

2015 Earthquake Damage Mapping
Swayambhu Monument Zone
Kathmandu Valley World Heritage Property



Submitted to UNESCO by
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Leathes - 1811

After a drawing by A. W. Devis, c. 1796
From William Kirkpatrick, An account of the Kingdom of Nepaul, published 1811

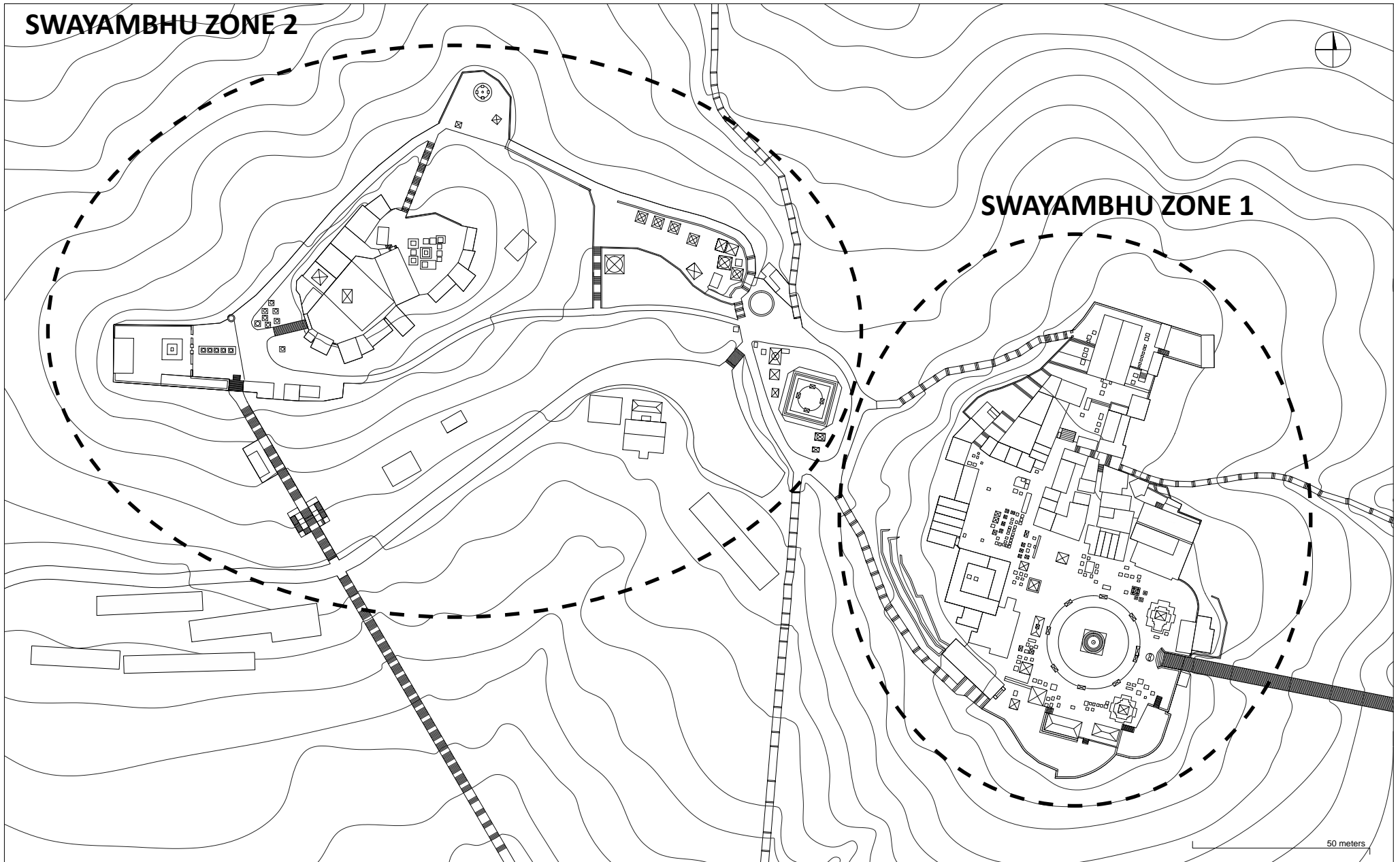
Cover:
Areal photograph of Swayambhu, courtesy Skycatch, 2015

All other photographs and drawings unless marked otherwise by:
Pierre Gerard Bendele, Ludovic Dusuzeau, Ashim Maharjan, 2015

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Swayambhu site map



3-D rendering based on areal views taken from a drone
Courtesy: Skycatch

INTRODUCTION

The earthquakes of April 25 and May 12, 2015 have caused extensive damage in Nepal. The oldest buildings were especially affected, along with all the sites enlisted as World Heritage by UNESCO.

Swayambhu, the focus of this assessment is situated at the western side of Kathmandu. It is one of the seven World Heritage Zones in the Kathmandu Valley and an important place of Buddhist and Hindu worship. It consists of many stupas, temples and shrines, monasteries and houses spread over two hills. Swayambhu is believed to have been established some 2000 years ago and has important story linking to the formation of the Kathmandu Valley.

The inventory of these sites confronted mainly by two constraints that enhanced its realization, namely the preventive destruction of the most threatening buildings and the imminent arrival of the monsoon which could otherwise make many of damaged structures disappear forever.

The objectives of this study was to make a record of the extent of damage for easy understanding and to help with cost estimation in the future. This documentation will facilitate the buildings' restoration and reconstruction.

We, thus started to begin by conducting an expertise campaign in the field, articulated as follows:

1. Create color coded maps indicating each and every building's degree of damage. Assign inventory numbers to all buildings and reference them on the map.
2. Compile a photographic inventory of all the accessible facades to allow future restoration or reconstruction of buildings to their original appearance.
3. A description and a rapid diagnostics of all the buildings in coherence with their names, their structural system, their material of constructions, their relative positioning, the number of floors; and in the case of religious buildings typology and approximate height. Then finally the nature of the observed damage, possible destruction, the risk of immediate danger and the existence of specific elements to safeguard (especially carved wooden structures). These diagnostics are illustrated furthermore by the photographs of the described problems (with appropriate clichés to distinguish pictures from second earthquake to those from the first).

The inventory consists of three parts: (1) the description of cracks and fissures in the pavement; (2) the description of religious and public buildings (where the heritage integrity is of prime importance), and (3) the description of residential buildings.



