is evident that the size and complexity of Jaisalmer Fort makes any conservation effort an immensely difficult undertaking. A brief of the conservation works is already given in the Appendix VII

Out of plumb masonry of the Fort was dismantled, numbered and reconstructed. The bulging section of the bastion near Nidhi prole was dismantled and rebuilt in lime cement mortar. Damaged stones were replaced with new ones. The bulged portion of the wall was dismantled after numbering at several places and was rebuilt. The undulated pathway from Nidhi prole to Suraj prole was dismantled and reset in lime cement mortar at the prescribed gradient. The open drain along the path was covered by laying underground pipes.

Water Management proposal was prepared in 1992, the built form of the town was not conceived to deal with excessive water. The damage caused by water seepage was found to be one of the most crucial factors that had to be addressed fully in the conservation process. The major challenge in the conservation of the fort area was to ensure total dryness of soil below the fort structures. In other words the major task indicated was to manage the waste water which has been percolating continuously into the soil below resulting in uneven settlement of foundations thus impairing the strength of the structures. Amongst various measures to be adopted for conservation, a sound underground drainage system was identified as imperative in achieving total dryness of sub-soil. The report also mentioned that only 40 percent of the fort residents had individual toilets and the rest used the dry toilet systems in the Mori area.

The Jaisalmer Streetscape Revitalization Project was undertaken between 1999 and 2001, starting with two historic residential streets in Kotry Pada and Dhunda Pada and extended to all main streets within the Fort. The aim of the Streetscape Revitalization Project was to:

1. improve the welfare of the residents
2. return the streets to their former beauty by removing or concealing inappropriate additions, including material such as cement
3. stop the destruction of the Fort caused by wastewater seeping through cracks in the old drains and into the hillside, which has, in recent years resulted in dramatic subsidence and the collapse of buildings and bastions
4. subtly integrate modern amenities with the traditional streetscape



#### 4. Present state of conservation and factors affecting the property

4.12

5. raise awareness among the local residents of the value of the heritage in which they live
6. develop good conservation practices in order to avoid further damage and
7. encourage more restoration efforts.

The project, completed in 2001, included installation of lavatories and connections to the underground sewage system for every household; repaving the uneven streets with Jaisalmer stone; relining the storm drainage and replacing the concrete manhole covers with stone. The effort resulted in a dramatic improvement in terms of aesthetics, hygiene and the conservation of the Fort on face value in the short term, though with the continual usage of the toilets incorporated, issues such as leakage and improper connectivity with main sewer line have surfaced now. Beside this Rani ka Mahal and Har Raj ji ka Mahal conservation works were also undertaken.

With the support of WMF several conservation projects and studies were initiated specially for the conservation and stabilisation of the fort wall and hill slopes. Details of these projects are available on the web <http://www.wmf.org/dig-deeper/publication/stabilisation-and-conservation-walls-bastions-and-slopes-jaisalmer-fort>

ASI at present in association with WMF and NCF is undertaking conservation works for which approximately Rs. 30 million has been sanctioned since 2010. These works includes:

- Conservation and Restoration of outer fortification wall from Khirki Pada to Kanwar Pada upto bastion No.61.
- Conservation and Restoration of Pitching wall (between Section I & II) of Jaisalmer Fort

Details of the status of conservation works by ASI is provided in the appendix VIII

## 4b) Factors affecting the property

### (i) Development pressures

#### Chittorgarh

- **Encroachments:** An entire municipal ward exists in the fort premise that has around 600-700 houses (population of approximately 3500). While this is a historic habitation, it needs to be ensured that the extensions to the houses are controlled, as this has a direct impact on the skyline of surrounding historic structures specially the temples in the immediate vicinity within the habitation. The vertical expansion in these properties is blocking views of the temple *shikharas*. The population of this ward engages itself in various types of tourist oriented activities like photography, tourist guides etc. Recent AMASRA amendment of ASI ensures that no further construction can take place in this area now.

Besides this, temporary centres of habitation/shops often surface because of the existence of temples of high religious values (like the Kalika Mata temple, Mira temple and the Kumbhashyam temple) due to rituals/offerings associated with the temples. Temporary construction of shops and any other pilgrim facilities due to this activity needs to be effectively organized, so that it becomes a part of the overall ambience of the historic site.

- **Mining:** The mining work going nearby the fort is now stopped after a court order was taken out in August 2011. The court has declared a buffer zone of 10 km around the fort wall as a no mining and no industrial zone.
- **Adaptation:** Reuse and adaptation of structures is well planned and not a threat. Topkhana structure is currently used as ASI office space and is proposed to be converted into a Museum. The guest house for the ASI is to be developed in nearby store areas. New toilet facilities have been recently developed on site for visitors.
- **Services:** Twenty of historic water structures present in the fort premise are still in use and are considered as the main source of water. A boring plant is being installed down the hill and water is pumped to the fort during 4 months in a year. The residences in the municipal ward are not allowed to dig boring tanks and, water is supplied to them through the municipal lines. Currently, no sewerage lines are present and mainly soak pits are used in this area. Overhead electric wires run throughout the fort and need to be placed underground in due course of time.

## 4. Present state of conservation and factors affecting the property

4.14

### Kumbhalgarh

- **Encroachments:** Historic habitation in the fort premise centuries includes a Muslim community of around 20-25 houses with a population of about 100 people. The community has also introduced two retail shops for the tourists which may require controls in future.

There is another small community group residing near the Golerao group of temples with about 5 houses. They are mainly dependent on the agricultural produce from the mustard fields in the surrounds. This currently poses no risk to the fort structures.

The largest habitation is the Bhil settlement located in the middle, low lying area of the fort. It is located down on the slope with no disturbance to the surroundings. A vehicular access road for this habitation is provided, for use only in case of emergency situations.

Overall, the habitations inside the fort are well managed though cautious control on encroachments in entrance area needs to be maintained

- **Adaptation:** The jail structure is well adapted as guest rooms by the ASI. This may be developed with adequate facilities.
- **Services:** The present location of the DG set is clearly visible near entrance and, is an eyesore to all the tourists heading towards the main palace area. This may be relocated in future. Toilet facility units (2 pre- fabricated ones) are provided by ASI. Drinking water taps are being installed near the Jail structure. ASI has also installed several plastic green colored dustbins at various monuments. More conducive design and materials may be considered for these.

### Ranthambore

- **Encroachments:** At present 5-7 families (about 25-30 people) are staying near Ganesh Mandir within the fort. It needs to be ensured that there is no increase in this population inside the fort and that the existing structures retain their temporary character. Besides, during festivals and local celebrations in Ganesh Mandir, the pilgrims often gather for ceremonies and also cook in the open or at times in the surrounding historic structures (if it is raining). This activity needs to be immediately stopped as it is detrimental to historic fabric of Pachauri Mahal, which is close to the temple and has been occasionally used for this purpose. Consultations with local communities are being carried out to resolve these issues.
- **Adaptation:** Supari Mahal currently functions as ASI office and guesthouse though it does not have electricity and is dependent on solar lights and generator back up because of restrictions of the forest department. There is no major threat from adaptations.
- **Vandalism:** Tourists visiting the site is prone to vandalism and writing on historic structures which needs to be strictly controlled. ASI is considering the process of training and involving more locals as guards for the fort.

- **Forestation:** The entire land/ forest area around the fort is under the Forest Department, ASI is only responsible for the protection of the historic structures. Since a number of ruins are surrounded by forest growth, adequate measures need to be taken to clean these areas and restore the ruins.
- **Services and Facilities:** Currently, there is no electricity in the fort as electrical wiring is prohibited in the forest protected zone due to presence of wildlife sanctuary. While this is a good policy, adequate solar/alternative means of lighting need to be planned for functioning and maintenance of the site and for emergency requirements. Adequate and more organized parking space with facilities needs to be developed and managed at the entrance of the Fort area as the current space cannot cater to increased tourist traffic.

### Gagron

- **Adaptation:** Raniwas, on the west of the site has been reused as a school. The walls have been painted impacting the authenticity of the structure. New construction of Panchayat offices near Ganesh Pol, Raniwas and within the habitation are a potential threat.
- **Vandalism:** There are no security or tourist facilities in the property. Lights that had been put up in December 2009 have been stolen from the fort premise. Graffiti is a major problem throughout the site. The local collector is taking initiatives to resolve this issue.

### Amber

- **Encroachments:** There are no encroachments in the fort premise. However, the buffer zone of fort which includes the entire Amber town shows increasing encroachments which need to be controlled in order to retain the OUV of the property. The area has recently been declared as Heritage Zone in the Jaipur Master Plan 2025 and architectural control guidelines for the town are under preparation by the Jaipur Municipal Corporation.
- **Adaptation:** While most areas in the fort premise are well adapted as museum /palace spaces and for other tourist facilities, there are certain portions which are still in disuse and appropriate reuse for such areas is being considered as per proposals in the conservation plan 2005.
- **Services:** Water supply within the fort is often inadequate to cater to increasing tourist pressure and alternative means for the same need to be considered. Adequate stone dustbins and signage for tourists have been recently provided.



## 4. Present state of conservation and factors affecting the property

4.16

### Jaisalmer

- **Encroachments:** Since 2004, some unauthorized constructions have come up inside and outside the fort. ASI and district administration continue its efforts to restrict such activities.
- **Adaptations**

Most of the buildings within the fort still retain their original use, which is houses, some are changed and adapted to guest houses and restaurants. The main palace has been adapted as a museum. There are certain portions which are still in disuse and appropriate reuse for such areas will be worked out in the management plan through public consultation.
- **Services**

Copious water supply and inadequate drainage of excess water have been the major cause of problems within the Fort. Unlimited piped supply of water to the Fort has resulted in excessive wastage of water. Exposed plumbing conduits are seen almost everywhere and leaks abound. Open storm water drains are stagnant due to blockage and indiscriminate use as sewage drains. Buildings along the fortification walls discharge sewage in an adhoc manner directly onto the mori and slope. However, the Government of Rajasthan through RUIDP (Rajasthan Urban Infrastructure Improvement Development Prograame) and with approval of ASI has begun on the most crucial work of revamping of sewage and drainage infrastructure on site in the fort with ADB funding in Jan 2013.

## **4b) Factors affecting the property**

### **(ii) Environmental pressures**

Since 4 of the 6 fort sites in the nominated property are surrounded with buffer zones in reserve forest areas, regular monitoring reports of environmental pressures are maintained by the forest department. There is no significant threat due to environmental pressures for the 6 hill fort sites.

#### **Chittorgarh**

No significant threat due to environmental pressure as per environmental monitoring by the Department of Forest, Rajasthan in the Buffer Zone area.

#### **Kumbhalgarh**

No significant threat due to environmental pressure as per environmental monitoring by the Department of Forest, Rajasthan in the Buffer Zone area.

#### **Ranthambore Fort**

No significant threat due to environmental pressure as per environmental monitoring by the Department of Forest, Rajasthan in the Buffer Zone area.

#### **Gagron**

No significant threat due to environmental pressure is recorded for the fort site.

#### **Amber**

No significant threat due to environmental pressure as per environmental monitoring by the Department of Forest, Rajasthan in the Buffer Zone area.

#### **Jaisalmer**

No significant threat due to environmental pressure

## 4. Present state of conservation and factors affecting the property

4.18

### 4b) Factors affecting the property

#### (iii) Natural disasters and risk preparedness

##### **Chittorgarh**

Fire in the forest zone at Mrigvan few years back is recorded as a minor calamity. However, it did not cause any damage to the historic structures and the fort wall but the animals in the forest zone had to be relocated to a nearby sanctuary. Currently the area lies deserted and needs to be redeveloped. In future, forest fires need to be an important part of risk management for the site.

##### **Kumbhagarh**

A small portion of the fort wall was dismantled due to the over flooding of the main stepwell / *baori* as the water passed through the channel with extreme pressure. Forest fires have not caused much harm but need to be considered as a factor in planning. The surrounding area is prone to landslides, though no damage has been caused due to this within fort premise. It should be also considered in the Risk Management Plan.

##### **Ranthambore**

Many old/ aged trees (100-200 yrs) sometimes fall due to high pressure winds. Due to heavy rains, many structures/ruins that are made of stone masonry in weak mortar get damaged or demolished. Extra measures need to be incorporated for these factors in the Risk Management Plan.

##### **Gagron**

No major damages due to natural disasters are recorded.

##### **Amber**

No major damages due to natural disasters

##### **Jaisalmer**

Minor damages which occurred in the past earth quakes and were restored subsequently.

## **4b) Factors affecting the property**

### **(iv) Responsible Visitation at World Heritage Site**

#### **Chittorgarh**

Around 3000 tourists visit the fort per day on an average. Activities as mentioned below require more control and better services and facilities:

- Excessive tourists visiting the Vijay Stambh which is a narrow tower structure has caused its stone steps to degrade to a large extent. Also, the tourists hamper this historic structure by dumping plastic wastes at various corners and on top floor balconies and spitting in the wall junctions.
- Around 7000-8000 Jain pilgrims visit the Saat Bis Devri temple throughout the year. The temple also organizes three yearly festivals and special ones if a saint is visiting the temple.
- Kalika Mata Temple festivities require additional facilities and control of pilgrims.

#### **Kumbhalgarh**

Around 75-100 tourists visit the fort daily on an average. A festival is also been organized by the tourism department during the month of December which is attended by around 1000 people (mainly locals). Tourists mainly visit only a few monuments (main palace, Vedi Temple, Neelkanth Mahadev Temple, Parshavanath Jain Temple). Rest few are not easily accessible and are at a distance, hence rarely visited. No major threat due to tourism pressure is observed.

#### **Ranthambore**

About 500-1000 tourists per day (figure varies in case there is a fair at the Ganesh Temple) visit the site. Vandalism/ graffiti is a significant cause of concern. Visitors use structures for picnics, cooking, partying (for 200 or more people at a time) – causing damage to structures, soot deposits, etc. Temple idols were also stolen a few years back. The staff tries to keep check on the visitors but due to shortage of staff, proper monitoring is not possible.

#### **Gagron**

Currently, not many tourists visit the fort area and it needs to be promoted as a tourist destination.

The current visitor count to the monument is around 200 a year. However, during Moharram festival annually, the Dargah to the southwest of the site has around 700 visitors.

#### **Amber**

About 3000-3500 visitors on a daily average visit Amber and adequate facilities have been provided for them. However aspects such as vandalism, overcrowding in narrow corridors are some of the concerns with increasing tourism. Guides and shop sellers pursue the tourists and insist on offering their services, which becomes a major hindrance in initial experience of the place.



#### 4. Present state of conservation and factors affecting the property

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4.20

##### **Jaisalmer:**

There has been a dramatic increase in the economic activity, largely due to tourism, at Jaisalmer, which in turn has accelerated the pace of growth. Several families have started converting their houses into guesthouses in order to accommodate tourists, there are around 35 unlicensed hotels. These families have added toilets, overhead water tanks and other facilities to their houses, which have affected both the streetscape, as well as, the skyline of the Fort.

**4b) Factors affecting the property**

**(v) Number of inhabitants within the property and the buffer zone**

**Table 4.1 Estimated population located within the 6 fort sites and buffer zone of nominated property**

<b>Name of Fort site</b>	<b>No. of inhabitants in area of nominated property</b>	<b>No. of inhabitants in Buffer zone</b>	<b>Total no. of inhabitants (nominated property + buffer zone)</b>	<b>Year</b>
Chittorgarh	3025	300	<b>3325</b>	2010
Kumbhalgarh	361	250	<b>611</b>	2010
Ranthambore	45	None	<b>45</b>	2010
Gagron	300	100	<b>400</b>	2010
Amber	50	30,000	<b>30050</b>	2010
Jaisalmer	2000	35000	<b>37000</b>	2010



**Protection and Management  
of the Property**

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## 5.a Ownership

**Table 5.1 – Categories of land ownership of 6 Hill Fort sites of the nominated property**

S. No.	Name of Fort Site	Ownership
1	Chittorgarh	<ul style="list-style-type: none"> <li>• Archaeological Survey of India, Government of India</li> <li>• Department of Forest, Government of Rajasthan</li> <li>• Department of Archaeology, Government of Rajasthan</li> <li>• Private</li> </ul>
2	Kumbhalgarh	<ul style="list-style-type: none"> <li>• Department of Forest, Government of Rajasthan</li> <li>• Private</li> </ul>
3.	Ranthambore	<ul style="list-style-type: none"> <li>• Department of Forest, Government of Rajasthan</li> </ul>
4	Gagron	<ul style="list-style-type: none"> <li>• Department of Archaeology and Museums, Government of Rajasthan</li> <li>• Private</li> </ul>
5	Amber	<ul style="list-style-type: none"> <li>• Department of Archaeology and Museums, Government of Rajasthan</li> </ul>
6	Jaisalmer	<ul style="list-style-type: none"> <li>• Archaeological Survey of India, Government of India</li> <li>• Private Ownership</li> </ul>

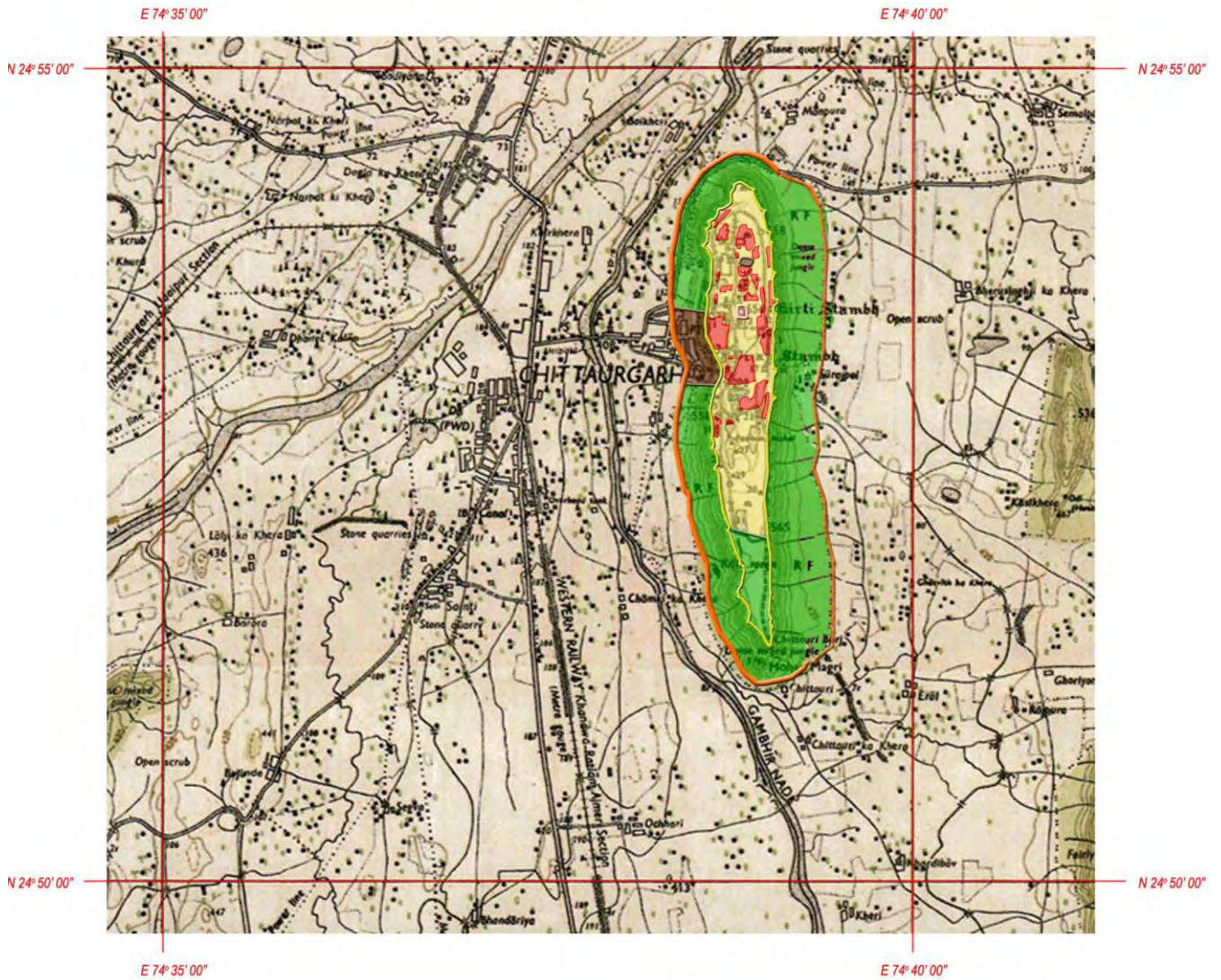
A graphical representation of ownership pattern is presented in next few pages showing the ownership within the property and in buffer zone area for each of the 6 fort site of the nominated property. Further details about ownership pattern for each fort are included in the Management Plan of each. (Refer Annexure I)



## 5. Protection and management of the property

5.4

### Chittorgarh – Ownership Pattern in Property and Buffer Zone



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978

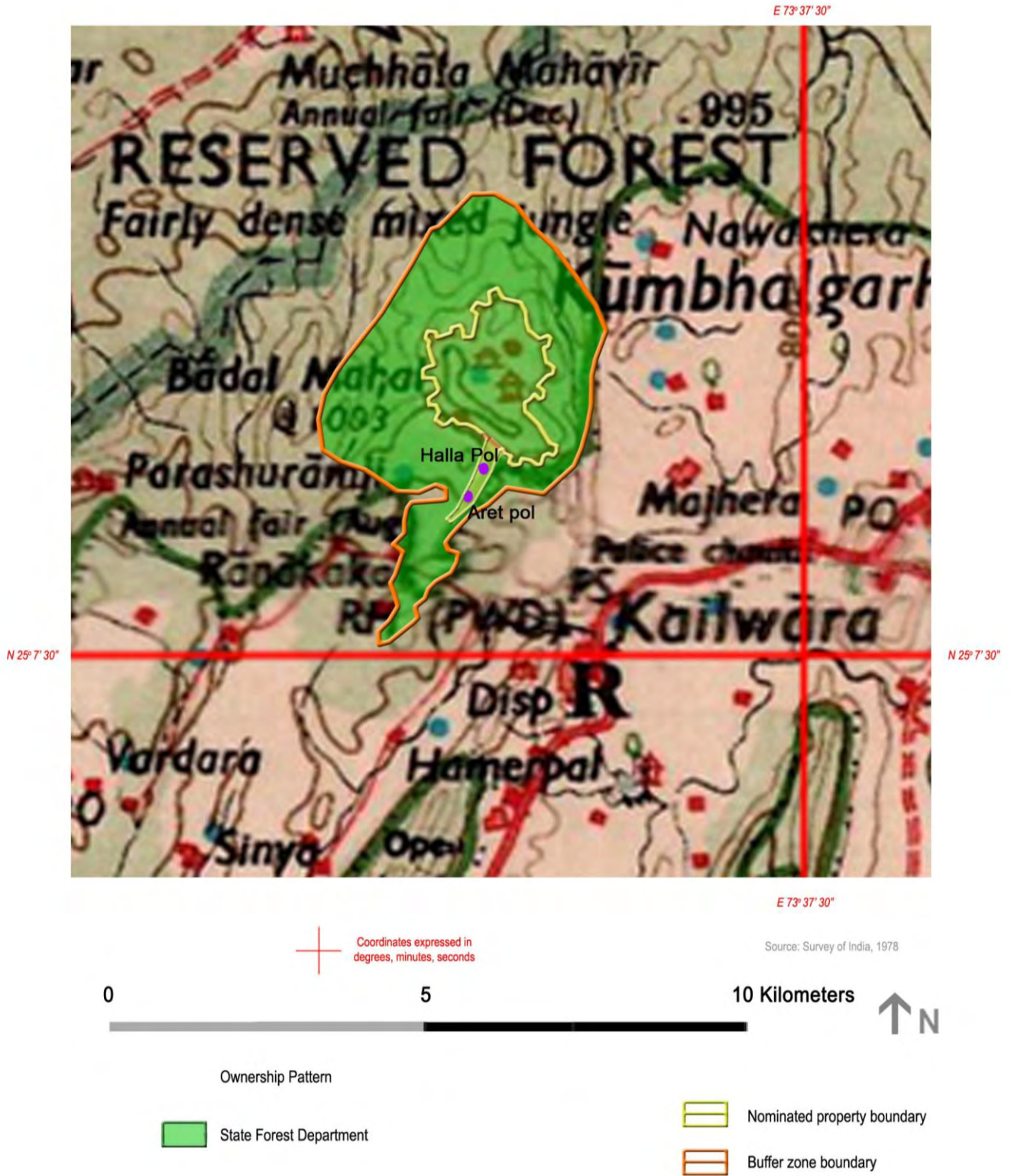


#### Ownership Pattern

- |   |                              |   |                             |
|---|------------------------------|---|-----------------------------|
|  | State Forest Department      |  | Nominated property boundary |
|  | Municipal Corporation        |  | Buffer zone boundary        |
|  | State Archaeology Department |   |                             |
|  | State Government             |   |                             |
|  | ASI                          |   |                             |



Kumbhalgarh – Ownership Pattern in Property and Buffer Zone

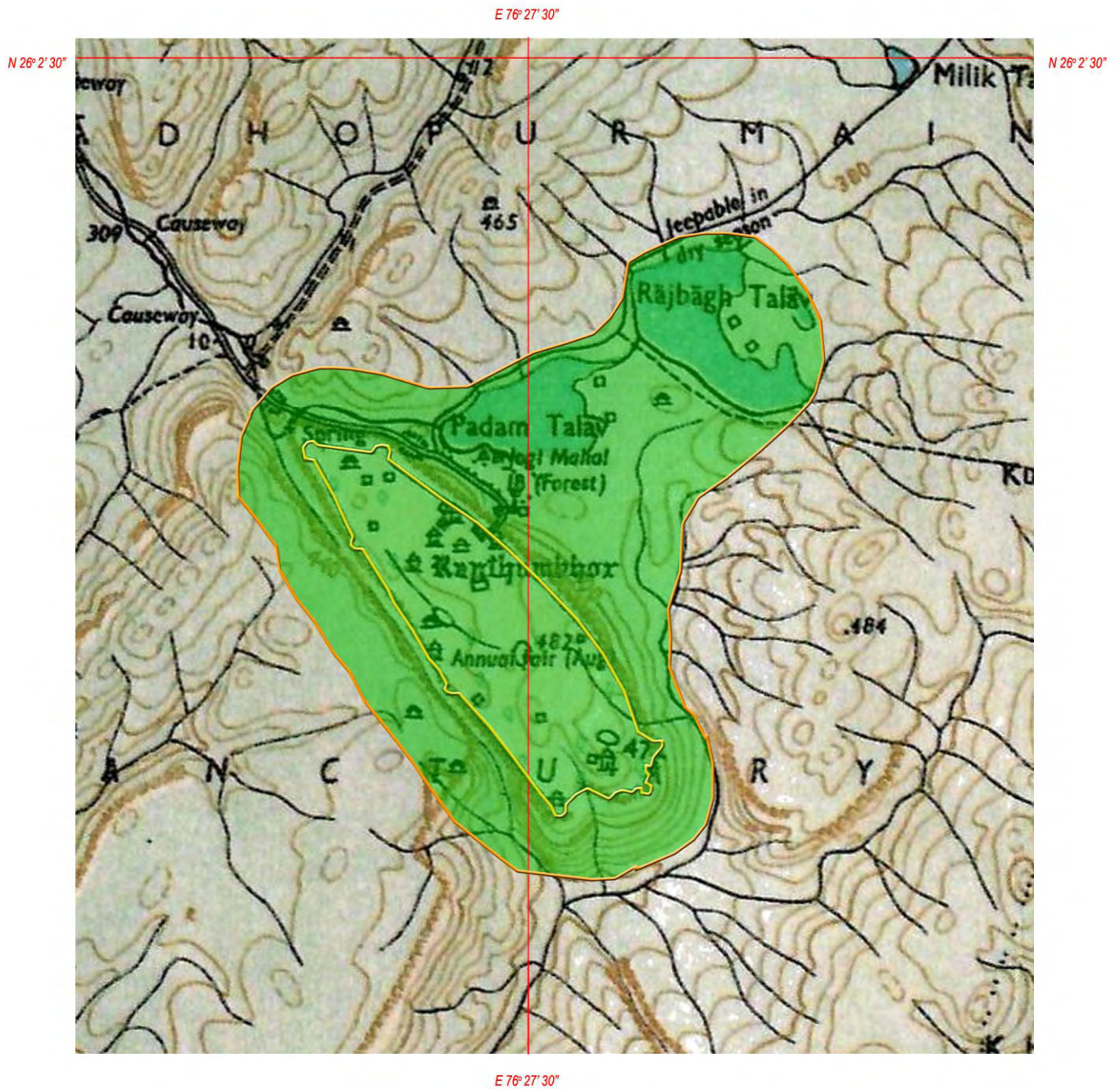




## 5. Protection and management of the property

5.6

### Ranthambore – Ownership Pattern in Property and Buffer Zone



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



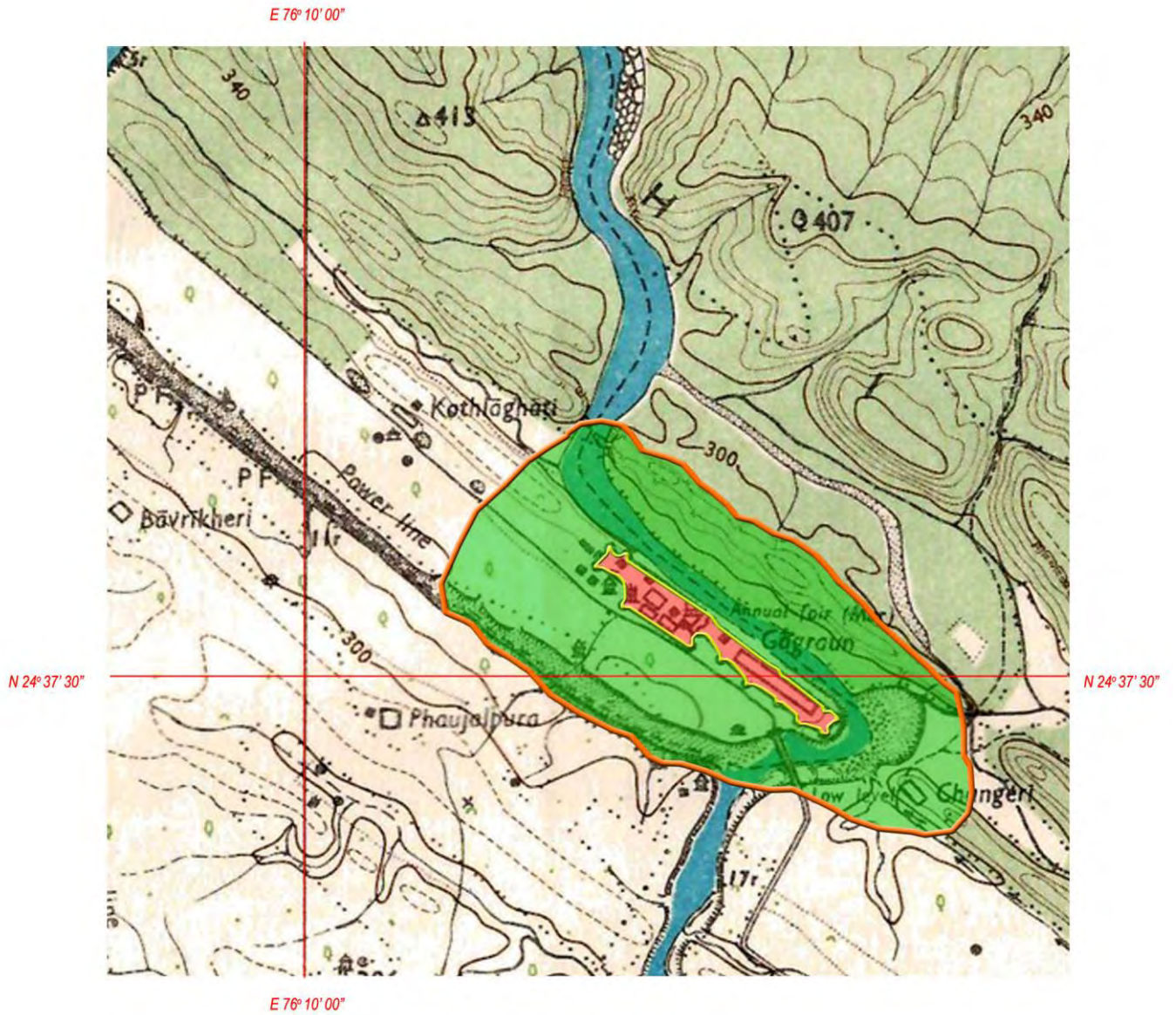
Ownership Pattern  
State Forest Department

Nominated property boundary

Buffer zone boundary



Gagron – Ownership Pattern in Property and Buffer Zone



Coordinates expressed in degrees, minutes, seconds

Source: Survey of India, 1978



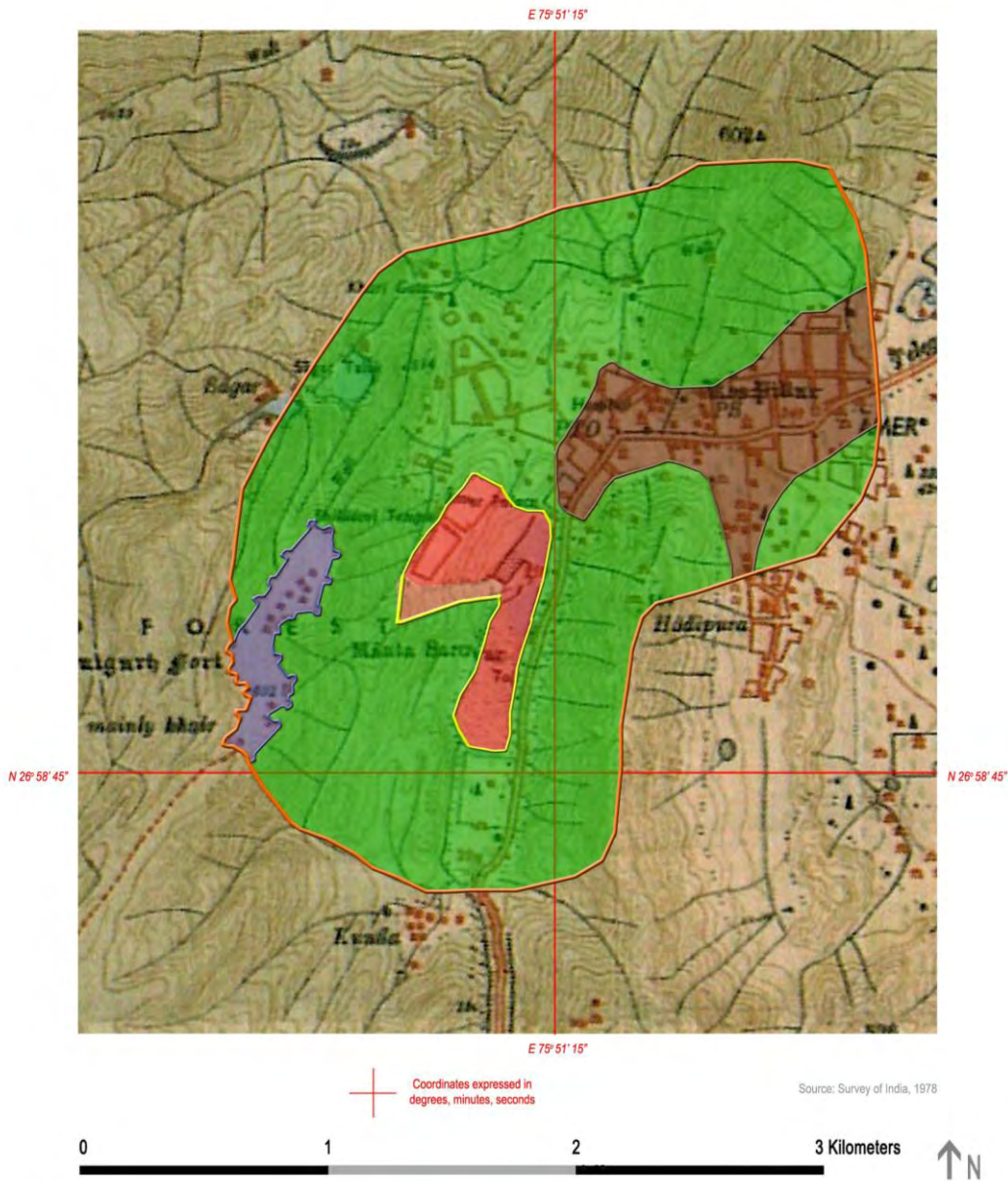
- Ownership Pattern
- State Archaeology Department
  - State Forest Department
  - Nominated property boundary
  - Buffer zone boundary



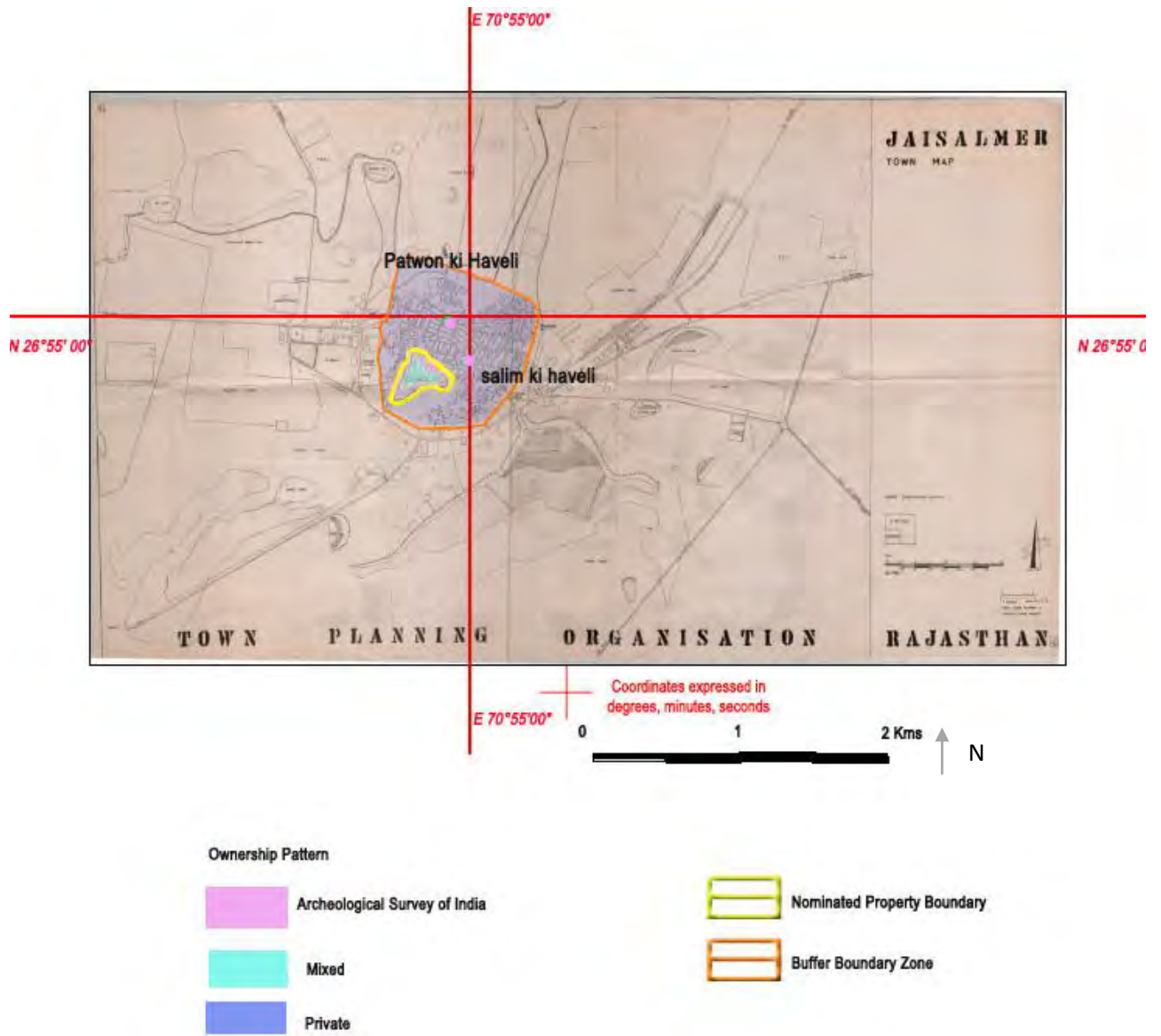
## 5. Protection and management of the property

5.8

### Amber – Ownership Pattern in Property and Buffer Zone



Jaisalmer – Ownership Pattern in Property and Buffer Zone



Source: Town Planning Organisation, Rajasthan

## 5. Protection and management of the property

5.10

### 5.b Protective designation

**Table 5.2 – Legal status of the 6 Hill Fort sites of the nominated property**

S. No.	Name	Notified under Act	Notified on	Status
1	Chittorgarh	The Ancient and Historical Monuments and Archaeological Sites and Remains (Declaration of National Importance) Act, 1951 (No LXXI of 1951)  AMASR Amendment, 2010	December 15, 1956 Act No. 70 of 1956	Legal – Protected Monument of National Importance
2	Kumbhalgarh	The Ancient and Historical Monuments and Archaeological Sites and Remains (Declaration of National Importance) Act, 1951 (No LXXI of 1951)  AMASR Amendment, 2010		Legal – Protected Monument of National Importance
3	Ranthambore	The Ancient and Historical Monuments and Archaeological Sites and Remains (Declaration of National Importance) Act, 1951 (No LXXI of 1951)  AMASR Amendment, 2010	November 28, 1951	Legal – Protected Monument of National Importance
4	Gagron	Rajasthan Monuments, Archaeological Sites and Antiquities (Act, 1968),	September 16, 1968	Legal – Rajasthan State Protected Monument
5	Amber	Rajasthan Monuments, Archaeological Sites and Antiquities (Act, 1968)	September 16, 1968	Legal – Rajasthan State Protected Monument
6.	Jaisalmer	The Ancient and Historical Monuments and Archaeological Sites and Remains (Declaration of National Importance) Act, 1951 (No LXXI of 1951) Under section 3 of this Act,  AMASR Amendment, 2010	November 28, 1951	Legal – Protected Monument of National Importance

### 5.c Means of implementing protective measures

The legislative framework and policies applicable at various levels and impacting the 6 Hill Fort sites in the nominated property are presented as follows:

#### **National Legislation**

All protected sites at national level adhere to the Ancient Monuments and Archaeological Sites and Remains Act (AMASR) 1958 enacted on August 28, 1958. The Ancient Monuments and Archaeological Sites and Remains Act 1958 (No 24 of 1958) mentioned was established by the Archaeological Survey of India, which is responsible for the protection of all national level heritage sites in India. The AMASR Act, 1958 provides for the preservation of ancient and historical monuments and archaeological sites and remains of national importance, for the regulation of archaeological excavations and for the protection of sculptures, carvings and other like objects. Subsequent to this Act, the Ancient Monuments and Archaeological Sites and Remains Rules 1959 were also framed. The Act along with the Rules came into force with effect from October 15, 1959 for all nationally protected monuments. The Amendment to the Act i.e. The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 further ensures the protection of Buffer Zone of the property.

