

World Heritage Scanned Nomination

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UNESCO Region: ASIA AND THE PACIFIC

SITE NAME: **Rock Shelters of Bhimbetka**

DATE OF INSCRIPTION: 5th July 2003

STATE PARTY: INDIA

CRITERIA: C (iii)(v)

DECISION OF THE WORLD HERITAGE COMMITTEE:

Excerpt from the Report of the 27th Session of the World Heritage Committee

Criterion (iii): Bhimbetka reflects a long interaction between people and the landscape, as demonstrated in the quantity and quality of its rock art.

Criterion (v): Bhimbetka is closely associated with a hunting and gathering economy as demonstrated in the rock art and in the relicts of this tradition in the local adivasi villages on the periphery of this site.

BRIEF DESCRIPTIONS

The Rock Shelters of Bhimbetka are in the foothills of the Vindhyan Mountains on the southern edge of the central Indian plateau. Within massive sandstone outcrops, above comparatively dense forest, are five clusters of natural rock shelters, displaying paintings that appear to date from the Mesolithic Period right through to the historical period. The cultural traditions of the inhabitants of the twenty-one villages adjacent to the site bear a strong resemblance to those represented in the rock paintings.

1.b State, Province or Region: Madhya Pradesh

1.d Exact location: N22 55 40.0 E77 35 00.0

Rock Shelters of Bhimbetka

Continuity through Antiquity, Art & Environment

A proposal for nomination
for inclusion in the World Heritage List



Archaeological Survey of India

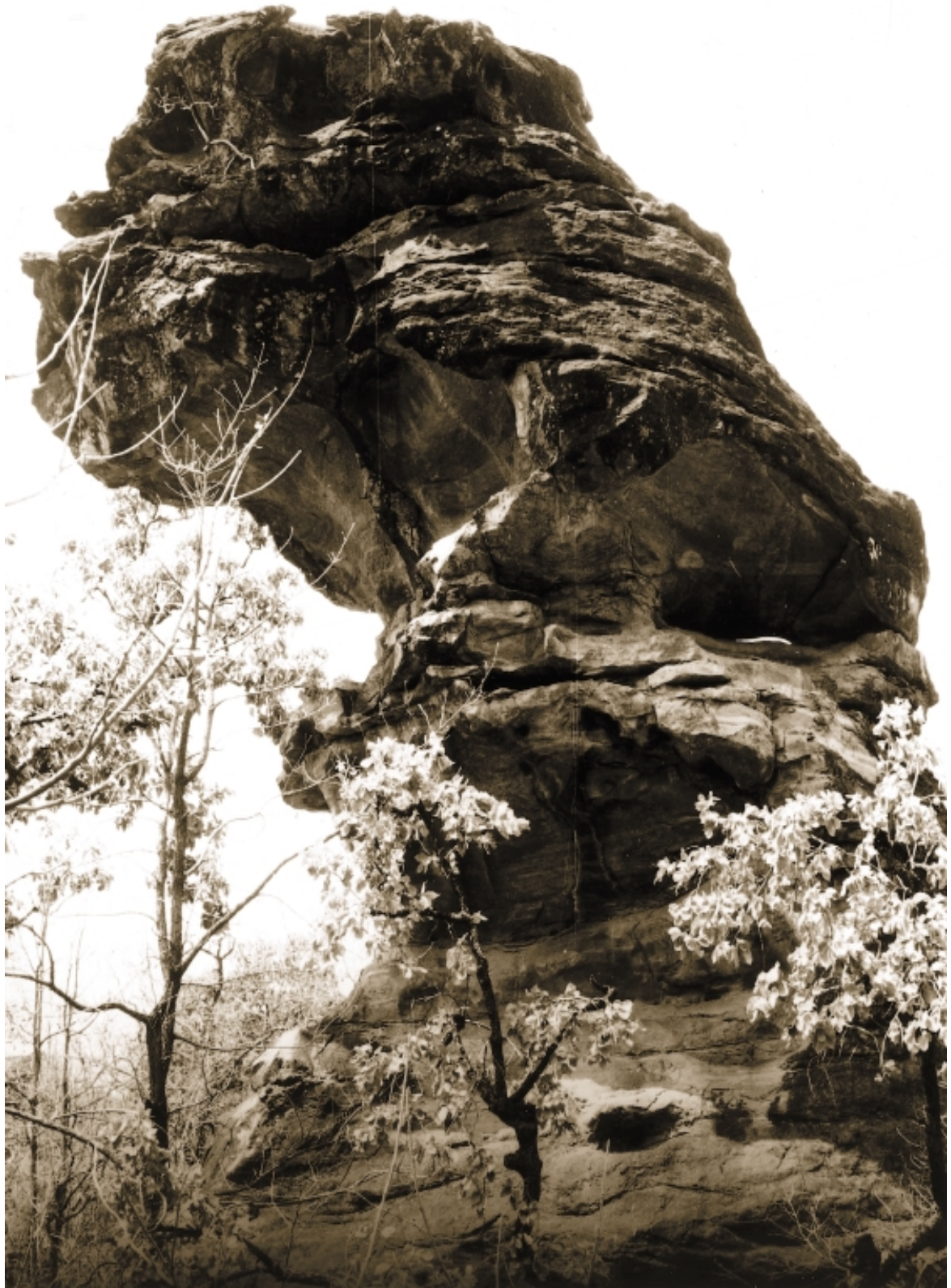


A rare primary site, and one of the most ancient, Bhimbetka is a microcosm; a 'living site' set in its natural environment, as yet in its pristine state.

Its vast and variegated content in one contiguous area provides great potential for comprehending the dynamics of the earliest settlements of man. That the area has also been able to sustain the ecological balances in relation to its natural environment gives an added dimension, one that has nurtured and supported cultural evolution and development over time. For archaeological evidences show an undisturbed continuous sequence of cultures through its layers from the Palaeolithic to the Historical periods; and on the visible surface, a rich profusion of paintings from the Mesolithic to the Mediaeval.

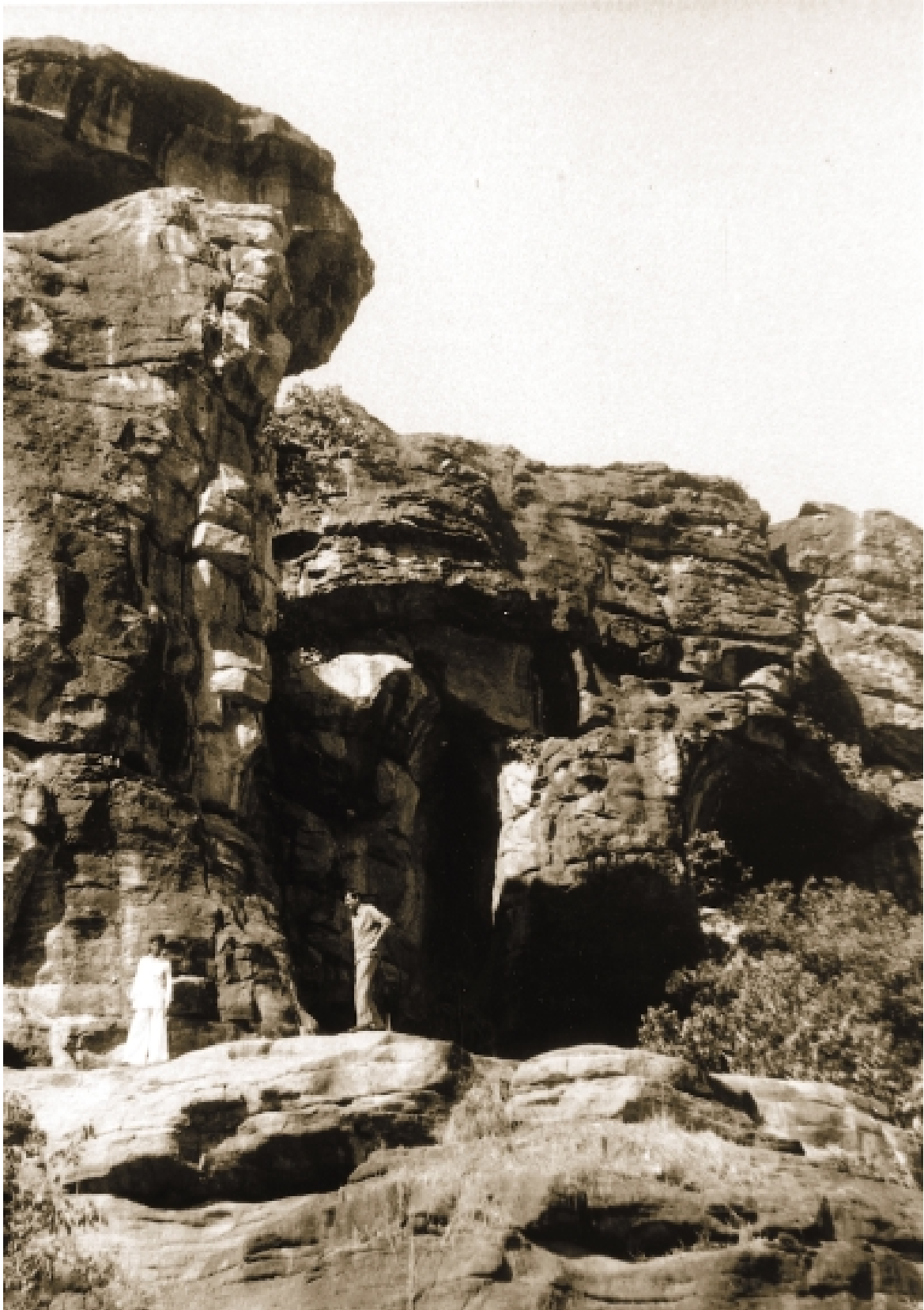
Bhimbetka's uniqueness lies not only in the concentration of its antiquity and art, and the wealth that it conceals, but that it has not remained frozen in time and space. Elements of this continuity are manifest in the creative expressions that show affinity to great antiquity in the traditional lifestyles of the adivasis of the area integral to Bhimbetka and the surrounding region.

To preserve this site is of utmost importance.



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1

Identification of the Property

a) Country

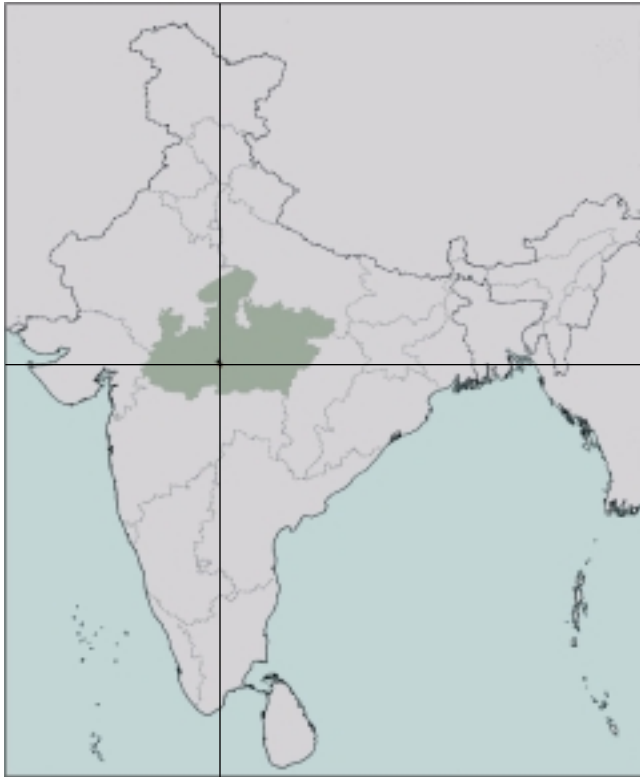
India

b) State, Province or Region

State: Madhya Pradesh

District: Raisen

Tehsil: Goharganj



Bhimbetka lies 22° 56' 05" N and 77°36' 41" E

Bhimbetka, Madhya Pradesh in Left: Map of India; Right: Map of Madhya Pradesh

c) Name of Property

-

Rock Shelters of Bhimbetka

Specified in the Schedule to the notification published in the Gazette of India, February 1990, in accordance with sub-section (1) of section 4 of the Ancient Monuments and Archaeological Sites and Remains Act, 1958 (24 of 1958).

d) Exact location on map and indication of geographical coordinates to the nearest second

The protected property is in two distinct parts. The coordinates qualifying the extreme points in the north, south, east and west for the two parts, the larger and smaller, are as follows:

Coordinates for the larger group:

North: 22° 57' 05" N 77° 37' 15" E
South: 22° 55' 36" N 77° 35' 32" E
East: 22° 56' 30" N 77° 38' 52" E
West: 22° 56' 47" N 77° 33' 05" E

Coordinates for the smaller group:

North: 22° 57' 17" N 77° 39' 20" E
South: 22° 56' 43" N 77° 38' 50" E
East: 22° 56' 48" N 77° 39' 32" E
West: 22° 57' 04" N 77° 38' 30" E

Coordinates for the buffer zone:

North: 22° 59' 39" N 77° 39' 15" E
South: 22° 53' 08" N 77° 33' 13" E
East: 22° 15' 24" N 77° 41' 49" E
West: 22° 56' 00" N 77° 30' 00" E

e) A map indicating core and buffer zones



f) The relevant areas in hectares for the proposed core and buffer zones of the property proposed for inscription

Core zone: 1,892 hectares Buffer zone: 10,280 hectares Total: 12,172 hectares



2

Justification for Inscription



a) The significance of Bhimbetka

There is widespread evidence from nearly all over India of the workmanship of the *Homo erectus*, the earliest human ancestor, in the form of Palaeolithic tools. Direct and indirect evidences so far indicate the earliest presence of this ancestral form in the country approximately 160,000 years ago (based on evidences from the Didwana region, Rajasthan).

About 40 kms from Bhimbetka in the alluvial cemented gravels of the river Narmada at the site Hathnora (district Sehore), a cranium of the the Narmada hominid was found along with a large number of Lower Palaeolithic tools. The evidences together suggest a high density of human occupation in and around the Narmada - at a conservative estimate for the zone - about 100,000 years ago. As all these discoveries have been made from alluvial gravels, they are secondary in nature and do not reveal where they were made and used. Primary sites are rare, and of the Old World those of the Pleistocene Age (28,00,000 BP to 10,000 BP) constitute less than 1 per cent of all discovered sites.

Bhimbetka is one such rare primary site.

The discovery of Bhimbetka, therefore, is not only of vital significance for the prehistorian but in many ways provides evidences which are unique in the entire world.

Set in the Vindhyan range in Madhya Pradesh in central India, the site complex is an integral part of the natural undulating formation with an undisturbed geomorphological character and eco-system - spread over the seven low sedimentary hills of Bineka, Bhonrawali, Bhimbetka, Lakha Juar (East), Lakha Juar (West), Muni Baba ki Pahari and Jaora. Massive naturally sculpted rock formations through wind erosions crest the Bhimbetka hill making it an easily identifiable visible landmark for kilometres around. Covered with protected forests and waterways of the Ratapani Wildlife Sanctuary, within the northern periphery of which the site falls, are found natural clusters of rock shelters integrated with the landscape spread over the upper parts of the hills which exhibit a history and evolution of man through several cultural layers.

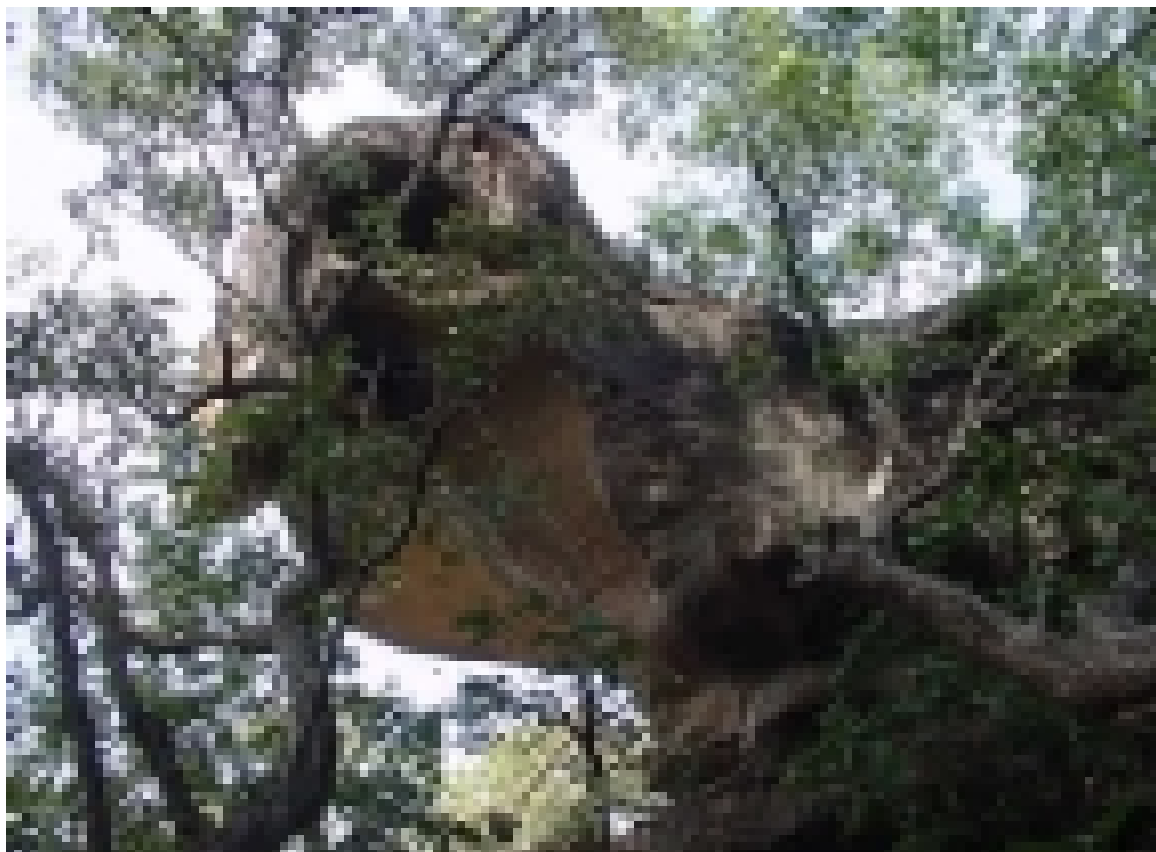
While the contents of the shelters have revealed a continuity, elements of these are also observed in the continuing traditional expressions in the lifestyles of the surrounding adivasi settlements of the Gonds, Pradhans and the Korkus.

The site complex is a magnificent repository of rock paintings within natural rock shelters with archaeological evidences of habitation and lithic industry, from the Palaeolithic and Mesolithic periods through the Chalcolithic to the Mediaeval period.

Some of the world's oldest floors and walls have been found here. All of these have remained, providing an undisturbed continuous sequence of history of stone age cultures to the historical period. A consistent use of these shelters over this long span of time, apart from habitational deposits, is also indicated by paintings which have been superimposed on earlier existing ones, by inscriptions between the second century BC and seventh century AD, and more recently, by paintings of the Mediaeval period.

Concentration, Antiquity and Painting

The richness and variety of this unusually large concentration of paintings, the greatest in the world, within a site which has demonstrated a progressive sequential use through the ages remain unparalleled. Bhimbetka's rock shelters far outnumber the largest known evidence of the prehistoric caves of Dordogne in southwest France. While evidences from Dordogne yield cultural products between 100,000 BP and 10,000 BP, very few of the caves show continued occupancy during this period. Bhimbetka is exceptional in the fact that in at least one of the excavated shelters (III F-23), continued occupation is demonstrable from 100,000 BP (Late Acheulian) to 1000 AD.



The Bhimbetka excavations have also significantly questioned the widely believed exogenous origin of the Middle Paleolithic. 20 kms from Bhimbetka, the Narmada alluvial gravels show the Lower Palaeolithic from the first wet phase through tools of quartzite, and from the gravels of the second wet phase tools of jasper, agate and chalcedony. This complete change of raw material was claimed by earlier commentators to demonstrate the absence of any relationship of the Lower Palaeolithic with the younger cultural phase. The Bhimbetka excavations show no change of raw material for the entire Palaeolithic succession which, in the Lower, Middle and Upper Palaeolithic, is the same quasi-metamorphosed sandstone identified as orthoquartzite. Many more of these shelters are yet to be excavated. Consequently, an enormous wealth of information still lies buried.

On the surface, the most outstanding aspect of this site is the profusion of paintings on the walls and upper areas within the shelters across a discernible long and continuous span of time. There are over 700 shelters distributed over the site. On Bhimbetka hill alone - where excavations and investigations have been concentrated since 1971 - of the 243 shelters discovered and numbered so far, 133 are painted. Some contain only a few figures while others, several hundred. Remarkably expressive and descriptive in many ways, depictions vary from the realistic to the stylised, graphic, geometric and the decorative. Paintings in the rock shelters at Bhimbetka range from largely Mesolithic, through Chalcolithic and Historical to the Mediaeval period, and constitute a rich source of study in various fields.

The bases of chronology are according to finds of colour in excavations (largely derived from minerals), patina, cultural content, flora and fauna, superimpositions and styles of execution. Nodules and rubbed cakes of mineral colours, mainly of haematite red, are found from the earliest Mesolithic phase, suggesting their use in painting. In 1975, V.S. Wakankar reported the finding of manganese, yellow ochre and terra verde from his excavation of shelter III A-28 at Bhimbetka, and pieces of colour rubbed on several facets in shelter III F-23. Colour nodules, along with stone querns, rubbers, bone tools and antlers, have also been found as offerings with the dead, buried within the living areas of the shelters.

The paintings, largely in white and red, are essentially a record of the varied animal life which shared the forest environment with the prehistoric people, and of the various facets - economic and social - of the peoples' lives. Representations of flora are few. Sizes range from five centimetres to a faded impression of an animal on the ceiling of shelter III C-6 nearly five metres in length and two metres in breadth. Pictorial narratives of events such as large processions of men on caparisoned horses and elephants, battle scenes depicting spears, bows, arrows, shields and swords highlight the Historical period. Inscriptions painted in white and red, and engraved on the rock surface in Sunga Brahmi (second century BC), post-Gupta Brahmi and Sankha Lipi (first century BC - seventh century AD) and later paintings, also bear testimony to the use of the shelters in the Historical and Mediaeval periods.

A chronology has been attempted. Documentation, typological classifications and subsequent analyses began in the 1970s, and based on these observations and excavation yields, cultural periods have broadly been established. For example, paintings relating to the geometric patterns of Malwa pottery found in the excavations in Bhimbetka and the region are attributed to the Chalcolithic period.

Superimpositions or overlappings of paintings of different styles and periods - their correlation established accordingly - are observed in many shelters. Though generally two or three layers are found in most, as many as fifteen are recorded from Bhimbetka. Studies are still nascent, at a documentary stage, and the painted rock shelters of the designated core cover a considerable area grouped over 1892 hectares.

The paintings at Bhimbetka are man's earliest manifestations of creativity and communication, and constitute an enormous resource. They must be viewed both from the point of view of art, and holistically, through other interrelated disciplines, each enriching the other. For the study of these paintings and their processes are closely linked with archaeology, ethnology and anthropology, and it is through this perception that the larger context of human culture and its evolution within India and in relation with the world may be more fully understood.



Superimpositions Bhonrawali, Cluster II E: Mesolithic/Historical

A rare primary site, and one of the most ancient, Bhimbetka is a microcosm; a 'living site' set in its natural environment, as yet in its pristine state.

Its vast and variegated content in one contiguous area provides great potential for comprehending the dynamics of the earliest settlements of man. That the area has also been able to sustain the ecological balances in relation to its natural environment gives an added dimension, one that has nurtured and supported cultural evolution and development over time. For archaeological evidences show an undisturbed continuous sequence of cultures through its layers from the Palaeolithic to the Historical periods; and on the visible surface a rich profusion of paintings from the Mesolithic to the Mediaeval.

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Mesolithic

Above: Bhonrawali, Cluster II F; Below: Bhimbetka, Cluster III C

A few of the rock paintings of Bhimbetka through the Mesolithic, Chalcolithic, Historical & Mediaeval periods



Mesolithic
Bhonrawali, Cluster II F



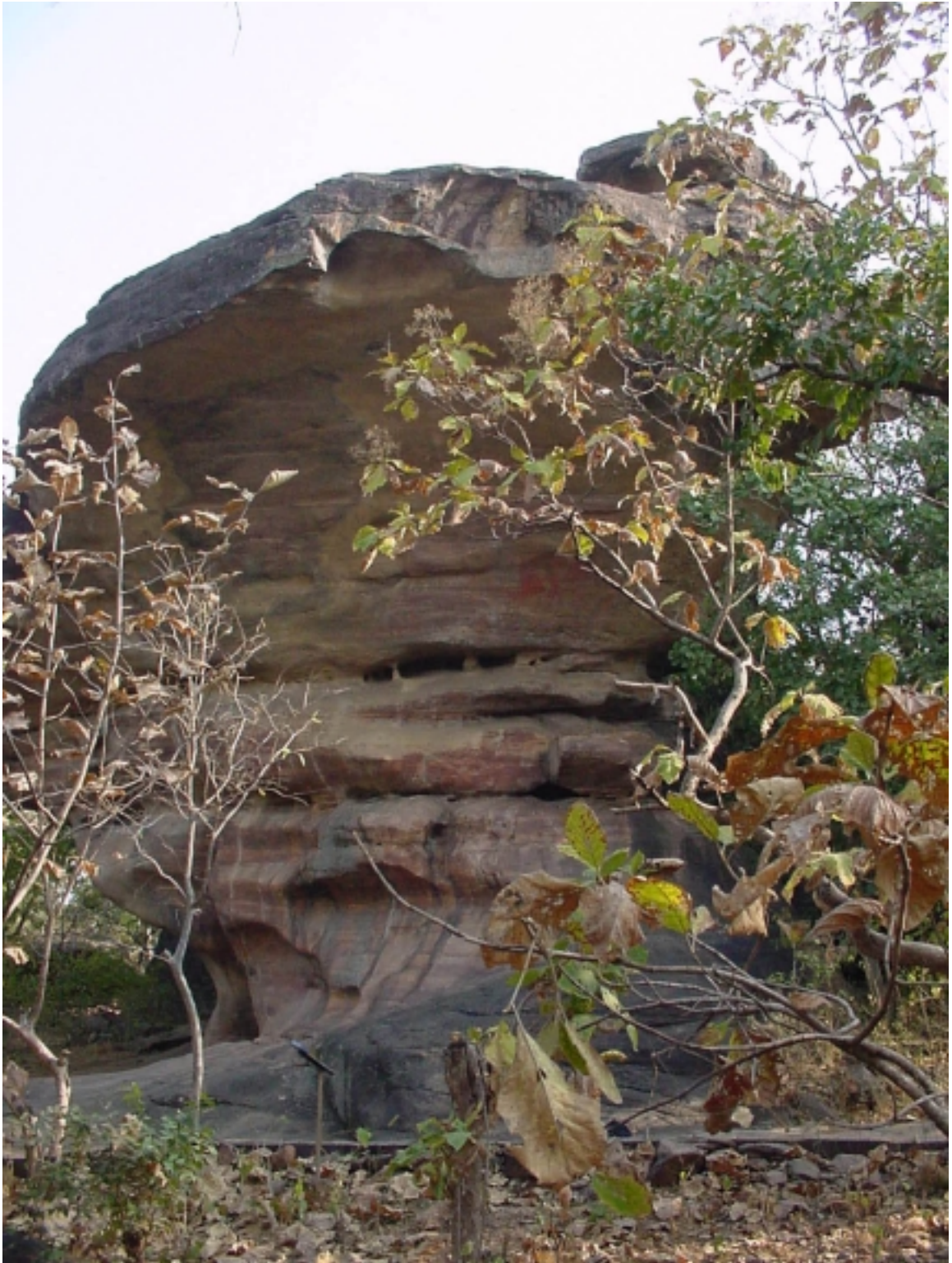
Mesolithic

Above: Bhimbetka, Cluster III C; Below: Lakha Juar (East)



Mesolithic

Above and Below: Bhimbetka, Cluster III A



Mesolithic
Bhimbetka, Cluster III C



Mesolithic

Above: Bhonrawali, Cluster II F; Below: Bhimbetka, Cluster III C



Chalcolithic
Bhonrawali, Cluster II F



Chalcolithic
Bhimbetka, Cluster III C



Chalcolithic

Above and Below: **Bhimbetka, Cluster III C**



Chalcolithic

Above: Bhonrawali, Cluster II E; Below: Bhimbetka, Cluster III C



Historical

Above and Below: **Bhonrawali, Cluster II E**



Historical

Above and Below: Bhonrawali, Cluster II E



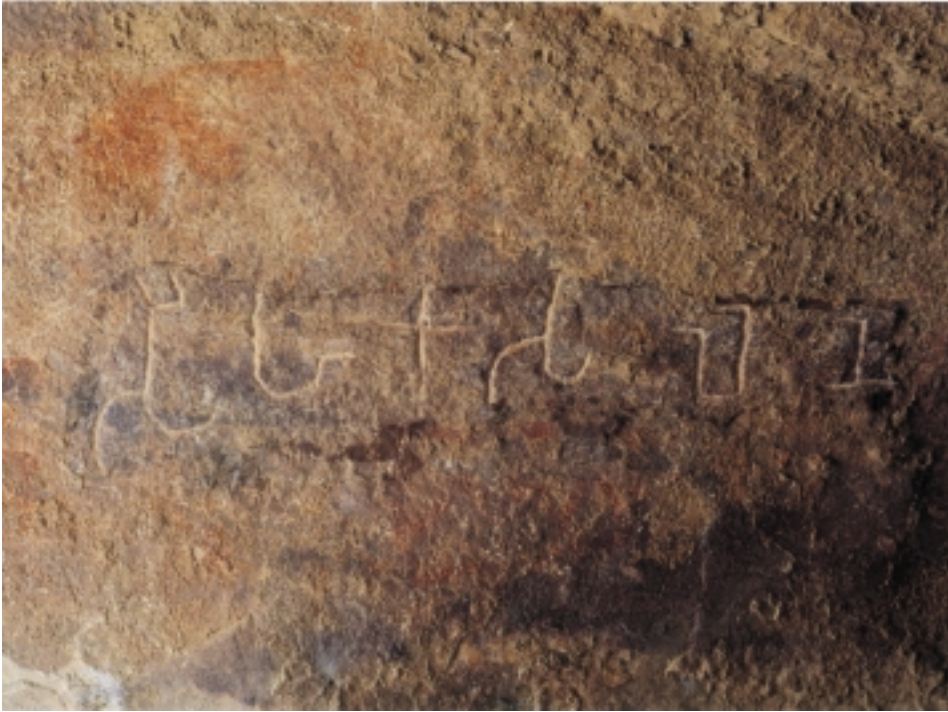
Historical

Above: Bhonrawali Cluster II E; Below: Bhonrawali Cluster II B



Mediaeval

Above: Bhimbetka, Cluster III A; Below: Bhimbetka, Cluster III C



Historical

Above and Below: Inscriptions in Sunga Brahmi, second century BC, Bhimbetka, Cluster III F



Historical

Inscriptions: Above: Sanga Brahmi; Below: Sankha Lipi, fifth century, Bhimbetka, Cluster III F



Superimpositions

Mesolithic/Chalcolithic/Historical/Mediaeval, Bhimbetka, Cluster III C



Superimpositions

Above: Chalcolithic/Historical; Below: Mesolithic/Chalcolithic, Bhimbetka, Cluster III C



Superimpositions

Mesolithic/Historical, Bhonrawali, Cluster II E



Superimpositions

Above and Below: Mesolithic/Historical/Mediaeval, Bhonrawali, Cluster II E



Superimpositions

Above: Mesolithic/Chalcolithic/Historical/Mediaeval; Below: Mesolithic/Mediaeval, Bhimbetka, Cluster III C



Superimpositions

Above and Below: Mesolithic/Historical, Lakha Juar (East)

b) A comparative analysis

Sites connected with prehistory are found nearly all over India

It is observed that such 'sites' are not sporadic and arbitrary but are often in continuation with other neighbouring sites, and so must be viewed in a larger geocultural matrix spread over India and the rest of the world beyond political boundaries, and not as isolated phenomena. These sites are, with increasing frequency, being discovered and uncovered, and in the process, empirically more knowledge is being gained. India is one of the richest repositories of creative expression and communication through its rock paintings, among other regions of paleoart such as Australia, southern Africa and the Arabian peninsula. While the earliest discovery of rock paintings in India were of Mirzapur by Archibald Carlleyle in 1867 who ascribed the paintings to the stone age, more recent discoveries have been made over the years, including the site at Bhimbetka by V.S. Wakankar in 1957.

Sites pertaining to both prehistory and tangible creative expressions identified with one or more cultural periods and particular geographical zones are found, in the north of India, for example, in the states of Kashmir, Himachal Pradesh and Uttaranchal; sites in Uttar Pradesh are tied with the geographical formations of Central India along with Madhya Pradesh and Chhatisgarh. Towards their west are those of Rajasthan and Gujarat, and their east: Bihar, Jharkhand and Orissa, and further east, Assam and Manipur. Towards the south, such sites have been discovered in Maharashtra, Andhra Pradesh, Karnataka, Tamil Nadu and Kerala. However, evidences of types and densities of shelters, their naturally occurring locations, the sequence of their use over time, the variety and magnitude of their content cultural or otherwise, and the state of preservation in part and whole vary considerably.

Among early sites in north India are Guler in the hills of the Kangra valley, and Chauntra and Dehra, identified with the Lower Palaeolithic period, and Kotli and Ror with the Middle Palaeolithic. In the semi-arid west, sites such as Didwana and Jayal in Rajasthan and Umrethi in Gujarat show evidences of Lower Palaeolithic remains. Didwana is significant in that it has shown a continuity of human habitation from the Lower Palaeolithic to the Mesolithic periods. Baghor has yielded Upper Palaeolithic and Mesolithic remains. Among the many prehistoric sites along the Pravara valley and the contiguous plainlands of Maharashtra are Nevasa - Lower Paleolithic to Upper Palaeolithic periods, and Patne from the Middle Palaeolithic to the Mesolithic. Lower Palaeolithic sites towards the east in Uttar Pradesh include Lalitpur, Kotia and Sihawal, and among the Middle Palaeolithic - Sihora and Patpara. Further east in Bihar, the Singbhum district has also revealed evidences from the Lower Palaeolithic to the Mesolithic period, and Bhalitundi in Orissa - remains of the Middle Palaeolithic. Early prehistoric remains are found in Hungsi and Attirampakkam while Renigunta reveals a continuity from the Lower Palaeolithic to the Mesolithic. Creative expressions of communication in the form of painted shelters are absent in all of these.

The largest concentration of prehistoric areas and rock paintings in India is located in the heart of the country over three distinct mountain systems: the **Vindhya** and **Satpura** in the states of Madhya Pradesh, Chhatisgarh, and a part of Uttar Pradesh; and the **Aravalli** in Rajasthan. Mirzapur has demonstrated evidences from the Lower Palaeolithic to the Mesolithic period, and is a significant centre of rock painted shelters, though scattered, outside Madhya Pradesh. Within Madhya Pradesh painted rock shelter sites of note are found in the districts of Hoshangabad - Adamgarh in particular, Pachmarhi, Rewa, Sagar, Gwalior, Bhopal and Raisen - in which Bhimbetka falls - among others. However, these shelters compared to Bhimbetka exhibit limited cultural continuity, are far fewer and are sparsely distributed.



India: Prehistoric sites and painted rock shelter sites

Prehistoric Sites

1	Chauntra	19	Lalitpur
2	Guler	20	Umaria
3	Kotli	21	Gora
4	Ror	22	Kotia
5	Didwana	23	Mahadama
6	Pushkar	24	Baghor
7	Luni	25	Maheshwar
8	Tilwara	26	Singhbhum
9	Dhaneri	27	Bhalitundi
10	Nimbahera	28	Nagpur
11	Mahargarh	29	Inamgaon
12	Rojdi	30	Bori
13	Jetpur	31	Hungsi
14	Umrethi	32	Nittur
15	Raisen	33	Renigunta
16	Bhimbetka	34	Attirampakkam
17	Adamgarh	35	Tenmalai
18	Mahadeo Pipariya		

Painted Rock Shelter Sites

1	Almora	27	Sundargarh
2	Agra	28	Kota
3	Gwalior	29	Chittaurgarh
4	Shivpuri	30	Jhalawar
5	Varanasi	31	Bhilwara
6	Allahabad	32	Ajmer
7	Mirzapur	33	Sabar Kantha
8	Rewa	34	Bhavnagar
9	Panna	35	Chittoor
10	Chhatarpur	36	Kurnool
11	Banda	37	Mehbubnagar
12	Mandsaur	38	Medak
13	Katni	39	Raichur
14	Narsinghpur	40	Gulbarga
15	Sagar	41	Bijapur
16	Vidisha	42	North Arcot
17	Raisen	43	South Arcot
18	Bhopal	44	Dharmपुरi
19	Hoshangabad	45	Idikki
20	Pachmarhi	46	Bundi
21	Raigarh	47	Alwar
22	Bastar	48	Jaipur
23	Shahabad	49	Barmar
24	Midnapur	50	Hazaribagh
25	Sambalpur	51	Badami
26	Kalahandi		

c) Authenticity and Integrity

The site lies undisturbed and, as yet, artificially unaltered, except for archaeological excavations. Bhimbetka continues to retain its geomorphological character, the natural formations of its rock shelters, and the eco-system within its forests. Any change has been through the forces of nature. That it falls within a designated wildlife sanctuary and protected forest area has further continued to preserve and maintain natural ecological balances, and so also the essence of the symbiotic relationship of man and nature through its uninterrupted existence. This man-nature relationship is reflected in the archaeological finds of the earliest period onwards, and together with the rock shelter paintings stand testimony to time, integral to the site, preserving an almost insular evolution of human cultural history within a microcosm.

This microcosm reveals a range of parts encompassing environment and ecology, rock shelter morphologies, paintings, material evidence, and continuing traditions - integrated into a whole, spanning tens of thousands of years.

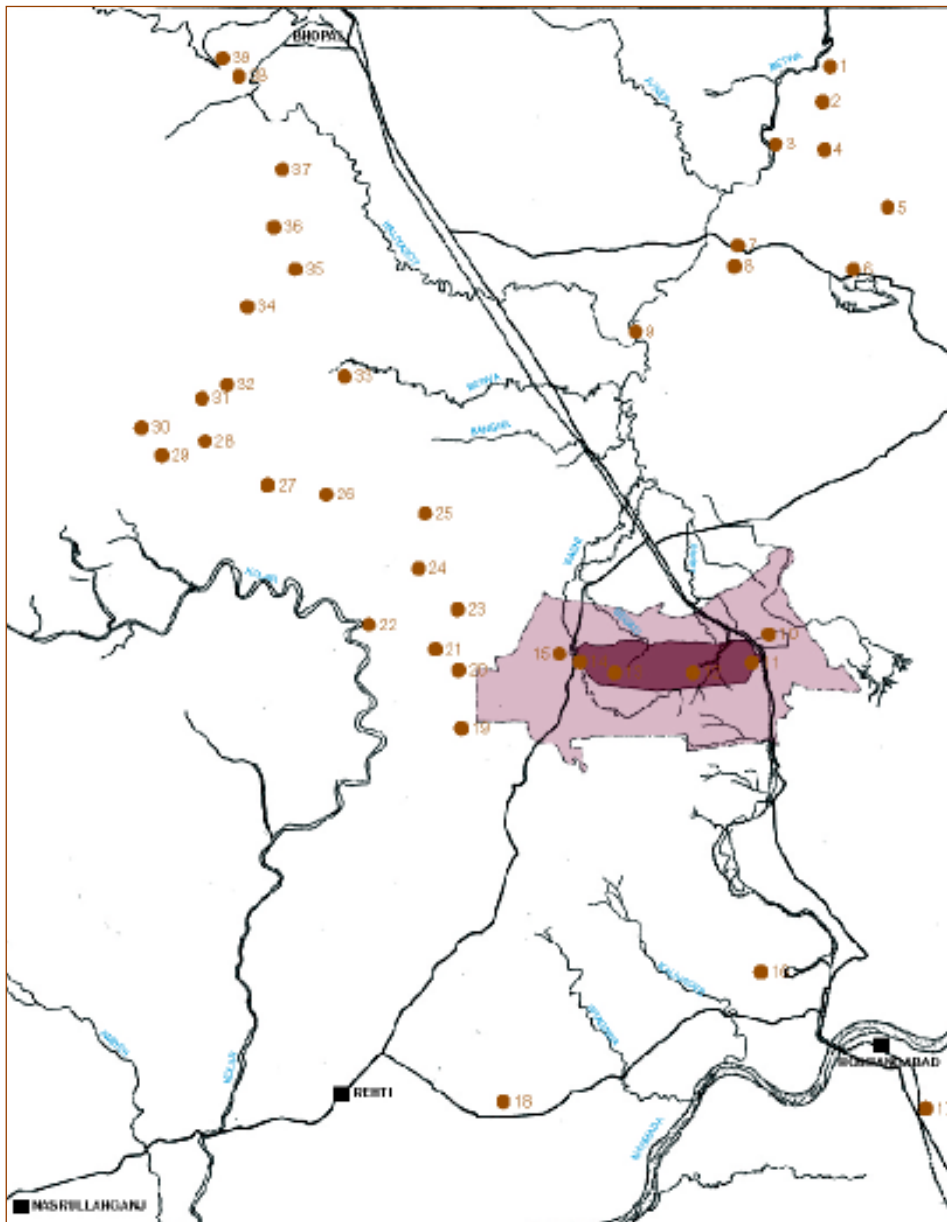
It is this rare authenticity and integrity that needs to be conserved in its wholeness.

d) Criteria under which inscription is proposed (and justification for inscription under these criteria)

The inscription of Bhimbetka is proposed as **cultural landscape** as this is a natural landscape that has provided invaluable evidence of containing and sustaining in a specific zone a sequential, undisturbed evolution of humankind from the Palaeolithic, Mesolithic, Chalcolithic, Early Historical to the Historical period. A wealth of information lies concealed. On the visible surface, the rich profusion of paintings within the rock shelters - identified so far from the early Mesolithic period to the Mediaeval period - is not only part of an artistic heritage but a rare source of documentation from the earliest creative expressions of mankind through several cultural layers. This cultural evolution has been nurtured in an undisturbed environment: of ecological balances and unaltered topography. While contents of the shelters have revealed a continuity, it is observed that elements of this continuity, particularly the creative, find expression in the traditional lifestyles of the surrounding *adivasi* settlements of the Gonds, Pradhans and the Korkus.

Bhimbetka is a microcosm that encapsulates this totality. And it is through this totality that this enigmatic site must be viewed in part and in whole through all the disciplines that govern its study, for Bhimbetka holds the keys to many vital questions regarding our beginnings and subsequent evolution.

Bhimbetka is therefore significant as a cultural landscape not only for India but for the rest of the world - for mankind.



Painted rock shelter sites in the vicinity of Bhimbetka

1	Urden	11	Bhonrawali	21	Imlana	31	Kathotiya
2	Haripura	12	Bhimbetka	22	Pandarsi	32	Firangi
3	Ladli	13	Lakha Juar (East)	23	Baghraj - Leela Jhiri	33	Badoha Khoh Jamun Khoh
4	Paharkheri	14	Lakha Juar (West)	24	Jaora	34	Ganeshghati
5	Chammariya	15	Muni Baba ki Pahari	25	Baghwani	35	Rajabandha
6	Donawala	16	Talpura	26	Bakia	36	Digdiga
7	Tilendi (North)	17	Adamgarh	27	Ladi Bai	37	Shahad Karad
8	Tilendi (South)	18	Panguraria	28	Cheel Dant	38	Dharampuri
9	Bhojpur	19	Gautampur Colony	29	Chouri Dant	39	Shyamla Hills
10	Bineka	20	Dhokara Mahadeo	30	Kota Karad		

3

Description

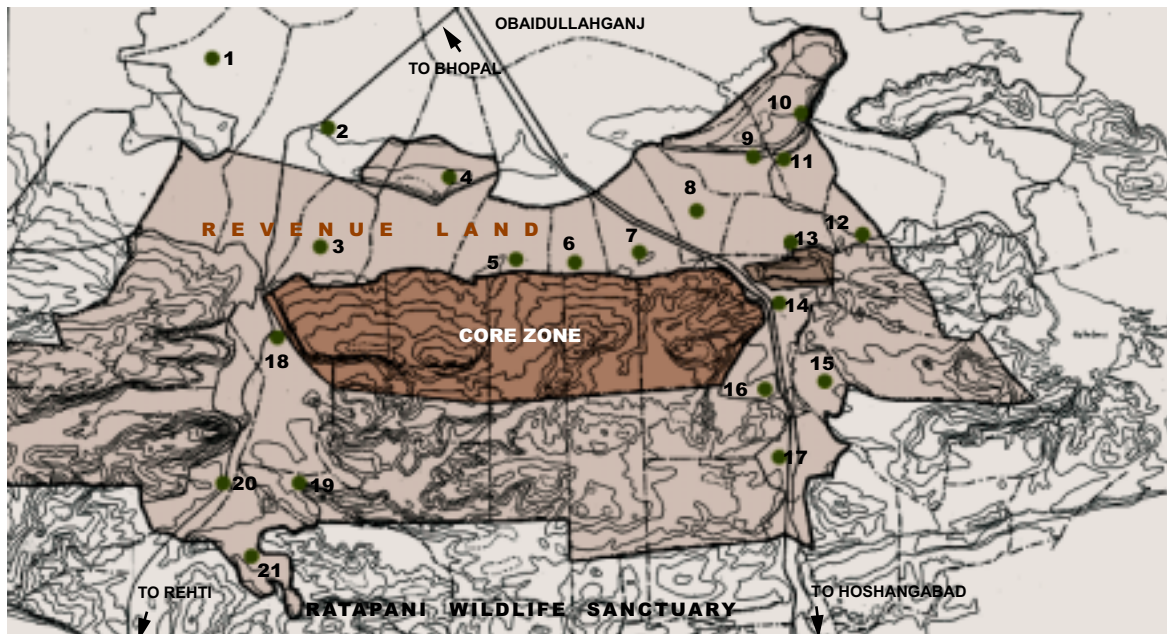
a) A description of Bhimbetka

The Bhimbetka site complex is situated 2 km southwest of the tribal village of Bhiyanpura in the Goharganj tehsil of the district of Raisen in Madhya Pradesh. Bhiyanpura is 45 km southeast of Bhopal, the state capital, and 30 km northwest of Hoshangabad between Obaidullahganj and Barkhera. The main Central Railway line and National Highway 69 pass through the buffer zone between the two designated cores 40 m east of the foot of Bhonrawali hill and 40 m west of the foot of Bineka, at their closest points. The Bhopal-Rehti State Highway which passes through the buffer zone to the west of the core is 200 m west of the foot of Lakha Juar (West) at its nearest point.

The designated core of 1892 hectares forms a part of the Vindhyan range in central India, within the northern periphery of the Ratapani Wildlife Sanctuary. It is buffered all round by protected and reserved forests, including fertile agricultural land and tribal villages towards its west and east which are protected areas. Towards its north lies revenue land. These comprise the buffer zone of 10,280 hectares.