Foudre d'Indra devant le temple de Bouddha à Sambunath (voy. p. 228). — Dessin de Barclay, d'après une photographie du docteur Gustave Le Bon.

From: Gustave Le Bon, Voyage to Nepal, 1886

परिचय

२५ अप्रिल र १२ मई, २०१५ को भूकम्प नेपालमा व्यापक हर्जानाको कारण बनेको छ। विशेष गरी पुराना भवनहरू र युनेस्कोद्वारा विश्व सम्पदाको रूपमा सुचि रत सबै ठाउँहरू प्रभावित भएका छन्। यस्ता पुरातात्विक ठाउँ र संरचनाहरूको सुची गर्नु पर्ने आवश्यकताको बोध हुनु पछाडिका कारण: मुख्यतः, धेरै क्षतिग्रस्त भवनहरूलाई उचित तरिकाले भत्काउनु र पुरातात्विक क्षतिग्रस्त संरचनाहरू नजिकिदै गरेको झरी मौसममा अस्तित्व नै गुम्न सक्ने सम्भावनालाई न्यूनीकरण गर्नु देखियो। यस अध्ययन पछाडिको उद्देश्य- क्षतिको समग्र जानकारी लिई त्यसबाट लागत खर्च अनुमान गर्नु र साथसाथै पुनर्स्थापना र पुनर्निर्माण गर्नुपर्ने संरचनाहरूको उत्थानको लागि वर्तमान अवस्था र त्यसमा देखिएको साधारण तथा पृथक समस्याको जानकारी दिनु रहेको छ।

हामीले माथि उल्लेखित उद्देश्यहरू पुरा गर्नको निमित्त निम्नानुसार प्रत्येक क्षेत्रमा एक विशेषज्ञता अभियान सञ्चालन गर्यौं।

- पहिलो चरणमा नक्सामा रहेका प्रत्येक भवन तथा उल्लेखनिय संरचनाहरूको सुचीक्रम अनुसार अंक अंकित गरियो र ती हरेक संरचनाहरूको अवलोकन गरि क्षतिको अवस्था अनुसार कलर कोडिंग गरियो। यस किसिमको कोडिंगले अन्तमा क्षतिको मापन गर्न ठुलो सहयोग पुग्यो।
- दोस्रो चरणमा विभिन्न मोहोडाहरूको फोटो खिचेर संकलन गरियो, जसले भविष्यमा गरिने पुनर्स्थापना तथा पुनर्निर्माण कार्यमा संरचनाहरूको पुरानै अवस्थामा स्थापना गर्न ठुलो सहायता पुगेछ।
- तेस्रो चरणमा विभिन्न भवनहरूको सम्बन्धमा, तिनीहरूको नाम, बनावटको प्रक्रिया, बनावटको सामग्री, सापेक्ष स्थान, तल्ला, र विभिन्न पुरातात्विक संरचनाको सम्बन्धमा, तिनको पृथक बनावट शैली र अन्दाजी उचाईको बारेमा छोटो जानकारीका साथसाथै निदानका कुरा गरियो। अन्त्यमा यी संरचनाहरूमा अवलोकन गरिएको क्षति, निकट भविष्यमा हुन सक्ने खतरा र उद्धार गरिनु पर्ने समग्रिहरूको (विशेष गरि पुराना काठका उत्किर्णहरू) जानकारी दिइयो। यी निदानका लिखित कुराहरूलाई फोटोहरू मार्फत प्रस्ट पारिएका छन् (पहिलो ठुलो भुकम्प र पछिको ठुलो पराकम्पन बिचको फोटो भिन्नतालाई देखाइएको छ)

यस रिपोर्टमा दुईटा छुट्टा छुट्टै तर संगसंगै गरिएको सर्भे सुची बनाईएका छन्, पहिलो “बस्ने भवनहरू” (जसमा सम्भावित खतरालाई प्राथमिकता दिइएको छ) र दोस्रो “पुरातात्विक संरचनाहरू” (जसमा मौलिकता र परम्परा जगेर्नालाई महत्व दिइएको छ)

यहाँ प्रस्तुत क्षति मुल्यांकन रिपोर्ट, युनेस्को संरक्षित क्षेत्र मध्यको एउटा महत्वपूर्ण क्षेत्र स्वयम्भुनाथमा गरिएको हो जुन काठमाडौंको पश्चिम भागमा अवस्थित छ। यो क्षेत्र दुवै बौध तथा हिन्दु धर्मावलम्बीहरूको निमित्त निकै महत्वपूर्ण क्षेत्र रहेको छ। यहाँ थुप्रै स्तुपा, चैत्य, गुम्बा, मठमन्दिर तथा पुराना घरहरू दुई डाँडामा फैलिएर बनाइएको पाईन्छ। यस स्वयम्भुनाथ मन्दिर (जुन पर्यटकहरू मात्र “मंके टेम्पल” भनेर प्रसिद्ध रही आएको छ) करिब २००० वर्ष अगाडी स्थापना गरिएको मान्यता पाईन्छ र काठमाडौं उपत्यका उत्पत्ति सम्बन्धि स्वयम्भुनाथ संग जोडिएको किंवदन्ती पनि निकै प्रसिद्ध रहेको छ।

INTRODUCTION

Les tremblements de terre des 25 avril et 12 mai 2015 ont occasionné de nombreux dommages au Népal. Les constructions les plus anciennes ont été spécialement affectées, et par là même l'ensemble des sites inscrits au patrimoine mondial de l'UNESCO.

L'inventaire de ces sites doit faire face à deux contraintes qui pressent sa réalisation, à savoir les destructions préventives des bâtiments les plus menaçants ainsi que l'arrivée prochaine de la mousson qui pourrait achever de faire disparaître de nombreux édifices endommagés. Les objectifs de la présente étude sont ainsi tout d'abord de prendre la mesure de l'étendue des dommages pour faciliter l'appréhension du coût global des travaux à venir ; mais aussi de faciliter le travail de restauration et de reconstruction en inventoriant l'existant et en identifiant les problèmes singuliers et généraux.

Nous avons donc commencé par mener une campagne d'expertise sur le terrain, articulée de la manière suivante :

Dans un premier temps, identifier singulièrement chaque bâtiment ou entité remarquable par un numéro d'inventaire sur une carte, et repérer l'état de dangerosité ainsi que les destructions éventuelles par un code couleur. A terme, ces cartes permettront une appréhension graphique des dommages sur l'ensemble des sites UNESCO étudiés.