According to rule 32 of the Ancient Monuments and Archaeological Sites and Remains Rules 1959 and the 1992 Notification, every area, beginning at the limit of the protected area or the protected monument, as the case may be, and extending to a distance of one hundred metres in all directions shall be the prohibited area, in which no construction activity of any kind is permitted. Every area, beginning at the limit of prohibited area in respect of every ancient monument and archaeological sites and remains, declared as of national importance under sections 3 and 4 and extending to a distance of two hundred metres in all directions shall be the regulated area, where repair of structures, modifications and new construction can be undertaken only with permission from the competent authority i.e. the National Monuments Authority as per amendment of the Act in 2010.

This Central Level Act with its Amendment in 2010 ensures protection of the 3 Hill Fort sites of Chittorgarh, Kumbhalgarh and Ranthambore in the nominated property. (Refer Annexure III for copy of the Act, 1958 and Amendment, 2010)



## 5. Protection and management of the property

5.12

### State Legislation and Policies

State and Local level acts and policies impacting the fort sites in the nominated property and their buffer zone are:

*The Rajasthan Monuments, Archaeological Sites and Antiquities Act 1968* Amber and Gagron Fort sites are protected as per 'The Rajasthan Monuments, Archaeological Sites and Antiquities Act 1968'. This act applies on all state protected monuments that come under the jurisdiction of the Department of Archaeology and Museums, Government of Rajasthan. Restrictions on property rights in protected areas under this act include: No person including the owner or occupier of a protected area, shall construct any building within the protected area or carry on any mining, quarrying, excavating, blasting or any operation of like nature in such area, or utilise such area or any part thereof in any other manner without the permission of the State Government; The State Government may, by order, direct that any building constructed by any person within a protected area in contravention of the provisions of sub-section (1) shall be removed within a specified period and, if the person refuses or fails to comply with the order, the Collector may cause the building to be removed and the person shall be liable to pay the cost of such removal.

This State Level Act ensures protection of the 2 Hill Fort sites of Gagron and Amber in the nominated property. (Refer Annexure III for copy of the Act)

In case of Amber, The State Department of Archaeology and Museums has release a special notification for protection of additional buffer zone of 50 meters around the property boundary under this Act. In case of Gagron, an additional buffer zone is specially identified and, will be notified under this act.

### *Rajasthan Forest Act, 1953 and Rajasthan State Forest Policy 2010*

Since the Department of Forest, Government of Rajasthan owns substantial land within the Buffer Zone for Chittorgarh, Kumbhalgarh, Ranthambore and Amber as 'reserve forest' area for the Wildlife Sanctuaries, the Rajasthan Forest Act, 1953 allows extra protection of the site and the buffer zone area. The act clearly outlines points regarding permissible activities for reserve and protected forest areas. Prohibitions in such forests include aspects related to fresh clearing of forest or setting fire, cutting of timber, trespassing, cattle grazing, quarrying, and land cultivation, hunting or killing of fauna in the area. (Refer Annexure III for copy of the Act)

The recently drafted *Rajasthan State Forest Policy 2010* further supports sustainable development of these areas. It noted specific policies regarding coordination with other government departments and institutions for integrated environmental considerations. A notification by the Forest Department of Rajasthan dated Feb.15, 2010 also outlines a robust Eco Tourism Policy with objectives such as including eco tourism in specified area of National Parks/Sanctuaries/Forests and other areas, to encourage eco-tourists for

sustainable development, encourage nature conservation, preserve existing forts, palaces and other heritage buildings by providing access to eco tourists for educational and recreational purposes and to empower local communities to manage eco tourism.

*Rajasthan Tourism Policy, 2007*

The Department of Tourism, Government of Rajasthan has also adopted a strong tourism policy. Heritage Tourism Policies of the Department of Tourism, Rajasthan respond to the huge potential for tourism in the state. One of the objectives of the Tourism Policy for the state with a focus on heritage is 'Preservation of rich natural, historical, architectural and cultural heritage'. In pursuance of this objective, a number of schemes are mentioned which can be utilized for Buffer Zone of Amber property too.

A graphic representation of the protective legislation applicable on all sites is presented below:

Hill Fort Sites	Chittorgarh	Kumbhalgarh	Ranthambore	Amber	Gagron	Jaisalmer
National Legislation	AMASR Act,1958 and Amendment 2010					AMASR Act,1958 and Amendment 2010
State Legislation	Stare Forest Act, 1953			State Archeology Act, 1961		
Local Legislation	Chittorgarh Master Plan			Jaipur Master Plan		Jaisalmer Master Plan

**Legislation applicable on 6 Hill Fort sites of the nominated property including Buffer Zone**

## 5. Protection and management of the property

5.14

5.d Existing plans related to municipality and region in which the proposed property is located (e.g., regional or local plan, conservation plan, tourism development plan)

Chittorgarh

**Table 5.3: Agreed Plans and Schemes for Chittorgarh**

S. No.	Existing and Proposed Plans	Agencies responsible	Status
1.	Site Mapping for 100 metres protected and 200 metres regulated zone as per AMASR Amendment 2010. includes comprehensive mapping around the property along with architectural control guidelines for the area	ASI, Government of India	Mapping Complete. Control guidelines to be taken up in 2013
2.	Heritage Development under Rajasthan Urban Infrastructure Development Programme includes development of Parking area for the Fort. (as part of Asian Development Bank funded Programme)	RUIDP, Government of Rajasthan	Ongoing
3.	Museum Planning for Fateh Prakash Palace	Department of Archaeology and Museums, Government of Rajasthan	Report to be implemented
4	Mrigvan – Mini Zoo Master Plan	Department of Forest Government of Rajasthan and Central Zoo Authority, Ministry of Environment and Forest	To be prepared

**Kumbhalgarh**

**Table 5.4: Agreed Plans and Schemes for Kumbhalgarh**

S. No.	Existing and Proposed Plans	Agencies responsible	Status
1.	Site Mapping for 100 metres protected and 200 metres regulated zone as per AMASR Amendment 2010. Includes comprehensive mapping around the property along with development control guidelines for the area.	ASI, Government of India	Mapping Complete. Control guidelines to be taken up in 2013
2.	Sound and Light Show, Kumbhalgarh Fort	Department of Tourism, Government of Rajasthan	Implemented in 2010
2	Conservation Management Plan for Kumbhalgarh Wildlife Sanctuary	Department of Forest Government of Rajasthan	2011-2012 (Annual Plan)



## 5. Protection and management of the property

5.16

### Ranthambore

**Table 5.5: Agreed Plans and Schemes for Ranthambore**

S. No.	Existing and Proposed Plans	Agencies responsible	Status
1.	Site Mapping for 100 metres protected and 200 metres regulated zone as per AMASR Amendment 2010. includes comprehensive mapping around the property along with architectural control guidelines for the area	ASI, Government of India	Mapping Complete. Control guidelines to be taken up in 2013
2	Conservation Management Plan for Ranthambore National Park	Department of Forest Government of Rajasthan	2011-2012 (Annual Plan)

### Gagron

**Table 5.6: Agreed Plans and Schemes for Gagron**

S. No.	Existing and Proposed Plans	Agencies responsible	Status
1.	Conservation Plan for Gagron – Phase II	Department of Archaeology and Museums, Government of Rajasthan	2011-2013
2	Site Mapping in identified Buffer Zone and development of Architectural Control and Guidelines for the area	Department of Archaeology and Museums, Government of Rajasthan	2011-2013

**Amber**

**Table 5.7: Agreed Plans and Schemes for Amber**

<b>S. No.</b>	<b>Existing and Proposed Plans</b>	<b>Agencies responsible</b>	<b>Status</b>
1.	Site Mapping for 100 metres protected and 200 metres regulated zone as per AMASR Amendment 2010. includes comprehensive mapping around 4 ASI protected properties in the buffer zone along with architectural control guidelines	ASI, Government of India	To be taken up in 2011-2013
2.	Conservation Plan for Amber Fort – Phase II	ADMA and Department of Archaeology and Museums, Rajasthan	2010-2013 (Ongoing)
3.	Zonal Plan for Amber town under Jaipur Master Plan 2025	Town and Country Planning, Rajasthan and Jaipur Municipal Corporation (JMC)	2011-2013
4.	JNNURM Heritage DPR for Panna Mian step well and surroundings in Amber town, Conservation of Bihariji Temple	JMC, ADMA and World Monument Fund	Ongoing since 2009
2	Conservation Management Plan for Nahargarh Wildlife Sanctuary	State Forest Department	Sanctioned from 2008-09 to 2017-18

## 5. Protection and management of the property

5.18

### Jaisalmer

**Table 5.8: Agreed Plans and Schemes for Jaisalmer**

S. No.	Existing and Proposed Plans	Agencies responsible	Status
1.	Implementation of sewerage- drainage-water supply infrastructure project under ADB funds has been started on site.	RUIDP	Ongoing
2.	Cleaning of fort, maintenance and stakeholders' meetings to resolve issues.	Local Municipal Corporation	Ongoing
3.	Local Self Governance –relocation of people and their houses are being restored. This process is a catalyst to decongest the fort and only retain optimal population of the original descendents that is feasible for the Fort's sustenance.	Department of Urban Development	6 families have voluntarily relocated themselves in Dec. 2012. Ongoing
4.	Site Management Plan	National Culture Fund & ASI	Assigned and Under preparation

(Refer Annexure IV for details of agreed plans and schemes for the 6 Hill Fort sites)

### 5.e Property management plan and other management system

The management strategy for the 6 Hill Forts of Rajasthan essentially evolves from two basic premises:

- a) The existing legislation and policy framework for the protection of these 6 Hill Fort sites at National, State and Local level and,
- b) The existing management regime for conservation of protected sites established by Archeological Survey of India through its years of experience in the field.

The 6 Hill Fort sites are comprehensively protected and managed under a management system that is endorsed by the Archaeological Survey of India, the Department of Art and Culture, Government of Rajasthan and the Department of Forest, Government of Rajasthan and local bodies. The framework comprises legislative regimes applicable on the 6 hill fort sites across Rajasthan State at three levels of government i.e. Central, State and Local along with a management plan for each of the fort site and, a range of other strategies to ensure the highest level of protection for the sites.

(Refer Annexure 1 for Management Plan of all Fort sites and endorsements of the Management Framework)

Hill Fort Sites	Chittorgarh	Kumbhalgarh	Ranthambore	Amber	Gagron	Jaisalmer
Management framework for hill forts sites	Fort Apex advisory committee for steering the Management Framework ( State level)					
	Management Plan for Chittorgarh	Management Plan for Kumbhalgarh	Management Plan for Ranthambore	Management Plan for Amber	Management Plan for Gagron	Management Plan for Jaisalmer ( in preparation)
Planning Authority	National Monument Authority/ASI			State Archeology, Rajasthan		National Monument Authority/ASI
Legislation property	AMASR Act,1958 and Amendment 2010			State Archeology Act, 1961		AMASR Act,1958 and Amendment 2010
Buffer Zone	State Forest Act, 1953					
	Chittorgarh Master Plan			Jaipur Master Plan	Jaisalmer Master Plan	

#### **Representation of the Management Strategy for the SIX Hill Fort Sites of Rajasthan**

A State Level Fort Apex Advisory Committee will oversee the implementation of this Management Framework for Hill Forts of Rajasthan under the chairmanship of the Chief Secretary, Rajasthan with representations from various stakeholders/ owners of all 6 Hill Fort sites. The committee is legally recognized through an official order of the formation of the committee issued by the Chief Secretary, Rajasthan. The role of the committee is as outlined in the Management Strategy included in the nomination dossier and Management Plan of each component i.e. to oversee the implementation of the Management Framework for Hill Forts of Rajasthan. This committee allows public representation and stakeholder meetings and encourages sustainable means of conservation involving local craftsmanship. The committee has also adopted the ASI conservation policy as the overarching policy for all 6 fort sites.



## 5. Protection and management of the property

5.20

The framework has the following objectives;

- To accompany the 6 Hill Forts of Rajasthan in their own local management and to coordinate the cross-cutting initiatives for the serial nomination
- To initiate specific projects for the 6 Hill Forts such as:
  - a) Sharing of research and documentation practices
  - b) Sharing of conservation and management practices
  - c) Addressing common interpretive resources

The criteria (ii), (iii) and (vi) for this series are applicable on all 6 hill forts and the OUV stated here forms the basis for protection and management of the series. This will be used to guide the works under Management framework of each fort site, which will be closely monitored by Fort Apex Committee. The management framework aims to promote new thinking in managing properties in a serial nomination in India without taking anything from the autonomy of each site.

The Committee meets on a quarterly basis four times in a year. Two meetings of the Forts Apex Advisory Committee have been held till date; one in May 2011 and a second one in August 2011 (Refer Annexure -7 for minutes of the two meetings). A third meeting was held in November 2011 with inclusion of additional stakeholder members from the community and private owners in the buffer zone area. Last meeting was held in October 2012 in which Jaisalmer fort was incorporated within its scope and conservation of Jaisalmer fort will be monitored by this committee.

In order to implement the recommendations of the Fort Apex Advisory Committee on ground, the Amber Development and Management Authority which is currently managing the Amber Fort (and has jurisdiction to manage any heritage properties within the state of Rajasthan) is assigned the role of an overarching authority for implementing the Management Plan for the Hill Forts of Rajasthan. A gazette notification to this effect has been issued. Management plan of Chittorgarh, Kumbalgarh, Ranthmbore, Gagron and Amber are enclosed as annexure 1. Management plan for Jaisalmer is in the process and scope of work of same is enclosed as appendix viii.

### **Strategic actions 2011-2015**

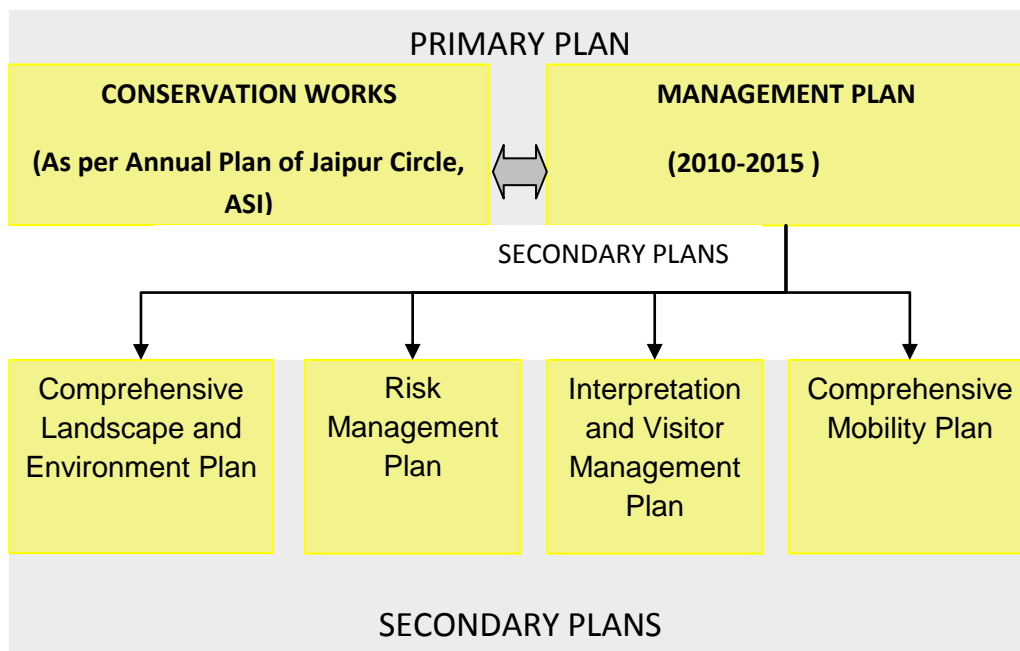
The policies have generated a set of strategic actions to be achieved during the life of the management plan 2011-15, either as specific projects or in many cases ongoing and continuous action. ASI, New Delhi will be the primary body responsible for implementation of the Management Plan for this site while the overall management framework for the serial nomination of 6 Hill Forts will be steered by and Advisory Committee.

The table on next page assigns lead agency(ies) that will be pivotal in driving forward progress with each action. A timetable has also been assigned to identify those actions which are immediate, short term or long term.

A series of plans are proposed to be formulated under the management plan for addressing various issues faced by the site and its buffer zone in a comprehensive manner, public consultations and stakeholder consent will be undertaken before finalizing any plan:

- Comprehensive Landscape and Environment Plan
- Risk Management Plan
- Interpretation and Visitor Management Plan
- Comprehensive Mobility Plan

These plans would function within the framework established by the Management Plan.



*Relationship between ongoing conservation works, Primary Management Plan and Secondary Plans to be prepared and implemented in a phased manner*

Progress on these actions will be provided annually and will contribute towards monitoring the implementation of the Management Plan. These strategic actions have a one to man relationship with the strategic policies; each action can often relate to more than one policy and in turn more than one issue

## 5. Protection and management of the property

5.22

### Action Plan 2011-2015

#### Chittorgarh

Objective	Action	Stakeholders responsible for delivery	Resources required	Time Frame
<b>Management of Property and Buffer Zone</b>	Heritage mapping and evolving architectural control guidelines for property and Buffer Zone	Jaipur Circle, ASI with State Departments	ASI Staff and Consultants	2011-2013
	Engagement of additional staff for property			
<b>Conservation</b>	Landscape and Environment Plan	Jaipur Circle, ASI	Existing staff and consultants	2013-2014
	Regular monitoring and maintenance	Jaipur Circle, ASI	Existing Staff	Ongoing
<b>Use, Interpretation, Visitor Management</b>	Use and Interpretation Plan	Jaipur Circle, ASI	Existing staff and consultants	2013-2014
	Research Programmes/ Workshops	ASI in association with State and other institutions		
<b>Infrastructure</b>	Comprehensive Mobility Plan	Jaipur Circle, ASI with State - PWD /RUIDP	Existing staff and consultants	
<b>Risk Preparedness</b>	Risk Management Plan	ASI with State Forest Department	Existing staff and consultants	2013-2014
Implementation of secondary plans - Interpretation, Use, Mobility and Risk Management (as per phasing in the secondary plans)				2012-2015

#### Status update:

- Survey mapping of the fort and its surrounding buffer zone with 100 & 300M is completed by ASI.
- Regular conservation and maintenance works are being implemented as scheduled.
- Special repair works of Sukhadiya Tank, Laxmi Temple, Ratan Singh Palace are complete.

## Ranthambore

Objective	Action	Stakeholders responsible for delivery	Resources required	Time frame
<b>Management of Property and Buffer Zone</b>	Heritage mapping and evolving control guidelines for Buffer Zone  Engagement of additional staff for property	Jaipur Circle, ASI with State Forest Department	ASI Staff and Consultants	2011-2013
<b>Conservation</b>	Landscape and Environment Plan	Jaipur Circle, ASI	Existing staff and consultants	2013-2014
	Regular monitoring and maintenance	Jaipur Circle, ASI	Existing Staff	Ongoing
<b>Use, Interpretation, Visitor Management</b>	Interpretation, Use and Visitor Management Plan  Research Programmes/ Workshops	Jaipur Circle, ASI  ASI in association with State and other institutions	Existing staff and consultants	2013-2014
<b>Risk Preparedness</b>	Risk Management Plan	ASI with State Forest Department	Existing staff and consultants	2013-2014
Implementation of Secondary Plans - Landscape and Environment Plan, Interpretation, Use, Visitor Management and Risk Management Plan as per phasing proposed in these plans				2012-2015

### Status update:

- Survey mapping of the fort and its surrounding buffer zone with 100 & 300M is completed by ASI.
- Regular conservation and maintenance works are being implemented as scheduled.
- Special repair works of Hamir Mahal, Jain Temple, Laxminarayan Temple, Battish Khamba chattari & mosque are complete.



## 5. Protection and management of the property

5.24

### Kumbhalgarh

Objective	Action	Stakeholders responsible for delivery	Resources required	Time frame
<b>Management of Property and Buffer Zone</b>	Heritage mapping and evolving control guidelines for Buffer Zone	Jaipur Circle, ASI with State Forest Department	ASI Staff and Consultants	2011-2013
	Engagement of additional staff for property			
<b>Conservation</b>	Landscape and Environment Plan	Jaipur Circle, ASI	Existing staff and consultants	2013-2014
	Regular monitoring and maintenance	Jaipur Circle, ASI	Existing Staff	Ongoing
<b>Use, Interpretation, Visitor Management</b>	Interpretation, Use and Visitor Management Plan  Research Programmes/ Workshops	Jaipur Circle, ASI  ASI in association with State and other institutions	Existing staff and consultants	2013-2014
<b>Risk Preparedness</b>	Risk Management Plan	ASI with State Forest Department	Existing staff and consultants	2013-2014
Implementation of Secondary Plans - Landscape and Environment Plan, Interpretation, Use, Visitor Management Plan and Risk Management Plan as per phasing proposed in these plans				2012-2015

#### Status update:

- Survey mapping of the fort and its surrounding buffer zone with 100 & 300M is completed by ASI.
- Regular conservation and maintenance works are being implemented as scheduled.
- Special repair works of Topkhana building Badal Mahal, Badwa Baori are complete.
- Few of the Golera Group of temples is being taken up for restoration in next phase

## Gagron

Objective	Action	Stakeholders responsible for delivery	Resources required	Time frame
<b>Management of Property and Buffer Zone</b>	Heritage mapping and evolving control guidelines for Buffer Zone  Engagement of additional staff for property	Department of Archaeology and Museums, Government of Rajasthan	Existing Staff and Consultants	2011-2013
<b>Conservation</b>	Landscape and Environment Plan	Department of Archaeology and Museums, Government of Rajasthan	Existing staff and consultants	2013-2014  Ongoing
	Regular monitoring and maintenance	Jaipur Circle, ASI in association with Department of Archaeology and Museum, Government of Rajasthan	Existing Staff	
<b>Use, Interpretation, Visitor Management</b>	Interpretation, Use and Visitor Management Plan  Research Programmes/ Workshops	Department of Archaeology and Museums, Government of Rajasthan in association with other institutions	Existing staff and consultants	2013-2014
<b>Risk Preparedness</b>	Risk Management Plan	Department of Archaeology and Museums, Government of Rajasthan with State Forest Department	Existing staff and consultants	2013-2014
Implementation of Secondary Plans - Landscape and Environment Plan, Interpretation, Use, Visitor Management Plan and Risk Management Plan as per phasing proposed in these plans				2012-2015

### Status update:

- Collector, Jhalawar is in the process of finalizing control guidelines for the surroundings
- Work on interpretation has started with development of special graphics and media to communicate its OUV as a Water Fort through publications and an interpretation centre. (refer appendix xi)

## 5. Protection and management of the property

5.26

### Amber

Objective	Action	Stakeholders responsible for delivery	Resources required	Time frame
<b>Management of Property and Buffer Zone</b>	Heritage mapping and evolving control guidelines for Buffer Zone	Jaipur Circle, ASI	ASI Staff and Consultants	2011-2013
	Engagement of additional staff for property  Zonal Plan for Amber town under Jaipur Master Plan 2025 (Architectural Controls, Environmental Management and Conservation Plan)	Town and Country Planning, Rajasthan and Jaipur Municipal Corporation (JMC)		2013 - 2014
<b>Conservation</b>	Amber palace conservation initiative, 2005 phase II works  Landscape and Environment Plan	ADMA, Department of Archaeology and Museums	Existing staff and consultants	Ongoing
	Regular monitoring and maintenance	Jaipur Circle, ASI in association with ADMA	Existing Staff	Ongoing
	JNNURM Heritage DPR for Panna Mian step well and surroundings in Amber town, Conservation of Bihari ji Temple  Conservation Management Plan for Nahargarh Wildlife Sanctuary	JMC, ADMA and World Monument Fund  State Forest Department		Ongoing  Ongoing
<b>Use, Interpretation, Visitor Management</b>	Interpretation, Use and Visitor Management Plan  Research Programmes/ Workshops	Jaipur Circle, ASI  ASI in association with State and other institutions	Existing staff and consultants	2013-2014
<b>Risk Preparedness</b>	Risk Management Plan	ASI with State Forest Department	Existing staff and consultants	2013-2014
Implementation of Secondary Plans - Landscape and Environment Plan, Interpretation, Use, Visitor Management Plan and Risk Management Plan as per phasing proposed in these plans				2012-2015

- Work on interpretation has started with development of special graphics and media along with developing trails to Jaigarh and surrounding fort walls to explain its military attribute in totality. (refer appendix xi)

## Jaisalmer

Objective	Action	Stakeholders responsible for delivery	Resources required	Time frame
<b>Management of Property and Buffer Zone</b>	Heritage mapping and evolving control guidelines for Buffer Zone	Jaipur Circle, ASI	ASI Staff and Consultants	2011-2013
	Preparation of Management plan	NCF and ASI		
	Engagement of additional staff for property			
<b>Conservation</b>	Landscape and Environment Plan	Jaipur Circle, ASI	Existing staff and consultants	2013-2014
	Regular monitoring and maintenance	Jaipur Circle, ASI	Existing Staff	Ongoing
<b>Use, Interpretation, Visitor Management</b>	Interpretation, Use and Visitor Management Plan Research Programmes/ Workshops	Jaipur Circle, ASI ASI in association with State and other institutions	Existing staff and consultants	2013-2014
<b>Risk Preparedness</b>	Risk Management Plan	ASI	Existing staff and consultants	2013-2014
Implementation of Secondary Plans - Landscape and Environment Plan, Interpretation, Use, Visitor Management Plan and Risk Management Plan as per phasing proposed in these plans				2012-2015

### Status update:

- Survey mapping of the fort is completed.
- Conservation and Restoration of outer fortification wall from Khirki Pada to Kanwar Pada upto bastion No.61 Regular conservation and maintenance works are being implemented as scheduled.
- Conservation and Restoration of Pitching wall (between Section I & II) of Jaisalmer Fort works are being implemented as scheduled.
- Preparation of Management Plan commissioned. This will be prepared with thorough public consultations. To be completed by July 2013. (refer appendix viii)
- Fort Apex Advisory committee and Jaisalmer fort monitoring committee are functional in Jaisalmer to monitor conservation and development works within the fort and its buffer areas.



## 5. Protection and management of the property

5.28

### 5.f Sources and levels of finance

#### Chittorgarh

The fee to visit the monuments is nominal and there are no charges for the religious pilgrims to visit the temples. The revenue generated from the property includes a nominal amount in monument fee and parking which is presented below:

Year	Number of visitors		Revenue Collected	
	Indians	Foreigners	Indian Currency (Rs.)	Foreign Currency (USD)
2005-2006	269000	15279	26,88,200/-	3694
2006-2007	271296	17304	28,99,480/-	3748
2007-2008	294110	18273	31,47,450/-	3008
2008-2009	320339	19086	35,10,295/-	Nil
2009-2010	377291	18795	37,65,955/-	Nil

**Table 5.8: Annual Revenue generated from Chittorgarh fee**

The annual expenditure record provided by Jaipur Circle of ASI for Chittorgarh is presented below:

Sub. Head	2006-2007 (Rs.)	2007-2008 (Rs.)	2008-2009 (Rs.)
Structural Conservation (Planned)	18,29,869	20,81,721	25,03,520
Structural Conservation (Non Planned)	--	2,32,618	4,34,017
Annual Maintenance	6,82,073	16,15,912	6,19,704

**Table 5.9: Annual Expenditure Record for Chittorgarh**

The maintenance and restoration work of the monuments is funded by ASI through a portion of the annual amount of Rs. 50,00,000/- (Rupees five million) given to Jaipur Circle by ASI for all nationally protected monuments of Rajasthan and, the portion does not suffice for taking up too many conservation works for a large site like Chittorgarh. Funds are also provided by the state government for specific development projects for the property such as the Sound and Light show executed by the Department of Tourism or Roads and Parking work funded by PWD (Public Works Department) or RUIDP (Rajasthan Urban Infrastructure Development Board), Museum at Fateh Prakash Palace by the Department of Archaeology and Museums, Rajasthan etc.

Since Chittorgarh is one of the largest monument site managed by ASI in Rajasthan, the annual expenditure of ASI is substantial. Almost 50 percent of the annual amount received for Rajasthan, is utilized for

Chittorgarh. Considering the expanse and significance of the property of Chittorgarh, substantial funds and staffing is required for its management, maintenance and conservation. It is important to generate a five yearly revenue plan for the management of the site

### Kumbhalgarh

The annual revenue generated from Kumbhalgarh comes from a nominal monument fee and parking fee which is presented below:

Year	Number of visitors		Revenue Collected	
	Indians	Foreigners	Indian Currency (Rs.)	Foreign Currency (USD)
2005-2006	66580	14425	14,78,200/-	5944
2006-2007	66991	16162	16,58,665/-	5850
2007-2008	62506	18849	17,52,030/-	10908
2008-2009	105660	15955	21,23,800/-	Nil
2009-2010	138774	17742	24,68,070/-	Nil

**Table 5.10: Annual Revenue generated from Kumbhalgarh**

The annual expenditure record provided by Jaipur Circle of ASI for Kumbhalgarh is presented below:

Head	2006-2007 (In Indian Rs.)	2007-2008 (In Indian Rs.)	2008-2009 (In Indian Rs.)
Structural Conservation (Planned)	10,88,012	9,04,145	11,62,618
Structural Conservation (Non Planned)	4,58,791	11,85,050	7,72,147
Annual Maintenance	17,37,434	24,26,095	18,72,951

**Table 5.11: Annual Expenditure Record for Kumbhalgarh**

In specific case of Kumbhalgarh, just the cost of lighting the fort comes to about Rs. 14 lakhs (Rs. 1,400,000/) annually, which is very high and cuts down into the cost of taking up other works on site. The maintenance and restoration work of Kumbhalgarh is funded by ASI through part of the annual amount of Rs. 5 million (Rs. 5,000,000/-) given to the Jaipur Circle for all nationally protected monuments of Rajasthan. This amount usually does not suffice for taking up too many conservation works as it gets divided amongst various monuments in Rajasthan and a large portion is spent on lighting of the fort.

## 5. Protection and management of the property

5.30

Sometimes, funds are also provided by the state government for specific development projects for the property such as the Sound and Light show executed by the Department of Tourism or development of buffer area by the Department of Forest. Kumbhalgarh has the potential of being developed as an important tourist destination as part of the serial nomination of 5 Hill Forts of Rajasthan. Since continuous funds are required for its upkeep and development, an integrated approach for revenue generation is needed.

### Ranthambore

There is no revenue generated from the property since it is not a ticketed monument and recently, ASI has also stopped auctioning any produce from the property or charging for parking areas since the land belongs to Department of Forest, Government of Rajasthan. The maintenance and restoration work of the monuments is funded by ASI through part of the annual amount of Rs. 5 million (Rs. 50,00,000/-) given to Jaipur Circle for all nationally protected monuments of Rajasthan and it usually does not suffice for taking up conservation and development works. Funds are also provided by state government for specific development projects for the property such as the development of buffer area by the Department of Forest. The annual expenditure record provided by Jaipur Circle of ASI for Ranthambore is presented below:

Sub. Head	2006-2007 (In Indian Rs.)	2007-2008 (In Indian Rs.)	2008-2009 (In Indian Rs.)
Structural Conservation (Planned)	6,36,274	87,502	29,500
Structural Conservation (Non Planned)	--	--	10.03.892
Annual Maintenance	3.65,413	8.92.447	8,13,774

**Table 5.12: Annual Expenditure Record of Ranthambore**

The annual amount spent on Ranthambore is fairly low compared to the expanse of the site. The site requires substantial conservation and development works and extra funds are needed for this purpose. It has the potential of being developed as an important tourist destination specially as part of the serial nomination of 5 Hill Forts of Rajasthan. Since continuous funds are required for its upkeep and development, a five yearly plan for revenue generation is required.

### Gagron

There is no revenue generated from the property since it is not a ticketed monument. At present, very few tourists visit the site and minimal staff is employed. The conservation work from 2007-2009 were funded by the Department of Archaeology and Museums through its annual budget which varies every year and covers all protected state monuments in Rajasthan. Hence there is no assurance of fixed funds for Gagron on a yearly basis from the Department. It is essential to review the future use of Gagron as a potential tourist site

considering that it is part of the serial nomination. An appropriate revenue model for the site needs to be generated to ensure its long term conservation and maintenance.

### Amber

Amongst the 5 Hill Forts in the serial nomination, Amber is the most visited because of its strategic location on the tourism map of India and hence generates substantial revenue annually. The 2009-2010 collection from the monument fee for Amber amounts to Indian Rupees 70,470,635/- (Rupees seven crores which is substantial). Amber has also set up a very functional revenue model with the formation of Amber Development and Management Authority (ADMA) in 2005. Since ADMA maintains the site and carries out all conservation works on site, it takes 2/3<sup>rd</sup> portion of the annual fee amount for all operations while the remaining 1/3<sup>rd</sup> portion is deposited in the state treasury.

The initial conservation works at Amber in 2005 were funded through special funds by the Government of Rajasthan and through Centrally Sponsored Scheme of the Ministry of Culture, Government of India. However, now with a strong revenue and maintenance model in place ADMA can carry out most works in Amber Fort-Palace site. The Department of Archaeology and Museums also deposes staff for the site which is paid by ADMA. Along with conservation works since 2005, developmental and promotional works such as the Sound and Light show at Amber and lease of shops and restaurants in specific areas have also added to the revenue increase at Amber. It presents a very good finance management model which may be emulated for other sites too.

### Jaisalmer

The Jaisalmer fort is non-ticketed monument of ASI. There is no fee charged from the visitors. Therefore there is no income generation from the site by ASI.

The annual expenditure record provided by Jaipur Circle of ASI for Jaisalmer is presented below:

Sub. Head	2010-2011 (Rs.)	2011-2012 (Rs.)	2012-2013 (Rs.)
Structural Conservation (Planned)	28,56,232	30,90,611	59,40,534

**Table 5.9: Annual Expenditure Record for Jaisalmer**

Since 2010, ASI has approved estimated works of almost Rs. 30 millions for maintenance and conservation of Jaisalmer fort requested by Jaipur Circle of ASI. Funds are also provided by the National government, NCF (National Culture Fund) WMF (World Monuments Fund) and RUIDP (Rajasthan Urban Infrastructure Development Board), for specific conservation projects for the property such as conservation of fort wall Rs. 70 Millions (7,00,00,000/-), water management system inside the fort, Management plan for Jaisalmer fort 4 Millions (40,00,000/-) etc.



## 5. Protection and management of the property

5.32

### 5.g Sources of expertise and training in conservation and management techniques

Archaeological Survey of India (ASI) is the premier organization for conservation in India. It has established its own Institute for training and capacity building. The Institute of Archaeology was established in the year 1985, by upgrading the School of Archaeology which was established in 1959 for imparting advanced training in multidisciplinary field of Archaeology, Epigraphy, Numismatics, Museology, Conservation, Antiquarian law, etc. The Post Graduate Diploma in Archaeology course, conducted in the Institute is of two years duration. It is conducted by the faculty members of the Institute and the Country's eminent archaeologists as guest lectures.

Besides this, the central office of ASI and various circles in different regions are actively involved in organizing and participating in the training programmes for conservation, management of World Heritage Sites and related disciplines with UNESCO, New Delhi, State Government Departments and local institutions in various regions. The Superintendent Archaeologists of various circles regularly attend such training programmes. ASI has also recently empanelled experts in conservation and museum planning for preparing conservation and management plans for various ASI sites across the country.

The Department of Archaeology and Museums, Government of Rajasthan has developed a strong engineering department that is well conversant in carrying out onsite conservation works. The Department has a comprehensive schedule of rates charted out for onsite conservation works in each specific zone and region within Rajasthan, which is being updated regularly on the basis of variety of works executed by the department and other agencies. Through RSMMMDS i.e. the 'Rajasthan State Museum & Monuments Management & Development Society', the Department has empanelled 20 conservation architects to prepare conservation plans for various sites and recruits these architects as per the project requirement. The Department of Archaeology and Museums is further facilitated by the State Institute of Heritage Conservation, Rajasthan which is a government initiative at state level to provide required training in conservation works to contractors and masons working on heritage sites. The engineering wing of the department actively participates in all workshops and training programmes of the institute. Currently, they are involved in making revisions to the existing conservation manual followed by the Archaeological Survey of India so that it may be used as a guideline for the conservation works in Rajasthan.