The Site

The 1892 hectares of its core primarily comprise five hills - Bineka, Bhonrawali, Bhimbetka, Lakha Juar (East) and Lakha Juar (West), and the sixth, Muni Baba ki Pahari, a part of the buffer zone to the west. It is on these that the naturally formed clusters of rock shelters of sandstone are found.



Map of site indicating core and buffer zones

Villages within buffer zone: (1) Harrai, (2) Diwatiya, (3) Kesalwara, (4) Tigariya, (5) Amchha Kalan, (6) Amchha Khurd, (7) Bhiyanpura, (8) Banskuwar, (9) Bhanpura, (10) Bhounrasa, (11) Kumadi, (12) Karitalai, (13) Tajpura, (14) Bineka, (15) Piplani Khurd, (16) Borda, (17) Barkhera, (18) Gautampur, (19) Nasipur, (20) Bamnai and (21) Bhoot Palasi



Views, clockwise from top left, of Bhimbetka, Bineka, Lakha Juar (East) and Muni Baba Ki Pahari



Map showing location of the six hills

I. Bineka, II. Bhonrawali, III. Bhimbetka, IV. Lakha Juar (East) and V. Lakha Juar (West) in the core zone and VI. Muni Baba ki Pahari in the buffer zone

Geologically, the Vindhyan range around Bhimbetka presents homoclinal structures forming cuesta scarps along their southeastern side and trend northeast southwest. Bhimbetka hill has a maximum height of 619 metres above mean sea level, and 119 metres from the eastern valley floor. With a length and breadth each of 2 km, it dissolves gradually into the alluvial plains on the northeastern side producing long gentle dip slopes. There are vertical tors upto 23 metres high.

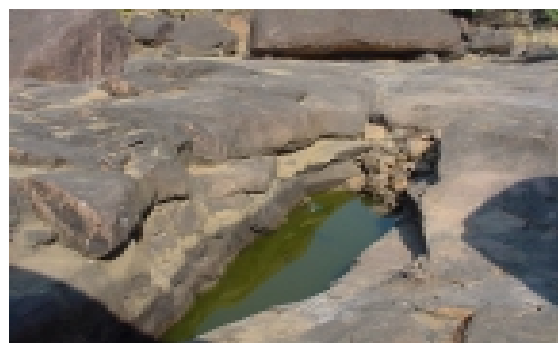


Geological formations: Bineka

Quartz is the main constituent of the sandstone rock of the area; other minerals substantially present include kaolinised feldspars and epidote amphibole. These compositionally immature sandstone are more prone to weathering and erosional action resulting in the formation of scalloped potholes and the variously shaped rock shelters.

The hills of the Vindhyas extend to the southeast, south and west. The sedimentaries of Bhimbetka and adjoining hilly areas belong to the Lower Bhandar sandstone of the Bhandar group of the Vindhyan super group. The general strike of the sandstones is $N70^{\circ}W - S70^{\circ}E$ with a dip of 7° to 8° to $N20^{\circ}E$. Prominent joints noted are $N70^{\circ}E - S70^{\circ}W$, $N70^{\circ}W - S70^{\circ}E$, $N10^{\circ}E - S10^{\circ}W$, and bedding joints.

Bhimbetka and its adjoining hills form an important watershed. To the north of Bhimbetka, drainage flows into the Betwa river, and through successive rivers ultimately finds its way into the Bay of Bengal in the east. To the south, the creeks - such as the Jamun Jhiri - flow into smaller rivers and join the Narmada which discharges into the Arabian Sea to the west. There are three perennial springs at the northeastern foot of the hill: the Bana Ganga, the Gupta Ganga and Pandapur. Pandapur is largely used by both wild and domestic animals, while the Bana Ganga is the source of water for Bhiyanpura.



Water sources: Left: Bana Ganga; Right: Gupta Ganga

The district of Raisen has a predominantly dry climate, except in the season of the southwest monsoon. The Narmada valley and the hilly region experience extreme climatic conditions and four seasons: *hot* from March to mid-June followed by the southwest *monsoon* till the end of September; the *post-monsoon* in October and November and the *cold* from December till the end of February. The temperatures in the area are mild for the latitude due to the effect of altitude. In May, the hottest month, the mean daily maximum temperature is about 41°C and the mean daily minimum about 27°C. Scorching dust laden winds (loo) blow during this period. December and January are nearly equally cold with the mean daily maximum temperature at about 25°C, and the mean daily minimum about 11°C. During the cold season in association with western disturbances passing across north India, the minimum temperature occasionally goes down to 2°C. The average annual rainfall is approximately 1300 mm

It is during the southwest monsoon season that the relative humidity is high. The rest of the year is comparatively dry, the driest part being during the hot season when, in the afternoons, the relative humidities are less than 20%.

The hills and valleys towards the south, east and west are densely forested with deciduous vegetation - largely of teak - the valleys being greener and more dense due to thicker soil cover and greater moisture. Towards the north, however, on revenue land, the forest has been subjected to incessant tree felling for timber and firewood, and the hillslopes are now completely denuded of vegetation. This destruction of vegetation has led to extensive erosion, and a great deal of soil has been washed away giving the fore area of Bhimbetka a bleak and barren appearance from the road.

Otherwise, colours change through the year. Fresh green in early winter of the wheat covered fields in the valley and agricultural surrounds, replaced in the brief spring by bright yellow mustard flowers, and later, by the golden brown of ripening crops. In March, *palas* trees turn large patches of the valley to a fiery red when the 'flame of the forest' is in full bloom.

The forests have traditionally been the source of sustenance for the surrounding tribal population, and contain many varieties of edible flowers, fruit, seeds and tubers. The main trees are the *achar* (*Buchanania latifolia*), *amaltas* (*Cassia fistula*), *aonla* (*Phyllanthus emblica*), *bahera* (*Terminalia belerica*), *bans* (*Dendrocalamus strictus*), *bel* (*Aegle marmelos*), *ber* (*Zizyphus jujuba*), *dudhai* (*Wrightia tomentosa*), *gondi lasora* (*Cordea myxa*), *gurjan* (*Garuga pinnata*), *haldu* (*Adina cordifolia*), *harsingar* (*Nyctanthes arbor-tristis*), *jamun* (*Eugenia jambolana*), *kachnar* (*Bauhinia variegata*), *kari girdu* (*Hdarrhena antidysenterica*), *khair* (*Acacia catechu*), *khajur* (*Phoenix sylvestris*), *khirni* (*Mimusops hexandra*), *mahua* (*Bassia latifolia*), *palas* (*Butea frondosa*), *sagun* (*Tectona grandis*), *saj* (*Terminalia tomentosa*), *semal* (*Bombax malabaricum*), *shisham* (*Dalbergia sissoo*), *tendu* (*Diospyros tomentosa*) and *tun* (*Cedrela toona*). In the lowland are found the *am* (*Mangifera indica*), *bargad* (*Ficus bengalensis*), *imli* (*Tamarindus indica*), *gular* (*Ficus glomerata*), *nim* (*Melia indica*) and *pipal* (*Ficus religiosa*).

Mahua flowers are collected in March and April, and dried and stored for consumption during the rains. The fruit of the *achar*, *tendu*, *kakhera*, *karsaundha*, *semal*, *munga* and *bansia gehun* are gathered in April and May, and in June and July, *jamun*, *dhaman*, *papda* and *khajur*. The tubers of *kanduri*, *semalkand* and *safed musli* are available in the monsoon and early winter. From October to April are seen the fruit of the *imli*, *gathaura*, *sitaphal*, *gangerua*, *ber*, *makoi*, *menar*, *bhandara* and *bel* and the tubers of *potiakand*, *karharikand* and *khalula*. Wild honey is found in plenty, and the honeycombed structure of its source portrayed in many of the rock shelters, though depictions of flora are few.

The paintings cover a wide range of subjects and in the process have also documented the fauna, some of which, for example, the rhinoceros, elephant, the Indian lion, the Indian bison (*gaur*) and the wild buffalo have since disappeared from the area.



Above: Animal life from the Mesolithic period; Below: Rhinoceros, wild boar, deer, Bhimbetka, Cluster III C

Several species of animals now thrive in the protected Ratapani Wildlife Sanctuary. These include the tiger, panther, jungle cat, the small Indian civet, sloth bear, wild boar, hyaena, wild dog, the Indian fox, the blue bull or *nilgai*, *sambar*, *chital*, blackbuck, swamp deer, the four horned antelope, barking deer, chinkara, muntjac, *langur*, the rhesus monkey, jackal, porcupine, hare, pangolin, the mongoose, and bats. Many birds such as the peafowl, partridge, quail, hoopoe, the small green bee eater, the blue kingfisher, the tree pie, babbler, white wagtail, the Indian robin, magpie robin, the crimson breasted barbet, the brainfever bird and various species of pigeons, doves, parakeets, woodpeckers, mynas, bulbuls, drongos and flycatchers. Reptiles such as the python, cobra, krait, viper, the rat snake and the monitor lizard; amphibians; and many species of butterflies, moths, bees, wasps, beetles, grasshoppers and other insects are also native to the sanctuary and forest areas.

There are 21 villages around Bhimbetka but the area around Bhimbetka is sparsely populated largely by the tribes of the Gonds, and in lesser numbers by the Pradhans and the Korkus. The Korkus are reputed to be the oldest and very likely the earliest inhabitants of the region. Four villages of Bineka, Piplani Khurd, Borda and Barkhera lie in the protected area on the east, with a total population of 2,021; four: Gautampur, Nasipur, Bamnai and Bhoot Palasi with a total population of 2,442 in the protected area on the west. Thirteen villages: Harrai, Diwatiya, Kesalwara, Tigariya, Amchha Kalan, Amchha Khurd, Bhiyanpura, Banskuwar, Bhanpura, Bhounrasa, Kumadi, Karitalai and Tajpura with a total population of 6,029 are in the Revenue land on the north. In all, a population of 10,472 within the buffer zone (see table).

According to the Census of India 1991, the area, population and number of households are given below for the villages in the buffer zone north, east and west of the protected core.

Location code	Name of village	Area (ha)	Population	No. of households
North				
0033	Harrai	1209.61	828	155
0041	Diwatiya	3119.75	2715	474
0042	Tigariya	801.65	591	90
0048	Kesalwara	431.96	89	91
0052	Bhounrasa	248.85	62	10
0059	Bhiyanpura	455.23	205	55
0060	Amchha Khurd	406.29	25	6
0061	Amchha Kalan	925.85	292	53
0062	Banskuwar	442.02	289	49
0063	Bhanpura	207.9	48	9
0064	Tajpura	278.87	306	54
0075	Karitalai	393.87	224	34
0076	Kumadi	119.45	355	66
East				
0044	Nasipur	370.36	485	105
0045	Bhoot Palasi	1527.68	180	39
0046	Bamnai	1386.93	797	178
0047	Gautampur	763.98	980	198
West				
0053	Barkhera	314.23	1183	177
0057	Borda	500.19	189	27
0058	Bineka	614.37	351	58
0073	Piplani Khurd	875.58	298	56

There are no villages/inhabitants in the buffer zone to the south of the core. The areas indicated against each village comprise, apart from residential enclosures, forest land, cultivated agricultural land, wasteland and unirrigated pockets.

Mythologically, the word Bhimbetka is said to be derived from *Bhimbaithaka*, or the seat of Bhima, one of the five Pandavas of the epic, the Mahabharata. Bhiyanpura is claimed to be a corrupted version of Bhimapur, and the Bana Ganga at its southwestern end, the well that sprang from Arjuna's arrow. Pandapur - the spring, and the ruins also of the same name, southeast of Bhiyanpura, are attributed to the Pandavas but there is no literary evidence to connect the area with the Mahabharata.

Of the early historical period are Buddhist remains, stupas in dressed stone of the Sunga period corresponding to the second century BC inscriptions in the rock shelters. These have been found on the northwestern slopes of Bhonrawali hill, Bineka, Bhimbetka and Lakha Juar (East). Bhimbetka is situated within a region of many Buddhist sites, for example Panguraria and Talpura, both of which go back to the third century BC. There are remains of two temples and stone images of the Paramara period of the eleventh century, near the Bana Ganga.



It is in this environment, that this enigmatic site lies, undisturbed and, as yet, artificially unaltered.

The site essentially demonstrates a continuous sequence of use, particularly within naturally formed clusters of rock shelters, from the Lower Palaeolithic period through to the Mediaeval period. This has been revealed through finds from archaeological excavations within the shelters. What remains testimony on site is the remarkable profusion of rock paintings on the inner surfaces of many of these naturally sculpted rock shelters, identifiable from the Early Mesolithic period - possibly Late Upper Palaeolithic period - onwards. A vast amount of information lies concealed. These rock shelters are distributed over seven hills, and for purposes of investigation accordingly divided into seven groups.

An area of 1892 hectares encompassing five of the seven hills: (I) Bineka, (II) Bhonrawali, (III) Bhimbetka, (IV) Lakha Juar (East) and (V) Lakha Juar (West), was declared protected in 1990 by the Archaeological Survey of India under the Ancient Monuments and Archaeological Sites and Remains Act, 1958. The site falls within the protected Ratapani Wildlife Sanctuary and forest areas, and so further covered by the The Indian Forest Act, 1927, the Wildlife (Protection) Act, 1972, and the Forest (Conservation) Act, 1980.

An additional buffer zone is proposed around the notified core, which includes the sixth hill of Muni Baba ki Pahari (VI). The buffer zone encompasses villages and agricultural land which come under the protected forest area in the valleys on the east and west of the core; as well as villages and other lands under the jurisdiction of the Department of Revenue to the north - not protected by either the Archaeological Survey of India or the Department of Forest.



Remains of construction, Sunga period, second century BC, Bhimbetka

Facing Page

Above: Remains of stupa, Sunga period, second century BC, Lakha Juar (East)

Below: Remains of temple, Paramara period, eleventh century, Bhiyanpura

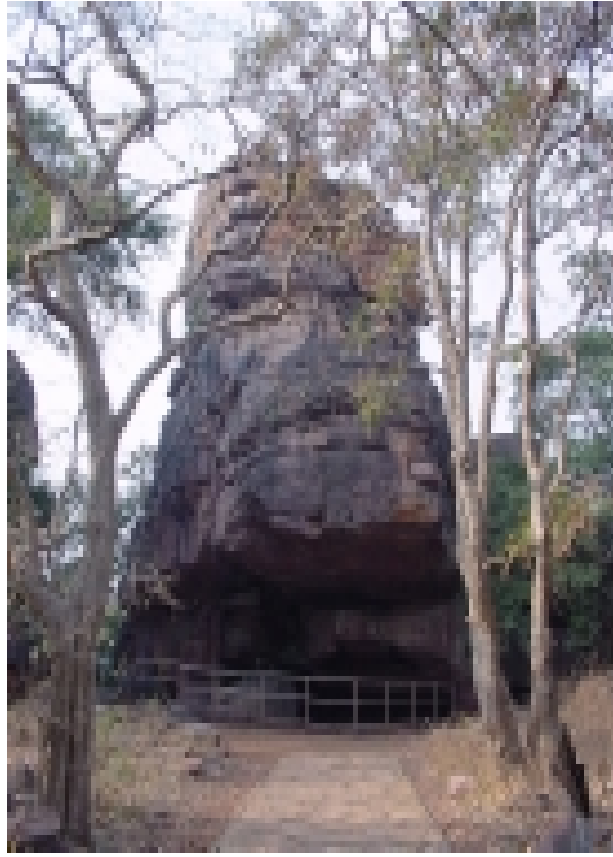
b) A history of Bhimbetka

In 1867, twelve years before the discovery of the paintings of Altamira in Spain, Archibald Carllyle discovered paintings in the caves and rock shelters at Sohaghat in the Mirzapur district of Uttar Pradesh and claimed stone age antiquity for the paintings. The first scientific article on Indian rock painting was by J. Cockburn in 1883. And in 1888, the first reference to Bhimbetka was by W. Kincaid, published in a paper on information from the adivasis for a reconstruction of the history of the Bhojpur lake and mentions Bhimbet hill on the opposite end of the lake as a Buddhist site.

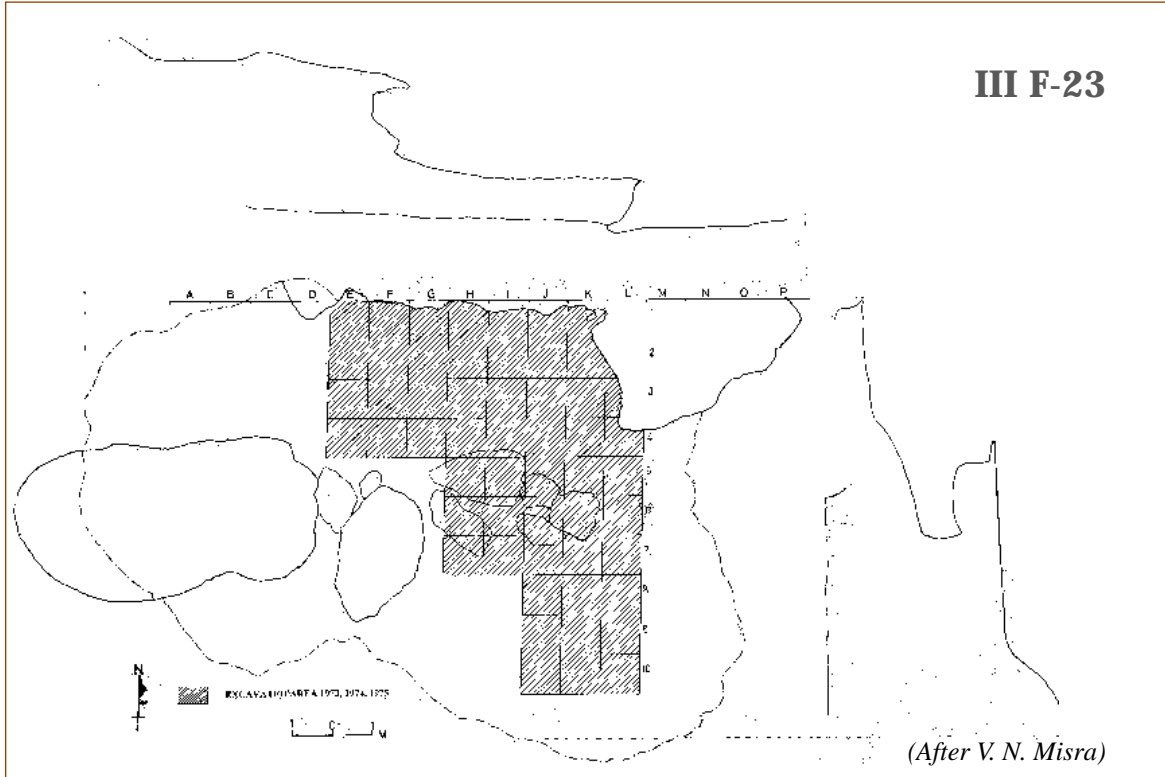
The site complex was discovered by V.S. Wakankar in 1957. While systematic archaeological investigations were carried out in two shelters of the Bhimbetka hill by K.D. Bajpai and S.K. Pandey of the Dr. H.S. Gour University, Sagar, in 1971, Wakankar commenced surveys and excavations in 1972 through the Vikram University, Ujjain. He carried out a survey of the region from Kari Talai to Jaora, dividing it into seven topographical areas (I-VII), subdividing each area alphabetically into clusters of groups of shelters, and numbering individual shelters in each cluster. This three-tiered nomenclature forms the basic reference structure that has universally been followed. There are over 700 shelters in the region, and of the 243 in Bhimbetka (III), 133 contain paintings. The Lakha Juar group is as rich as Bhimbetka in rock paintings. There are 178 shelters spread over two hills. Excavations were limited to the Bhimbetka hill.

Later, from 1972-77, concurrent excavations - also confined to Bhimbetka - by Wakankar (Vikram University, Ujjain), V.N. Misra of the Deccan College, Poona, and Susan Haas of the Museum fur Volkerkunde, Basle, revealed a continuous sequence of Stone Age cultures from the Late Acheulian to the Late Mesolithic, and an evolution of Mesolithic culture. Some of the world's oldest stone floors and walls have been found. The excavations at Bhimbetka by Wakankar also revealed stratified deposits with Chalcolithic pottery indicating a contact of the Chalcolithic Man of the plains with the rock shelters. Studies in the geomorphology of the area, as well as of paleoclimatic changes were conducted during this period. Observations were based on C^{14} dating, the analysis of soils obtained in the diggings, and pollen analysis of soil samples. Excavations were also carried out in 1981-82 by K.D. Banerjee of the prehistory branch of the Archaeological Survey of India

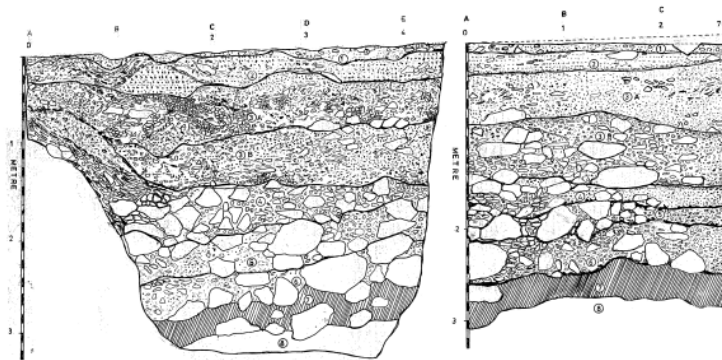
The contents of the accumulated soil and habitational debris in the rock shelters were examined with a view to ascertain the sequence and typology of stone age tools, and to determine some direct or indirect evidence of dating the paintings. For while the excavations have revealed evidence of material through different ages, there is no conclusive corroboration of the dating attempted for the existing paintings due to a lack of absolute dating so far. What is inferred from many of the paintings themselves is that they were done in a period when microliths were evolved and minimised enough to be used as arrow barbs, and when there were no domesticated animals. These strongly indicate the Mesolithic period while a similarity of paintings with the geometric surface patterns of Malwa ware typifies the Chalcolithic period. A chronology has been attempted. Much work in this field specific to Bhimbetka has been recorded and published by V.S. Wakankar (1973, 1975, 1984), Y. Mathpal (1975, 1984), E. Neumayer (1983) and others. Documentation, typological classifications and subsequent analyses based on these observations and excavation yields begun in the 1970s have broadly established cultural periods for the rock paintings. However, their antiquity is not in question - only the accuracy of their dating. Likewise, the nature of the people - whether nomadic or pastoral, whether the shelters were used as settlement or for occasional occupation, whether the site or shelters acquired a sacredness or any other significance and so on, are debatable and as yet inconclusive.



Above: View of rock shelter; Below: Paintings of the Historical period, Bhimbetka, shelter III F-23



Above: Bhimbetka, shelter III F-23: Excavated trench, Deccan College, Poona
 Below: Plan, Bhimbetka, shelter III F-23; Facing page: Sections, III F-23 and 24



Trench III F-24

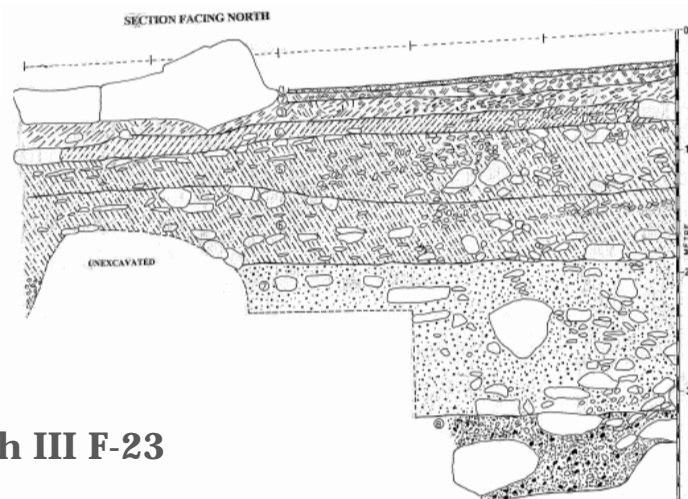
Layer Description of layer

- | | |
|---|---|
| 1 | Loose earth with blackish/ashy nature |
| 2 | Blackish/greyish soil (loose) |
| 3 | Greyish/reddish soil mixed with small chips |
| 4 | Reddish soil, stone chips |
| 5 | Reddish soil mixed with stone pieces |
| 6 | Reddish soil mixed with stone pieces, stone block |
| 7 | Gap of 60 cm sterile layer, reddish with stone blocks |
| 8 | Reddish soil, probably laterite secondary/primary mixed |

Findings

- Copper coins
- Chalcolithic microliths of different types
- Microliths of Mesolithic Period
- Middle Palaeolithic working floor; sandstone tools
- Scrapers, cleavers, hand axes, Achelian - II
- Scrapers, cleavers, hand axes, Achelian - I
- No material related to human activity
- Pebble tools

(After V. S. Wakankar, 1975)



Trench III F-23

Layer Description of layer

- | | |
|---|---|
| 1 | Yellowish brown gritty sand |
| 2 | Yellowish brown gritty sandy silt |
| 3 | Brown gritty silty sand |
| 4 | Brown gritty clayey sand |
| 5 | Dull reddish brown sandy blocky rubble |
| 6 | Bright reddish brown silty blocky rubble |
| 7 | Bright reddish brown clayey blocky rubble |
| 8 | Orange sandy, blocky rubble |

Findings

- Microliths and pottery
- Microliths
- Microliths
- Upper and Middle Palaeolithic tools
- Middle Palaeolithic tools
- Late Achelian tools
- Late Achelian tools
- Late Achelian tools

(After V. N. Misra, 1985)

Actual findings from excavations at Bhimbetka

Lower Palaeolithic

Chopper tool assemblage, both unifacial and bifacial, worked on rounded cobbles.
Acheulian assemblage: hand axes, cleavers, scrapers, denticulates, knives, notches etc.
Evidence of stone enclosure in the form of boulders arranged outside shelter IIIA-30.
Evidence of floors by arranging slabs and boulders in shelter IIIF-23 & 24.

Middle Palaeolithic

Tool types remain the same as in preceding phase.
Fewer cleavers and hand axes, and reduction in size.
A number of tools made on flat natural slabs instead of flakes.

Upper Palaeolithic

Not very distinctive as it develops out of the indigenous Middle Palaeolithic Culture.
An increase in proportion of blades; a reduction in size.
A distinctive feature is a high proportion of end scrapers.
A few burins present.

Mesolithic

A well defined cultural phase with indications of occupancy of a large number of shelters and an increase in population.

Complete change in tool technology, types and use of raw material.

Tool types: Both geometric and non-geometric microliths. Back blades, truncated blades, points, crescents, triangles, trapezes, a variety of scrapers, borers, burins.

Technology: Pressure technique for removal of blades seen in addition to existing technology.

Raw material: Microliths prepared on fine-grained cryptocrystalline material such as chert, and chalcedony. Nearest available source: Barkhera, 6 km south of Bhimbetka. Some bigger artifacts in quartzite.

Occurrence of ground pieces of haematite or red ochre used for pigment in deposit.

Evidence of burial.

Evidence of fire in the form of ash, charcoal and charred bones.

Evidence of pieces of antler cut with sharp instrument.

Evidence of animal bones of deer, antelope, cattle and wild boar.

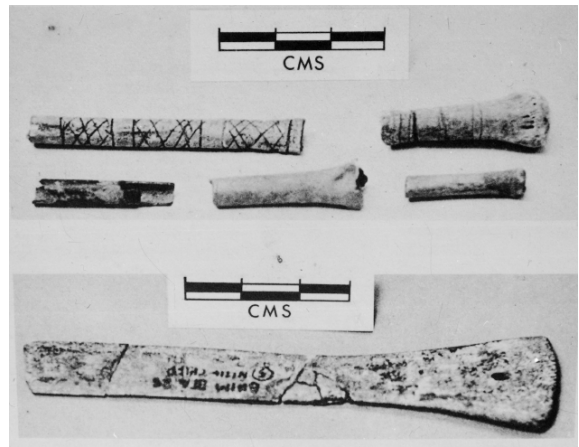
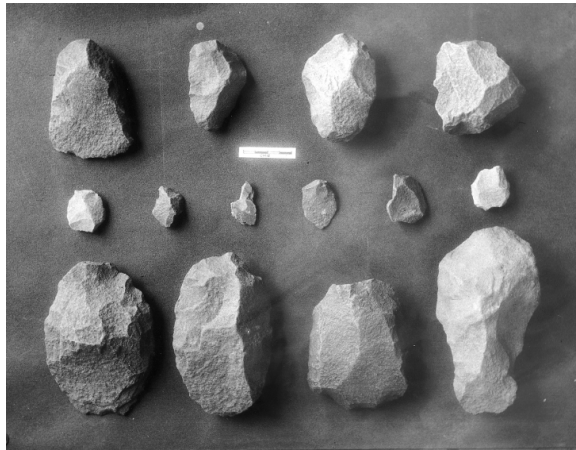
Evidence of floor with flat stone slabs and wall 6 m long and 1 m wide made of stone boulders in shelter III F-23.

Chalcolithic

Evidence of copper tools and pottery: painted and unpainted of Chalcolithic period in middle levels of Mesolithic deposits. Appearance of Chalcolithic pottery designs in rock paintings.

Historical

Evidence of iron tools, punch-marked coins and Early Historical pottery in the upper levels.



From excavations at Bhimbetka:

Above left: Lower and Middle Palaeolithic tools; Above right: Middle and Upper Palaeolithic tools

Below left: Upper Palaeolithic and Mesolithic tools; Below right: Engraved bones, Bhimbetka, shelter III A-28

c) Form and date of most recent records of property

The protected area measuring 1892 hectares was notified by the Archaeological Survey of India, Department of Culture, Government of India, vide the Gazette of India in February 1990, under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, (24 of 1958), a Central Act.

This notification was supported by a survey plan indicating the bounds of the protected area which is retained at the office of the Superintending Archaeologist, Bhopal Circle, of the Archaeological Survey of India.

As the protected core falls within the Ratapani Wildlife Sanctuary, details of the core area are available in the survey map and documents held by the Department of Forest, Government of Madhya Pradesh. The buffer zone to the east, west and south also fall within the protected Ratapani Wildlife Sanctuary/reserved forest/protected forest and, therefore, the documents and surveys include divisions of its compartments. The working plans based on most recent information are updated every year.

The buffer zone to the north as also the pockets to the east and west, comprising predominantly agricultural land, falls within the administrative purview of the Department of Revenue. Records pertaining to these lands are maintained in the office of the District Collector, Raisen. The records indicate individual ownerships, bounds of the parcels of land and the adjoining properties in the four cardinal directions, recorded in the traditional measurement format of *khasras and khatians*. The records are as recent as the division of a parcel or transfer of ownership.

d) Present state of conservation

The present state of conservation of the property may be understood separately under the following heads:

I Ecology and environment, covering:

- a) Geomorphology
- b) Flora and fauna
- c) Forest cover
- d) Microclimate
- e) Water sources, water channels and water retention

II Rock shelters

III Rock paintings

IV Archaeological evidences

V Peripheral sites/camp sites

VI Adivasis/adivasi culture

I Ecology and environment

a) Geomorphology

The group of five hills covered in the protection notification are a part of the Lower Vindhyan System essentially composed of pinkish sandstone (sedimentary) clearly displaying layers, ripple marks and sun cracks. This sedimentary formation is seen to have partially metamorphosed in select locations.

The hills and rock surfaces have borne the brunt of natural weathering leading to surface erosion, loss of material, cavity formation etc. This process though very slow is a continuous one. There has been no mining activity or quarrying in any of the locations and as such human intervention, detrimental or otherwise, has not occurred.

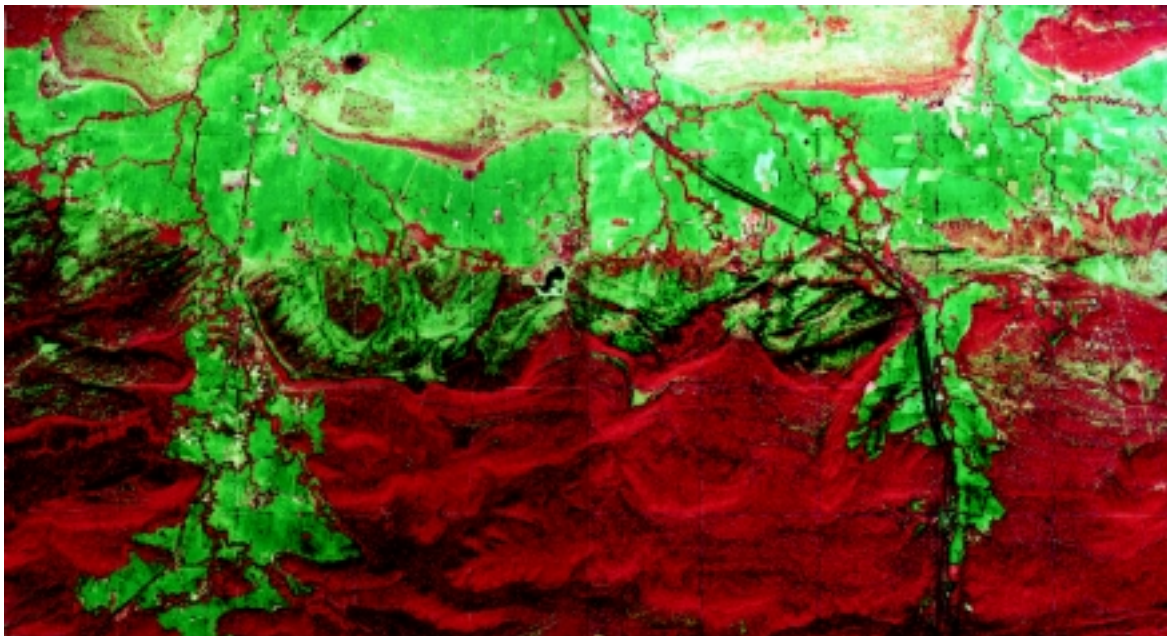


b) Flora and fauna

The protected site falls within the notified Ratapani Wildlife Sanctuary. There is a rich variety of both flora and fauna which has characterised this natural preserve. However, if one were to assess the wealth of wildlife evidenced from the depictions in the rock painting, a significant number of species such as the rhinoceros, the Indian elephant, the Indian lion, the Indian bison, wild buffalo and the blackbuck are no longer seen in the habitat. Subsequent to the notification of the Ratapani Wildlife Sanctuary, the Department of Forest maintains strict control on the hunting of animals and illegal poaching. As regards flora, while there are no records to assess what once may have existed, a wide variety of plant life is part of the forest records, and these species are well protected in their natural environment in the forest by the Department. Natural propagation is a continuous process.

c) Forest cover

Denudation of forest cover and the felling of trees continue to be an occasional problem though the Department of Forest enforces strict protection through rangers and guards. The density of cover within the wildlife sanctuary has been consistent since its notification as wildlife sanctuary, but tracts of reserved and protected forests outside the limits of the sanctuary - especially towards the north of the site - have suffered from denudation and felling.



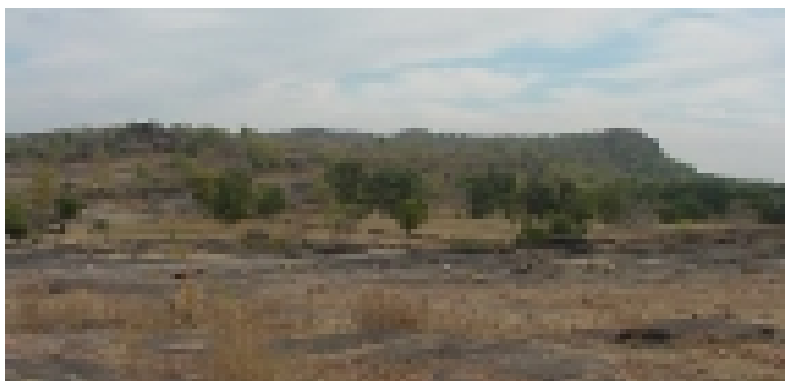
Satellite image: Denuded forest towards north (*Courtesy: National Remote Sensing Agency, Hyderabad*)

d) Microclimate

The microclimate of the region has been reasonably stable and measurements recorded with respect to temperatures, humidity and precipitation have been within the ranges recorded. No untoward variation has been noted.

e) Water sources, water channels and water retention

There are two perennial rivers which have been the main source of water for the region, the Narmada and the Betwa. However, there has been a significant drop in the water levels of both rivers due to excessive tapping at various points along their course. This is primarily due to the increase in demand necessitated by an increase in population, an issue which is being addressed elsewhere in the programmes of the Government. Closer, there are the natural springs of Bana Ganga, Gupta Ganga and Pandapur, forming smaller creeks or *jhiris*, such as the Chhoti and Badi Jamun Jhiris, connecting eventually with the perennial rivers. Of late, water levels have not only dropped but the quality of water, too, has changed for the worse. This is attributed to cattle grazing too close to the water channels. The Ratapani natural lake, however, is well protected and continues to be a large reservoir.



Dry water channel, Badi Jamun Jhiri

II Rock shelters

The rock shelters found in the protected site are either naturally formed due to erosion over a length of time, or by readjustment and relocation of loose rocks against the parent rock, or against each other.

These rock shelters, as with the original formation itself, have withstood the vagaries of nature over time though with slow transformations. The current status of these shelters are marked by:

- (i) Exfoliation of surfaces caused by weathering due to wind induced erosion, temperature induced cracking, and moisture induced separation.
- (ii) Clear evidence of cracks and fissures which, in turn, allow for water ingress.
- (iii) Surface run off of rain water.
- (iv) Tree roots and vegetational growth causing fissures and cracks.
- (v) Differential fading of surface by direct sunlight.
- (vi) Beehives and other insect shelters, especially at heights. No significant intervention has been attempted by the Archaeological Survey of India except in a few locations where, to protect the rock paintings, drip courses have been provided to prevent surface drain off and fissures and cracks sealed to prevent water ingress.



Flaking and scaling of sedimentary surface and effect on Mediaeval painting, Bhimbetka, Cluster III C

III Rock paintings

Since the discovery of the rock paintings at Bhimbetka by V.S. Wakankar in 1957 and the subsequent studies carried out in the 1970s and 1980s, no intervention has been attempted by the Archaeological Survey of India or other organisations with respect to the paintings. The state of conservation could be summarised as follows:

- (i) Rock paintings that are well protected from direct sunlight, surface run off of water, and wind erosion are well preserved.
- (ii) Paintings exposed to direct sunlight and wind erosion have faded significantly and many may have been lost altogether.
- (iii) Fading due to surface run off of water has occurred in many locations.
- (iv) Biological growth and algae formation have covered/damaged paintings in a number of places.
- (v) In many cases, natural chemical processes have formed a patina over the paintings.
- (vi) In some cases, paintings have been damaged through vandalism.

As of now, there is no complete inventory of the rock paintings and their status.



Multiple weathering and effect on Mesolithic painting, Bhonrawali, Cluster II E



Above: Weathering effect due to sun, wind and dust on Mesolithic/Chalcolithic paintings, Bhimbetka, Cluster III F;
Below: Chalcolithic painting in better state of conservation, Bhimbetka, Cluster III A



Fading and patina due to moisture on Chalcolithic painting, Bhorrawali, Cluster II E

IV Archaeological evidences

The excavations carried out by Wakankar and Misra, and the teams from Vikram University, Ujjain and Deccan College, Poona, have revealed a continuous cultural character for the site. A majority of the protected area remains as yet unexplored and it is reasonable to believe that there is a wealth of information lying buried within.

However, during heavy monsoons, the localised flow of water along the natural slopes of the topography washes away a fair amount of habitational deposits from the surface. While some measures to check the flow and velocity could be attempted, it underscores the need to expedite the exploratory and research work associated with the site.

V Peripheral sites/camp sites

Studies carried out so far have recorded preliminary evidences of camp sites which on deeper investigation may reveal a link with the protected area. These have been found in the plains as well as in the riverine belts.

Many of these would be lost as they are not covered by either the protected site or the buffer zone. The proposed conservation plan will have a section dealing with the widening of ambit to further the research in the larger context of understanding sociological development and its movement across the land.

VI Adivasis and adivasi culture

Preliminary studies of adivasis and of their culture in the villages around the protected area appear to indicate a cultural continuity, especially in the tradition of painting walls and surfaces of their dwellings, the decorative application to the surface of their pottery and elements in handcrafted objects of daily use. Studies need to be carried forward. With mounting economic and developmental pressures, a number of traditional inhabitants are moving towards urban areas and new settlers from other regions are also seen. While changes appear to be gradual in the area around Bhimbetka, they are taking place and before long will pick up momentum. Valuable sources and links, as has so frequently occurred, will disappear. It is vital for ethnological studies to be undertaken on priority in the proposed conservation plan.

e) Policies and programmes related to the presentation and promotion of the property

The outstanding universal value of Bhimbetka has prompted the Archaeological Survey of India to draw up specific policies and programmes with respect to the presentation and promotion of the property. That Bhimbetka is a microcosm, and that there exists a cultural continuity from as early as the Palaeolithic period, will be kept in view while formulating policies and programmes. While these will be elaborated and dovetailed with the final management plan, the main features are given below:

- (i) To promote the cultural and educational value of the site, multidisciplinary programmes in collaboration with institutions and individuals in India and abroad will be planned.
- (ii) The setting up of an interactive interpretation centre for both lay visitor and scholar.
- (iii) The setting up of a multilayered museum encompassing all aspects of the site.
- (iv) The design of a website specific to Bhimbetka to facilitate dissemination of information/material on Bhimbetka, posting of progress and development. Films and publications on the subject will be given encouragement and support.

Bhimbetka offers a wealth of information, the dissemination of which will be planned in a holistic manner, the departments complementing each other to provide the 'parts' of Bhimbetka to make the 'whole'.

- (v) Pro-active participation in the programmes of the Department of Tourism both at state and national levels. Programmes would include those related to eco-tourism, educational tourism in a manner friendly and not detrimental to the site in any way.
- (vi) Pro-active participation in the programmes of the Department of Forest at state level, and the Ministry of Environment and Forests at the national level. Programmes will include public awareness with regard to ecology and ecological balance, the integration of man and nature and the flora and fauna of the region.
- (vii) To focus on Bhimbetka in a consistent manner in the publications of the Archaeological Survey of India and the Departments of Culture and Tourism.



4

Management

a) Ownership

The ownership of the protected area and buffer zone lies with the State Government of Madhya Pradesh, India. However, the core area has been declared as protected under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, a Central Act, and, as such, will be under the charge of the Archaeological Survey of India.

b) Legal Status

Laws pertaining to the protection, regulation and control of the notified area as well as the buffer zone have been briefly listed below. A summary of the relevant provisions under each is indicated.

The Ancient Monuments and Archaeological Sites and Remains Act, (AMASR), 1958

This is a Central Act applicable for the entire country for the control of activities in and around archaeological monuments of national importance. It replaced an earlier act passed in the year 1904 by the then Government of India. The Act further provides for the regulation of archaeological excavations and for the protection of sculptures, carvings and other like objects. This Act was published in the official Gazette of India and came into force on August 28, 1958 (Sub-section (3) of section 1).

The Act provides power to the Central Government :

- a) to declare ancient monuments, sites, etc to be of national importance (section 4)
- b) for the acquisition of rights in a protected monument (section 5)
- c) for the preservation, acquisition and maintenance of protected monuments
- d) for the restriction on enjoyment of property rights in protected areas (section 19)
- e) to acquire a protected area (section 20)
- f) to regulate archaeological excavation (sections 21-24)
- g) to control moving antiquities (section 25)
- h) to make rules (section 38)

and other like operations in India.

The Ancient Monuments and Archaeological Sites and Remains Rules, 1959

In exercise of the powers conferred by Section 38 of the Ancient Monuments and Archaeological Sites and Remains Act, 1958, the Central Government made certain rules. These rules were published in the official Gazette of India Extraordinary, Part I, Section 3, Subsection (ii) on October 15, 1959. These are called the Ancient Monuments and Archaeological Sites and Remains Rules, 1959.

These rules, specifically Rules 8 and 8a, define construction, mining operation, prohibited area, etc. and regulate access to protected monuments: opening and closing of protected monuments, entrance fee; prohibit any act which may cause damage or injury to any part of the monument: the discharge of any firearm, cooking or consuming food, hawking or selling goods, bringing in any animal or vehicle, construction and other operations in protected areas; copying and filming protected monuments, etc.

Further, the Government of India notification through the Archaeological Survey of India, Order No. S.O. 1764 dated June 16, 1992, published in the Gazette of India, Part II, Section 3 sub-section (ii) dated July 4, 1992, declares areas upto 100 m from the protected limits, and beyond upto 200 m near or adjoining protected monuments to be prohibited and regulated areas respectively for purposes of both mining operations and construction.

Apart from the AMASR Act, 1958, provisions of the following Acts protect, control and regulate various activities in and around the property proposed for inscription in the World Heritage list.

The Indian Forest Act, 1927

The Wildlife (Protection) Act, 1972

The Forest (Conservation) Act, 1980

The Indian Forest Act, 1927

The Indian Forest Act was enacted to consolidate the law relating to forests and the transit of forest produce. It deals specifically with reserved forests, reserved forests which have been assigned to any village, community, and protected forests. It also deals with land which is not the property of the Government. It confers on the state governments the power to make rules or regulate the terms of forest produce. Section (26) deals with the restriction of activities detrimental to the preservation of a reserved/protected forest and prohibits the following:

- a) any fresh clearing
- b) setting fire
- c) carrying any fire
- d) trespass or pasture cattle
- e) the cause of any damage, felling tree or cutting timber
- f) the felling, burning of trees, stripping of bark or leaves or damage to the same
- g) the quarrying of stone, burning of lime or charcoal or removal of any forest product
- h) the clearing of any land for cultivation
- i) hunting, fishing, shooting or setting traps or snares.

Section (31) empowers the state government to make rules from time to time to regulate other activities as also provide additional measures for protecting the forest.

Section (35) protects the forest for special purposes through which the area beyond the present limit may also be protected, if necessary.

Section (70) of the Act restricts cattle trespass and damage to public plantation.

The Forest (Conservation) Act, 1980

The Act provides for the conservation of forests and for matters connected therewith.

Section (2) restricts dereservation of forests or use of forest land for non-forest purpose. It will therefore be seen that while state governments can enact rules in furtherance of the protective measures covered by the Acts, the reverse is the case with any relaxation. Any deregulation or dereservation is a complicated and lengthy procedure needing clearances at various levels.

The Wildlife (Protection) Act, 1972

The first comprehensive legislation relating to the protection of wildlife was passed by the Parliament and was assented to by the President on September 9, 1972. This came to be known as the Wildlife (Protection) Act, 1972 (53 of 1972). Certain sections of this Act are instrumental in restoring and maintaining ecological balance.

The Act prohibits hunting of scheduled animals (section 7) and picking, uprooting, etc of specified plants and trees (section 9).

c) Protective measures and means of implementing them

Protective measures are envisaged to cover the following:

- a) Cultural relics and archaeological remains
- b) Geological and geomorphological features
- c) Ecological and environmental characteristics
- d) Flora and fauna

'a' and 'b' will be under the direct control, implementation and supervision of the Archaeological Survey of India, while 'c' and 'd' largely under the control, implementation and supervision of the Department of Forest, Government of Madhya Pradesh.

The legal framework under which the protective measures will be formulated and implemented has been covered earlier (*see 4b*).