Dans un deuxième temps dresser l'inventaire photographique de toutes les façades observables pour permettre la future restauration ou reconstruction des bâtiments en respect de leur essence originale (sinon de leur identité).

Dans un troisième temps établir une description et un diagnostic rapide de tous les bâtiments en question, à savoir leur système structurel, leur matérialité, leur positionnement relatif, le nombre d'étages ou dans le cas des bâtiments religieux leur typologie et hauteur approximative. Puis enfin la nature des dommages observés, des destructions éventuelles, les risques de dangers immédiats ou encore l'existence d'éléments spécifiques à sauvegarder (notamment les bois sculptés). Ces diagnostics sont en outre illustres par les photographies des problèmes décrits (avec le cas échéant le repérage des clichés consécutifs au deuxième tremblement de terre pour les distinguer de ceux suivant le premier).

Deux inventaires distincts sont établis parallèlement, l'un pour les bâtiments d'habitation (ou la notion de dangerosité prime) et l'autre pour les ensembles et bâtiments publics ou religieux (où l'intégrité patrimoniale est d'avantage prise en compte).

L'inventaire des dommages porte ici sur le site Unesco de Swayambhu, important lieu de culte bouddhiste et hindouiste. Ce dernier consiste en un ensemble de stupas, de temples et d'édicules, de monastères, et d'habitations principalement répartis sur deux collines. Etroitement associé au mythe fondateur de la vallée de Katmandou, le site de Swayambhunath aurait été fondé il y a 2000 ans et demeure l'un des sites patrimoniaux majeurs du Nepal.

प्रारम्भिक टिप्पणी :

प्लेटफर्म:

स्वयम्भू क्षेत्र-१ (मुख्य स्तुपाको वरिपरि)को प्लेटफर्ममा दर्जन भन्दा बढी ठाउँहरू चर्किएका छन् । हिरोशी फुकुओकाद्वारा गरिएको प्रारम्भिक अध्ययनअनुसार यी प्लेटफार्म किनारका सात क्षेत्रहरूमा भू-अस्थिरताको खतरा भएकोले त्यहाँ विशेष निगरानीको आवश्यकता छ । यस भू-अस्थिरताले पूरै क्षेत्रको अखण्डतालाई जोखिममा पार्न सक्छ । पश्चिमतिरको पाटोमा खस्किँदै गएको जगले धेरै घरहरूलाई प्रत्यक्षरूपले जोखिममा पारेको छ (सन्दर्भ : घर ४१ र ४२) । (विभिन्न समयमा प्रकाशित नक्साहरूका अनुसार) उक्त क्षेत्रमा विगतका दशकहरूमा भएको घनत्ववृद्धि एक रोचक पक्ष हुन सक्छ । यस घनत्वकरण (नयाँ घरहरू थपिँदै जानेक्रम) ले उक्त डाँडोमा अवस्थिति तटबन्धमा अत्यधिक भार थपिन गएको छ । यसलगायत उक्त डाँडोको वरिपरि उचित किसिमको वृक्षरोपण योजना ल्याइएमा यसले प्लेटफार्मको वरिपरिको क्षेत्रलाई सुदृढ र सबल बनाउन सक्छ ।

स्वयम्भू क्षेत्र नं. २ (सन्दर्भ : स्वयम्भू योजना) मा मञ्जुश्री डाँडोको उत्तर पश्चिमतर्फको बाटोका दुईठाउँमा अनुदैर्घ्य चर्काइ देखिन्छ । अर्को चर्किएको ठाउँ "M" (नक्सा हेर्नुहोला) ले प्लेटफार्मको पश्चिमी भागलाईनै खतरा पार्ने किसिमले केही सेन्टीमिटर खस्किएको देखिन्छ ।

क्षतिको विस्तार :

हामीले मुख्यतः वाहिरीबाट देख्न सकिने क्षति विवरणको वर्गलाई संख्यात्मक रूपले आंकलन गरेका छौं । निम्नलिखित संख्याले स्वयम्भू क्षेत्र नं. १ र २ दुवैलाई समाविष्ट गरेको छ ।

भूकम्पले गर्दा ४५ भन्दा बढी सार्वजनिक तथा धार्मिक महत्वका सम्पदाहरूमध्ये २ वटा पूर्णरूपले भत्किएका छन्, १३ वटा नराम्रो गरी प्रभावित भएका छन् र ११ वटामा सामान्यरूपले क्षति पुगेका तर सुधारित्नु पर्ने अवस्थाका छन् । अन्य धार्मिक स्थलहरू, चैत्यहरू, साना र मझौला खालका स्तूपाहरू आदिमा सामान्य क्षति भएको र २१२ संरचनाहरू मध्ये ३ वटा (एउटा ढुङ्गे स्तम्भ र घण्टालाई भरथेग गरेका दुईवटा ढुङ्गे ढाँचा) पूरै क्षतिग्रस्त भएका छन् तर मर्मत गर्न सकिने, ५ वटामा नराम्रो गरी र १४ वटामा सामान्य अवस्थामा क्षति पुगेका छन् ।

आवासीय भवनहरू :

आवासीय भवनहरू नराम्रो गरी प्रभावित भएका छन् । क्षतिग्रस्त भवनहरूमध्ये धेरैजसो भवनहरू पुराना शैलीका हुन्, जसमा भित्ताले नै भार वहन गर्ने गरी बनाइएका सामान्य ईटका संरचना पर्छन् भने हालसालै कंक्रीटद्वारा बनाइएका भवनहरू सामान्यतः दुरुस्त अवस्थामा ठडिएका देखिन्छन् । भित्तामाथि विम नहुनु तथा ब्रेसिङ नहालिकन बनाइनु नै ती ईटका घरहरू कमजोर हुनाका कारणहरू हुन् । भवनहरू कमजोर हुनुका अन्य सम्भावित कारणमध्ये निर्माणको गुणस्तर, जगको प्रकृति, मर्मत सम्भारको कमी, छतको पानी निकासको अव्यवस्था, पुराना भवनमाथि नयाँ तल्लाहरू थपिनु (जसले अत्यधिक भार थपिन पुग्यो), तथा अन्तिमका अथवा कुनाका घरहरूको सापेक्ष स्थिति आदि हुन् ।

स्वयम्भू क्षेत्र-१ का भवनहरूलाई चार किसिमले वर्गीकरण गर्न सक्छौं । पहिलोमा ध्वस्त भएका सबै घरहरू, दोश्रो नराम्रो गरी क्षतिग्रस्त घरहरू, तेश्रो समूहमा जमीन खस्किएर जोखिममा रहेका घरहरू र चौथोमा हालसालै बनाइएका कंक्रीटका बलिया घरहरू ।