The senior officials and engineers within the department keep themselves well informed about conservation trends and regularly participate in National Training Workshops organized by Ministry of Culture and ASI.

For the monitoring of projects from the critical level (selection of site and preparation of Detailed Project Report) a state level Permanent Technical Advisory Committee (PTAC) has been formed by the Government,

which is headed by Retired Secretary, Public Works Department. The members of the committee consist of representatives of INTACH and historians.

More recently, the Government of Rajasthan is jointly organizing training programmes with ASI and RLICC, Leuven on preventive conservation with international and national experts visiting Jaipur for a 5 day training programme for ASI and State level engineers working on sites. Following table presents a list of the workshops held in Jaipur in recent years:

S. No.	Year	Title	Organisations involved	Attendees
1.	2008	Dos and Don'ts to be followed while carrying out Conservation Works	ADMA M/s Meenakshi Jain and associates	Engineers and contractors from JDA, JNN, ADMA and State Department of Archaeology and Museums
2.	2009	Framework for the State Institute of Heritage Conservation and Building Crafts Training Programmes	State Institute of Heritage Conservation, Rajasthan UNESCO New Delhi	Engineers and contractors from JDA, JNN, ADMA and State Dept. of Archaeology and Museums
3.	January 2011 (Scheduled)	Workshop on Planning Tools for Heritage-Based Sustainable Urban Development	ASI Indian Heritage Cities Network - UNESCO RLICC, Leuven	Officials from ASI, Rajasthan State Urban development & District Commissioners and Rajasthan State Archaeology

**Table 5.13: Training workshops for government engineers and officials (2008-2011)**

## 5. Protection and management of the property

5.34

### 5.h Visitor facilities and statistics

Rajasthan, with its magnificent forts in particular receives a very high number of tourists. Heritage and culture tourism is a key growth sector in Rajasthan and India. Within India, the government has accepted tourism as an important national industry. This is marked by a focus on improving infrastructure at recognized tourist destinations as an important agenda. With appropriate marketing, a World Heritage Site Inscription will result in increased visitor usage for the 5 Hill Forts and good visitor management on these properties is essential.

#### Chittorgarh

Around 3000 tourists visit the fort per day (as per data from the number of entrance tickets sold/ day) but specific and additional activities as mentioned below require more control and better services and facilities:

- Excessive tourists visiting the Vijay Stambh which is a narrow towered structure has caused its stone in the steps to degrade to a large extent. Also the tourists hamper these historic structures by dumping plastic wastes at various corners and on top floor balconies and spitting in the wall junctions.
- Around 7000-8000 Jain pilgrims visit the Saat Bis temple throughout the year. The temple also organizes three yearly festivals and special ones if a saint is visiting the temple.
- Kalika Mata festivities require additional facilities and control of pilgrims on daily basis as well as during festivals.

Year	Number of visitors		Total Visitors
	Indians	Foreigners	
2005-2006	269000	15279	284279
2006-2007	271296	17304	288600
2007-2008	294110	18273	312383
2008-2009	320339	19086	339425
2009-2010	377291	18795	396086

**Table 5.14: Visitors Statistics for Chittorgarh shows a constant increase in last few years**

Recent facilities provided in Chittorgarh include:

- The Department of Tourism, Government of Rajasthan has introduced the 'Sound and Light show' with sitting arrangements near the Kumbha Palace in the open ground.
- Adequate toilet blocks have been provided by ASI. New toilet blocks have also been constructed in the Padmini Palace complex.

- Rainbow type stone benches and new signage have been provided for the visitors at the site.
- Recently parking stone has been fixed at the site for small vehicles.

Tourist facilities have to be provided, not only in terms of facilitation centres, but amenities like toilets, street furniture, lighting, proper roads and pathways etc. These would contribute towards an overall ambience of the site.

### Kumbhalgarh

The site of Kumbhalgarh is vast and it seems that most tourists visit only a few monuments (i.e. the Kumbha Palace, Vedi temple, Neelkanth Mahadev temple and Parshwanath Jain temple) that are close to the entrance area. Rest of the structures are far, and not easily accessible, hence rarely visited. Around 75-100 tourists visit the fort daily on an average. The recently introduced Sound and Light show is visited by around 35-40 tourists daily which mainly includes foreign tourists who generally stay overnight at the hotels near Kumbhalgarh.

Year	Number of visitors		
	Indians	Foreigners	Total
2005-2006	66580	14425	81005
2006-2007	66991	16162	83153
2007-2008	62506	18849	81355
2008-2009	105660	15955	121615
2009-2010	138774	17742	156516

**Table 5.15: Visitors statistics for Kumbhalgarh shows a constant increase in last few years**

A festival is also being organized by the Department of Tourism, Rajasthan during the month of December which is attended by around 1000 people (including locals in the surrounding areas). Recent facilities introduced for the tourists include newly prepared protection notice board of bi-lingual character in metal sheet as well as in stone, a suggestion box in matching sand stone, rainbow type stone benches have been provided for the visitors at the site, dustbins designed with department monogram and drinking water has been upgraded with modern facilities.

### Ranthambore

About 500-1000 visitors are observed per day (figure varies in case there is a fair at the Ganesh Temple). Since the property is not ticketed, exact tourist data is not available. Recent facilities introduced for the tourists include suggestion box in matching sand stone, rainbow type stone benches and dustbin of latest design with department monogram. Tourist facilities such as toilets and drinking water areas need to be provided on site.



## 5. Protection and management of the property

5.36

### Gagron

Very few tourists (about 200 annually) visit Gagron since it has not been promoted as a tourist destination except for annual religious pilgrims (around 1000 pilgrims) on Moharram. It lacks facilities for tourists.

### Amber

Amber is the most visited tourist destination amongst the 6 Hill Forts in this serial nomination and records an average of 4000 people on a daily basis. With recent conservation and development activities undertaken in Amber since 2005, it has some of the best facilities for tourists including good toilets, restaurants, audio guide, sound and light show etc. Annual figures of tourist (by tourism department) for Jaipur hold good for this site also as it is considered part of Jaipur city.

Year	Number of visitors		Total Visitors
	Indians	Foreigners	
2007	1287072	464841	1751913
2008	1138859	456165	1595024
2009	995996	283423	1279419
2010	1133543	368512	1502055
2011	1035885	416824	1452709

### Jaisalmer

Jaisalmer is one of the most popular tourist destinations among the Hill Forts, it has an average record of about 2.5 lakhs visitors visiting this place. With recent developmental activities the fort has efficient tourist infrastructure.

Year	Number of visitors		Total Visitors
	Indians	Foreigners	
2007	211928	128675	340573
2008	228859	248712	474571
2009	248712	98652	347364
2010	274885	113520	388405
2011	281159	122969	404128

Following table provides details about the interpretive media and tourist facilities available on the 6 Hill Fort sites:

S. No.	Facilities Available Property	Interpretation Centre	Trails	Guides	Sound and Light Show	Publications	Shops	Restaurant Café/ Snacks Bar	Accommodation	Parking
1.	Chittorgarh	No	Yes	Yes	Yes	Yes	Yes	Basic facilities	No	Yes
2.	Kumbhalgarh	No	Yes	Yes	Yes	Yes	Yes	Basic facilities	ASI Guesthouse	Yes
3.	Gagron	No	No	No	No	No	No	Basic facilities	No	Yes
4.	Ranthambore	Yes	Yes	Yes	No	No	No	Only for pilgrims near Ganesh Temple	ASI Guesthouse	Yes
5.	Amber	Planned	Yes	Yes, Including audio guide	Yes	Yes	Yes	Yes	No	Yes
6.	Jaisalmer	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

**Table 5.16: Facilities available for tourists on the 6 Hill Fort sites**

### 5.i Policies and programmes related to the presentation and promotion of the property

ASI and the Department of Archaeology and Museums, Rajasthan will jointly work on programmes related to presentation and promotion of the serial property of six Hill Forts of Rajasthan as this is also a mandate of the Hill Forts Management Framework. Specific projects for the 6 Hill Forts to be initiated through the framework and steering committee relate to:

- d) Sharing of research and documentation practices
- e) Sharing of conservation and management practices
- f) Addressing common interpretive resources

A common website will be specifically designed for the Hill Forts of Rajasthan and, international level associations with organisations such as the Fortress Studies Group for knowledge exchange will be developed. The common interpretation policies included in the Management Plan for each fort will be used to develop specific programmes for the promotion of the serial nomination. These include:

- a) Facilities to increase intellectual access to the Hill Forts of Rajasthan will cater to the widest range of visitor community including the local residents, domestic and international visitors. Intellectual access will consider special segments as per gender, age and abilities of visitors. They will be encouraged to explore and learn about the physical and cultural aspects of the forts.
- b) Interpretation programmes and messages will have primary regard for the OUV of the property.
- c) Messages to be conveyed in interpretation will be developed in consultation with all involved in developing, managing and delivering that interpretation.
- d) The approach to interpretation will extend beyond the site itself, providing an understanding of the place in its context of the Serial Nomination.
- e) Regular research and evaluation will continue to inform all interpretive activities
- f) Special training to guides will be given and special brochures that narrate authentic, historic information will be made available to the tourists.
- g) The existing scholarship on Hill Forts will be systematically compiled and made available to the visitors through a website and research centre for the serial nomination.

**5.j Staffing levels (professional, technical, maintenance)**

The staffing levels on the Six Hill Forts of Rajasthan are presented below:

S. No.	Staffing Level	Professional	Technical	Maintenance	Total
	Property				
1.	Chittorgarh	3	3	19	22
2.	Kumbhalgarh	3	2	9	11.
3.	Gagron	1	1	2	4
4.	Ranthambore	3	2	7	9
5.	Amber	23	3	216	242
6	Jaisalmer	3	2	50	55

**Table 5.17: Staffing levels on the 6 Hill Forts**





**Monitoring**

### 6.a Key indicators for measuring state of conservation

The purpose of monitoring is to assess how the values of the WHS are being maintained over time and to measure whether the objectives of the Management Plan are being achieved. Regular monitoring is necessary to re-assess priorities in view of new issues and progress made on the site.

All Hill Fort sites have departmental monitoring schedules followed by the concerned officials and engineers for measuring the state of conservation of the structures and landscape. The baseline data on the condition of the various elements of the sites and the indicators to monitor their conservation are also detailed in management plans for the sites.

Comprehensive monitoring measures have been in place continuously for ASI since 1951 as recorded in all conservation works carried on the three sites of Chittorgarh, Kumbhalgarh and Ranthambore. The Director, Conservation, ASI monitors work on these sites on an annual basis while the Superintendent Archaeologist, Jaipur Circle monitors the site work on a quarterly basis in an year . Experts from Chemical and Horticulture Branch of ASI periodically monitor the site. The site superintendent and foreman take records on a weekly basis.

In case of state protected monument of Amber and Gagron, the superintendent on sites are responsible for monitoring the status of the structures on a weekly basis while the Junior engineer surveys it once a month and the Executive Engineer visits the site for recording the status of fabric on a quarterly basis.

The table for Monitoring Indicators below identifies periodicity of collecting the data and its location.

Objective	Indicators	Periodicity	Location of records
Conservation	Status of Conservation		
	Site Inspection by SA /Executive Engineer to observe the state of built structures and landscape	Quarterly (4 times in an year)	Jaipur Circle, ASI Department of Archaeology and Museums, Rajasthan
	Site inspection by engineer to oversee ongoing conservation works	Daily when the works are ongoing	Foreman/ Onsite in-charge
	Before and After photographs of the site and instruments to record changes	Annually, Before and after the Conservation works are carried out on site	ASI Scientific Wing/ Jaipur Circle/ Department of Archaeology and Museums, Rajasthan

## 6. Monitoring

6.4

*Table 6.1 : Monitoring Indicators for conservation works*

Objective	Monitoring Indicators	Measure	Impact
OUV protection and promotion			
a) Awareness about OUV of forts	Regular consultations and awareness programme with residents to explain attributes and OUV for each fort	Increasing pride in ownership	Long term sustainability of OUV of the Hill Forts of Rajasthan
b) Protection of OUV	Periodic Physical and Social surveys within forts to ensure all attributes are in place	Condition report of fort and Social survey report status	
c) Communicating OUV of the series through interlinking interpretation of all hill forts	Developing parallel systems of interpretation and media for communication	Recording visitors' experience for all 6 forts	
Risk Management	Physical survey reports of battlements and ramparts of all 6 hill forts	Periodic inspection (every monsoon) of the outer hill structures of forts to identify any risk of future landslides	Safety of residents and visitors as well as protection of fort structure
Buffer Zone Management	Built Fabric Density	Planning principle guidelines as per the master plans of the city and management plan of the site.	Retains visual integrity and environments of the site.

*Table 6.2 : Monitoring Indicators for OUV protection and Risk Management*



## 6.b Administrative arrangements for monitoring property

Name and contact information of agencies responsible for monitoring are:

### Chittorgarh

Dr. Vasant Kumar Swasnkhar,  
Superintendent Archaeologist,  
Jaipur Circle, ASI  
70/140, Sector-7, Patel Marg,  
Mansarovar, Jaipur  
Tel: +91 (141) 2396523  
Fax: +91 (141) 2784533

### Kumbhalgarh

Dr. Vasant Kumar Swasnkhar,  
Superintendent Archaeologist,  
Jaipur Circle, ASI  
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Mansarovar, Jaipur  
Tel: +91 (141) 2396523  
Fax: +91 (141) 2784533

### Ranthambore

Dr. Vasant Kumar Swasnkhar,  
Superintendent Archaeologist,  
Jaipur Circle, ASI  
70/140, Sector-7, Patel Marg,  
Mansarovar, Jaipur  
Tel: +91 (141) 2396523  
Fax: +91 (141) 2784533

### Gagron

Mr. Jitendera Joshi  
Executive Engineer,  
Archaeology and Museums,  
Albert Hall, Jaipur  
Tel: 91 141 5182012, 5182938 (O)

### Amber

Mr. Jitender Joshi  
Executive Engineer,  
Archaeology and Museums,  
Albert Hall, Jaipur  
Tel: 91 141 5182012, 5182938 (O)

Mr. Zafarullah Khan  
Archaeologist,  
Archaeology and Museums / ADMA  
Amber, Jaipur



## 6. Monitoring

---

6.6

### **Jaisalmer**

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Mansarovar, Jaipur  
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## 6.c Results of previous reporting exercises

### **Chittorgarh**

Indian Archaeology Review, an annual record of conservation works on each structure at Chittorgarh is maintained by ASI from 1899 AD till date. Copies of records from 1899-2002 are enclosed in Annexure IV and, can be downloaded from ASI website. Indian Archaeology Review records from 2003-2010 are in process of being published by ASI and can be accessed from ASI office in New Delhi.

(Refer Annexure IV)

### **Kumbhalgarh**

Indian Archaeology Review, an annual record of conservation works on each structure at Kumbhalgarh is maintained by ASI from 1957 AD till date. Copies of records from 1957-2002 are enclosed in Annexure IV and, can be downloaded from ASI website. Indian Archaeology Review records from 2003-2010 are in process of being published by ASI and can be accessed from ASI office in New Delhi.

(Refer Annexure IV)

### **Ranthambore**

Indian Archaeology Review, an annual record of conservation works on each structure at Ranthambore is maintained by ASI from 1957 AD till date. Copies of records from 1957-2002 are enclosed in Annexure IV and, can be downloaded from ASI website. Indian Archaeology Review records from 2003-2010 are in process of being published by ASI and can be accessed from ASI office in New Delhi.

(Refer Annexure IV)

### **Gagron**

Conservation report commissioned by the Department of Archaeology and Museums, Rajasthan in 2007 is available with the department along with completion reports submitted by the site contractors.

(Refer Annexure II and IV)

### **Amber**

Conservation works began in Amber from 1955 onwards initiated by the Archaeological Survey of India and, carried out by the Department of Archaeology and Museums, Rajasthan. However, the Archaeological Survey of India as a premier organisation often visited the fort-palace and advised on works to be carried out by the state till 1980's. A brief history of the conservation works from 1955 -1982 is well recorded in the Indian Archaeology Review at ASI, downloadable from ASI website.

Records of recent conservation works (2005-2010) are well recorded in Conservation Reports commissioned by the Department of Archaeology and Museums, Rajasthan and other Site reports prepared by the department and ADMA .

(Refer Annexure II and IV)

## 6. Monitoring

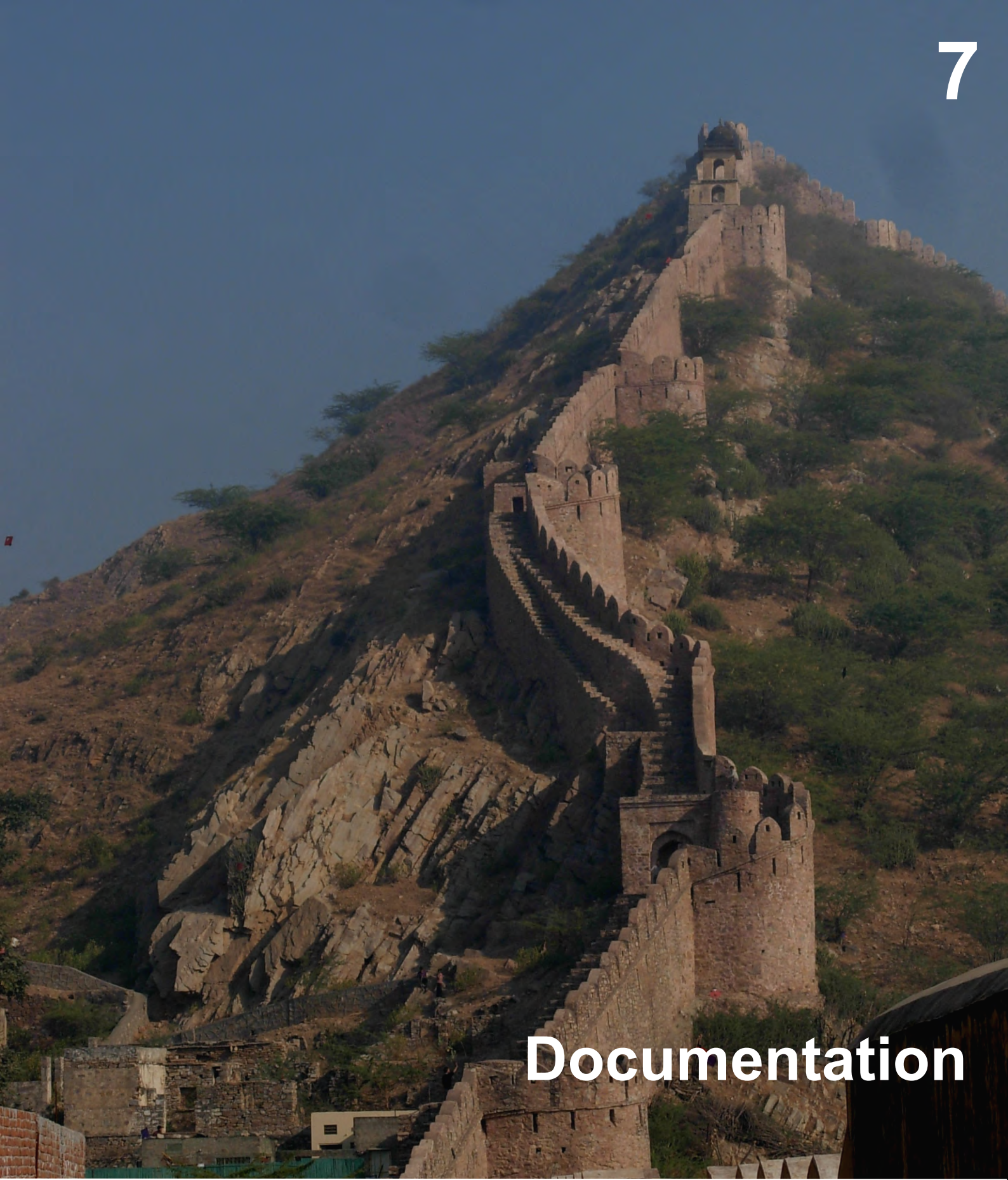
6.8

### **Jaisalmer**

Indian Archaeology Review, an annual record of conservation works on each structure at Jaisalmer is maintained by ASI from 1957 AD till date. Copies of records from 1957-2002 are enclosed in Annexure IV and, can be downloaded from ASI website. Indian Archaeology Review records from 2003-2010 are in process of being published by ASI and can be accessed from ASI office in New Delhi.

(Refer Annexure IV)





# Documentation





**7.a Photographs, slides, image inventory and authorisation table and other audiovisual materials**

**Image inventory and photograph authorisation form**

<b>Id. No</b>	<b>Format (slide/ print/ video)</b>	<b>Caption</b>	<b>Date of Photo (mo/yr)</b>	<b>Photographer/ Director of the video (Same as Copyright)</b>	<b>Non exclusive cession of rights</b>
<b>CHITTORGARH FORT</b>					
Image 1	Print (Appendix I) and jpeg format images	Kumbha Palace	10.12.2010	DRONAH	Yes
Image 2	Print (Appendix I) and jpeg format images	Hanuman Pol	10.12.2010	DRONAH	Yes
Image 3	Print (Appendix I) and jpeg format images	Gaumukh Kund	10.12.2010	DRONAH	Yes
Image 4	Print (Appendix I) and jpeg format images	Aerial view of Chittorgarh fort	10.12.2010	DRONAH	Yes
Image 5	Print (Appendix I) and jpeg format images	Ratan Singh Palace	10.12.2010	DRONAH	Yes
Image 6	Print (Appendix I) and jpeg format images	Kumbha Shyam and Mira Bai Temples	10.12.2010	DRONAH	Yes
Image 7	Print (Appendix I) and jpeg format images	Kumbhaswami Temple	10.12.2010	DRONAH	Yes
Image 8	Print (Appendix I) and jpeg format images	Vijay Stambh	10.12.2010	DRONAH	Yes
<b>KUMBHALGARH FORT</b>					
Image 1	Print (Appendix I) and jpeg format images	View of the Kumbhalgarh fort	09.12.2010	DRONAH	Yes
Image 2	Print (Appendix I) and jpeg format images	Another view of the fort	09.12.2010	DRONAH	Yes
Image 3	Print (Appendix I) and jpeg format images	Entrance to the fort through Ram Pol	09.12.2010	DRONAH	Yes
Image 4	Print (Appendix I) and jpeg format images	Vedi temple Complex	09.12.2010	DRONAH	Yes
Image 5	Print (Appendix I) and jpeg format images	Neelkanth Mahadev and Parsvantha Temple	09.12.2010	DRONAH	Yes

## 7. Documentation

7.4

Image 6	Print (Appendix I) and jpeg format images	Jain Temple	09.12.2010	DRONAH	Yes
Image 7	Print (Appendix I) and jpeg format images	View of the fort from Kartar Garh	09.12.2010	DRONAH	Yes
Image 8	Print (Appendix I) and jpeg format images	Rana Pratap's birth place	09.12.2010	DRONAH	Yes
<b>RANTHAMBORE FORT</b>					
Image 1	Print (Appendix I) and jpeg format images	Approach to the fort through the gateways	22.08.2010	Dept. of Museums & Archaeology, Rajasthan	Yes
Image 2	Print (Appendix I) and jpeg format images	Dulha Mahal	22.08.2010	Dept. of Museums & Archaeology, Rajasthan	Yes
Image 3	Print (Appendix I) and jpeg format images	Sat Pol Gate	22.08.2010	Dept. of Museums & Archaeology, Rajasthan	Yes
Image 4	Print (Appendix I) and jpeg format images	Mosque	22.08.2010	Dept. of Museums & Archaeology, Rajasthan	Yes
Image 5	Print (Appendix I) and jpeg format images	Battis Khamba Chhatri	01.12.2010	DRONAH	Yes
Image 6	Print (Appendix I) and jpeg format images	Dargah	01.12.2010	DRONAH	Yes
Image 7	Print (Appendix I) and jpeg format images	Jain Temple	01.12.2010	DRONAH	Yes
Image 8	Print (Appendix I) and jpeg format images	Entrance to Gupta Ganga	01.12.2010	DRONAH	Yes
<b>GAGRON FORT</b>					
Image 1	Print (Appendix I) and jpeg format images	Fort wall overlooking the Kali Sindh river to the north	04.12.2011	DRONAH	Yes
Image 2	Print (Appendix I) and jpeg format images	Gate near Raniwas	04.12.2011	DRONAH	Yes
Image 3	Print (Appendix I) and jpeg format images	Ganesh Pol	04.12.2011	DRONAH	Yes
Image 4	Print (Appendix I) and jpeg format images	Bhairu Pol	04.12.2011	DRONAH	Yes
Image 5	Print (Appendix I)	Zenana Mahal	04.12.2011	DRONAH	Yes

	and jpeg format images				
Image 6	Print (Appendix I) and jpeg format images	Mardana Mahal	04.12.2011	DRONAH	Yes
Image 7	Print (Appendix I) and jpeg format images	Kattarmal ki Chhatri	04.12.2011	DRONAH	Yes
Image 8	Print (Appendix I) and jpeg format images	Lal Darwaza	04.12.2011	DRONAH	Yes
<b>AMBER FORT</b>					
Image 1	Print (Appendix I) and jpeg format images	View of the Amber Palace	14.12.2010	DRONAH	Yes
Image 2	Print (Appendix I) and jpeg format images	View of the Amber Town from the Palace	14.12.2010	DRONAH	Yes
Image 3	Print (Appendix I) and jpeg format images	Suraj Pol	14.12.2010	DRONAH	Yes
Image 4	Print (Appendix I) and jpeg format images	Ganesh Pol	14.12.2010	DRONAH	Yes
Image 5	Print (Appendix I) and jpeg format images	Sheesh Mahal	14.12.2010	DRONAH	Yes
Image 6	Print (Appendix I) and jpeg format images	Jaleb Chowk with Suraj Pol	14.12.2010	DRONAH	Yes
Image 7	Print (Appendix I) and jpeg format images	View of the palace on approach	14.12.2010	DRONAH	Yes
Image 8	Print (Appendix I) and jpeg format images	Front view of Amber Palace	14.12.2010	DRONAH	Yes
Image 9	Print (Appendix I) and jpeg format images	Paintings at Rang Mahal	14.12.2010	DRONAH	Yes
<b>JAISALMER FORT</b>					
Image 1	Print (Appendix I) and jpeg format images	View of the Jaisalmer Fort	04.09.2009	DRONAH	Yes
Image 2	Print (Appendix I) and jpeg format images	An aerial view of the city from the fort	04.09.2009	DRONAH	Yes
Image 3	Print (Appendix I) and jpeg format images	Har Raj Ji Ka Mahal	04.09.2009	DRONAH	Yes

## 7. Documentation

7.6

Image 4	Print (Appendix I) and jpeg format images	View of Building inside the Fort	04.09.2009	DRONAH	Yes
Image 5	Print (Appendix I) and jpeg format images	Fort and the city of Jaisalmer	04.09.2009	DRONAH	Yes
Image 6	Print (Appendix I) and jpeg format images	Jain Temple	04.09.2009	DRONAH	Yes
Image 7	Print (Appendix I) and jpeg format images	Bastion	04.09.2009	DRONAH	Yes
Image 8	Print (Appendix I) and jpeg format images	Fort	04.09.2009	DRONAH	Yes
Image 9	Print (Appendix I) and jpeg format images	Hawa Prol	01.08.2011	ASI	Yes
Image 10	Print (Appendix I) and jpeg format images	View of Jaisalmer Fort	01.08.2011	ASI	Yes
Image 11	Print (Appendix I) and jpeg format images	View of Jaisalmer Temple	01.08.2011	ASI	Yes

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3. Name of organisation: DRONAH  
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Tel /fax: +91 124 4082081 / 124 4269081 Email: dronah@gmail.com

### 7.b Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the property

Attach the texts as indicated in section 5.b, d and e.

Management Plan (Refer Annexure I)  
Legislation and Policies (Refer Annexure III)  
Plans and Reporting Exercises (Refer Annexure IV)

### 7.c Form and date of most recent records or inventory of property

Provide a straightforward statement giving the form and date of the most recent records or inventory of the property. Only records that are still available should be described

Photographic Documentation – Before and After Conservation Works (Refer Annexure II)



### 7.d Address where inventory, records and archives are held

Give the name and address of the agencies holding inventory records (buildings, monuments, flora or fauna species).

S. No.	Name	Address
1	National Archives of India	Janpath, New Delhi 110001 Tel: +91-11- 23384797 Email: archives@nic.in
2	Archaeological Survey of India	Janpath, New Delhi - 110011 Tel: 91-11-23013574
3	Kapaddwara	City Palace, Jaipur 302002 Rajasthan Tel: +91-141-2609196
4	Rajasthan State Archives - Bikaner	Bikaner, rajasthan
5	Maharana of Mewar Charitable Foundation (MMCF)	The City Palace Complex, Udaipur 313001 Rajasthan Tel: +91-294-2419021

### 7.e Bibliography

List the principal published references, using standard bibliographic format.

#### Bibliographic References:

##### Books and Journals

- Aggarwal R.A. 1979 History, Art & Architecture of Jaisalmer Agam Kala Prakashan, Trinagar
- Ashurst, John & Nicola Practical Building Conservation Volume 1 Stone Masonry Gower Technical press, Aldershot, England
- Ashurst Nicola Cleaning Historical Buildings Volume 2 Cleaning Materials & Processes Donhead Publishing Ltd, Wimbledon, London
- Anand, Mulk Raj, Homage to Jaipur, Marg Publication.
- Bahura, G N & Singh, C 1990, Catalogue of Historical Documetns in Kapad Dwara, Jaipur, Part II: Maps and Plans, Bahura, G N & Singh, C, Jaipur.
- Baig, Amita 2010, *Forts and Palaces of India*, Om Books International, New Delhi.
- Begde Prabhakar V. 1982 Forts & Palaces of India Sagar Publications Ved Mansion, Janpath
- Bhattacharya, M 2008, *The Royal Rajputs: Strange Tales and Stranger Truths*, Rupa and Company, New Delhi.
- Books, Coomaraswamy, A K 2002, *Early Indian Architecture: Cities and City Gates*, Munshiram Manoharlal Publishers Pvt. Ltd, New Delhi.
- Croci Giorgio The Conservation & Structural Restoration of Architectural Heritage Computational Mechanics Publications, Southampton, U.K.
- Chief Town Planner & Arch. Advisor Govt. of Rajasthan Urban Improvement Act 1959 (1982) Draft Master
- Davies, P 1989, *The Penguin Guide to the Monuments of India, II: Islamic, Rajput, European*, Viking, New York and London.
- Davies P. 1989 Monuments of India (Islamic, Rajput, European) - Vol. Two Penguin Group, London

## 7. Documentation

7.8

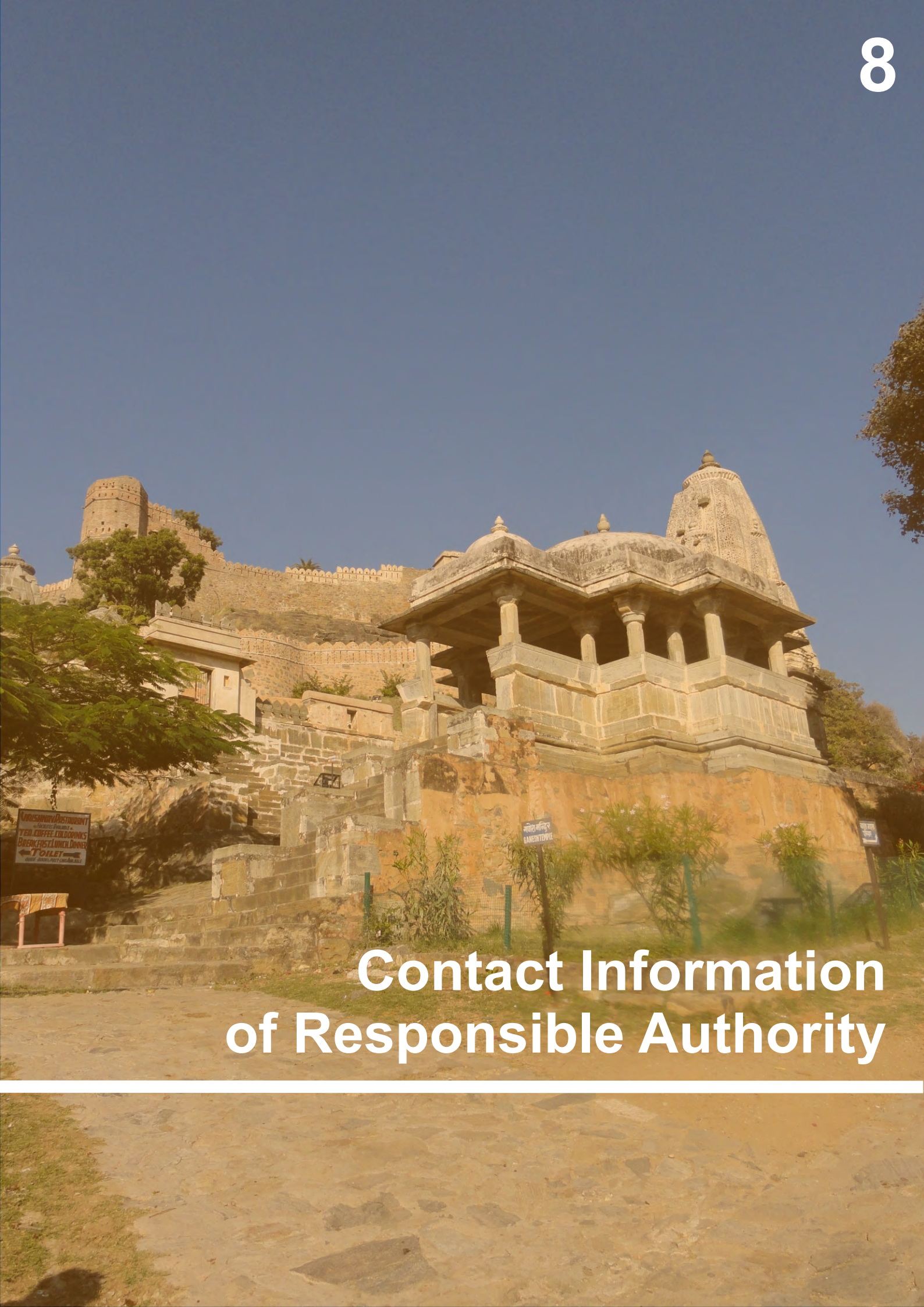
- Dorje, C & Dimri, D N 2008, *Kumbhalgarh: The Pride of Maharanas of Mewar*, Aryan Books International, New Delhi.
- Erskine K.D. 1992 (Originally published in 1908) **Rajputana Gazetteers: Western Rajputana States Residency and the Bikaner Agency** Text Vintage books, 557 sec-14 Gurgaon
- Fass, Virginia 1986, *The Forts of India*, London Feilden Bernard M 1994 **Conservation of Historic Buildings** Butterworth–Heinemann Ltd, Oxford
- Gole, Susan 1989, *Maps and Plans of India*, Manohar Publishers, Delhi
- Hardy, Adam 2007, *The Temple Architecture of India*, Wiley, Chichester.
- Hooja, Rima 2006, *A History of Rajasthan*, Rupa & Co., New Delhi.
- Hooja R, Hooja, R & Hooja, R 2010, *Constructing Rajpootana - Rajasthan*, Rawat Publications, Jaipur.
- Jain Meenakshi & Jain K B, Status Report, May 2000, *Ranthambor Fort: Construction Initiative 2000*, INTACH, New Delhi.
- Jain K. & Jain M 2000 *Architecture Of The Indian Desert* AADI CENTRE, Ahmedabad
- Jain, K C 1972, *Ancient Cities and Towns of Rajasthan: A Study of Culture and Civilization*, Motilal Banarsidass, Delhi, Varanasi, Patna.
- Jain, Shikha (ed.) 2005, *Princely Terrain: Amber, Jaipur and Shekhawati*, Shubhi Publications, Gurgaon.
- Jafa, Jyoti 2004, *Royal Jaipur*, Lustre Press, Roli Books.
- *Jhalawar chapter report, Gagron Durg*, INTACH Jhalawar.
- Koch, Ebba 2002, *Mughal Architecture: An Outline of its History and Development (1526-1858)*, Oxford University Press, New Delhi.
- Moraes Dom/ Gajwani Gopi 1988 **Rajasthan- Splendour in the Wilderness** - Himalayan Books, Delhi
- Manchanda, Bindu 2006, *Forts and Palaces of India: sentinels of history*, Roli, New Delhi.
- Meena, B R 2009, *Heritage of Rajasthan: Monuments and Archeological Sites*, Aryan Books International.
- Michell, G & Martinelli, A 1998, *The Royal Palaces of India*, Thames and Hudson, London.
- Mishra, RL 1985, *The Forts of Rajasthan*, Kutir Prakashan.
- Mishra, RL 2007, *Saga of Forts & Fortifications of Rajasthan: A Peep into their Resplendent Glory*, B R Publishing Corporation Nath, R 1984, *Antiquities of Chittorgarh*, Vol. I, Jaipur.
- Nath, R 1984, *Antiquities of Chittorgarh*, Historical Research Documentation Programme.
- Nathmal Diwan, **Chand Laxmi 1891 Tawarikh Jaisalmer(The History of Jeysalmere)** Rajasthani Granthagar, Sojti Gate, Jodhpur
- Nossov, Konstantin & Delf, Brian 2006, *Indian Castles 1206-1526: The Rise and Fall of the Delhi Sultanate* (Illustrated ed.), Osprey Publishing.

- Prakash, Satya, *As Stones speak to Ranthambor*, The Department of Archaeology & Museums, Rajasthan.
- *Rajasthan District Gazetteers: Jhalawar*, Printed at Govt. Central Press, Rajasthan
- *Rajasthan District Gazetteers: Sawai Madhopur*
- Ranawat, I S 2004, *Rajasthan ke Jal Sansthan*, Chirag Publications, Udaipur.
- Schromer, K, Erdman, J L, Lodrick, D O & Rudolph, L I (eds.) 1994, *The Idea of Rajasthan: Explorations in Regional Identity*, Vol. I and II, Manohar Publishers and Distributors, New Delhi.
- Sehgal, K K 1977, *Rajasthan District Gazetteers: Chittaurgarh*, Directorate of District Gazetteers, Government of Rajasthan, Jaipur.
- Singh, Ranbir 2010, *Ranthambore: The Impregnable Fort*, Publication scheme.
- Singh, Chandramani & Mayaram, Arvind 2002, *Protected Monuments of Rajasthan*, Jawahar Kala Kendra in Association with Publication Scheme, Jaipur.
- Sharma N.K. 2005 **Jaisalmer The Golden City**, Seemant Prakashan Publishers near Jain Dharamshala Jaisalmer-345001
- Sharma N.K. 2005 **Trikutgarh Jaisalmer** Seemant Prakashan Publishers, Near Jain Dharamshala, Jaisalmer-345001 Sharma N.K. 2005
- Singh Chandramani 2002 **Protected Monuments of Rajasthan** Jawahar Kala Kendra (in association with) Publication Scheme, Jaipur
- *The Rajputana Gazetteers, Vol II*
- Tillotson, G H R 1991, *Mughal India*, Penguin Books, London.
- Tillotson, G H R 1999, *The Rajput Palaces: The Development of an Architectural Style, 1450-1750*, Oxford University Press, New Delhi.
- Tillotson, G H R 2007, *Jaipur Nama: Tales from the Pink City*, Penguin Global.
- Tod, James 2002, *Annals and Antiquities of Rajasthan*, Vol. 1 & 2, Rupa & Co., New Delhi (First published in 1829 by Routledge & Kegan Paul Ltd., London).
- Toy, S 1965, *The Fortified Cities of India*, Heinemann.
- V Begde, Prabhakar. 1982, *Forts and Palaces of India*, New Delhi
- Verma, Amrit 1985, *Forts of India*, Delhi.
- 1989, *Imperial Gazetteer of India: Provincial Series Rajputana*, Usha Publications.