While the Archaeological Survey of India is in the process of determining comprehensive protective measures, the Department of Forest has a well developed working plan already under implementation.

However, the key areas/issues under protected measures being formulated by the Archaeological Survey of India may be listed as follows:

I. Direct Protective Measures

- (i) Physical intervention at the protected site, where necessary, towards the conservation of cultural relics and geomorphological features
- (ii) Physical barriers, fencing and enclosures

- (iii) Restriction and regulation of paths and approachways
- (iv) Restriction and regulation of visitor routes and viewing of clusters
- (v) Restriction and regulation of visitor facilities, construction etc. within the core

II. Indirect Protective Measures

- (i) Formulation of policies in coordination with the Department of Forest, Government of Madhya Pradesh, regarding all relevant issues of ecology and environment and their direct impact on the rock shelters, paintings and archaeological remains within the core and buffer zones of the site.
- (ii) Formulation of tourism policies in consultation with the Department of Tourism, Government of Madhya Pradesh, in a manner complementary to the required protective measures.
- (iii) Formulation of development policies, regulating/restricting developmental activity within the buffer zone and revenue land in consultation with the Department of Revenue, Government of Madhya Pradesh.

The protective measures will be elaborated in the finalised conservation and management plans.

While section 4 b of this proposal provides a brief outline of the broad areas covered by the relevant acts followed by the Department of Forest, protective measures cover the following:

- (i) Declaring the forests as reserved and protected by the Government.
- (ii) Bar on accrual on forest rights
- (iii) Power to acquire land
- (iv) Powers to the Government to have claim on pasture or for forest produce
- (v) Power to stop ways and water courses in the reserved forest
- (vi) Prohibition on certain acts like fresh clearing and setting fires
- (vii) Issuance of regulations on cutting, sawing, conversion and removal of conversion, collection of forest produce, felling or removing trees or timber or other forest produce, clearing and breaking up of forest land for cultivation or any other purpose, protection from fire, cutting of grass, pasturing of cattle, hunting, shooting, fishing.
- (viii) Management of the forest
- (ix) Penalties for violation of laws and rules within protected/reserved forests
- (x) Plantation
- (xi) Maintenance of forest boundaries
- (xii) Drought management
- (xiii) Improvement in water supply
- (xiv) Preparation of forest maps
- (xv) Prevention of epidemics in cattle and wild animals
- (xvi) Preservation of trees
- (xvii) Research
- (xviii) Control on building, quarrying and like operations which amount to damage to the forests

Also:

- i) Prohibition of hunting
- ii) Prohibition of picking, uprooting etc. of specified plants
- iii) Restriction of entry in sanctuary
- iv) Destruction etc. in sanctuary without permit
- v) Prohibition of causing fire
- vi) Ban on use of injurious substances
- vii) Control on sanctuary
- viii) Trade or commerce in wild animals
- ix) Penalties against offences

d) Agency/agencies with management authority

The principal agency vested with management authority is:

The Archaeological Survey of India

Department of Culture,
Government of India,
Janpath,
New Delhi - 110011, India

Telephone: 91-11-3013574

Fax: 91-11-3019487

email: dgasi@vsnl.net

website: www.asi.nic.in

The core area of the cultural landscape proposed for inscription in the World Heritage List has been declared a monument of national importance by the Government of India under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, and as such, the management of the site will be the responsibility of the Archaeological Survey of India. As the core and buffer areas of the site also fall under the reserved/protected forest/Ratapani Wild Life Sanctuary, the Government of Madhya Pradesh through the Department of Forest will be a major partner in management as far as wildlife and forest cover are concerned; and as a part of revenue land falls within the buffer zone, the Department of Revenue will also be one of the partners.

While the decision making authority with respect to policies and programmes for conservation, documentation, maintenance, etc. will rest with the Director General, Archaeological Survey of India, the implementation aspects will be taken care of by the Superintending Archaeologist, Archaeological Survey of India, Bhopal Circle, Bhopal.

Considering the fact that the cultural landscape is also protected by the Department of Forest, Government of Madhya Pradesh, the Superintending Archaeologist, Archaeological Survey of India, Bhopal Circle, will have a committee under his chairmanship comprising representatives of the agencies that follow.

Department of Forest, Government of Madhya Pradesh

Represented by the Conservator of Forest, Bhopal Division and Divisional Forest Officer, Obaidullahganj, Madhya Pradesh

Department of Revenue, Government of Madhya Pradesh

Represented by the Sub-Divisional Magistrate Obaidullahganj, District Raisen, Madhya Pradesh.

Department of Tourism, Government of Madhya Pradesh

Represented by the Deputy General Manager, Madhya Pradesh Tourism Development Corporation

Public Works Department, Government of Madhya Pradesh

Represented by the Executive Engineer

Indian Railways, Government of India.

Represented by the Senior Divisional Engineer, Central Railways, Bhopal

The committee will be responsible for ensuring coordination among stakeholders towards the preservation and propagation of the cultural landscape according to the agreed policies and programmes of the management plan.

e) Level at which management is exercised (eg. on property, regionally) and name and address of responsible person for contact purposes

The Superintending Archaeologist, Bhopal Circle, is the seniormost officer of the Archaeological Survey of India at the regional level entrusted with responsibilities to manage protected monuments and sites which lie within his jurisdiction. The Superintending Archaeologist is also responsible for structural conservation, archaeological research, exploration, excavation, documentation, security, financial management, administration and development of cultural properties and site museums that fall under his jurisdiction. He is assisted by a Deputy Superintending Archaeologist, Deputy Superintending Archaeological Engineer, Administrative Officer, Security Officer and support staff such as Assistant Superintending Archaeological Engineers, Senior Conservation Assistants, and Foremen/Caretakers. The Senior Conservation Assistants, Conservation Assistants, Foremen/Caretakers and security guards are posted at the field level and are controlled by the office of the Superintending Archaeologist.

Contact persons at regional level:

Mr. S.B. Ota
Superintending Archaeologist,
Archaeological Survey of India,
Bhopal Circle, G.T.B. Complex,
T.T. Nagar, Bhopal - 462003, India

Phone : 91-755-558250
Fax: 91-755-558270,
email: asibl@rediffmail.com.

Contact person at field level:

Mr. S.N. Srivastava
Conservation Assistant,
Archaeological Survey of India,
Bhopal Sub-Circle, Kamla Park,
Kamlapati Palace, Bhopal - 462003, India

Phone : 91-755-660618.
Fax: 91-755-558250
email: asibl@rediffmail.com

As the Department of Forest is a close partner in the maintenance and preservation of the cultural landscape, the contact persons and their addresses are as follows:

At divisional level:

Mr. Jauwad Hasan
Conservator of Forest, Bhopal Circle,
Department of Forest,
Government of Madhya Pradesh,
1 Bhavan, Tulsi Nagar,
Bhopal - 462005, India

Phone: 91-755-553953
Fax: 91-755-763150

At field level:

Mr. Rakesh Kumar Yadav
Divisional Forest Officer,
Department of Forest,
Government of Madhya Pradesh,
District Raisen, Madhya Pradesh
Obaidullahganj - 464993, India

Phone: 91-7480-24062

Administratively, for requirements of the Department of Revenue, particularly with respect to the revenue lands located within the buffer zone the contact person at the **tehsil/field** level is:

Mr. Kandeep Makans
Sub-Divisional Magistrate,
District Raisen, Madhya Pradesh,
Tehsil Goharganj - 464551, India

Phone: 91-7480-24028

f) Agreed plans relating to property (eg. regional, local plan, conservation plan, tourism development plan)

The Archaeological Survey of India is currently in the process of formulating a comprehensive conservation plan, the outline of which is given below. While there are no specific regional or local plans, some controls and regulatory measures are already in force through clear requests placed with the Department of Revenue, Government of Madhya Pradesh. A development plan for tourism will be prepared on finalisation of the comprehensive conservation plan. However, preliminary discussions and coordination of activities have already commenced with the Department of Tourism, Government of Madhya Pradesh. It was also decided that no building would be made for tourists in the vicinity of Bhimbetka, as Bhopal is an hour's drive, only 45 kms away.

It is essential to note that the protected area covers a total of 1892 hectares spread over five hills identified by their names. The sixth falls in the buffer zone. Of these, the extent of exploratory and documentation work carried out so far by the Archaeological Survey of India as well as the other institutions has been limited to a single identifiable hill. Therefore, any viable and acceptable conservation plan or subsequent management plans will be possible only after the entire site has been covered in terms of preliminary requirements.

The basic structure of the conservation plan for Bhimbetka is given below.

A. The sequence to be followed:

- (i) Survey, identification and documentation
- (ii) Detailed classification covering:
 - a) Physical references
 - b) Chronological details, sequencing
 - c) Typological/stylistic features
 - d) Ethnological evidences
 - e) Other characteristics

B. The aspects to be covered:

The sequence indicated in 'A' will be followed through (where applicable) for each of the aspects specific to the site as follows:

- (i) Ecology and environment
 - a) Geomorphological character
 - b) Flora and fauna (per evidence/as existing)
 - c) Forestry
 - d) Microclimate
 - e) Water sources, water channels, water retention
 - f) Natural disasters/forces of nature

- (ii) Rock shelters
- (iii) Rock painting
- (iv) Historical evidences
- (v) Peripheral sites/camp sites
- (vi) Adivasis/adivasi culture

C. Short term proposals

The short term proposals under the conservation plan are envisaged to cover the following:

- (i) Immediate and short term objectives
- (ii) Identification and finalisation of overall long term objectives
- (iii) Structural outline for management and management coordination
- (iv) Identification and finalisation of research objectives
- (v) Preliminary intervention measures and their implementation
- (vi) Preliminary tourism management plan and its implementation

D. Long term proposals

The long term proposals will be crystallised on completion of the preliminary conservation plan and its review. It is proposed to hold a review conference where national and international specialists from related areas will be invited to participate leading to the finalisation of the structure for the long term conservation plan.

The Department of Forest has already put in motion a comprehensive Working Plan in relation to forest cover and wildlife. This 20 year plan is complementary to the requirements of the conservation proposals being finalised and, as such, is a valuable contributor to the preservation of the cultural landscape.

It may be pertinent to note that the Indian Board for Wildlife, under the chairmanship of the Prime Minister, has recommended a priority sector status for wildlife and forests. The conservation strategy finalised by the Board covers an allocation of more funds, quick and deterrent punishment for illegal activities, judicious tapping of the potential in wildlife tourism, and the use of such funds for conservation. The Board has lifted the ban on recruitment of staff and has also recommended the setting up of a forest commission. There is a greater emphasis on protection. This will ensure: no diversion of forest land from ecologically fragile wildlife habitats; that land within 10 km of park and sanctuary boundaries will be notified as eco-fragile zones; that all encroachments in protected areas will be removed; that all protected areas will be managed by forest officers trained in wildlife management. The strategy also takes into account the involvement of the local inhabitants, their participation in the decision making process and their employment in the conservation effort.

g) Sources and levels of finance

As the site has already been declared a protected monument/site of national importance, the Archaeological Survey of India has an exclusive annual budget earmarked for its maintenance and preservation. The budget provision is made according to actual requirements of the site projected by the Superintending Archaeologist, Archaeological Survey of India, Bhopal Circle, Bhopal, and the Superintending Archaeological Chemist, Archaeological Survey of India, Science Branch, Indore Division, Indore. The annual budget is provided for:

1. Actual maintenance of site
2. Visitor facilities such as drinking water, signage, approach pathways and car parking
3. Conservation of rock shelters, paintings, habitational deposits and architectural features on site
4. Documentation, exploration and excavations

The Department of Forest, Government of Madhya Pradesh, also provides an annual budget for the protection, preservation and maintenance of the protected/reserved forest and the Ratapani Wildlife Sanctuary.

Once the management plan and other agreed plans are finalised, the Archaeological Survey of India has made a commitment to provide an adequate budget for the overall management and conservation of the site according to the projections made therein.

h) Sources of expertise and training in conservation and management techniques

The Archaeological Survey of India has over 3,600 monuments under its protection distributed all over the country. The maintenance and conservation of these monuments in adverse climatic conditions has been an ongoing process over the last 140 years. Conservation expertise has developed within the organisation through experience and in keeping with international norms. The Archaeological Survey of India looks after the conservation of its properties through three specialized branches: structural conservation, chemical preservation and environmental development. The Archaeological Survey of India has experience in management skills as well. To deal with various interrelated issues concerning monuments, the Archaeological Survey of India interacts closely with other specialised organisations of international repute such as the Structural Engineering Research Institute, Central Building Research Institute, Indian Remote Sensing Research Institute, Geological Survey of India, Zoological Survey of India, Forest Research Institute and the National Environmental Engineering Research Institute, to name a few.

Training in areas of structural conservation, chemical preservation, heritage management, tourism management and archaeology, among others, is imparted by the Institute of Archaeology. The Institute of Archaeology also provides regular training to in-service officials of the organisation, fresh post-graduate students from universities and officials of various state government and non-government organisations.

i) Visitor facilities and statistics

As already indicated, visitors currently have access to only a few clusters located within the Bhimbetka hill. The State Government of Madhya Pradesh has laid an access road leading to this section of the property. A small parking bay, a couple of benches and drinking water facilities have been provided; and pathways and directional signage for viewing the rock shelters. These provisions, though minimal, have been *ad hoc*. The Archaeological Survey of India plans to review these and incorporate them with the overall objectives as and when they are finalised.

The visitors facilities in the future is likely to include the following:

- a) An interpretation centre
- b) A museum
- c) A tourism information centre
- d) Tourism and transportation guidelines
- e) Public conveniences
- f) Websites, information literature/publications, viewing schedules etc.

Details are premature at this stage. However, the physical location of the facilities will fully follow the requirements of conservation and maintenance of the site. Vehicular access will be limited and pedestrian approaches/pathways minimal.

There are no clear statistics available, as of now, regarding the actual number of visitors for Bhimbetka. The period between November and March remains the peak season, when an approximate number of 2,000 visitors per month has been estimated.

j) Property management plan and statement of objectives

It is necessary for the conservation plans to be finalised prior to the formulation of a property management plan. However, the main objectives of the property management plan may be given as follows:

- a) To outline the objectives for the management of the cultural landscape so that the outstanding universal value of the property is conserved and enhanced.
- b) To promote the educational, cultural and archaeological values through augmentation of public awareness, interest and participation.
- c) To outline a series of measures for a sustainable approach to the future management of the property which balances the archaeological and environmental conservation with visitor access, agriculture and local development pressures.
- d) To identify and detail the mechanism of working with local communities, local partners and stakeholders to enhance the economic and cultural benefits of the site.
- e) To prioritise and prepare a time schedule for implementing a programme of action covering the conservation plan, tourism plan, administrative methods etc. in consonance with the objectives outlined under each.

While these may be the broad overall objectives, the management of tourism and of visitors to Bhimbetka will follow the principles set forth in the ICOMOS guidelines for sustainable tourism. This is essential in order to ensure that a balance is maintained between the development of tourism in the region and the conservation of the designated site.

Briefly, the principles may be enumerated as follows:

1. The necessity to prepare a comprehensive tourism development plan.
2. The necessity for both conservation and tourism to benefit from the tourism development plan
3. The necessity to ensure that a fair component of revenue generated from tourism benefits conservation.
4. That the long term interests of the local community, especially adivasi settlements, and their sociocultural concerns be a determining factor in selecting options for a tourism development plan.
5. That the interpretation centre and its contents assist and invite visitors to understand and respect local ways of life, culture and continuity.
6. That the design and erection of new facilities and transport systems minimise the potentially harmful effects of tourism. Man-made structures to be avoided as far as possible.
7. The necessity to define the levels of acceptable tourism from time to time, and establish a mechanism for control and maintenance.

Similarly, the approach towards providing a visitor centre and visitor facilities may be summarised as follows:

1. Visitor facilities to be provided at a visitor centre located at an appropriate site.
2. Visitor centre to provide information/orientation with respect to Bhimbetka and neighbouring interests, covering a wider region.
3. Appropriate interpretation techniques to allow a visitor to experience the site and realise the quality and value of the heritage.
4. The proposed museum to function to support education and archaeological research and be a comprehensive resource centre.
5. Visitor centre to provide for toilets, first aid, communication lines (telephones) and an area for children.
6. Adequate provision to be made for parking of cars, buses, two-wheelers and vehicles of the disabled.

The primary conditions governing the location of the visitor centre and the facilities are that their site so chosen is:

1. Clear of significant archaeological importance
2. Limited in its adverse impact on the natural features and environment
3. Pedestrian friendly, i.e., allows for any movement on foot from the centre, the drop off points being on or away from the periphery of the core.

k) Staffing levels (professional, technical, maintenance)

The organisational structure of the Archaeological Survey of India, Department of Forest and Department of Revenue pertinent to Bhimbetka at the regional/divisional and field levels are given.

The Bhimbetka group of rock shelters falls under the Bhopal Sub-Circle of the Bhopal Circle. The Senior Conservation Assistant manages the Sub-Circle with a Conservation Assistant, Foreman and security guards. The Senior Conservation Assistant, Conservation Assistant and Foreman possess appropriate technical qualifications in the areas of conservation and site management. There are security guards on site. The staffing structure of the Science Branch which provides support for chemical analyses, direct dating tests etc. is also given, and is located in Nagpur.

Regional Level



Field Level

The Conservators of Forest manage at the regional level with headquarters at Bhopal, and the Divisional Forest Officer stationed at Obaidullahganj with assistance from the Sanctuary Superintendent, Forest Ranger, Deputy Rangers and Forest Guards at field level.

As the site falls in the Goharganj tehsil of the district of Raisen, general administration and revenue land management is effected by the District Collector stationed at Raisen assisted by a Sub-Divisional Magistrate and Tehsildar stationed at Goharganj, who are, further, assisted by the Naib Tehsildar and Revenue Officers with headquarters at Obaidullahganj. Legal revenue records pertaining to the area are maintained by *Patwaris* or village accountants.

District Level



Tehsil Level



Field Level



5

Factors Affecting the Property

a) Developmental Pressures

Due to the protected area falling within the Ratapani Wildlife Sanctuary developmental pressures, as of now, are minimal and come under the strict control of the applicable rules and laws (*see 4b*). However, in brief, the following may be stated with regard to possible pressures and actions thereof.

(i) Encroachment

Since notification of the site as protected area in 1990 by the Archaeological Survey of India, strict control is being exercised with respect to possible encroachments. In addition, the south, east and west sides in the buffer zone fall within the Wildlife Sanctuary. The Department of Forest through its mechanism of forest rangers and forest guards, and through clearly designated forest compartments maintain strict vigil, thereby allowing no encroachments.

Special care is taken to ensure that the agricultural pockets in the east and west within the buffer zone as well as the revenue strip on the north are not allowed to expand. The Archaeological Survey of India, the Department of Forest and the Department of Revenue are in communication to ensure that the status quo is not altered.

(ii) Adaptation

For reasons stated under (i) no adaptation of any existing feature or characteristic is allowed.

(iii) Agriculture

There are 21 villages which have traditionally existed and are within the designated buffer zone. Agriculture is a primary occupation along with a limited extent of cattle grazing. Agricultural activity within the areas under which they exist (*see map: 3a, p. 46*) is acceptable and non-detrimental in character. However, the limits of arable land are not allowed to expand.

With regard to the grazing of cattle, the Department of Forest has clearly designated pockets within the protected zone of the Wildlife Sanctuary where grazing is permitted. In addition, no cattle from outside the limits of the sanctuary are allowed to enter the forest. Strict monitoring is carried out to ensure that the extent and cover of vegetation within these designated areas and their balance are maintained.

(iv) Mining

Absolutely no mining activity is permitted either in the protected area or in the buffer zone. Earlier, some select licenses had been issued for setting up brick kilns and brick manufacturing. However, the Department of Forest stopped the issue of No Objection Certificates (NOCs) for these, and as such, other than agricultural activity no other occupation is permitted.

b) Environmental pressures

(i) Pollution

A certain amount of possible detrimental effects due to pollution existed when a select number of brick kilns were allowed to operate. However, with the prohibition of such activities, this problem has been eliminated altogether.

(ii) Climatic change

The Ratapani Wildlife Sanctuary extends over 950 sq. kms. While deforestation or felling of trees is not permitted - neither is active afforestation or planting. The alterations that take place are through the acts of nature, and so balance is maintained over a long period. There have been no variations in the indicators of climatic conditions recorded, which are well within the recorded ranges.

c) Natural disasters and preparedness

(i) Earthquake

The region of Bhopal covering Bhimbetka was not considered to be in an earthquake zone of any significance. Since the earthquake at Latur in Maharashtra in 1993, which, too, was in a Very Low Damage Risk Zone, the Government of India has reconsidered and revised Zonation. According to the seismic map of India, the state of Madhya Pradesh is categorised under Zone II and Zone III areas. Zone II is referred to as a Low Damage Risk Zone and Zone III as a Moderate Damage Risk Zone. Bhimbetka falls in Zone III. However, Bhimbetka is a natural landscape and not a man-made structure. This has existed for tens of thousands of years and will continue to cope with natural phenomena. Therefore, no intervention with respect to a possible earthquake is proposed.

(ii) Floods

Floods have never posed a problem in this region even in the worst of the monsoons. The water channels (locally known as *jhiris*) and natural slopes are well integrated with the river networks, and excess surface water is effectively drained off into the Betwa and Narmada rivers. The Ratapani natural fresh water lake in the vicinity is a boon as it has the capacity to accept a fair excess of surface water.

(iii) Fires

As the protected site falls within a designated wildlife sanctuary, forest fires are a potential threat. It must be noted, however, that they rarely occur and the Development Plan of the Wildlife Sanctuary and various circulars issued by the Chief Conservator of Forests, Madhya Pradesh, from time to time comprehensively deal with the issue of tackling any such occurrence. All the outer boundaries of the forest area are maintained as exterior firelines while the internal block boundaries, roads, cart tracks, closed coupe boundaries, range boundaries, transmission lines, railway lines etc. form the interior firelines. No forest fire has been reported in the near vicinity of the protected site of Bhimbetka.

d) Visitor/Tourism pressures

It was in 1973 that the news of the discovery of “a large gallery of prehistoric paintings at Bhimbetka” was widely reported in the Indian and international press. Bhimbetka and the protected site have attracted visitors since then and the aspect of ‘tourism’ is, therefore, a more recent phenomenon.

Off the beaten track, the rock shelter clusters are not easily accessible to lay visitors and tourists. It must be noted that only the Bhimbetka hill has been made approachable by the state government and visitors can view select clusters on this hill only. This aspect has both positive and negative implications.

The positive implications are that a well thought out programme in consultation with related agencies such as the Department of Forest and the Department of Tourism can be worked out prioritising visitor and tourist pressure but within the constraints of the requirement of the cultural landscape. This will be in accordance with the comprehensive conservation plan and management plan currently being worked out.

The negative implications are that the time taken for the implementation of an acceptable action plan may take a few years and consequently the full potential of tourist inflow (and resultant revenue) would be realised only then. This is important, as a comprehensive conservation policy would need to be supported by adequate resources (*see 4j re: tourism*).

e) Number of inhabitants within property, buffer zone

There are no inhabitants within the property save a solitary priest who resides within a temple located in the III F group of shelters of the Bhimbetka hill. This temple has existed for several years and attracts a number of visitors, particularly on days of religious importance. The Archaeological Survey of India has ensured that the limits of the temple and the residential portion of the priest are exactly the same as it existed at the time of notification of protection.

The buffer zone contains in all 21 villages of varying sizes and population. These traditional adivasi settlements comprise largely Gonds, Pradhans and Korkus. Four villages of Bineka, Piplani Khurd, Borda and Barkhera lie in the protected area on the east, with a total population of 2,021; four: Gautampur, Nasipur, Bamnai and Bhoot Palasi with a total population of 2,442 in the protected area on the west. Thirteen villages: Harrai, Diwatiya, Kesalwara, Tigariya, Amchha Kalan, Amchha Khurd, Bhiyanpura, Banskuwar, Bhanpura, Bhounrasa, Kumadi, Karitalai and Tajpura with a total population of 6,029 are in the revenue land on the north. In all, a population of 10,472 within the buffer zone (*see table 3a p. 51*).

f) Other

The dry summer months (March to mid-June) experienced by the site often lead to strong hot dust-laden winds (*loo*). These, over a period of time, cause abrasions to the rock surfaces and, inevitably, to the rock paintings as well. The impact of this appears to have been aggravated by denudation, albeit in the proximity zones outside the wildlife sanctuary limits. The Archaeological Survey of India is already in consultation with the Department of Forest to carry out judicious plantation. The green cover of the forest is an extremely effective natural barrier/wind-breaker and the foliage a good absorbent of dust particles.

6

Monitoring

a) Key indicators for measuring state of conservation

The indicators for measuring the state of conservation may be understood by the same parameters in which the basic components of the cultural landscape have been viewed.

I. Ecology and environment

- a) **Geomorphological character** - through the monitoring of:
 - (i) Mining, quarrying and cutting, if any, legally or illegally
 - (ii) Effects of natural agencies, for example, earthquake, floods etc.

- b) **Flora and fauna**, through:
 - (i) Listing and census
 - (ii) Records of afflictions and effects (bacterial, insect etc.)
 - (iii) Record of illegal poaching and hunting
 - (iv) Records of limits of agricultural tracts and grazing lands

- c) **Forestry**, through:
 - (i) Density of forest cover - satellite images
 - (ii) Inventory of additions/losses
 - (iii) Records of illegal felling
 - (iv) Records of illegal transportation of timber
 - (v) Records of forest fires

- d) **Microclimate**, through meteorological records of the region, covering:
 - (i) Temperature - monthwise
 - (ii) Humidity - monthwise
 - (iii) Precipitation - monthwise, annually
 - (iv) Wind directions and wind speeds - throughout the year

- e) **Water sources, water channels, water retention**
 - (i) Quantity of water - tested through the year
 - (ii) Quality of water - tested through the year

II. Rock shelters

Each rock shelter or rock shelter group, identified by classification, to be monitored for:

- (i) Material loss due to erosion, spalling or cracking
- (ii) Increase/decrease in visible indicators (cracks: length, width, depth; wet patches: area)
- (iii) Locational alterations of loose rock formations by nature and/or artificially induced
- (iii) Increase/decrease in algal/fungal growth
- (iv) Change in colour of rock surface
- (v) Increase/decrease of beehives/insect nests etc.

III. Rock Paintings

Paintings, after identification and classification, to be monitored for:

- (i) Material loss due to erosion, spalling, cracking or flaking
- (ii) Colour loss through water seepage/water run off
- (iii) Colour loss through direct exposure to sun
- (iv) Increase/decrease of patina
- (v) Physical and chemical analyses: cross-sectional analysis of paintings through rock surface, photomacrography, carbon dating, various pigment analyses, analysis to determine presence and nature of binders, if any, gas chromatography-mass spectrometry (GC-MS), scanning electron microscopy (SEM), and other tests for analysis of pigment, medium and stone.

IV. Archaeological evidences

- (i) Surface erosion through rain water leading to loss of habitational deposits
- (ii) Inventory and storage/preservation
- (iii) Time frame and progress for completing inventory (vital for preliminary phase)

V. Camp sites/peripheral sites

To be monitored for:

- (i) Disturbance to physical indicators such as stones, outcrops and treelines
- (ii) Loss of habitational deposits due to rain water run off
- (iii) Time frame and progress for completing investigation (vital for preliminary phase)

VI Adivasis/adivasi culture

To be documented through:

- (i) Census reports
- (ii) Size of settlements
- (iii) Addition to or depletion of settlements
- (iv) Movement of population to and from settlements
- (v) Sociological indicators, such as
 - a) levels of literacy
 - b) use of electronics
 - c) changes in lifestyle
 - d) retentions/changes in manifestations of creative expressions

b) Administrative arrangement for monitoring property

The administrative arrangement for monitoring property will be effected through the regional/field staff of the Archaeological Survey of India and the Department of Forest, Government of Madhya Pradesh (*see 4 k*). Additionally, other relevant information would be obtained from agencies according to requirement, for example, revenue data from the Department of Revenue etc.

On finalisation of the management plan, the staffing structure will be comprehensively reviewed and, where found necessary, modified.

c) Results of previous reporting exercises

There have been a number of site visits and inspections carried out by the officials of the Archaeological Survey of India since notification of the property in February 1990. However, these visits have been routine in nature and the reports filed are largely of administrative requirements. Data from these reporting exercises are available in the official files of the office of the Superintending Archaeologist, Bhopal Circle.

7

Documentation

a) Photographs, slides and, where available, film/video

The following forms of visual documentation are with the office of the Superintending Archaeologist of the Bhopal, Nagpur and Delhi Circles. The documentation covers aspects of the site including its geomorphological character, water sources and forest cover, archaeological excavations and finds, rock shelters, rock paintings and historical remains.

Photographs (and negatives): Black-and-white: 450 (150 with the Bhopal Circle and 300 with the prehistory branch at Nagpur).

Photographs (and negatives): Colour: 700 (500 with the Bhopal Circle, 100 with the prehistory branch at Nagpur, and 100 with the Delhi Circle).

Transparencies/slides: 550 (300 with the Bhopal Circle, 100 with the prehistory branch at Nagpur, and 150 with the Delhi Circle).

Video: One unedited video recording of an approximate length of two hours available with the Delhi Circle.

b) Copies of property management plans and extracts of other plans relevant to the property

Property management plans have not as yet been finalised. An outline, approach and basic statement of objectives have been indicated earlier in this report (*see 4j*).

c) Bibliography (*see facing page*)

d) Address where inventory, records and archives are kept

Office of the Superintending Archaeologist
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Acknowledgements

N Gopaldaswamy *Secretary, Department of Culture, Government of India*

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Maps & photographs

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Satellite imagery

National Remote Sensing Agency, Hyderabad

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Rock Shelters of Bhimbetka

Continuity through Antiquity, Art & Environment

Management

**to be read in conjunction with the proposal for nomination
for inclusion in the World Heritage List**



Archaeological Survey of India



View of Bhimbetka from Bhonrawali

A rare primary site, and one of the most ancient, Bhimbetka is a microcosm; a 'living site' set in its natural environment, as yet in its pristine state.

Its vast and variegated content in one contiguous area provides great potential for comprehending the dynamics of the earliest settlements of man. That the area has also been able to sustain the ecological balances in relation to its natural environment gives an added dimension, one that has nurtured and supported cultural evolution and development over time. For archaeological evidences show an undisturbed continuous sequence of cultures through its layers from the Palaeolithic to the Historical periods; and on the visible surface, a rich profusion of paintings from the Mesolithic to the Mediaeval.

Bhimbetka's uniqueness lies not only in the concentration of its antiquity and art, and the wealth that it conceals, but that it has not remained frozen in time and space. Elements of this continuity are manifest in the creative expressions that show affinity to great antiquity in the traditional lifestyles of the adivasis of the area integral to Bhimbetka and the surrounding region.

To preserve this site is of utmost importance.



View of Bhonrawali from Bhimbetka

Tectonically, Madhya Pradesh lies on the Gondwana Plate, making it one of the oldest geological formations in the world. The fossils of Mandla belong to the Jurassic age. The underlying rocks were formed when the earth was young. The State contains the only two true rift valleys in India through which flow the Narmada and Tapti, among the oldest rivers in the world, predating the Ganga by at least 150 million years.

This is an ancient land, but it is also one which moderates the climate and the water regime of the whole of peninsular India. Madhya Pradesh is the watershed which feeds the rivers of the north, east, south and the west, and because the rivers are major, it constitutes a very important watershed. The water originating from Madhya Pradesh owes as much to the forests which cover the hills and valleys as it does to the monsoon.

It is the forests of the State which sustain these rivers and ensure that the rainfall over this vast area is evenly distributed and shared with the rest of the country. The forests are the arresters of the downpour, the moderators of run off and flow, the storehouses which gradually release water during the dry season, the preventers of drought and protectors of the thin topsoil which cover the underlying rock. Unfortunately, these forests are under immense pressure for the wealth of the timber and bamboo that they contain, the minerals that lie underfoot and invite exploitation, through pressure of grazing, nistar and encroachment, and the almost unending demand for land... Minus the forests there would be no water and no soil; and there would be desertification of a large part of the country.



Above: Impressions, Mediaeval period, Bhimbetka
Below: Impressions, exterior wall surface of dwelling, Amchha Kalan

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Introduction

The Government of India has recognised the significance and immeasurable value of Bhimbetka as among mankind's oldest heritage. Not only of what the site continues to reveal through its cultural content of thousands of years but geologically, ecologically and environmentally as well. The situation of the notified core comprising the cultural content of the site falling within a designated wildlife sanctuary, and surrounded by villages of predominantly adivasi settlements dependent on forest produce has necessitated a holistic approach and the Government has, therefore, taken a decision to conserve a larger area in the form of a buffer encompassing the already notified core in order to incorporate and tackle the components of the various interrelated facets that comprise "Bhimbetka". Antiquity, art, ecology, environment, adivasi settlements, land use, the utilisation of natural resources, and a steadily increasing demand on the forest are interlinked. The Government has realised the need for such an approach as isolated fragmentary or piecemeal ones do not allow for the balancing of many interrelated issues necessary to maintain equilibrium in a site as vast and deep as Bhimbetka, especially from the point of view of its conservation.

The complexity and magnitude of the task of a conservation strategy and management of this "cultural landscape" in its multidisciplinary and multidimensional context has not been underestimated. This requires an interdisciplinary approach and, therefore, a corresponding structure. The conservation strategy and management plan are being viewed at macro and micro - national, state and site-specific - levels. Taking an overview, both the Central Government and the Madhya Pradesh State Government have recognised the need for a multitiered structure of personnel within a nodal organisation for the collection of primary data, scientific analyses, the implementation of activities, and the interdepartmental administrative coordination among ministries and institutions of all resulting programmes. The management approach has accordingly been conceived for implementation in two overlapping parts with the Archaeological Survey of India initially as the nodal organisation, the principal agency vested with management authority. Evolving out of the initial phase of the plan, a separate autonomous authority is proposed to be set up to implement the larger aspects of the management plan arising out of the wide spectrum of interrelated concerns. The Archaeological Survey of India will continue to play its role within the management framework as a part of the proposed authority.

The **core** of 1892 hectares has already been notified as protected area by the **Archaeological Survey of India** and falls within the Ratapani Wildlife Sanctuary. The core, whose primary focus constitutes the archaeological content, the rock shelters and the rock paintings is directly under the charge of the Archaeological Survey of India.

The outer perimeter of the **buffer** zone has been arrived at after examining forest compartments (as delineated by the Department of Forest), protected and reserved forest areas, and revenue and village boundaries. Consequently, the **Department of Forest** and the **Department of Revenue** are also directly concerned in the study, analysis, decision making and programme implementation in tandem with the Archaeological Survey of India.

It is within the 10,280 hectares of the buffer that are situated the 21 largely adivasi village settlements - in close proximity to the core - which depend upon the surrounding ecological resources for their existence and livelihood. The adivasis, at one with the environment, are the oldest inhabitants of the area whose traditional creative expressions that bear affinity to great antiquity are fast vanishing. The villages are primarily agricultural. Traditionally, the dwellings are single-storeyed, of bamboo, timber, mud-husk-cowdung finishes, and thatch or terracotta tiled roofs - indigenous natural materials. The various surfaces, as of the rock shelters of Bhimbetka, are painted.

The vernacular is now giving way to the more contemporary characterless permanent brick-and-plaster two-storeyed structures. Lifestyles are changing, and villages in turn expanding, becoming more “cosmopolitan” with the ebb and flow of people and adapting to electronics. Along with dwindling traditional craft and craft techniques is a transformation in attire, and a gradual apparent loss in “identities”. There is more demand on natural resources, particularly the forest, from around - beyond the designated buffer zone as well. Illegal felling of trees has contributed to deforestation, and change in the ecosystem. Ground water and water systems are slowly drying up. Agricultural occupation has suffered from a lack of systematic optimum utilisation of these once abundant resources, and so income and land use.

The demographic profile of this critical area surrounding the core needs careful study - which has already been initiated - and after analysis, provisions for exercising control on land use made in consultation with the inhabitants of the settlements. With the interest of the people and the land in view, the State Government of Madhya Pradesh has adopted the 21 villages in the **Rajiv Gandhi Watershed Management Mission** the programmes of which will adapt to the objectives and framework of the overall conservation strategy and management plan envisaged for Bhimbetka. The Mission attempts to integrate concerns of poverty reduction and environmental regeneration through a strategy of participatory watershed management.

While all forests in Madhya Pradesh are managed under the provisions of the Working Plan, about 43% of the State's forests are currently under the joint management of the **Joint Forest Management Committees**, and are being managed according to the provisions of the Government resolution on Joint Forest Management. The revised Government resolution of October 2001 makes an attempt to provide a basis for community participation in forestry keeping in view the distinctive features of different kinds of forest areas. Through special committees it provides for protection of well-stocked forests, for rehabilitating degraded forest areas, and eco-development with a view to ensure biodiversity conservation in National Parks and Sanctuaries. The State Government of Madhya Pradesh has decided to facilitate the setting up of such committees for Bhimbetka in particular. As the notified core of Bhimbetka and much of the buffer are part of the Ratapani Wildlife Sanctuary and protected forest areas, and the villages depend upon forest produce and the grazing of their cattle, several issues need to be addressed. That the core falls within a designated wildlife sanctuary whose interests are not in conflict with the objectives of conservation of the Archaeological Survey of India, is an advantage.

A strengthening of the area is envisaged through more awareness, more focus, coordinated inputs by agencies, and through an organised participation of the people. The equation between economic prosperity and conservation must be balanced. This is a continuing process whose short and long term objectives and achievements will be evaluated at prescribed intervals over time and modifications to programmes accordingly made. It is pertinent to realise here that the requirements for Bhimbetka stem from within, for the needs are particular to each aspect. Current programmes will adjust to specific situations within identified areas of concern, and additional ones introduced according to need. There will be no superimposition of formulae. The character of the ‘parts’ and the totality of Bhimbetka have been kept in view.

The components, short term and long term objectives and phases of action have been delineated for a comprehensive conservation strategy - and stemming from this strategy, a management plan for Bhimbetka. Through phasing, monitoring and allowing for unforeseen emerging areas of concern along the way, the management framework affords flexibility.

The structure for management has been conceived in two parts keeping in view both the area of the site and the multidimensional, multidisciplinary and multidepartmental nature of the proposed activities that the conservation strategy demands.

The nodal organisation for control of management initially for planning being the Archaeological Survey of India, a separate unit is being set up within the organisation especially for Bhimbetka. While preliminary surveys have already commenced, it is from here that all activities pertaining to the preparation and collation of primary data, research, analyses and coordination will take place through a multidisciplinary team. This initial phase of the management plan will be accomplished in approximately two years. However, a number of activities essential for implementation subsequently will run parallel. These are the dovetailing of ongoing programmes with the primary concerns of the conservation strategy, and the preparation of a meaningful and complementary traffic/transportation and tourism plan. Arising out of these complexities is the need to establish an independent authority vested with the requisite administrative, legal and financial powers, technical and professional expertise, and represented by the stakeholders including the local community.

The Archaeological Survey of India will continue to play its primary role within the management framework of the proposed authority.

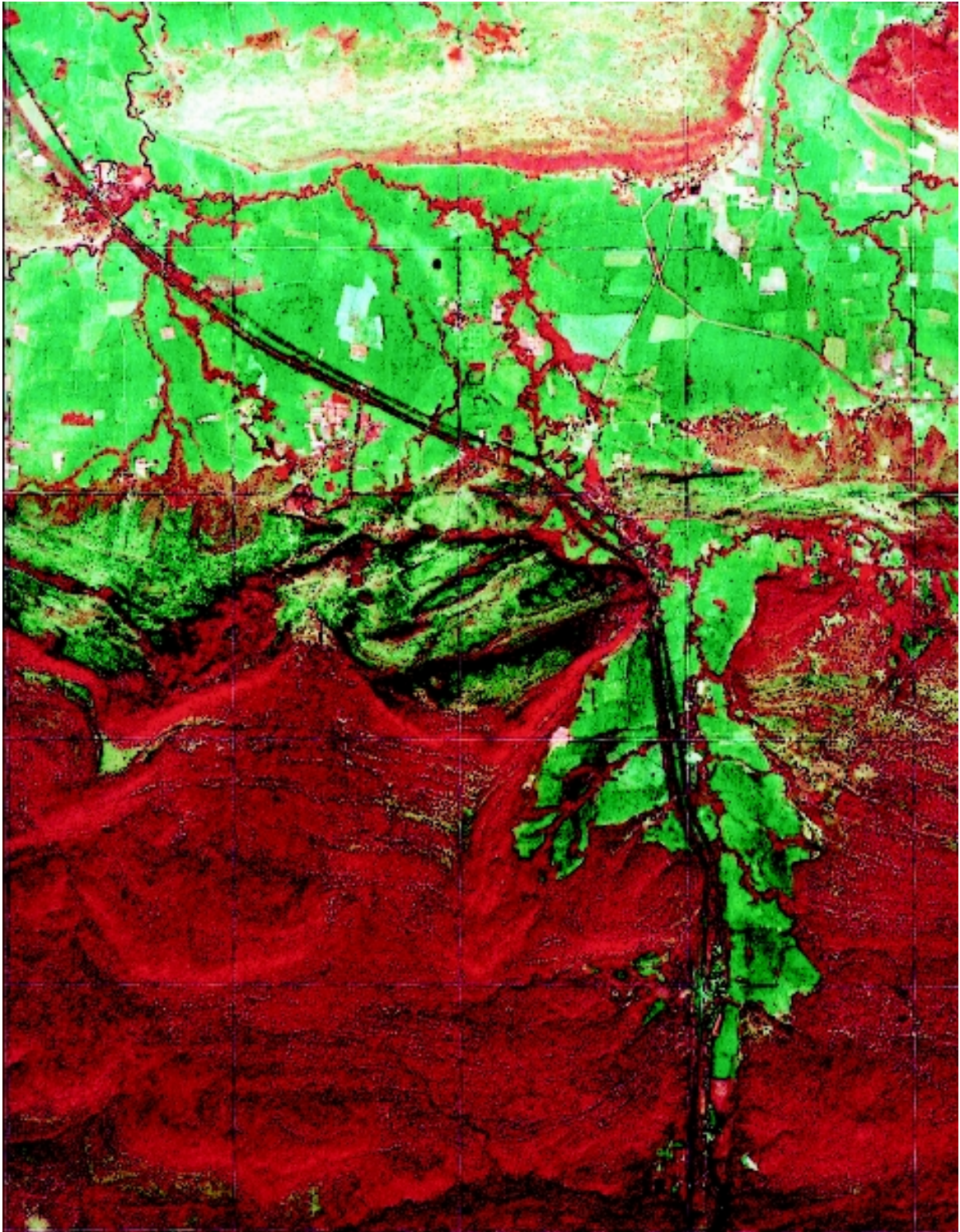


The process of conservation is a slow one. It is, however, important to identify the issues involved at all levels in order to prepare a realistic management plan encompassing short term and, largely, long term goals.

Live issues pertaining to forests, a fragile ecosystem, and the relationship of an increasing population of inhabitants of the surrounding villages who have traditionally depended on forest content, and now the pressure of illegal commercial demands, are complex ones which urgently need to be tackled. For these threaten the existence of the forests, climate, water systems, biodiversity and the cultural core of Bhimbetka, one of the most ancient sites, which have withstood time for over tens of thousands of years.

The buffer, which contains in part the sanctuary and for the rest inhabited villages adjacent to the core, is an essential cushioning element to the cultural core in which the management plan has a major role to play through a structured coordination of programmes and people's participation. It is hoped that over the years the concerns which show results within this area will permeate to other adjacent areas.

However, it is vital that this concerted initiative on the scale relevant to the conservational needs of Bhimbetka is not lost.