स्वयम्भू क्षेत्र -२ मा केही मात्र भवनहरू भएको र ती भवनहरूमध्ये धेरैजसो नराम्रो गरी प्रभावित भएका छन् । ती मध्ये गुम्बाको छेउमा रहेका भवनहरूलाई धेरै पुरानो भएका कारणले मर्मत गर्न भूकम्प अगाडिनै पुनर्निर्माण परियोजनाका लागि प्रस्तावित गरिसकिएको थियो ।

आधुनिक किसिमले बनाइएका भवनहरू तीन किसिमका छन् :

पहिलो, पुरानो घरको सट्टामा त्यही ढाँचामा पुनर्निर्मित भएका घरहरू । यस्ता घरहरू नयाँ भएतापनि नराम्रो गरी क्षतिग्रस्त हुन पुगेका छन् किनकि यो गारो लगाएर बनाइएको सामान्य संरचनाको घर थियो ।

दोश्रोमा, स्वयम्भू क्षेत्र-१ को केन्द्रभागमा अवस्थित समूहका घरहरू (हेर्नुस् घर नम्बर १,२,३,४ र ११) जो कंक्रीट संरचनामा चिल्ला ईटहरूले पुनर्निर्माण गरी बनाइएका ऐतिहासिक घर हुन् । यी घरहरूले भूकम्प थेग्न सकेका देखिए । तथापि कंक्रीट र चिल्ला ईटहरूजस्ता आधुनिक सामग्रीहरूको प्रयोग भएको घरले हामीलाई के सम्पदा भनेको यस्तै हो त ? भन्ने प्रश्न सोध्न बाध्य गराउँछ । वास्तवमा, संरचनागत तर्कहरूले के साँच्चिकै सम्पदाका मूल्य-मान्यता र वाहिरी रूपले स्थान पाउँदैन त ? कंक्रीट र चिल्ला ईटहरूले घरहरूलाई एकैनासले राम्रो र सुन्दर बनाउन मद्दत गर्छ तर "सम्प्रदायिक भवनहरू" भनिने अवधारणालाई सो स्थानको वास्तुकलात्मक

सारतत्वसँग विलकुलै भिन्न भएका कारणले, यस्ता भवनहरूको महत्व घटेको पाईन्छ ।

अन्तमा, तेश्रो किसिममा जो प्लेटफर्मको किनारालाई समेटेर भर्खरै बनाइएका भवनहरू हुन जसमा कुनै पनि किसिमको सम्पदाजन्य महत्व पाईदैन । ती भवनहरूमा, निर्माणको गुणस्तर र आफ्नै विशेष प्रणालीका कारणले भूकम्पमा भिन्न किसिमले प्रभाव भएको देखिए ।

हालको परीपेक्षमा काठ एक महँगो निर्माण सामग्री भएतापनि राम्रोसँग प्रयोग गरिएमा हाम्रा महत्वपूर्ण सम्पदास्थलहरूमा इँटका संरचनाका भित्ते पर्खालहरूलाई सुदृढिकरण गर्नका लागि समसामयिक रूपले धेरै उपयोगी सावित हुन सक्छन् र परम्परागत नेवारी वास्तुकलापूर्ण शैलीलाई कायम राख्दै परा-भूकम्पीय पुनर्निर्माणका लागि समसामयिक रूपले प्रासंगिक हुन सक्छन् ।

धार्मिक भवनहरू :

स्वयम्भू केन्द्रको स्तूपामा माथिदेखि तलसम्म थुप्रै ठाउँमा ठाडो गरी चर्किएका छन् । यसमा जडिएका साना संरचनाहरू मध्ये पूर्वी प्रवेशद्वारपट्टी रहेको दुईटा शिखरा मन्दिरहरू मध्ये एउटा पूर्ण रूपले भत्किँदा सँगै रहेको संरचनालाई नराम्रोसँग असर पारेको छ । (हेर्नुहोस् मन्दिर नम्बर २)

अर्को शिखरा मन्दिर (हेर्नुहोस् मन्दिर नम्बर १५) जुन ठडिएको अवस्थामा भएता पनि यसमा तलका वरिपरिका भागहरूमा तेर्सो गरी चर्किएको छ । (यो अग्लाइका कारणले धेरै हल्लिएको हुन सक्छ ।) भूकम्पका बेला स्वयम्भू क्षेत्र र अन्य सम्पदास्थलहरू (क्षतिउन्मुख अवस्था)का मन्दिरहरूको व्यवहार विश्लेषण गर्दा यी संरचनाहरू राम्रोसँग सुदृढिकरण गर्न यसका डिजाइनमा आधारित संरचनागत सिद्धान्तहरूमा एक अनुसन्धान कार्य गरिनु आवश्यक देखिन्छ ।

स्वयम्भू स्तूपको दाहिनेतिरको “कर्मराज गुम्बा” (हेर्नुहोस् मन्दिर नम्बर १४) नराम्रो गरी क्षतिग्रस्त भएको छ । यो पहाडी क्षेत्र पट्टी बनाइएको गुम्बा मा कंक्रीटका नयाँ उचाइ(तला) थपिनाले प्रारम्भिक संरचनाहरूलाई कमजोर बनाएको हुन सक्छ । गुम्बाको परिधिभित्र थुप्रै धार्मिक वस्तुहरू स्थापित गरिएका छन् (बुद्धको ठूलो मूर्तिसहितको प्रार्थना चक्र, धातुजन्य कार्य आदि) । यी कार्यहरूलाई सुरक्षा दिन र ती वस्तुहरूको आकार र सम्पूर्ण संरचनाप्रति आसन्न जोखिमलाई दृष्टिगत गर्दा एक

विशेष रणनीतिको आवश्यकता देखिन्छ । गुम्बाको पछिल्लिर हालसालै कंक्रीटले बनाइएको मठ (हेर्नुहोस् नम्बर १३)कमजोर देखिन्छ । त्यसको जगको वरिपरि जमिन चर्केको देखिन्छ (गुम्बा भत्किएमा अझ बढी प्रभाव पार्न सक्छ) । स्तुपाको छेउमै दक्षिणपश्चिम तर्फ “चैत्य बहुद्वार” नाम गरेको “तासी गोमाइ स्तुपा मङ्गल” (हेर्नुहोस् २७ नम्बर) पूर्ण रूपले ध्वस्त भएको छ ।