**Websites/ Web-links References:**

- [www.eternalmewar.in](http://www.eternalmewar.in)
- [www.whc.unesco.org](http://www.whc.unesco.org)
- [www.wikipedia.org](http://www.wikipedia.org)
- [www.wmf.org](http://www.wmf.org)





# Contact Information of Responsible Authority



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**Address:** Albert Hall, Ram Niwas Bagh,  
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**Tel:** + 91-141-5101455  
**Fax:** + 91-141-5101455  
**E-mail:**  
**Website:** www.jaipurmc.org

## 8. Contact Information of Responsible Authorities

8.4

### 8.c Other Local Institutions

- Chittorgarh Municipal Corporation

#### State Level Museum

- Government Central Museum (Albert Hall), Jaipur

#### Division Level Museums

- Government Museum, Udaipur
- Government Museum, Jodhpur
- Government Museum, Bikaner
- Government Museum, Kota
- Government Museum, Ajmer
- Government Museum (Hawa Mahal), Jaipur
- Government Museum, Bharatpur

#### District Level Museums

- Government Museum, Alwar
- Government Museum, Dungarpur
- Government Museum, Chittorgarh
- Government Museum, Jaisalmer
- Government Museum, Pali
- Government Museum, Jhalawar
- Government Museum, Sikar

#### Local Museums

- Government Museum, Ahar - Udaipur
- Government Museum, Mandor - Jodhpur
- Government Museum, Mt. Abu - Sirohi

#### Art Galleries

- Art Gallery, Viratnagar - Jaipur

### 8.d Official Web address

Currently not present, but it is proposed to be added as part of interpretation in the management plan.





**Signature  
on behalf of State Party**

■ **9. Signature on behalf of the State Party**

(Signed on behalf of the State Party)

Full Name: **Praveen Srivastava**

Title: **Director General,  
Archaeological Survey of India**

Date: **24 January 2013**



## Appendix I

### General photographs of the property



**Appendix I**  
**General Photographs of the Property**  
**Chittorgarh**



*Kumbha Palace*



*Hanuman Pol*



**Appendix I**  
**General Photographs of the Property**  
**Chittorgarh**





**Appendix I**  
**General Photographs of the Property**  
**Chittorgarh**



*Ratan Singh Palace*



*Kumbha Shyam and Mira Bai Temples*



**Appendix I**  
**General Photographs of the Property**  
**Chittorgarh**

*Kumbhaswami Temple*



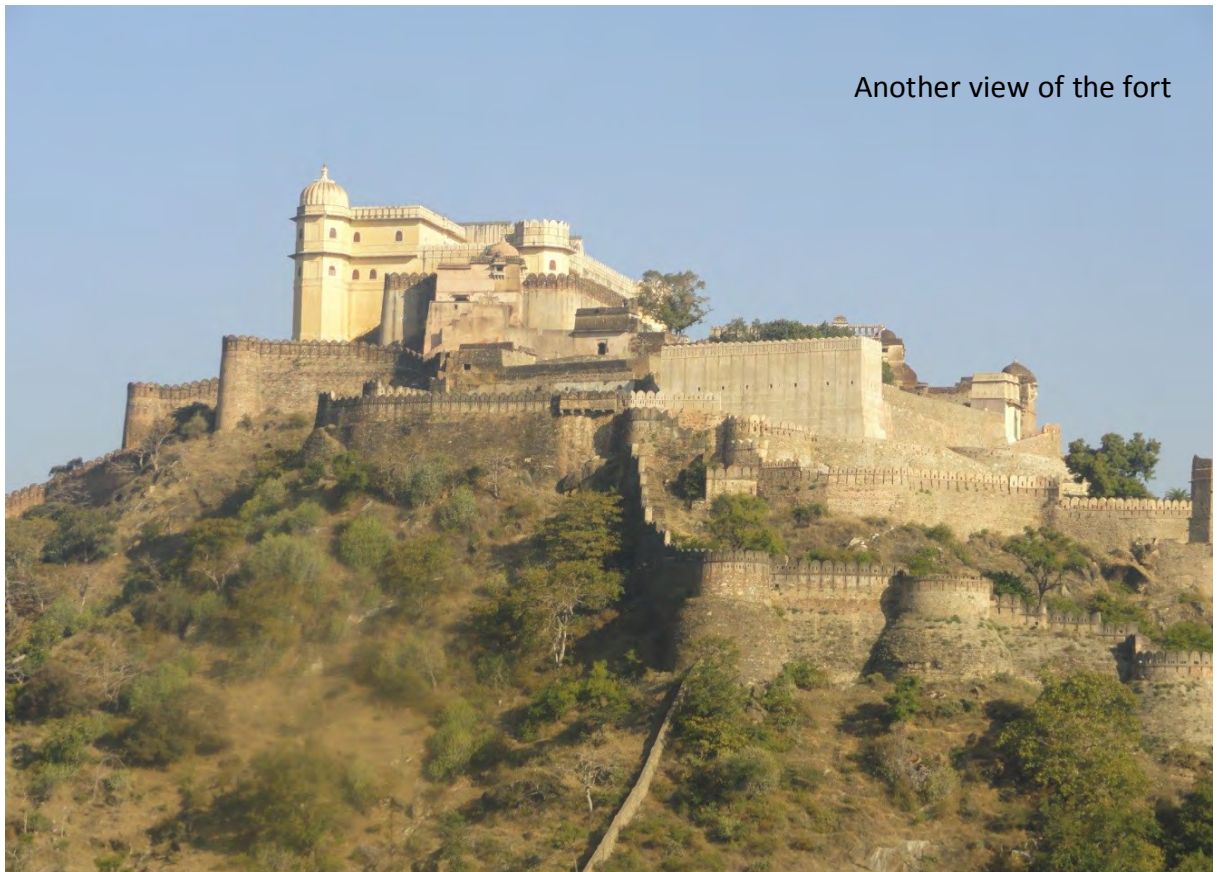
*Vijay Stambh*



Appendix I  
General Photographs of the Property  
Kumbhalgarh



View of the Kumbhalgarh fort



Another view of the fort



Appendix I  
General Photographs of the Property  
Kumbhalgarh

Entrance to the fort through Ram Pol



Vedi Temple Complex



Appendix I  
General Photographs of the Property  
Kumbhalgarh

Neelkanth Mahadev and Parsvanth Temple

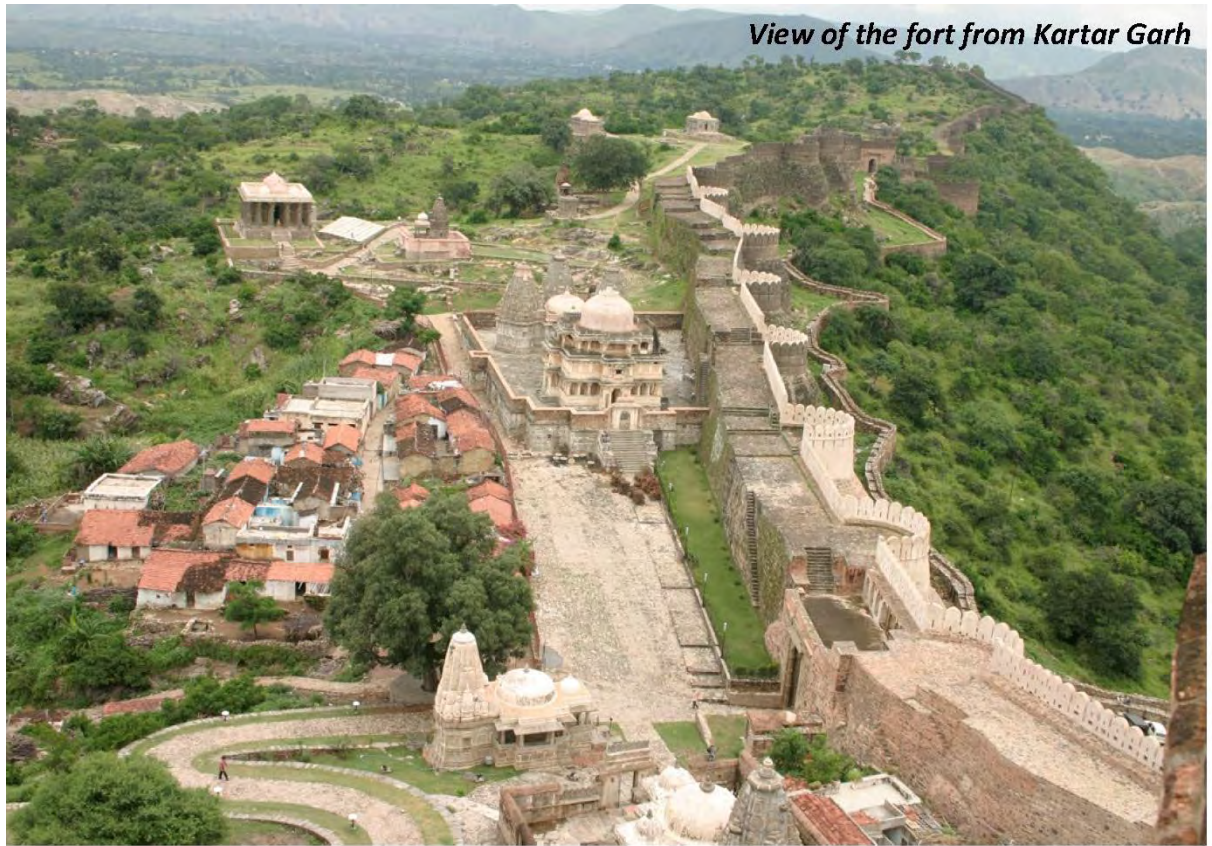


Jain Temple





Appendix I  
General Photographs of the Property  
Kumbhalgarh



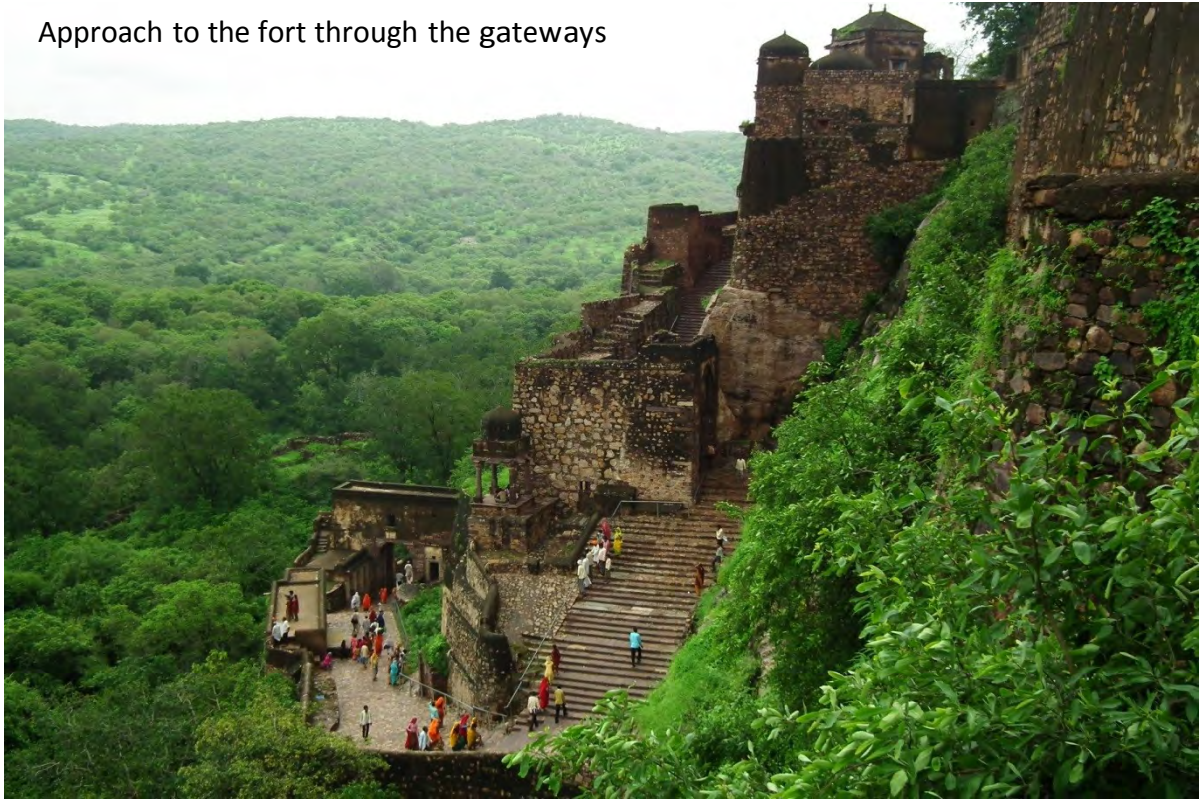


*Rana Pratap's birth place*



Appendix I  
General Photographs of the Property  
Ranthambore

Approach to the fort through the gateways



Dulha Mahal





Appendix I  
General Photographs of the Property  
Ranthambore



*Satpol Gate*



*Mosque*



Appendix I  
General Photographs of the Property  
Ranthambore



*Battis Khamba Chhatri*



*Dargah*



Appendix I  
General Photographs of the Property  
Ranthambore



Jain Temple

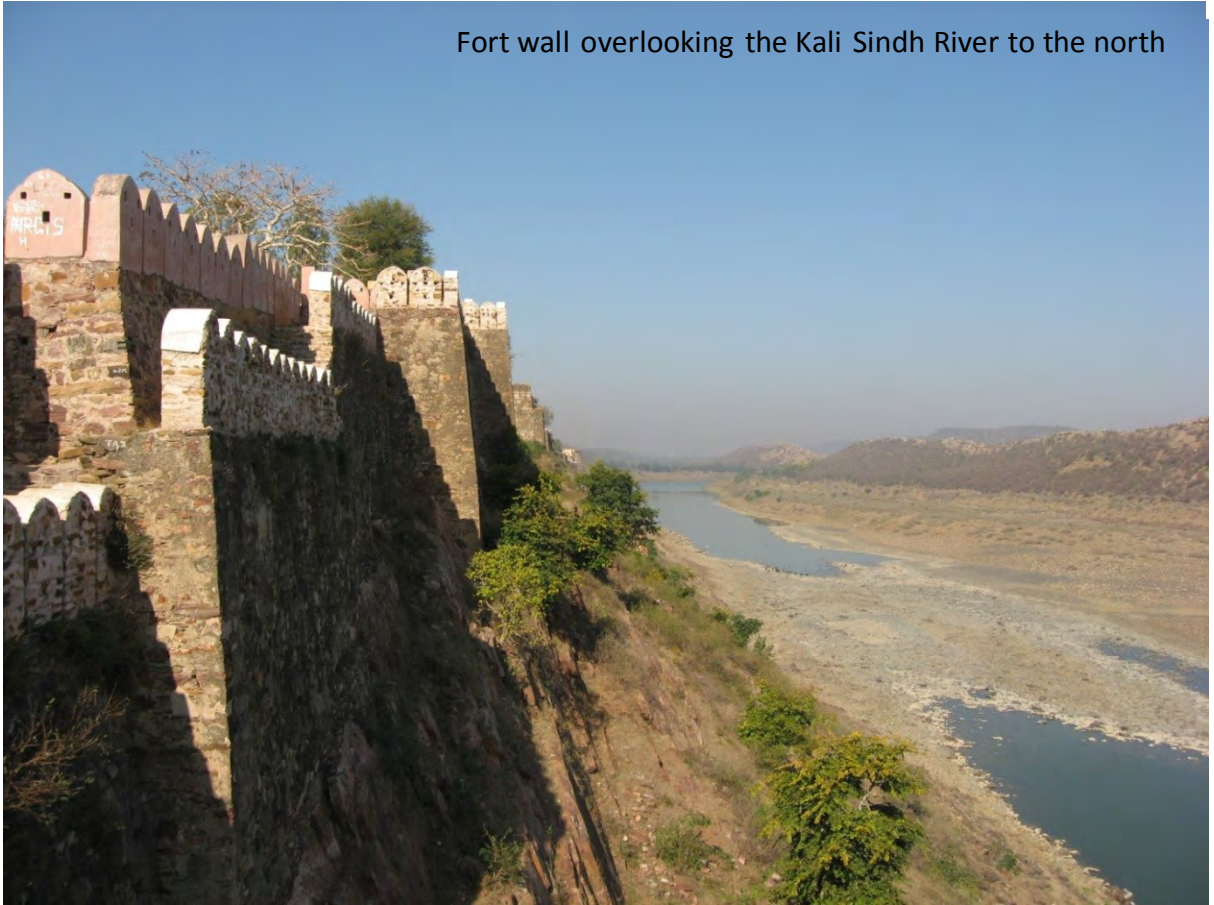


Entrance to Gupta Ganga



Appendix I  
General Photographs of the Property  
Gagron

Fort wall overlooking the Kali Sindh River to the north



Gate near Raniwas





Appendix I  
General Photographs of the Property  
Gagron

*GaneshPol*



*Bhairu Pol*





Appendix I  
General Photographs of the Property  
Gagron

*...hill forts of Rajasthan...*



Zenana Mahal



Mardana Mahal



Appendix I  
General Photographs of the Property  
Gagron

Kattarmal ki Chhatri

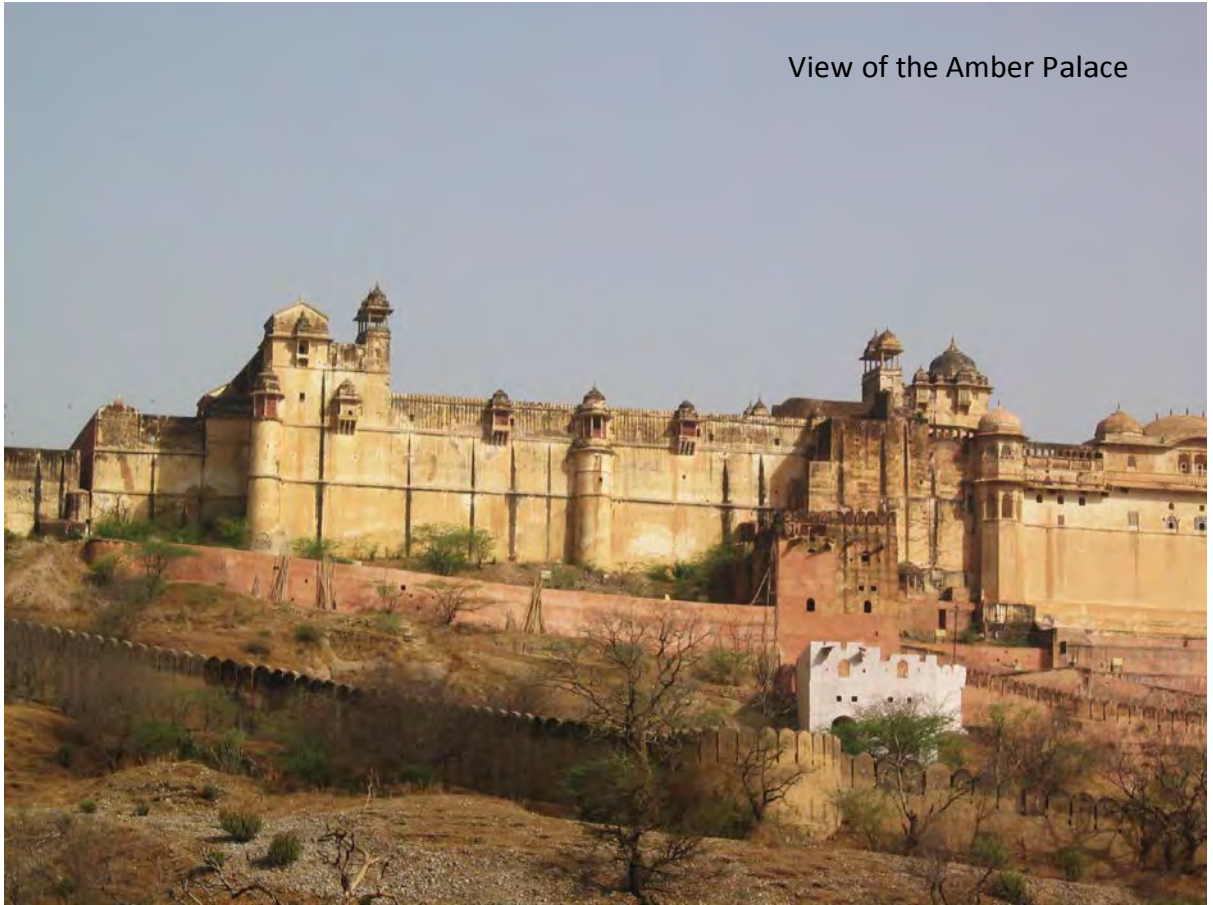


Lal Darwaza

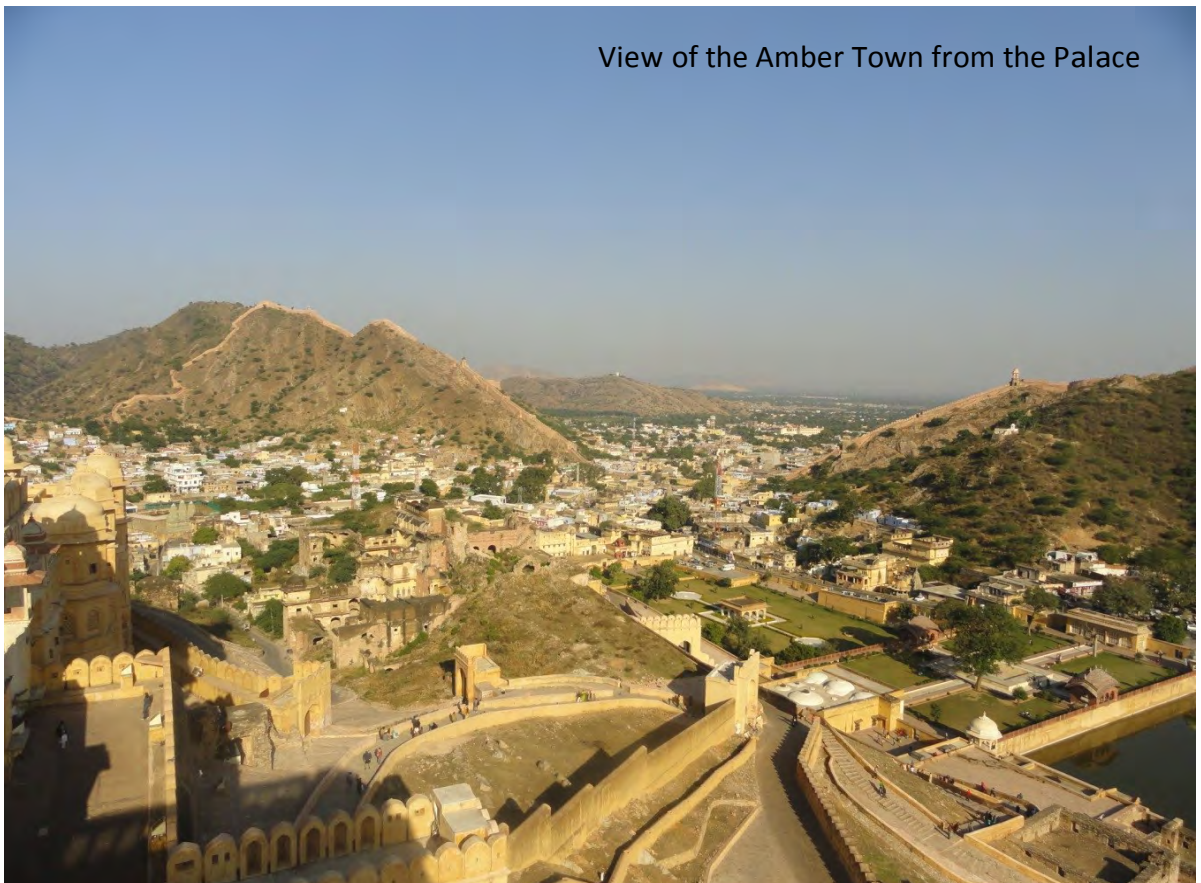




Appendix I  
General Photographs of the Property  
Amber



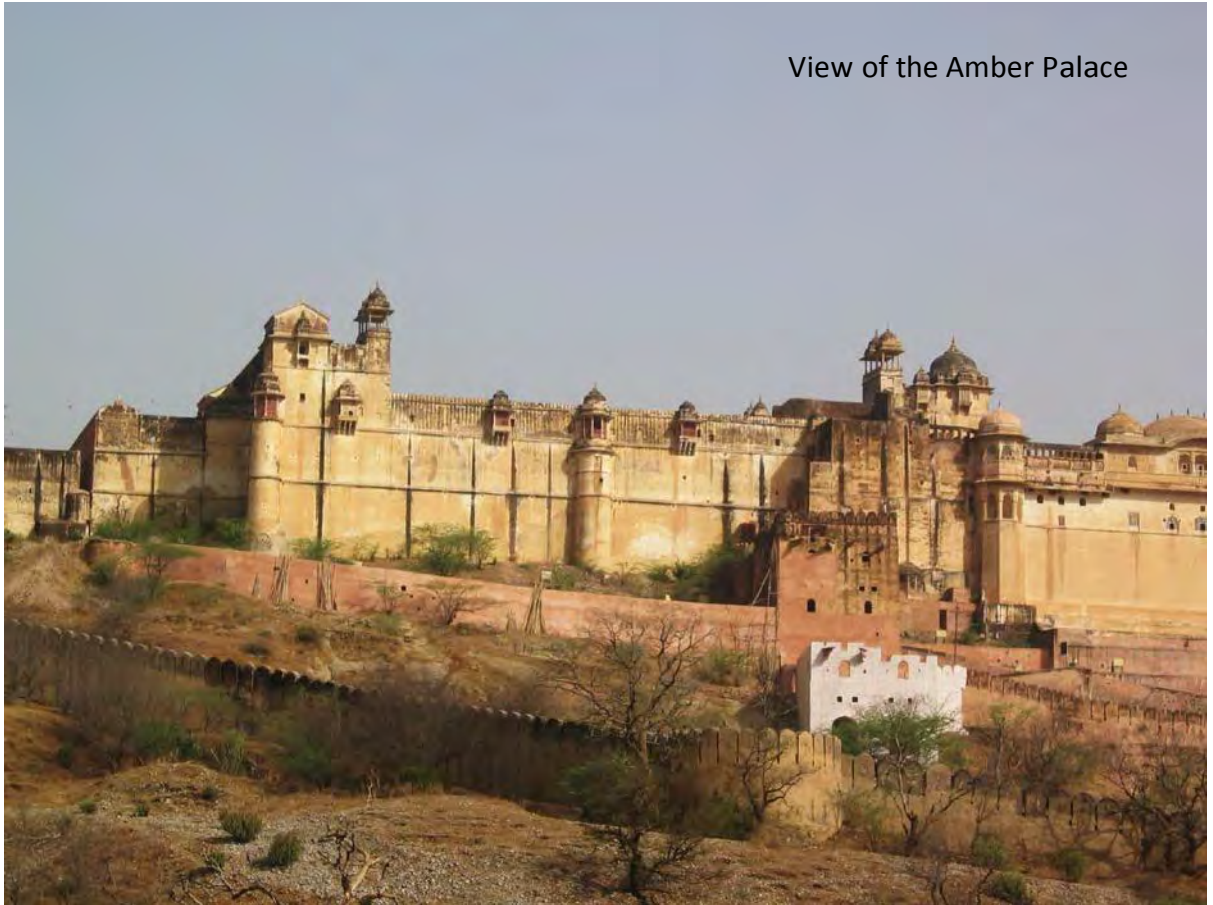
View of the Amber Palace



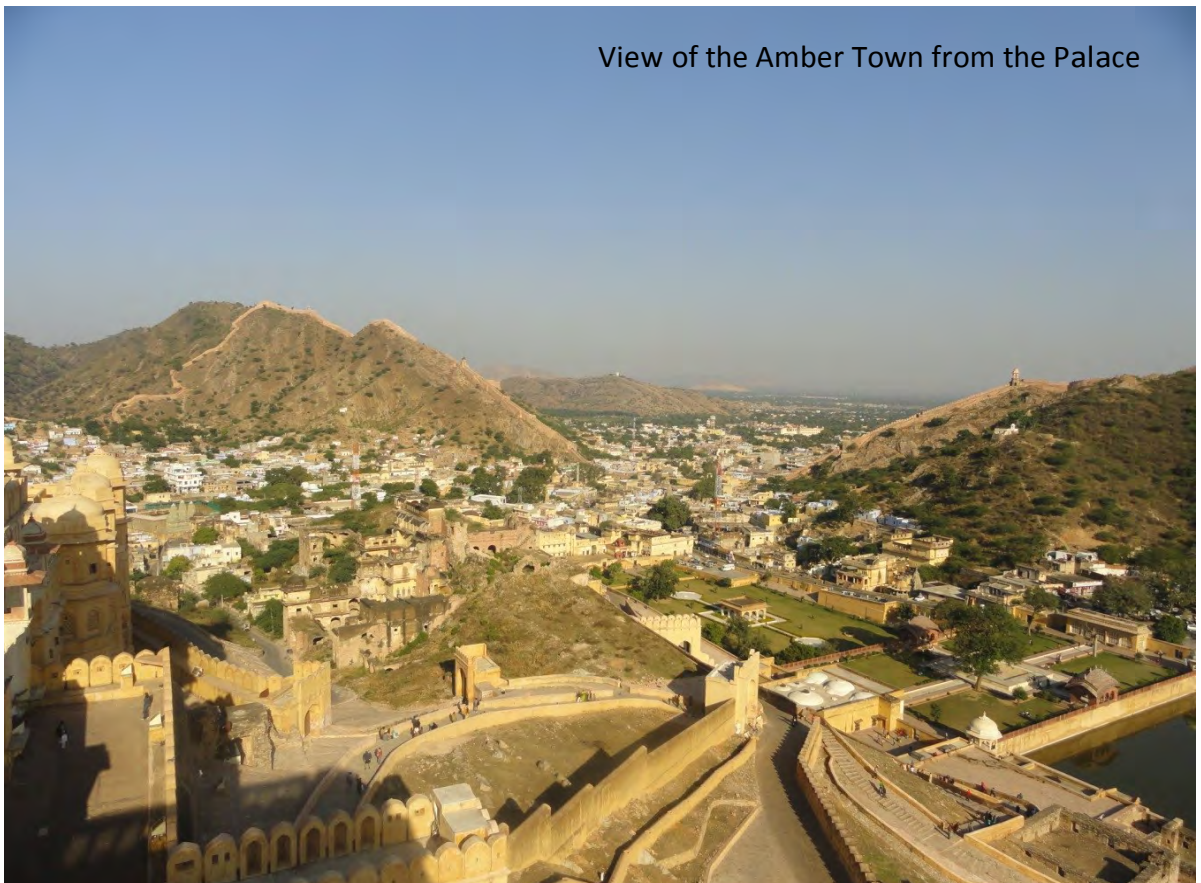
View of the Amber Town from the Palace



Appendix I  
General Photographs of the Property  
Amber



View of the Amber Palace



View of the Amber Town from the Palace



Appendix I  
General Photographs of the Property  
Amber

*Suraj Pol*



*Ganesh Pol*





Appendix I  
General Photographs of the Property  
Amber

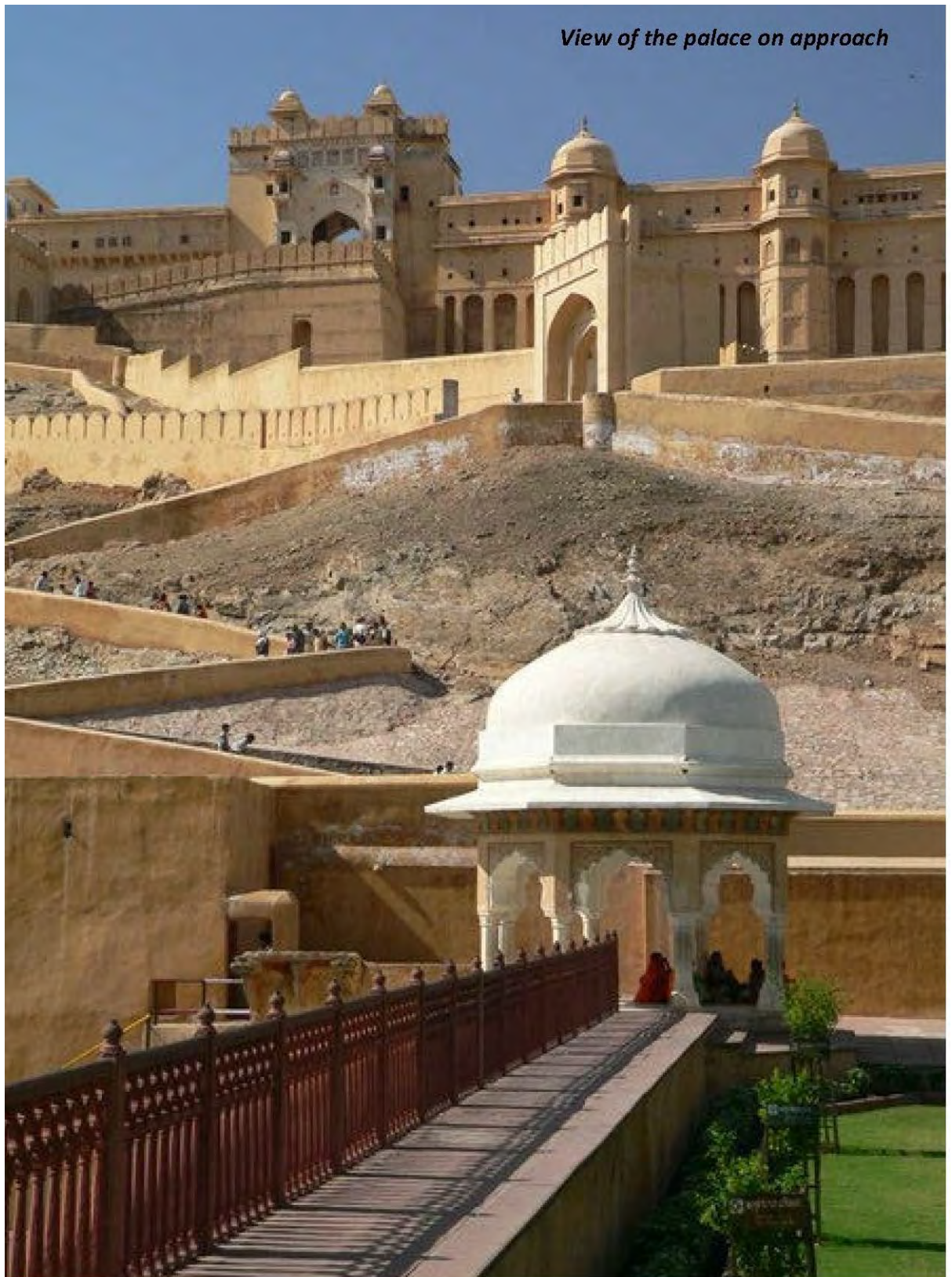
Sheesh Mahal



Jaleb Chowk with Suraj Pol



Appendix I  
General Photographs of the Property  
Amber





Appendix I  
General Photographs of the Property  
Amber

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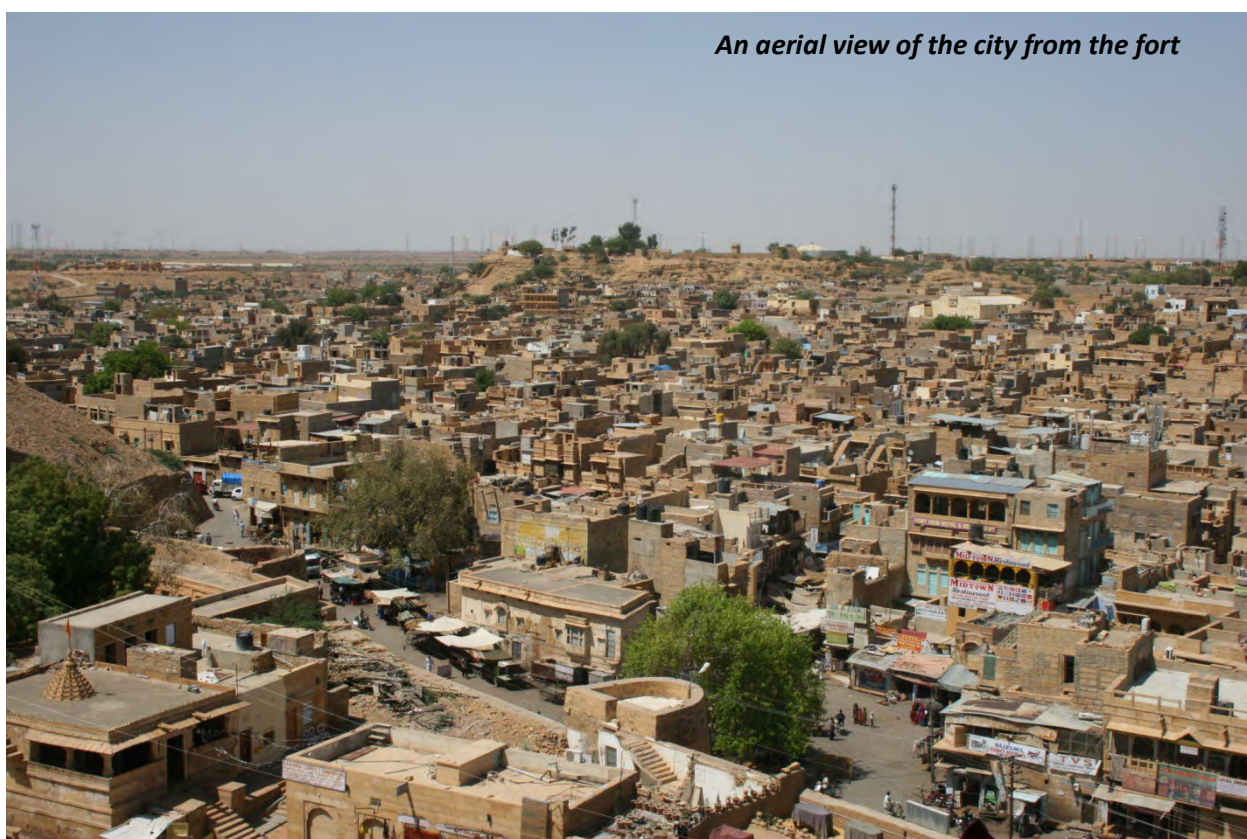
Front View of Amber Palace



Wall paintings at Rang Mahal

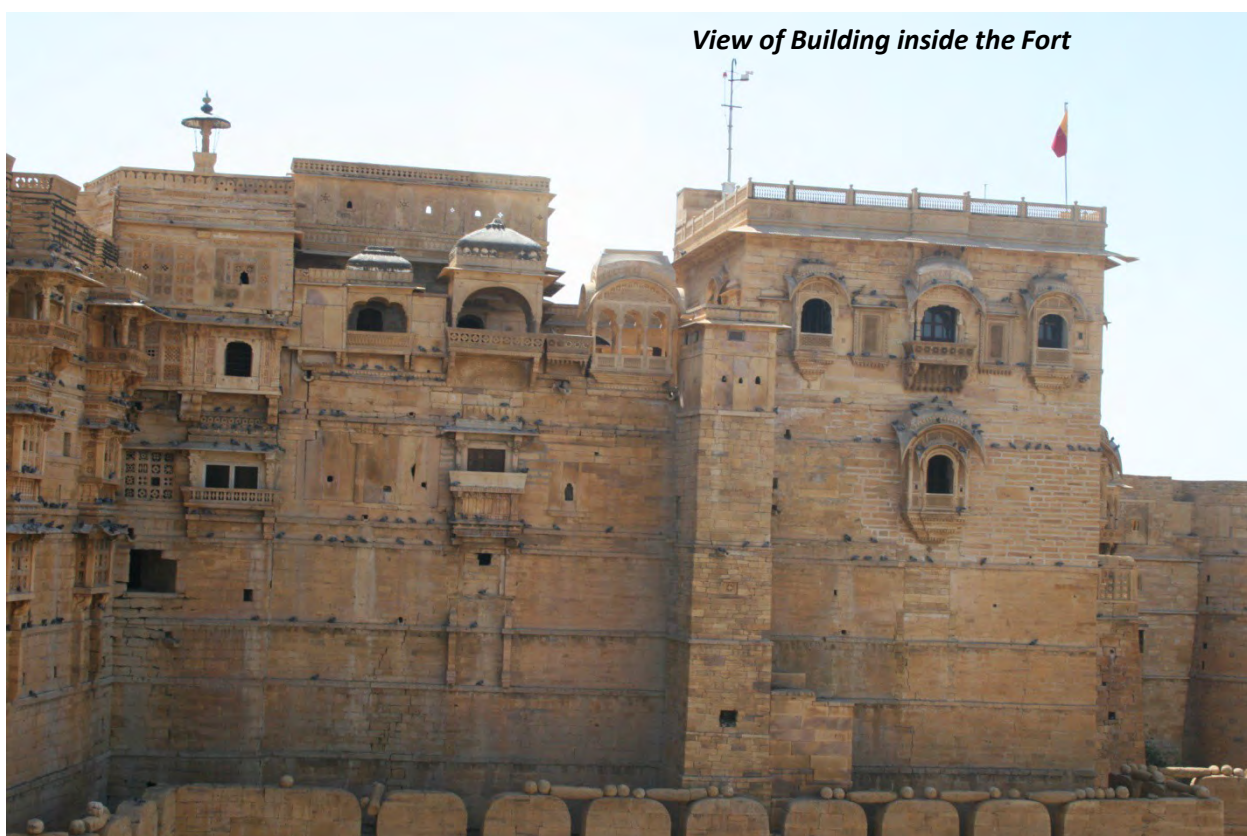


Appendix I  
General Photographs of the Property  
Jaisalmer





Appendix I  
General Photographs of the Property  
Jaisalmer





Appendix I  
General Photographs of the Property  
Jaisalmer





Appendix I  
General Photographs of the Property  
Jaisalmer

*Bastion*





Appendix I  
General Photographs of the Property  
Jaisalmer





Appendix I  
General Photographs of the Property  
Jaisalmer





Appendix I  
General Photographs of the Property  
Jaisalmer



*View of Jaisalmer Temple*

## Appendix II

### Letters of authorization for photographs







**Development and Research Organisation for Nature, Arts and Heritage**

A-258, South City - 1, Gurgaon - 122001, Haryana  
Tel: (0124) 2381067, 4082081, Fax: (0124) 4269081  
Email: dronah@gmail.com, website: <http://www.dronah.org>

**Letter of Authorisation**

1. I, Dr. Shikha Jain the undersigned, hereby grant free of charge to UNESCO the non-exclusive right for the legal term of copyright to reproduce and use in accordance with the terms of paragraph 2 of the present authorisation throughout the world the photograph(s) and/or slide(s) described in paragraph 4.