Satellite imagery (Courtesy: National Remote Sensing Agency, Hyderabad)

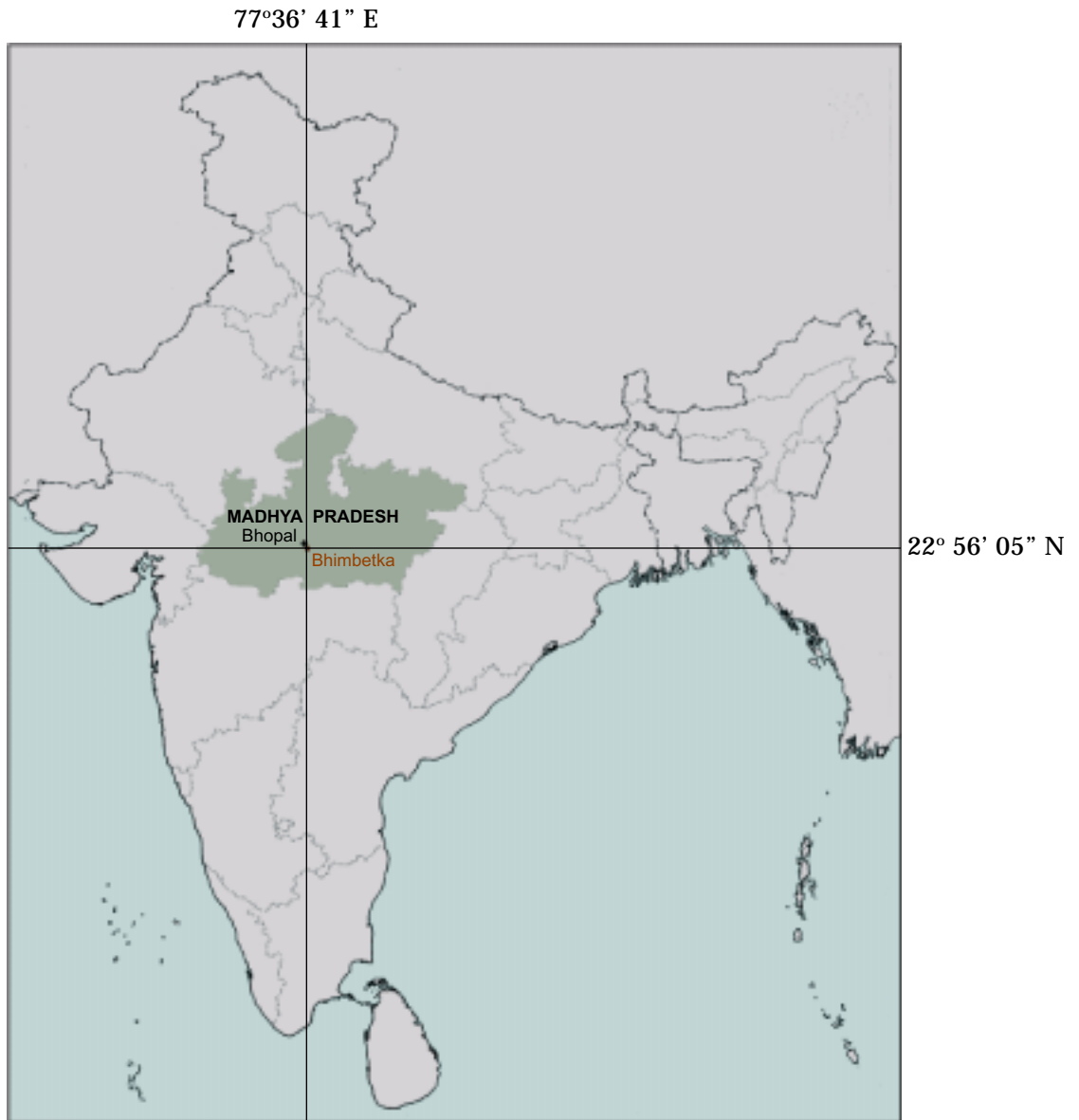
2

Location

Location

Bhimbetka lies 22° 56' 05" N and 77°36' 41" E

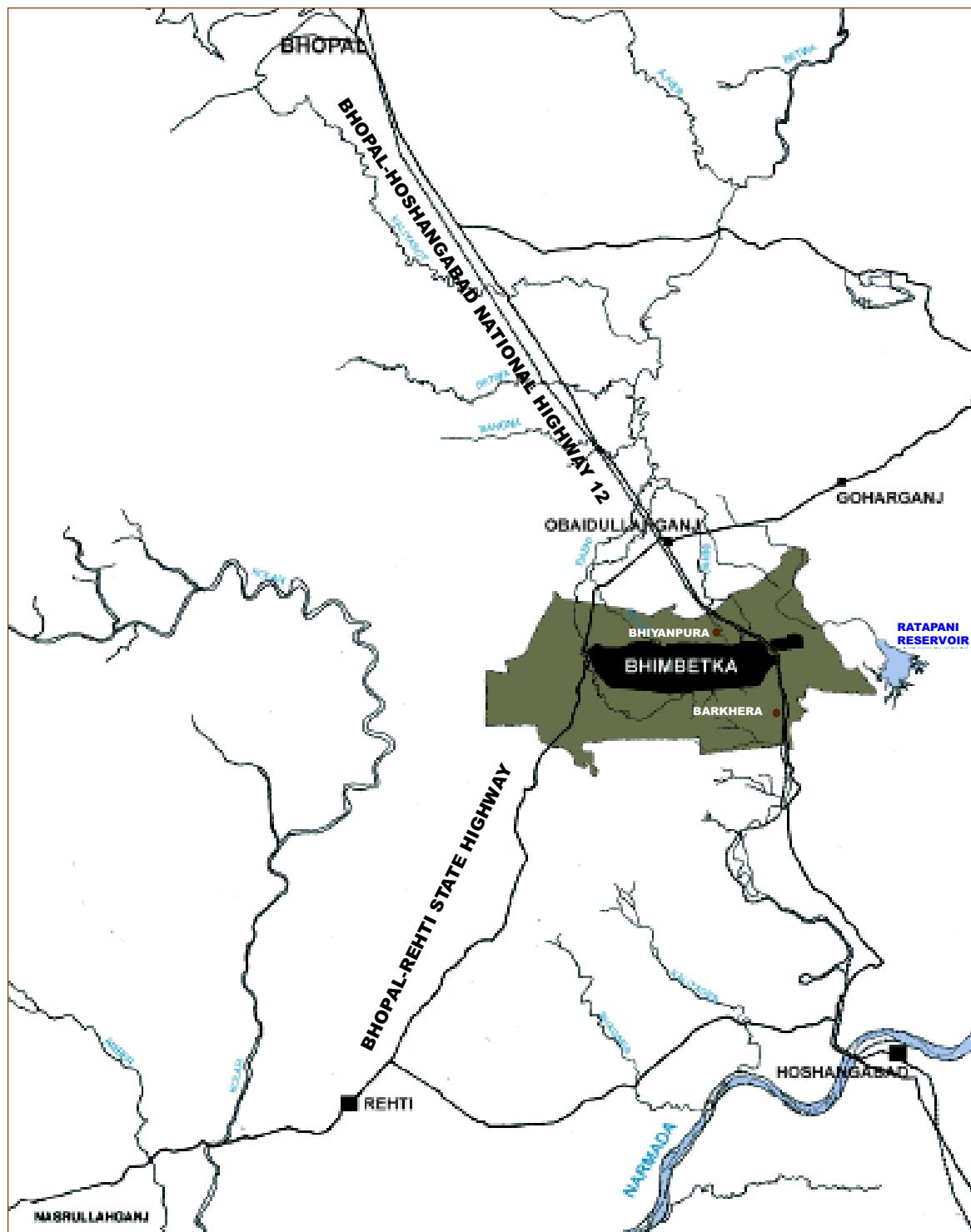
The Bhimbetka site complex is situated 2 km southwest of the tribal village of Bhiyanpura in the Goharganj tehsil of the district of Raisen in the state of Madhya Pradesh. Bhiyanpura is 45 km southeast of Bhopal, the state capital, and 30 km northwest of Hoshangabad between Obaidullahgunj and Barkhera. The main Central Railway line and Bhopal-Hoshangabad National Highway 12 pass through the buffer zone between the two designated cores east of Bhonrawali hill and west of Bineka. The Bhopal-Rehti State Highway passes through the buffer zone to the west of Lakha Juar (West).



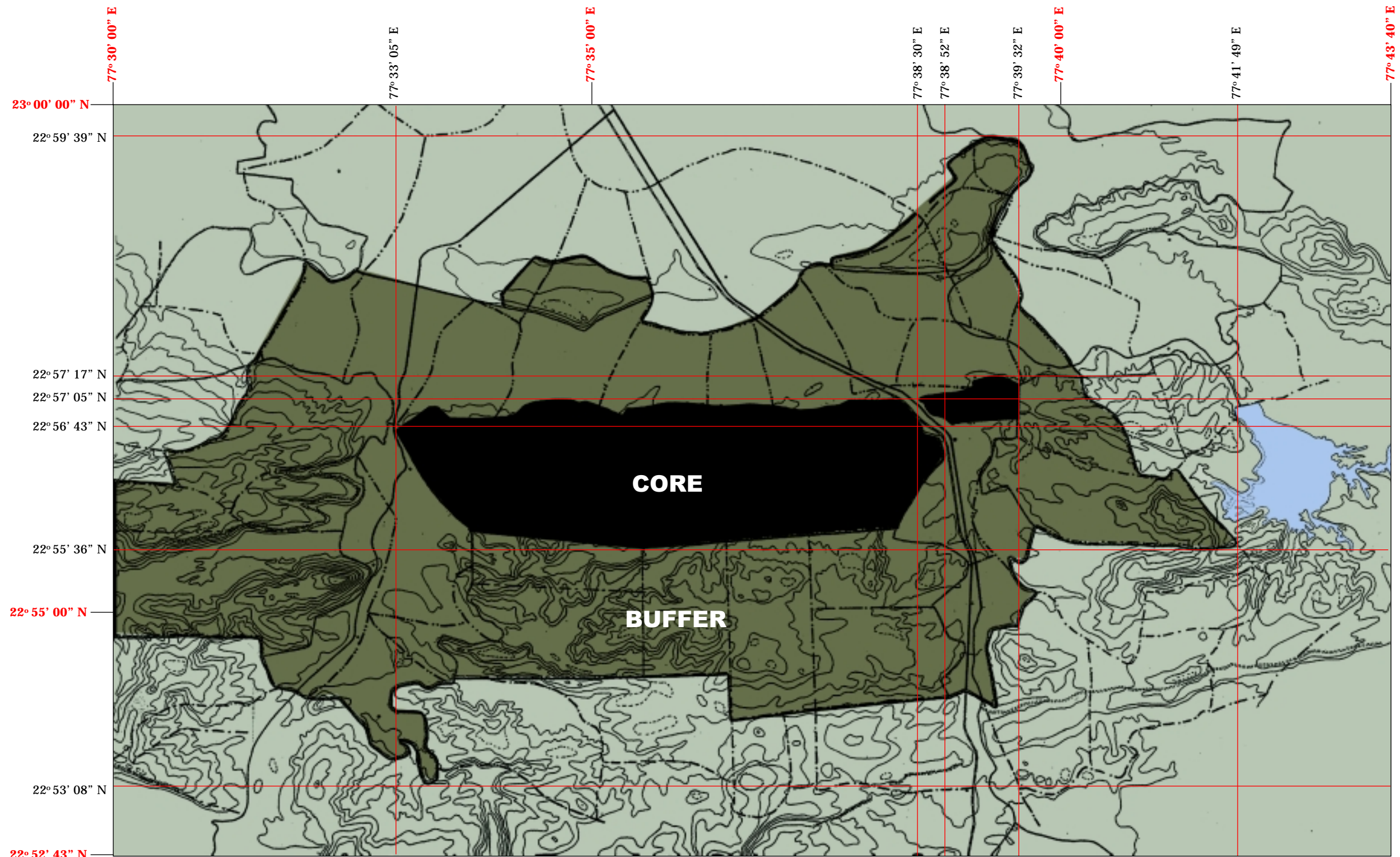
Map of India showing Madhya Pradesh (State), Bhopal (State Capital) and Bhimbetka



Map of Madhya Pradesh showing Goharganj Tehsil and Bhimbetka in District of Raizen, and the State Capital, Bhopal



Location of Bhimbetka site

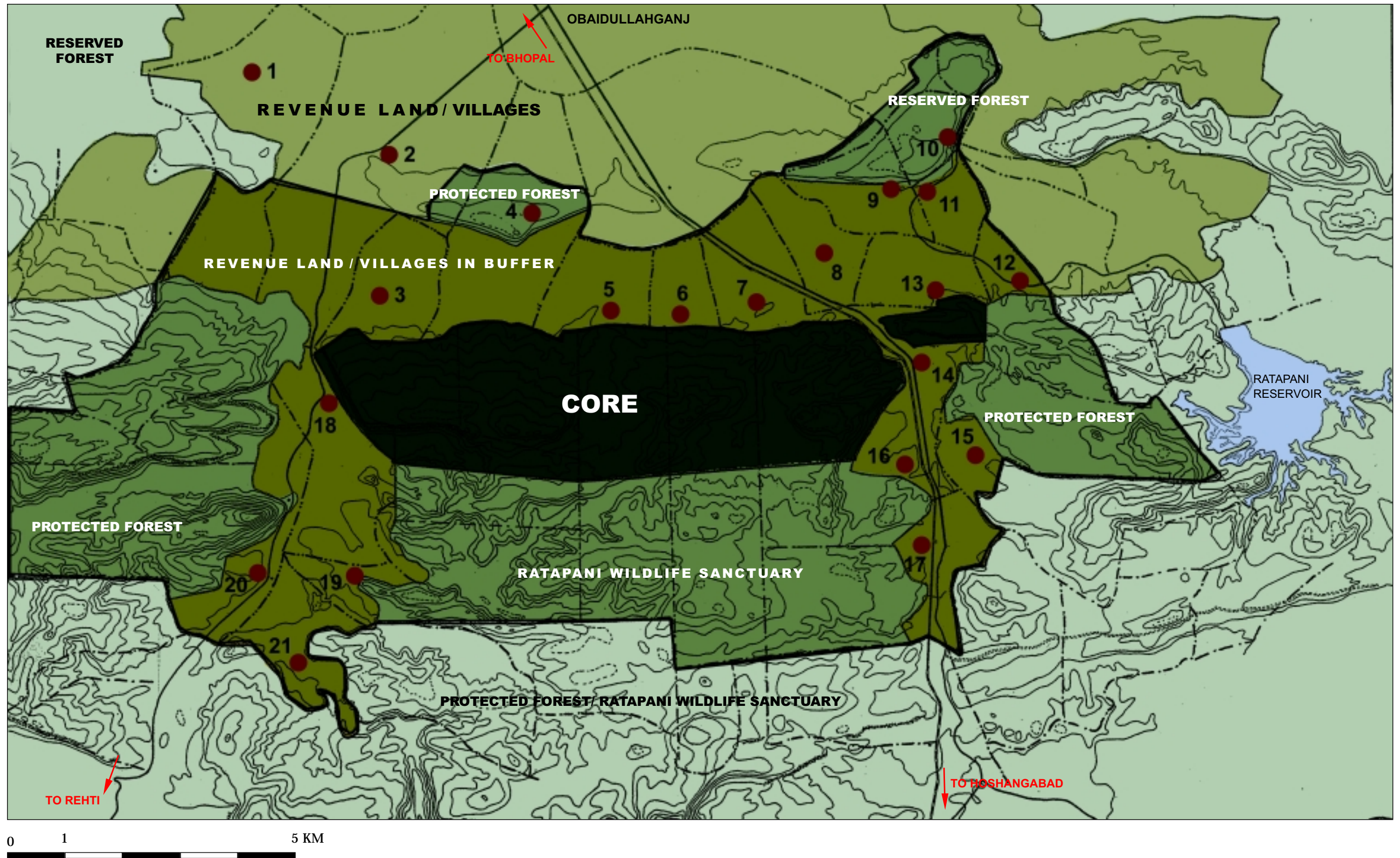


Coordinates for the larger group:
 North: 22° 57' 05" N 77° 37' 15" E
 South: 22° 55' 36" N 77° 35' 32" E
 East: 22° 56' 30" N 77° 38' 52" E
 West: 22° 56' 47" N 77° 33' 05" E

Coordinates for the buffer zone:
 North: 22° 59' 39" N 77° 39' 15" E
 South: 22° 53' 08" N 77° 33' 13" E
 East: 22° 15' 24" N 77° 41' 49" E
 West: 22° 56' 00" N 77° 30' 00" E

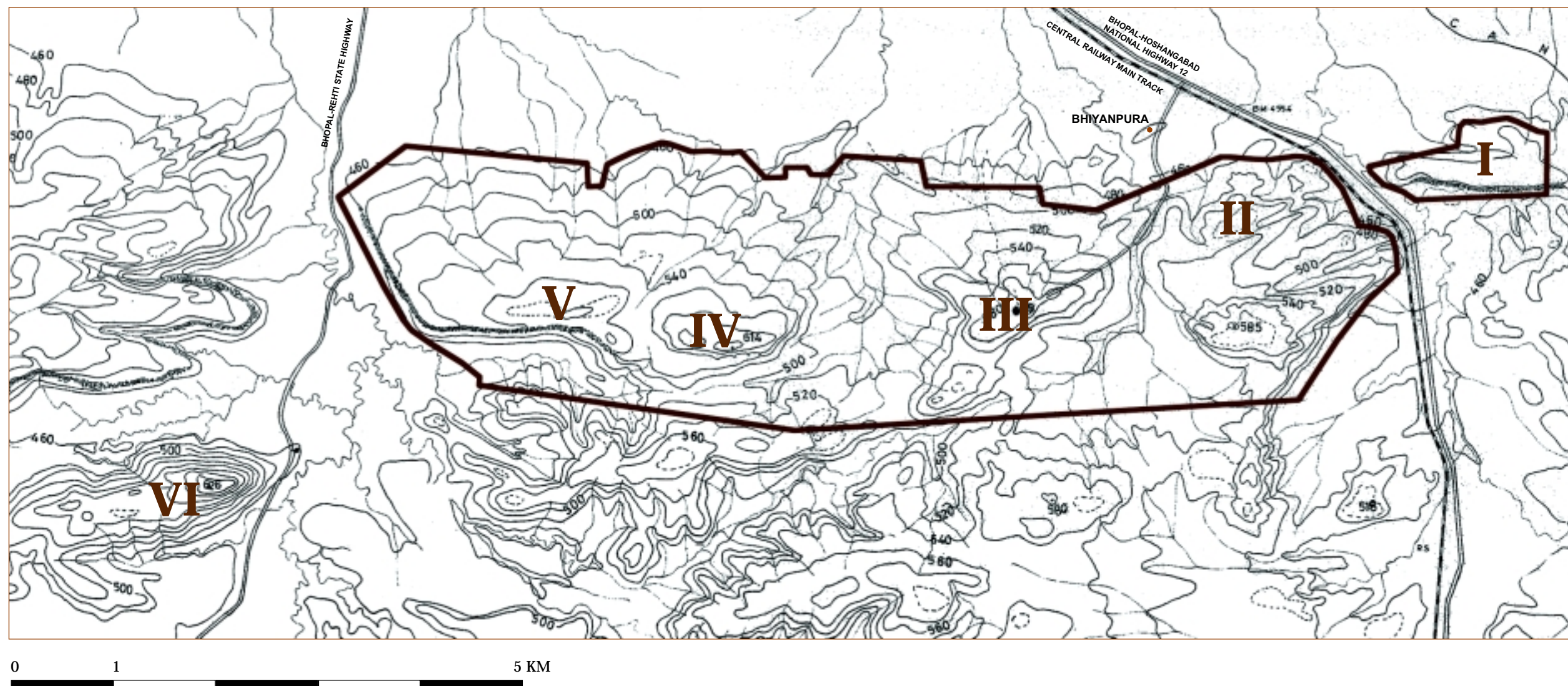
Coordinates for the smaller group:
 North: 22° 57' 17" N 77° 39' 20" E
 South: 22° 56' 43" N 77° 38' 50" E
 East: 22° 56' 48" N 77° 39' 32" E
 West: 22° 57' 04" N 77° 38' 30" E

Map indicating coordinates of core and buffer zones



Map of site indicating core and buffer zones, revenue and protected forest/sanctuary areas

Villages within buffer zone: (1) Harrai, (2) Diwatiya, (3) Kesalwara, (4) Tigariya, (5) Amchha Kalan, (6) Amchha Khurd, (7) Bhiyanpura, (8) Banskuwar, (9) Bhanpura, (10) Bhounrasa, (11) Kumadi, (12) Karitalai, (13) Tajpura, (14) Bineka, (15) Piplani Khurd, (16) Borda, (17) Barkhera, (18) Gautampur, (19) Nasipur, (20) Bamnai and (21) Bhoot Palasi



Map showing location of the six hills

I. Bineka, II. Bhonrawali, III. Bhimbetka, IV. Lakha Juar (East) and V. Lakha Juar (West) in the core zone and VI. Muni Baba ki Pahari in the buffer zone

3

Conservation Strategy and Management

Current Status

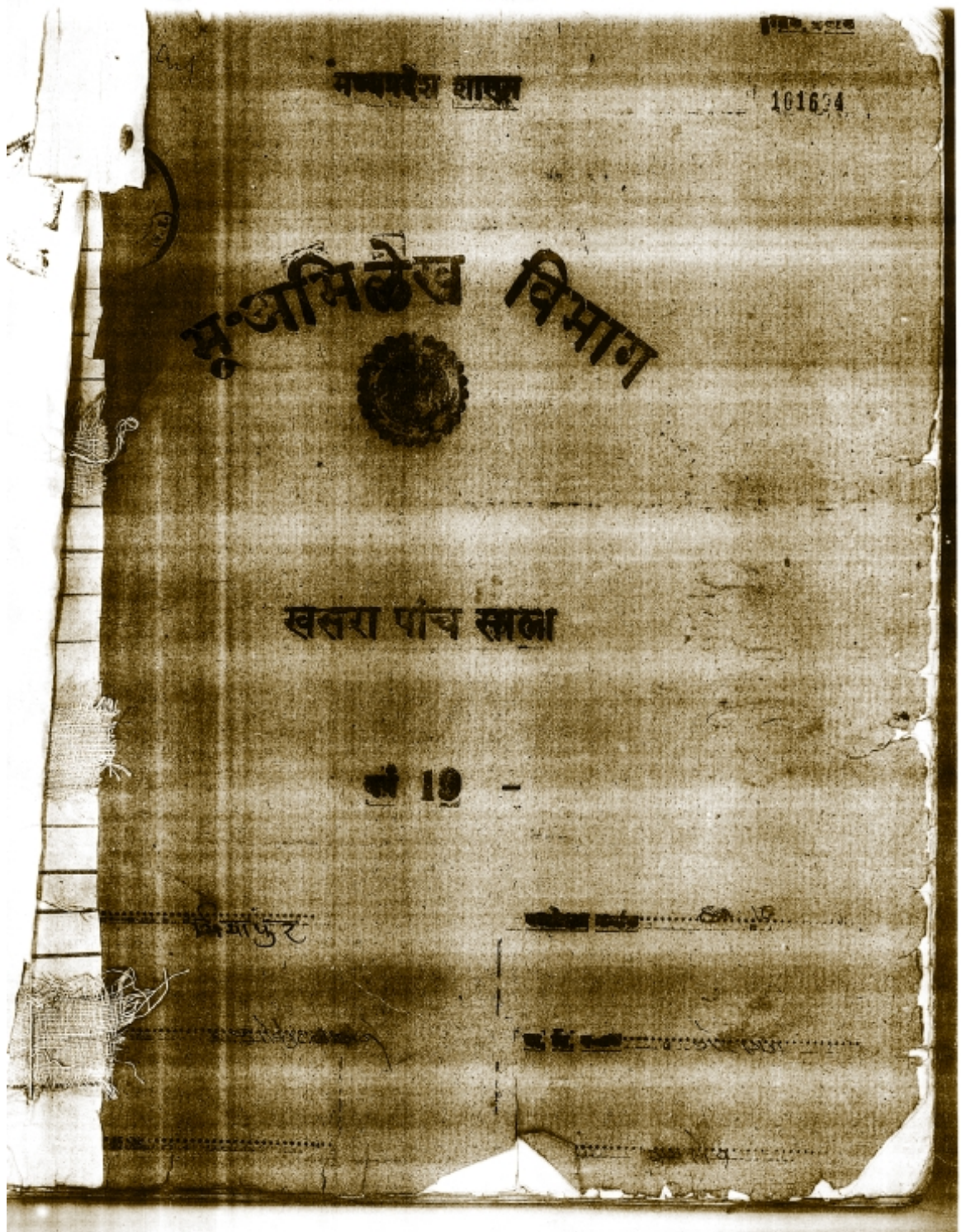
The rock shelters and paintings of Bhimbetka were discovered by VS Wakankar in 1957. While systematic archaeological investigations were carried out in two shelters of the Bhimbetka hill by K.D. Bajpai and S.K. Pandey of the Dr. H.S. Gour University, Sagar, in 1971, Wakankar commenced surveys and excavations in 1972, through the Vikram University, Ujjain. Later, from 1972-77, concurrent excavations, also confined to Bhimbetka, were conducted by Wakankar (Vikram University, Ujjain), V.N. Misra of the Deccan College, Poona, and Susan Haas of the Museum für Volkerkunde, Basle. Excavations were also carried out in 1981-82 by K.D. Banerjee of the prehistory branch of the Archaeological Survey of India. Wakankar's discovery and the subsequent excavations revealed the site complex to be a magnificent repository of rock paintings from the Mesolithic to the Mediaeval periods within natural rock shelters with archaeological evidences of continuous sequential occupation and lithic industry from the Palaeolithic and Mesolithic periods through the Chalcolithic to the Mediaeval period. The dense concentration of this enormous cultural wealth is unparalleled.

The Archaeological Survey of India took charge of Bhimbetka in 1990, and the site was notified in February 1990. Selective minimal protective measures and facilitation of visitor movement were carried out by the Archaeological Survey of India. An approach road was constructed in 1984, off the National Highway 12 to the Bhimbetka hill, terminating in a small parking bay with drinking water facilities and a few visitor benches. The Archaeological Survey of India has, over this period of time, carried out photo documentation, largely of the rock paintings. Further archaeological excavations have commenced, and large scale surveys planned. Absolute dating for the paintings is to be carried out over a three year period by national and international organisations in collaboration with the Archaeological Survey of India.

As the protected core falls within the Ratapani Wildlife Sanctuary, details of the core area are available in the survey map and documents held by the Department of Forest, Government of Madhya Pradesh. The buffer zone to the east, west and south also fall within the protected Ratapani Wildlife Sanctuary/reserved forest/protected forest and, therefore, the documents and surveys include divisions of its compartments. The working plans based on most recent information are updated every year.

Denudation of forest cover and the felling of trees continue to be a problem though the Department of Forest attempts to enforce strict protection through rangers and guards. The density of cover within the wildlife sanctuary has been more consistent since its notification as wildlife sanctuary, but tracts of reserved and protected forests outside the limits of the sanctuary - especially towards the north of the site - have suffered from denudation and felling. The Department of Forest has already put in motion a comprehensive Working Plan in relation to forest cover and wildlife. This 20 year plan is complementary to the requirements of the conservation proposals being finalised and, as such, is a valuable contributor to the preservation of the cultural landscape.

The buffer zone to the north - as also the pockets to the east and west - comprising predominantly agricultural land falls within the administrative purview of the Department of Revenue. Records pertaining to these lands are maintained in the office of the District Collector, Raisen. The records indicate individual ownerships, bounds of the parcels of land and the adjoining properties in the four cardinal directions, recorded in the traditional measurement format of *khasras* and *khatians*. The records are as recent as the division of a parcel or transfer of ownership.



Facsimile of cover of original revenue/land records of Bhiyanpura

बिहानपुरा ग्राम भिहानपुरा प्रखण्ड नं०-१० १९६६-६७

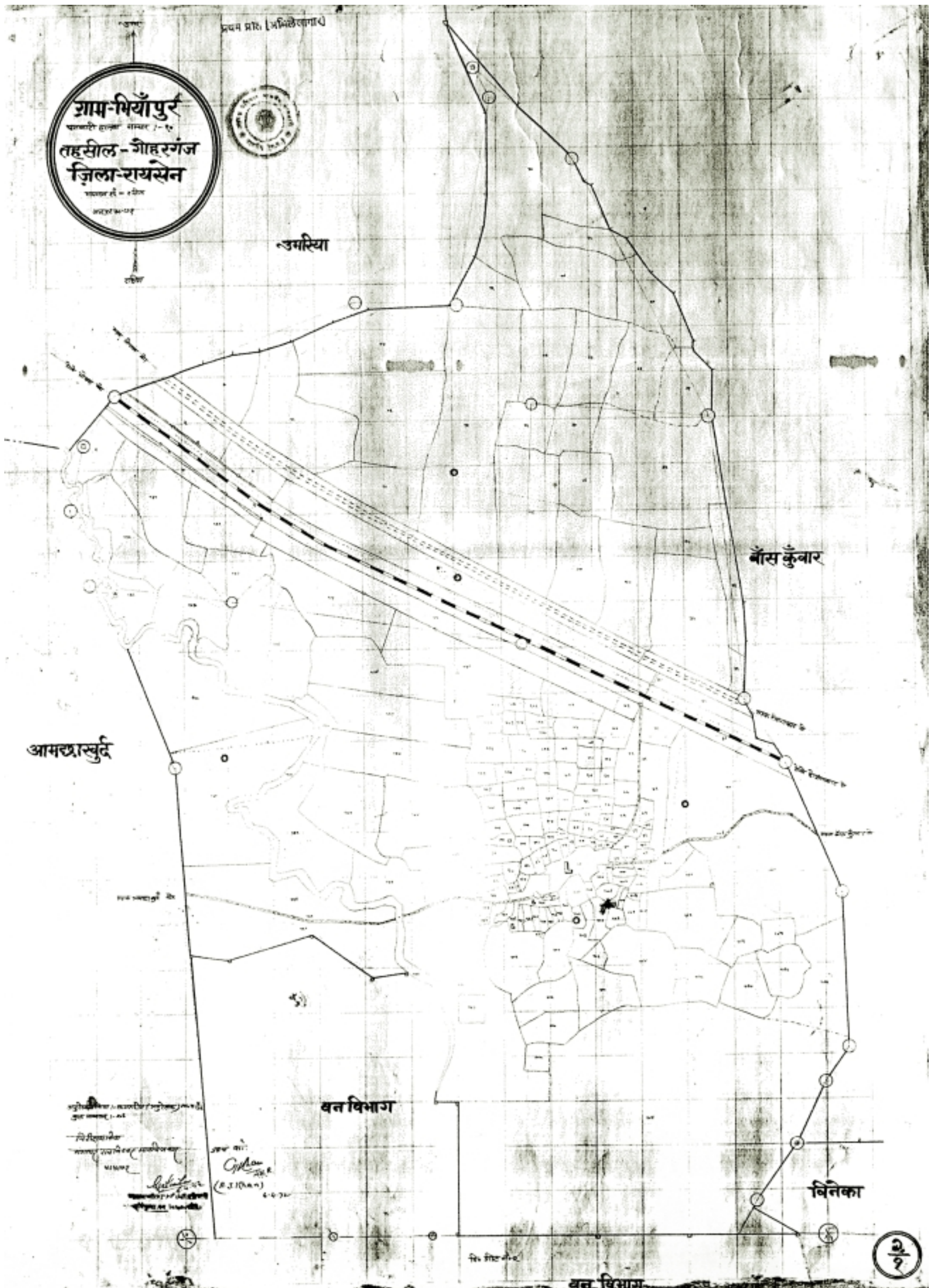
P. II खसत बीहानपुरा

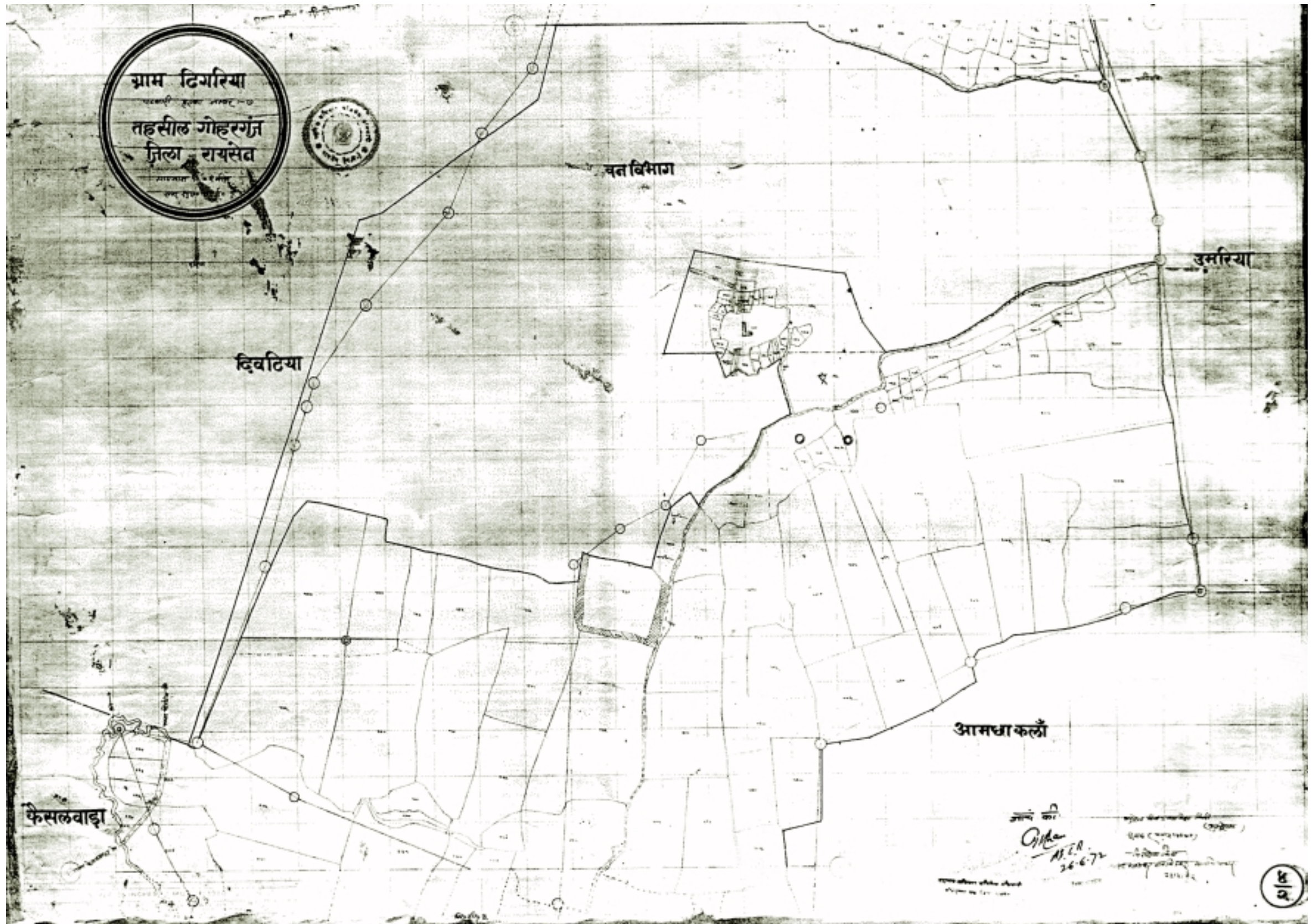
क्र.सं.	खसत (सूची नं० व क्षेत्रफल) की संख्या	खसतदार का नाम, पत्नी का नाम, पता, जमीन का प्रकार, खसतदार की संख्या, जमीन का प्रकार, जमीन का क्षेत्रफल	खसतदार की संख्या, पत्नी का नाम, पता, जमीन का प्रकार, खसतदार की संख्या, जमीन का प्रकार, जमीन का क्षेत्रफल	खसत की संख्या						खसत की संख्या का योग
				खसत नं०	खसत नं०	खसत नं०	खसत नं०	खसत नं०	खसत नं०	
३१	३-३६ ३-२६६	लेखनाथ, पत्नी सुखदेवी जमीन नं० ३३ जमीन नं० ३३ ३-३३ ३-३३ १९-३३		३१	०-२६६					
३२	३-३६ ३-३३०	लेखनाथ, पत्नी सुखदेवी जमीन नं० ३३ जमीन नं० ३३ ३-३३ ३-३३ १९-३३		३२	०-३३०					
३३	३-३७ ३-३३३	लेखनाथ, पत्नी सुखदेवी जमीन नं० ३३ जमीन नं० ३३ ३-३३ ३-३३ १९-३३		३३	०-३३३					
३४	३-३८ ३-३३४	लेखनाथ, पत्नी सुखदेवी जमीन नं० ३३ जमीन नं० ३३ ३-३३ ३-३३ १९-३३		३४	१-६४०					
३५	३-३९ ३-३३५	लेखनाथ, पत्नी सुखदेवी जमीन नं० ३३ जमीन नं० ३३ ३-३३ ३-३३ १९-३३		३५	१-६४५					
३६	३-३९ ३-३३६	लेखनाथ, पत्नी सुखदेवी जमीन नं० ३३ जमीन नं० ३३ ३-३३ ३-३३ १९-३३		३६	०-६६६ २-४३६					

Facsimile of original revenue/land records of Bhiyanpura

	१९५६	१९५७	१९५८	१९५९	१९६०	१९६१	१९६२
6	2/16 माला ०.६६० मि ०.६९६ ७ ०.६९६	2/16 माला ०.६६० मि ०.६९६	2/16 माला ०.६६० मि ०.६९६	2/16 माला ०.६६० मि ०.६९६	2/16 माला ०.६६० मि ०.६९६		
7	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०		
8	2/16 माला ०.६६० मि ०.६९६ ७ ०.६९६	2/16 माला ०.६६० मि ०.६९६	2/16 माला ०.६६० मि ०.६९६	2/16 माला ०.६६० मि ०.६९६	2/16 माला ०.६६० मि ०.६९६		
9	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०		
10	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०	2/16 माला ०.६६०		
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Facsimile of original revenue/land records of Bhiyanpura





Facsimile of original village record showing khasra divisions, Tigariya

While the cultural core and the natural environment have essentially remained the chief focus of conservation, the interdependence of other factors have necessitated a comprehensive strategy and a broader information base.

According to the Census of India **1961**, the area, population and number of households are given below for the villages in the buffer zone north, east and west of the protected core.

Location code	Name of village	Area (a)/(ha)	Population	No. of households	
North					
0033	Harra	2789.01	1128.99	285	61
0041	Diwatiya	3857.82	1561.64	1236	273
0042	Tigariya	1980.94	801.88	204	42
0048	Kesalwara	1067.39	432.07	-	-
0052	Bhounrasa	614.93	248.92	18	3
0059	Bhiyanpura	1124.9	455.35	129	27
0060	Amchha Khurd	1003.97	406.4	27	7
0061	Amchha Kalan	2287.82	926.1	163	37
0062	Banskuwar	598.05	242.09	107	24
0063	Bhanpura	513.72	207.95	23	7
0064	Tajpura	689.11	278.95	164	36
0075	Karitalai	973.28	393.98	88	15
0076	Kumadi	295.17	119.48	129	29
East					
0044	Nasipur	915.18	370.46	92	21
0045	Bhoot Palasi	3774.97	1528.1	72	16
0046	Bamnai	3427.19	1387.32	165	40
0047	Gautampur	1877.83	760.14	167	30
West					
0053	Barkhera	776.47	314.31	504	105
0057	Borda	310.87	125.84	7	2
0058	Bineka	2243.7	908.24	111	22
0073	Piplani Khurd	2163.68	875.85	193	40



Amchha Kalan: Agricultural fields in foreground and Bhimbetka in background

According to the Census of India 1971, the area, population and number of households are given below for the villages in the buffer zone north, east and west of the protected core.

Location code	Name of village	Area (a)/(ha)	Population	No. of households
North				
0033	Harra	2989.01	1209.95	496
0041	Diwatiya	7709.06	3120.22	1779
0042	Tigariya	1980.93	801.88	288
0048	Kesalwara	1067.3	432.04	-
0052	Bhounrasa	614.39	248.70	46
0059	Bhiyanpura	1124.9	455.35	182
0060	Amchha Khurd	1003.97	406.4	36
0061	Amchha Kalan	2287.82	926.1	214
0062	Banskuwar	598.05	242.09	215
0063	Bhanpura	513.72	207.95	38
0064	Tajpura	689.11	278.95	169
0075	Karitalai	973.28	393.98	124
0076	Kumadi	295.17	119.48	242
East				
0044	Nasipur	915.18	370.46	112
0045	Bhoot Palasi	3774.97	1528.1	80
0046	Bamnai	3427.19	1387.32	319
0047	Gautampur	1887.83	764.19	512
West				
0053	Barkhera	776.47	314.31	623
0057	Borda	310.87	125.84	119
0058	Bineka	2243.7	908.24	244
0073	Piplani Khurd	2163.61	875.82	202



Amchha Kalan: Agricultural fields and village settlement in foreground, Bhimbetka in background

According to the Census of India **1981**, the area, population and number of households are given below for the villages in the buffer zone north, east and west of the protected core.

Location code	Name of village	Area (ha)	Population	No. of households
North				
0033	Harrai	1209.61	641	106
0041	Diwatiya	3119.75	2398	414
0042	Tigariya	801.65	596	56
0048	Kesalwara	431.96	42	13
0052	Bhounrasa	248.85	57	11
0059	Bhiyanpura	455.23	224	46
0060	Amchha Khurd	406.29	37	8
0061	Amchha Kalan	925.85	231	43
0062	Banskuwar	442.02	229	45
0063	Bhanpura	207.9	49	11
0064	Tajpura	278.87	240	47
0075	Karitalai	393.87	170	26
0076	Kumadi	119.45	253	47
East				
0044	Nasipur	370.36	180	36
0045	Bhoot Palasi	1527.68	121	24
0046	Bamnai	1386.93	424	75
0047	Gautampur	763.98	613	114
West				
0053	Barkhera	314.23	891	141
0057	Borda	500.19	159	32
0058	Bineka	614.37	165	32
0073	Piplani Khurd	875.58	253	37



Bineka

According to the Census of India **1991**, the area, population and number of households are given below for the villages in the buffer zone north, east and west of the protected core.

Location code	Name of village	Area (ha)	Population	No. of households
North				
0033	Harrai	1209.61	828	155
0041	Diwatiya	3119.75	2715	474
0042	Tigariya	801.65	591	90
0048	Kesalwara	431.96	89	21
0052	Bhounrasa	248.85	62	10
0059	Bhiyanpura	455.23	205	55
0060	Amchha Khurd	406.29	25	6
0061	Amchha Kalan	925.85	292	53
0062	Banskuwar	442.02	289	49
0063	Bhanpura	207.9	48	9
0064	Tajpura	278.87	306	54
0075	Karitalai	393.87	224	34
0076	Kumadi	119.45	355	66
East				
0044	Nasipur	370.36	485	105
0045	Bhoot Palasi	1527.68	180	39
0046	Bamnai	1386.93	797	178
0047	Gautampur	763.98	980	198
West				
0053	Barkhera	314.23	1183	177
0057	Borda	500.19	189	27
0058	Bineka	614.37	351	58
0073	Piplani Khurd	875.58	298	56



Bineka: village well on right



Above: Bhiyanpura; Below: Amchha Kalan



Above: Amchha Khurd; Below: Bineka



Above: Gond adivasi, Bineka; Below: Amchha Khurd with Bhimbetka in background on right



Above: Gond adivasi, Amchha Kalan; Below: Amchha Kalan with Bhimbetka in background



Above & Below: Dwellings, Bhayanpura



Above & Below: Gond dwellings, Amchha Khurd



Above: Relief of bird on exterior wall of dwelling, Amchha Kalan
Below: Palm impressions on exterior wall surface of dwelling, Bineka



Above: Wall painting around entrance of Gond dwelling, Bhiyanpura
Below: Painting on exterior wall of Gond dwelling, Amchha Khurd



Above: Indigenous bullock cart of locally available wood and bamboo, Bineka
Below: Traditional storage bin in dwelling, Amchha Kalan



Above: Traditional water trough of wood for animals, Bineka;
Below: Traditionally painted earthenware



Above: Wood-bamboo-thatch structure for shade to protect water, Bineka

Below: Wood-bamboo-terracotta tile structure to house cattle, Bhoot Palasi livestock, Bhoot Palasi



Above: Wood-and-bamboo watch tower, Bineka
Below: Place of worship of village deity, Bhiyanpura



Above and Below: Traditional shrines, Bineka



External contemporary influences on structure and surfaces of shrine, Bineka



External contemporary influences on architecture Above: Bhiyanpura Below: Bineka



External contemporary influences observed in Above: local shop, Below: in modern storage bins for grain



Above: Settlements off Rehti Road and Below: Agricultural fields, Diwatiya



Above: Agricultural field and settlement, Barkhera
Below: Obaidullahganj



A woman from Rajasthan at the weekly *hat* or local market, Obaidullahganj



Above and Below: Traditional utilitarian handcrafted items on sale at the weekly *hat* or local market, Obaidullahganj

The approach to Conservation Strategy & Management

To conserve the combined works of nature and of man, including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological, anthropological, ecological and environmental points of view - as embodied in Bhimbetka.

The conservation strategy and management plan have been approached and devised keeping in view **three broad components** and their locations within the core and buffer zones: **cultural content, ecology and environment and adivasi settlements/villages**. It is important to realise that the broad components separated out are to be constantly relayed so that the totality and focus of the objective is always kept in view.

Pertaining to the cultural content

*(Location: **Core** within designated wildlife sanctuary):*

Archaeology, rock painting, anthropology, ethnology, history, camp sites

Pertaining to ecology and environment

*(Location: **Core** and **buffer**):*

Forests + forest cover; wildlife sanctuary: biodiversity; geology, geomorphology, water systems + watershed significance, climate

Pertaining to adivasi settlements/villages

*(Location: **Buffer** - in revenue land outside designated wildlife sanctuary, partly in protected forest area)*

Demographic profile: adivasis + adivasi culture, present inhabitants, settlements, architecture, agriculture, occupation, land use; dependency on forest produce + natural resources and their source; cattle + grazing locations

These constitute the inherent concerns.

The plan has kept in view the pertinent applicable legislations, existing working and management plans and has incorporated existing programmes conducted by the government and other agencies specific to the multidimensional aspects of Bhimbetka/Ratapani Wildlife Sanctuary. Programmes suitable in this regard include the Rajiv Gandhi Watershed Management Mission and Joint Forest Management, both of which are participatory management programmes, consider the needs of the people and regenerate/ conserve the environment. These would be tailored to the requirements of Bhimbetka and built into the management structure. While “protected” and “reserved” forests have their conservational limitations through the allowance of controlled utilisation of forest produce, the Ratapani Wildlife Sanctuary strictly protects its contents. In order to preserve wildlife, the natural habitat cannot be disturbed. In principle, this works well for the notified cultural core within the sanctuary which is thus doubly protected.

The management plan anticipates and incorporates, along with the inherent components, two related external ones:

Traffic and transportation

Tourism and visitor management

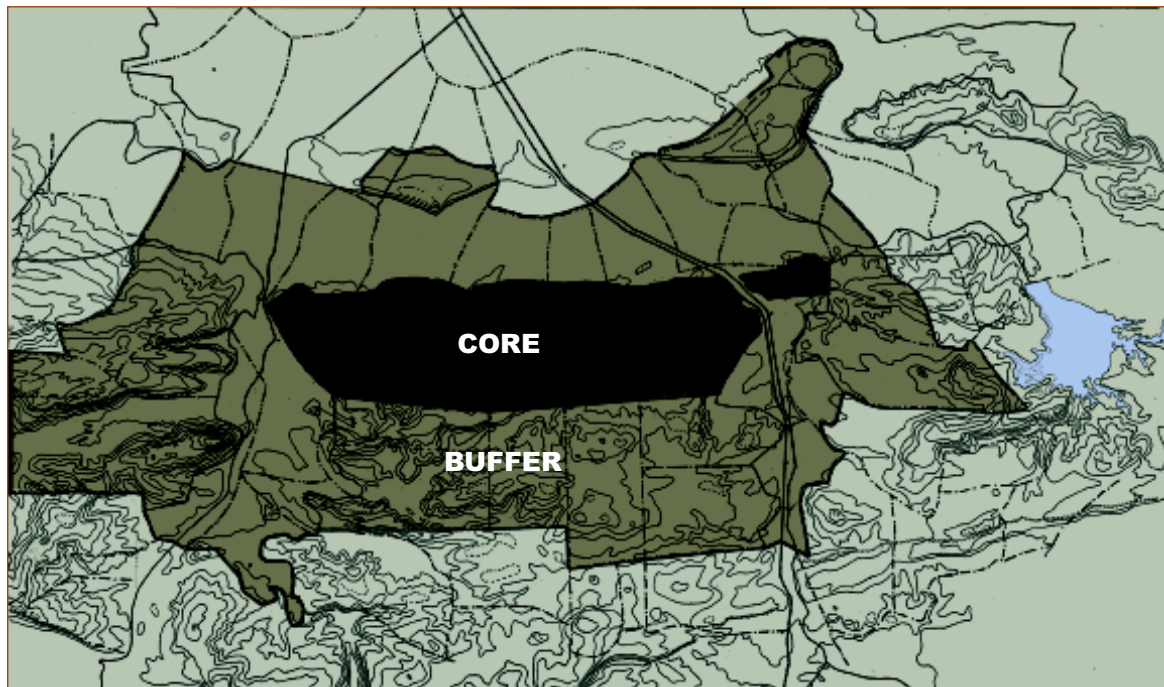
These will be accomplished in a manner which will ensure that balance is maintained between the development of tourism in the region and the conservation of Bhimbetka in particular. Likewise, visitor facilities and visitor management will be oriented towards promoting educational, cultural and archaeological values through augmentation of public awareness, interest and participation.