“स्वयम्भू गुम्बा” पूर्णरूपले भत्किएको (हेर्नुहोस् २० नम्बर) छ र “सिङ्गु बहाल” (हेर्नुहोस् नम्बर ४१ र ४२) को “डाँडोपट्टिको पछिल्लो भाग” ध्वस्त भएको छ । डाँडोको उत्तरतर्फमा अवस्थित गुम्बा “शान्तिपुर” (हेर्नुहोस् १ नम्बर) को चारैतर्फको बाहिरी भागमा चर्केको देखिन्छ, पूर्वोत्तर भाग चाहिँ आंशिक रूपले भत्केको छ । यो भवनमा पूजारीबाहेक अन्य कर्मचारीहरूलाई प्रवेश निषेध हुनाले आन्तरिक भित्तेचित्रहरूलाई हटाउन वा पुनर्स्थापन गर्न विशेष व्यवस्था गर्न आवश्यक छ । मञ्जुश्री डाँडो “स्वयम्भू क्षेत्र-२”का हालसालै बनेका धर्मचक्र विहारको मठमा पुरानो भागपट्टि केही क्षति पुगेको छ ।

टिप्पणी र समयानुकूल चुनौतीहरू :

आसन्न वर्षा-भरीको कारणले पुनर्निर्माण र मुख्य पुनर्स्थापनका कार्यहरूलाई महिनौं पछाडि धकेल्न सक्छ । यो समयावधिलाई (धेरै मानिसहरू घरबाहिर त्रिपालमुनी दुःख खेप्दै बस्दै आएको स्थितिमा) स्वयम्भू लगायत अरु सम्पदास्थलका लागि नयाँ रचनात्मक उपायहरू अधि ल्याउन र प्रभावित स्थलहरूको पुनर्स्थापन गर्न उपयोग गर्न सकिन्छ ।

मन्दिर र वासस्थानहरूमा भएका क्षति (५० मध्ये १२ घरहरूमात्र सुरक्षित) विचारणीय छन् र सो क्षेत्रहरूलाई स्थायी रूपले नै विगान्न सक्ने जोखिम देखिन्छ । यस स्थितिलाई विचार गर्दा शहरी र भूदृश्यलगायतका संरचनागत निर्देशनहरूको कार्यान्वयन तथा भूकम्पको समयमा आधुनिक उपकरणहरूको साथसाथै स्थानीय पुर्खाहरूको कामको सीपलाई मूल्यांकन गर्दै प्राविधिक निर्माणविधि विकास गरिनु महत्वपूर्ण हुनजान्छ । प्लेटफार्मको विखण्डनलाई भन बढाउने कारकतत्वहरूलाई सीमित तुल्याउनका लागि भवनहरूको उचाईलाई नियन्त्रणमा ल्याएर, निर्माणको घनत्वलाई कम गराएर अनि सम्पदाको महत्वलाई बुझेर भू-निर्माण सम्बन्धी कार्यहरूलाई स्थायित्व र दीगोपन दिन सकिन्छ । अन्तमा, भविष्यमा गरिने कार्यहरूमा आइपर्ने चुनौती र प्रतिक्रियाहरूलाई सामना गर्न तथा अमूर्त सम्पदाहरू जस्तै: चाडपर्व तथा महोत्सव लाई सुचारु गर्न र पुनर्निर्माण प्रक्रिया सँगसँगै ती सम्पदास्थलहरूलाई आंशिक वा सीमित रूपमा सर्वसाधारणको निम्ती खुला राख्ने वा नराख्ने भन्ने आदि प्रश्नहरूका लागि पनि एक वार्षिक कार्यतालिका बनाउनु आवश्यक छ ।

PRELIMINARY REMARKS

THE PLATFORM

The platform in “Swayambhu Zone-I” (around the main stupa) has dozen of major cracks. According to the preliminary study of Mr. Hiroshi Fukuoka seven zones on the edge of these platform would be at risk of landslides and require special attention. This instability could threaten the integrity of the whole site. On the western flank, the subsidizing foundation directly threatens several houses (refer houses no 41 and 42). It is interesting to examine the densification of the site that appears to have occurred over the past decades (according to maps published on different dates). This densification (adding of new sets of houses) has mostly contributed to the overloading of the hillock embankment. In addition, a proper plantation planning around the hillock could help stabilizing and strengthen the platform surrounding.

In “Swayambhu Zone-II” (refer plan of Swayambhu), there are two sets of major longitudinal cracks along the path on the northwest side of the Manjushree Hill. Another crack “M” (refer the map) pose the danger of the collapse in the western part of platform, which is accompanied by the several centimeters of subsidence.

EXTENT OF DAMAGES

We propose to quantify the classes of damages within the limits of what was observable (mostly from outside). The following figures include both Swayambhu Zone-I and Zone-II. Out of 45 public and religious important heritages, 2 were completely collapsed by the earthquake, 13 are severely affected and 11 have been moderately damaged but requiring interventions. Other religious Shrines, Chaityas, small and medium Stupas, etc. have been relatively spared: approximately among 212 entities, only 3 are completely destroyed but reparable (a stone column and two stone frames supporting the bell), 5 are seriously damaged and 14 with moderate disorders.

RESIDENTIAL BUILDINGS

The residential buildings have been severely affected. The most damaged buildings were relatively old ones, with a simple brick structure construction as the bearing walls. Whereas the recent concrete buildings were generally still standing and relatively good condition. The lack of proper bracing and wall ties is one of the main reasons that the brick structured building was so fragile. Other possible factors that have accentuated the vulnerability: quality of construction, nature of foundations, lack of bracing elements, obsolescence or poor maintenance, improper gutters and capillarity affects (because water alters the brick properties), recent over-elevations in old buildings (which overload the original structure), relative position (in case of the houses at the end of the row or corners houses that suffered more), and so on.

We can classify four main blocks of houses on “Swayambhu Zone-I” i.e. one with every house collapsed, another in severely damaged state, third is the group threatened

due to land subsidence and the last one in relatively good condition (recent concrete construction).

In “Swayambhu Zone-II” there are few dwellings and among them most of it have been severely affected. Some of them (in the vicinity of the monastery) were already proposed for reconstruction project before this earthquake, to compensate for its old age and maintenance.

There are three types of recent construction.

First, one house rebuilt in compliance with the previous style it replaces. This house, in spite of being recent was seriously damaged. It was built in a simple brick structure.