2. I understand that the photographs (s) and/or slide(s) described in paragraph 4 of the present authorisation will be used by UNESCO to disseminate information on the sites protected under the World Heritage Convention in the following ways:

- a) UNESCO publications;
- b) Co-editions with private publishing houses for World Heritage publications: a percentage of the profits will be given to the World Heritage Fund;
- c) Postcards - to be sold at the sites protected under the World Heritage Convention through national parks services or antiquities (profits, if any, will be divided between the services in question and the World Heritage Fund);
- d) slide series - to be sold to schools, libraries, other institution and eventually at the sites (profits, if any, will go to the World Heritage Fund);
- e) Exhibitions, etc.

3. I also understand that shall be free to grant the same rights to any other eventual user but without any prejudice to the rights granted to UNESCO.

4. The list of photograph(s) and /or slide (s) for which the authorisation is given is attached. (Please describe in the attachment the photographs and give for each a complete caption and the year of production or, if published, of first publication.)

5. All the photographs and or/slides will be duly credited. The photographer's moral rights will be respected. Please indicate the exact wording to be used for the photographic credit.

6. I hereby declare and certify that I am duly authorized to grant to the rights mentioned in paragraph 1 of the present authorisation.

7. I hereby undertake to indemnify UNESCO, and to hold it harmless of any responsibility, for any damages resulting from any violation of the certification mentioned under paragraph 6 of the present authorization.

8. Any differences or disputes which may arise from the exercise of the rights granted to UNESCO will be settled in friendly way. Reference to courts or arbitration is excluded.

Dr. Shikha Jain  
Director, DRONAH

## Appendix III

### Letters of support





Dr. Madhuri Desai  
Assistant Professor of Art History  
and Asian Studies  
Department of Art History  
237 Borland Building  
The Pennsylvania State University  
University Park, PA 16802  
Telephone: (814) 865 4885  
Email: [msd13@psu.edu](mailto:msd13@psu.edu)

January 10, 2011

To Whom It May Concern,

### Hill Forts of Rajasthan

I write in strong support of the nomination of the "Hill Forts of Rajasthan," to UNESCO's list of World Heritage sites.

The serial property termed as the "Hill Forts of Rajasthan" are a set of five fortress sites located at Chittorgarh, Kumbhalgarh, Ranthambore, Gagron and Amber in the north-western Indian state of Rajasthan. Strategically located at sites along the western Aravalli mountain range, these forts are authentic representations of the military architecture of warrior Rajput groups. Their formal qualities are a testimony to the development of Rajput ideology as these groups engaged in conflict and alliances with various Indo-Islamic regimes from the Sultanate and Mughal periods. Whereas each site is unique, they represent innovations in defensive architecture as well as showcase aspects of assimilation as foreign influences were incorporated in their planning.

The forts remain cultural and architectural symbols for a region of princely states. Each fort also represents a particular cultural and geographic zone within Rajasthan and is of outstanding value. Their incorporation in the World Heritage List will greatly enhance an existing inventory of fortified sites.

Sincerely,

Madhuri Desai



January 10, 2011

**To Whom It May Concern:**

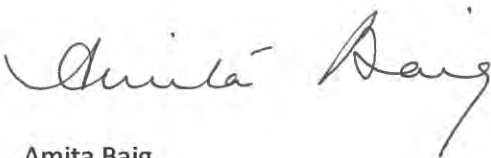
I am writing to express my heartfelt support for the nomination of the Rajput forts at Chittor, Ranthambore, Amber, Gagron and Kumbhalgarh for World Heritage Site status. Apart from the obvious quality of the fort architecture, the Hindu and Jain temples at the sites are beautifully illustrative of the evolution of north Indian Nagara temple architecture. Chittor contains lush remains from the 8<sup>th</sup> and 9<sup>th</sup> centuries, and the 12<sup>th</sup>-century Samiddheshvara temple is a pristine example of the Shekhari mode of Nagara at the climax of its development. Numerous 15<sup>th</sup>-century shrines at Chittor and at Kumbalgarh exemplify the Shekhari and Bhumija modes. The 17<sup>th</sup>-century temples of Amber, including the spectacular Jagat Shiromani, show the continuing significance of Shekhari forms.

**Adam Hardy**  
**Professor of Asian Architecture**  
Welsh School of Architecture  
Cardiff University  
Bute Building  
King Edward VII Avenue  
Cardiff CF10 3NB  
Wales UK  
Tel +44(0)29 2087 5982  
E-mail: [HardyA@cf.ac.uk](mailto:HardyA@cf.ac.uk)  
[www.prasada.org.uk](http://www.prasada.org.uk)

Tuesday, 11 January 2011

The Hill Forts of Rajasthan are outstanding representatives of the medieval military architecture of India. This series of medieval and post medieval forts of Kumbhalgarh, Chittorgarh, Ranthambore, Gagron and Amber stand as testimony to the valour and rich cultural legacy which defined medieval Indian history. The formations of Rajput princely states, their battles, conflicts, alliances and cultural ethos have profoundly influenced India and remain a rich and unique cultural and architectural legacy. The development of forts across Rajasthan reflects the finest tenets of Indian fort construction. These are especially important because of their distinctive architectural style which has, and continues to influence much of India's architectural vocabulary.

The inscription of these Hill Forts on the World Heritage List will contribute greatly to the representation of forts and fortifications in the World Heritage. I fully endorse this nomination and hope that a successful World Heritage inscription of these 5 forts will serve to enhance community awareness and local governance and thus motivate many other forts in Rajasthan to meet the challenges of conservation and management and thus be included this serial nomination.



Amita Baig

Heritage Management Consultant

Rima Hooja (Ph.D)  
11, Uniara Garden,  
Jaipur – 302004

13<sup>th</sup> January 2011

## **ENDORSEMENT TOWARDS RAJASTHAN'S HILL FORTS BEING INCLUDED IN THE WORLD HERITAGE LIST**

The modern-day Indian State of Rajasthan has had a long history, and encompasses a rich tangible as well as intangible heritage. This includes, among other things, Rajasthan's forts, palaces, step-wells, musical and literary heritage, and art.

The five (5) 'Hill Forts of Rajasthan' that have been selected for nomination for the World Heritage List, namely, Amber, Chittorgarh, Gagron, Kumbhalgarh, and Ranthambore, are rare masterpieces in which the concept of a fortified defensive Rajput hill fortress cum habitational centre have been blended. Thus, with their bastions, strong fortification walls, and traditionally difficult approaches, the forts serve as examples of Rajasthan's defence-related architecture, within the walls of which there were also palaces, a citadel area, step-wells and other water-structures, granaries, royal gardens, mansions of the elite along with humbler dwellings of those providing service, elephant and horse stables, arsenal, temples, public buildings, shops, and some limited area for farming and orchards. The forts also epitomise the resistance – often unto death – of the Rajput clans who held the different forts against invaders and attackers. While following the traditionally 'received' and/ or evolved notion of Rajput Hindu fort architecture, these hill forts also reflect elements of the subsequent assimilation of non-local influences in palace architecture and fort-planning, which have resulted in structures that are special to the region.

Each of the five selected hill forts is of Outstanding Universal Value with advanced construction techniques that have exploited natural contours for defense purposes, unique social associations with Rajput courtly life, highly sophisticated and evolved examples of secular Hindu Rajput architecture, and technological adaptations - including for water-collection and long and short-term storage and use - utilizing a wealth of natural resources in a remarkable (mostly but not solely semi-arid and arid) geographical setting.

These five (5) Hill Forts should mark the beginning of the serial nomination that inspires several more remarkable and representative forts to be added to the list of World Heritage Sites.

Rima Hooja (Ph.D)



## Appendix IV

Chronology (1206 – 1526 AD) (Source: Nossov & Delf 2006, p.17)



# Chronology

- 1206** Assassination of Muhammad of Ghur, Afghan ruler who had conquered northern India. His vicegerent in India, Ghulam (Arabic for 'slave') Qutb-ud-din Aibak, declared his independence and founded the first Muslim dynasty of the Delhi Sultanate, the so-called Slave dynasty
- 1206–10** Rule of Qutb-ud-din Aibak
- 1206–90** Rule of the Slave dynasty
- 1210–36** Rule of Iltutmish, who managed to unite the whole of northern India, from the Indus valley in the west to the lower reaches of the Ganges in the east, under the control of the Delhi Sultanate
- 1221** The first appearance of the Mongols in India when they sacked western Punjab, Sind and northern Gujarat
- 1241** Mongol invaders captured Lahore, killing nearly all its inhabitants and levelling the town walls to the ground
- 1246** The Mongols took Uch and Multan
- 1266–87** Rule of Balban who consolidated central power, put down armed uprisings and repelled several Mongol invasions
- 1290–96** Rule of Jalal-ud-din Firuz Shah who founded the Khalji dynasty
- 1290–1301** Several campaigns to seize Ranthambhor Castle, which was finally captured by Ala-ud-din Khalji in 1301
- 1290–1320** Rule of the Khalji dynasty
- 1292** Another Mongol invasion
- 1294** Ala-ud-din Khalji, the nephew of Firuz Shah, marched to the Deccan and returned with huge booty
- 1296–1316** Rule of Ala-ud-din Khalji who managed to subjugate all Hindustan with the exception of Bengal
- 1297–1307** The Mongols invaded several times and threatened Delhi, but Ala-ud-din Khalji repeatedly beat them back. 1308 marks the end of Mongol incursions into the territory of the Sultanate territory
- 1300–01** Siege of Ranthambhor Castle by the army of Ala-ud-din Khalji.
- 1303** Ala-ud-din Khalji builds Siri, a new, so-called second city of Delhi. Chittorgarh besieged by Ala-ud-din Khalji
- 1305** Ala-ud-din Khalji conquered Malwa
- 1307–11** Malik Kafur, a general and slave of Ala-ud-din Khalji, led a campaign in the Deccan and southern India
- 1320** Ghiyath-ud-din Tughluq, a commander in Ala-ud-din Khalji's army, seized the throne of the Delhi Sultanate
- 1320–1414** Rule of the Tughluq dynasty
- 1320–25** Rule of Ghiyath-ud-din Tughluq, who built Tughluqabad, the third city of Delhi, as well as a splendid tomb for himself near the fortress
- 1325–51** Rule of Muhammad bin Tughluq, the builder of Delhi's fourth city, Jahanpanah, and erector of a new fortress, Adilabad, near the town-fortress of Tughluqabad
- 1328** Muhammad bin Tughluq transferred the capital from Delhi to Daulatabad
- 1334–78** Muslim kingdom of Madurai founded in the extreme south of Hindustan
- 1336** Vijayanagar Empire founded in the south of Hindustan
- 1337** Delhi became the capital of the Delhi sultans again
- 1347** Bahmani kingdom founded in the west of the central Deccan.
- 1351–88** Rule of Firuz Shah Tughluq, who built Delhi's fifth city (Firuzabad)
- 1388–1414** Decay of the Delhi Sultanate. Many provinces declared their independence.
- 1398–99** Timur invaded India. A terrible carnage in Delhi and many other towns of north-western India
- 1414–51** Rule of the Sayyid dynasty, whose power remained weak
- 1451–1526** Rule of the Lodi dynasty
- 1482–1512** Bahmani kingdom disintegrated into separate Muslim kingdoms of Ahmadnagar, Golconda, Berar and Bidar
- 1498** Arrival of the Portuguese squadron led by Vasco da Gama
- 1526** Babur defeated the last Delhi sultan, Ibrahim Lodi, in the battle of Panipat; end of the Delhi Sultanate and the foundation of the Mughal Empire

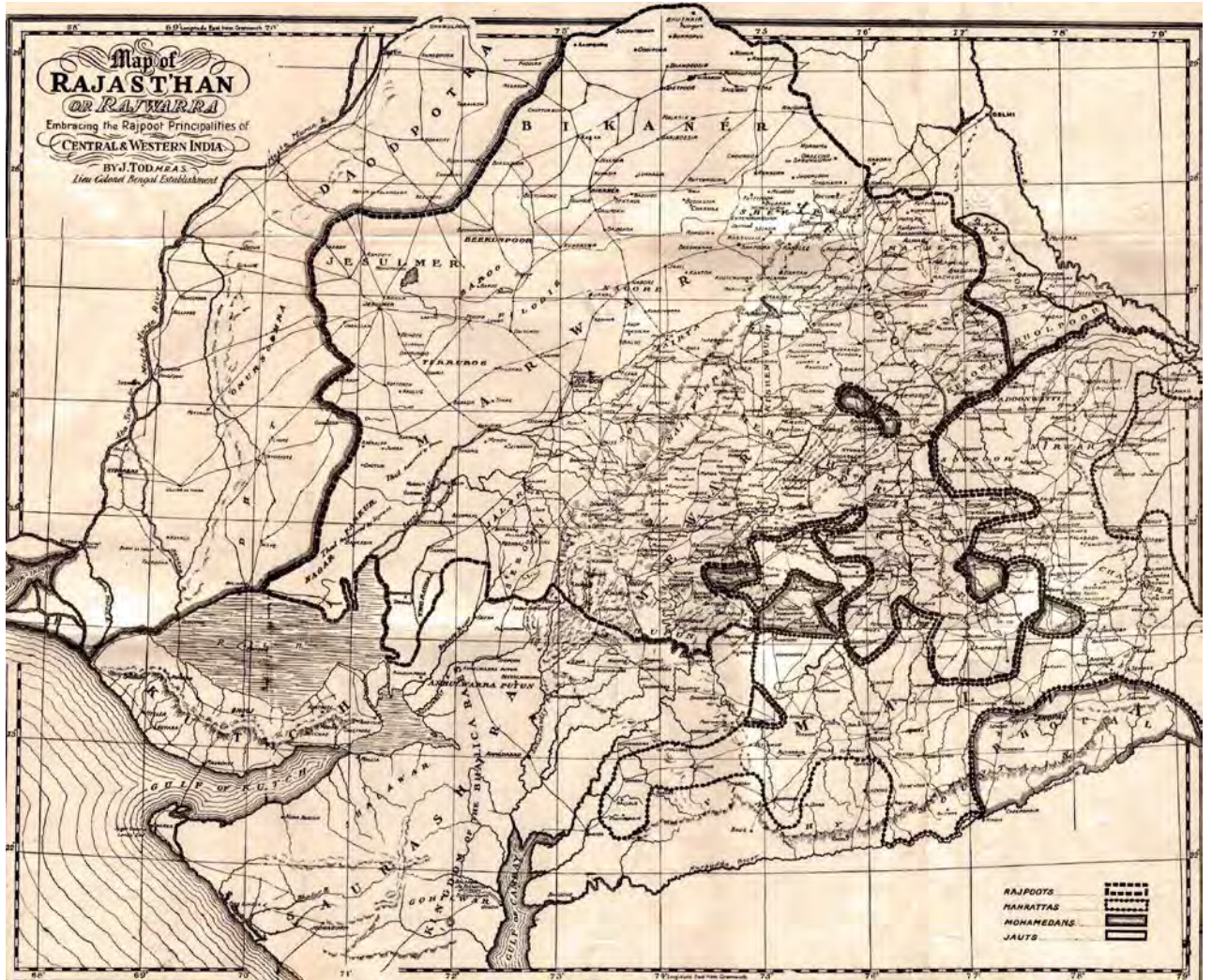
## Appendix V

### 19<sup>th</sup> Century Map of Rajasthan





Appendix V  
19<sup>th</sup> Century Map of Rajasthan



Map of Rajasthan by Lt. Col. James Tod that depicts the Rajput principalities of western and central India in the 19th century. The major part of the region that forms current Rajasthan is shown under Rajput control, while there are pockets held by Marathas, Jats and Muslims.

# Appendix VI

## Glossary



## Appendix VI

### Glossary

angan	courtyard
antarala	antechamber
bagh	garden
baori	well
bund	dam, local term for embankment
burj	tower, bastion built as a part of fortification
baradari	a semi- covered veranda with twelve columns
baroodkhana	arsenal; storehouse for gun powder
bhandar	treasury for valuables and personal wealth
bhojanshala	dining hall
chajja	sunshade
charbagh	'fourfold garden'; formal garden quartered by water channels
chattri	small open pavilion, typically with four to eight columns supporting a dome, cenotaph
chogania	open ground for playing chaugan, a game played by horse riders
chowk	courtyard
chowkidar	guard
dalan	semi covered area
dargah	burial place of a Muslim saint
darwaza	gate or door
deorhi	entrance to a royal house
diwani-i-am	hall of public audience
diwani-i-khas	hall of private audience
darbar	court
dwar	entrance /exit gate
garbha griha	part of a temple where idol is placed, inner sanctum of a temple
garh	fort
giri durg	hill fort
hammam	traditional bathing houses
haveli	a generic name for a house constructed around courtyards
jagir	small territory granted by a king to his commander or general in gratitude for his services
jala durg	fort secured by a water body
jaleb chowk	a courtyard where guards stay and paraphernalia is arranged
jali	mesh or perforated screen in stone, wood, metal or other materials
jharoka	small balcony with columns supporting a hood
jauhar	an act of group immolation by the women, children and other dependents of a besieged fort or town, performed as a last resort, when it was realized that holding out against the enemy was no longer possible, and with no help in sight, death seemed the only honourable way out of the impasse.
kanguras	crenellations/merlons
khameera	lime wash typical of Jaipur traditional architecture
kachehri	office, court
kund	tank
mahal	palace, apartment within a palace
mandir	Hindu temple or a special palace space
mardana	men's quarters in a palace
masjid	Mosque
nakkhar khana	Space for announcements with an instrument called 'Naubat' /Naqqara, drum house above gate
naubat khana	royal drum house, a space above the gate to announce visitors
pol	gateway
ragas	organization of musical notes in a composition in Indian classical music
sabha	court
sabha mandapa	a pillared assembly hall
sati	ultimate sacrifice of a wife in a traditional custom of immolation on a husband's funeral pyre
shaka	it was the practice of population of fighting men of a besieged place to wear saffron clothes (kesariya) and charge defiantly onto the battle-field for one last time, and fight to the very end as befitted a warrior, following the act of jauhar by the women,



## Appendix VI

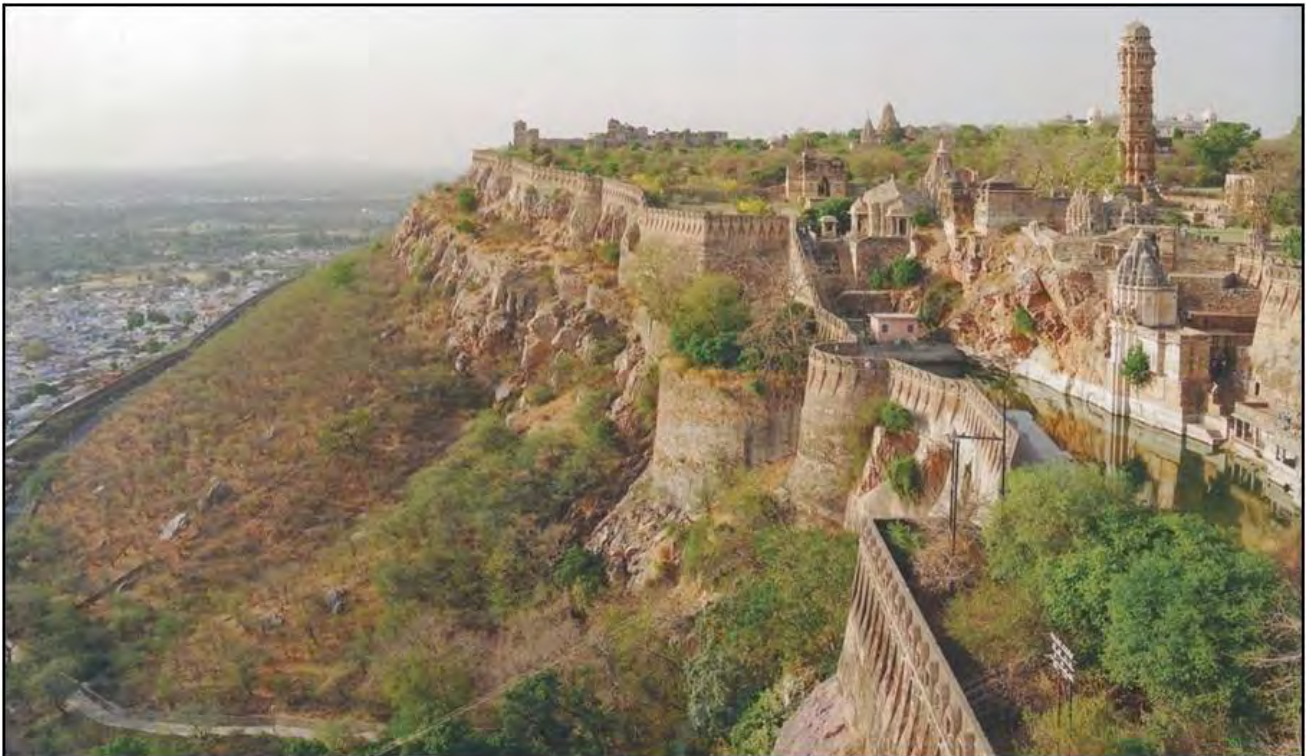
### Glossary

sheesh mahal	'glass palace'; apartment decorated with mirror work
shikhara	temple tower over shrine area
silehkhana	armoury
qila	fort
qiledar	guardian of the fort
talab	lake/pond
talas	predisposed arrangement of beats in a certain tempo in Indian classical music
topkhana	cannon store
tripoliya	triple openings/chambers
vana durg	forest fort
zenana	women's quarters in a palace or house
surkhi,gur,malba, kharanja,zeera,kara, methi gugal, gondh, masaldar,bel	terms used locally for traditional construction materials

Appendix VII

Status Report

**CHITTORGARH FORT  
KUMBHALGARH FORT  
RANTHAMBORE FORT  
JAISALMER FORT**



## **FORT OF CHITTOR AS A WHOLE DISTRICT- CHITTORGARH**

**(2010-11)**

It is one of the biggest and longest fort of the country which represented the real culture of the Mewar. In ancient days, it was known as Chitrakuta Durga and ruled by several dynasties such as the Moris or Mauryas (7-8<sup>th</sup> Cent. AD), Pratihara (9<sup>th</sup> Cent. AD), Parmaras (10-11<sup>th</sup> Cent. AD), Solankis (12<sup>th</sup> Cent. AD) followed by the Guhilots or Sisodias. The fort is also witness for three jauhars, performed by the Rajput Queen's and princess.

The construction of present fort ascribed to Chitrangada of the Mori dynasty which comprises several temples, towers, palaces, chhatris, mosque, reservoirs and bazaars, etc. belonging to Circa 7<sup>th</sup> century AD to late medieval period. Besides Brahmanical cult. A few Jaina and Buddhist remains are also there. The fort has a massive fortification wall provided with bastions and gateways known as Padal Pol, Bharav Po, Hanuman Pol, Ganesh Pol, Jorla Pol, Lakshman Pol and Ram Pol. The eastern side gateway is known as Suraj Pol.

### **Facilities and Environment Development**

1. Provided name of plates of bilingual character in matching sand stone to each and every monument of Chittaurgarh fort.
2. Guide map of matching sand stone has been provided near the view point for the convenience of tourists.
3. Land mark stones for prohibited/regulated area have also been provided in all direction for the awareness of local people about the protected limit of the monument and also of exact distance of prohibited/regulated area of the monument in the light of AMASR (Amendment & Validation) Act, 2010.
4. Provided sign board of booking office in matching sand stone near the booking office.
5. General cleaning and sweeping of the monument and its premises have been undertaken by casual worker/part time sweeper, besides Monument Attendants are performing round the clock duty for watch and ward of the monument, museum gallery, store, etc.
6. Provided two touch-screen kiosks to provide more information to the visitors.

### **Conservation Measures**

#### **Sukhadia Tank**

The missing and badly damaged steps of the tank has been restored with the help of combination material while the bulged out portion of the support wall and the base were dismantled and reset with the help of new one as well as old members in combination members as per the original.

#### **Ratan Singh Palace**

1. The work like pointing, underpinning and patch plastering work of the façade of Ratan Singh Palace was undertaken with the help of combination materials besides repairing work of Kangooras and parapet, etc.



2. The badly damaged and missing chhajja stones have been replaced by new one as per the original besides replacement of moulded railing of the balconies.
3. The fallen portion of northern and eastern side wall has been repaired with the help of combination materials and matched them as per the original.
4. The dead and decayed lime plaster of the façade of the bastion has been removed and a fresh coat of lime plaster were provided as per the original.

#### **Fortification wall and adjoining structures**

In continuation of previous year's of restoration and conservation of the damaged portion of the fortification wall between Mrigvan to northern side restored the remaining portion of Deer Park and also further raised the height of the fortification wall. The pointing was done with the help of lime mortar, after removing the sunken vegetation.

General cleaning and sweeping of each and every monument within the fort including public toilets have been part time sweepers/casual beldars, besides round the clock duty of the monument and store is performed by Monument Attendants and private security guards.

#### **Archaeological Survey of India**

#### **Showing the on going works at Chittourgarh Fort during 2011 – 12**

<b>S. No.</b>	<b>Name of on going work</b>	<b>Year</b>	<b>Remarks</b>
1	Special repair work of Sukhadiya tank	2011-12	On going work completed
2	Special repair work of Laxmi temple and repair to adjoining structure	* do *	* do *
3	Special repair work of Ratan Singh Palace complex	* do *	On going work is likely to be completed
4	Construction of toilet and store-cum inspection room (O.W. Plan)	* do *	On going work completed
5	Special repair work of Top Khana Building and display at Canon and Sculpture	* do *	The work likely to be completed.

## **CONSERVATION WORK CARRIED OUT IN LAST FIVE YEARS AT CHITTORGARH FORT, CHITTAUYRGARH, DISTT. CHITTAURGARH**

**Year : 2006 – 07**

Restoration work of fortification wall, Hathiya baori and ruined structures is completed.

R. R. stone masonry work is done at Suraj Pole Gate and Gora Badal Mahal.

**2007 – 08**

Nil

**2008 – 09**

The Fatta Haveli has been conserved, its landscaping is done and main entrance gate is repaired by providing ramp and pathway in front of the gate. Grill fencing is provided to haveli complex. The small portion of the Sukhadiya tank is also conserved.

**2009 – 10**

**Padmini Palace Complex :** The missing and badly damaged Kangooras of the Chhatri have been restored as per the original with the help of combination materials.

The dead and decayed lime plaster of the chhatris dome was removed and a fresh lime paster has been provided as per the original.

The badly damaged portion of the base of the chhatri has been restored with the help of combination materials.

**Northern side Gate :** The uneven and sunken stone flooring of the gate was removed and laid fresh stone slabs with the help of new as well old stones, after giving proper slop as per the original.

The work like stitching of cracks, under pinning and water tightening was done wherever necessary.

Provided M.S. grill gate was per the matching design of the arch. to restrict the entry of animals and unwanted elements.

Fag stone flooring has been provided to back side gate of the Padmini Palace.

**Fortification Wall :** The dilapidated and badly damaged portion of the fortification wall between Mriga-Van to northern side was restored as per the original with the help of combination materials. The pointing was done from inner side of the fortification wall while top portion of the wall was water tightened, after removing the rank vegetation.

**2010 – 2011**

Resetting of the out of plumb steps of Sukhadiya tank is in progress.

Restoration work of stone masonry wall at northern and eastern side is completed.

Dismantling the old broen chajjas and provided new one as per original.

**Showing the proposed works at Chittourgarh Fort during  
financial year 2012-13 to 2016-17**

<b>S. No.</b>	<b>Name of work</b>	<b>Year</b>	<b>Remarks</b>
1	Repairs to Vijay Stambh with adjoining temples & structures and providing dwarf wall with M.S. Railing	2012-13	Under pinning and water tightening of temple and structure and construction of dwarf wall & providing M.S. railing etc. complete and <b>the work is in progress.</b>
2	Repairs Sukharia Tank (Phase –I)	* do *	Providing fixing veneer/faced stone, dab stone of ghats and recess pointing etc complete and <b>the work is in progress.</b>
3	Conservation work of Kumbha Palace with providing and fixing missing kangura and chhaja stone	* do *	Providing kangura and chhaja stone and recess pointing and water tightening of top of wall etc complete.
4.	Restoration of fallen portion of fortification wall in Mrigvan (eastern side)	*do*	Restoration of fallen stone fort wall, recess pointing and top water tightening with combination material etc. complete <b>and the work is likely to be completed shortly.</b>
5	Repairs to ancient fort wall near more magari	2013-14	Restoration of ancient fort wall and recess pointing and top water tight etc complete.
6	Restoration and conservation of manpur-bhanpur haveli	* do *	Restoration of haveli wall and water tightening and respointing etc complete and providing laying lying concrete flooring.
7.	Repairs to Sukharia Tank (Phase-II)	*do*	Providing fixing veneer/faced stone, dab stone of ghats and recess pointing etc complete
8.	Restoration of damaged and bulged portion of fortification wall in Mrigvan (western side)	*do*	Restoration of fallen stone fort wall, recess pointing and top water tightening with combination material etc. complete
9.	Repairs to Ratan Singh Palace complex	*do*	Restoration of lime concrete mortar floor after removal of dead lime concrete in open court yard in the complex, minor repairs to the



			adjoining structures etc.
10.	Minor repairs, development & providing safety measures to Gomukh Kund and surrounding area	*do*	Conservation work of the exposed shrines nearby Math, providing M.S. railing around the Gomukh Kund, minor repairs to the staircase of the kund and environment development work at the surrounding area etc.
11.	Restoration and conservation work of ghee-teel ki baori	2014-15	Preparing of roof and arches and providing approach as per original etc complete.
12.	Repairs to seven polls/entry gate and temple near Rampol gate	* do *	Roof water tightening and repair of woodn gate and chang the damaged cracked ashlar stone and providing wire mes jail at temple etc complete.
13.	Special repair work of Suraj Pol and adjoining gate and providing approach path way	2015-16	Preparing of roof and arches and providing approach as per original etc complete.
14	Repairs and conservation work of remaining part of Ratan Singh Palace	* do *	Restoration of tilted wall and roof providing fixing expended mettlet jali to avoid the bidets.
15	Repairs & conservation work of chhatrang talab, temple and shrines	* do *	Restoration of R.R. masonry wall and water tightening of top of wall etc complete.
16	Special repairs to Padmani palace and providing missing kangura and chhaja stone	2016-17	Providing some new kanguras as chhaja stone at water tightening of wall etc.
17.	Repairs to Baghria talab and chhatri at Chittourgarh Fort.	* do *	Restoration of damaged wall and chhatri and water tightening of pal and laying lying concrete on base of tank for storage of raining water.

## **KUMBHALGARH FORT, DISTRICT RAJSMAND**

**(2010-11)**

Attributed to Rana Umbha, this fort was built under supervision of famous architect Mandan between AD 1433 and 158. It is believed that it was built over the remains of an earlier structure associated to Jaina prince Samprati of the second century BC. The fort is defended by a series of bastions at regular intervals. Entered through Aret Pol, Halla Pol and Hanuman Pol from the south, one can reach to the Ram Pol and Vijay Pol, the main entrance of the fort. The palatial complex at the top of fort is approached through Bhairon Pol, Nimboo Pol and Pagra Pol. There is another entrance on the east known as Danibatta which connects Mewar from Marwar region. Important Brahmanical and Jaina shrines within the fort are Vedi Temple, Neelkantha Mahadeo Temple, Charbhuj Temple, Ganesh Temple, Bawan Devris, Pitaliya Shah Temple, Parsvanatha Temple, Golerao Group of Temples and other miniature shrines. The other important buildings are the Birth Place of Maharana Pratap, Ruins of Kumbhal Places, Badal Mahal, Royal Chhatris, Baoris and Water Reservoirs. Badal Mahal is one of the important and attractive building built by Rana Fateh Singh (AD 1884-1930).

### **Facilities and Environment Development**

1. The newly prepared protection notice board of bilingual character in metal sheet has been provided near the main entrance of the site in place of old one as it clearly defines the prohibited/regulated area of the site in the light of latest AMASR (Amendment & Validation) Act, 2010.
2. Bilingual cultural text engraved over matching sand stone slab with carved designs have been provided on either side of the guide map.
3. Provided different slogan boards of bilingual character in matching sand stone at convenient points to remind people about the right heritage of our composite culture.
4. Provided name plates of bilingual character in matching sand stone to each and every monument of the fort.
5. Provided bilingual notification tablets of matching sand stone on either side of the lofty gateway.
6. Marker stone for prohibited and regulated area was also provided in all directions just to guide local villagers not to undertake any construction activities in these areas.
7. Provided direction boards, parking board, ticket window board in matching sand stones.
8. The toilet blocks are now become functional and opened for tourists after getting water connection from the tube well of Horticulture Branch on temporary basis.
9. Provided touch-screen kiosk to provide more information to the visitors.

### **Conservation measures**

The surrounding area of the Badwa Baori was completely made neat and clean, after attending the work like resetting of the bulged out portion, pointing and water tightening with the help of combination materials and matched them as per the original.

In continuation of previous year's work, the remaining portion of badly damaged steps of Reservoir No. 2 (western part) were restored in its original condition while the bulged out portion of the well was also dismantled and reset with the help of new as well as old stones in combination mortar.

General cleaning and sweeping of the monuments and its premises have been undertaken by casual workers/part time sweepers besides engagement of armed security guards for day and night watch and ward of monuments, stone and sculpture shed, etc.

The light and sound show (in Hindi) has been running in the evening by RTDC since 26.9.2010.

**Archaeological Survey of India**

**Showing the on going works at Kumbhalgarh Fort**

**Distt. Rajsmand during 2011-12**

<b>S. No.</b>	<b>Name of work</b>	<b>Year</b>	<b>Remarks</b>
1	Special repair work of Hamir mahal	2011-12	Accumulated malba has been removed and work is in progress.
2	Special repair work of Jain temple	* do *	On going work is in progress and likely to be completed within the financial year 2012-13.
3	Special repair work of Laxminarayan temple. Batish Khambha. Chhatri and tomb/Mosque opposite Ganesh temple	* do *	-do-



**1. CONSERVATION WORK CARRIED OUT IN LAST FIVE YEARS AT  
2. KUMBHALGARH FORT, DISTRICT RAJSMAND**

**Year : 2006 – 07**

Provided pathway between water vodies, Mamadev temple and Bawan Deori.

**2007 – 08**

The plat form of the Sun temple in the fort was exposed and reset as per original. Restored the Sabhamandapa & Mukhamandapa by fixing lintel, capital and ring stones.

**2008 – 09**

Conservation of mandapa of Sun temple is taken up and the work is almost completed. The huge dam of water reservoir is being repaired, about half of the portion is already conserved and the work is under progress.

**2009 – 10**

**Badva Baori :** The bulged and out of the baoli has been dismantled and re-set layer by layer with the help of new as well as old stones matching with the original in combination mortar. However, the debry clearance work was undertaken towards north-east corner of the baoli and found the remains of water tank for animals (locally called Kheli), which was restored with the help of combination material.

**Reservoir no - 2:** The missing and badly damaged steps of reservoir have been restored with the help of combination materials, while the bulged out portion of wall were dismantled and reset as per the original. The badly damaged support wall was repaired with the help of combination material.

For the development of sites, the basic facilities like drinking water, toilet, bilingual notification tablet, bilingual cultural notice boards in matching sand stone, rainbow type stone benches, stone built suggestions boxes, slogans boards, direction boards in matching sand stone.

**2010 – 11**

Restoration of baori and surrounding area is in progress and the restoration work of reservoir with steps and flag stone is completed.

Provided cultural text board, protection notice board, signages and slogans etc is completed.

Nouchoki, District Rajsmand : Provided marble stone benches, cultural text board, protection notice board, signages and slogans etc is completed.