The proposed Management Plan therefore has been envisaged in two parts:

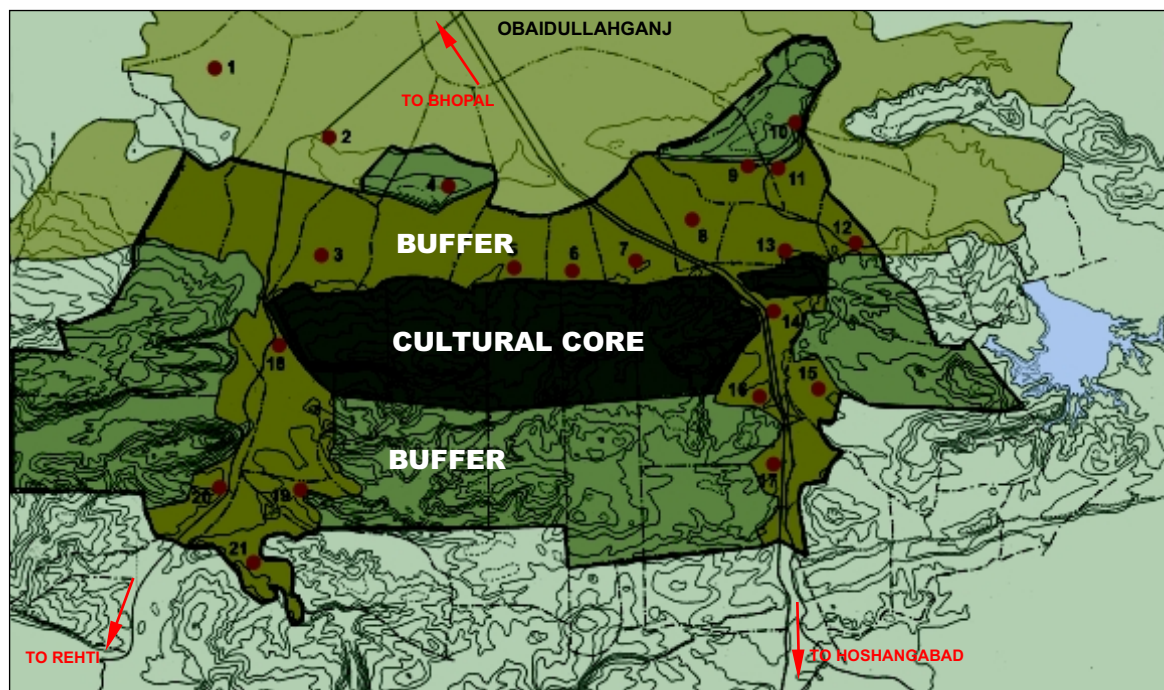
- I** A distinct initial phase devoted to surveys, collection, analyses and interpretation of all primary and base data pertaining to:
 - a) The cultural content of the core
 - b) The ecological and environmental aspects within the core and buffer
 - c) Adivasi settlements/villages in the buffer zone
- II** On the inferences derived from the initial phase and in consonance with the long term objectives of the the conservation strategy, the implementation of the sequences of action in the subsequent phase(s) will be determined and finalised.

The initial phase will be conducted, coordinated and managed by the Archaeological Survey of India as the nodal organisation, the principal agency vested with management authority.

The subsequent phases will be conducted, coordinated and managed by the proposed autonomous authority within which the Archaeological Survey of India will continue to play its primary role.



Map of site indicating core and buffer zones



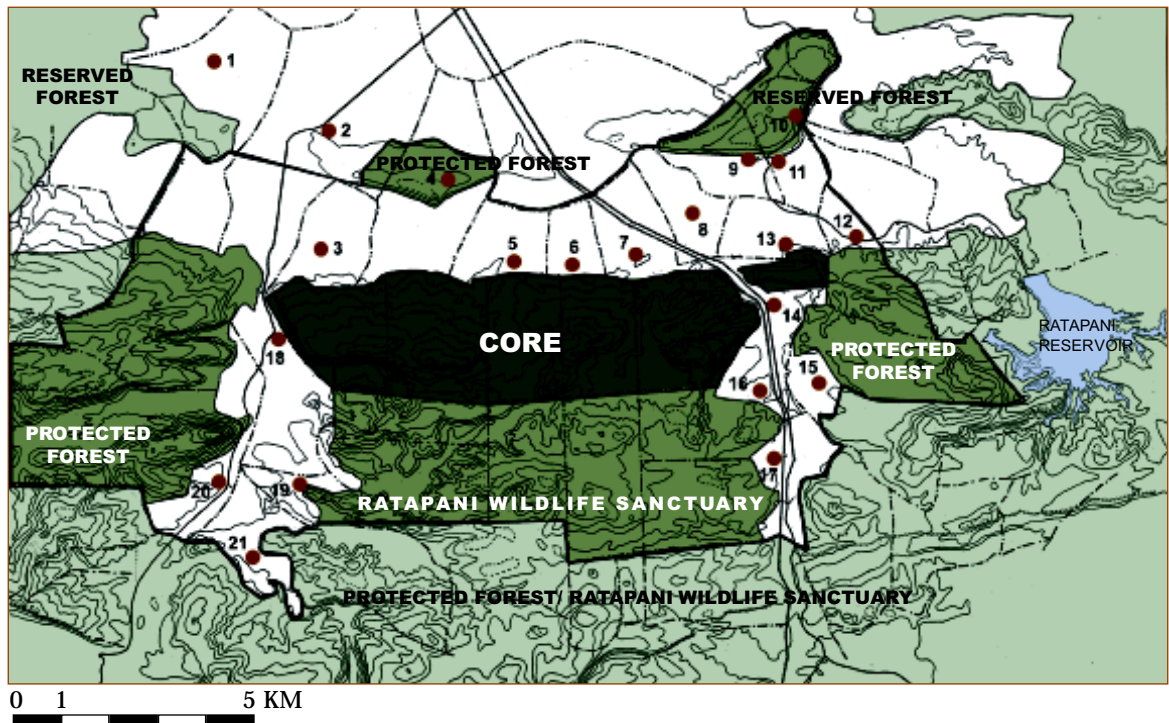
0 1 5 KM

Map of site indicating

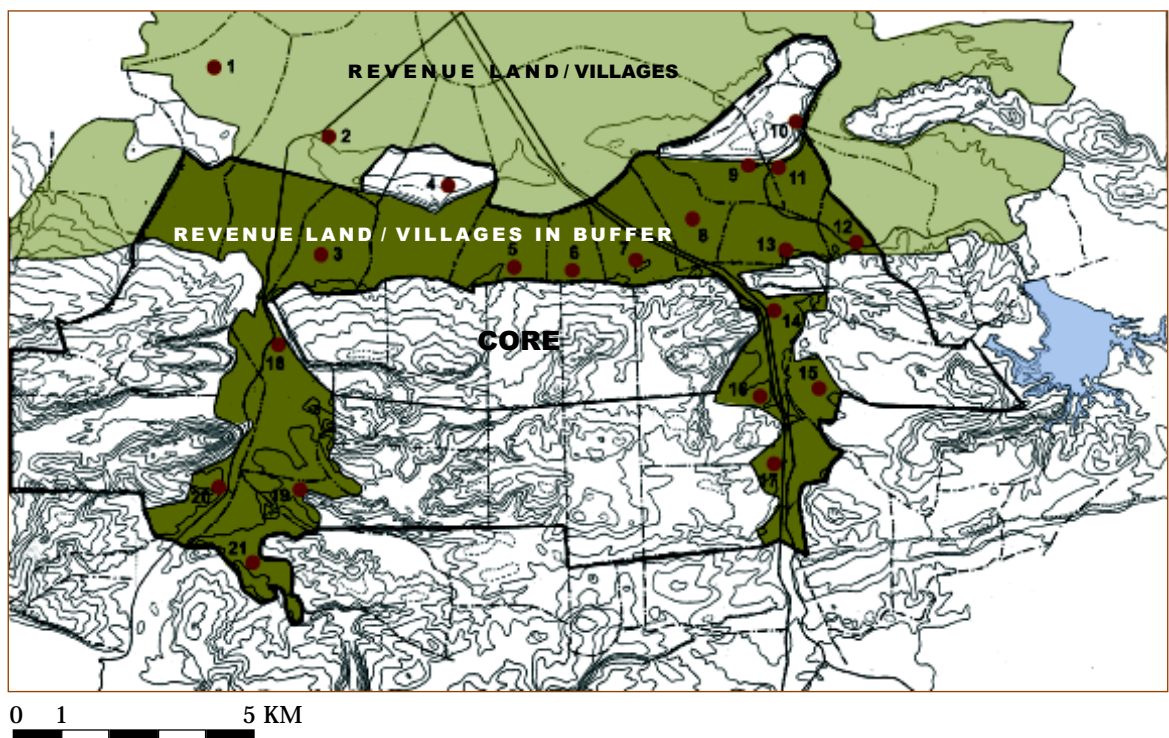
Cultural core

Sanctuary/forest area in core and buffer zones

Revenue area in buffer zone



Map of site indicating the Ratapani Wildlife Sanctuary and forest areas of the core and buffer zones



Map of site indicating revenue area in buffer zone

Villages within buffer zone: (1) Harrai, (2) Diwatiya, (3) Kesalwara, (4) Tigariya, (5) Amchha Kalan, (6) Amchha Khurd, (7) Bhiyanpura, (8) Banskuwar, (9) Bhanpura, (10) Bhounrasa, (11) Kumadi, (12) Karitalai, (13) Tajpura, (14) Bineka, (15) Piplani Khurd, (16) Borda, (17) Barkhera, (18) Gautampur, (19) Nasipur, (20) Bamnai and (21) Bhoot Palasi



4

Management Plan: Phase I

Phase I

a) Surveys & Studies: Sequence & Aspects

The surveys and studies, the respective implementing agencies and time frames for the initial phase are given below:

A. The sequence to be followed:

- (i) Survey, identification and documentation
- (ii) Detailed classification covering:
 - a) Physical references
 - b) Chronological details, sequencing
 - c) Typological/stylistic features
 - d) Ethnological evidences
 - e) Other characteristics

B. The aspects to be covered:

The sequence indicated in 'A' will be followed through (where applicable) for each of the aspects specific to the site as follows:

- (i) **Cultural content**
Archaeology, rock painting, anthropology, ethnology, history, camp sites
- (ii) **Ecology and environment**
 - a) Geology/Geomorphological character: pertaining to nature + composition of soil and rocks - particular analyses of those whose surfaces are painted upon, geological formations, rock shelters, antiquity of site
 - b) Wildlife sanctuary and biodiversity (per evidence/as existing)
 - c) Forest: cover, effect on monsoons and river systems
 - d) Microclimate
 - e) Water systems: sources, channels, retention, drainage, cycles, status;
Watershed significance
 - f) Natural disasters/forces of nature
- (iii) **Adivasis/adivasi culture:**
Demographic profile: adivasis + adivasi culture, present inhabitants, settlements, architecture, agriculture, occupation, land use; dependency on forest produce + natural resources and their source; cattle + grazing locations

b) Surveys, Studies & Implementing Agencies (current & proposed)

1. Satellite imagery, aerial + GPS surveys: *National Remote Sensing Agency*

In the first phase detailed surveys of the core and buffer areas will be carried out by the National Remote Sensing Agency, Hyderabad in the form of satellite imagery, aerial and GPS surveys. These will detail geomorphology/rock shelters/clusters, forest cover, water systems, village settlements and agricultural land.

2. Survey + documentation of rock shelters: *Archaeological Survey of India*

Survey and documentation of rock shelters/clusters: plans + sections; visual documentation through photographs/transparencies/video/film; nomenclature/reference numbering of rock shelters, to be conducted by the Archaeological Survey of India.

3. Survey + documentation of rock paintings: *Archaeological Survey of India*

Survey and documentation of rock paintings + inscriptions: locations; visual documentation through photographs/transparencies/ video/film; classifications: colour, content, manner of depiction; superimpositions to be conducted by the Archaeological Survey of India.

4. Archaeological excavations: *Archaeological Survey of India*

Simultaneous archaeological excavations have already commenced in select locations by the Archaeological Survey of India. A permanent camp has been set up in Bhiyanpura for this purpose.

5. Investigations + scientific analysis of petroglyphs: *Archaeological Survey of India + national + international agencies*

Detailed investigations and scientific analysis through collaborative arrangement under the project entitled: Early Indian Petroglyphs: Scientific Investigations by International Commission has been finalised. This is a multidisciplinary project under the common umbrella of IFRAO (International Federation of Rock Art Organisations). Collaborating agencies: AURA (Australian Rock Art Research Association), Archaeological Survey of India, Institute of Physics - Bhubaneswar, NRLC (National Research Laboratory for Conservation - Lucknow, Department of Science - University of Melbourne, Advanced Analytical Centre - James Cook University, Townsville, Antares AMS Centre, Australian Nuclear Science and Technology Organisation - Sydney; and Robert G. Bednarik (AURA) for microerosion dating, Dr. Alan Watchman - AMS C-14 dating, Dr. Ewan Lawson - AMS C-14 Laboratory and Dr. Burt Robert - OSL TL dating.

6. Satellite imagery and aerial data interpretation: *National Remote Sensing Agency + Madhya Pradesh Council of Science and Technology*

Analysis and interpretation of satellite imagery and aerial data obtained from the National Remote Sensing Agency, Hyderabad will be done by the Remote Sensing Applications Centre of MAPCOST (Madhya Pradesh Council of Science and Technology) situated in Bhopal.

7. **Geological survey: *Geological Survey of India + Indian Meteorological Department + Central Ground Water Board***

A geological profile, geotechnical studies, detailed geophysical survey and mapping of the core zone will be carried out by the Geological Survey of India as a special project on a priority basis. The seismological characteristics will also be covered in greater detail and with specific reference to the unique natural formations. These studies will be read in conjunction with available meteorological data from the Meteorological Department and the latest profiles of groundwater and subsoil water patterns from the Central Ground Water Board.

8. **Preparation of stock map: *Department of Forest, State Government of Madhya Pradesh***

The Department of Forest of MP has undertaken the task of preparing an updated stock map by carrying out physical surveys by a special team comprising the staff of the Working Plan unit of the district of Raisen and superimposing the data collected on a Survey of India map. The maps have been prepared in the scales of 1:15000 and 1:50000. Management maps have also been prepared on a scale of 1:50000.

9. **Demography, anthropology, ethnography and history: *Indira Gandhi Rashtriya Manav Sangrahalaya***

Demographic, anthropological, ethnographic and historical studies will be conducted by the Indira Gandhi Rashtriya Manav Sangrahalaya (National Museum of Mankind), Bhopal, an institution supported by the Department of Culture.

c) **Time Frames for Phase I**

1. **Satellite imagery, aerial + GPS surveys: *National Remote Sensing Agency: 8 months***
2. **Survey + documentation of rock shelters: *Archaeological Survey of India: 12 months***
3. **Survey + documentation of rock paintings: *Archaeological Survey of India: 12 months***
4. **Archaeological excavations: *Archaeological Survey of India: 24 months, ongoing***
5. **Investigations + scientific analysis of petroglyphs: *Archaeological Survey of India + national + international agencies: 36 months***
6. **Satellite imagery and aerial data interpretation: *National Remote Sensing Agency + Madhya Pradesh Council of Science and Technology: 3 months***
7. **Geological survey: *Geological Survey of India + Indian Meteorological Department + Central Ground Water Board: 12 months***
8. **Preparation of stock map: *Department of Forest, State Government of Madhya Pradesh: Ongoing***
9. **Demography, anthropology, ethnography and history: *Indira Gandhi Rashtriya Manav Sangrahalaya: 24 months (initial)***

The surveys and studies indicated above conducted by different specialist agencies will occur concurrently, ensuring that the total works in Phase I are completed within 24 months to 36 months.

5

Key Management Issues

Key Management Issues

The indicators for measuring the state of conservation may be understood by the same parameters in which the basic components of the cultural landscape:

(a) Cultural core, (b) Ecology and Environment and (c) Adivasi/settlements/villages and the related issues of (d) Tourism and Traffic, have been viewed. The indicators under each of the components point to the state of conservation severally and together, and hence will also necessitate being assessed and monitored continually.

a) Cultural Core

1. Rock Shelters

Each rock shelter or rock shelter group, identified by classification, to be assessed and monitored for:

- (i) Material loss due to erosion, spalling or cracking
- (ii) Increase/decrease in visible indicators (cracks: length, width, depth; wet patches: area)
- (iii) Locational alterations of loose rock formations by nature and/or artificially induced
- (iii) Increase/decrease in algal/fungal growth
- (iv) Change in colour of rock surface
- (v) Increase/decrease of beehives/insect nests etc.

2. Rock Paintings

Paintings, after identification and classification, to be assessed and monitored for:

- (i) Material loss due to erosion, spalling, cracking or flaking
- (ii) Colour loss through water seepage/water run off
- (iii) Colour loss through direct exposure to sun
- (iv) Increase/decrease of patina
- (v) Damage through animal action, eg. bats, monkeys, birds
- (vi) Physical and chemical analyses: cross-sectional analysis of paintings through rock surface, photomacrography, carbon dating, various pigment analyses, analysis to determine presence and nature of binders, if any, gas chromatography-mass spectrometry (GC-MS), scanning electron microscopy (SEM), and other tests for analysis of pigment, medium and stone.

3. Archaeological evidences

- (i) Surface erosion through rain water leading to loss of habitational deposits
- (ii) Inventory and storage of material evidence and its preservation
- (iii) Time frame and progress for completing inventory (vital for preliminary phase)

4. Camp sites/peripheral sites

To be assessed and monitored for:

- (i) Disturbance to physical indicators such as stones, outcrops and treelines
- (ii) Loss of habitational deposits due to rain water run off
- (iii) Time frame and progress for completing investigation (vital for preliminary phase)

b) Ecology and environment

1. **Geomorphological character** - through the assessment and monitoring of:
 - (i) Mining, quarrying and cutting, if any, legally or illegally
 - (ii) Effects of natural agencies, for example, earthquake, floods, fire etc.

2. **Flora and fauna**, through the assessment and monitoring of:
 - (i) Listing, stock mapping and census
 - (ii) Records of afflictions and effects (bacterial, insect etc.)
 - (iii) Record of illegal poaching and hunting
 - (iv) Records of variations to limits of agricultural tracts and grazing lands

3. **Forestry**, through the assessment and monitoring of:
 - (i) Density of forest cover
 - (ii) Inventory of additions/losses
 - (iii) Records of illegal felling and alterations to compositional characteristics
 - (iv) Records of illegal transportation of timber
 - (v) Records of forest fires

4. **Microclimate**, through meteorological records of the region, covering:
 - (i) Temperature - monthwise
 - (ii) Humidity - monthwise
 - (iii) Precipitation - monthwise, annually
 - (iv) Wind directions and wind speeds - throughout the year

5. **Water: sources, channels, retention** through the assessment and monitoring of:
 - (i) Quantity of water in springs, creeks, rivulets - tested through the year
 - (ii) Quality of water in springs, creeks, rivulets - tested through the year
 - (iii) Level and quality of groundwater - tested through the year
 - (iv) Alterations to water channel routes due to induced factors

c) Adivasis/settlements/villages

To be documented, assessed and monitored through:

- (i) Census reports
- (ii) Demographic studies
- (iii) Cultural and ethnological studies
- (iv) Studies of transient population and impact on settlement

d) Tourism/Traffic

The number of tourists visiting Bhimbetka even in the best months is still fairly low and hence the traffic pressures are also limited. However, with the increased attention being accorded by the government for the conservation of the site as well as its promotion, tourism and traffic will increase. Both tourism in its totality and the related traffic and transportation issues will need to be assessed, forecast, monitored and controlled from the point of view of the overall conservation strategy and management plan. The broad issues delineated below will consider all aspects such as travel time during peak hours in peak season or off peak hours in lean seasons, variations to hotel and guest house occupancy and demand for relevant literature and hits in the dedicated website.

The following need to be assessed, forecast and monitored:

- (i) Number of tourists, monthwise, local, Indian, foreign
- (ii) Number and type of vehicles, private and commercial, monthwise, arriving at Bhimbetka
- (iii) Travel time from nearest point of origin (eg. Bhopal, Hoshangabad)
- (iv) Atmospheric pollution levels in relation to vehicular emissions
- (v) Development of centralised visitor facility and parking terminus for the whole of Bhimbetka - its location, capacity, and character
- (vi) Consequent local movement network and mode, and related requirements including electricity and water supply

6

Management Plan: Phase II

a) Management: Long Term Objectives

The overall long term objectives of the conservation strategy may be summarised as follows:

1. The acceptance and incorporation of the management plan as the framework for long term decision making for the conservation and improvement of Bhimbetka by all the stakeholders, agencies and individuals responsible for its implementation.
2. The management plan, thus, will encompass within its framework necessary guidelines and policy guidance for conservation and maintenance of the overall integrity and character of the entire cultural landscape.
3. The management plan, in its final form, will be adopted by the Department of Town and Country Planning, Ministry of Housing and Environment of the State Government of Madhya Pradesh as a supplementary planning guide for the district of Raisen.
4. To ensure that the importance of Bhimbetka as a cultural landscape of universal value is recognised in all future planning and developmental activities of the State of Madhya Pradesh in general and the District of Raisen in particular.
5. To integrate ongoing economic and environmental programmes of the State Government of Madhya Pradesh with the proposed objectives of the management plan as a platform for developing specific and special action plans for the future.
6. To improve the economic conditions of the adivasi settlements by ensuring that a substantial amount of the benefit from increased tourism reaches them.
7. To ensure that the increased tourism and consequent increased economic activity is not detrimental to the continuity of adivasi traditions and adivasi culture.
8. To increase the acreage of arable agricultural lands attached to the settlements so that the pressure for additional farmland is reduced.
9. To develop the unutilised/waste land attached to the villages, or any other land, into forests, keeping in view the traditional requirements of the adivasis, in order to gradually lift the pressure from the forest and sanctuary, and protect the cultural core. The alternatives would be aimed at meeting the demands of the people for minor forest produce including firewood, fodder and grazing areas for their livestock.
10. To improve and sustain biodiversity in the wildlife sanctuary and reduce pressures of encroachment, illegal felling and poaching by developing a workable forest and wildlife management plan.
11. To control land use to the extent that no mining or industry detrimental to the environment be allowed, and the sanctity of the site is maintained.
12. To promote research and academic studies in a sustained manner to improve understanding of the archaeological, historical, aesthetic, ethnological, anthropological, ecological and environmental value of Bhimbetka.

b) Ongoing Programmes of Integration

1. Watershed Management

Watershed Strategy

Taking a macro view, recent studies have shown that spending a mere one per cent of the national income on watershed and micro-irrigation development programmes can lead to both employment guarantee and food security in rural India. Not only that, it has been shown that these goals can be attained in a manner that is both noninflationary and sustainable. For, what watershed programmes yield is not merely short-term and “revolving” but truly long-term, “sedimented” employment. Not many people know that according to National Sample Survey data, nearly 80 per cent of agricultural labour households (those who earn more than 50 per cent of their income from labour) in India are landed. The land they own has such low productivity, that it does not yield enough income to support their families. So they are compelled to work outside their farms as labourers. Watershed programmes aimed at increasing the productivity of such small and marginal farmers in the drylands hold the key to future agricultural development, employment generation and poverty alleviation.

There are regions where the poorest of poor live. These, especially the adivasi pockets within, are the flashpoints of often violent protests, a reflection of intense disenchantment with the national mainstream. It is for these regions that we most urgently need the new watershed approach. Especially because the rate of growth of irrigation development in India, as also everywhere else across the globe, has been steadily decelerating, after peaking in the 1970s.

There is need to pay careful attention to the utilisation of harvested rainwater and to integrate a sustainable dryland agriculture strategy with programmes of water conservation. There is a requirement for meticulously worked out location-specific land use planning modules which would make careful use of the harvested water and match the widely varying natural resource matrices within each watershed. Equally, to sustainably utilising groundwater, the single most important source of water in India today.

Watershed Management exists as a thrust area programme for the entire country with a location-specific approach as necessitated by ground conditions in each state, and is eminently suitable in the situation of Bhimbetka.

It has been decided to integrate the activities this programme offers in the initial phase of the conservation plan envisaged for Bhimbetka, especially those pertaining to the sustenance of the adivasi settlements, conservation of soil and moisture, improvement of groundwater levels, increase in cropped and irrigated areas, fodder production, decrease in wastelands, and environmental regeneration. These will be inbuilt into the the community structure in the overall framework of the Management Plan, and will dovetail with concerns of the conservation of the forest and sanctuary along with the concern-specific Joint Forest Management programme. The implementation will be collaboratively worked out with the administration, grassroot workers and the community.

Watershed Management in Madhya Pradesh

The Background

The Rajiv Gandhi Watershed Management Mission set up in 1994 attempts to integrate concerns of poverty reduction and environmental regeneration through a strategy of participatory watershed management. The Mission was premised on the understanding that the livelihood security crisis that people faced in environmentally degraded lands was a result of a distortion in the relationship between people and their natural resource base. It recognised that transformation could be worked only by strategies that addressed peoples livelihood concerns and therefore adopted direct participation by the people as key strategy.

Such a strategy was possible as wage-employment oriented public programmes like the Employment Assurance Scheme (EAS) and resource construction programmes like the Drought Prone Area Programme (DPAP) have both advocated a watershed based plan for environment management. The Government of India suggested that fifty per cent of all EAS funds could be used for watershed development and this greening of antipoverty investment provided the much needed financial support to the Mission idea of Madhya Pradesh. With funds thus available, technical resources were pooled at district and subdistrict levels leading to the creation of a labour-intensive participatory model of integrated watershed management.

Degraded lands were identified in geographical units of 5,000 - 10,000 hectares in consultative fora and designated 'milli watersheds'. Each Milli watershed was then divided into 'micro watershed' units of 500 to 1,000 hectares according to topographic conditions. People within this geographic area were organised into different groups according to the problems identified by them. Each micro watershed hence has User Groups for the landed, Self-Help Groups for the landless and Thrift and Credit Groups for women. Representatives of these groups and the local panchayat formulate an action plan for the economic and environmental rehabilitation of the area. The plans thus formulated by the watershed committees get approved at the district level and the funds for execution get transferred directly to these committees. A Project Implementation Officer at the milli watershed level catalyses technical and financial support for the watershed committees within the milli watershed.

The Mission has demonstrated a model for the environmental turnaround of some of the most degraded areas of the state. It has leveraged funds from the portfolio of antipoverty investment in EAS and DPAP towards the poorest areas and the poorest of people. It has, therefore, become a well-targeted programme for poverty reduction. The improvement of the resource base effected through this Mission has resulted in improvements in agricultural productivity, greater availability of biomass and a recharge of groundwater.

This approach has been adopted for the 21 villages of Bhimbetka situated in the buffer zone. Side by side with economic prosperity and the regeneration of environmental resources, an important objective linked with the Joint Forest Management Programme is to develop the area in the villages and revenue land in a manner that the needs of the people are met and dependency on the protected forest and sanctuary is steadily reduced. This will conserve not only the forest but the cultural property of Bhimbetka within.

The Mission was created with the following objectives:

- To provide livelihood security to people in dryland areas by improving their resource base through watershed management
- To improve agricultural production and income
- To contribute to ecological security - and thereby food security - by focusing on poor regions and people

Strategies of the Mission

- People-centred watershed management
- Combined strategy for poverty reduction and environment regeneration by “greening” anti-poverty programmes
- Institutional arrangements of People’s Watershed Committees (User Groups, Self-Help Groups and Thrift and Credit Groups) to execute work
- Government through Mission facilitates technical and financial support. Its institutional structure makes intersectoral and collective action possible

Methodology

- Focus on degraded areas
- Participatory resource mapping in selected watersheds by people helped by project implementation agencies
- Approved plan executed through watershed committees which are elected
- Funds provided by government through EAS, DPAP, IWDP

The Watershed Management Mission has grown to cover all 45 districts of Madhya Pradesh to become India’s largest watershed management programme currently in operation

2. Joint Forest Management

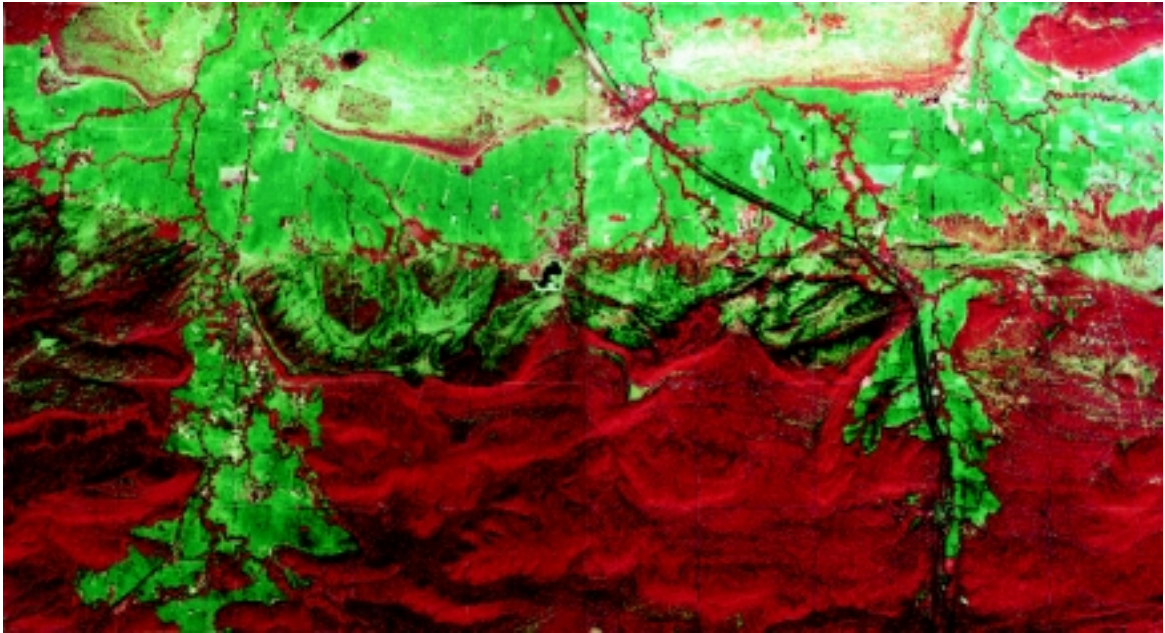
The demand for fuel wood and timber are the main cause of many of the problems faced in forests. Despite working plans and management plans, the illicit felling of trees has caused significant deforestation and degradation around Bhimbetka. There is, in addition, pressure for timber from outside the immediate vicinity of neighbouring settlements. The Gond adivasis who inhabit the surrounding village settlements have traditionally farmed land and have relied on forests for soil nutrients and maintenance of groundwater supplies, as well as for augmenting their nutritional needs during lean periods. A majority of the inhabitants are landed farmers who depend on the forest as grazing ground for their livestock. The depletion of forest cover has led to the formation of grasslands within the forests and, as far as the villagers are concerned, has increased the supply of fodder. Herds of livestock are allowed to roam free within the core area of Bhimbetka. Both deforestation and regular livestock ingress have taken their toll on the natural water supply systems - the springs, creeks and ponds - causing a drying up for most part of the year, and a general deterioration of its quality.

While the rights of the people of the villages are respected, an increasing demand on forests due to increased population requires not only control but alternatives so that these demands are satisfied and the pressure on the forest considerably lifted over a period of time. Area development in this regard will be a major focus in the conservation strategy, and forest management will be linked with the watershed management programme.

Madhya Pradesh has a geographical area of 3,08,252 sq km. Forest area occupies 95,221 sq km, which is approximately 30.82% of the total land area of the state and about 12.44% of the total forest area of the country. This includes 58,000 sq km of dense and 37,000 sq km of open forest. While all the forests are managed under the provisions of the Working Plan of the Department of Forest, about 43% of the state's forests are currently under the joint management of the **Joint Forest Management Committees** and are managed according to the provisions of the Government resolution on Joint Forest Management.

The Government resolution on Joint Forest Management revised in October 2001 makes an attempt to provide a basis for community participation in forestry keeping in view the distinctive features of different kinds of forest areas. This resolution makes provision for three kinds of committees: **Forest Protection Committees** for protection of well-stocked forests, **Village Forest Committees** for rehabilitating the degraded forest areas and **Eco-development Committees** in and around Protected Areas with a view to ensure biodiversity conservation in National Parks and Sanctuaries. The Joint Forest Management approach also lays great emphasis on meeting the basic needs of the people through eco-compatible activities and incorporates a management of natural resources.

Adapting the Joint Forest Management programme to the overall management plan for Bhimbetka will benefit the forest in general and the depleted zones in particular, which, in turn, will increase protection to the cultural core.



Above: Satellite image of November 2001: Denuded forest towards north
(Courtesy: National Remote Sensing Agency, Hyderabad)
Below: Forest cover viewed from Bhimbetka

Tourism Development and Visitor Management

As it is necessary to maintain a balance between development of tourism and the conservation of Bhimbetka, the basic principles which will act as guidelines for an acceptable tourism management plan are as follows:

1. The necessity to prepare a comprehensive tourism development plan
2. The necessity for both conservation and tourism to benefit from the tourism development plan
3. The necessity to ensure that a fair component of revenue generated from tourism benefits conservation.
4. That the long term interests of the local community, especially adivasi settlements, and their sociocultural concerns be a determining factor in selecting options for a tourism development plan
5. The necessity to define the levels of acceptable tourism from time to time, and establish a mechanism for control and maintenance

With these in view, the ensuing steps are proposed under the tourism development plan which will be put in place over a period of time and consistent with requisite progress in the other aspects of the overall management.

- a) Bhimbetka as a site of universal importance will lead to an increase in the number of visitors and the duration of their visit at the site. While this aspect needs to be tapped positively for the improvement of the local economy, and hence the local community, it is necessary to ensure that there are no detrimental effects of the commercialisation. It is necessary for the organisations involved in the tourism development operations (Department of Tourism - State Government of Madhya Pradesh, Madhya Pradesh Tourism Development Corporation, Ministry of Tourism and Culture - Government of India, India Tourism Development Corporation) to be working in tandem with the Archaeological Survey of India, initially, and with the autonomous authority, later.
- b) The tourism development plan will be prepared for implementation in phases. The control for its supervision and monitoring will be located in Bhopal.
- c) The comprehensive tourism development plan will be integrated with the regional development plan for the area (District Raisen) and the Department of Town and Country Planning, State Government of Madhya Pradesh will be fully involved in its finalisation.
- d) A workable arrangement with legal and administrative mechanism will be worked out for transferring a portion of the revenues generated from tourism to the autonomous authority for use in the conservation of the Bhimbetka site. The proportion of transfer and the modalities related to it will be periodically reviewed and altered as found necessary.
- e) Bhimbetka will be integrated with already existing significant and popular tourist destinations such as Sanchi and Bhojpur to develop a workable circuit. Visits only to Bhimbetka will be worked out keeping in view the provisions under visitor management requirements.
- f) As a part of promotional exercises re: educational and public awareness requirements, select days in the month/year will be earmarked for group visits of school children, for example, November 14 - Children's Day etc.
- g) The location, design and execution of buildings and site and transport systems will be planned to minimise potential harmful effects of tourism development. Intrusion of man made elements will, therefore, be avoided in all sensitive areas.

- h) The levels of acceptable tourism will be defined clearly and reviewed from time to time. The autonomous authority for Bhimbetka will be vested with adequate powers to control, alter and maintain the levels.

Similarly, the basic guidelines for visitor management are as follows:

1. Visitor facilities to be provided at a visitor centre located at an appropriate site
2. Visitor centre to provide information/orientation with respect to Bhimbetka and neighbouring interests, covering a wider region
3. Appropriate interpretation techniques to allow a visitor to experience the site and realise the quality and value of the heritage
4. The proposed museum to function to support education and archaeological research and be a comprehensive resource centre
5. Visitor centre to provide for toilets, first aid, communication lines (telephones) and an area for children
6. Adequate provision to be made for parking of cars, buses, two-wheelers and vehicles of the disabled
7. That the interpretation centre and its contents assist and invite visitors to understand and respect local ways of life, culture and continuity

Keeping the above in view, issues relating to visitor management are elaborated as follows:

- a) Visitor facilities of appropriate size and composition will be provided at a convenient location. Bhiyanpura, located at the foot of Bhimbetka off the Bhopal-Hoshangabad National Highway 12, has been selected for this purpose - not only for its ideal location off the highway and at a respectable distance from the sensitive zone of the core - but also for its mythological significance and historical remains of the Paramaras of the eleventh century. This is where the present archaeological camp is also located.
- b) Information and orientation will be imparted through a visitor centre located in Bhiyanpura. The interpretation centre, local museum and museum shop will be an integral part of this facility.
- c) Adequate parking for cars, buses and two-wheelers will be provided, as well as reserved spots for vehicles of the disabled.
- d) Shops, outlets for local indigenous crafts and eating facilities will be provided in Bhiyanpura.
- e) Comprehensive information will be provided at the visitor centre on the following:
 - (i) All available transport links and timings
 - (ii) All rules and regulations applicable to visitors which need to be adhered to
 - (iii) All charges, fee, entrance tickets etc. to be paid
 - (iv) All available publications; links with other centres of information etc.
- f) The interpretation centre will be combined with a museum for Bhimbetka which, together will comprehensively cover the following:
 - (i) Authentic visual and textual information on the various aspects of Bhimbetka
 - (ii) Provide for techniques, interactive and otherwise, for visitors to 'experience' the site
 - (iii) Be linked with similar centres within India and outside for a broader understanding

Traffic and Transportation

The major north-south railway link and the National Highway 12 between Bhopal and Hoshangabad passes between the two segments of the notified core area of the Bhimbetka site. The road and rail communications have existed for a long time, much before independence. While these established routes cannot be altered, transportation management can take advantage of the situation.

The traffic and transportation management plan proposes to meet the following objectives as a part of the overall management plan for Bhimbetka.

- a) While using the existing railway connection and the National Highway 12 link effectively as the main transportation links both from the north (Bhopal) and from the south (Hoshangabad), vehicular traffic to Bhimbetka will be terminated at Bhiyanpura, a village located off the National Highway, at the foot of Bhimbetka.
- b) Beyond the terminus, where parking and other visitor facilities will be located, visitors will have the option of travelling by cycles, cycle rickshaws, battery operated buses, or on foot.
- c) The proposed cycle tracks and approachways will stop well short of the sensitive zones of the core areas. The final approach to the rock shelters will be on foot.
- d) While developing approachways, care will be taken to consider and maintain, as far as possible, topography and contour profiles.
- e) The proposed paths and approachways will not be metalled or concreted. Use of natural materials and natural consolidation techniques will be followed. If necessary, Environmental Impact Assessment will be carried out prior to laying out to assess all long term effects.
- f) Signage to direct the visitor beyond Bhiyanpura and to the core zone will be unobtrusive and strategically located. External pathway lighting will be minimal.
- g) Parking requirements for the visitor centre will be finalised on the basis of the total visitors permitted to enter the site at a given time per day and according to a predetermined combination of vehicles (eg. private cars, group tours by buses etc.), all ensured at the point of origin - Bhopal, to the north, and Hoshangabad to the south.
- h) To develop in future a larger circuit of rock shelter sites in the vicinity of Bhimbetka, along a similar mode of arrangements and transport systems.
- i) In future, visitors to Bhimbetka are envisaged to be regulated through central boarding points in Bhopal and Hoshangabad and transported to Bhiyanpura by special coaches run by the proposed autonomous authority for Bhimbetka.



Left: Central railway line at Barkhera and Right: Turning to Bhimbetka off Bhopal-Hoshangabad NH 12

7

Programmes for Implementation

Programme for Implementation

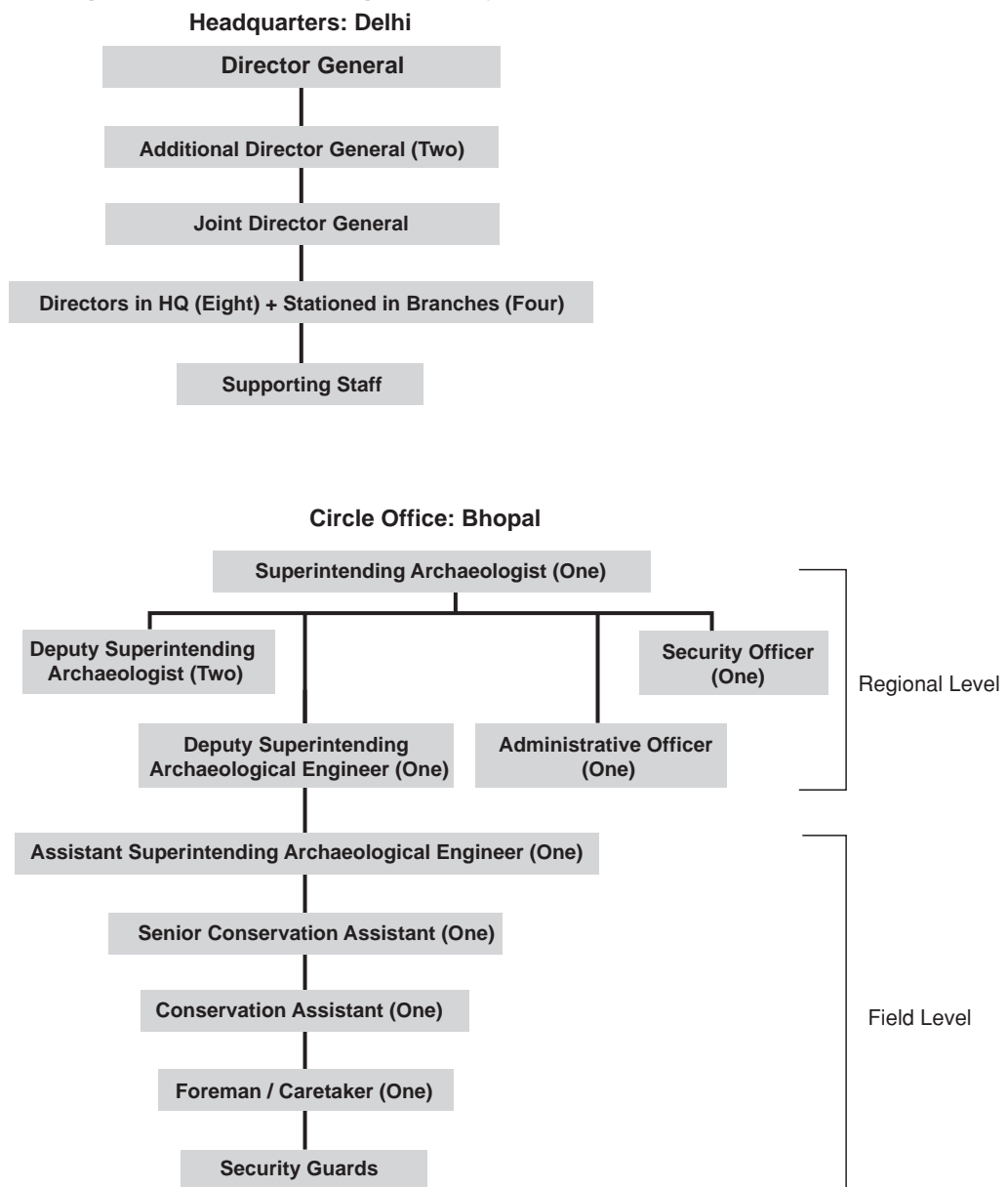
a) Stakeholders and their organisation

The chief stakeholders in the conservation of Bhimbetka are as follows:

1. The Archaeological Survey of India

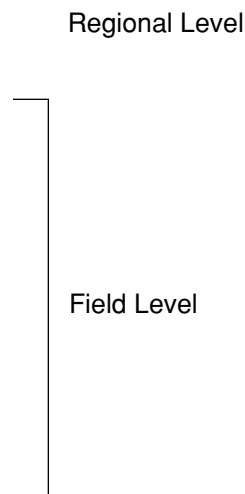
With its headquarters in Delhi and circle office in Bhopal, the Archaeological Survey of India will be fully responsible for the notified core comprising 1892 hectares. The principal structure of the organisation in Delhi and Bhopal are as follows:

Staffing levels of the Archaeological Survey of India



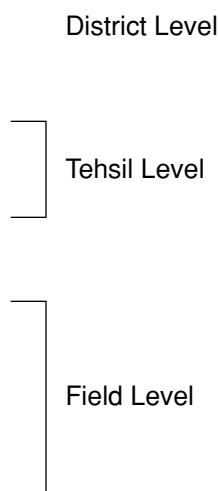
2. The Department of Forests, State Government of Madhya Pradesh

The Department of Forests, State Government of Madhya Pradesh will be fully responsible for the Ratapani Wildlife Sanctuary, within which the notified core lies. They will further be responsible for all the protected and reserved forests that comprise the buffer zone of 10,280 hectares, apart from the wildlife sanctuary. The Department of Forests is located in Bhopal, the capital of the state of Madhya Pradesh. The organisational structure of the Department of Forests is for the above responsibility is as follows:



3. The Department of Revenue, State Government of Madhya Pradesh

The Department of Forests, State Government of Madhya Pradesh, will be fully responsible for all the revenue land, agricultural land which forms part of the village settlements and which lie within the buffer zone. While the Chief Secretary and Divisional Commissioner, State Government of Madhya Pradesh are located in Bhopal, the District level office is in Raisen. The staffing structure is shown as follows:



b) Coordination and Management

As outlined in the earlier section of the management plan (*see 3b: Approach to Conservation Strategy & Management, page 55*), the coordination of the proposed activities in the initial phase will be carried out by a special unit to be set up in the headquarters of the Archaeological Survey of India. This unit will be headed by the Director General, Archaeological Survey of India and will have officers drawn from the headquarters as its part. It will also coopt select officials from the Ministries of Environment and Forests, Water Resources, Rural Development and the office of the Chief Minister's Secretariat, Government of Madhya Pradesh, Bhopal.

The proposed structure of the Bhimbetka special unit will comprise the following:

1. Director General, Archaeological Survey of India
2. Directors (two)
3. Deputy Superintending Archaeologist
4. Senior Surveyor

The Director of Monuments will be the Member Secretary of this unit.

Coopted members in the unit will include:

1. Joint Secretary, Ministry of Environment and Forests
2. Joint Secretary, Ministry of Rural Development
3. Joint Secretary, Ministry of Water Resources
4. Principal Secretary to the Chief Minister, State Government of Madhya Pradesh

This special unit will, in addition, have a local committee in Bhopal, headed by the Superintending Archaeologist of the Bhopal Circle of the Archaeological Survey of India. It will have officials representing the following departments:

Department of Forest, State Government of Madhya Pradesh

Represented by the Conservator of Forests, Bhopal Division and Divisional Forest Officer, Obaidullahganj, Madhya Pradesh

Department of Revenue, State Government of Madhya Pradesh

Represented by the Sub-Divisional Magistrate Obaidullahganj, District Raisen, Madhya Pradesh.

Department of Tourism, State Government of Madhya Pradesh

Represented by the Deputy General Manager, Madhya Pradesh Tourism Development Corporation

Public Works Department, State Government of Madhya Pradesh

Represented by the Executive Engineer

Indian Railways, Government of India.

Represented by the Senior Divisional Engineer, Central Railways, Bhopal

The committee will be responsible for ensuring coordination among stakeholders towards the preservation and propagation of the cultural landscape according to the agreed policies and programmes of the management plan.

For the subsequent phases of the implementation of the management plan, it is proposed to set up a two-tiered autonomous authority vested with requisite legal, administrative and financial independence. The two-tiered structure has been proposed with a view to obtain clear and effective policy decisions and guidelines with the help of the high-powered Executive Committee while the implementation committee will effectively tackle day to day and field level issues.