Secondly, a set of houses (no. 1, 2, 3, 4, 11), relatively positioned at centre of Swayambhu zone 1, which are reconstructed with a concrete structure and glazed bricks, attempting to refer historic houses. These houses apparently withstood the earthquake. However the use of such new materials as concrete and glazed bricks puts a question mark on us as what is heritage. Indeed isn't the structural logic do really participate in heritage values as well as the appearance? The use of concrete and glazed bricks endows these buildings with a uniformity of textures and templates that reduces the concept of “heritage houses” within a systematical mode that sharply differs with the architectural essence of the place.

Finally, the third which were recently constructed buildings in a newly occupied edges of the platform, but without any special heritage intentions/significance. Those acted with different behaviors, within the earthquake, following the system/quality of their construction.

Despite wood being an expensive construction material at present context, its proper use for chaining and brick wall strengthening in such valuable heritage sites would be a relevant work for a para-seismic reconstruction in respect with the traditional Newar architecture's style.

RELIGIOUS BUILDINGS

The Stupa at centre of Swayambhu has a series of relatively major cracks extending radially from the top. One of its small appendages was severely damaged by the collapse of one of the two Sikhara Temples surrounding the east platform entrance (no. 21).

Another Sikhara temple (no 15), although still standing, has horizontal cracks on the base perimeter (suggesting a significant sway due to its height). Given the behavior of these temples typology during the earthquakes in Swayambhu and other heritage sites (it is rather prone to destruction), an investigation of the structural principles underlying its design should be conducted for the proper reinforcement of such structures.

Right at the edge of the Swayambhu Stupa, the “Karmaraj Gumba” (no. 14) is severely damaged. This massive brick building on the hillside was subjected to a newer concrete over-elevation, which probably contributed to weaken the primary structure. Within this Gumba, there were numerous religious elements established (large statue of Buddha, imposing prayer wheel, metalwork...). Safeguarding these works require a particular

strategy in view of their size and the immediate danger of the whole structure. On the back of this Gumba, a monastery (refer no 13) which is rather recent and concrete made shows a sign of weakness, with cracks in the earthworks surrounding its foundation (it could be further affected by the collapse of Gumba). Also in the immediate vicinity of the Stupa, to the southwest, the “Tashi Gomang Stupa Mangal” - also called “Chaitya Bahudvar” - (no 27) collapsed completely.

The monastery “Swayambhu Gumba” (no 30) is severely damaged and the “Singu Bahaal” (no 41 and 42) is mostly collapsed (rear part towards hillside). At the North of the hillock, the monastery “Shantipur” (no 1) has severe cracks on all facades, the North-East part partly collapsed. This building is restricted for every personnel except for the priests, so a special arrangements may need to be taken for its restoration or removal for treatment of its interior frescoes. On the hill of Manjushree “Swayambhu Zone-II”, the monastery of Dharma Chakra Bihar, more recent construction, has suffered in its oldest parts.

REMARKS AND TIME CHALLENGES

The imminent arrival of the monsoon is likely to postpone the operations of reconstruction and major restoration by several months. This period, besides the sufferings that have to be endured by the population in temporary shelters, can also be utilized to bring out constructive new approaches to heritage and restoration of affected sites, including that of Swayambhu.

The damages observed on the temples and dwellings (only 12 houses intact among 50) are major and pose the risk of a permanent distortion of the premises. It is in this sense, that the application of a set of architectural guidelines, urban and landscapes, and the development of the technical specifications reinvesting local ancestral know-how in the light of new devices in Earthquake becomes important. Factors that have aggravated the disintegration of the platform can thus be limited by controlling the building heights and density of the constructions to ensure at the same time the sustainability and stability of the built earthworks along with the compliance of heritage significance involved. Finally, a calendar for future operations required to meet the challenges and responses for the intangible heritages i.e. processions and upcoming festivals, and also to question whether or not the partial opening or limited/framed opening is to be made alongside the reconstruction process.

PREMIÈRES REMARQUES

LA PLATEFORME

La plateforme de “Swayambhu 1” (autour du Stupa principal) présente une dizaine d’importantes fissures. D’après l’étude préliminaire de Mr. Hiroshi Fukuoka sept zones affleurant la plateforme seraient menacées de glissements de terrains et nécessiteraient une attention particulière. Cette fragilité pourrait menacer l’intégrité du site. Sur le flanc ouest, un affaissement des fondations menace directement plusieurs maisons (cf. maisons 41 et 42). Il pourrait être également intéressant d’interroger la densification du site qui semble avoir eu lieu au cours des dernières décennies (au vu des cartes). Cette densification (nouveaux ensembles de maisons) a probablement participé à la surcharge des terrassements. Par ailleurs à certains endroits des plantations appropriées pourraient compléter et renforcer les glacis.

Le site de “Swayambhu 2” présente deux séries de grandes fissures longitudinales le long du chemin d’accès sur le flanc nord-ouest du complexe. Une autre fissure (cf. fissure “M”) fait craindre l’effondrement d’une partie de la plateforme à l’ouest, dans la mesure où elle s’accompagne d’un affaissement de plusieurs centimètres.

ETENDUES DES DOMMAGES

Nous proposons ici de quantifier les familles de dommages, dans la limite de ce que nous avons pu observer (essentiellement de l’extérieur). Ces chiffres comprennent Swayambhu 1 et 2.

Sur 45 bâtiments publics et religieux recensés, deux ont été complètement démolis par le tremblement de terre, 13 sont très sérieusement touchés et 11 autres présentent des dégâts modérés mais nécessitant une intervention. Les édifices religieux, Chaityas, petits et moyens Stupas, (etc...) ont été relativement épargnés : sur environ 212 entités, seulement 3 ont été complètement démolies mais réparables (une colonne et deux supports de cloches en pierre), 5 ont été sérieusement endommagés et 14 présentent des altérations.

Les bâtiments d’habitation ont été sévèrement touchés. Sur 50 unités d’habitations (propriétés familiales) 9 ont été complètement démolies, 25 sont dangereuses ou impropres à l’occupation, et 4 devront faire l’objet de stabilisations. Seulement 12 maisons peuvent être considérées comme épargnées.