Rakt Talai, District Rajsmand: Provided stone benches, cultural text board, protection notice board, signages and slogans etc is complete.

Badshahi Bagh, District Rajsmand : provided stone benches, cultural text board, protection notice board, signages and slogans etc is complete.

Chetak Samadhi, District Rajsmand : Provided stone benches, cultural text, board, protection notice board, signages and slogans etc is complete.

**Conservation, Restoration and Development work of Kumbhalgarh Fort Distt. Rajsmand****(Five year prospective Pan)**

<b>S. No.</b>	<b>Name of work</b>	<b>Year</b>	<b>Remarks</b>
1.	Restoration & conservation of water reservoir No.(2) eastern part	2012-13	Dismantling of bulged and disposed out of plump masonry and reset and conserve as per original and the work is in progress and likely to be completed shortly.
2.	Restoration of remaining part of water reservoir No.(2)	2013-14	Dismantling of bulged and disposed out of plump masonry and reset and conserve as per original.
3.	Restoration of remaining part of water reservoir No. (3)	*do*	Dismantling of bulged and disposed out of plump masonry and reset and conserve as per original.
4.	Repairs to Vijay Pole gate complex	* do *	Conservation damaged portion water tightening pointing etc complete.
5.	Exposing and Conservation of ruined structure around Gole Rao groups of temple	2014-15	Exposing of ruined structure and conserved consolidated pointing and water tightening proposed.
6.	Providing Path way connecting to Vijay Pol	* do *	Construction of R.R. masonry path way over a bed of lime concrete with water tightening etc complete for easy movement of heavy rush of visitors.
7.	Restoration and Conservation of exposed Bawari near Mamodeo temple	2015-16	Dismantling of bulged and disposed out of plump masonry and reset and conserved as per original and water tightening pointing.
8.	Repairs to Chamunda Devi temple near Badal Mahal	2016-17	Conservation of damaged portion water tightening, pointing to chechsepage of rain water etc.
9.	Restoration and Conservation of Collapsed fortification wall northern side	* do *	Resetting of collapsed wall as per original with water tightening and pointing etc complete.

## **RANTHAMBHOR FORT, DISTRICT SAWAI MADHOPUR**

**(2010-11)**

This fort is one of the strongest forts of India which formed significant part of the Chahamana kingdom of Shakambhari. It is said to have been constructed by Maharaja Jayanta in 5<sup>th</sup> century AD. The Yadavas ruled over it till they were expelled by Prithviraj Chauhan in 12<sup>th</sup> century AD. Hammir Deo (AD 1282-1301) was the most powerful ruler of Ranthambhor who patronized art and literature and fought bravely against Alla-ud-Din Khilji during a siege in 1301AD subsequently, the fort was occupied by Sultans of Delhi. Later on, it came under control of Rana Sanga (AD 1509-27) and the Mughals.

The fort is situated amidst of tiger sanctuary and is well strengthened by massive fortification provided with seven gateways, namely Navlakha Pol, Hathia Pol, Ganesh Pol, Andheri Pol, Suraj Pol, Delhi Pol and Sat Pol, important monument inside the fort are Hammir Palace, Rani Palace, Hammir Badi Kachehari, Chhoti Kachehari, Badal Mahal, Battiss Khambha Chhatri, Jhanwara-Bhanwra (granary), mosque, Hindi temples, beside, Digamber Jain Temple and a Dargah. Ganesh Temple is the most visited shrine inside the fort.

### **Facilities and Environment Development**

1. Provided guide map in matching sand stone near the camp office for the convenience of tourists.
2. Number of suggestion boards in bilingual character has been provided near water tanks (talabs) and monuments for awareness of tourists.
3. Direction boards of matching sand stone have been provided at convenient points inside the fort.
4. Provided a large size direction notice board of bilingual character on the crossing of National Highway as well as other convenient points between Sawai Madhopur to fort.

### **Conservation Measures**

#### **Sat Pol**

1. In continuation of previous year's work, the bulged out member of the arch has been dismantled upto the shoulder level reset with the help of new as well as old members in combination materials and matching them as per the original.
2. The dead and decayed lime concrete of the roof has been removed and provided a sand concreting after replacing the broken beams. In this process the, parapet wall was also dismantled and then reconstructed on combination materials and matched them as per the original.
3. The R.R. stone masonry pathway between gate No. 3 to 4 has been provided in combination materials after removing the accumulated fallen and washed out materials.
4. The fallen and washed out materials accumulated between outside Sat Pol gate to the modern gate (forest side) has been completely removed upto ground level and provided a retaining wall towards hill side of comfortable height to restrict further erosion. The work like pointing resetting and underpinning was also undertaken whenever necessary in the entire complex besides providing of RR stone flooring on the ground.

#### **Raghunath Temple**



In continuation of previous year's work, the conservation and restoration work of this temple has been completed. In this process, the work like replastering, replacement of wooden beams in place of rotten beams, providing chhajja stones in place of damaged stones and flag stone flooring has been provided in front of the main gate.

### **Digambar Jain Temple**

In continuation of previous year's work, replastering of the temple has been completed as per the original. However, the fallen members of the left side chhatri has been reset in its original position with the help of new as well as old members in copper dowels, after strengthening the base of the structures. The restoration work of other chhatri is in progress.

### **Hammir Mahal**

3. Replacement of badly damaged screen jail of the front side of the palace is in progress.
4. The newly prepared bilingual protection notice board has been provided near the entrance of the compound in place of badly damaged old protection notice board as it clearly define the prohibited/regulated area of the site in the light of AMASR (Amendment & Validation) Act, 2010.
5. Provided bilingual notice board of the site in matching sand stone giving general information about the rules and regulations of Government.
6. Stone benches have also been provided for the resting of the tourists.
7. General cleaning and sweeping of the monument and its premises have been undertaken by casual worker/part time sweeper, besides the Monument Attendants performed day to day work like watch and ward duty in Hamir Palace and cap office.

## **Archaeological Survey of India**

### **Showing the on going works at Ranthambhore Fort**

#### **Distt. Sawai Madhopur during 2011-12**

S. No.	Name of work	Year	Remarks
1	Special repair work of Hamir mahal	2011-12	Accumulated malba has been removed and work is in progress.
2	Special repair work of Jain temple	* do *	On going work is in progress and likely to be completed within the financial year 2012-13.
3	Special repair work of Laxminarayan temple. Batish Khambha. Chhatri and tomb/Mosque opposite Ganesh temple	* do *	-do-

**CONSERVATION WORK CARRIED OUT IN LAST FIVE YEARS AT  
RANTHAMBHOR FORT, DISTT. SAWAI MADHOPUR**

**Year : 2006 – 07**

Restoration work of fortification wall between Badal Mahal and Delhi Gate and dismantling and reconstruction of Hamir Palace is completed.

**2007 – 08**

Nil

**2008 – 09**

Nil

**2009 – 10**

**Raghunath Temple :** The out of plumb portion of the double storied structure of the temple was dismantled and reconstructed to plumb as per the original, after replacing the broken roof slabs, beams and chajja stones. The water tightening work of the roof is in progress.

An apron was provided all around the temple in R.R. Stone and the joint were pointed in combination mortar, while platform of the temple was also restored in its original condition.

The dead and detached lime plaster of the Verandah has been replastered as per the original, after removing the dead and decayed plaster.

M.S. grill has been provided to all openings of the Verandah to restrict the entry of animals.

- **Sat Pol Gate :** The R. R. Stone masonry path way between gate no – 1 to gate no – 2 was completed in combination mortar, after removing the organic vegetation.

The out of plumb and badly damaged portion of the fortification wall (inner side) towards forest area has been restored with the help of combination materials and matched them as per original.

The fallen and washed out material (approx 2 mt.) accumulated at the east side gate was completely removed up to surface level and a retaining wall of comfortable height was constructed to restrict further erosion of the earth towards hill side. However, the restoration work of east gate of the Sat Pol gate is in progress.

**Naulakha Gate :** G.I. pipe railing has been provided between Naulakha gate to Andheri gate for the easy movement of tourist.

The approached pathway between Hathi Pol and Ganesh Pol was widen, while two resting places were developed on either side of the pathway so that tourist may take rest for some time and also take picturesque view of the forest.

- **Digambher Jain Temple** : The replacement of missing and badly damaged Chhajja stones is in progress. The dead and decayed lime plaster of the Prakara wall was removed carefully and replasters work in combination mortar is in progress.
- **Hamir Mahal** : The uneven and sunken portion of the ramp in front of the main entrance of the palace was restored with the help of combination mortar. The construction of apron of the palace is in progress.

For the development of site, the basic facilities like toilet, bilingual notification tablets, bilingual cultural notice boards in matching sand stone, rainbow type stone benches, stone built suggestion box and slogans boards in matching sand stone were provided.

#### **2010 – 2011**

- **Satpol Gate** : Repair of ancient Satpol gate no. (4).
- Provided of R. R. stone masonry path way between Satpol gate no. 3 to 4.
- **Raghunath Temple** : Replasting in lime Surkhi mortar.
- Providing & fixing the wooden sleeper under ancient root.
- Provided chajja stone where ever damaged and missing.



**Conservation, Restoration and Development work of Ranthambhore fort Distt. Sawai Madhopur**

**(Five year prospective Pan)**

S. No.	Name of work	Year	Remarks
1	Repairs the Bazar area ancient structures and providing approach road	2012-13	The work is in progress and likely to be completed in this financial year
2.	Repairs to the ancient structures near Jain Temple and providing approach pathway	*do*	-do-
3.	Special repair work of to Supari Mahal and adjoining structures	2013-14	Removal of unwanted materials laying and the structures repair damaged portion strengthening loose and bulged structures water tightening etc complete.
4.	Special repair work of Dula Mahal complex	*do*	Repairs of damaged room floor removal of decayed damaged plaster and re-plaster properly water tightening pointing as per original etc.
5.	Providing pathway leading from Ganesh temple to Jora – bora	* do *	Construction of R.R. masonry path way over a bed of lime concrete with water tightening etc complete for easy movement of heavy rush of visitors.
6.	Repairs to Jora Bora	2014-15	Repairs of damaged & decayed portion of roof plaster, repairing of floor as per original etc.
7.	Providing pathway leading the Jora Bora to Suraj Pole	* do *	Construction of R.R. masonry path way over a bed of lime concrete with water tightening etc complete for easy movement of heavy rush of visitors.
8.	Repairs to fallen portion of Hammir Mahal	2015-16	Restoration of damaged roof, floor, repairs of other structures and exposing ancient original floored etc repairs.
9	Repairs to ancient structure in between Battish Khamba to Laxminarayan temple	2016-17	Exposing the ancient structure with its repairs, water tightening, pointing repairs of ancient floor etc as per original.

10	Providing approach path way leading from Badal Mahal to Delhi gate	* do *	Construction of R.R. masonry path way over a bed of lime concrete with water tightening etc complete for easy movement of heavy rush of visitors.
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## JAISALMER FORT, DISTRICT JAISALMER

### **STATUS REPORT OF THE CONSERVATION MEASURES UNDERTAKEN BY THE ARCHAEOLOGICAL SURVEY OF INDIA AT JAISALMER FORT UNDER AST – WMF – NCF PILOT PROJECT**

**A.** Archaeological Survey of India is undertaking the Conservation and Restoration work of pitching wall, canon points and other structures of Jaisalmer Fort under Pilot Project in collaboration with World Monument Fund and National Cultural Fund (ASI – WMF – NCF PROJECT).

#### **(1) Restoration of Pitching Wall Trial Project**

An estimate of 21,10,800/- vide letter F.No.5/4/2004-C Pt. IV, dated 14.08.2007 and later on revised estimate of 28,30,000/- vide letter F.No.5-5/2009-C, dated 28.07.2010 was approved by the Director General, Archaeological Survey of India, New Delhi.

Badly damaged, decayed, tilted and dislodged dry masonry pitching wall length of 10 mtr in Section-I was reset the ashlar stone wall with the help of new as well as old stone on a cement concrete base, clamping of stone members by SS rod dowels and fixed by making key niches in stone and laying Geo Synthetic memberance of terrem 1000 UV on slope of hill and fixed with nail, after proper documentation and drawings, as suggested by Bombay Collaborative, the consultant. It has been completed in all respect.

The conservation and restoration work of Section-II in length of 15 mtr has also been completed by adopting the same technique and method for the restoration of Section –I.

#### **(2) Conservation and Restoration of Jaisalmer Fort**

An estimate of Rs. 40,36,000/- was approved by the Director General, Archaeological Survey of India, New Delhi vide letter F.No.5-8/2009-C, dated 26.08.2010.

The badly damaged, decayed, missing and fallen portion were identified and approved in four parts viz. A to D.

Part-A: Upper bastion and intervening wall along Shiv Road bastion No.18 to 19, 27 to 31 and 38 to 41 for consolidation of weathered, decayed, missing, cracked, underpinning and damaged portions were restored & conserved by way of underpinning, water tightening and re-setting of bulged portion with the help of combination materials.

Part-B: Badly damaged, missing original rain water drain on slope along Shiv Road was considered for easy flow of rain, sewerage and domestic water from the fort complex to outside to avoid further damage of the structures. But due to opposition by the local residents and allowing cutting of the peepal trees due to religious sentiments, the proposed work could not be undertaken.

Part-C: Decayed wooden stand of the canons fixed at the different points on the bastions restored and conserved by way of replacing the decayed by new wooden stands, matching with the original. M.S. steel railing has been provided on the stone ramp/approach of the canon point for easy movement of the tourists.

Part-D: General repairs here and there in whole fort was considered for filling eroded trench on steep slope in between lower and upper fortification wall taking out and resetting of big size stones pavement, flooring in the mori, recess pointing, cleaning the mori and providing new chhajja stones, flooring from Suraj Pole to Hawa Pole. But the ex-ruler is not allowing us to undertake the conservation work in this area because most of the portion of fort is under his control



**(3) Conservation and Restoration of outer fortification wall from Khirki Pada to Kanwar Pada upto bastion No.61**

An estimate of Rs. 48,29,000/- was approved by the Director General, ASI, New Delhi vide letter F.No. 5/4/2011-C, dated 18.08.2011.

Dismantling work of bastion No.39 as well as lime concrete work in foundation has been completed.

For procuring the required building material, tenders were invited from the registered contractors on 24.01.2012 by way of publishing NIT in daily newspapers but due to not found enclosed EMD with all three tenders, the same were cancelled and tenders were re-invited on 04.02.2012 and opened tenders alongwith comparative statement thereof submitted to the Director General, ASI, New Delhi for approval vide this office letter F.No.3/97/JPR/2011-12/W, dated 21.02.2012 and 18.04.2012; but the same has not been approved by the competent authority on the ground that the rates quoted therein are higher than the estimated rates, so the tenders cancelled vide D.G. office letter F.No.5/3/2011-C, dated 15.05.2012. Again the tenders were invited and opened on 22.06.2012, which are being submitted to the Director General, ASI, New Delhi for approval, shortly.

**(4) Conservation and Restoration of Pitching wall (between Section I & II) of Jaisalmer Fort**

An estimate of Rs. 88,59,000/- was approved by the Director General, ASI, New Delhi vide letter F.No. 5/3/2011-C, dated 16.08.2011.

Removal of garbage and deposit material on the slope of pitching wall including disposal thereof, taking out & lowering down existing bulged, decayed & loose veneering stone of pitching wall and excavation of foundation have been undertaken and the work is in progress.

For procuring the required building material, tenders were invited from the registered contractors on 24.01.2012 by way of publishing NIT in daily newspapers but due to not found enclosed EMD with all three tenders, the same were cancelled and tenders were re-invited on 04.02.2012 and opened tenders alongwith comparative statement thereof submitted to the Director General, ASI, New Delhi for approval vide this office letter F.No.3/52/JPR/2011-12/W, dated 21.02.2012 but the same were not approved by the competent authority on the ground that the rates quoted therein are higher than the estimated rates, so as the tenders cancelled vide D.G. office letter F.No.5/3/2011-C, dated 15.05.2012. Again the tenders have been invited and opened on 22.06.2012, which are being submitted to the Director General, ASI, New Delhi, shortly.

**(5) Conservation and Restoration of Pitching wall near Police Chowki, Jaisalmer Fort**

An estimate for Rs. 91, 44,000/- only was approved by the Director General, ASI, New Delhi vide letter F.No.5-3/2005-C, dated 19.01.2012.

Removal of garbage and deposit material on the slope surface of pitching wall including its disposal, taking out & lowering down existing bulged, decayed & loose veneering stone of pitching wall, excavation of foundation; providing & laying dry rubble stone soling, cement concrete and resetting of ashlar stone work (by using received serviceable stone quantity) have been undertaken and the work is in progress.

For procuring the required building material, tenders were invited from the registered contractors and opened on 15.05.2012 by way of publishing NIT in daily newspapers but due to technical reasons the same were cancelled and percentile rate tenders were re-invited and opened on 30.05.2012, opened tenders alongwith comparative statement submitted to the Director General, ASI, New Delhi for approval

vide this office letter F.No.3/122/JPR/2011-12/W, dated 20.06.2012. The competent authority has now approved the lowest tender rate and conveyed this office vide their office letter F.No.5/3/2011-C, dated 26.06.2012 and accordingly supply order have been issued to the concerned contractor M/s Praveen & Co., Jaipur vide this office letter F.No.3/122/JPR/2011-12/W dated 27.06.2012. The work will be re-started as soon as the material is supplied at site.

#### **EXPENDITURE ON WMF-NCF-ASI PILOT PROJECT JAISALMER FORT**

(1) Restoration of Pitching Wall Trial Project (Estimate approved for 28,30,000/-)

Total Expenditure incurred : 26,34,048/-

Balance : 1,95,952/-

(2) Conservation and Restoration of Jaisalmer Fort (Estimate approved for 40,36,000/- on 26.8.2010 and funds released on 08.12.2010)

2010-11 : 2,22,184/-

2011-12 : 25,28,245/-

2012-13 (up to 31.12.2012) : 51,250/-

Total Expenditure up to date : 28,01,679/-

(3) Conservation and Restoration of outer fortification wall from

Khirki Pada to Kanwar Pada upto bastion No.61 (Estimate approved for 48,29,000/-)

2011-12 : 4,12,689/-

2012-13 (up to 31.12.2012) : 16,01,351/-

Total up to date expenditure : 20,21,040/-

(4) Conservation and Restoration of Pitching wall (between Section I & II) of Jaisalmer Fort (Estimate approved for 88,59,000/-)

2011-12 : 86,877/-

2012-13 (up to 31.12.2012) : 15,08,503/-

Total up to date expenditure : 15,95,380/-

(5) Conservation and Restoration of Pitching wall near Police Chowki, Jaisalmer Fort (Estimate approved for 91,44,000/- on 19.01.2012 but fund thereof yet not released).

2011-12 : 62,800/-

2012-13 (up to 31.12.2012) : 27,79,430/-

Total up to date expenditure : 28,42,230/-

## Appendix VIII

### Minutes of the consultative meeting for Amber





## Minutes of the Consultative meeting

Consultative meeting was held with the key stakeholders with the objective to discuss the inclusion of JaiGarh Fort in the World Heritage Serial Nomination "Hill Forts of India".

The meeting was held in the office of Principal Secretary, Ministry of Art and Culture, Govt. of Rajasthan on 15<sup>th</sup> January 2013 at 15:30PM. Meeting was attended by:

- 1) Smt. Gurjot Kaur (IAS), Principal Secretary, Ministry of Literature, Art and Culture, Govt. of Rajasthan
- 2) Mr. Yunus Khimani, Director, Jaigarh Public Charitable Trust (JPCT), Amber
- 3) Mr. Munish Pandit, Consultant Conservation Architect,
- 4) Mr. J.R. Babar, Deputy Director, Department of Archaeology & Museums, Govt. of Rajasthan
- 5) Mr. Rakesh Chholak, Superintendent, Govt. Central Museum, Albert Hall, Jaipur
- 6) Mr. B.R.Singh, Deputy Superintending Archaeologist, Jaipur Circle, ASI, Govt. of India
- 7) Mr. Praveen Singh, Assistant Archaeologist, Jaipur Circle, ASI, Govt. of India

PS briefed the attendees that this consultative meeting has been called with respect to the observation / recommendations made by ICOMOS advisory mission and to further open dialogue with the JPCT to discuss the matter on the inclusion of Jaigarh in the nomination as part of the World Heritage Property.

With the permission of chair, Mr. Pandit initiated the discussions by explaining the observations made by the ICOMOS Mission to Mr. Khimani, representing JPCT. He also explained to JPCT that for the inclusion in the nomination Jaigarh has requisite protection as per the existing framework and may no further protection under any other law. Further he clarified that after inclusion in the list there will be no additional restrictions / regulations imposed on the trust or it's functioning regarding the site as JPCT is agreeable to the conservation policies, rule and regulations applicable to the property as of now and property rights will remain with the owners.

Mr. Khimani from JPCT, expressed that due to several aspects to be looked into and since there are no such parallel examples in the country it is obvious to have apprehensions / reservations of various natures among the JPCT.

Mr. Pandit explained various other examples in the world, where private properties were nominated and inscribed as world heritage and therefore JPCT shall consider those examples in depth before extending their decision.

It is also proposed that JPCT shall also look in to the option II, of giving consent for the inclusion of only fortifications of the Jaigarh. i.e. including the peripheral walls, which were primary defence structures of the fort.




Mr. Khimani welcomed the options extended and stated that he needs to have detailed discussion with his board on this proposal before he could make any comment on that.

PS through Mr. Khimani, requested the JPCT to consider the various options available to them and also extended all possible support of the Govt. of Rajasthan to discuss the matter further.

Considering the available time frame, it was decided unanimously that Govt. shall move further with the nomination without including Jaigarh (unless JPCT revert positively in next few days). Govt. of Rajasthan will keep the option open for inclusion of Jaigarh at later date once consent is received from JPCT.

While the consultation process with JPCT will continue, this very meeting ended with vote of thanks to all participants at 4:30 PM.

  
Dy. Director

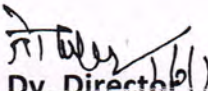
**GOVERNMENT OF RAJASTHAN**  
**Office of Director, Archaeology and Museums, Rajasthan, Jaipur**

No. A&M/SAS/2013/ 530-36

Dated: 16.1.13

Copy forwarded for information and necessary action to-

1. PS to Pr. Secretary, Art and Cutlue, Rajasthan, Jaipur
2. Shri Yunus Khimani, Director, Jaigarh Public Charitable Trust, Jaipur
3. Superintending Archaeologist, ASI, Jaipur Circle, Jaipur
4. Deputy Director, A&M, Rajasthan, Jaipur
- ✓ 5. Ms. Shikha Jain, Member Secretary, ACWHM, Shastri Bhawan, New Delhi
6. Shri Munish Pandit from M/s. Sanrakashan Heritage Consultants Pvt. Ltd., New Delhi

  
Dy. Director

## Appendix IX

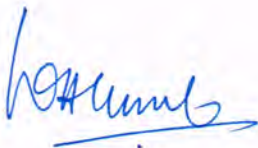
### Scope of work and agreement for preparation of Management Plan for Jaisalmer Fort

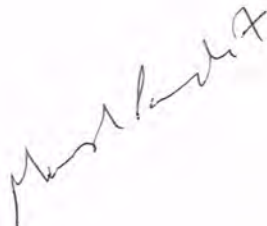




## TERMS OF REFERENCE

1. **Statement of Objective**  
To prepare a "Site Management Plan for Jaisalmer Fort" as per requirements of the Archaeological Survey of India (ASI)
  
2. **Scope of Work**  
The scope of work shall be to prepare the "Site Management Plan" for the Jaisalmer Fort, which shall include minimum following aspects:
  - 2.1 Statement of Significance along with list of Values and attributes (tangible and intangible) of the Fort supported by archival research
  - 2.2 Vision Statement
  - 2.3 Collating/gathering data/information of the site available from various sources and site itself
  - 2.4 Identification of issues and factors affecting the site
  - 2.5 Impact assessments (Heritage Impact, Risk, Socio economic)
  - 2.6 The current state of conservation
  - 2.7 Community Study and Analysis
  - 2.8 Preparation of Sub Plans in coordination with stakeholders and Committee including:
    - 2.8.1 Maintenance Plan for the site
    - 2.8.2 Information management for all data pertaining to the site
    - 2.8.3 Visitor management plan including visitor facilities, site interpretation, visitor routes, signage, needs of the disables, other tourist demands etc.
    - 2.8.4 Community Consultation and Outreach through Heritage awareness programme and document the consultative process with stakeholders
    - 2.8.5 Risk preparedness plan including evacuation plan, security needs of the site, etc
    - 2.8.6 Support plan including manpower management required for the site, funding and resource mobilization, roles and responsibilities of the staff and various agencies functioning on site etc.
    - 2.8.7 Monitoring plan including mechanism requirements etc.
    - 2.8.8 Recommendations for incorporation of site needs in existing plans at State Government, District and local levels (such as Sewerage drainage, lighting, transport, byelaws, etc).
    - 2.8.9 Development Control and Architectural guidelines
  
3. **Schedule of Services**
  - 3.1 **Activity 1 : Research – Archival and others**
    - 3.1.1. Research on monument, site and its settings. This shall include research about site during different periods of its history, and its relationship to its surroundings and social context.-
    - 3.1.2 Research on description of the built heritage and its cultural contents like carving, loose sculptures, etc. (Refer Annexure: List of available references to be used as baseline data)







- 3.1.3 Research on socio cultural, natural, geographical, anthropological, ethnographic, archaeological, ecological, structural and geotechnical engineering information. (Refer Annexure: List of available references to be used as baseline data)
- 3.1.4 Research on oral and art history
- 3.1.5. Research on evolution of architectural vocabulary and construction techniques.
- 3.1.6. Research on building fabric, material, mortar, etc., of the built heritage.
- 3.1.7. Record and assessment of legislative and administrative rules/policies which operate under the framework of AMASR (Amendment and Validation) Act 2010, including citation of non compliances.
- 3.1.8. Documentation of the Consultative process with all stakeholders and analysis of its results for incorporation in the management plan keeping in mind the protection status of the Fort (**FIRST CONSULTATION MEETING**).
- 3.1.9. Any other research activities as required
- 3.1.10. Submission of preliminary site evaluation and assessment reports
- 3.1.11. Submit 5 copies of documents of Activity 1

### 3.2 Activity 2: Documentation and Studies

- 3.2.1. Modify documents mentioned in 3.1.8 as suggested by the Archaeological Survey of India.
- 3.2.2. **Inventories:** The consultant is to devise the method to collect and organize the information in such a manner that the heritage value of the components, features of significance to the site, and listing of actions required to preserve the “Value” of the site should be clearly identifiable for management of site and deciding prioritization of actions.
  - 3.2.2.1 Inventories of the monument and its built heritage other structural and landscape features. (Refer Annexure: List of available reference to be used as baseline data)
  - 3.2.2.2 Inventories to highlight the special features of the components and the present status of preservation
  - 3.2.2.3 Inventories to include identification/listing of past intervention and their appropriateness.
  - 3.2.2.4 Identification of conservation and restoration measures required.
  - 3.2.2.5 Detailed photo documentation – photographs of exteriors and interiors including those of all architectural members, decorative works, patterns of decays, degree of deterioration, other structural and/or stability problems. (Streets, Chowks, buildings, etc use INTACH listing; Refer Annexure: List of available references to be used as baseline data)
  - 3.2.2.6 Any other work(s) required for putting into effect
- 3.2.3 Documentation of the Consultative process with all stakeholders and analysis of its results for incorporation in the management plan keeping in mind the protection status of the fort (**SECOND CONSULTATION MEETING**)
- 3.2.4 Submit 5 copies of documents of Activity 2

### 3.3 Activity 3: Visitor Profile Studies and Community Studies

- 3.3.1 Profile of the visitors including types of visitors, demography etc.
- 3.3.2 Projection for future

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- 3.3.3 Analysis of the existing facilities and amenities and addressing future requirements.
- 3.3.4 Visitor spread on site including areas of visit, time spent on site, visitor movement plans, safety and security measures, etc.
- 3.3.5 Signage and interpretation facilities, formal and informal services provided.
- 3.3.6 Documentation of the Consultative process with all stakeholders and analysis of its results for incorporation in the management plan keeping in mind the protection status of the Fort (**THIRD CONSULTATION MEETING**)
- 3.3.7 **Community Consultation and Outreach Strategy** The project has a strong component for carrying out community consultations which will underscore the development guidelines for Jaisalmer Fort. Further, a strategy for participatory development in the future should also be proposed. The concerns of conservation and development should be dovetailed with the needs of the resident community.

**Stage 1 : Research**

- 3.3.7.1. *Secondary Research: collection and collation of existing surveys and studies including those carried out by the State Government agencies, District Administration, Nagar Palika etc.*
- 3.3.7.2 *Primary Research: qualitative survey at plot level to evaluate residents needs and concerns, as also elicit information about existing education levels, livelihoods skills and knowledge systems.*
- 3.3.7.3 *Development Profile for the site: prepare a Community Profile incorporating demographic information, assets and income levels, skills and education etc. Identify stakeholders groups.*

**State 2: Interaction**

- 3.3.7.4 *Focus Group Discussions: carry out discussions with each stakeholder group. Share draft plans. Identify potential income streams and livelihoods concerns*
- 3.3.7.5 *Preliminary livelihoods plan. Viable alternative livelihoods should be proposed. Gaps in community capacities should be identified and proposals for training and institution building should be formulated*

**Stage 3: Public Consultations**

- 3.3.7.6 *Major public consultation to be carried out in main public space in the Fort The meeting should be chaired by the Collector or competent authority.*
- 3.3.7.7 *The final plan should be available for public viewing for a stipulated period*
- 3.3.7.8 *Final plans should include Alternative Livelihoods Plan.*

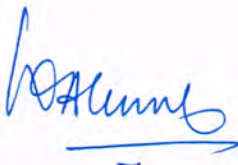
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- 3.8.1 Prepare and submit 5 sets of the Final Site Management Plan Document/Report and Sub plans 10 copies to ASI both hard and soft copies (pdf as well as editable versions, e.g., doc, dxf , etc. of all of these).
- 3.8.2 Make Presentation of Final Site Management Plan Document/Report submitted before Director General, Archaeological Survey of India, for approval
- 4. Schedule of Activities and Payment**
- 4.1 The Consultant shall be paid professional fee in following stages in consistent with the work done as shown under (4.1.1) schedule of Activities and (4.1.2) Schedule of Payment.



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A handwritten signature in black ink, appearing to be 'K. K. K.', written in a cursive style.



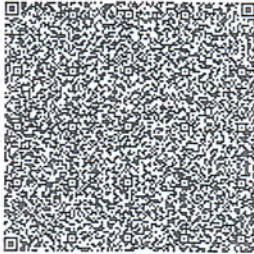
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## INDIA NON JUDICIAL

### Government of National Capital Territory of Delhi

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Property Description : NA  
Consideration Price (Rs.) : 0  
(Zero)  
First Party : NCF  
Second Party : NA  
Stamp Duty Paid By : NCF  
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.....Please write or type below this line.....

#### AGREEMENT

THIS AGREEMENT made on 22<sup>nd</sup> day of January, 2013 between National Culture Fund, New Delhi-110011, acting through (Member Secretary, NCF and his representatives, hereinafter called "National Culture Fund") of the one part and M/s Sanrakshan Heritage Consultants Pvt. Ltd, GH 5&7/972, PaschimVihar, New Delhi-110087 (hereinafter called "the Consultant") of the other part.

*K. K. K.*

*M. P. S.*

#### Statutory Alert:

1. The authenticity of the Stamp Certificate can be verified at Authorised Collection Centers (ACCs), SHCIL Offices and Sub-registrar Offices (SROs).
2. The Contact Details of ACCs, SHCIL Offices and SROs are available on the Web site "www.shcilestamp.com"



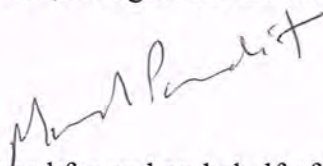
WHEREAS the National Culture Fund is desirous that certain works / services as per the contract should be executed by the Consultant, viz. Site Management Plan for Jaisalmer Fort, (hereinafter called "the Works / services"), and has accepted a Proposal by the Consultant for the execution and completion of such Works / services as per the contract.

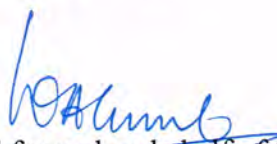
**NOW THIS AGREEMENT WITNESSETH as follows:**

1. In this Agreement, words and expressions shall have all same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
  - a) Letter of Acceptance of Proposal
  - b) Letter of invitation
  - c) Instructions to the Consultants
  - d) Terms of Reference
  - e) Special Conditions of the Contract
  - f) General Conditions of Contract
  - g) Financial Proposal
3. In consideration of the payments to be made by the National Culture Fund to the Consultant as hereinafter mentioned, the Consultant hereby covenants with the National Culture Fund to execute and complete the Works / services as per the contract and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The National Culture Fund hereby covenants to pay the Consultant in consideration of the execution and completion of the Works / services as per the contract.

IN WITNESS whereof the parties hereto have caused this Agreement executed the day and year first before written.

(Name, Designation and address of the authorized signatory)

  
Signed for and on behalf of the  
Consultant in the presence of:

  
Signed for and on behalf of the  
National Culture Fund in the presence of:

**Witness:**

1. Pakhee kumar
- 2.

**Witness:**

1. T. Sriya
- 2.



Appendix X  
ICOMOS Advisory Mission Report



**ICOMOS Advisory Mission report**

**Hill Forts of Rajasthan, India**

**23rd and 26th November 2012**

Mrs Susan Denyer and Dr Giles Tillotson

# HILL FORTS OF RAJASTHAN, INDIA

## Report of an

### ICOMOS Advisory Mission

23<sup>rd</sup> and 26<sup>th</sup> November 2012

The Mission was undertaken by Susan Denyer and Dr Giles Tillotson. They would like to express their thanks to the State Party for the excellent arrangements made and particularly the time allocated to open and constructive discussions with a wide range of stakeholders and professional experts. This allowed progress to be made in suggesting a way forward for re-submitting a revised nomination in the context of the decision of the World Heritage Committee at its last session.

## 1. Background

### *Nomination of Hill Forts of Rajasthan*

The nomination of the Hill Forts of Rajasthan was submitted for nomination by the State Party in January 2011. ICOMOS carried out a full evaluation of the nomination dossier and presented its evaluation to the World Heritage Committee at its 36<sup>th</sup> Session (St Petersburg, 2012).

The ICOMOS evaluation recognised the importance of the theme of Rajput military architecture and defensive technology and considered that it has strong potential to illustrate Outstanding Universal Value. It also considered that the selection of sites for the serial nomination did not adequately support the Outstanding Universal Value proposed by the State Party. ICOMOS encouraged the future submission of a new nomination with a series of sites that present the various categories of Rajput military architecture, adapted to the whole range of the Rajput kingdom's physiographical terrain, including mountains, forests, water, and desert forts.

ICOMOS in this context welcomed a new nomination to present a series of the single most outstanding and exceptional representations of each of these categories and considered that such a nomination would very likely demonstrate Outstanding Universal Value.

In conclusion, ICOMOS recommended that that nominated series should not be inscribed but encouraged the State Party to prepare a new nomination for a series of sites that presents the various categories of Rajput military architecture and the whole range of the Rajput kingdoms' physiographical terrain.

### *UNESCO World Heritage Committee decision*

The World Heritage Committee in its decision 36COM 8B.22, (St Petersburg, 2012) having examined Documents WHC-12/36.COM/8B and WHC-2/36.COM/INF.8B1, decided to refer the nomination of the Hill Forts of Rajasthan, India, back to the State Party, in order to allow it to:

- a) Provide a more detailed approach for the selection of the components to show that they present the various categories of Rajput military architecture in the whole range of the Rajput kingdoms' physiographical terrain



- b) Provide more information on management of the five components under the Fort Apex Advisory Committee and the overarching authority for the serial nomination

The Committee also recommended that the State Party request an advisory mission to the site or discuss other forms of dialogue to encourage the upstream process, which it considered was essential for this nomination.

*Requirements for Serial Properties*

Following an International Expert meeting on Serial Nominations held in Ittingen, Switzerland, between 25 -27 February 2010, in cooperation with the World Heritage Centre, the World Heritage Committee at its 35<sup>th</sup> session (Paris, 2011) adopted changes to paragraph 137 of the Operational Guidelines on the selection of component parts for serial properties. These changes were incorporated into the November 2011 edition of the Operational Guidelines.

The 2008 wording of paragraph 137 was as follows:

- 137.** *Serial properties will include component parts related because they belong to:*
- a) *the same historico-cultural group*
  - b) *the same type of property which is characteristic of the geographical zone*
  - c) *the same geological, geomorphological formation, the same biogeographic province, or the same ecosystem type*
- and provided it is the series as a whole – and not necessarily the individual parts of it – which are of Outstanding Universal Value*

The revised wording of paragraph 137 is now as follows:

- 137.** *Serial properties will include two or more component parts related by clearly defined links:*
- a) *Component parts should reflect cultural, social or functional links over time that provide, where relevant, landscape, ecological, evolutionary or habitat connectivity.*
  - b) *Each component part should contribute to the Outstanding Universal Value of the property as a whole in a substantial, scientific, readily defined and discernible way, and may include, inter alia, intangible attributes. The resulting Outstanding Universal Value should be easily understood and communicated.*
  - c) *Consistently, and in order to avoid an excessive fragmentation of component parts, the process of nomination of the property, including the selection of the component parts, should take fully into account the overall manageability and coherence of the property (see paragraph 114).*
- and provided it is the series as a whole – and not necessarily the individual parts of it – which are of Outstanding Universal Value.*

The revised wording applies to properties submitted for nomination after November 2011.

**2. Purpose of Advisory Mission**

The purpose of the Advisory Mission was to undertake discussions with the State Party, in the framework of upstream processes, in order to advise the State Party on the way forward in respect of re-submitting a revised serial nomination of Rajput Forts under the referral process, as recommended by the World Heritage Committee.

**3. Organisation of mission**

The mission consisted of two days of discussion. On the first day the background to the nomination was discussed as were the recent changes to paragraph 137 of the Operational Guidelines for serial nominations.

## Day One: Meeting at VIP Reception and Conference Centre, Amber Palace

Dr Shikha Jain, representing the State Party, opened proceedings by presenting an overview of the process for the selection of component sites for the series of Hill Forts and the criteria selected, based on the original nomination. She explained how from an initial listing of all major forts in Rajasthan, a group of 24 had been chosen for further study, and how from this list five were selected for nomination. The members of the ICOMOS mission held to the view expressed in the earlier ICOMOS response to the proposal: that while it was likely that some or all of the forts included might contribute to a series that could demonstrate Outstanding Universal Value (OUV), the manner in which OUV was defined and justified in the nomination was not convincing. The main problems with the original nomination were deemed to be:

1. while the different kinds of location and terrain in which the forts are located was seen to be important, the submission fell victim to its own logic by proposing categories such as 'desert fort' which did not appear to be represented;
2. a lot of emphasis was placed on certain features – especially military aspects of the architecture such as loopholes – which did not sufficiently distinguish these forts from others elsewhere, including other parts of India, and thus did not indicate distinctive qualities specific to Rajput Forts;
3. the nomination showed insufficient understanding of the rules governing serial nominations: that the several component parts of the series had to relate to each other in ways that contributed to the overall OUV of the series, but without simply replicating each other, or being a catalogue of different types of sites.

The main focus of discussion on this day therefore was the identification of the outstanding attributes of the hill forts in Rajasthan. While the discussion drew on ideas and information already contained in the original proposal for nomination, it also suggested new approaches and altered emphases that would more clearly and emphatically highlight the potential OUV of a series of sites, and how a selection could be made that fully reflected all the key attributes and where each of the sites contributes reflected one or more of the attributes in an exceptional way.