The composition of the Executive Committee, in brief, will be as follows:

Chairman

Honourable Chief Minister of Madhya Pradesh

Vice Chairman:

Chief Secretary, State Government of Madhya Pradesh

Members

Secretary, Department of Culture, Ministry of Tourism and Culture, Government of India

Director General, Archaeological Survey of India

Secretary, Department of Culture, State Government of Madhya Pradesh

Secretary, Department of Tourism, State Government of Madhya Pradesh

Principal Secretary to the Chief Minister, State Government of Madhya Pradesh

Member Secretary

Chief Executive Officer of proposed autonomous authority

The Composition of the Implementation Committee at the second tier chaired by the Chief Executive Officer will have the following:

Permanent Members

Director for the Cultural Core

Director for Ecology and Environment

Director for Adivasis, Adivasi Culture and Settlements

For the core team such as the Chief Executive Officer and Directors of the proposed autonomous authority the emphasis will be on professional and technical personnel.

Members

Secretary, Department of Culture, State Government of Madhya Pradesh

Secretary, Department of Tourism, State Government of Madhya Pradesh

Principal Secretary to the Chief Minister, State Government of Madhya Pradesh

Elected representative(s) from NGOs

Elected representatives of local inhabitants

c) Funding and Resource Mobilisation

While a comprehensive funding arrangement is being detailed out, the following commitments are in place:

1. The Archaeological Survey of India from its annual budget has committed one crore of Rupees (*Rs. 10 million*) for the initial phase of the implementation of the management plan. This will cover the following:
 - a) Satellite imagery and interpretation through the National Remote Sensing Agency, Hyderabad: *Rs. 1 million*
 - b) Aerial & GPS surveys through National Remote Sensing Agency: *Rs. 3 million*
 - c) Archaeological excavations, surveys and documentation of rock shelters and rock paintings by the Archaeological Survey of India: *Rs. 2 million*
 - d) Demographic, anthropological, ethnographic and historical studies by the Indira Gandhi Rashtriya Manav Sangrahalaya, Bhopal: *Rs. 2 million*
2. The Archaeological Survey of India in collaboration with national and international agencies is on the threshold of embarking on investigations + scientific analysis of petroglyphs (*see 4b: Surveys, Studies & Implementing Agencies (Current & Proposed), item 5, page 61*). For this purpose, the Archaeological Survey of India has allocated: *Rs. 0.46 million*
3. The State Government of Madhya Pradesh has agreed in principle to adopt all the 21 villages falling within the buffer zone of the proposed site and cover them under the Rajiv Gandhi Watershed Management Mission. The estimated cost of carrying out this Mission is Rs. 6,000/- per hectare, totalling *Rs. 61.68 million*. This will be met out of funds to be obtained through the Central Ministry for Rural Development, or other sources, as is feasible.
4. The Department of Forest, State Government of Madhya Pradesh, has already commenced the stock mapping operations of the Ratapani Wildlife Sanctuary, and the other protected and reserved forests. The costs towards this exercise is being met out of the annual budgetary provisions. The programme for implementation of the Joint Forest Management is under preparation. On quantification, the source of funding will be finalised by the State Government of Madhya Pradesh.

d) Monitoring and Review

Monitoring and review is proposed to be carried out as under:

Phase I

The special unit set up in the headquarters of the Archaeological Survey of India will meet periodically according to programme to take stock of progress as well as situations encountered and discuss modes of tackling and overcoming them. The regional unit under the chairmanship of the Superintending Archaeologist, Bhopal, will meet according to specific schedule, and report on progress to the special unit at the Archaeological Survey of India headquarters, Delhi.

For the subsequent phases, the autonomous authority for Bhimbetka will set its own calendar and frequency of meeting.

8

Conclusion

Conclusion

To conserve a large complex site as Bhimbetka necessitates a comprehensive view, a holistic approach and a strategy and management structure that suitably relate to its multidimensional character. A management plan is an inevitable product arising out of an integration and balancing of the quantitative and qualitative assessment of this character. Therefore, the proposed management structure for the implementation phase has a matrix which, while meeting the complex requirement, is also flexible to adjust to the dynamics of change that a natural site exhibits.

Bhimbetka is a multilayered site. Its cultural core, the fundamental component, is invaluable in content and potential. This component is a subtle manifestation of the earth's morphology coupled with remains reflecting the symbiotic relationship of man and nature through an uninterrupted existence from the Lower Paleolithic period - if not earlier. This man-nature relationship is demonstrated in the archaeological finds of its cultural layers, and together with man's earliest manifestation of communication in the profusion of rock paintings, stand testimony to time, preserving an almost insular evolution of human cultural history within a microcosm.

The cultural core is spread over a not inconsiderable area of 1892 hectares. It is within a wildlife sanctuary and surrounded by forest, and so forms an integral part of the second broad component of ecology and environment which has naturally protected the cultural core. Situated in the heart of India, the forests of Madhya Pradesh moderate the climate and water regime of the whole of peninsular India. They contribute directly to rainfall, soil fertility, agricultural productivity and sustain biodiversity. They act as storehouses which gradually release water during the dry season, prevent drought and protect the topsoil that covers the underlying rock. These forests are now under immense pressure for their timber and bamboo, minerals, a steadily increasing pressure of grazing, *nistar* (requirements of villagers of forest produce) and encroachment, and the almost unending demand for land: factors that directly concern Bhimbetka - for Bhimbetka is a part of this overall system.

This leads to the third broad interrelated component, that of the people of the settlements in the immediate vicinity of the cultural core, who depend on forest produce. The adivasis are the oldest inhabitants of the area whose existence, sustenance and livelihood are traditionally derived from the forests and the earth, and whose particular cultural traditions, yet, demonstrate links with ancient visible creative expressions. The villages are still predominantly adivasi, though with time losing this very vital identity. Modernisation is inevitable but transformations have been at the cost of a heritage of continuing cultural traditions. The winds of change and increase and mix of population have taken their toll not only on cultural identities, but on the forests and other natural resources. While exploitation for timber directly destroys forests, the demand for fuel wood has also resulted in heavy damage. A depletion of forest cover results in the formation of grasslands and a destruction of an ecosystem that has evolved and survived hitherto undisturbed. This directly affects the cultural core for the trees are an essential buffer to the rock shelters and paintings against the weathering effects of strong dust laden winds.

The needs of the people of the villages must be met through alternatives so that their demands on the forest are satisfied and the pressure on the forest and sanctuary considerably lifted, natural resources such as ground water recharged and optimally utilised, and the environment over time regenerated. This necessitates a long and intensive process.

It is the combination of these three main components that govern the well-being of the ancient site of Bhimbetka. It is these components and their parts that have dictated conservation strategy and the framework of the management plan.

Therefore, with respect to the cultural core, the management plan has outlined sensitive and extensive archaeological surveys in-house and in collaboration with international agencies. With respect to ecology and environment, the management plan dovetails ongoing programmes with a view to establish a base for specific and tailor-made long term action plan. With respect to the people, extensive and intensive surveys conducted through specialised institutions will precede integration of broadbased programmes concerning empowerment, poverty alleviation and environmental regeneration.

The management plan further provides the initial guidelines for development and control of tourism, tourism infrastructure, related traffic and transportation pressures and local visitor management.

The task of managing a site as large as Bhimbetka (12, 172 hectares) on lines detailed in the management plan will entail mobilisation of equally large scale monetary resources. While initial capital has been committed by both the Central Government and the Madhya Pradesh State Government, the task of raising finances for sustaining the momentum of implementation has been interwoven as a major function in the subsequent phases of implementation as envisaged in the management plan.

The nucleus of this structure has been formed within the Archaeological Survey of India.

For the conservation strategy as envisaged in its totality to succeed, the Government has recognised the need to set up a two-tier structure, an autonomous authority with legal, administrative and financial independence, that embodies:

- a) Professional and technical expertise and full participation of the local people for actual assessment and implementation on ground and at grassroot levels according to the recommendations and guidelines prescribed in the management plan,

and
- b) Legal and administrative powers at the highest level in the State of Madhya Pradesh to facilitate the implementation of the Management Plan for Bhimbetka.

These define the process of conservation for Bhimbetka.

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Place

Date

Signature, title or function of the person duly authorised

Signature on behalf of the state party

Signature

Name: Kasturi Gupta Menon
**Designation: Director General, Archaeological Survey of India
and Additional Secretary, Government of India**

Acknowledgements

N Gopaldaswamy *Secretary, Department of Culture, Government of India*

Maps & photographs

Archaeological Survey of India

Satellite imagery

National Remote Sensing Agency, Hyderabad

References

On forests of Madhya Pradesh, page 3

From: Forests of Madhya Pradesh, MN Buch

Chairman, National Centre for Human Settlements and Environment

Former Secretary to the Government of Madhya Pradesh in various Departments including

Environment, Forest, Tourism, Local Government (Urban), Planning, Economics & Statistics and Revenue

On Watershed Strategy, page 69

From: Rethinking Watershed Strategy, Mihir Shah

Secretary, Samaj Pragati Sahayog, a watershed implementation and training support voluntary organisation based in Madhya Pradesh

Report prepared by

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on behalf of the Archaeological Survey of India

Design and production

Ranesh Ray, Benu Joshi and Anurag Gupta

2002

Most Immediate

MOST URGENT

Note: re: Bhimbetka



June 13, 2003

Dear Mrs. Sabharwal,

I am sending you a draft of some of the basic issues and of the six points requiring clarification. (I have already sent you a reply on June 7 by e-mail at 'dl.india1@unesco.org'). However this is a quick update after receiving the ICOMOS evaluation.

On scrutiny of the evaluation and recommendations we feel that the issues raised can be clarified. These are not substantive by any means as grounds for deferral.

It is now very clear (as mentioned in my note to you) that there is a misperception of the site and of the adivasi settlements. The perception of the evaluator/ICOMOS of Bhimbetka is through an understanding of sites and situations in Australia and Africa ("for example Kakadu National Park in Australia or Kondoa Irangi in Tanzania"). This does not apply in the Indian context in general and to Bhimbetka in particular. Unlike the aborigines of Australia, the adivasis are not 'segregated' communities whose 'rights need to be protected'. Nor do they claim to be descendants of ancient Bhimbetka, or of its artistic traditions, nor are there issues of 'ownership'. The sequence of cultural continuity in Bhimbetka is from the palaeolithic to the mediaeval periods. There is no contemporary painting activity whatsoever, ritual or otherwise, in the rock shelters. The continuity is not carried by the adivasi community around Bhimbetka. There is, therefore, also a misperception as to what constitutes the 'core' and 'buffer', particularly with reference to the adivasi settlements and the 'cultural core'; as well as the extent of the nominated site.

Issues re: 1. Tribal settlements; 2. Core and buffer zones; 3. The six points; 4. Bhimbetka, a few points; as also additional information just received from Shri Gopalakrishnan, Principal Secretary to the Chief Minister, Govt. of Madhya Pradesh; are enclosed.

With regards,
Yours sincerely,

(Ranesh Ray)

DRAFT

1. Re: Tribal Settlements:

1. Tribal settlements in India display fluidity and flexibility. Tribal communities which may at one time have been hunter-gatherers adopt agriculture - wholly or in part - or acquire basic education and pursue another way of life away from their environment. Settlements of the Oraon tribe in Bihar, for example, shift occupation seasonally: hunter-gatherers when in the hills and agriculturists etc. when in the plains.
2. It must be noted that at no time were tribal settlements treated or classified as totally segregated groups either in space or time.
3. Indian democracy is such that the Constitution while providing for concessions to the tribal population ensures that they are a part of the mainstream. It further has provision to foster and encourage their skills and accords greater status to their systems of knowledge; so, all over India, tribal settlements display organicity.
4. It must be understood that the state does not attempt to segregate or differentiate any tribal settlement. Nor does it attempt to change their lifestyle. The effects of social dynamics take their own course.
5. No action or intervention proposed should be made to keep the tribals in their current socio-economic state.

It may be noted that:

1. **There is as yet no proof that the adivasis are the genetic torch-bearers of Bhimbetka.** Therefore, a 'continuity of artistic traditions' refers to those of the adivasis/villagers - irrespective of Bhimbetka. These are two distinct issues. Such a continuity is visible in other parts of the country such as in the states of Maharashtra (Worli paintings), Chhatisgarh, Bihar and Orissa, which demonstrate as much affinity to prehistoric artistic expressions.
2. While Bhimbetka demonstrates a continuous sequence of cultures from the Palaeolithic to the Mediaeval, **there is no contemporary painting activity whatsoever, ritual or otherwise,** in the rock shelters within the core and buffer zones; which have remained untouched since.
3. The elements of creative expressions of the people of the surrounding villages (e.g. paintings and impressions on wall surfaces) that show affinity to those of antiquity within the protected cultural core are, however, integral to and in harmony with Bhimbetka and the surrounding region.
4. **The people themselves do not claim to be descendants of ancient Bhimbetka, or of its artistic traditions, or ownership.** Their lifestyles and cultural expressions are their own, as is apparent from variations among different adivasis in the same area. They are aware of and accept the 'cultural core' as part of the environment in which they live. These are not communities that are 'segregated' whose 'rights need to be protected' *vis-a-vis* Bhimbetka. **There is thus no conflict of interest between the people and the conservation strategy.**

Further awareness of the people towards environmental, ecological and cultural conservation is inbuilt into the overall conservation approach and strategy through specific programmes already under implementation in other parts of the state. The deep buffer around the core allows for regeneration and growth. And protection. The environment benefits, the people benefit and, ultimately, the cultural core.

2. Re: the Core and Buffer:

1. The nomination proposes a site with a defined core. This needs to be clearly understood. The core comprises a homogenous group of hills from the points of view of topography and proximity. It is within this core that the highest number, density and variety of painted rock shelters are found, not only in the region, but in the entire country. It is also here that a wealth of archaeological evidences are concentrated, which, along with the paintings, show an undisturbed continuous sequence of cultures from the palaeolithic to the mediaeval periods. This group forms an integrated entity, and has, therefore, been accordingly considered and notified as the 'protected area' by the Archaeological Survey of India. There are no human settlements within. **The core, therefore, defines the cultural focus, which is the primary focus, and hence the title: 'Rock Shelters of Bhimbetka: Continuity through Antiquity, Art and Environment'.**

While the core is a clearly defined zone with its concentrated cultural content and devoid of habitation, under the protection of the ASI, its boundary is permeable, unlike a defined park or site where the boundary, entrance and exits are identifiable, defined and regulated. The 21 villages, separate from the significance of the core, fall outside this permeable core boundary.

From the foregoing, it is thus not factually correct that "part of the key significance of the cultural landscape is outside the nominated area - villages who use the landscape and archaeological remains linked to the rock paintings".

2. The need for a deep buffer zone was strongly felt in order to conserve the sanctity of the environment, particularly the forest and wildlife sanctuary within which the core falls. This not only offers additional protection to the core but visually and physically preserves the untouched and undisturbed quality of the surroundings. The demarcation of the buffer zone around the core has been arrived at keeping in view the predefined forest compartments and revenue boundaries, in consultation with the Department of Forest and the Department of Revenue - the two other major stakeholders, and bringing the total arrangement to a manageable size and framework. The existing administrative framework and established forest and revenue boundaries will facilitate a smooth administrative arrangement.

3. With (2) in view, it may be noted that a feature such as the Ratapani Reservoir has not been included within the buffer zone. This is also because there are adequate provisions for protection/conservation, as with flora and fauna, within the acts [Indian Forest Act, the Wildlife (Protection) Act, and the Forest (Conservation) Act] implemented through the Forest Department.

4. It may be further noted that many prehistoric rock shelter sites exist in central India (apart from other parts of the country), particularly Madhya Pradesh covering a major part of the state: several thousands of square kilometres. However, none show as dense a concentration and continuous sequence of use of shelters from the palaeolithic to the mediaeval periods containing such a variety of paintings as those at Bhimbetka - and none of a magnitude as naturally preserved as Bhimbetka. What is also remarkable about the site is its environment: the forested surrounds, waterways and its unusual geomorphology. These in totality make Bhimbetka unique not only in India, but in the world. And while the groups of shelters may be a link in the long chain of other prehistoric sites, Bhimbetka forms an integrated entity.

5. Therefore, keeping 1-4 in view, the core and buffer zones have been arrived at as specifically defined and as an integrated and manageable entity.

3. Response to the 6 points of ICOMOS which recommend deferral

- 1) These are two separate issues:
 - a) community involvement re: sustaining traditional interaction between people and landscape on use of forest resources
 - b) continuation of artistic traditions

On 1 (a) A major thrust of the proposal lies in its attempt towards a holistic conservation strategy which involves the people who inhabit the 21 villages in the buffer zone, and their lifestyles in relation to the environment - ultimately to the cultural core. The adivasi villages in this region are considered among the poorest. The adivasis, primarily agriculturists, are descendents of the oldest inhabitants of the area whose existence, sustenance and livelihood are traditionally derived from the forests and the earth. Over time, the winds of change and increase of population have taken their toll on the forests and other natural resources such as ground water. A depletion of forest cover results in the formation of wasteland and a destruction of an ecosystem that has evolved and survived hitherto undisturbed. This directly affects the cultural core, for the trees and vegetation are an essential buffer to the rock shelters and paintings against the weathering effects of strong dust laden winds and exposure to the sun and high temperatures. Natural water systems are drying up, and by and by more village land is becoming uncultivable. The primary concerns, therefore, are largely of survival and of ecological and environmental imbalances.

With the interest of the people and the land in view, the State Government of Madhya Pradesh has adopted the 21 villages in an existing programme: the **Rajiv Gandhi Watershed Management Mission**, the programmes of which will adapt to the objectives and framework of the overall conservation strategy and management plan envisaged for Bhimbetka. The Mission attempts to integrate concerns of poverty reduction and environmental regeneration through a strategy of participatory watershed management - through direct action by local communities.

In addition, while all forests in Madhya Pradesh are managed under the provisions of the existing Working Plan, about 43% of the State's forests are under the joint management of the **Joint Forest Management Committees**, and are being managed according to the provisions of the Government resolution on Joint Forest Management. The revised Government resolution of October 2001 makes an attempt to provide a basis for community participation in forestry keeping in view the distinctive features of different kinds of forest areas. Through special committees it provides for protection of well-stocked forests, for rehabilitating degraded forest areas, and eco-development, with a view to ensure biodiversity conservation in National Parks and Sanctuaries. The State Government of Madhya Pradesh has decided to facilitate the setting up of such committees for Bhimbetka in particular. As the notified core and much of the buffer are part of the Ratapani Wildlife Sanctuary and protected forest areas, and as the villages depend upon forest produce and forest land for the grazing of their cattle, several issues are being addressed. That the core falls within a designated wildlife sanctuary whose interests are not in conflict with the objectives of conservation of the Archaeological Survey of India, is an advantage.

Both the **Rajiv Gandhi Watershed Management Mission** and **Joint Forest Management** have proved successful in Madhya Pradesh. In fact, the Watershed Management Mission has grown to cover all 45 districts of Madhya Pradesh to become India's largest watershed management programme currently in operation. Care has been taken to identify, adapt and incorporate existing programmes pertinent to Bhimbetka in its overall framework for conservation and management.

These issues have been already covered in the nomination dossier and management plan.

(However, please also refer to additional information just received from Shri Gopalakrishnan, Principal Secretary to the Chief Minister, Govt. of Madhya Pradesh. This is attached for your information.

On 1 (b) While Bhimbetka demonstrates a continuous sequence of cultures from the Palaeolithic to the Mediaeval, it may be noted that there is no contemporary painting activity whatsoever, ritual or otherwise, in the rock shelters within the core and buffer zones. Elements of the creative expressions of the people of the surrounding villages (e.g. paintings and impressions on wall surfaces) show affinity to those of antiquity within the protected cultural core, but there is as yet no proof that the adivasis are the genetic torch-bearers of Bhimbetka. However, these expressions within the traditional settlements in the buffer zone are integral to and in harmony with Bhimbetka and the surrounding region.

2) Sustaining what? Ref. 1 (b)

Detailed studies pertaining to various aspects of the adivasis/settlements/villages have been initiated by the Archaeological Survey of India through the Indira Gandhi Rashtriya Manav Sangrahalaya. However, it must be reiterated that there is no proof that the cultural expressions of the adivasis have continued from Bhimbetka, contrary to the situation in the examples quoted ("for example Kakadu National Park in Australia or Kondoa Irangi in Tanzania") in the ICOMOS evaluation.

3) Question unclear (because the premise is incorrect): What is 'sustainable cultural development'?

The boundaries of the core and buffer areas define specific zones. The need for a deep buffer zone was strongly felt in order to conserve the sanctity of the environment, particularly the forest and wildlife sanctuary within which the core falls. This not only offers additional protection to the core but visually and physically preserves the untouched and undisturbed quality of the surroundings. The demarcation of the buffer zone around the core has been arrived at keeping in view the predefined forest compartments and revenue boundaries, in consultation with the Department of Forest and the Department of Revenue - the two other major stakeholders. The existing administrative framework and established forest and revenue boundaries will facilitate a smooth administrative arrangement. The core and buffer as defined are adequate and together with the programmes included in the management plan will provide and generate the necessary resources for sustenance.

4) The broad criteria governing landscape management are

- a) Geological and geomorphological features
- b) Ecological and environmental characteristics
- c) Flora and fauna

In addition to cultural relics and archaeological remains, (a) will be under the direct control, implementation and supervision of the Archaeological Survey of India. Assistance will be provided by the Geological Survey of India, Indian Meteorological Department and the Central Ground Water Board. (See 'Management' p. 62, *Surveys, Studies & Implementing Agencies - pt. 7*)

(b) and (c) will be under the control, implementation (where applicable) and supervision of the Department of Forest, Government of Madhya Pradesh. The Department of Forest has a well developed working plan already under implementation.

The provisions encompassed within the administrative framework of the respective Central and State Government agencies sufficiently provide for meeting the requirements.

The 'layered approach' as envisaged commonly by 'international experts' need not be applicable. A separate authority/administrative arrangement is not required wherein one may have defined or introduced a specially tiered structure. In this case, the existing administrative system and framework of the concerned agencies of both the central and state government have been utilised and dovetailed into the management proposal.

- 5) The nominated area does, indeed, encompass the majority of the Bhimbetka corpus of paintings.

With regard to the cultural content, it may be observed that five (I-V) of the six hills (from west): **Bineka, Bhonrawali, Bhimbetka, Lakha Juar (East) and Lakha Juar (West)** constitute the core. These form a homogenous group from the points of view of topography and proximity. It is within these five hills that the highest number, density and variety of painted rock shelters are found, not only in the region, but in the entire country. This group forms an integrated entity, and has, therefore, been accordingly considered and notified as the 'protected area' by the Archaeological Survey of India.

It is within the buffer zone, towards its southwest that the sixth hill - **Muni Baba ki Pahari** - is included. At a little distance from the cohesive main core group, and topographically a part of another outcrop, this hill contains very few scattered shelters - in all 10 - of which only few have traces of painting not comparable with the density and types of the Bhimbetka group, and so, after due consideration has not been included as part of the core. This may, perhaps, relate to other adjacent sites. Many painted rock shelter groups of varying concentrations are found in the vicinity of Bhimbetka, particularly in the region between Bhopal and Bhimbetka covering several hundred square kilometres. At a later stage, after a more detailed study, other cores, related clusters and isolated painted and unpainted rock shelters (as at Muni Baba ki Pahari), and their links with Bhimbetka will be determined and a more comprehensive picture will emerge. Muni Baba ki Pahari not only falls within the large buffer zone but is also within protected forest land, with the conservational requirements of the shelters being provided for by the Archaeological Survey of India. Muni Baba ki Pahari has thus been identified on the painted rock shelter map - but, as yet, has not been included with the core group.

- 6) We are of the view that the name of the nomination: 'Rock Shelters of Bhimbetka: Continuity through Antiquity, Art and Environment' expresses the core concern of Bhimbetka's cultural remains, uniquely at one with its environment over time: the site demonstrates an undisturbed continuous sequence of cultures through its layers from the palaeolithic to the mediaeval periods. And so, environmentally, with its eco-system, bio-diversity and geomorphological character.

Elements of the creative expressions of the people of the surrounding villages (e.g. paintings and impressions on wall surfaces) show affinity to those of antiquity within the protected cultural core, but there is as yet no proof that the adivasis are the genetic torch-bearers of Bhimbetka. However, these expressions within the traditional settlements in the buffer zone which form an inseparable part of the totality of 'Bhimbetka' are integral to and in harmony with the cultural landscape of Bhimbetka.

The focus of the cultural core is kept in view within the larger interrelated contexts of heritage. The wider issues are thus implicit.

4. Bhimbetka: a few points

Bhimbetka: The site of the 'Rock Shelters of Bhimbetka' - among mankind's oldest heritage - is as complex as it is vast:

The core area comprises 1,892 hectares and the buffer surrounding the core, 10,280 hectares.

The total area taken into consideration is 12,172 hectares.

The core area which comprises the 'cultural core' of Bhimbetka is the primary focus, already notified as protected area by the Archaeological Survey of India.

The cultural core is not an entity in isolation: it is situated within a protected forest area and wildlife sanctuary, under the Department of Forest. Close to the core are situated 21 villages whose revenue lands are administered by the Department of Revenue.

The need for a deep buffer zone was strongly felt in order to conserve the sanctity of the environment, particularly the forest and wildlife sanctuary within which the core falls. This not only offers additional protection to the core but visually and physically preserves the untouched and undisturbed quality of the surroundings. It is within the buffer zone in proximity to the cultural core that the 21 villages are situated.

The boundaries of the core and buffer zones define and enclose specific areas. The overlapping component is that of ecology and environment.

The demarcation of the buffer zone around the core has been arrived at keeping in view the predefined forest compartments, protected and reserved forest areas, and village and revenue boundaries, in consultation with the Department of Forest and the Department of Revenue - consequently the two other major stakeholders. These departments are, therefore, directly concerned in the study, analysis, decision making and programme implementation in tandem with the Archaeological Survey of India.

Conservation strategy & management: Bhimbetka is a complex multidimensional site. The fundamental issues re: these multidimensional aspects pertaining to 'conservation' in both its widest and most specific connotations have been classified into three broad interrelated components. The conservation strategy and management plan have been approached and devised keeping in view these components and their situation within the core and buffer zones:

1. Pertaining to the cultural content (*Location:* Core, within designated wildlife sanctuary)
2. Pertaining to ecology and environment (*Location:* Core and buffer)
3. Pertaining to adivasi settlements/villages (*Location:* Buffer)

It is essential to realise that the components separated out are to be constantly relayed so that the totality and focus of the objective, i.e. the conservation of the cultural core, are kept in view.

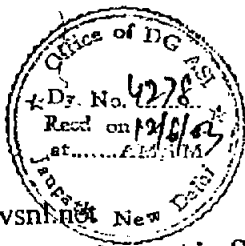
It may be noted that because of the situation of the cultural core, issues pertaining to the forest and wildlife sanctuary *with respect to the core* assume importance. Similarly the interrelated issues of the villagers/villages with respect to the forest/sanctuary/environment/ecology - *which directly or indirectly affect the cultural core* - are of primary concern. The holistic approach in the process encompasses wider issues of balancing conservation (cultural, environmental, ecological) in symbiosis with economic prosperity of a very poor people. However, the primary focus remains the cultural core.

Forests provide sustenance in various forms. It is particularly true in the absence of any other readily available support. Hence a 'traditional' dependence on the forest. This is true of tribal/village settlements all over the country which are in proximity to forests.

VSNL-Webmail

dgasi@vsnl.net

Message No. 18



Address Book

Compose

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TO: dgasi@vsnl.net
 FROM: gopalkr@sancharnet.in Save Address
 SUBJECT: FW: your queries: from gopalakrishnan, Madhya Pradesh: Corrected Version
 Date: Thu, 12 Jun 2003 18:15:18 +0530

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-----Original Message-----

From: R Gopalakrishnan [mailto:gopalkr@sancharnet.in]
 Sent: Thursday, June 12, 2003 6:05 PM
 To: 'dgasi@vsnl.net'
 Subject: your queries: from gopalakrishnan, Madhya Pradesh

Dear Ms. Chatterji:

Kindly refer to your queries.

1. Structure: local population involved

Rajiv Gandhi Watershed Mission is an effort of the GOMP for environmental regeneration through direct action by local communities. The twin agenda of environmental regeneration and poverty reduction is sought to be addressed in a combined manner through labour-intensive methods undertaken through elected people's watershed committees. After an environmentally degraded area, typically a mili watershed of 5000-10,000 hectares is selected for regenerative action, each village in it becomes chosen as a micro-watershed. In each watershed an institutional structure consisting of User Groups (those who own land) a self-Help Group (those who are landless) and a Thrift and Credit Group of Women are formed. Participatory resource-mapping is undertaken by these watershed committees supported by a Project Implementation Agency (PIA) of the Government for technical guidance. These plans are approved by the District level which fields them through the state government to the Ministry of RD for funding from national schemes like Integrated Wastelands Development Programme and the Drought Prone Areas Programme. These funds after being sourced are placed in the accounts of the watershed committees (Participation here is not rhetoric but funds flow into the people's committees)

(UNCED at Rio in 92 and the second conference last year at Johannesburg both recommended strategies that integrate poverty reduction and environment regeneration. This is just that)

2. How do projects reach ground level?

<http://webmail2.vsnl.net/cgi-bin/vsnlpop/getmsg.pl?id=18&shorter=dgasi&loginname=dg...> 6/12/2003



They are prepared bottom-up through local resource mapping, undertaken through local institutions. Khet ka Pani Khet mein, Gaon Ke Pani Gaon mein is the organizing slogan: Catch water where it falls-in every farm, in every village). Funds that support this flow down. PIA is to be seen only as a technical resource support group. Evaluation is also through participatory benefit-mapping.

3. How are NGOs involved?

In MP, NGOs complement this effort supported by the Government. Here the NGO becomes the Project Implementation Agency instead of the Government Department. 106 NGOs are working with the Mission. They are also represented in the state-level General Body of the Mission. Some leading NGOs who help guide our programme are the leading environmentalists in India like Anna Saheb Hazare, Mohan Dharia, late Anil Agrwal (now Sunita Narain), Anup Mishra, Dr. KR Datye, Subroto Sinha, Dr. Athawale, etc.

4. How is environmental regeneration monitored?

The project is monitored on a set of indicators that fall into the three areas of environmental (what is it doing to nature) economic (what is it doing to people's incomes/livelihoods) and social(what is it doing to relationships) criteria. Environmental regeneration is measured through increase in green cover, rise in water table measured through wells/ recharge of wells, increase in cropping area, cropping density, reduction of wastelands etc. After each watershed completes its work for 4 years, people are expected to do a participatory evaluation(the first time in governance practice in these parts) where they record the impact on each farm/field. This exercise at participatory benefit mapping is called Nirakh Parakh. It is then complemented with external evaluations. The Mission also undertook satellite mapping to prove the environmental turnaround of Jhabua using imageries of 93 and 98 to prove its case.

5. Poverty reduction-Environment reduction statistics.

This is given in the document handed over to Mr. Hota and also the CD (please watch the CD for an overview).

Scale

Area for coverage selected. 3.5 million hectares
Work Completed: 1.5 million hectares
Coverage of 7800 villages

Environmental Regeneration

Ground water level improved in 3294 villages
Area under plantation increased by 23579 hectares



Increase in area under irrigation : 59%
Decrease in wasteland : 34%
Area under fodder production: Increase by 52311 hectares

Agri. Production

Increase in area under Rabi: 16%
Increase in productivity in Rabi : 30%
Increase in area under Khariff: 21%
Increase in productivity of Khariff : 37%

Community Oerganisation:

43612 User Groups
14005 Self Help groups
7557 Women Thrift and Credit Groups

NGO partnership : 106

Incidentally watershed committees are themselves Community Based Organisations (CBO)

6. Impact

Independently measured through UNICEF (consultancy through Taru Leading Edge) . India's leading environment magazine Down to Earth featured this as a cover story. Our Mission was showcased as an international best practice at the Second World Water Forum at The Hague in 2000. Simply and immodestly put, it is the world's largest programme addressing an agenda of environmental reneration and poverty reduction and covers 1% of India's land.

The Mission has propped to take up Bhimbetka as an environmentally fragile area and work through local communities for regeneration. Livelihoods here would come not from exploitation for agriculture but through services as spin-off to being declared world heritage.

2. RGWM and JFM

The plan covers both forest and revenue lands. In forest areas, the work will be executed through the supervision of the Forest department. Community structures are identical and the work is to be executed by them.

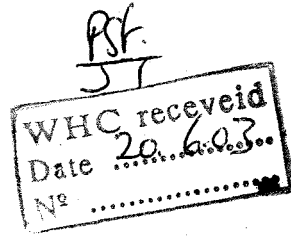
There is therefore no overlap.

Hope this meets the requirement. Mr. Hoda has been handed over the report and a CD (khet ka Pani khet me) to be send over to you by a



सत्यमेव जयते

Ambassador



यूनेस्को में भारत का स्थायी प्रतिनिधि
पेरिस।

Permanent Representative of India
to UNESCO

1, RUE MIOLLIS
750 15 PARIS

URGENT

No. PAR/PDI/COE/108/02

June 20, 2003

Dear Mr Bandarin,

I write in continuation of our correspondence concerning ICOMOS evaluation of Government of India's proposal to nominate "Bhimbetka" on the World Heritage List.

I have already forwarded our immediate response to the issues raised by ICOMOS in their evaluation, copies of which were handed over to your colleagues at the meeting last week with ICOMOS and Centre officials. I am now enclosing a formal response to the specific issues raised in the Evaluation, which you may like to bring to the attention of ICOMOS urgently.

Should you require any further clarification or information in this regard, please do not hesitate to get in touch with me.

With regards,

Yours sincerely,

Neelam D. Sabharwal
(Neelam D. Sabharwal)

Mr. Francesco Bandarin
Director
World Heritage Centre
UNESCO
Paris

Copy to –

1. Ms. Minja Yang, Deputy Director, World Heritage Centre, UNESCO, Paris

C925
20/06/03
#15



प्रत्नकीर्तिमपावृणु

गौरी चटर्जी, भा.प्र.से.

महानिदेशक और अपर सचिव, भारत सरकार

Gauri Chatterji, I.A.S.

Director General and Additional Secretary
to the Govt. of India

TEL. : 23013574

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भारत सरकार
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ARCHAEOLOGICAL SURVEY OF INDIA
DEPARTMENT OF CULTURE
MINISTRY OF TOURISM & CULTURE
GOVT. OF INDIA
JANPATH, NEW DELHI-110011

D.O.No 368 /DG(ASI)/2003

June 20, 2003.

Dear

This is in continuation of my earlier letters to you relating to the ICOMOS evaluation of Bhimbetka and our response.

Earlier Shri Ranesh Ray had forwarded a draft paper containing our immediate response to the issues raised by ICOMOS in their evaluation.

Now I am forwarding a formal response from our side which you may kindly forward to the World Heritage Centre. I am also forwarding a covering letter from Shri Ranesh Ray where certain issues relating to the methodology of evaluation have been raised. You may like to go through these and discuss them as you may deem fit.

As requested by you, we are also printing additional copies of the nomination dossiers for Bhimbetka which would be taken by the Indian delegation along with a short brief of major issues relating to Bhimbetka which you may like to circulate to the members of the World Heritage Committee before the meeting.

With regards,

Yours sincerely,

(Gauri Chatterji)

Smt. Neelam D. Sabharwal,
Ambassador and PRI to UNESCO,
1, Rue Miollis,
75015 Paris.

Contents

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1. The significance of Bhimbetka, its uniqueness

Sites connected with prehistory are found nearly all over India. It may be noted that apart from other parts of the country, the largest concentration of prehistoric sites and rock shelter/paintings in India is located in the heart of the country over three distinct mountain systems: the **Vindhya** and **Satpura** in the states of Madhya Pradesh, Chhatisgarh, and a part of Uttar Pradesh; and the **Aravalli** in Rajasthan. Rock shelter and rock painting sites particularly cover a major part of the state of Madhya Pradesh (scattered over several thousands of square kilometres) within which Bhimbetka is situated. The map in the nomination dossier conveys a broad idea of the distribution of such sites over particular geophysical landscapes.

From within these rock shelter sites, a homogenous group of hills from the points of view of topography and proximity, and of content, that clearly stands apart from other sites has been identified. This group forms an integrated entity designated as the core zone of Bhimbetka, comprising its 'cultural core'. This cultural core is the notified area protected by the Archaeological Survey of India. It is within this core that the highest number, density and variety of painted rock shelters are found, not only in the region, but in the entire country. It is also here that a wealth of archaeological evidences are concentrated, which, along with the paintings, show an undisturbed continuous well preserved sequence of cultures from the palaeolithic to the mediaeval periods. Some of the world's oldest floors and walls are found here. The richness and variety of this unusually large concentration of paintings within a site which has demonstrated a progressive sequential use through the ages remain unparalleled. No other site shows as dense a concentration and continuous sequence of use of shelters and contains such a variety of paintings as those at Bhimbetka - and none of a magnitude as naturally preserved as Bhimbetka.

What is also remarkable about the site is its environment: the forested surrounds, waterways and its unusual geomorphology. And while the groups of shelters may be a link in the long chain of other prehistoric sites, encompassing a vast area of the country, Bhimbetka forms an integrated entity.

These in totality make Bhimbetka unique not only in India, but in the world.

This cultural core is the notified area protected by the Archaeological Survey of India.

According to the ICOMOS evaluation:

"It is unquestionable that the Bhimbetka area contains a major corpus of rock art, which, like other bodies of sandstone rock art, survives in various states of preservation. Although empirical data on site densities in major rock art regions is sparse, it is clear that the stated density of distribution (several hundred painted shelters in an area of 1,892 hectares or c.19 km sq) is comparable with other significant regions of sandstone rock art such as Kakadu National Park (Australia) and the Drakensberg Park in South Africa and the Laura region in north-eastern Australia.

Although many rock shelters are rich cultural repositories it is unusual for them to preserve sequences as lengthy as the Bhimbetka shelters, in combination with rock art.

Although there are a number of World Heritage listed prehistoric sites, those suitable for comparison, particularly in Asia, are relatively few. The site of 'Peking Man' in Zhoukoudian, China, has remarkable evidence of human evolution and a long cultural sequence, but lacks the element of parietal (wall) art. There are some 20 properties with rock art features inscribed on the World Heritage list, but they are very diverse. Although other World Heritage properties also have rock art of very substantial antiquity, it appears that few have confirmed cultural contexts, which compare in antiquity, or continuity, with those nominated at Bhimbetka."

2. Re: Physical extent of nominated area - Core and buffer zones

According to the ICOMOS evaluation:

"The nomination states that the boundaries of the buffer zone were developed through examination of forest compartments (delineated by the Department of Forest) protected and reserved forest areas and revenue and village boundaries. The delineated areas are not marked on the ground by visible boundaries. Nor are some of the boundaries contiguous with other statutory designations such as the Ratapani Wildlife Sanctuary.

Much of the nominated area is contained within the Ratapani Wildlife Sanctuary, which is reported to have high species diversity. However, the nominated area does not include the large lake, Ratapani reservoir, which lies just outside the eastern boundary of the buffer zone."

Response:

How has the nominated site in terms of its total extent, core and buffer zones been arrived at?

The aforementioned 'cultural core' of Bhimbetka is identified with the area notified and protected by the Archaeological Survey of India. The Archaeological Survey of India has its own well established mechanism for identifying and protecting cultural properties.

The cultural core covers an area of 1,892 hectares. There are no settlements/villages within this zone. **The cultural core, however, does not exist in isolation:** it is entirely situated within a protected forest area and wildlife sanctuary. The Ratapani Wildlife Sanctuary is spread over an area of approximately 825 sq. km. as part of the forest. The total forest cover in the state of Madhya Pradesh is a little over 75,000 sq km. Close to the core - but physically separated topographically - are situated 21 villages amidst agricultural fields in the plains bordering the rocky hill outcrops.

The need for a deep buffer zone surrounding the core was strongly felt in order to conserve the sanctity of the environment, particularly the forest and wildlife sanctuary within which the core falls. The buffer surrounding the core covers an area 10,280 hectares. This not only offers additional protection to the core but visually and physically preserves the untouched and undisturbed "timeless" quality of the surroundings. It is within the buffer zone in proximity to the cultural core that the 21 villages are situated.

The buffer, therefore, includes villages, a part of the Ratapani Wildlife Sanctuary and parts of protected and reserved forests.

The boundaries of the core and buffer thus define and enclose specific zones. The overlapping component is of ecology and environment - the protected or conserved parts of which extend into the Sanctuary/forests.

The demarcation of the buffer zone around the core has been arrived at keeping in view the predefined forest compartments and revenue boundaries, in consultation with the Department of Forest and the Department of Revenue - the two other major stakeholders. This brings the total arrangement to a manageable size and framework. In a situation such as at Bhimbetka where the bounds of the buffer zone are within established forest/revenue expanses, it is not recommended that the boundaries are physically marked. The delineated boundaries for the core and buffer zones, while not manifesting itself on the ground, are yet clearly defined demarcations both with respect to the administration of the spaces within and its protection under the applicable rules, framework and resources (e.g. manpower, such as forest rangers). This will also facilitate a smooth administrative arrangement.

Keeping these in view, it may be noted that a feature such as the Ratapani Reservoir has not been included within the buffer zone. This is also because there are adequate provisions for its protection/conservation, as with flora and fauna, within the acts [Indian Forest Act, the Wildlife (Protection) Act, and the Forest (Conservation) Act] implemented through the Forest Department.

According to the ICOMOS evaluation:

"The evaluation report also highlights the fact that further painted shelters exist just outside the buffer zone to the west."

Response:

Rock shelter and rock painting sites cover a major part of the state of Madhya Pradesh (scattered over several tens of thousands of square kilometres of the 3,08,252 sq km of the state) within which Bhimbetka is situated. (Please also refer to 1, paragraphs 1-3)

With regard to the cultural content, it may be observed that five of the six hills (from west): Bineka, Bhonrawali, Bhimbetka, Lakha Juar (East) and Lakha Juar (West) constitute the core - as notified by the Archaeological Survey of India. It is within the buffer zone, towards its southwest that the sixth hill - Muni Baba ki Pahari - is included. At a little distance from the cohesive main core group, and topographically a part of another outcrop, Muni Baba ki Pahari contains very few scattered shelters of which only few have traces of painting not comparable with the density and types of the Bhimbetka group. Therefore, after due consideration has not been included as part of the core.

Many painted and unpainted rock shelter groups of varying concentrations are found in the vicinity of Bhimbetka, particularly in the region between Bhopal and Bhimbetka covering several hundred square kilometres. However, these are largely sparse and isolated.

Thus there are sites outside the nominated area.

Therefore, the core and buffer zones have been arrived at as specifically defined and as an integrated and manageable entity.

3. Re: Adivasis/settlements in the context of Bhimbetka

According to the ICOMOS evaluation:

"The significance of the Bhimbetka cultural landscape is about the connection between the people who created the rock art and the way they sustained a living from the countryside over many millenia. It is also about the way people have apparently shifted from living near the rocks to the villages in the surrounding areas - but still keeping their cultural links, particularly in the use of natural resources and in their artistic forms. The cultural qualities of the landscape are about sustainable management of local resources over a very long time span, and about the way landscape inspired art.

What is problematic in the nomination (and this is referred to again later) is the fact that part of the key significances of the cultural landscape is outside the nominated area - villages who use the landscape and archaeological remains linked to the rock paintings.

Indications of strong cultural links between the Bhimbetka paintings and the culture of the local villages in the buffer zone: Although, as noted in the nomination, a detailed picture of past Bhimbetka societies has yet to emerge, it is clear that the Bhimbetka cultural landscape has been, and still is, much more extensive than the core area of the rock shelters. Within the surrounding area are Buddhist remains and stupas in dressed stone of the Sunga period corresponding to the second century BC inscriptions in the rock shelters.

The hunting and gathering practices of the people now living in the villages is undoubtedly still there as an authentic element of their traditions, but very much under threat due to increase in population and the diminishing forest resource. It is also further threatened by the proposal to fence off the nominated area to stop excessive cattle grazing.

Risk to the integrity of local adivasi culture in the 21 surrounding villages is apparently quite high, as mounting economic and developmental pressures encourage people to move to the towns. Also new settlers from other regions are beginning to appear in the area. Although change is gradual at the moment, it could easily gain momentum. It is therefore vital that ethnographic studies are undertaken as a high priority with a view to putting in place sustainable development practices that aim to provide incentives to keep people in the area, through sustaining key aspects of the local culture. Such opportunities for linking cultural heritage parameters to development are not envisaged in the management plan."

Response:

Let us examine the people who live in the 21 villages. They are predominantly adivasis, a term for 'original inhabitants'.

The tribes of India comprise about 8% (approx. 67.76 million) of the total population of India. The Census of India records 427 tribes distributed all over the country. There are 46 tribes in Madhya Pradesh comprising approx. 20% of the total population of the state. Three of these, the Gonds, Pardhans and Korkus (represented in the 21 villages in Bhimbetka) are spread not only all over Madhya Pradesh but also in the states of Chhattisgarh, Bihar,, Jharkhand, West Bengal, Orissa, Andhra Pradesh, Maharashtra, Karnataka and Gujarat in varying concentrations.

It must be clearly understood that:

1. Tribal settlements in India display fluidity and flexibility. Tribal communities which may at one time have been hunter-gatherers adopt agriculture - wholly or in part - or acquire basic education and pursue another way of life away from their environment. Settlements of the Oraon tribe in Bihar, for example, shift occupation seasonally: hunter-gatherers when in the hills and agriculturists etc. when in the plains.
2. It must be noted that at no time were tribal settlements treated or classified as totally segregated groups either in space or time.
3. The Republic of India has in its Constitution provided safeguards for several groups of people to ensure recognition of their distinctive identity as also provide space and opportunity for mobility and intermingling. This is a situation that is different from considering aborigines or natives to be confined within segregated areas.
4. No action or intervention proposed should be made to maintain tribals in an environment as 'museums'.

In the context of Bhimbetka, while the above apply, it may be noted that:

1. **There is as yet no proof that the adivasis are the genetic torch-bearers of Bhimbetka.** Whether the "*people have apparently shifted from living near the rocks to the villages in the surrounding areas - but still keeping their cultural links, particularly in the use of natural resources and in their artistic forms*" is debatable, as there is no proof. They do not use the rock shelters in any manner. Therefore, a 'continuity of artistic traditions' refers to those of the adivasis/villagers - irrespective of Bhimbetka. These are two distinct issues. Such a continuity is visible in other parts of the country such as in the states of Maharashtra (Worli paintings), Chhatisgarh, Bihar and Orissa, which demonstrate as much affinity to prehistoric artistic expressions.
2. The elements of creative expressions of the people of the surrounding villages (e.g. paintings and impressions on wall surfaces) that show affinity to those of antiquity within the protected cultural core are, however, integral to and in harmony with Bhimbetka and its environs.
3. While Bhimbetka demonstrates a continuous sequence of cultures from the Palaeolithic to the Mediaeval, **there is no contemporary painting activity whatsoever, ritual or otherwise, in the rock shelters within the core and buffer zones; which have remained untouched since.**
4. **The people themselves do not claim to be descendants of ancient Bhimbetka, or of its artistic traditions, or ownership.** Their lifestyles and cultural expressions are their own, as is apparent from variations among different adivasis in the same area. They are aware of and accept the 'cultural core' as part of the environment in which they live. These are not communities that are 'segregated' whose 'rights need to be protected' *vis-a-vis* the painted rock shelters of Bhimbetka. **There is thus no conflict of interest between the people and the conservation strategy.**

None of the groups of adivasis in India claim rights over ancient monument sites, even if they live in proximity to these sites.