LES HABITATIONS

Les bâtiments d’habitations ont donc été sévèrement touchés. Les bâtiments très endommagés sont souvent relativement anciens, avec une structure de simples briques pour les murs porteurs. Les bâtiments plus récents à ossature béton ont dans l’ensemble bien résisté. L’absence de chaînage semble être une des raisons principales de la plus grande

fragilité des bâtiments en brique. D'autres facteurs ont pu le cas échéant accentuer leur vulnérabilité : qualité de la mise en œuvre, nature des fondations, absence d'éléments de contreventement, vétusté ou mauvais entretien, remontées capillaires et chéneaux défectueux (l'eau altérant la brique), surélévations postérieures (qui surchargent la structure originale), position relative (les maisons en bout de rangée ou les maisons d'angle souffrent davantage)...etc.

On peut identifier quatre îlots de maisons principaux sur « Swayambhu 1 » : l'un ou toutes les maisons sont démolies, l'autre ou elles sont très endommagées, un troisième menacé par l'affaissement du terrain et un dernier en relativement bon état (construction récente en béton). Pour « Swayambhu 2 » les quelques logements sont très atteints. Une partie d'entre eux (aux abords du monastère) faisait l'objet d'un projet de reconstruction avant le tremblement de terre, pour palier à sa vétusté.

On distingue trois types de constructions récentes.

En premier lieu une maison reconstruite dans le respect de la version précédente qu'elle remplaçait. Cette maison, bien qu'apparemment récente a été sérieusement endommagée. Elle a été construite en simple appareillage de brique.

En deuxième lieu un ensemble de maisons (cf. 1, 2, 3, 4, 11) relativement centrales sur le plan, reconstruites avec une structure béton et un parement de briques faisant référence aux maisons historiques. Ces maisons ont apparemment bien résisté aux tremblements de terre, toutefois l'usage de nouveaux matériaux telle que le béton et la brique vernissée nous interroge quant à ce qui fait patrimoine. En effet la logique structurelle d'un édifice ne participe-t-elle pas à sa valeur patrimoniale au même titre que son aspect extérieur ? L'usage du béton et de la brique vernissée semble conférer au bâti des présupposés formels et esthétiques (uniformité des textures et des gabarits, modes de vieillissement des surfaces) qui réduise la notion de « maison patrimoniale » à un caractère systématique qui diffère pourtant fortement de l'essence architecturale du lieu.

Enfin dans un troisième lieu, des bâtiments construits récemment dans des franges nouvellement conquises sur la plateforme, sans intentions formelles ou patrimoniales particulières, et aux destinées diverses.

LES BATIMENTS RELIGIEUX

Le Stupa, élément central de Swayambhu, présente une série de fissures relativement étendues s'étendant de manière radiale depuis son sommet. L'un de ses petits appendices a été sérieusement endommagé par l'effondrement d'un des deux Sikhara (cf. 21) encadrant l'arrivée sur le site.

L'autre Sikhara (cf. 15) bien que toujours debout, présente des fissures horizontales sur le pourtour de sa base (suggérant un balancement important dû à sa hauteur). Au vu du comportement de cette typologie de temple face aux tremblements de terre à Swayambhu

et dans les autres sites patrimoniaux (elle est plutôt sujette aux destructions), une remise en question des principes structurels qui sous-tendent sa conception pourrait être menée en vue du renforcement de sa structure.

Aux abords directs de la Stupa, le « Karmaraj Gumba » (cf. 14) est très endommagé.

Ce bâtiment massif en brique, à flanc de colline, avait fait l'objet d'une surélévation en béton plus récente, qui a probablement participé à fragiliser la structure primaire. En son sein, le bâtiment abrite de nombreux éléments de culte (grande statue de Buddha, imposant moulin à prières, métaux ouvragés...). La sauvegarde de ces œuvres requiert une stratégie particulière au vu de leur taille et de la dangerosité immédiate de l'ensemble. Au dos du bâtiment, un monastère (cf. 13) plutôt récent et en structure béton présente des signes de faiblesse, avec des fissures dans les terrassements entourant ses fondations (il pourrait être, en outre, affecté par un effondrement du Gumba). Toujours dans le voisinage immédiat du Stupa, au sud-ouest, le « Tashi Gomang Stupa Mangal » - également appelé « Bahudvar Chaitya » - (cf. 27) a été complètement démoli.

Le monastère « Shyambhu Gumba » (cf. 30) a été très endommagé et celui de « Singu Bahal » (cf. 41,42) est en grande partie détruit (partie arrière à flanc de colline). Au nord de la plateforme, le monastère de « Shantipur » (cf.1) est sévèrement fissuré sur l'ensemble des façades, le mur nord-est en partie effondré. Ce bâtiment ne serait aujourd'hui visitable que par les prêtres, aussi des dispositions particulières devront éventuellement être prises pour sa restauration ou la dépose de ses fresques intérieures. Sur la colline de « Swayambhu 2 », le monastère de Dharna Chakra Bihar, de facture plus récente, n'a souffert que dans ses parties les plus anciennes.

PISTES ET TEMPORALITÉS

L'arrivée prochaine de la mousson remet vraisemblablement à plusieurs mois le début des opérations de reconstructions ou de restaurations importantes. Ce délai, outre la souffrance qu'il risque de faire endurer aux populations sous abris temporaires, peut aussi être mis à profit pour faire émerger de nouvelles approches constructives et patrimoniales pour le rétablissement des sites touchés, et notamment celui de Swayambhu.

Les dégâts observés sur les temples et sur les habitations sont majeurs (12 maisons intactes sur 50) et font courir le risque d'une dénaturaison définitive des lieux. C'est en ce sens que l'application d'un cahier des prescriptions architecturales, urbanistiques et paysagères, et la mise au point d'un cahier des charges techniques réinvestissant les savoir-faire locaux ancestraux à l'aune des nouveaux dispositifs en matière parasismique prend toute son importance. Des facteurs ayant aggravé le délitement de la plateforme pourraient ainsi être limités, en contrôlant notamment la hauteur des constructions et la densité des îlots afin de garantir tout à la fois la pérennité du bâti et la stabilité des terrassements mais aussi d'assurer le bon respect du patrimoine en présence. Enfin un calendrier des opérations futures pourra permettre de répondre au défi du patrimoine immatériel que sont les processions et festivals à venir, et ainsi d'interroger la possibilité ou non d'une ouverture partielle et encadrée du site parallèlement aux reconstructions.

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Schaityas (buddhistische) Reliquien-Denkmäler auf dem Swayambunath-Berge.
Die Augen auf den vier Seiten des Turmes sollen die Allgegenwart Adi Buddhas bezeichnen.