The key attributes that distinguish Rajput hill forts were deemed to fall into four main overlapping categories and to reflect different geographical areas

*Physiographical.* The forts are adapted to and optimise various kinds of hill terrain, including the summit and the slope of semi-arid hills, forested hills, desert hills and hills protected by water. There are several aspects to the adaptation and optimisation of the sites, which include military matters, strategic planning and the collection, storage and distribution of water.

*Centres of power.* The forts have strong associational values as centres of Rajput power and control, as centres of Rajput courtly culture and patronage, and as former centres of learning, art and music. The forts, together with the palaces and other buildings they contain, all embody this power and courtly culture in Rajput architecture. The vocabulary of architectural forms and of ornaments shares much common ground with other regional styles, such as Sultanate and Mughal architecture, so it might be an exaggeration to call the Rajput style 'unique'. But the particular manner in which Rajput architecture was eclectic (drawing inspiration from antecedents and neighbours) together with its degree of influence over later regional styles (such as Maratha architecture) do make it distinctive.

*Sacred.* It was observed that many if not all the selected sites include temples or other sacred buildings, not merely as adjuncts to the palaces and other settlements but often predating

them, and outlasting them in use. The fact that Rajput hill forts are also sacred sites was deemed to be another distinctive feature.

*Urban Settlements.* Most forts were designed to protect the populace and not only the court and military guard. Many were of enormous size (with walls extending to over 20km). Most had had extensive settlements within the walls, some of which have persisted to the present day. These residential and sacred elements went beyond the expected military functions of forts. In some cases there was also a mercantile element, as the forts were centres of production and of distribution and trade that formed the basis of their wealth.

The combination of these four attributes was seen as the basis of the potential OUV of Rajput hill forts, through the identification of a series of sites that satisfied all the attributes and where each of the sites reflected one or more of the attributes in an exceptional way.

The main attributes were summarised in notes prepared and distributed by Janhwi Sharma.

The discussion left open for further consideration (on day 2) certain questions such as the manner in which each of the component parts contributes to the series, and the reasons for excluding certain well-known forts from the series. The mission invited the State Party to reconsider its decisions to exclude Jaigarh, part of the Amber complex, which reflected the military functions of Amber, and Jaisalmer, which was seen as an outstanding example of a desert fort and one that still contained extensive stone built settlements. The reasons cited for their exclusion involved stakeholder and conservation issues, but it was suggested that these could and should be overcome in order to allow a series to be submitted that fully reflected the key attributes of Rajput Forts and thus could be seen to have the potential to demonstrate OUV.

## **Day 2: Meeting at the Archaeological Survey of India, Janpath, New Delhi**

The main discussion of the day was a review of the five existing and several potential sites (including Jaisalmer, Mehrangarh, and Jaigarh) as possibilities for inclusion in a serial nomination in order to ascertain whether and how they each fulfilled the attributes established on day 1. Six set out below were indeed deemed to do, albeit in differing ways and to varying degrees. As important to the structure of a serial nomination was to establish what each site brought uniquely to the series (or brought to an exceptional extent), to establish the necessity for its inclusion as an essential addition rather than merely a replication of attributes already found elsewhere.

The main conclusions (and proposals for re-focusing the nomination dossier) were that the following forts satisfied all the attributes and each also contributes to at least one of the five attributes in an exceptional way as follows, taking each fort in turn:

1. *Chittorgarh.* The extent to which it fulfils attribute 2 makes it distinctive from the other forts. As the former capital of the Sisodia clan and the target of three famous historical sieges, the site is strongly imbued with associational values attaching to Rajput history and folk lore. Furthermore the sheer number and variety of architectural remains of early date (ranging from the 8<sup>th</sup> to the 16<sup>th</sup> centuries) mark it out a site of exceptional importance, with only a few Indian forts that are comparable.
2. *Kumbhalgarh.* Its distinctive contribution arises from it having been constructed in a single process and (apart from the palace of Fateh Singh, added later) retains its architectural coherence. Its design is attributed to an architect known by name – Mandan – who was



also an author and theorist at the court of Rana Kumbha in Chittor (another fort in the series). This combination of factors is highly exceptional.

3. *Ranthambore*. Its distinctive contribution arises from it being the only forest fort included in the nomination. In addition, the remains of the palace of Hammir – if taken to be authentic – are among the oldest surviving structures of an Indian palace.
4. *Gagron*. Its distinctive contribution to the series arises from it being the only river-protected fort included in the nomination. In addition its strategic location in a pass in the hills gave it enhanced significance in the control of trade routes.
5. *Amber-Jaigarh*. Fulfills the attributes, assuming that Jaigarh is included as part of the complex, as that part performed the major military and protective role. Its distinctive contribution is the representation of a key phase (17<sup>th</sup> century) in the development of a common Rajput-Mughal court style, embodied in the buildings and gardens added to Amber by Mirza Raja Jai Singh I.
6. *Jaisalmer*. To be added to the nomination. It is the only example included in the nomination of a hill fort in desert terrain. The extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it an important (and in some respects even unique) example of a sacred and secular (urban) fort.

The detailed discussion of these six sites drew on the expertise of various members of the State Party group – such as historical information supplied by Dr Rima Hooja – that should again be referred to while compiling the revised nomination dossier.

The discussion also covered some other conspicuous forts in Rajasthan which by virtue of their fulfilling some or all of the attributes might have merited inclusion. It was felt that if they were not to be included, the reasons for their exclusion should be clear and apparent. Thus the forts of Junagadh (Bikaner) and Ahichhatragarh (Nagaur) may be excluded as they are built on level terrain and are not hill forts. Mehrangarh (Jodhpur) is built on a hill but – unlike those suggested for the revised nomination – it never included a substantial settlement for a section of the civilian population, being essentially a citadel for the protection of the court and its guard.

The six forts proposed or recommended for inclusion in a revised nomination thus were considered to form a complete and coherent group that had the potential to demonstrate OUV as a series of through representing all the essential attributes of Rajput Hill Forts in an exceptional way. The State Party stated that further discussions were needed with owners on the inclusion of Jaigarh and Jaisalmer. Whereas Jaigarh was in a good state of conservation, further work is needed at Jaisalmer. Over the past two years a detailed programme of conservation for Jaisalmer has been drawn up and funds found for its implementation. It is anticipated that this work will take at least two years. The mission considered that there would be no reason to exclude Jaisalmer from the series if conservation work was incomplete, provided a clear programme of work could be set out. Indeed it was preferable that this work was undertaken with sufficient time

As the nomination was referred by the World Heritage Committee, any revised nomination submitted by 1<sup>st</sup> February 2013 would need to be presented to the Committee at its 37<sup>th</sup> session in 2013 and thus evaluated by ICOMOS during February allowing no time for a formal mission. The mission undertook to consider how an 'informal' mission might be undertaken perhaps taking advantage of ICOMOS experts who were known to be visiting the region.

During discussions, the mission touched on ways that the forts might be interpreted in ways that made it clear why each of them had been included in the series, thus encouraging visitors to visit all the forts.

As one of the key attributes of the forts is their settlements, the mission considered that further work was needed to draw local communities into the management system.

The mission welcomed the commitment of the Secretary of State for Culture of Rajasthan to provide funds for the capacity building of craftspeople for restoration work and to look at ways that the forts, if inscribed on the World Heritage list, could become the focus of innovative ways for cultural assets to contribute sustainable development within the region.

#### **4. *Conclusions of discussion***

The Mission concluded that the two days of discussion had clearly identified the key attributes of Rajput Forts and how these might be reflected in a serial nomination.

The six sites identified during the second days of discussion could be seen to reflect all the key attributes of Rajput Hill Forts and to cover all the main physiographical terrains of hill forts. Furthermore the mission considered that each of the six sites demonstrated at least one of the key attributes in an exceptional way and thus justified their inclusion in the series.

Overall all the six sites were together necessary to demonstrate the potential of a series to justify OUV.

The mission did not consider that the six sites could be nominated sequentially as it would not be possible for a smaller number to justify OUV as is necessary for the first nomination of a series.

#### **5. *Recommendations of the Mission***

The mission recommended that the State Party revise the nomination to include all the six sites identified as being necessary for a series reflecting Rajput Hill forts to have the potential to demonstrate OUV.

It suggested that the nomination should be re-focused to allow a clearer understanding of the overall attributes of Hill Forts, and thus the potential OUV of the series, and how each of the nominated sites contributes to those attributes and also how each of the sites reflects at least one of those attributes in an exceptional way.

The mission acknowledged the extensive amount of work that has been carried out on the Hill Forts and the historical and other research information that has been assembled. It considers that a clearer description of each of the forts is necessary in a revised nomination in order to set out precisely the key attributes and in what way they are exceptional. It also suggests that the overall Justification for the series is revised in terms of the Statement of OUV and the justification for the criteria in order to make a stronger case for why the selected Rajput Hill Forts can be seen as outstanding.

The mission also recommends that an adequate description and visualisations are prepared in order that the Conservation Plan for Jaisalmer can be readily understood in terms of its phasing and final outcome.

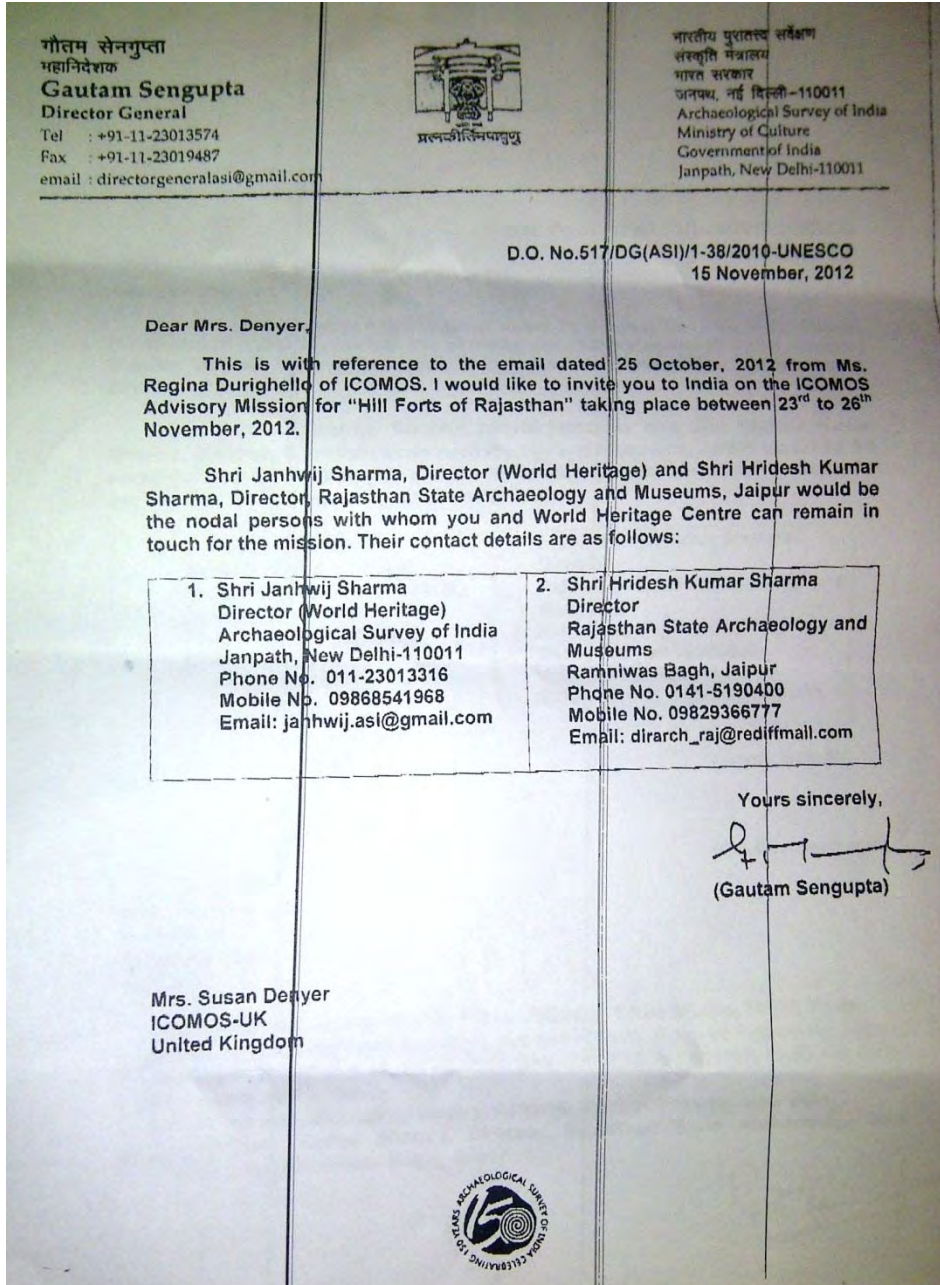
The mission further recommends that consideration is given to the way the forts are interpreted in order that there is a clear understanding of the way each contributes to the whole series.

Finally the mission welcomed the commitment of the Government of Rajasthan to focus on capacity building for craftspeople involved in the conservation of the forts and to investigate ways in which the forts as cultural assets might contribute to the sustainable development of the region.



ANNEXES:

A. Letter of Invitation



## **B. Mission Programme**

*Thursday 24<sup>th</sup> November, Susan Denyer arrives in Delhi and travels to Jaipur; Giles Tillotson already in Jaipur*

*Friday 23<sup>rd</sup> November 2012 meeting with invited stakeholders at VIP Reception and Conference Centre, Amber Palace.*

*Saturday 24<sup>th</sup> November, mission experts travel to Delhi*

*Monday 26<sup>th</sup> November 2012 meeting with invited stakeholders at the Conference Room, ASI Head Office, Janpath, New Delhi*

*Tuesday 27<sup>th</sup> November, Susan Denyer returns to London*

## **C. List of people involved in the Mission**

### **Government of Rajasthan**

Ms Gurjot Kaur, PS, Culture, Government of Rajasthan

Mr. Hridayesh Sharma, Director, Archaeology, Government of Rajasthan

### **Archaeological survey of India (ASI)**

Mr. Janhvi Sharma, Director, Conservation

Dr. Kanwar Singh, WH Section

SA, Jaipur Circle, ASI

### **The Tentative list working group of the advisory committee on World Heritage matters (ACWHM) Working Group on Hill Forts**

Ms. Amita Baig, Chairperson of the Working Group

Dr. Rima Hooja, Member, NMA and Expert for ACWHM

Dr. Shikha Jain, MS, ACWHM as Convener of the Working Group

Ms Shumi Chatterjee (from ACWHM Secretariat)

Prof Jyoti Hosagrahar

Ms Yaamini Mubayi

### **Local stakeholders and experts**

Mr. Karni Singh Jasol, Mehrangarh Foundation

Mr. Yunus Khimani, Jaigarh Foundation

Dr. Chandramani Singh

Ms Dharmender Kanwar, INTACH

## Appendix XI

### Abstract of Interpretative material on Gagron Fort and Amber





TRULY REALIZING

## THE GAGRON FORT

AN OUTSTANDING EXAMPLE OF A JAL DURG  
(WATER FORT)

AN INSIGHT INTO ITS  
PLANNING & DEFENSIVE STRATEGY

UNDERSTANDING THE OUTSTANDING NATURE OF ITS DESIGN & SITE  
ITS DEVELOPMENT PHASES, ARCHITECTURAL MARKERS REMAINING  
ITS INTEGRATED DEFENCE SYSTEMS



**A Fortress is a spatial response.** To topography, the elements, enemies and other conditions that may threaten a populace. It is a built form designed to turn key strategic factors in the favor of its people.

**A Fortress is a key seat of power.** It represents the might of the King and his Kingdom. It is the keystone around which the populace is protected in the act of war.

**A Jal Durg is a special kind of Fort.** The ancient typology of Forts describes what a water Fortress is and its usage. The elements that build up a Jal Durg are unique in nature to its water approach and proximity. The Defence strategy is accordingly different than other hill forts.

A Fort, is thus, a very articulated design that structures a safe enclosure and has the might to fend off enemy attacks. The key elements that a Fort thus focuses around are:

Site Selection

Strategic Positioning – at a finer scale

Control of approach

Control of the nature of an attack, so as to provide strategic advantage to the Fort

Ability to sustain a long siege

Minimizing any weaker points in the armour of the Fort

Broadly, the Site and its response to a potential army advance or siege are key factors to analyze a fort on. The main defensive strategy of a Fort is thus already incorporated in the very design of the Fort. Further, the dynamics of how the defenses worked can be realized when visualizing the way an enemy could attack the fort. In the context of a water Fort, the planning aspects actively incorporate water defense and water transport into its planning. These attributes are what are visible at Gagron.





शिकार दृश्य, छत्र महल, बूंदी



# GAGRON

study by the Thought Studio



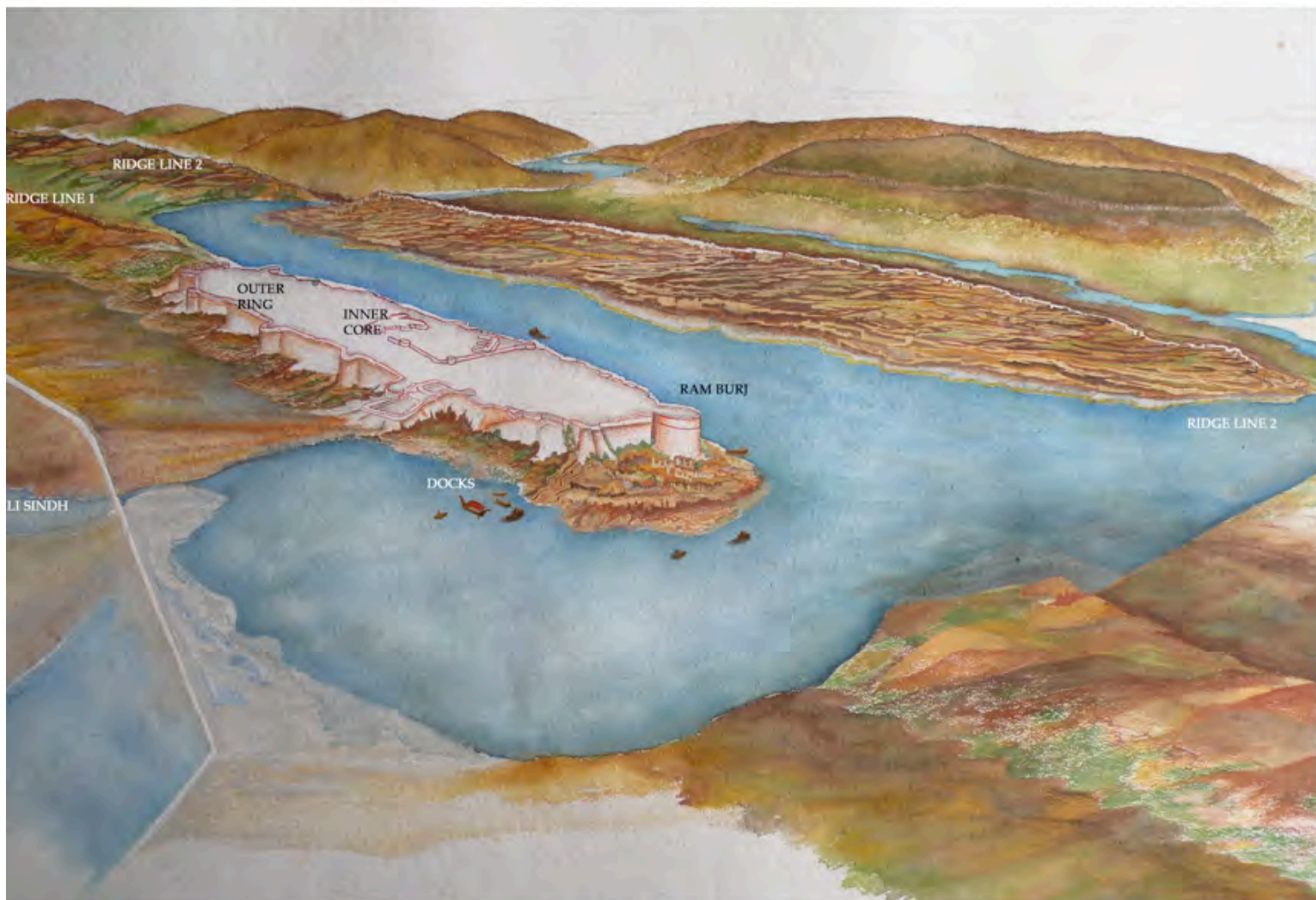


EACH ELEMENT OF A FORT IS CAREFULLY ARTICULATED, EACH ELEMENT HAS A MEANING & RATIONALE, THERE ISNT ANYTHING RANDOM IN A FORT.

TO REALIZE THE VERY SPECIAL NATURE OF A FORT, IS TO SEEK THE ANSWERS IN ITS DESIGN & STRUCTURES.

### THE UNIQUE ELEMENTS OF GAGRON UNDERSTANDING ITS DEFENCE STRATEGY

The very special nature of Gagron lies in its location. The rivers flowing around the site define the nature of this fort. Its approach, its defences, and even its circulation pathways. The image below details the site context of the planning of Gagron. The fort sits on the convergence of two rivers and manages the trade routes of the region. All passage by boats would be controlled by this site.





The Hill Forts of Rajasthan all showcase one clear principle the very effective leveraging of strategic factors in the fort design. Each element of these forts are carefully crafted and match the most strategic option available.

Site Selection; Options and Rationale; Active modification of terrain to make forts tough to reach; water harvesting to survive sieges and secret passageways are important factors to the design of Forts.

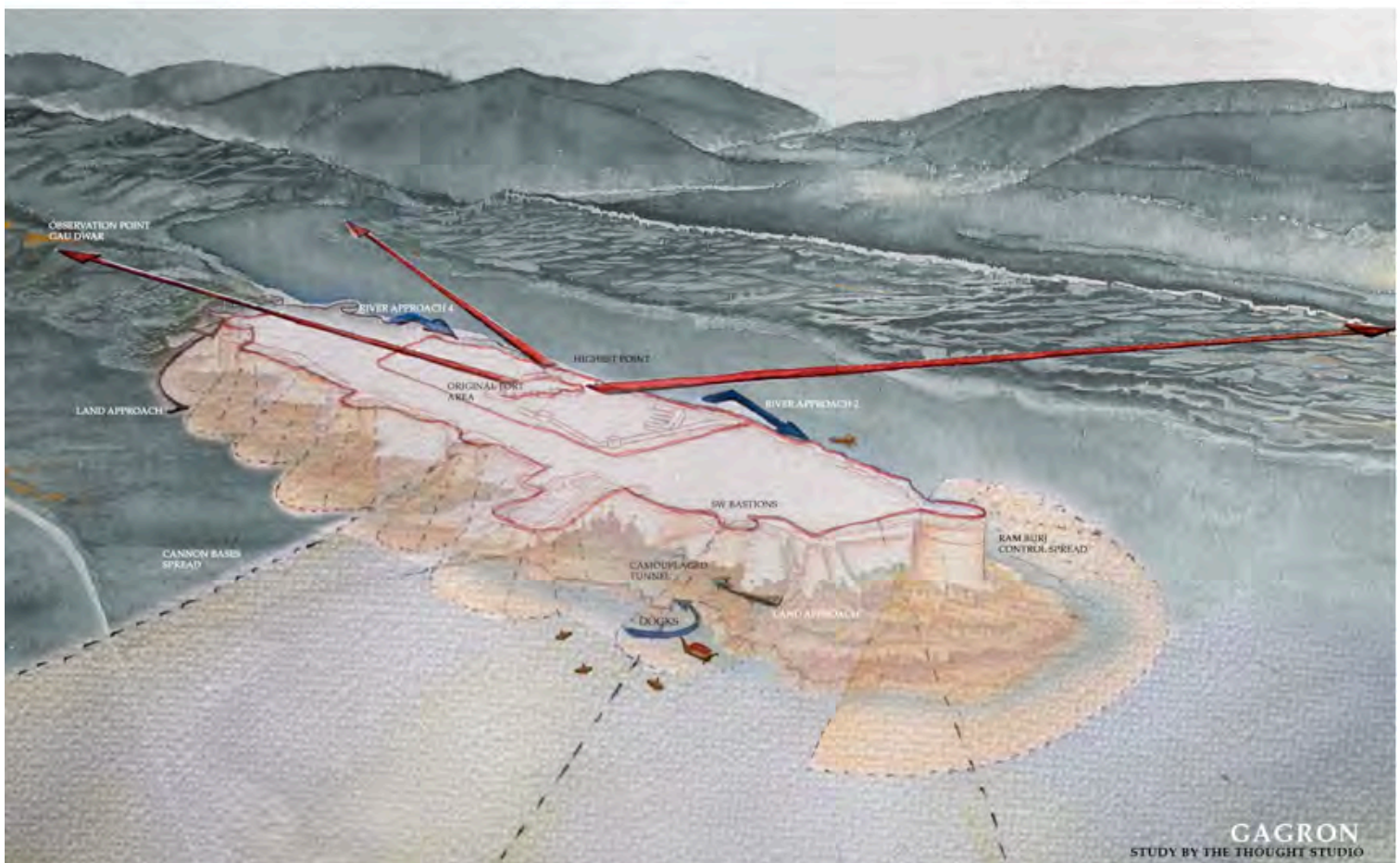
## DEFENCE STRATEGY

The image below details the main tenets of the defence strategy of Gagron. Strategic Positioning, perched high up on the hill with the rivers engulfing its extents on 2 sides. Excavations & Terrain Modifications were done to create steeper slopes and more ditches. Strong Cannon bases were formed on the land side approach.

The extent of the Fort – was defined by topography. So much so that even the later on walled town of Gagron was spread till the strategic point of Gau Dwar. Gau Dwar is at a higher level than the Ganesh Pol and could be used by enemies strategically to mount an attack. Thus, the walls were spread further to reinforce more a buffer of security to the Fort.

THE 3 DISTINCT PHASES of the Fort, all showcase the same basic fortification tenets. The vocabulary and technology being changed from the 8<sup>th</sup> century to the 18<sup>th</sup> century. The dotted lines in the image below illustrate the range of the land approach that was controlled by its cannon bases. The idea was to minimize the possibility of any army reaching its gates.

PROTECTED DOCKS – The docks were flanked on both sides with very high bastions that covered the boats from any attack and which could also destroy enemy boats if they approached the docks. The blue arrows show water approaches, the grey arrows – land approaches. Red are visual observation points.







## JAL DURG - WATER FORT

The above painting, showcases how water bound forts existed at the time of Rajputs. The prominent usage of boats for transport also is documented in the art works of this period.

### THE BASIC CONCEPT THAT DIFFERENTIATES A JAL DURG

Is the use of water as a buffer zone, approach way and sustainer in case of a siege. From this the following 3 aspects are most important for any water fort to be successful

1. Controlled access – only through boats, minimizing land approach
2. Access to water during a siege – secret ways to haul water to the Fort
3. Secret exit points along the flow of the water.





## THE PLANNING ELEMENTS OF THE FORT

### THE FIRST SETTLEMENT POINTS - THE HIGHEST POINT OF THE HILL.

As seen in all genesis points of Forts, it is the highest point that attracts the first settlements and it is around this node that a Fort starts to form. Large walls protecting this highest point from enemies.

### DISTINCT MARKERS OF THE FIRST FORT SYSTEMS STILL STAND.

The first wall systems have come up at Gagron would have been for sure, large and rather unrefined compared to later structures. As it is seen in all forts of Rajasthan, the most earliest walls were built of huge boulders over rough rubble. At Gagron, its unique walls of the 7<sup>th</sup> or earlier centuries, still stand in clear contrast to the other walls. The image below clearly illustrates this fact. The wall to the right shows crenellation patterns typical of the khilji/afghanic rulers.



More details on this vocabulary and its distinct difference from the later Khilji style is showcased in the page overleaf.









## THE FIRST FORTIFICATIONS AT GAGRÓN

### HIGHLIGHTS:

Outstanding, large size boulders dry masonry walls of an immense scale. As shown in the image alongside.

This structure would be in its time, quite insurmountable.

On the other page: a very large tank is situated right in front of the entrance to the original fort. Be it to add to the tough approach to the main gate, or to serve as a store for rain water, this tank is again of a titan scale.

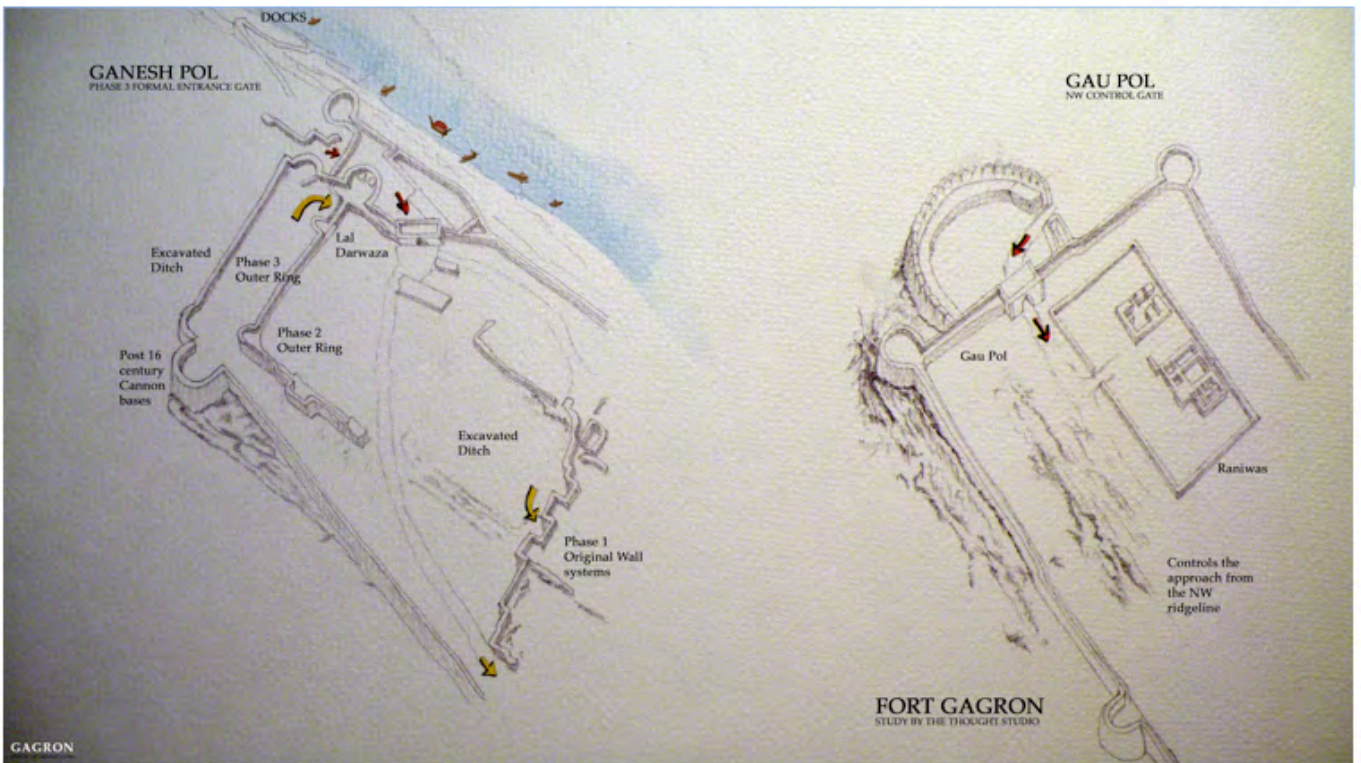
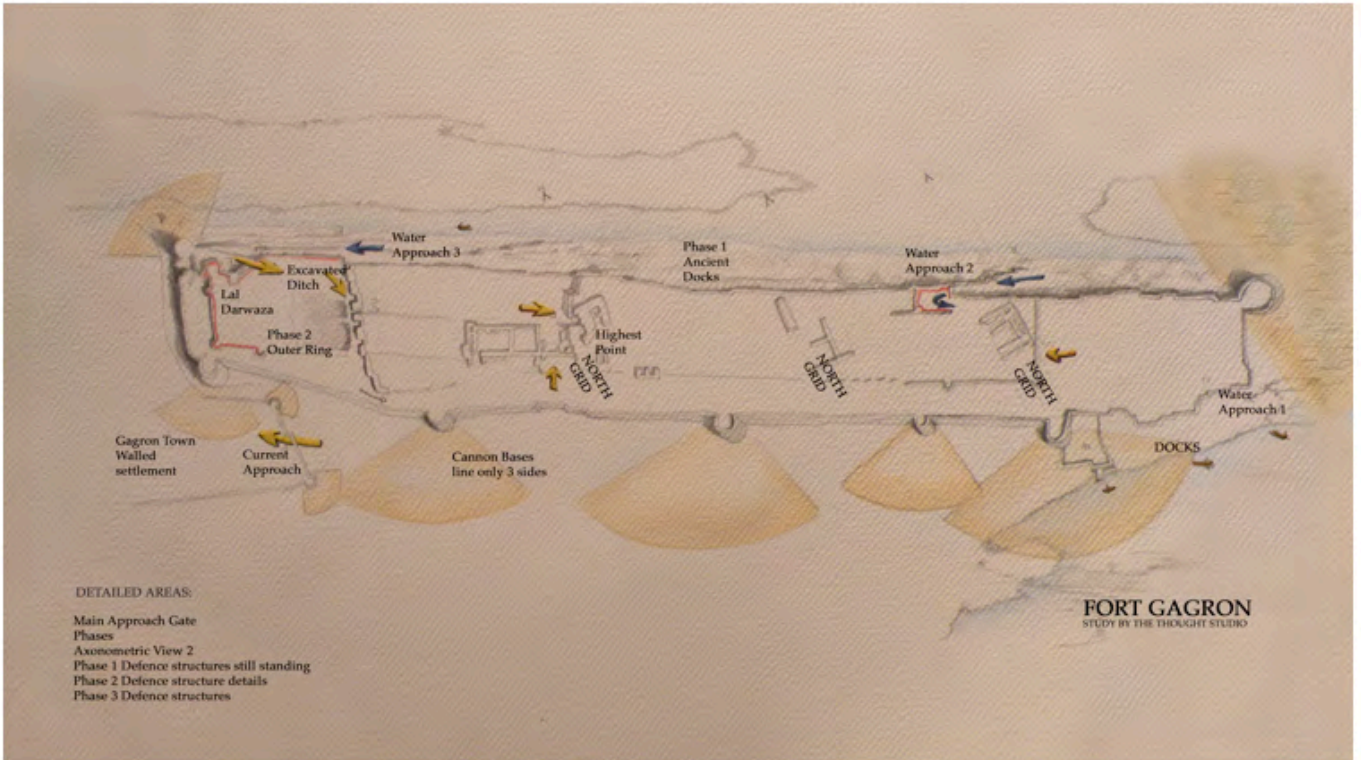


THE DISTINCT CHARACTER OF THESE FIRST FORTIFICATION SYSTEMS ARE UNMISTAKABLE TO OVERLOOK.

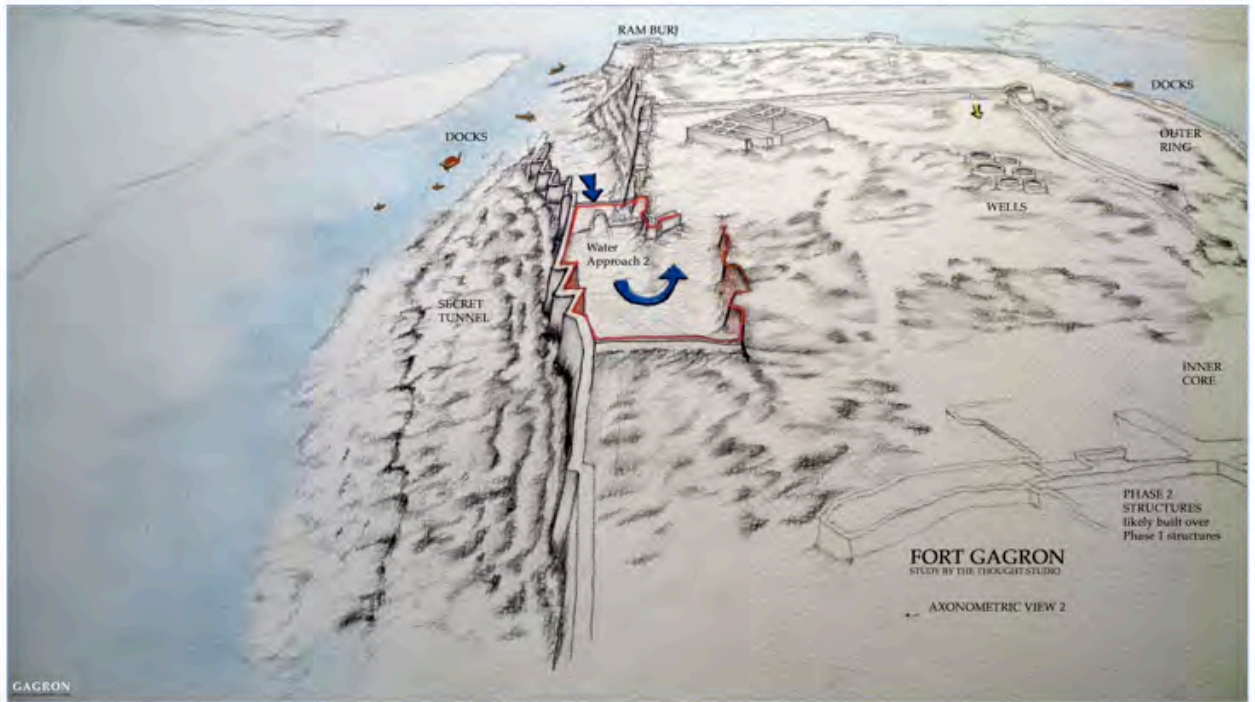
THEY SPEAK OF VERY POWERFUL WALLS, WITH SMALL PASSAGES, TALL TOWERS GUIDING ENTRANCES.











#### DETAIL OF ABOVE IMAGES.

The First, is the defense outlay plan of the Fort. Its yellow arrows demarcate the approach from the land side. This approach being the only way an enemy army could approach, is very heavily fortified. It shows 2 distinct approaches from different ruler periods. Phase 2 and phase 3. Phase 2 has its original gate at the Lal Darwaza which is in particular quite exact a vocabulary as that found in Qutb Minar. Again typical of afghanic rulers of that period.

The later approach, which is now the current approach, was added in a mughal period and has modifications to terrain with the creation of a deep ditch encircling the fort walls. These details are highlighted in the image below, titled Ganesh Pol and Gau Dwar. Gau Dwar shows a much later time vocabulary and it is not so critically defended as the Ganesh Pol.

In the Ganesh Pol plan, the excavated ditch of phase 1 is also clearly visible, and the outer extremity of the fort is the same during phase 2 and 3.