4. The nominated area re: Boundaries, Continuities

Keeping 2 and 3 in view, it may be noted that while the core is a clearly defined zone with its concentrated cultural content and devoid of habitation, under the protection of the ASI, its boundary is a 'permeable' one. The boundary of the buffer is also a 'permeable' one. There is scope for flexibility. The nominated area is not viewed as a 'defined' park or site where the boundary, entrance and exits are identifiable, defined and regulated. The 21 villages, separate from the significance of the core, are situated outside this permeable core boundary within the buffer. There is free movement envisaged between the core and buffer zones, within the buffer, and buffer to outside the nominated area.

As has been stated (please refer to 3: the points following '**In the context of Bhimbetka**') the villagers/villages have no direct link with the cultural content of the core, unlike in the examples in Australia and Africa which have been compared with Bhimbetka by the evaluator. Cultural continuities in the Indian context of adivasis which may or may not link directly with Bhimbetka, however, is open to research and interpretation. The factors affecting 'discontinuities' or of transformations/replacements/change linked with the same environment may be of equal significance as the apparent 'continuities'. All bear investigation. Thus contexts and situations differ from continent to continent, and within regions; for while there may exist commonalities, there are dissimilarities as well.

Therefore the view: "*What is problematic in the nomination (and this is referred to again later) is the fact that part of the key significances of the cultural landscape is outside the nominated area - villages who use the landscape and archaeological remains linked to the rock paintings*", is misconceived.

5. Re: Adivasis/settlements in the context of the natural environment

According to the ICOMOS evaluation:

"If the authentic nature of the relationship between people and the forest is to be sustained, then people must still have access to the forest. To achieve this, a fundamental strategy is needed to limit the number of people using the forest so that it can continue to be used as a sustainable resource."

Response:

The Joint Forest Management and the Rajiv Gandhi Watershed Management Mission recognise the rights of the people in the use of the forest and forest produce. - hence their participatory role in the strategy. The forest will continue to be used as a sustainable resource. The basic strategy of the programmes envisages a healthy relationship between the people and the forest whereby while the forest will continue to be used as a resource, the fragile eco-system is protected and the environment regenerated and the people also benefit economically.

The two programmes which are fully operational throughout the state would be suitably tailored to encompass and integrate the specific requirements of the 21 villages of the buffer zone. Further awareness of the people towards environmental, ecological and cultural conservation is inbuilt into the overall conservation approach and strategy through specific programmes already under implementation here as in other parts of the state. The environment benefits, the people benefit and, ultimately, the cultural core.

According to the ICOMOS evaluation:

"Secondly, enough of the ancient forest lands need to be included to make the association viable. At the moment certain areas of the Ratapani Wildlife Sanctuary appear to be excluded from the nomination area as are some protected forest areas - although both are in the buffer zone, while other parts of the the Ratapani Sanctuary such as the the Ratapani Reservoir, are excluded from both and the buffer zone. Also parts of the buffer zone include areas recently denuded of forest cover."

What is needed is an appraisal of the ecological unit needed to create a manageable area which can sustain certain uses by people as well as the inherent natural components, and which is also large enough to have a beneficial impact on water resources.

The area of forest put forward in the nomination area is considered by the evaluator as being the minimum need to sustain the natural values as the basis for the conservation of the area. That view relies on people being excluded largely from the area. If the forests are to have a more symbiotic relationship with the people, in order to sustain the authenticity of the link between people and forests, then it could be argued that that a larger area is needed."

Response:

As stated earlier, the Ratapani Wildlife Sanctuary is spread over an area of approximately 825 sq. km. as part of the forest. The total forest cover in the state of Madhya Pradesh is a little over 75,000 sq km.; and as already clarified, the core and buffer zones have been arrived at as specifically defined and as an integrated and manageable entity. (Please refer to **2. Re: Physical extent of nominated area - Core and buffer zones**). The relationship of the people with respect to the cultural context of the rock shelters of Bhimbetka has also been explained (Please refer to **3. Re: Adivasis/settlements in the cultural context of Bhimbetka**). The programmes as applicable to the core and the buffer zones while having an immediate impact on the environment and the people, will eventually benefit the area far beyond the boundaries of the nominated site.

6. Perception of Bhimbetka as cultural landscape

According to the ICOMOS evaluation:

"The significance of the Bhimbetka cultural landscape is about the connection between the people who created the rock art and the way they sustained a living from the countryside over many millenia. It is also about the way people have apparently shifted from living near the rocks to the villages in the surrounding areas - but still keeping their cultural links, particularly in the use of natural resources and in their artistic forms. The cultural qualities of the landscape are about sustainable management of local resources over a very long time span, and about the way landscape inspired art.

What is problematic in the nomination (and this is referred to again later) is the fact that part of the key significances of the cultural landscape is outside the nominated area - villages who use the landscape and archaeological remains linked to the rock paintings.

The nominated area is more suited to a nomination for a relict cultural landscape - one where evolution has stopped. This would fit the idea that after some point in time - perhaps four or five hundred years ago, the painting of rock shelters ceased, the nominated area would then include the most of the corpus of rock art and would present a very authentic relict cultural landscape."

Response:

The nomination proposes Bhimbetka as a cultural landscape - an organically evolved landscape developed by association with and in response to its natural environment; a landscape which reflects the process of evolution in its form and component features. This cultural landscape category has specified two possible sub-categories (i) a relict (or fossil) landscape... and (ii) a continuing landscape...

The nomination proposal, with respect to the sub-categories, has not specified a sub-category. This is because the nominated cultural landscape with its core and buffer zones is neither wholly (i), i.e. a relict landscape, nor wholly (ii), a continuing landscape. The nominated site exhibits characteristics of both sub-categories. The rock shelters of Bhimbetka essentially display a continuous sequence of cultures from the palaeolithic to the mediaeval periods. There is no evidence of their use since. The evolutionary process appears to have come to an end at that time. Its significant distinguishing features are, however, still visible in material form. Therefore, it meets the requirements of a relict landscape.

On the other hand, the continuously evolving natural environment comprising the forest, wildlife, water systems and geophysical landscape embodies the characteristics of sub-category (ii), i.e. a continuing landscape. Additionally, while the adivasi/settlements have no direct relationship with the rock shelters, they display a continuity in their existence in harmony with and as a part of the natural environment.

These clearly establish themselves as the three fundamental components of the cultural landscape providing the base for conservation strategy and management:

1. Pertaining to the cultural content (*Location: Core, within designated wildlife sanctuary*)
2. Pertaining to ecology and environment (*Location: Core and buffer*)
3. Pertaining to adivasi settlements/villages (*Location: Buffer*)

It is essential to realise that the components separated out are to be constantly relayered so that the totality and focus of the objective, i.e. the conservation of the cultural core, are kept in view.

The evaluator, however, suggests: *"The nomination proposes Bhimbetka as a cultural landscape. Although it does not explicitly state which type of cultural landscape is proposed, the nomination 'cultural landscape' sub-category (ii) 'a continuing landscape,'"*

Response:

This suggestion is inappropriate as may be seen from the details above. In other words, it is not possible for this site to be straitjacketed in any single sub-category.

The World Heritage Centre may consider the possibility of multidimensional sites qualifying under overlapping sub-categories.

7 a). ICOMOS Recommendations with respect to inscription

"It is recommended that the nomination be deferred to allow the state party to provide additional information in order to clarify the following:

1. *How community involvement in the nominated area will be organised in order to sustain the traditional interaction between people and the landscape in matters relating to the use of the forest resources and the continuation of artistic traditions.*
2. *How the apparently very ancient traditions associated with the area can be recorded and documented to inform ways of sustaining them.*
3. *Whether the proposed boundaries of the nominated area provide sufficient resources to allow sustainable cultural and environmental development.*
4. *How a 'layered' approach to landscape management can be provided to allow different degrees of involvement from stakeholders involved in the property, within an overall integration of efforts.*
5. *Whether the nominated area encompasses the majority of the Bhimbetka corpus of rock paintings.*
6. *Consideration should also be given to change the name of the nomination to the Bhimbetka Cultural Landscape to reflect the wider issues involved."*

7 b). In response to the 6 points of ICOMOS which recommend deferral

(These are to be read in conjunction with and in the light of the responses to the observations of the evaluator in sections 1-6 in the preceding pages 1-9.)

- 1) These are two separate issues:
 - a) community involvement re: sustaining traditional interaction between people and landscape on use of forest resources
 - b) continuation of artistic traditions

On 1 (a): A major thrust of the proposal lies in its attempt towards a holistic conservation strategy which involves the people who inhabit the 21 villages in the buffer zone, and their lifestyles in relation to the environment – ultimately to the cultural core. The adivasi villages in this region are considered among the poorest. The adivasis are primarily agriculturists, whose existence, sustenance and livelihood are derived from the forests and the earth. Over time, the winds of change and increase of population have taken their toll on the forests and other natural resources such as ground water. A depletion of forest cover results in the formation of wasteland and a destruction of an ecosystem that has evolved and survived hitherto undisturbed. This directly affects the cultural core, for the trees and vegetation are an essential buffer to the rock shelters and paintings against the weathering effects of strong dust laden winds and exposure to the sun and high temperatures. Natural water systems are drying up, and by and by more village land is becoming uncultivable. The primary concerns, therefore, are largely of survival and of ecological and environmental imbalances.

With the interest of the people and the land in view, the State Government of Madhya Pradesh has adopted the 21 villages in an existing programme: the **Rajiv Gandhi Watershed Management Mission**, the programmes of which will adapt to the objectives and framework of the overall conservation strategy and management plan envisaged for Bhimbetka. The Mission attempts to integrate concerns of poverty reduction and environmental regeneration through a strategy of participatory watershed management - through direct action by local communities.

In addition, while all forests in Madhya Pradesh are managed under the provisions of the existing Working Plan, about 43% of the State's forests are under the joint management of the **Joint Forest Management Committees**, and are being managed according to the provisions of the Government resolution on Joint Forest Management. The revised Government resolution of October 2001 makes an attempt to provide a basis for community participation in forestry keeping in view the distinctive features of different kinds of forest areas. Through special committees it provides for protection of well-stocked forests, for rehabilitating degraded forest areas, and eco-development, with a view to ensure biodiversity conservation in National Parks and Sanctuaries. The State Government of Madhya Pradesh has decided to facilitate the setting up of such committees for Bhimbetka in particular. As the notified core and much of the buffer are part of the Ratapani Wildlife Sanctuary and protected forest areas, and as the villages depend upon forest produce and forest land for the grazing of their cattle, several issues are being addressed. That the core falls within a designated wildlife sanctuary whose interests are not in conflict with the objectives of conservation of the Archaeological Survey of India, is an advantage.

Both the **Rajiv Gandhi Watershed Management Mission** and **Joint Forest Management** have proved successful in Madhya Pradesh. In fact, the Watershed Management Mission has grown to cover all 45 districts of Madhya Pradesh to become India's largest watershed management programme currently in operation. Care has been taken to identify, adapt and incorporate existing programmes pertinent to Bhimbetka in its overall framework for conservation and management.

These issues have been already covered in the nomination dossier and management plan.

(Also refer to - 5. Re: Adivasis/settlements in the context of the natural environment)

On 1 (b): While Bhimbetka demonstrates a continuous sequence of cultures from the Palaeolithic to the Mediaeval, it may be noted that there is no contemporary painting activity whatsoever, ritual or otherwise, in the rock shelters within the core and buffer zones. Elements of the creative expressions of the people of the surrounding villages (e.g. paintings and impressions on wall surfaces) show affinity to those of antiquity within the protected cultural core, but there is as yet no proof that the adivasis are the genetic torch-bearers of Bhimbetka. However, these expressions within the traditional settlements in the buffer zone are integral to and in harmony with Bhimbetka and the surrounding region.

(Also refer to - 3. Re: Adivasis/settlements in the context of Bhimbetka)

- 2) Detailed studies pertaining to various aspects of the adivasis/settlements/villages have been initiated by the Archaeological Survey of India through the Indira Gandhi Rashtriya Manav Sangrahalaya. However, it must be reiterated that there is no proof that the cultural expressions of the adivasis have continued from Bhimbetka, contrary to the situation in the examples quoted ("*for example Kakadu National Park in Australia or Kondoa Irangi in Tanzania*") in the ICOMOS evaluation.

(Also refer to - 3. Re: Adivasis/settlements in the context of Bhimbetka)

- 3) The boundaries of the core and buffer areas define specific zones. The need for a deep buffer zone was strongly felt in order to conserve the sanctity of the environment, particularly the forest and wildlife sanctuary within which the core falls. This not only offers additional protection to the core but visually and physically preserves the untouched and undisturbed quality of the surroundings. The demarcation of the buffer zone around the core has been arrived at keeping in view the predefined forest compartments and revenue boundaries, in consultation with the Department of Forest and the Department of Revenue - the two other major stakeholders. The existing administrative framework and established forest and revenue boundaries will facilitate a smooth administrative arrangement. The core and buffer as defined are adequate and together with the programmes included in the management plan will provide and generate the necessary resources for sustenance.

(Also refer to - **2. Re: Physical extent of nominated area - Core and buffer zones,**
3. The nominated area re: Boundaries, Continuities
5. Re: Adivasis/settlements in the context of the natural environment
6. Perception of Bhimbetka as cultural landscape
& - Concluding paragraph at end of response on p.12)

- 4) The broad criteria governing landscape management have been considered under the following components:

- a) Cultural core
- b) Ecology and environment
- c) Adivasis/settlements/villages
- d) Tourism/traffic

(a) will be under the direct control, implementation and supervision of the Archaeological Survey of India. The Archaeological Survey of India will coordinate the management effort with respect to (b), (c) & (d) wherein assistance will be provided by the Geological Survey of India, Indian Meteorological Department and the Central Ground Water Board for (b); the State Government of Madhya Pradesh and the Rajiv Gandhi Manav Sangrahalaya for (c), and the Ministry of Tourism & Culture at the Centre and Department of Tourism at the State for (d).

The provisions encompassed within the administrative framework of the respective Central and State Government agencies sufficiently provide for meeting the requirements.

The 'layered approach' as commonly envisaged need not be applicable in the context of Bhimbetka. A separate authority/administrative arrangement is not required wherein one may have defined or introduced a specially tiered structure. In this case, the existing administrative system and framework of the concerned agencies of both the central and state government have been utilised and dovetailed into the management proposal.

(Also refer to - **concluding paragraph at end of response**)

- 5) The nominated area does, indeed, encompass the majority of the Bhimbetka corpus of paintings.

With regard to the cultural content, it may be observed that five of the six hills (from west): Bineka, Bhonrawali, Bhimbetka, Lakha Juar (East) and Lakha Juar (West) constitute the core. These form a homogenous group from the points of view of topography and proximity. It is within these five hills that the highest number, density and variety of painted rock shelters are found, not only in the region, but in the entire country. This group forms an integrated entity, and has, therefore, been accordingly considered and notified as the 'protected area' by the Archaeological Survey of India.

It is within the buffer zone of the nominated area, towards its southwest that the sixth hill - Muni Baba ki Pahari - is included. At a little distance from the cohesive main core group, and topographically a part of another outcrop, Muni Baba ki Pahari contains very few scattered shelters of which only few have traces of painting not comparable with the density and types of the Bhimbetka group. Therefore, after due consideration, this has not been included as part of the core.

(Also refer to - 2. Re: Physical extent of nominated area - Core and buffer zones)

- 6) We are of the view that the name of the nomination: 'Rock Shelters of Bhimbetka: Continuity through Antiquity, Art and Environment' expresses the core concern of Bhimbetka's cultural remains, uniquely at one with its environment over time. The site demonstrates an undisturbed continuous sequence of cultures through its layers from the palaeolithic to the mediaeval periods; and so, environmentally, with its eco-system, bio-diversity and geomorphological character.

Elements of the creative expressions of the people of the surrounding villages (e.g. paintings and impressions on wall surfaces) show affinity to those of antiquity within the protected cultural core, but there is as yet no proof that the adivasis are the genetic torch-bearers of Bhimbetka. However, these expressions within the traditional settlements in the buffer zone which form an inseparable part of the totality of 'Bhimbetka' are integral to and in harmony with the cultural landscape of Bhimbetka.

The focus of the cultural core is kept in view within the larger interrelated contexts of heritage. The wider issues are thus implicit.

It may be concluded that the Archaeological Survey of India in consultation with the other stakeholders have arrived at the extent of the core and the buffer zones of the nominated area rationally within the framework of administrative mechanisms, supported by National and State Acts and the relevant instruments of the Republic of India. Further, as delineated in the management strategy, there is adequate provision for short and long term (future) requirements determined through periodic reviews conducted by the designated management committees.

Bhimbetka (India)

No 925

1. BASIC DATA

State Party: India
Name of property: Rock Shelters of Bhimbetka
Location: Madhya Pradesh
Date received: 29 January 2002
Category of property:

In terms of categories of cultural properties set out in Article 1 of the 1972 World Heritage Convention, this is a *site*. In terms of Operational Guidelines para. 39, it is also a *cultural landscape*.

Brief description:

The nominated site is in the foothills of the Vindhyan Mountains on the southern edge of the central Indian plateau. Within massive sandstone outcrops, above comparatively dense forest, are five clusters of natural rock shelters, displaying paintings that appear to date from the Mesolithic period right through to the Historical period. Twenty-one villages, lived in by people whose contemporary cultural traditions are closely associated with the rock paintings, are found in the buffer zone.

2. THE PROPERTY

Description

The nominated Bhimbetka rock shelters site lies within the Vindhyan Hills, an area of massively sculpted sandstone rock formations clustered around Bhimbetka Hill, which forms an easily identifiable landmark, 45 km south of Bhopal.

The area has abundant natural resources – perennial water supplies, natural shelter, rich forest flora and fauna, and like similar regions of significant rock art (for example Kakadu National Park in Australia or Kondoa Irangi in Tanzania), these conditions of plenty seem to have been conducive to the development of sustainable and persistent societies and the creation of notable rock art.

The nominated area covers 1,893 ha and is surrounded by a Buffer Zone of 10,280 ha.

The site includes five clusters of rock shelters, with one large complex in the buffer zone. The Rock Shelters display persistent traditions of rock painting, spanning periods from the Mesolithic to the Historic. They also display a profusion, richness and variety of mural subjects and, as a collection, form one of the densest known concentrations of rock art, (400 painted shelters in an area of 1,892 ha or c. 19 km²).

The buffer zone includes 21 villages whose culture appears to indicate a remarkable continuity with the rock art and with the tradition of hunting and gathering depicted in the

paintings. Many of the rock shelters within the nominated area are set within fairly dense forest, which displays a high diversity of flora and fauna, still harvested by the local people.

Overall the landscape of the nominated site has a strong appealing aesthetic quality – derived from the beauty of the naturally sculpted rock formations and the contrasting lush, dense, wooded vegetation, which together give the place a ‘timeless’ quality.

Public access: Part of the site is now open to the public and this has necessitated the construction of paths and railings, signs, access roads and tracks. These interventions are confined mainly to part of the core area. Works undertaken so far have been done quite sensitively, with respect for the natural and cultural values of the area. Development of infrastructure including roads has been minimised. The site retains a ‘natural appearance’ with a general absence of inappropriate installations and structures.

Boundaries: The nominated site is in two parts, a larger area (containing Hills II to IV) and a much smaller area (Hill I), separated by the Bhopal-Hoshangabad National Highway 12 and the central railway line. In the absence of the road, a contiguous site would have been more logical.

The nomination mentioned five clusters of shelters with a sixth in the buffer zone. In the absence of a map showing the distribution of rock shelters within the nominated area, it is difficult to assess the appropriateness or otherwise of the site boundaries and to understand why the sixth group has been omitted. The suggested boundaries appear to be a pragmatic solution to the problem of defining the Bhimbetka cultural landscape within the varied and complex legal protection, zoning, tenure and land use of the site.

The nomination states that the boundaries of the buffer zone were developed through examination of forest compartments (delineated by the Department of Forest) protected and reserved forest areas and revenue and village boundaries. The delineated areas are not marked on the ground by visible boundaries. Nor are some of the boundaries contiguous with other statutory designations such as the Ratapani Wildlife Sanctuary.

The evaluation report also highlights the fact that further painted shelters exist just outside the buffer zone to the west.

Much of the nominated area is contained within the Ratapani Wild Life Sanctuary, which is reported to have high species diversity. However the nominated area does not include the large lake, Ratapani Reservoir, which lies just outside the eastern boundary of the buffer zone

Detailed description

Specifically the nominated site includes:

- 400 painted rock shelters in five clusters;
- Palaeolithic evidence from excavations within shelters indicating antiquity of human settlement;
- Stone and Iron Age walls and floors within the rock shelters;

- Evidence of a very long cultural continuity within many of the painted rock shelters;
- Indications of strong cultural links between the Bhimbetka paintings and the culture of local villages in the buffer zone;
- Forest areas around the rock paintings.

Painted rock shelters in five clusters: The nomination says that 'the site complex is a magnificent repository of rock paintings within natural rock shelters'. No detailed inventory is provided of the painted rock shelters, (although the nomination states that 133 painted shelters have been documented) nor an analysis of the scope or contents of the paintings – so only the following generalities can be given.

Largely in white and red, the paintings are essentially a record of the varied animal life of the surrounding forest and of various facets – economic and social- of peoples' lives. Images include extinct fauna, mythical creatures; domesticated animals, carts and chariots; designs and patterns, inscriptions and Buddhist symbols of the Historic period and also pictorial narratives of events such as large processions of men on caparisoned horses and elephants, and battle scenes.

Some paintings contain a few images, while others have several hundred. Depictions vary from the realistic to the stylised, graphic, geometric or decorative. Sizes of the paintings range from five centimetres to an immense impression on a ceiling of an animal nearly five metres in length and two metres across.

Stylistically the paintings are closely linked to a distinctive, regional Central Indian style of rock paintings, which is well documented. Many features are also typical of significant bodies of rock art around the world.

Palaeolithic evidence for antiquity of human settlement: There have been a relatively large number of archaeological excavations at rock shelters in Bhimbetka most in the 1970s. These have produced evidence of stone tools and other materials from the Palaeolithic period as well as associations between Bhimbetka and the surrounding plains.

The original rock shelter users were probably hunter-gatherers whose seasonal patterns of land use would have extended well beyond the rock shelters (and the core zone, and possibly the greater area of the nomination). Archaeological evidence sheds light on associations of Bhimbetka with these surrounding areas. For example, the source of some raw materials of microliths excavated from the rock shelters was identified as Barkhera, 6 km south of Bhimbetka.

The excavations at Bhimbetka are said to have produced new evidence for the continuity of materials for Stone Age tools for the entire Palaeolithic period in the region.

The trench at III F (Auditorium cave), which is very significant in demonstrating the antiquity and also continuity of human settlement in the area, has been preserved for public viewing and education.

Stone and Iron Age structures: Excavations have also identified an association between a primary living site and the construction of stone enclosures and walls from the

Lower Palaeolithic period. Continuity of this ancient practice may also be observed in a number of rock shelters that contain stone walls and levelled stone floors, including remains dated to the second century BC and comparatively recent stone gateways noted by the evaluator.

Evidence of a very long cultural continuity: In at least one of the excavated shelters, it is said in the nomination that continued occupation is demonstrable from 100,000 BCE (Late Acheulian) to 1000 AD.

Bhimbetka rock art has not been directly dated (using AMS dating techniques). Evidence of early dates therefore has to come from associative material such as the presence of art in rock shelters with Pleistocene deposits, art pigments identified in Mesolithic sequences, and images in paintings associated with hunter gatherer and pre-agricultural societies.

Evidence for a long continuity of tradition comes from the content of paintings and typological analyses, which have established broad cultural periods associated with pottery found elsewhere in the region. Added to this are superimpositions or overlapping of painting of different styles and periods, observed in many shelters. Up to fifteen layers have been recorded.

Direct dating research in collaboration with Australian researchers (as identified in part of Phase 1 of the management plan) is ongoing. This work, which includes recent sampling of rock surface crusts and paints at Bhimbetka and other sites, is aimed at providing age estimates for selected motifs including engraved cupules.

On the basis of present knowledge, it is believed that the rock art dates from the Mesolithic period (around 10,000 years ago), through the Chalcolithic (Microlithic) and right into the Historic, Medieval and recent Historic periods.

Indications of strong cultural links between the Bhimbetka paintings and the culture of local villages in the buffer zone: Although, as noted in the nomination, a detailed picture of past Bhimbetka societies has yet to emerge, it is clear that the Bhimbetka cultural landscape has been, and still is, much more extensive than the core area of the rock shelters. Within the surrounding area are Buddhist remains and stupas in dressed stone of the Sunga period corresponding to the second century BC inscriptions in the rock shelters.

Such research work as has been done on the cultural life of the surrounding local villages in the buffer zone, indicates that current traditional lifestyles of the *adivasi* (indigenous) settlements of the Gonds, Pradhans and the Korkus peoples in the area show strong affinity to aspects of the rock painting.

Particularly noted are affinities with the tradition of wall paintings on houses that seem to demonstrate a continuity of wall painting traditions with the images in the rock shelters – the most recent of which are probably a few hundred years old. Similar decorative elements are found on pots and other handcrafted items of everyday use.

These people also still use the resources of the forest at certain times of year for hunting and for gathering edible produce – as illustrated in the cave paintings.

Clearly more ethnographical studies are needed to reinforce these preliminary studies.

Forests surrounding the rock paintings: The nomination does not detail particular qualities of the natural environment – which is described as ‘pristine’. An inventory of trees is given together with a list of edible plants – flowers, tubers, fruits – and the animal species, which thrive in the protected Ratapani Wildlife Sanctuary – mammals, reptiles, birds and insects.

History

The site complex was discovered by V S Wakankar in 1957. Almost a hundred years earlier in 1867 rock paintings had been discovered in Uttar Pradesh and the first scientific article on Indian rock paintings was published by J Cockburn in 1883. Bhimbetka was first mentioned in 1888 as a Buddhist site – from information obtained from local adivasis.

Two shelters were excavated in 1971 by Bajpai, Pandey and Gour. The following year a systematic survey of the wider area from Kari Talai to Jaora was undertaken by Wakankar. His classification into seven topographical areas (I-VII), within which clusters of shelters were numbered alphabetically, and individual shelters given Arabic numeral, is still followed. This survey identified 700 shelters of which 243 are in the Bhimbetka group. It also showed the Lakha Juar Group to be as rich as Bhimbetka in rock paintings, with 178 shelters spread over two hills.

So far excavations have been limited to Bhimbetka. Between 1972 and 1977 excavation undertaken by Wakanakar, Misra and Hass revealed a continuous sequence of Stone Age cultures from the Late Acheulian to the Late Mesolithic and also some of the world’s oldest stone walls and floors. Wakanakar revealed stratified deposits including Chalcolithic pottery, which indicated contact with Chalcolithic man on the neighbouring plains.

The excavated material has been examined to establish sequence and typology for stone tools. So far there is no conclusive corroboration between the excavated material and the wall paintings – for which absolute dates have not been established. Nevertheless circumstantial evidence from pigments in deposits and images that indicate pre-agricultural societies, together with similarities with pottery patterns of the Calcolithic Malwa ware, indicates that the earliest paintings are from the Mesolithic period. A broad chronology has been established but more work is needed to establish a detailed chronology. Similarly the nature of the societies associated with the paintings is as yet little known.

And as has been mentioned earlier, no ethnographic work has been carried out on the surrounding villages to research links with the culture of the rock shelter sites.

Management regime

Legal provision:

The ownership of the nominated area and the buffer zone lies with the State Government of Madhya Pradesh. The core of the area has been declared as protected under the Ancient Monuments and Archaeological Sites and

Remains Act, 1958, and the Ancient Monuments and Archaeological Sites and Remains Rules (1959) apply.

The core area of the nomination also falls within the boundary of the Ratapani Wildlife Sanctuary, protected by the provisions of the Wildlife (Protection) Act, 1972, which is administered by the Department of Forest, Government of Madhya Pradesh.

Parts of the buffer zone have legal protection under the Indian Forest Act, 1927, the Wildlife Protection Act, 1972 and the Forest (Conservation) Act, 1980.

In the buffer zone some lands are Revenue lands, administered by the Department of Revenue. These lands, which comprise mainly agricultural lands and villages, are not protected by the legislation that protects the core area and forest and sanctuary zones. However, various government programs developed for these lands are complementary to the planned management of the greater area.

The nomination dossier provides copies of relevant pieces of legislation and their respective provisions and regulations, as well as copies of revenue lands records.

Management structure:

Section 3 of the nomination document outlines the management history and context (research, notification and strategies, land tenure documents, management issues, demographic statistics) and the general approach to management. A separate Management Plan provides maps.

Management of the core area (as a declared monument of national importance) is the responsibility of the Archaeological Survey of India (ASI). As the core and buffer areas fall within the boundaries of reserved/protected forest/Ratapani Wild Life Sanctuary, the Government of Madhya Pradesh through the Department of Forest is a major partner in management of ecological and environmental aspects. The Department of Revenue of Madhya Pradesh is also a partner in the management system with respect to Revenue lands.

The nomination document lists the officers responsible at the regional and local levels for the implementation of management policy.

Phase 1 of Management Plan is co-ordinated by a special Bhimbetka unit chaired by the Director General of ASI. The unit has a local committee in Bhopal headed by the Superintending Archaeologist, with representatives from the state departments, which are partners or stakeholders in management. It is proposed that in the next stage of the management plan an autonomous body will be set up as the management authority.

Management Plan

The Plan is an aspirational document that outlines approaches, proposed methodologies and intended programmes rather than detailing those programmes.

Three major components are identified as the basis of management:

- Cultural content;
- Ecology and environment;
- Adivasi settlements/villages.

The management plan has two parts:

- Phase 1: survey and collection of primary data relating to the three major components (in progress; co-ordinated by the ASI)
- Phase 2: development of detailed proposals after the completion of phase 1 and implementation of these through administration by an autonomous authority, executive committee and implementation committee.

Phase 2 will therefore become the detailed Management Plan.

The nomination states that direct protective policies are being formulated by ASI in the context of legislation (re physical interventions, restrictions and regulations) and these are aimed at conservation of cultural relics, geomorphological features and visitor management. Indirect measures are also being put in place, which relate to the coordination of policies with the authorities of Madhya Pradesh (Department of Forest, Department of Tourism, and Department of Revenue).

For the revenue lands, government programmes have been devised to develop sustainable economic activities, which will help reduce the dependence of village people on the natural resources of the protected zones, and will support management policies for the nominated area. Programmes include the Rajiv Gandhi Watershed Management Mission that was set up in 1994 for the purpose of environmental management and poverty reduction. The programme has been adopted for the 21 villages of the buffer zone, and it seems to be linked with the Joint Forest Management Programme to conserve the resources of the protected forest and sanctuary areas.

The tourism development plan, in Phase 2, indicates proposed strategies for development of tourist infrastructure and visitor management.

Resources:

The ASI has an annual budget for the maintenance and preservation of the protected monument. This budget provides for:

- Maintenance
- Visitor facilities
- Conservation of shelters, paintings archaeological deposits and architectural features
- Documentation, exploration and excavation

The department of Forests, the government of Madhya Pradesh, also provides an annual budget for the protection, preservation and maintenance of the protected forest and the Ratapani Wildlife Sanctuary.

Once the management plan proposals have been finalised and agreed, the ASI has made a commitment to provide an adequate budget for the overall management and conservation of the site according to the projections made in the plan.

Justification by the State Party (summary)

The site complex is a magnificent repository of rock paintings within natural rock shelters.

It displays archaeological evidence of habitation and lithic industry from the Palaeolithic and Mesolithic periods, through the Chalcolithic to the medieval period.

The paintings appear to date back at least to the Mesolithic period and to have been continued into the historical period. Together, the paintings and archaeological evidence provide an undisturbed continuous sequence of living culture from the Stone Age to within the last few hundred years.

The richness and variety of the large concentrations of paintings, within a site that demonstrates a progressive sequential use throughout the ages, remains unparalleled.

While the contents of the shelters have revealed a continuity of habitation, cultural elements of this are also observed in the continuing traditional lifestyle of the adivasi villages in the surrounding buffer zone. These settlements also still manage to maintain an ecological balance with the surrounding forests, which have been a key resource for the peoples associated with the rock shelters over the past 100,000 years.

3. ICOMOS EVALUATION

Actions by ICOMOS

An ICOMOS evaluator visited the site in November 2002.

Conservation

Conservation history:

Cultural qualities: Apart from archaeological excavation carried out in the 1970s and the subsequent analysis of finds, little evidence is given in the nomination of conservation of cultural aspects of the site.

There is no complete inventory of the rock paintings and no conservation work has been carried out nor has there been any assessment of need. The nomination does indicate that some paintings are suffering from exposure to sunlight, damage by water ingress, by algae or by vandals.

Natural qualities: Forest records detail the diversity of flora and fauna in the forest areas. It is not clear how illegal felling is monitored or recorded. Not is it clear how other natural indicators – such as water levels – are monitored. No indication is given of active conservation work in the area.

Management:

The nominated area receives adequate legal protection under a range of cultural heritage and environmental legislation.

The evaluation focused on the contextual aspects of management, practical methods of policy implementation and current progress with management goals as outlined in the nomination and management plan.

The evaluator made visits to three major complexes of the core area, the village of Amchha in the buffer zone and to

Raisen and Shamala Hills rock shelters outside the area of this nomination. Comparisons were also made with Sanchi (a World Heritage listed, early Buddhist, site administered by ASI) and two protected cultural heritage sites (Bhojpur and Islamnagar) managed by the State of Madhya Pradesh.

At Bhimbetka it appears that significant steps have been taken with respect to the implementation of protective legislation and with some of the management programmes outlined in the plan, such as survey and research, visitor management, forest protection, other environmental management.

The diversity of interests and stakeholders involved in the nominated area- various national and state government agencies and departments, and local communities -presents a complex situation for management. Effective communication and co-ordination (including integration of the cultural, archaeological and environmental programs) will be crucial to successful management.

The Government of Madhya Pradesh, through the Department of Culture and Tourism, performs a key role in co-ordinating the functions of the ASI with the various State authorities, in particular the Department of Forest and the Department of Revenue. An effective working relationship appears to exist between the ASI and the Department of Culture and Tourism and other state authorities, for this purpose. Quarterly Evaluation Meetings will be held in Bhopal to evaluate the progress of work assigned to each of the different departments.

Conservation of the forest and natural environment are crucial aspects of the nomination. Current and planned programmes for the buffer zone appear to have great potential for environmental regeneration and community development; however, as environmental goals may take some time (and much co-ordination and consultation) to achieve, short-term strategies to protect the forest and other values are also required. The way local communities will be linked through the various buffer zone programs was made clear to the evaluator. However it was less apparent how they will connect in a practical way with the activities of the core area. Balancing and integrating the local economy with conservation/management is a major challenge.

Strategies for basic tourist management have been implemented, but additional and upgraded measures are required. Sites that are not currently open to tourism should remain closed, as there are no protective measures in place. As the management plan indicates, visitor numbers and impacts should be monitored and regulated. Forward planning (Phase 2) includes strategies to manage anticipated increases in tourist numbers including the construction of a visitor centre. It is important that, as proposed, the visitor centre and associated facilities are constructed outside the core area.

A major Phase 2 objective is the acceptance of the management plan in its final form by all stakeholders. It appears that adequate preparation and planning has been undertaken to serve as the basis for developing a comprehensive management plan. This will need to include systems to assess, monitor and review conservation and management strategies for both natural and cultural values. Help with engaging stakeholders could perhaps usefully be provided through the provision of other WHS Management

Plans that have been developed through co-operative planning with a range of stakeholders.

Overall, as there are so many stakeholders and programs involved, it is apparent that the co-ordinating roles of ASI and the Department of Culture and Tourism of Madhya Pradesh are critical.

Risk analysis:

Rock shelters: Apart from natural weathering – which shows no signs of accelerating – various published article have drawn attention to other threats to the rock shelters and paintings. These include inappropriate levels of uncontrolled visitors; flooding of deposits from monsoon rains; effects of nest building insects; sooty deposits from fires; disturbance of floors by wild animals; and soil erosion as a result of pastoral activities. These have not had a major impact, but implementation of the management plan is crucial to addressing these vulnerabilities in the future. In particular, the completion of a detailed inventory of the rock paintings and of their condition is urgently needed, as well as research into the water flows in the catchment area (see below).

Farming practices: Officers consulted during the evaluation confirmed that illicit cattle grazing (ass opposed to regulated grazing in the wildlife sanctuary area) is a major issue affecting the values of the nominated area. ASI is considering erecting a fence around the nominated area. Longer-term strategies for the buffer zone are proposed in part 2 of the management plan.

Forest cover: Forest cover is a key factor in preventing land degradation (quite apart from its cultural values). It protects rock surfaces (and rock art) from the effects of wind, sun and rain. Denudation of forest cover through the felling of trees continues to be an occasional problem within the wildlife sanctuary, though the Department of Forest enforces protection through rangers and guards. However outside the wildlife sanctuary, tracts of reserved and protected forest – particularly to the north of the buffer zone – have suffered denudation and felling. Poaching and cattle encroachment – in spite of protective measures- also remain a problem. Additional guards may be needed to prevent further loss of the forest cover and natural values.

Water: The Bhimbetka hills form a watershed for the Betwa and Narmada rivers, which provide the main source of water for the region. The nomination acknowledges a significant drop in the water levels due to ‘excessive tapping’ arising from population increases. The quality and flow of water in local springs has also deteriorated. The pollution of watercourses by cattle seems to be a major problem. Monitoring and fencing will help with this latter problem but more wide-ranging solutions are needed to gain a sustainable approach to water usage. Research into the supply and use of water within the whole water catchment area should be considered. At the moment such a wide-ranging survey is not envisaged in the management plan.

Community life: Risk to the integrity of local adivasi culture in the 21 surrounding villages is apparently quite high, as mounting economic and developmental pressures encourage people to move to the towns. Also new settlers from other regions are beginning to appear in the area. Although change is gradual at the moment, it could easily gain momentum. It is therefore vital that ethnographic

studies are undertaken as a high priority with a view to putting in place sustainable development practices that aim to provide incentives to keep people in the area, through sustaining key aspects of the local culture.

Such opportunities for linking cultural heritage parameters to development are not envisaged in the management plan.

Authenticity and integrity

The nomination dossier does not examine in any depth the concept of authenticity/integrity with respect to Bhimbetka as a cultural landscape. It refers briefly to geomorphological and ecological features as indicators of authenticity and integrity and says that the site is 'undisturbed and 'artificially unaltered' and that change has been only through the forces of nature.

Unquestionably, the essential geological character of the rock shelters remains uncompromised. However, as indicated in the nomination, there is a range of evidence for various sustained impacts upon the natural and cultural values of the nominated area. Many of these are implicit in the concept of a continuing cultural landscape. Understanding and acknowledging these processes - some of which will be part of the significances of the cultural landscape - is vital to the management of the area.

Rock shelters: Taken on their own the rock shelters and associated rock paintings are extraordinarily well preserved, both from a cultural and geomorphological point of view - largely because they remained unknown to the outside world until just over 50 years ago - and thus have a very high degree of authenticity.

Wider cultural Landscape: If one however extends the site to include all the elements of the cultural landscape, the picture looks slightly different - both from the point of view of authenticity and possible threats to that authenticity.

The cultural landscape should include sufficient elements of the interrelated factors that go to make up the cultural landscape to allow the site as a whole to have authenticity.

The significance of the Bhimbetka cultural landscape is about the connection between the people who created the rock art and the way they sustained a living from the surrounding countryside over many millennia. It is also about the way people have apparently shifted from living near the rocks to the villages in the surrounding areas - but still keeping their cultural links, particularly in the use of natural resources and in their artistic forms. The cultural qualities of the landscape are about sustainable management of local resources over a very long time span, and about the way landscape inspired art.

What is problematic in the nomination (and this is referred to again later) is the fact that part of the key significances of the cultural landscape is outside the nominated area - villages who use the landscape and archaeological remains linked to the rock paintings.

The nominated area is more suited to a nomination for a relict cultural landscape - one where evolution has stopped. This would fit the idea that after some point in time - perhaps four or five hundred years ago, the painting of rock shelters ceased. The nominated area would then

include the most of the corpus of rock art and would present a very authentic relict cultural landscape.

However, the nomination is for an evolving cultural landscape and therefore authenticity has to be seen in all the key elements of this dynamic cultural entity. The following elements of the landscape need therefore to be scrutinised for authenticity: natural landscape as a cultural resource; cultural traditions of the communities living within the landscape, in terms of how they relate to the rock paintings and the surrounding natural landscape, and evidence for pre-historic links between the rock shelters and the wider landscape.

Natural Landscape as a cultural resource: The natural landscape appears to have provided abundant food and other materials for the residents of the wider Bhimbetka landscape for many millennia. The fact that the landscape has survived largely intact reflects a sustainable use of those resources. The nomination document lists the wide range of edible fruit, tubers and flowers harvested by the local people as wild food, together with wild honey gained from the forest - depicted in several of the rock paintings, and the wild animals hunted for food also shown in the images. The forest would also have been used for a certain amount of grazing and to provide shelter for domesticated animals.

The hunting and gathering practices of the people now living in the villages is undoubtedly still there as an authentic element of their traditions, but very much under threat due to increase in population and the diminishing forest resource. It is also further threatened by the proposal to fence off the nominated area to stop excessive cattle grazing.

If the authentic nature of the relationship between people and the forest is to be sustained, then people must still have access to the forest. To achieve this, a fundamental strategy is needed to limit the number of people using the forest so that it can continue to be used as a sustainable resource.

Secondly enough of the ancient forest lands need to be included to make the association viable. At the moment certain areas of the Ratapani Wildlife Sanctuary appear to be excluded from the nomination area as are some protected forest areas - although both are in the buffer zone, while other parts of the Ratapani Sanctuary such as the Ratapani Reservoir, are excluded from both and the buffer zone. Also parts of the buffer zone include areas recently denuded of forest cover.

What is needed is an appraisal of the ecological unit needed to create a manageable area, which can sustain certain uses by people as well as the inherent natural components, and which is also large enough area to have a beneficial impact on water resources.

The area of forest put forward in the nomination area is considered by the evaluator as being the minimum need to sustain the natural values as a basis for the conservation of the area. That view relies on people being excluded largely from the area. If the forests are to have a more symbiotic relationship with people, in order to sustain the authenticity of the link between people and forests, then it could be argued that a larger area is needed.

Archaeological evidence: The nomination highlights the fact that preliminary evidence of prehistoric campsites, which may have a link with the rock shelters have been found in the plains as well as in the riverine belt. The proposed management plan will have a section dealing with the widening of the ambit of research to consider the social links across the land. This has implications for the boundary of the nominated site and also for the authenticity of the protected cultural landscape.

Painting styles: A vital link between the rock painting and the people living in the villages is the stylistic similarities between their house and handicraft decorations and the rock art in the shelters. This is a very authentic link at the moment unforced by awareness of the link. How to sustain that link as something dynamic is a considerable challenge. But to do so would involve people in the village being part of the living forest and still related to the rock culture area. It would mean trying to sustain their traditions and trying to find a way of allowing them to remain attached to the area in numbers that allowed sustainable contact and still provided them with a living.

The authenticity of the link between the past painting styles and the present handicraft styles needs to be sustained through the two parts being within the nominated area.

Comparative evaluation

Comparisons can be made of Bhimbetka with other rock shelter art sites in India and around the world. Rock shelter art sites are not arbitrary – they rely on certain geocultural features and are quite distinct from ‘open air’ rock art on boulders and rock faces.

In India sites extend from the Himalayas to the far south with the greatest concentration being in the quartzitic belt of central India, including some in Madhya Pradesh. These others do not compare with Bhimbetka in terms of density of paintings, cultural continuity, variety and preservation of images and environmental values of the surrounding vegetation.

It would be logical to compare patterns of Bhimbetka rock painting sites with those of other significant regions of sandstone rock shelter art such as Kakadu National Park (Australia), or uKhahlamba/ Drakensberg Park of South Africa. However, these areas are many times the size of Bhimbetka.

It is unquestionable that the Bhimbetka area contains a major corpus of rock art, which, like other bodies of sandstone rock art, survives in various states of preservation. Although empirical data on site densities in major rock art regions is sparse, it is clear that the stated density of distribution (several hundred painted shelters in an area of 1,892 hectares or c. 19 km sq) is comparable with other significant regions of sandstone rock art such as Kakadu National Park and the Drakensberg Park in South Africa and the Laura region in north-eastern Australia.

Although many rock shelters are rich cultural repositories it is unusual for them to preserve sequences as lengthy as the Bhimbetka shelters, in combination with rock art.

Although there are a number of World Heritage listed prehistoric sites, those suitable for comparison, particularly

in Asia, are relatively few. The site of ‘Peking Man’ in Zhoukoudian, China, has remarkable evidence of human evolution and a long cultural sequence, but lacks the element of parietal (wall) art. There are some 20 properties with rock art features inscribed on the World Heritage list, but they are very diverse. Although other World Heritage properties also have rock art of very substantial antiquity, it appears that few have confirmed *cultural contexts*, which compare in antiquity, or continuity, with those nominated at Bhimbetka.

Outstanding universal value

General statement:

Bhimbetka is a dramatic area of sandstone outcrops, surrounded by comparatively dense forest, which rise above the central Indian plateau. Its universal value lies in the way a dense collection of rock paintings within rock shelters provide an apparently undisturbed and continuous sequence of living culture from the Stone Age to the historical period, and also in the cultural continuity between the rock shelter art and the culture of the local surrounding villages in art and in hunting and gathering traditions.

A key issue, however, is whether the area nominated is sufficiently wide to encompass these values

Evaluation of criteria:

The nomination proposes Bhimbetka as a cultural landscape. Although it does not explicitly state which type of cultural landscape is proposed, the nomination suggests ‘cultural landscape’ sub-category ii ‘a continuing landscape’.

No criteria are cited in the nomination for evaluating Bhimbetka. It is suggested that *criteria iii* and *v* could be appropriate:

Criterion iii: The significance of Bhimbetka is connected to the way people have interacted with the landscape and how aspects of that interaction have persisted over a very long time-span. The rock art images demonstrate hunting and gathering traditions that still persist in a modified form in the local villages. The tradition of painting symbols and pictures, seen in huge quantities and spanning many millennia in the caves, is still carried on in local villages on shrines and on houses.

The Bhimbetka landscape thus bears testimony to a cultural tradition closely linked to the locality of the caves. The quantity and quality of the rock art make that testimony exceptional.

Criterion v: The Bhimbetka landscape is closely associated with a hunting and gathering tradition, which has an extremely long connection with the area (as documented by the rock art), and is still part of the culture of the local *adivasi* villages surrounding the rock art site. Persistence of hunting and gathering traditions is now extremely rare anywhere in the world and yet once they were widespread. Bhimbetka is thus of value for the way it can still represent this way of life, although hunting and gathering is no longer a dominant part of the economy.

4. ICOMOS RECOMMENDATIONS

Recommendation for the future

Unquestionably the nominated area and buffer zone, which includes hills and plateaux, valleys, springs and creeks, gullies, low lands, agricultural lands, tribal villages, and forested and deforested areas represents a complex cultural landscape which has evolved over thousands of years.