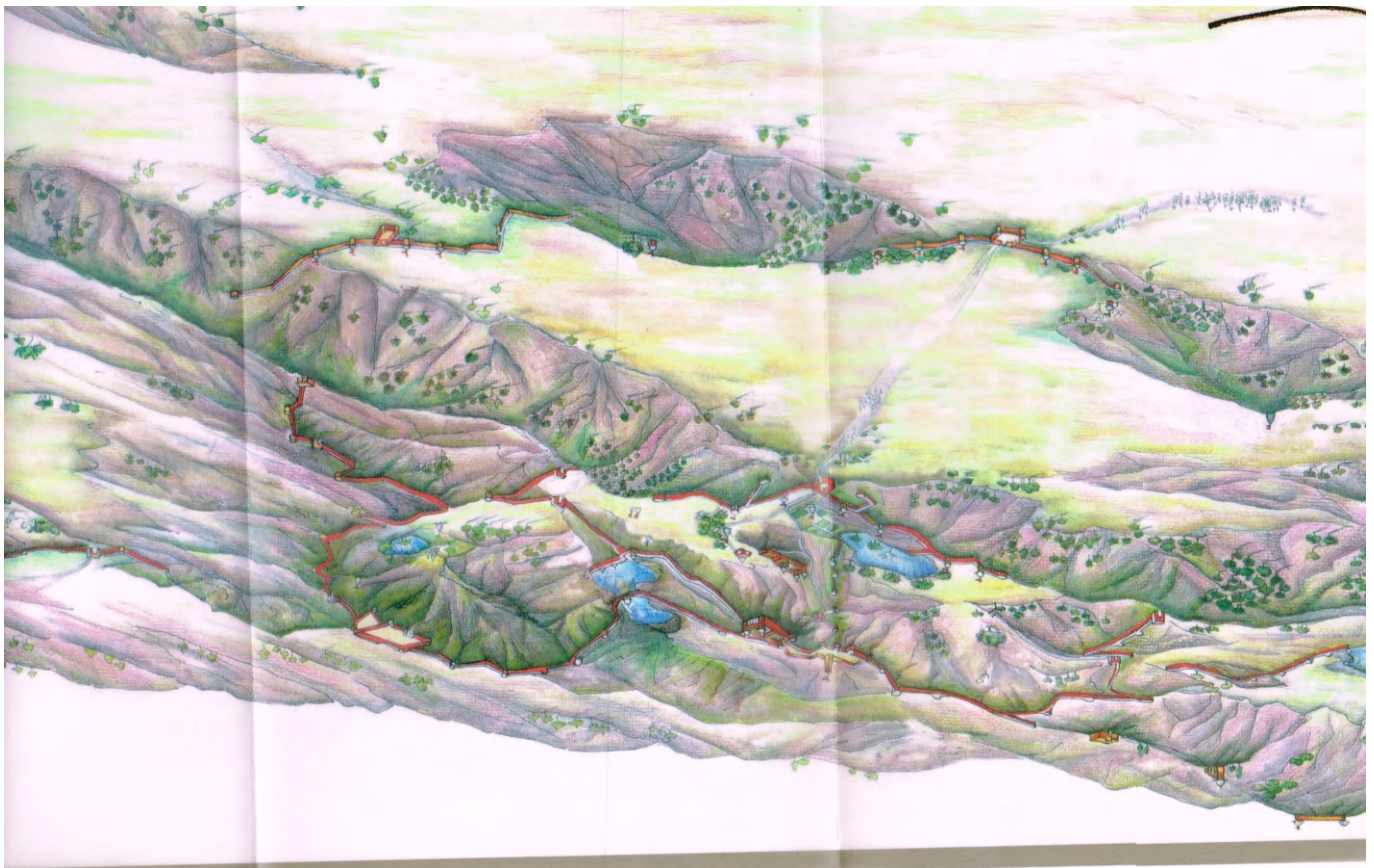
The image to the right showcases the older Khilji period wall being over ridden by the mughal period walls on the outer side. The change in crenellation pattern is clearly visible in this.

The topmost image above on this page, details the river approach on the N side of the Fort. It is a larger approach and has a distinct box structure defense system as highlighted in the image. Along its side is the secret tunnel system which now lies in ruins.

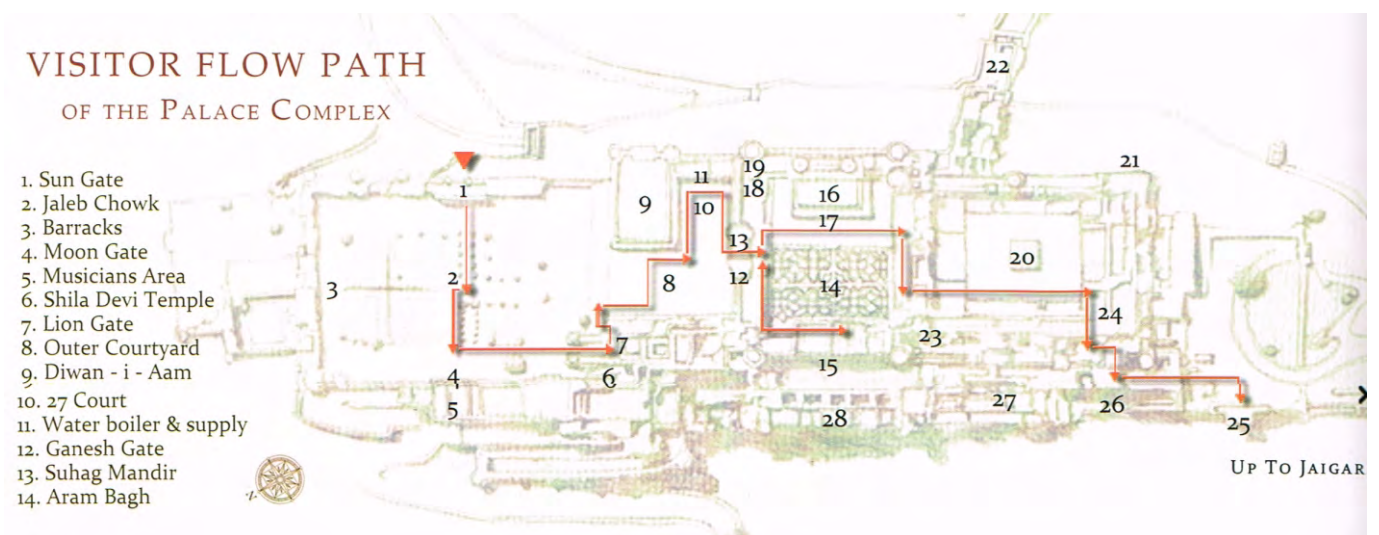




Abstracts from interpretative material on Amber  
 Source: Dilmeet Garewal



Location of Amber and different tiers of its fortifications



Visitor movement pattern at Amber



# THE OBSERVATION NETWORK

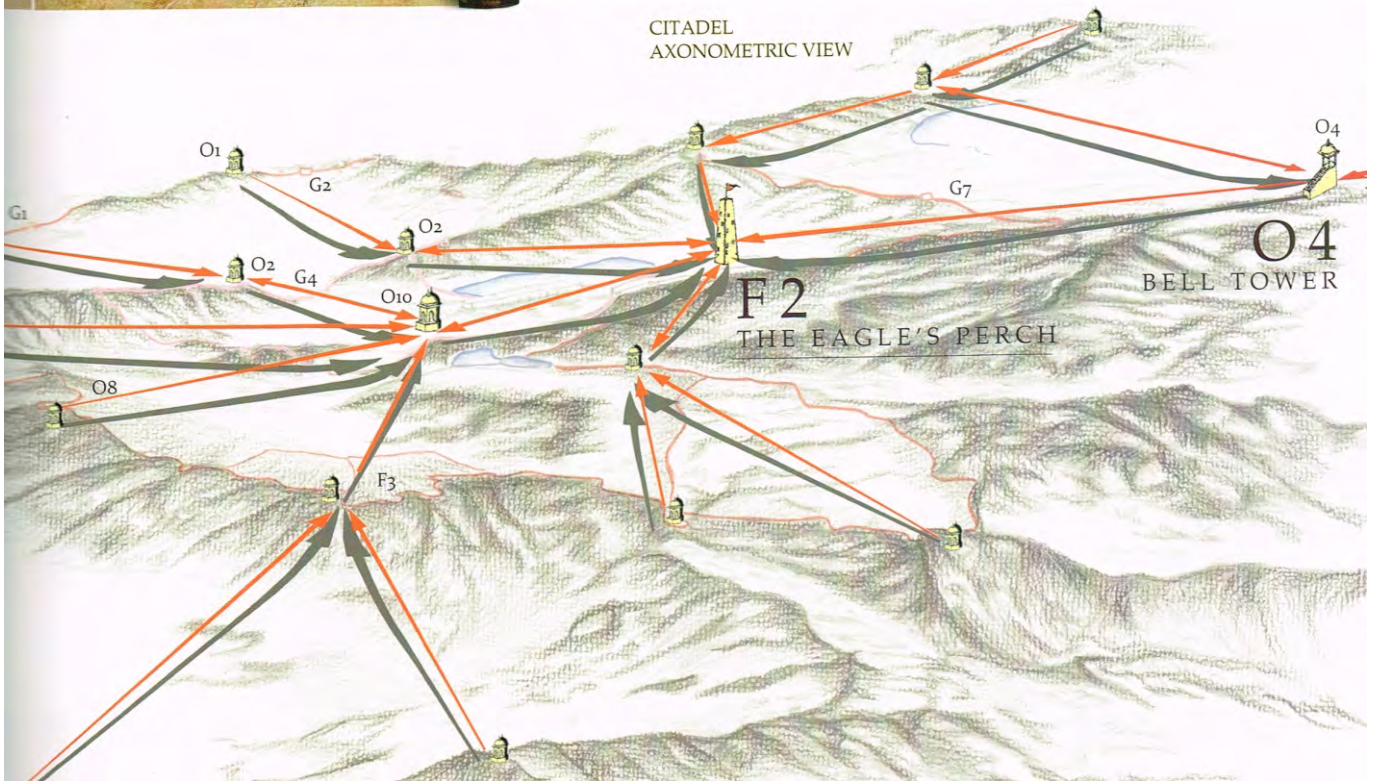
The Citadel's eyes in the sky

The complete network of watch posts connected and culminated at the Diya Burj. The central formidable watch tower of the Citadel.

The relay of signals would be an intriguing sight to see.



CITADEL  
AXONOMETRIC VIEW



Network of observation posts around Amber and their links to Amber and Jaigarh



Appendix I  
General Photographs of the Property  
Amber

Front View of Amber Palace





Permanent Delegation of India  
to UNESCO  
1, Rue Miollis,  
75015 Paris  
Tel: 0033-1-45 68 29 88  
Fax: 0033-1-47 34 51 88

No. PAR/PDI/CUL/04/2013

Dated: 28 Feb 2013

Dear Sir/Madam,

Please find forwarded herewith additional information, as requested, on the Hill Forts of Rajasthan.

With regards,

(Vinay Sheel Oberoi)  
Permanent Representative

ICOMOS International Secretariat  
49-51, rue de la Fédération  
75015 Paris

Fax : +33 (0)1 45 66 06 22  
Email : [secretariat@icomos.org](mailto:secretariat@icomos.org)

Encl : As Above

Copy for kind information along with enclosures to :  
✓ Dr. Mechtild Rossler, Deputy Director (Programme), World Heritage  
Centre, UNESCO, 75015 Paris

Dir WHC  
rec d 28.02.13  
Lo PSN  
Aon

**Document: Hill Forts of Rajasthan (India) - Additional Information**

**Submitted to:** Director, World Heritage Centre

**Submitted by:** Archaeological Survey of India, New Delhi

**Date:** February 28, 2013

Additional information enclosed for following points raised by ICOMOS:

S. No.	Information Required	Page No.
1.	Inclusion of Jaigarh Fort and request for further information on Jaigarh Fort under the following heading: Description, Plan Photographs History ownership Protection and Management	2
2.	Clarification on "how the new boundary (of Amber fort) relates to the line of the fortifications?"	2-4



## 1. Inclusion of Jaigarh Fort and request for further information on Jaigarh Fort

The State Party would like to clarify that, Jaigarh fort is NOT part of the nominated property as it is a private property and state party cannot nominate a private property without the consent of the owners. Jaigarh Foundation who owns Jaigarh has not given their consent for the nomination though they have agreed to be part of buffer zone and stakeholders in the overall management plan. Please refer to the minutes of the meeting held with Jaigarh Foundation in appendix VIII (submitted with revised Nomination Dossier in response to the referral decision on Feb. 1, 2013). Also kindly refer Map of the nominated property submitted in the revised nomination dossier pg. 1.27, 1.36.

The State Party also feels that since OUV of the Amber fort resides in its palaces and the extended boundary of Amber Fort as submitted in the revised dossier includes the bastions that satisfy the essential attribute of defence, hence Amber Fort with the proposed extended area is sufficient to retain its integrity.

## 2. Clarification on "how the new boundary (of Amber fort) relates to the line of the fortifications?"

The extended boundary of the Amber fort includes following two key aspects:

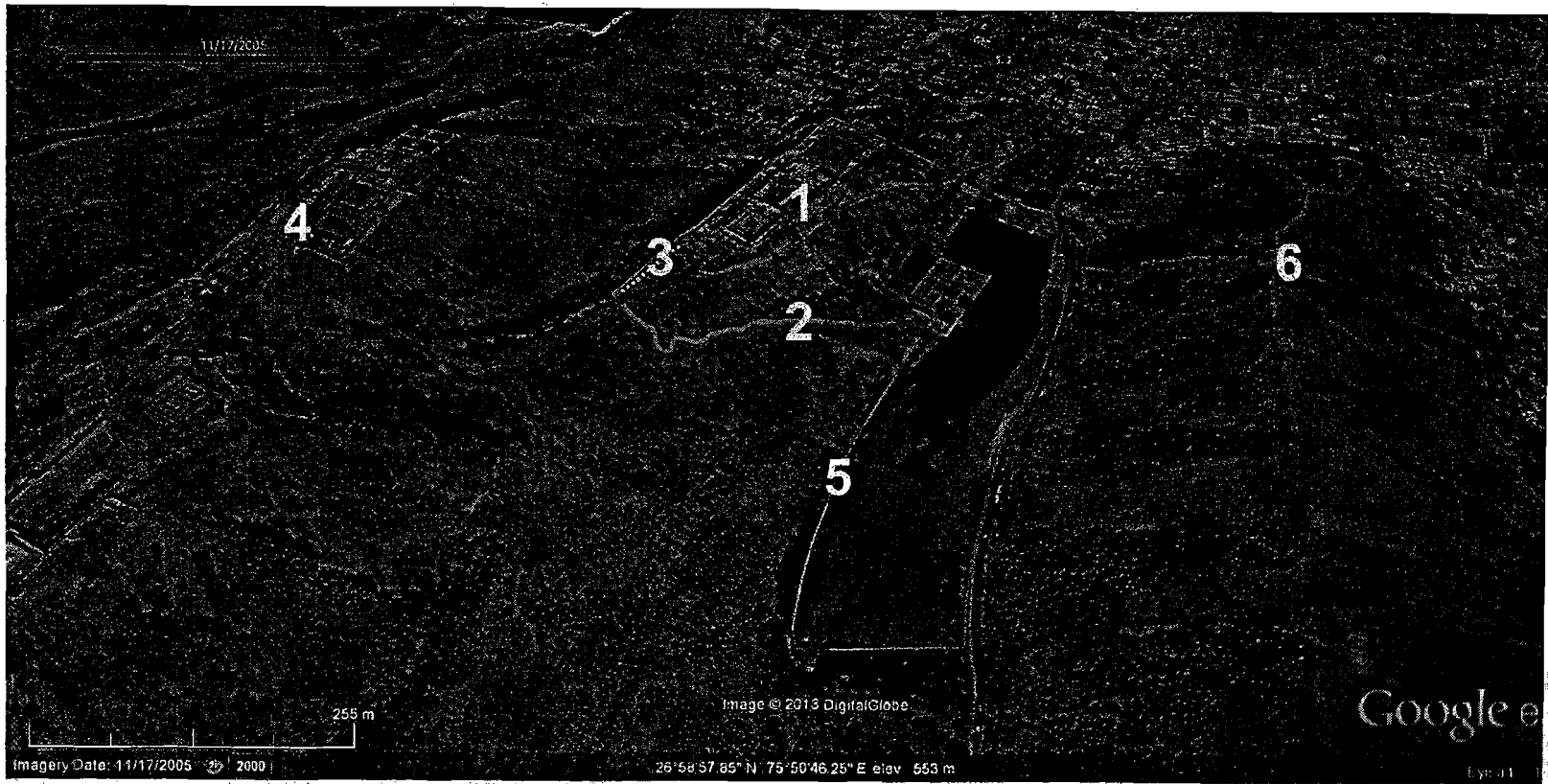
- 1) **Covered passage (tunnel)** (constructed during the time of Raja Man Singh in 16<sup>th</sup> century) leading from Amber fort to main entrance of Jaigarh.  
The passage is included as this was a crucial link between the two complexes during the time of conflict/ siege and was used to provide supplies as well to allow movement of people between the two complexes undetected. This passage has now been made functional for the use of tourists and allows them to connect to Jaigarh.
- 2) **Immediate fortification** of the Amber fort including cannon bases and bastions.  
These fortifications were the last (but very effective) in the series of line of defence of the Amber fort. The new boundaries of the nominated property include the last line of fortification, whereas the city wall (front lines of fortifications) including observation posts are covered within the buffer zone. Element 1,2 & 3 are part of the nominated property.



Location of Amber and different tiers of its fortifications

1. Amber fort, 2. Fortification wall and cannon bases (last line of defense) 3. Covered passage,  
4. Entrance of Jaigarh fort, 5. Jaigarh fort 6. City wall (first line of defense)

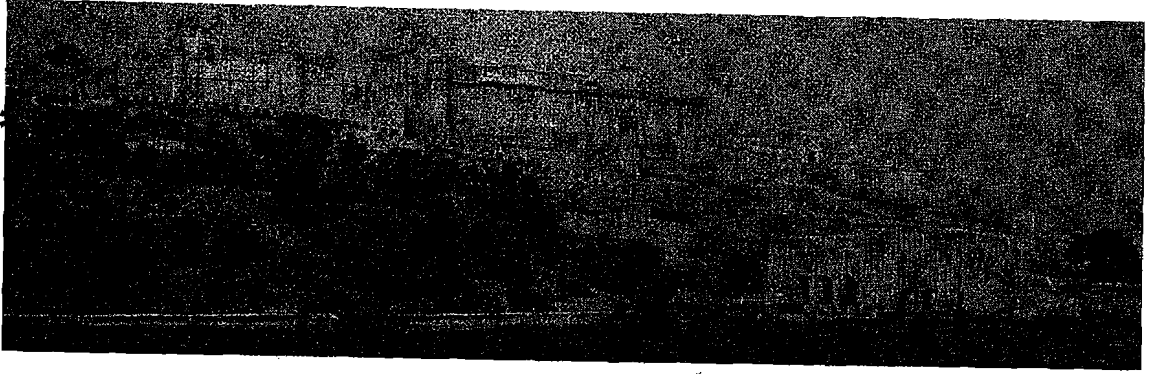
Source: Dilmeet Grewal



## View of Amber Fort with Nominated property boundary marked

1. Amber Fort, 2. Fortification & canon base & 3. Covered Passage, (added in the property),
4. Jaigarh Fort, 5. Nominated Property line 6. City / Front line defense fortification

Base image source: Google Earth



Amber Fort with fortifications added in the Nominated property  
Source: Munish Pandit



**ICOMOS Advisory Mission report**

**Hill Forts of Rajasthan, India**

**23rd and 26th November 2012**

Mrs Susan Denyer and Dr Giles Tillotson

# HILL FORTS OF RAJASTHAN, INDIA

## Report of an

### ICOMOS Advisory Mission

23<sup>rd</sup> and 26<sup>th</sup> November 2012

The Mission was undertaken by Susan Denyer and Dr Giles Tillotson. They would like to express their thanks to the State Party for the excellent arrangements made and particularly the time allocated to open and constructive discussions with a wide range of stakeholders and professional experts. This allowed progress to be made in suggesting a way forward for re-submitting a revised nomination in the context of the decision of the World Heritage Committee at its last session.

## 1. Background

### *Nomination of Hill Forts of Rajasthan*

The nomination of the Hill Forts of Rajasthan was submitted for nomination by the State Party in January 2011. ICOMOS carried out a full evaluation of the nomination dossier and presented its evaluation to the World Heritage Committee at its 36<sup>th</sup> Session (St Petersburg, 2012).

The ICOMOS evaluation recognised the importance of the theme of Rajput military architecture and defensive technology and considered that it has strong potential to illustrate Outstanding Universal Value. It also considered that the selection of sites for the serial nomination did not adequately support the Outstanding Universal Value proposed by the State Party. ICOMOS encouraged the future submission of a new nomination with a series of sites that present the various categories of Rajput military architecture, adapted to the whole range of the Rajput kingdom's physiographical terrain, including mountains, forests, water, and desert forts.

ICOMOS in this context welcomed a new nomination to present a series of the single most outstanding and exceptional representations of each of these categories and considered that such a nomination would very likely demonstrate Outstanding Universal Value.

In conclusion, ICOMOS recommended that that nominated series should not be inscribed but encouraged the State Party to prepare a new nomination for a series of sites that presents the various categories of Rajput military architecture and the whole range of the Rajput kingdoms' physiographical terrain.

### *UNESCO World Heritage Committee decision*

The World Heritage Committee in its decision 36COM 8B.22, (St Petersburg, 2012) having examined Documents WHC-12/36.COM/8B and WHC-2/36.COM/INF.8B1, decided to refer the nomination of the Hill Forts of Rajasthan, India, back to the State Party, in order to allow it to:

- a) Provide a more detailed approach for the selection of the components to show that they present the various categories of Rajput military architecture in the whole range of the Rajput kingdoms' physiographical terrain

- b) Provide more information on management of the five components under the Fort Apex Advisory Committee and the overarching authority for the serial nomination

The Committee also recommended that the State Party request an advisory mission to the site or discuss other forms of dialogue to encourage the upstream process, which it considered was essential for this nomination.

*Requirements for Serial Properties*

Following an International Expert meeting on Serial Nominations held in Ittingen, Switzerland, between 25 -27 February 2010, in cooperation with the World Heritage Centre, the World Heritage Committee at its 35<sup>th</sup> session (Paris, 2011) adopted changes to paragraph 137 of the Operational Guidelines on the selection of component parts for serial properties. These changes were incorporated into the November 2011 edition of the Operational Guidelines.

The 2008 wording of paragraph 137 was as follows:

**137.** *Serial properties will include component parts related because they belong to:*

- a) *the same historico-cultural group*
- b) *the same type of property which is characteristic of the geographical zone*
- c) *the same geological, geomorphological formation, the same biogeographic province, or the same ecosystem type*

*and provided it is the series as a whole – and not necessarily the individual parts of it – which are of Outstanding Universal Value*

The revised wording of paragraph 137 is now as follows:

**137.** *Serial properties will include two or more component parts related by clearly defined links:*

- a) *Component parts should reflect cultural, social or functional links over time that provide, where relevant, landscape, ecological, evolutionary or habitat connectivity.*
  - b) *Each component part should contribute to the Outstanding Universal Value of the property as a whole in a substantial, scientific, readily defined and discernible way, and may include, inter alia, intangible attributes. The resulting Outstanding Universal Value should be easily understood and communicated.*
  - c) *Consistently, and in order to avoid an excessive fragmentation of component parts, the process of nomination of the property, including the selection of the component parts, should take fully into account the overall manageability and coherence of the property (see paragraph 114).*
- and provided it is the series as a whole – and not necessarily the individual parts of it – which are of Outstanding Universal Value.*

The revised wording applies to properties submitted for nomination after November 2011.

**2. Purpose of Advisory Mission**

The purpose of the Advisory Mission was to undertake discussions with the State Party, in the framework of upstream processes, in order to advise the State Party on the way forward in respect of re-submitting a revised serial nomination of Rajput Forts under the referral process, as recommended by the World Heritage Committee.

**3. Organisation of mission**

The mission consisted of two days of discussion. On the first day the background to the nomination was discussed as were the recent changes to paragraph 137 of the Operational Guidelines for serial nominations.



**Day One:** Meeting at VIP Reception and Conference Centre, Amber Palace

Dr Shikha Jain, representing the State Party, opened proceedings by presenting an overview of the process for the selection of component sites for the series of Hill Forts and the criteria selected, based on the original nomination. She explained how from an initial listing of all major forts in Rajasthan, a group of 24 had been chosen for further study, and how from this list five were selected for nomination. The members of the ICOMOS mission held to the view expressed in the earlier ICOMOS response to the proposal: that while it was likely that some or all of the forts included might contribute to a series that could demonstrate Outstanding Universal Value (OUV), the manner in which OUV was defined and justified in the nomination was not convincing. The main problems with the original nomination were deemed to be:

1. while the different kinds of location and terrain in which the forts are located was seen to be important, the submission fell victim to its own logic by proposing categories such as 'desert fort' which did not appear to be represented;
2. a lot of emphasis was placed on certain features – especially military aspects of the architecture such as loopholes – which did not sufficiently distinguish these forts from others elsewhere, including other parts of India, and thus did not indicate distinctive qualities specific to Rajput Forts;
3. the nomination showed insufficient understanding of the rules governing serial nominations: that the several component parts of the series had to relate to each other in ways that contributed to the overall OUV of the series, but without simply replicating each other, or being a catalogue of different types of sites.

The main focus of discussion on this day therefore was the identification of the outstanding attributes of the hill forts in Rajasthan. While the discussion drew on ideas and information already contained in the original proposal for nomination, it also suggested new approaches and altered emphases that would more clearly and emphatically highlight the potential OUV of a series of sites, and how a selection could be made that fully reflected all the key attributes and where each of the sites contributes reflected one or more of the attributes in an exceptional way.

The key attributes that distinguish Rajput hill forts were deemed to fall into four main overlapping categories and to reflect different geographical areas

*Physiographical.* The forts are adapted to and optimise various kinds of hill terrain, including the summit and the slope of semi-arid hills, forested hills, desert hills and hills protected by water. There are several aspects to the adaptation and optimisation of the sites, which include military matters, strategic planning and the collection, storage and distribution of water.

*Centres of power.* The forts have strong associational values as centres of Rajput power and control, as centres of Rajput courtly culture and patronage, and as former centres of learning, art and music. The forts, together with the palaces and other buildings they contain, all embody this power and courtly culture in Rajput architecture. The vocabulary of architectural forms and of ornaments shares much common ground with other regional styles, such as Sultanate and Mughal architecture, so it might be an exaggeration to call the Rajput style 'unique'. But the particular manner in which Rajput architecture was eclectic (drawing inspiration from antecedents and neighbours) together with its degree of influence over later regional styles (such as Maratha architecture) do make it distinctive.

*Sacred.* It was observed that many if not all the selected sites include temples or other sacred buildings, not merely as adjuncts to the palaces and other settlements but often predating

them, and outlasting them in use. The fact that Rajput hill forts are also sacred sites was deemed to be another distinctive feature.

*Urban Settlements.* Most forts were designed to protect the populace and not only the court and military guard. Many were of enormous size (with walls extending to over 20km). Most had had extensive settlements within the walls, some of which have persisted to the present day. These residential and sacred elements went beyond the expected military functions of forts. In some cases there was also a mercantile element, as the forts were centres of production and of distribution and trade that formed the basis of their wealth.

The combination of these four attributes was seen as the basis of the potential OUV of Rajput hill forts, through the identification of a series of sites that satisfied all the attributes and where each of the sites reflected one or more of the attributes in an exceptional way.

The main attributes were summarised in notes prepared and distributed by Janhwij Sharma.

The discussion left open for further consideration (on day 2) certain questions such as the manner in which each of the component parts contributes to the series, and the reasons for excluding certain well-known forts from the series. The mission invited the State Party to reconsider its decisions to exclude Jaigarh, part of the Amber complex, which reflected the military functions of Amber, and Jaisalmer, which was seen as an outstanding example of a desert fort and one that still contained extensive stone built settlements. The reasons cited for their exclusion involved stakeholder and conservation issues, but it was suggested that these could and should be overcome in order to allow a series to be submitted that fully reflected the key attributes of Rajput Forts and thus could be seen to have the potential to demonstrate OUV.

**Day 2: Meeting at the Archaeological Survey of India, Janpath, New Delhi**

The main discussion of the day was a review of the five existing and several potential sites (including Jaisalmer, Mehrangarh, and Jaigarh) as possibilities for inclusion in a serial nomination in order to ascertain whether and how they each fulfilled the attributes established on day 1. Six set out below were indeed deemed to do, albeit in differing ways and to varying degrees. As important to the structure of a serial nomination was to establish what each site brought uniquely to the series (or brought to an exceptional extent), to establish the necessity for its inclusion as an essential addition rather than merely a replication of attributes already found elsewhere.

The main conclusions (and proposals for re-focusing the nomination dossier) were that the following forts satisfied all the attributes and each also contributes to at least one of the five attributes in an exceptional way as follows, taking each fort in turn:

1. *Chittorgarh.* The extent to which it fulfils attribute 2 makes it distinctive from the other forts. As the former capital of the Sisodia clan and the target of three famous historical sieges, the site is strongly imbued with associational values attaching to Rajput history and folk lore. Furthermore the sheer number and variety of architectural remains of early date (ranging from the 8<sup>th</sup> to the 16<sup>th</sup> centuries) mark it out a site of exceptional importance, with only a few Indian forts that are comparable.
2. *Kumbhalgarh.* Its distinctive contribution arises from it having been constructed in a single process and (apart from the palace of Fateh Singh, added later) retains its architectural coherence. Its design is attributed to an architect known by name – Mandan – who was

also an author and theorist at the court of Rana Kumbha in Chittor (another fort in the series). This combination of factors is highly exceptional.

3. *Ranthambore*. Its distinctive contribution arises from it being the only forest fort included in the nomination. In addition, the remains of the palace of Hammir – if taken to be authentic – are among the oldest surviving structures of an Indian palace.
4. *Gagron*. Its distinctive contribution to the series arises from it being the only river-protected fort included in the nomination. In addition its strategic location in a pass in the hills gave it enhanced significance in the control of trade routes.
5. *Amber-Jaigarh*. Fulfils the attributes, assuming that Jaigarh is included as part of the complex, as that part performed the major military and protective role. Its distinctive contribution is the representation of a key phase (17<sup>th</sup> century) in the development of a common Rajput-Mughal court style, embodied in the buildings and gardens added to Amber by Mirza Raja Jai Singh I.
6. *Jaisalmer*. To be added to the nomination. It is the only example included in the nomination of a hill fort in desert terrain. The extensive township contained within it from the outset, still inhabited today, and the group of Jain temples, make it an important (and in some respects even unique) example of a sacred and secular (urban) fort.

The detailed discussion of these six sites drew on the expertise of various members of the State Party group – such as historical information supplied by Dr Rima Hooja – that should again be referred to while compiling the revised nomination dossier.

The discussion also covered some other conspicuous forts in Rajasthan which by virtue of their fulfilling some or all of the attributes might have merited inclusion. It was felt that if they were not to be included, the reasons for their exclusion should be clear and apparent. Thus the forts of Junagadh (Bikaner) and Ahichhatragarh (Nagaur) may be excluded as they are built on level terrain and are not hill forts. Mehrangarh (Jodhpur) is built on a hill but – unlike those suggested for the revised nomination – it never included a substantial settlement for a section of the civilian population, being essentially a citadel for the protection of the court and its guard.

The six forts proposed or recommended for inclusion in a revised nomination thus were considered to form a complete and coherent group that had the potential to demonstrate OUV as a series of through representing all the essential attributes of Rajput Hill Forts in an exceptional way. The State Party stated that further discussions were needed with owners on the inclusion of Jaigarh and Jaisalmer. Whereas Jaigarh was in a good state of conservation, further work is needed at Jaisalmer. Over the past two years a detailed programme of conservation for Jaisalmer has been drawn up and funds found for its implementation. It is anticipated that this work will take at least two years. The mission considered that there would be no reason to exclude Jaisalmer from the series if conservation work was incomplete, provided a clear programme of work could be set out. Indeed it was preferable that this work was undertaken with sufficient time

As the nomination was referred by the World Heritage Committee, any revised nomination submitted by 1<sup>st</sup> February 2013 would need to be presented to the Committee at its 37<sup>th</sup> session in 2013 and thus evaluated by ICOMOS during February allowing no time for a formal mission. The mission undertook to consider how an 'informal' mission might be undertaken perhaps taking advantage of ICOMOS experts who were known to be visiting the region.

During discussions, the mission touched on ways that the forts might be interpreted in ways that made it clear why each of them had been included in the series, thus encouraging visitors to visit all the forts.



As one of the key attributes of the forts is their settlements, the mission considered that further work was needed to draw local communities into the management system.

The mission welcomed the commitment of the Secretary of State for Culture of Rajasthan to provide funds for the capacity building of craftspeople for restoration work and to look at ways that the forts, if inscribed on the World Heritage list, could become the focus of innovative ways for cultural assets to contribute sustainable development within the region.

#### **4. *Conclusions of discussion***

The Mission concluded that the two days of discussion had clearly identified the key attributes of Rajput Forts and how these might be reflected in a serial nomination.

The six sites identified during the second days of discussion could be seen to reflect all the key attributes of Rajput Hill Forts and to cover all the main physiographical terrains of hill forts. Furthermore the mission considered that each of the six sites demonstrated at least one of the key attributes in an exceptional way and thus justified their inclusion in the series.

Overall all the six sites were together necessary to demonstrate the potential of a series to justify OUV.

The mission did not consider that the six sites could be nominated sequentially as it would not be possible for a smaller number to justify OUV as is necessary for the first nomination of a series.

#### **5. *Recommendations of the Mission***

The mission recommended that the State Party revise the nomination to include all the six sites identified as being necessary for a series reflecting Rajput Hill forts to have the potential to demonstrate OUV.

It suggested that the nomination should be re-focused to allow a clearer understanding of the overall attributes of Hill Forts, and thus the potential OUV of the series, and how each of the nominated sites contributes to those attributes and also how each of the sites reflects at least one of those attributes in an exceptional way.

The mission acknowledged the extensive amount of work that has been carried out on the Hill Forts and the historical and other research information that has been assembled. It considers that a clearer description of each of the forts is necessary in a revised nomination in order to set out precisely the key attributes and in what way they are exceptional. It also suggests that the overall Justification for the series is revised in terms of the Statement of OUV and the justification for the criteria in order to make a stronger case for why the selected Rajput Hill Forts can be seen as outstanding.

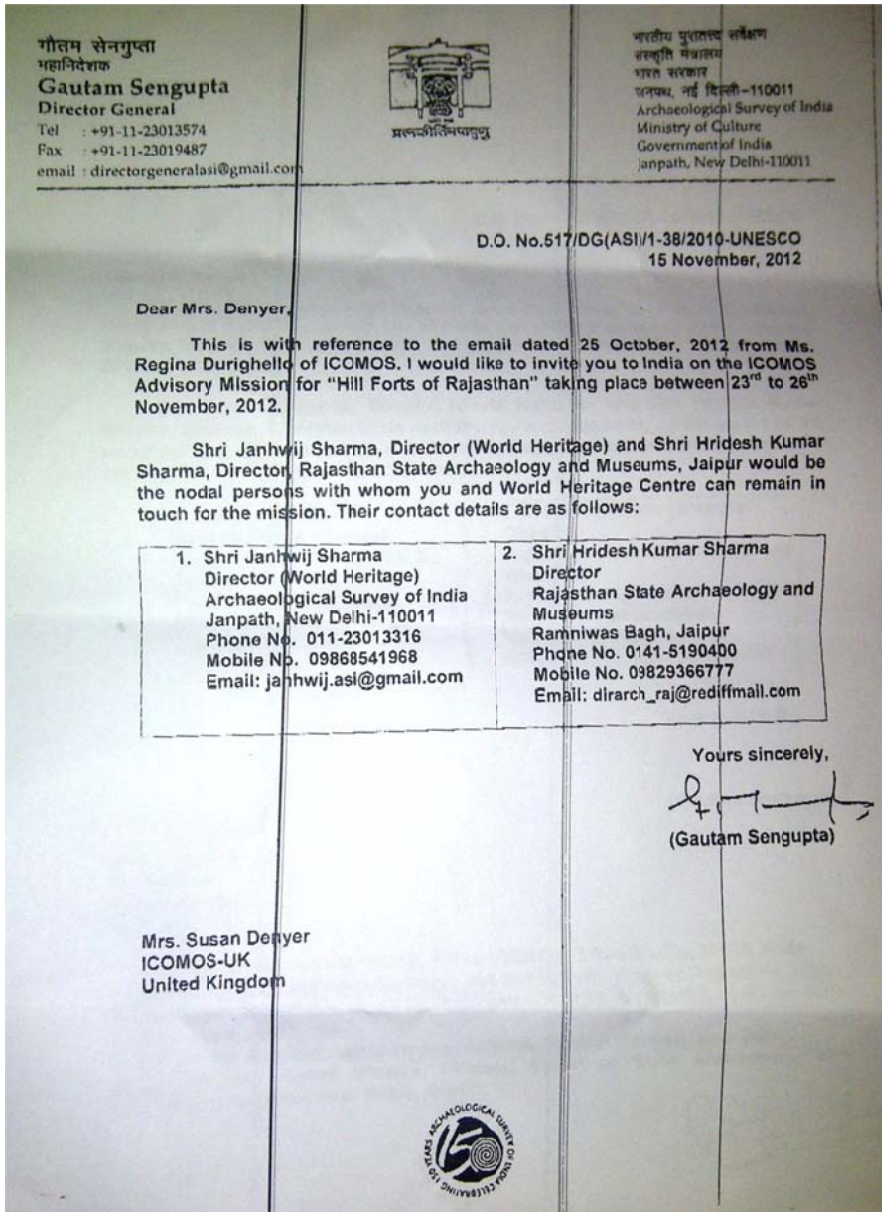
The mission also recommends that an adequate description and visualisations are prepared in order that the Conservation Plan for Jaisalmer can be readily understood in terms of its phasing and final outcome.

The mission further recommends that consideration is given to the way the forts are interpreted in order that there is a clear understanding of the way each contributes to the whole series.

Finally the mission welcomed the commitment of the Government of Rajasthan to focus on capacity building for craftspeople involved in the conservation of the forts and to investigate ways in which the forts as cultural assets might contribute to the sustainable development of the region.

ANNEXES:

A. Letter of Invitation





**B. Mission Programme**

*Thursday 24<sup>th</sup> November, Susan Denyer arrives in Delhi and travels to Jaipur; Giles Tillotson already in Jaipur*

*Friday 23<sup>rd</sup> November 2012 meeting with invited stakeholders at VIP Reception and Conference Centre, Amber Palace.*

*Saturday 24<sup>th</sup> November, mission experts travel to Delhi*

*Monday 26<sup>th</sup> November 2012 meeting with invited stakeholders at the Conference Room, ASI Head Office, Janpath, New Delhi*

*Tuesday 27<sup>th</sup> November, Susan Denyer returns to London*

**C. List of people involved in the Mission**

**Government of Rajasthan**

Ms Gurjot Kaur, PS, Culture, Government of Rajasthan

Mr. Hridesh Sharma, Director, Archaeology, Government of Rajasthan

**Archaeological survey of India (ASI)**

Mr. Janhwij Sharma, Director, Conservation

Dr. Kanwar Singh, WH Section

SA, Jaipur Circle, ASI

**The Tentative list working group of the advisory committee on World Heritage matters (ACWHM) Working Group on Hill Forts**

Ms. Amita Baig, Chairperson of the Working Group

Dr. Rima Hooja, Member, NMA and Expert for ACWHM

Dr. Shikha Jain, MS, ACWHM as Convener of the Working Group

Ms Shumi Chatterjee (from ACWHM Secretariat)

Prof Jyoti Hosagrahar

Ms Yaamini Mubayi

**Local stakeholders and experts**

Mr. Karni Singh Jasol, Mehrangarh Foundation

Mr. Yunus Khimani, Jaigarh Foundation

Dr. Chandramani Singh

Ms Dharmender Kanwar, INTACH