However, it is clear that the Bhimbetka cultural landscape has been, and is, much more extensive than the core, nominated area of the rock shelters. By including a broader spatial context that incorporates a variety of topographic, ecological and cultural features, the nominated area could express more faithfully the totality of the Bhimbetka landscape over time.

The nomination together with the management plan raises key issues over both cultural and natural sustainability of the Bhimbetka area. Its value and significance are related to the strong association between people and the local landscape over many millennia. There are however forces working to break down that association – connected to over-grazing, reducing water levels and the gradual drift away from the area by the local people.

If Bhimbetka is to be managed as a cultural landscape, which aims to sustain its universal values, then management will need to address cultural, natural, social and economic issues. It will also need to encourage management that draws together these aspects in a sustainable way.

The evaluator considered that the nominated area was the absolute minimum needed to reflect the values of Bhimbetka as a site of universal value. What is in doubt though is whether the comparatively tightly drawn area of the nomination would provide sufficient resources to tackle the threats to the area and put in place a sustainable management regime.

Another aspect of the boundary relates to the corpus of rock paintings in the area and whether the suggested boundary reflects what is seen as the Bhimbetka group of paintings.

Recommendation with respect to inscription

It is recommended that the nomination be *deferred* to allow the State Party to provide additional information in order to clarify the following:

- How community involvement in the nominated area will be organised in order to sustain the traditional interaction between people and landscape in matters relating to the use of forest resources and the continuation of artistic traditions
- How the apparently very ancient traditions associated with the area can be recorded and documented to inform ways of sustaining them
- Whether the proposed boundaries of the nominated area provide sufficient resources to allow sustainable cultural and environmental development
- How a 'layered' approach to landscape management can be provided to allow different degrees of involvement from stakeholders involved in the property, within an overall integration of efforts
- Whether the nominated area encompasses the majority of the Bhimbetka corpus of rock paintings

Consideration should also be given to changing the name of the nomination to the Bhimbetka Cultural Landscape to reflect the wider issues involved.

ICOMOS, March 2003

Abris sous-roche du Bhimbetka (Inde)

No 925

1. IDENTIFICATION

<i>État partie :</i>	Inde
<i>Bien proposé :</i>	Abris sous-roche du Bhimbetka
<i>Lieu :</i>	Madhya Pradesh
<i>Date de réception :</i>	29 janvier 2002
<i>Catégorie de bien :</i>	

En termes de catégories de biens culturels telles qu'elles sont définies à l'article premier de la Convention du patrimoine mondial de 1972, le bien est un *site*. Aux termes de l'article 39 des *Orientations devant guider la mise en œuvre de la Convention du patrimoine mondial*, il s'agit aussi d'un *paysage culturel*.

Brève description :

Le bien proposé pour inscription se trouve au pied des monts Vindhyan, au sud du plateau de l'Inde centrale. Cinq groupes d'abris sous-roche naturels sont situés au sein d'énormes affleurements de grès, au-dessus d'une forêt relativement dense, et présentent des peintures qui semblent commencer au mésolithique pour se poursuivre sans interruption jusqu'à la période historique. La zone tampon abrite vingt et un villages, où vivent des populations dont les traditions culturelles contemporaines ne sont pas sans rappeler celles qu'évoquent les peintures rupestres.

2. LE BIEN

Description

Le site d'abris sous-roche du Bhimbetka proposé pour inscription se trouve dans les monts Vindhyan, une région où des formations de grès aux formes massives s'agglutinent autour de la colline de Bhimbetka, repère aisément identifiable, à 45 km au sud de Bhopal.

La région possède des ressources naturelles abondantes : eau en permanence, abri naturel, flore et faune arboricoles d'une grande richesse et, comme les régions similaires où l'on trouve de l'art rupestre (par exemple le parc national de Kakadu en Australie ou Kondoa Irangi en Tanzanie), ces conditions d'abondance semblent avoir favorisé, outre un art rupestre de qualité, le développement de sociétés durables et pérennes.

La zone proposée pour inscription couvre 1 893 hectares et est entourée d'une zone tampon de 10 280 hectares.

Le site inclut cinq groupes d'abris sous-roche – un grand ensemble se trouvant à l'intérieur de la zone tampon. Les abris sous-roche affichent des traditions de peintures rupestres de longue date, couvrant la période entre le mésolithique et l'ère historique. Les sujets muraux sont pléthoriques, riches et variés et forment l'une des collections d'art rupestre connues les plus denses (400 abris peints sur 19 km²).

La zone tampon comprend 21 villages dont la culture semble indiquer une continuité remarquable avec l'art rupestre et les traditions de chasse et de cueillette que décrivent les peintures. Beaucoup d'abris sous-roche de la zone proposée pour inscription se trouvent au cœur d'une forêt relativement dense à la flore et à la faune très variées, que cueillent encore aujourd'hui les populations locales.

Globalement, le paysage du site proposé pour inscription est d'une grande qualité esthétique, du fait de la beauté des formations rocheuses sculptées par la nature et de la végétation boisée, luxuriante et dense qui fait contraste avec elles : ensemble, elles font de ce site un endroit hors du temps.

- Accès du public

Une partie du site est désormais ouverte au public, ce qui a imposé la construction de chemins et de rampes, la mise en place de panneaux, de routes d'accès et de pistes. Ces interventions se limitent essentiellement à une partie de la zone principale. Les travaux entrepris jusqu'à présent l'ont été avec un certain respect des valeurs naturelles et culturelles de la zone. Le développement des infrastructures, et notamment des routes, a été limité au strict minimum. Le site conserve ainsi un aspect « naturel », et on n'y trouve généralement pas d'installations et de structures inappropriées.

- Limites

Le bien proposé pour inscription se divise en deux zones, l'une plus grande (contenant les collines II à IV) et une seconde beaucoup plus petite (colline I). Toutes deux sont séparées par la nationale 12 Bhopal-Hoshangabad et la ligne centrale de chemin de fer. N'eût été la route, un site contigu aurait été plus logique.

Le dossier de proposition mentionnait cinq groupes d'abris, et un sixième dans la zone tampon. En l'absence de carte représentant la distribution des abris sous-roche dans la zone proposée pour inscription, il est difficile de dire si les limites fixées pour le site sont ou non adéquates, et de comprendre l'omission du sixième groupe. Les délimitations suggérées semblent apporter une réponse pragmatique à la difficulté de définir le paysage culturel du Bhimbetka dans le contexte de la multiplicité et de la complexité des statuts de protection juridique, du statut de propriété de la zone et de l'occupation des sols du site.

Le dossier indique que les limites de la zone tampon ont été définies par l'examen des secteurs forestiers protégés et des réserves forestières (eux-mêmes délimités par l'office des forêts) et des limites des villages. Les zones délimitées ne sont pas marquées au sol par des frontières visibles, et certaines des limites ne correspondent pas non plus à

d'autres désignations statutaires, telles que la réserve naturelle de Ratapani.

La mission qui s'est rendue sur le site a souligné également l'existence d'autres abris ornés de peintures rupestres à l'orée de la zone tampon, à l'ouest.

Une grande partie du bien proposé pour inscription se trouve dans les limites de la réserve naturelle de Ratapani, qui abrite une faune d'une grande variété. Cependant, le bien proposé pour inscription n'englobe pas le grand lac de Ratapani, qui se trouve juste à l'extérieur de la zone tampon, à l'est.

Description détaillée :

Le bien proposé pour inscription comprend plus précisément :

- 400 abris sous-roche ornés de peintures rupestres, et réparties en cinq groupes ;
- Des vestiges du paléolithique provenant de fouilles faites dans les habitations et indiquant l'ancienneté du peuplement humain ;
- Des murs et des sols datant de l'âge de la pierre et de l'âge du fer dans les abris sous-roche ;
- Les preuves d'une très longue continuité culturelle pour beaucoup des abris sous-roche ornés de peintures murales ;
- Les indications de liens étroits entre les peintures du Bhimbetka et la culture des villages de la zone tampon ;
- La forêt autour des sites de peintures rupestres.

- Cinq groupes d'abris sous-roche ornés de peintures rupestres :

Le dossier de proposition d'inscription mentionne que « le site abrite une magnifique collection de peintures rupestres, dans des abris sous-roche naturels ». Aucun inventaire détaillé n'est fourni (bien que le dossier indique que 133 abris peints ont été documentés), non plus qu'aucune analyse de la portée ou de la teneur des peintures – on ne peut donc énoncer que les propos généraux ci-après.

Essentiellement en blanc et rouge, les peintures répertorient principalement les espèces animales de la forêt alentour, tout en dépeignant les diverses facettes économiques et sociales de la vie quotidienne. Les images représentent entre autres des espèces animales disparues, des créatures mythiques, des animaux domestiques, des charrettes et des chariots, des motifs, des inscriptions et des symboles bouddhistes de l'ère historique, ainsi que des récits picturaux, narrant par exemple de longues processions d'hommes montés sur des chevaux et des éléphants caparaçonnés ou des scènes de bataille.

Certaines peintures ne contiennent que peu d'images, et d'autres plusieurs centaines. Les scènes dépeintes vont des plus réalistes aux plus stylisées, graphiques, géométriques

ou décoratives. Leurs dimensions sont variables : la plus petite fait cinq centimètres, la plus grande est une immense représentation, au plafond, d'un animal de presque cinq mètres de long et deux mètres de large.

Du point de vue stylistique, elles s'apparentent étroitement à un style régional de peinture rupestre propre au centre de l'Inde et bien documenté, mais comportent aussi de nombreuses caractéristiques typiques d'autres corpus majeurs d'art rupestre que l'on trouve aux quatre coins du monde.

- Vestiges paléolithiques du peuplement humain :

Un nombre considérable de fouilles archéologiques ont déjà eu lieu dans les abris sous-roche du Bhimbetka, la plupart dans les années 70. Elles ont révélé des outils de pierre et autres instruments de l'ère paléolithique, ainsi que des relations entre Bhimbetka et les plaines avoisinantes.

Les habitants d'origine des grottes étaient probablement des chasseurs-cueilleurs dont les schémas saisonniers d'occupation des sols ont dû s'étendre bien au-delà des abris sous-roche (et de la zone principale, voire de l'ensemble de la zone proposée pour inscription). Les preuves archéologiques mettent en évidence des associations de Bhimbetka avec les alentours. Ainsi, on a identifié la source de matières premières de microlithes découverts dans les abris comme Barkhera, à 6 km au sud de Bhimbetka.

Les fouilles de Bhimbetka auraient aussi apporté de nouvelles preuves de la continuité des matériaux de fabrication des outils de l'âge de la pierre tout au long du paléolithique dans la région.

La tranchée III F (grotte de l'auditorium), d'une grande importance pour démontrer l'ancienneté et la continuité du peuplement humain dans la région, a été préservée afin d'être présentée au public dans un but éducatif.

- Structures de l'âge de la pierre et du fer :

Les fouilles ont également identifié une association entre un site de résidence principale et la construction d'enceintes et de murs de pierre datant du paléolithique inférieur. La continuité de cette ancienne pratique s'observe aussi dans plusieurs abris sous-roche, qui contiennent des murs et des sols de pierre égalisés, notamment des vestiges datés du IIe siècle avant J.-C. et des entrées en pierre relativement récentes, comme l'a remarqué l'expert parti en mission.

- Preuves d'une très longue continuité culturelle :

Dans au moins l'un des abris ayant fait l'objet de fouilles, le dossier d'inscription indique qu'on peut prouver une occupation permanente de 100 000 avant notre ère (Acheuléen tardif) à l'an 1000 après J.-C.

L'art rupestre du Bhimbetka n'a pas été directement daté (au moyen de techniques de datation AMS). Pour les dates les plus anciennes, les preuves sont donc le fruit d'associations, par exemple la présence de peintures dans des abris contenant des dépôts du Pléistocène, des pigments de peinture identifiés dans des séquences du Mésolithique et des images des peintures associées aux sociétés de chasseurs-cueilleurs et aux sociétés pré-agricoles.

Le contenu des peintures et leur analyse typologique, qui ont permis de définir, dans les grandes lignes, les périodes culturelles associées à des poteries trouvées ailleurs dans la région, prouvent une tradition durable et continue. S'y ajoutent des superpositions ou des chevauchements de peintures de différents styles et périodes, observés dans quantité d'abris. On a parfois compté jusqu'à quinze couches.

Des analyses de datation directe menées en collaboration avec des chercheurs australiens (sur lesquelles porte une partie de la phase I du plan de gestion) sont en cours. Ces travaux, qui comprennent l'échantillonnage récent des croûtes rocheuses de surface et de peintures du Bhimbetka et d'autres sites, visent à estimer l'âge de certains motifs, dont des cupules gravées.

D'après les connaissances actuelles, on estime que l'art rupestre date du mésolithique (il y a environ 10 000 ans) au chalcolithique (microlithique) et jusqu'à l'ère historique, le Moyen Âge et les périodes historiques récentes.

- Indications de liens étroits entre les peintures de Bhimbetka et la culture des villages locaux dans la zone tampon :

Quoique, comme le note le dossier de proposition d'inscription, on n'ait pas encore une idée très claire des sociétés jadis établies à Bhimbetka, il est clair que le paysage culturel du Bhimbetka était et demeure bien plus vaste que la seule zone des abris sous-roche. On trouve aux alentours des vestiges et des stupas bouddhistes en pierre taillée de la période Sunga, correspondant aux inscriptions du II^e siècle avant J.-C. dans les abris.

Les recherches faites sur la vie culturelle des villages avoisinants, dans la zone tampon, indiquent que les modes de vie traditionnels actuels des peuplements *adivasi* (indigènes) des Gonds, des Pradhans et des Korkus dans la région présentent des similitudes notables avec certains aspects des peintures rupestres.

On remarque en particulier des affinités avec la tradition des peintures murales dans les maisons, qui semble s'inscrire dans la continuité des images des abris sous-roche – dont les plus récentes ont probablement quelques centaines d'années. Des éléments décoratifs similaires se trouvent sur les pots et autres objets artisanaux quotidiens.

À certaines époques de l'année, ces gens continuent également d'utiliser les ressources de la forêt, chassant et cueillant des produits comestibles – comme l'illustrent les peintures rupestres.

Des études ethnographiques complémentaires sont clairement nécessaires pour renforcer ces études préliminaires.

- Forêts autour des peintures rupestres :

La proposition d'inscription ne détaille pas les qualités particulières de l'environnement naturel, simplement décrit comme « en parfait état ». Les arbres sont répertoriés, avec la liste des plantes comestibles - fleurs, tubercules, fruits – et des espèces animales qui s'épanouissent sous la protection de la réserve naturelle de Ratapani – mammifères, reptiles, oiseaux et insectes.

Histoire

Le site a été découvert par V. S. Wakankar en 1957. Presque un siècle auparavant, en 1867, on avait découvert en Uttar Pradesh des peintures rupestres ; en 1883, J. Cockburn publiait le premier article scientifique sur les peintures rupestres d'Inde. Bhimbetka a pour la première fois été mentionné en 1888 comme site bouddhiste, d'après des informations obtenues auprès d'adivasis locaux.

En 1971, Bajpai, Pandey et Gour ont fait des fouilles dans deux abris. L'année suivante, Wakankar a entrepris une étude systématique de la région de Kari Talai à Jaora. À ce jour, on continue de suivre sa classification, en sept zones topographiques (I-VII), au sein desquelles les groupes d'abris sont référencés par des lettres, et les abris individuels numérotés. Cette étude a identifié 700 abris, dont 243 se trouvent dans le groupe du Bhimbetka. Elle a également montré que le groupe de Lakha Juar était aussi riche en peintures rupestres que Bhimbetka, avec 178 abris répartis sur deux collines.

Jusqu'à présent, les fouilles se sont limitées à Bhimbetka. Entre 1972 et 1977, des fouilles entreprises par Wakanakar, Misra et Hass ont révélé une séquence continue de cultures de l'âge de la pierre depuis l'acheuléen tardif jusqu'au mésolithique tardif ainsi que certains des plus anciens murs et sols de pierre au monde. Wakanakar a mis au jour des dépôts stratifiés comprenant de la poterie du chalcolithique, ce qui indique des contacts avec l'homme chalcolithique des plaines voisines.

Les matériels mis au jour ont été examinés afin d'établir la séquence et la typologie des outils de pierre. À ce jour, rien ne vient corroborer de façon concluante le lien entre les matériels mis au jour et les peintures murales – pour lesquelles aucune date n'a été établie dans l'absolu. Néanmoins, les preuves circonstancielles tirées des pigments des dépôts et des images témoignant de sociétés pré-agricoles, ainsi que les similitudes avec les motifs des poteries chalcolithiques de Malwa, indiquent que les plus anciennes peintures datent du mésolithique. Une chronologie approximative a été établie, mais il faudra plus de travail pour la détailler. De même, on en sait encore peu sur la nature des sociétés qui ont réalisé ces oeuvres.

Et, comme ceci a déjà été dit, aucun travail ethnographique n'a été effectué sur les villages avoisinants pour rechercher des liens avec la culture des sites d'abris sous-roche.

Politique de gestion

Dispositions légales :

Le bien proposé pour inscription et la zone tampon appartiennent au gouvernement d'État de Madhya Pradesh. Le cœur de la zone a été déclaré protégé en vertu de la loi de 1958 sur les monuments anciens et les sites et vestiges archéologiques, et le Règlement sur les monuments anciens et sites et vestiges archéologiques (1959) s'appliquent.

La zone proposée s'inscrit dans les limites de la réserve naturelle de Ratapani, protégée par les dispositions de la loi (de protection) de la vie sauvage, 1972 et administrée

par le service des Forêts du gouvernement de Madhya Pradesh.

Certaines parties de la zone tampon sont sous protection juridique en vertu de la loi sur les forêts d'Inde, 1927, la loi de protection de la vie sauvage, 1972 et la loi de conservation des forêts, 1980.

Dans la zone tampon, certains terrains appartiennent au service des impôts et sont gérés par celui-ci. Ces terrains, essentiellement des terres agricoles et des villages, ne sont pas protégés par la législation qui protège le cœur de la zone, les forêts et les réserves. Toutefois, divers programmes gouvernementaux développés pour ces terrains sont complémentaires du plan de gestion de l'ensemble de la région.

Le dossier de proposition d'inscription fournit des copies des textes législatifs applicables, les dispositions et réglementations applicables, ainsi que des copies des registres cadastraux.

Structure de la gestion :

La section 3 du dossier de proposition d'inscription souligne l'historique de gestion et le contexte (recherche, notification et stratégies, titres de propriété des terres, problèmes de gestion, statistiques démographiques), ainsi que l'approche générale de la gestion. Un plan de gestion à part fournit également des cartes.

La gestion de la zone principale (en tant que monument déclaré d'importance nationale) est sous la responsabilité du *Archaeological Survey of India* (ASI). La zone principale et la zone tampon s'inscrivent dans les limites de la réserve forestière / de la forêt protégée / de la réserve naturelle de Ratapani, le gouvernement de Madhya Pradesh, via l'office des Forêts, est un partenaire essentiel de la gestion des aspects écologiques et environnementaux. Le service des impôts de Madhya Pradesh est aussi un partenaire dans le système de gestion, en ce qui concerne les terres lui appartenant.

Le dossier de proposition d'inscription dresse la liste des dirigeants responsables, au niveau régional et local, de la mise en œuvre de la politique de gestion.

La phase 1 du plan de gestion est coordonnée par une unité spéciale Bhimbetka, présidée par le directeur général de l'ASI. L'unité possède un comité local à Bhopal, dirigé par un archéologue en chef, avec des représentants des départements d'État, qui sont des partenaires ou des parties prenantes de la gestion. La mise en place d'une autorité de gestion autonome à la prochaine étape du plan de gestion a été proposée.

Plan de gestion :

Le plan est un document ambitieux qui dessine les grandes lignes, les approches, les méthodologies proposées et les programmes visés, sans les détailler vraiment.

Trois grands composants sont identifiés à la base de la gestion :

- Le contenu culturel
- L'écologie et l'environnement
- Les peuplements / villages Adivasi

Le plan de gestion se divise en deux parties :

- Phase 1 : inventaire et recueil de données élémentaires relatives aux trois grands composants (en cours ; l'ASI chargé de la coordination).
- Phase 2 : développement de propositions détaillées après achèvement de la phase 1 et la mise en œuvre de celles-ci sous l'égide d'une autorité autonome, d'un comité exécutif et d'un comité de mise en œuvre.

La phase 2 donnera donc naissance au plan de gestion détaillé.

D'après la proposition d'inscription, les politiques de protection directe sont formulées par l'ASI dans le contexte de la législation (interventions physiques, restrictions et réglementations) et visent à la conservation des reliques culturelles, des caractéristiques géomorphologiques et à la gestion des visiteurs. Des mesures indirectes sont également mises en place ; elles portent sur la coordination des politiques avec les autorités de Madhya Pradesh (office des Forêts, office du Tourisme et service des impôts).

Pour les terres appartenant au service des impôts, les programmes publics ont été conçus pour développer des activités économiques durables, qui aideront à réduire la dépendance des villageois aux ressources naturelles des zones protégées, et qui appuieront les politiques de gestion pour la zone proposée pour inscription. Ils englobent la mission de gestion de la ligne de partage des eaux Rajiv Gandhi, mise sur pied en 1994 aux fins de la gestion environnementale et de la réduction de la pauvreté. Le programme a été adopté pour les 21 villages de la zone tampon, et il semble lié au programme conjoint de gestion des forêts, qui vise à préserver les ressources des zones protégées des forêts et des réserves.

Le plan de développement touristique, en phase 2, explique les stratégies envisagées pour le développement des infrastructures touristiques et la gestion des visiteurs.

Ressources :

L'ASI dispose d'un budget annuel de maintenance et de préservation des monuments protégés, qui couvre :

- La maintenance
- Les installations des visiteurs
- La conservation des abris, des peintures, des dépôts archéologiques et des éléments architecturaux
- La documentation, l'exploration et les fouilles

L'office des Forêts du gouvernement de Madhya Pradesh, fournit aussi un budget annuel de protection, de préservation et de maintenance de la forêt protégée et de la réserve naturelle de Ratapani.

Une fois les propositions de plan de gestion finalisées et convenues, l'ASI s'est engagé à fournir un budget de

gestion et de conservation du site approprié basé sur les projections du plan.

Justification émanant de l'État partie (résumé)

Le site constitue une magnifique collection de peintures rupestres, dans des abris sous-roche naturels.

Il offre les preuves archéologiques d'habitation et de travail de la pierre depuis le paléolithique et le mésolithique jusqu'à l'époque médiévale, en passant par le chalcolithique.

Les peintures semblent remonter au moins au mésolithique et la tradition semble avoir perduré à l'époque historique. Avec les peintures et les preuves archéologiques se déroule la séquence continue et intacte d'une culture vivante depuis l'âge de la pierre jusqu'à il y a quelques siècles.

La richesse et la variété de ces grandes concentrations de peintures, dans un site qui démontre une utilisation séquentielle progressive au fil des âges, sont inégalées.

Si le contenu des abris a révélé une continuité d'occupation, on en retrouve également des éléments culturels dans le style de vie traditionnel qui a perduré dans les villages adivasi de la zone tampon environnante. Des peuplements qui sont parvenus à maintenir un équilibre écologique avec les forêts avoisinantes, qui ont toujours constitué des ressources essentielles pour les peuples associés aux abris sous-roche sur les 100 000 dernières années.

3. ÉVALUATION DE L'ICOMOS

Actions de l'ICOMOS

Une mission d'expertise de l'ICOMOS s'est rendue sur le site en novembre 2002.

Conservation

Historique de la conservation :

Qualités culturelles :

Hormis les fouilles archéologiques réalisées dans les années 70 et l'analyse consécutive des découvertes, la proposition d'inscription donne peu de preuves quant à la conservation des aspects culturels du site.

Il n'existe pas d'inventaire complet des peintures rupestres et aucun travail de conservation n'a été effectué ; les besoins n'ont pas non plus été évalués. La proposition d'inscription indique cependant que certaines des peintures pâtissent d'une exposition à la lumière du soleil, ou des dégâts provoqués par les infiltrations d'eau, des algues ou des actes de vandalisme.

Qualités naturelles :

Les registres des forêts détaillent la diversité de la flore et de la faune dans les zones forestières. Le mode de suivi ou

d'enregistrement de l'abattage illégal n'est pas clair, non plus que le mode de suivi des autres indicateurs naturels, tels que le niveau des eaux. Aucune indication n'est donnée quant à la conservation active dans la zone.

Gestion :

La zone proposée pour inscription fait l'objet d'une protection juridique adéquate, sous l'égide d'un éventail de lois sur le patrimoine culturel et la protection de l'environnement.

La mission d'expertise s'est concentrée sur les aspects contextuels de la gestion, les méthodes pratiques de mise en œuvre de la politique et les progrès actuels vers les objectifs de gestion définis dans la proposition d'inscription et le plan de gestion.

L'expert qui s'est rendu en mission a visité les trois principaux ensembles de la zone principale, le village d'Amchha dans la zone tampon et les abris sous-roche de Raisen et Shamala, à l'extérieur de la zone de la présente proposition d'inscription. On a aussi établi des comparaisons avec Sanchi, ancien site bouddhiste inscrit sur la Liste du patrimoine mondial, administré par l'ASI, et deux sites protégés du patrimoine culturel (Bhojpur et Islamnagar) gérés par l'État de Madhya Pradesh.

À Bhimbetka, il apparaît que des mesures importantes ont été prises à propos de la mise en œuvre de la législation de protection et de certains des programmes de gestion définis dans le plan, comme l'étude et la recherche, la gestion des visiteurs, la protection de la forêt et autre gestion de l'environnement.

La diversité des intérêts et des parties prenantes impliqués dans la zone proposée pour inscription – agences, services nationaux et étatiques, communautés locales - induit une situation complexe en matière de gestion. La communication efficace et la coordination (y compris l'intégration des programmes culturels, archéologiques et environnementaux) seront cruciales pour le succès de la gestion.

Le gouvernement de Madhya Pradesh, via le département de la Culture et du Tourisme, joue un rôle clé dans la coordination des fonctions de l'ASI avec les diverses autorités étatiques, en particulier l'office des Forêts et le service des impôts. Il semble exister une relation de travail efficace entre l'ASI et le ministère de la Culture et du Tourisme et les autres autorités d'État dans cette optique. Des réunions trimestrielles d'évaluation se tiendront à Bhopal pour évaluer le progrès des travaux assignés à chacun des différents départements.

La conservation de la forêt et de l'environnement naturel est un aspect crucial de la proposition d'inscription. Les programmes actuels et prévus pour la zone tampon semblent avoir un grand potentiel de régénération environnementale et de développement communautaire ; toutefois, comme les objectifs environnementaux peuvent nécessiter du temps (et beaucoup de coordination et de consultation), des stratégies de protection à court terme de la forêt et des autres valeurs s'imposent également. La façon dont les communautés locales seront liées via les divers programmes couvrant la zone tampon a été

clairement expliquée à l'expert en mission. En revanche, leur connexion pratique avec les activités de la zone centrale est moins évidente. Équilibrer et intégrer l'économie locale à la conservation et la gestion est un enjeu majeur.

Des stratégies élémentaires de gestion touristique ont été mises en œuvre, mais des mesures complémentaires plus pointues s'imposent. Les sites qui ne sont pas actuellement ouverts au tourisme doivent rester fermés, étant donné qu'il n'y a pas de mesures de protection en place. Comme le plan de gestion l'indique, le nombre et l'impact des visiteurs doivent faire l'objet d'un suivi régulier et d'un contrôle. La planification prévisionnelle (phase 2) comprend des stratégies de gestion des augmentations prévues du nombre de touristes, y compris la construction d'un centre de visiteurs. Il est important que, comme envisagé, le centre de visiteurs et les installations associées soient construits en dehors de la zone.

Parmi les objectifs majeurs de la phase 2 figure l'acceptation du plan de gestion sous sa forme définitive par toutes les parties prenantes. Il semble que la préparation et la planification adéquates aient été entreprises pour servir de base au développement d'un plan de gestion complet. Il faudra pour cela inclure les systèmes d'évaluation, de suivi et d'examen des stratégies de conservation et de gestion pour les valeurs naturelles et culturelles. La mise en place d'autres plans de gestion du patrimoine mondial développés grâce à la planification en coopération avec les diverses parties prenantes pourrait peut-être aider à l'implication de celles-ci.

Globalement, il y a tant de parties prenantes et de programmes impliqués que les rôles de coordination de l'ASI et du département de la Culture et du Tourisme du Madhya Pradesh sont clairement essentiels.

Analyse des risques :

Abris sous-roche :

Outre l'exposition aux intempéries – qui ne présentent aucun signe d'accélération, diverses publications ont attiré l'attention sur d'autres menaces pesant sur les abris sous-roche et les peintures rupestres : nombre trop élevé de visiteurs non contrôlés, inondation des dépôts par les pluies de la mousson, nids d'insectes, dépôts de suie des feux, perturbation des sols par les animaux sauvages, et érosion des sols du fait des activités pastorales. Elles n'ont pas eu encore d'impact majeur, mais il est crucial de mettre en œuvre le plan de gestion pour rendre les abris moins vulnérables à l'avenir. Plus particulièrement, il est urgent de réaliser un inventaire détaillé des peintures rupestres et de leur état, ainsi que des études sur les flux d'eau dans la zone du bassin hydrologique (cf. ci-dessous).

Pratiques d'élevage :

Les responsables consultés pendant l'évaluation ont confirmé que la mise en pâturage illicite de bétail (par opposition au pâturage réglementé dans la réserve naturelle), représente un problème majeur affectant les valeurs de la zone proposée pour inscription. L'ASI envisage de construire une clôture autour de la zone proposée pour inscription. La section 2 du plan de gestion

propose des stratégies à plus long terme pour la zone tampon.

Couverture forestière :

La couverture forestière est un facteur clé dans la prévention de la dégradation des terres (en dehors de ses valeurs culturelles). Elle protège les surfaces rocheuses (et l'art rupestre) de l'érosion du vent, du soleil et de la pluie. La déforestation par l'abattage des arbres reste un problème occasionnel dans la réserve naturelle, quoique l'office des Forêts la protège grâce à des rangers et à des gardes. Cependant, en dehors du sanctuaire, des zones de la réserve forestière et des forêts protégées ont souffert, particulièrement au nord de la zone tampon – de déforestation et d'abattage. Le braconnage et l'empiètement du bétail sur la zone demeurent eux aussi un problème, en dépit des mesures de protection. Des gardes supplémentaires pourraient être nécessaires pour empêcher d'abîmer davantage la couverture forestière et les valeurs naturelles.

Eau :

Les collines du Bhimbetka forment une ligne de partage des eaux pour la Betwa et la Narmada, qui constituent les principales sources d'approvisionnement en eau de la région. La proposition d'inscription reconnaît une baisse notable du niveau d'eau, du fait d'une « utilisation excessive » due à l'essor démographique. En outre, la qualité et le débit d'eau dans les sources locales se sont eux aussi détériorés. La pollution des cours d'eau par le bétail semble constituer un autre problème majeur. La surveillance et l'installation de clôtures devraient régler ce dernier problème, mais des solutions plus exhaustives sont nécessaires pour aboutir à une approche durable de l'usage des eaux. Des recherches sur l'alimentation et l'utilisation de l'eau dans la zone du bassin hydrologique devraient être une option à considérer mais pour l'instant, le plan de gestion n'envisage aucune étude d'une telle envergure.

Vie de la communauté :

Le risque pour l'intégrité de la culture adivasi locale dans les 21 villages environnants est apparemment assez élevé, les pressions conjuguées de l'économie et du développement encourageant les villageois à partir s'installer en ville. En outre, de nouveaux arrivants, venus d'autres régions, commencent à s'installer dans la région. Quoique le changement demeure pour l'instant progressif, il pourrait aisément gagner de l'ampleur. Il est donc vital d'entreprendre en priorité des études ethnographiques, afin de mettre en place des pratiques de développement durables visant à encourager les gens à rester dans la région, en soutenant les aspects essentiels de la culture locale.

Les possibilités de lier les paramètres du patrimoine culturel au développement ne sont pas envisagées dans le plan de gestion.

Authenticité et intégrité

Le dossier de proposition d'inscription n'examine pas en profondeur le concept d'authenticité / intégrité en ce qui

concerne le paysage culturel du Bhimbetka. Il évoque brièvement les caractéristiques géomorphologiques et écologiques comme des indicateurs d'authenticité et d'intégrité et déclare que le site est « intact et sans altération artificielle », et que les seuls changements constatés sont dus aux forces de la nature.

Incontestablement, le caractère géologique fondamental des abris sous-roche demeure en effet intact. Cependant, comme l'indique la proposition d'inscription, il existe plusieurs preuves d'impacts divers et soutenus sur les valeurs naturelles et culturelles de la zone proposée pour inscription, dont beaucoup inhérents au concept même de paysage culturel évolutif. La compréhension et la reconnaissance de ces processus dont certains feront partie des valeurs du paysage culturel sont vitales pour la gestion de la zone.

Abris sous-roche :

En eux-mêmes, les abris sous-roche et les peintures rupestres associées sont extraordinairement bien préservés, tant du point de vue culturel que géomorphologique – largement parce qu'ils sont restés inconnus du monde extérieur jusqu'à il y a une cinquantaine d'années – et présentent donc un degré élevé d'authenticité.

Paysage culturel :

Si l'on étend toutefois le site à tous les éléments du paysage culturel, l'ensemble prend un aspect légèrement différent, tant du point de vue de l'authenticité que du point de vue des menaces pesant sur cette dernière.

Le paysage culturel devrait inclure des éléments suffisants des facteurs associés qui composent le paysage culturel pour renforcer l'authenticité de l'ensemble du site.

L'importance du paysage culturel du Bhimbetka réside dans la connexion entre les peuples qui ont créé l'art rupestre et la façon dont ils ont tiré leurs ressources et vécu de la nature alentour sur plusieurs millénaires, mais aussi dans la façon dont ils sont apparemment passés de la vie près des rochers à l'installation de villages aux alentours, en conservant toujours leurs liens culturels, particulièrement dans l'utilisation des ressources naturelles et leurs formes d'expression artistique. Les qualités culturelles du paysage portent sur la gestion durable des ressources locales sur un très long laps de temps, et sur la façon dont le paysage a inspiré l'art.

Mais la proportion est problématique (nous y reviendrons encore plus tard) en ce qu'une partie des principaux points d'intérêts du paysage culturel se situent en dehors de la zone proposée pour inscription : il s'agit des villages qui utilisent le paysage et les vestiges archéologiques associés aux peintures rupestres.

Le bien proposé pour inscription conviendrait mieux à une proposition en tant que paysage culturel relique, dont l'évolution a cessé. Cela correspondrait à l'idée qu'à une certaine époque, il y a peut-être quatre ou cinq cents ans, la peinture des abris sous-roche s'est interrompue. La zone proposée pour inscription comprendrait alors la majeure partie du corpus d'art rupestre et représenterait un paysage culturel relique d'une grande authenticité.

Cependant, la proposition d'inscription favorise un paysage culturel vivant, et l'authenticité doit donc se retrouver dans tous les éléments clés de cette entité culturelle dynamique. Les éléments suivants du paysage doivent donc être étudiés du point de vue de l'authenticité : le paysage naturel en tant que ressource culturelle, les traditions culturelles des communautés associées au paysage, leurs relations avec les peintures rupestres et le paysage culturel environnant, et les preuves de liens préhistoriques entre les abris sous-roche et le paysage dans son ensemble.

Paysage naturel comme ressource culturelle :

Le paysage naturel semble fournir une nourriture abondante et d'autres ressources aux résidents de l'ensemble du paysage du Bhimbetka depuis des millénaires. Le fait que le paysage a largement survécu intact reflète une utilisation durable de ces ressources. La proposition d'inscription répertorie tous les fruits, tubercules et fleurs comestibles que cueillent les autochtones, ainsi que le miel sauvage qu'ils trouvent dans la forêt – dépeints dans plusieurs des peintures rupestres, et les animaux sauvages chassés, eux aussi représentés dans les peintures. La forêt aurait aussi été utilisée comme pâturage et pour abriter les animaux domestiques.

Les pratiques de chasse et de cueillette des villageois d'aujourd'hui constituent encore aujourd'hui, sans le moindre doute, un élément authentique de leurs traditions, mais sont toutefois menacées par la croissance démographique et la diminution des ressources forestières, de même que par la proposition d'enclorre la zone proposée pour inscription afin d'empêcher le pâturage excessif du bétail.

Pour conserver à la relation entre les hommes et la forêt son authenticité, les hommes doivent pouvoir continuer d'accéder à la forêt mais, pour ce faire, une stratégie fondamentale devrait s'imposer pour limiter le nombre de personnes y accédant, afin de permettre une utilisation durable de ses ressources.

Deuxièmement, il faut inclure suffisamment des anciennes forêts pour rendre l'association viable. Pour l'instant, certaines zones de la réserve naturelle de Ratapani semblent exclues de la zone proposée pour inscription, de même que certaines zones protégées de la forêt, bien qu'elles se trouvent dans la zone tampon, tandis que d'autres parties de la réserve naturelle de Ratapani comme le lac Ratapani sont exclues à la fois de la zone principale et de la zone tampon. En outre, certaines parties de la zone tampon englobent des zones récemment déboisées.

Une évaluation de l'unité écologique nécessaire pour créer une zone gérable, pouvant supporter certains usages ainsi que les composants naturels inhérents et également suffisamment grande pour un impact bénéfique sur les ressources en eau, est un impératif.

L'expert qui a effectué la mission considère la zone de forêt mise en avant dans la proposition d'inscription comme un strict minimum pour appuyer les valeurs naturelles comme base de la conservation de la zone. Cette opinion repose sur une exclusion quasi totale des hommes dans la zone. Si les forêts doivent entretenir une relation

plus symbiotique avec les hommes, afin de soutenir l'authenticité du lien entre l'homme et la forêt, on pourrait arguer qu'une zone plus grande est effectivement nécessaire.

Preuves archéologiques :

Le dossier souligne le fait que des preuves préliminaires de camps préhistoriques, qui pourraient avoir un lien avec les abris sous-roche, ont été trouvées dans les plaines, ainsi qu'autour des rivières. Le plan de gestion proposé comprendra une section traitant de l'élargissement du domaine de recherche pour considérer les liens sociaux dans la région, ce qui n'est pas sans répercussion pour les délimitations du site proposé pour inscription mais aussi pour l'authenticité du paysage culturel protégé.

Styles de peinture :

Les similitudes stylistiques entre les décorations des maisons et des objets d'artisanat des villageois et les peintures rupestres constituent un lien évident entre eux. C'est un lien très authentique pour l'instant, et qui n'est pas forcé par une quelconque conscience de cette connexion du côté des villageois. Cependant, le maintenir de façon dynamique constitue un défi considérable. Pour ce faire, il faudrait impliquer les villageois comme parties intégrantes d'une forêt vivante et toujours associée à la zone culturelle rupestre, ce qui impliquerait d'essayer d'entretenir leurs traditions et de trouver un moyen de leur permettre de rester dans la zone en nombre suffisant pour permettre un contact durable et des ressources.

L'authenticité du lien entre les styles de peinture passés et les styles artisanaux actuels doit être maintenue dans les peuplements se trouvant dans la zone proposée pour inscription.

Évaluation comparative

On peut comparer Bhimbetka à d'autres sites d'art rupestre en Inde et ailleurs. Les sites d'art rupestre troglodyte ne sont pas arbitraires, ils s'appuient sur certaines caractéristiques géoculturelles et sont assez différents des sites d'art rupestre en plein air sur des roches et des façades rocheuses.

En Inde, les sites vont de la chaîne de l'Himalaya à l'extrême-sud, la plus grande concentration se trouvant dans la région quartzitique d'Inde centrale, avec quelques-uns dans le Madhya Pradesh. Ces autres sites ne peuvent se comparer à Bhimbetka en termes de densité des peintures, de continuité culturelle, de variété et de préservation des images et des valeurs environnementales de la végétation avoisinante.

Il serait logique de comparer les motifs des sites du Bhimbetka à ceux d'autres grandes régions d'art rupestre sur grès, telles que le parc national de Kakadu (Australie), ou uKhahlamba / parc du Drakensberg, en Afrique du Sud. Toutefois, ces régions font plusieurs fois la superficie de Bhimbetka.

On ne peut contester que la région du Bhimbetka abrite un corpus d'art rupestre majeur qui, comme les autres corpus

d'art rupestre sur grès, subsiste à divers états de préservation. Quoique les données empiriques sur les densités dans les principales régions d'art rupestre soient rares, il est clair que la densité indiquée ici (plusieurs centaines d'abris peints sur une superficie de 1 892 hectares, soit près de 19 km²) est comparable à celle d'autres régions importantes d'art rupestre sur grès telles que le parc national de Kakadu et uKhahlamba / parc du Drakensberg en Afrique du Sud, ou la région de Laura, dans le nord-est de l'Australie.

Bien que bon nombre d'abris sous-roche soient de riches référentiels culturels, il est peu habituel d'en trouver qui aient préservé des séquences aussi durables que les abris du Bhimbetka, associé à l'art rupestre.

S'il existe plusieurs sites préhistoriques inscrits sur la Liste du patrimoine mondial, ceux qui sont comparables, particulièrement en Asie, sont relativement rares. Le site de l'« homme de Pékin », à Zhoukoudian, en Chine, présente des témoignages remarquables de l'évolution humaine et d'une longue séquence culturelle, mais l'élément d'art pariétal (mural) est absent. On compte une vingtaine de sites d'art rupestre inscrits sur la Liste du patrimoine mondial, mais ils sont très diversifiés. Quoique d'autres biens inscrits sur la Liste du patrimoine mondial présentent aussi de l'art rupestre très ancien, peu possèdent des *contextes culturels* confirmés comparables en âge ou en continuité à ceux proposés pour inscription de Bhimbetka.

Valeur universelle exceptionnelle

Déclaration générale :

Bhimbetka est une région spectaculaire, où des affleurements de grès sont entourés d'une forêt relativement dense, qui s'élève au-dessus du plateau d'Inde centrale. Sa valeur universelle réside dans sa dense collection de peintures rupestres troglodytes, qui représentent une séquence intacte et ininterrompue d'une culture vivante depuis l'âge de la pierre jusqu'à la période historique, ainsi que dans la continuité culturelle entre l'art rupestre et la culture des villages locaux environnant en matière de traditions artistiques, de chasse et de cueillette.

Une des questions essentielles est cependant de savoir si le bien proposé pour inscription est suffisamment vaste pour englober ces valeurs.

Évaluations des critères :

Le dossier propose Bhimbetka comme paysage culturel. Quoiqu'elle ne précise pas explicitement le type de paysage culturel envisagé, la proposition d'inscription suggère la sous-catégorie ii « paysage évolutif » des « paysages culturels ».

La proposition ne cite aucun critère pour l'évaluation de Bhimbetka. Il est suggéré que les critères iii et v pourraient être appropriés.

Critère iii : L'importance de Bhimbetka est liée au mode d'interaction des peuples avec le paysage et à la persistance d'aspects de celle-ci sur une très longue période. Les peintures de l'art rupestre témoignent de

traditions de chasse et de cueillette qui perdurent dans les villages locaux, sous une forme modifiée. La tradition de peinture de symboles et d'images de grande qualité pendant plusieurs millénaires dans les grottes subsiste dans les villages locaux, sur les sanctuaires et les maisons.

Le paysage du Bhimbetka apporte ainsi un témoignage sur une tradition culturelle étroitement liée à la présence des grottes. Par sa quantité et sa qualité, cet art rupestre constitue un témoignage exceptionnel.

Critère v : Le paysage du Bhimbetka est étroitement associé à une tradition de chasse et de cueillette extrêmement ancienne dans la région (comme en atteste l'art rupestre), qui continue à faire partie de la culture des villages *adivasi* locaux entourant le site d'art rupestre. Les traditions de chasse et de cueillette, autrefois largement répandues, subsistent très rarement dans le monde actuel. Bhimbetka est donc un site précieux pour la manière dont il représente ce mode de vie, même si la chasse et la cueillette ne constituent plus des composantes essentielles de l'économie.

4. RECOMMANDATIONS DE L'ICOMOS

Recommandations pour le futur

Incontestablement, la zone proposée pour inscription et la zone tampon, qui inclut des collines et des plateaux, des vallées, des sources et des criques, des ravines, des plaines, des terres agricoles, des villages tribaux, des zones boisées et déboisées, représentent un paysage culturel complexe, qui a évolué sur des milliers d'années.

Cependant, il est clair que le paysage culturel de Bhimbetka a été et demeure bien plus vaste que la seule zone proposée pour inscription, c'est-à-dire la zone des abris sous-roche. En incluant un contexte spatial plus large, incorporant diverses caractéristiques topographiques, écologiques et culturelles, la zone proposée pour inscription pourrait refléter plus fidèlement l'évolution du paysage de Bhimbetka dans sa totalité au fil du temps.

La proposition d'inscription et le plan de gestion soulèvent des questions clés portant à la fois sur la durabilité culturelle et la durabilité naturelle de la région de Bhimbetka. Sa valeur et son importance sont liées aux associations étroites entre les hommes et le paysage local sur plusieurs millénaires. Il existe toutefois des forces qui travaillent à briser cette association, forces liées au surpâturage, à la baisse du niveau des eaux et à la migration progressive des habitants.

Si Bhimbetka doit être géré comme un paysage culturel, dans un souci de préservation de ses valeurs universelles, la gestion devrait alors couvrir les enjeux culturels, naturels, sociaux et économiques. Il faudrait aussi encourager une gestion rassemblant ces aspects de façon durable.

L'expert qui a effectué la mission a considéré que la zone proposée pour inscription était le strict minimum nécessaire pour refléter les valeurs du Bhimbetka comme site de valeur universelle. Il subsiste un doute quant à savoir si la zone relativement réduite de la proposition d'inscription fournirait des ressources suffisantes pour

soulager les menaces sur la zone et mettre en place un régime de gestion durable.

Un autre aspect concernant les délimitations est lié au corpus de peintures rupestres dans la zone à savoir si les limites suggérées reflètent ce que l'on voit dans le groupe de peintures du Bhimbetka.

Recommandation concernant l'inscription

Que l'examen de la proposition d'inscription soit *différé* afin de permettre à l'État partie de fournir des informations supplémentaires sur les points suivants :

- Quelle sera l'organisation de la région proposée pour inscription afin de maintenir l'interaction traditionnelle entre les habitants et le paysage, dans les domaines liés à l'utilisation des ressources forestières et à la persistance des traditions artistiques ?
- Quel sera le mode d'enregistrement et de documentation des traditions apparemment très anciennes, en vue de mieux savoir comment les maintenir ?
- Les délimitations suggérées de la zone proposée pour inscription fourniront-elles des ressources suffisantes pour permettre un développement culturel et environnemental durable ?
- Quelle approche « stratifiée » de la gestion du paysage peut être fournie pour permettre différents degrés de participation des parties prenantes du bien, dans le cadre d'une intégration globale des efforts ?
- La région proposée pour inscription englobe-t-elle la majorité du corpus de peintures rupestres de Bhimbetka ?

Il conviendrait également d'envisager de changer le nom de la proposition d'inscription en paysage culturel du Bhimbetka, afin de refléter les enjeux plus vastes impliqués.

ICOMOS, mars 2003