Photographs left and right:
Kurt Boeck, 1899
From an album at the Ethnographic
Museum (Weltmuseum),
Vienna, Austria

6246



Newari-Mädchen und Frauen

zwischen den Schaityas auf dem Swayambunath-Berge.



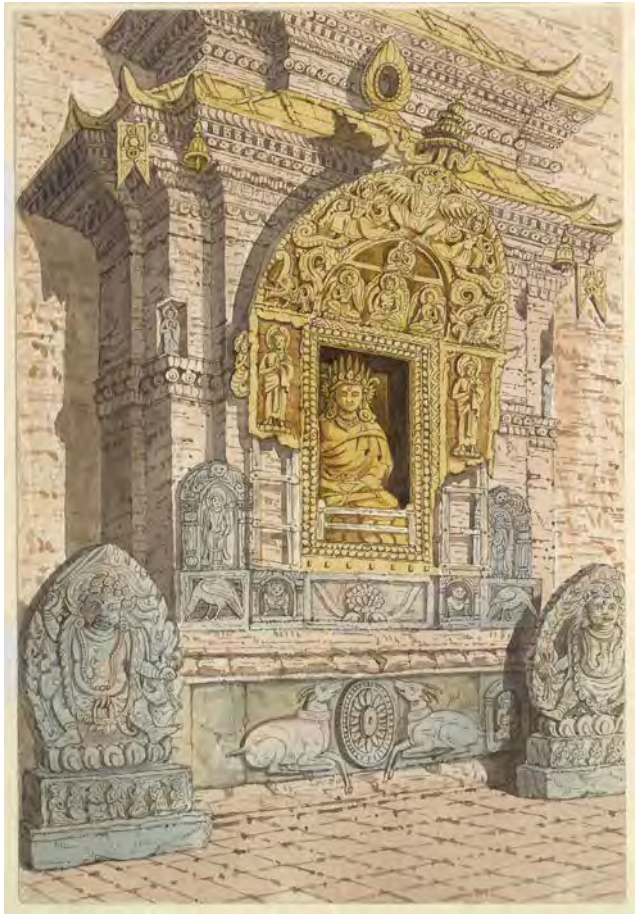
Watercolour by Henry Ambrose Oldfield
This image is inscribed on the reverse:
"Shrine of the 1st Celestial Buddha Vairochana on the
East side of the base of the Temple of Adi Buddha,
Sambhunath. April 1854."



Watercolour by Henry Ambrose Oldfield
This image is inscribed on the reverse:
"Shrine of the 2nd Celestial Buddha, Akshobhya: on the
eastern side of the base of the Temple of Adi Buddha at
Sambhunath. April 1854."



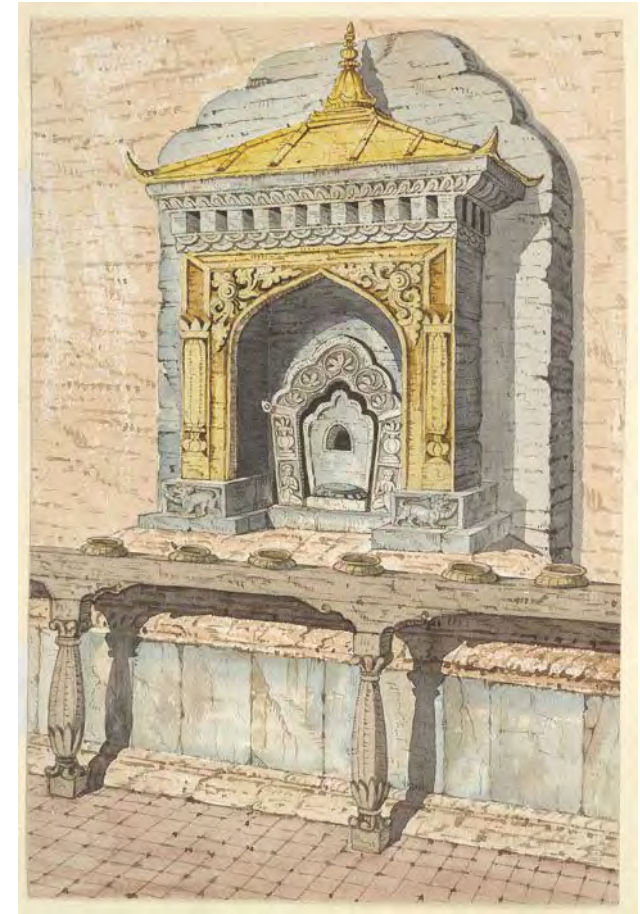
Watercolour by Henry Ambrose Oldfield
This image is inscribed on the reverse:
"Shrine of the 3rd Celestial Buddha, Ratnasambhava,
on the south side of the temple of Adi Buddha,
Sambhunath. April 1854."



Watercolour by Henry Ambrose Oldfield
 This image is inscribed on the reverse:
 "Shrine of the 4th Celestial Buddha Amitabha on the west side of the base of the temple of Adi Buddha, Sambhunath, April 1854."



Watercolour by Henry Ambrose Oldfield
 This image is inscribed on the reverse:
 "Shrine of the 5th Celestial Buddha, Amoghasiddha on the north side of the base of the temple of Adi Buddha, Sambhunath. April 1854."



Watercolour by Henry Ambrose Oldfield
 This image is inscribed on the reverse:
 "Shrine of one of the Celestial Budhisuktis (or Taras) at the base of the Temple of Adi Buddha at Sambhunath. April 1854."



Watercolour of the temple of Adi Buddha at Swayambhunath, c. 1850-1863.

Dr Oldfield wrote: "The great temple to which the name of Sambhunath is specially applied, is a very fine and perfect specimen of a Buddhist chaitya, or mound-temple. It consists of a solid hemisphere of earth and brick, about sixty feet in diameter and thirty feet in height, supporting a lofty conical spire, the top of which is crowned by a richly-carved pinnacle of copper-gilt. Its only basement is a narrow cylindrical plinth, faced with slabs of stone, and which projects about two feet round the base of the temple. The hemisphere is somewhat flattened above; is

covered with plaster, and is frequently overgrown with grass and weeds. The square toran or basement of the spire, has a projecting cornice above and below; it is covered with plates of copper-gilt, and has the two eyes of Buddha, painted in crimson, white and black colours, on each of its four sides. Springing from the tops of the four sides of the toran, are four large angular slabs...also of copper-gilt, on each of which are five bas-reliefs of various Buddhas, Buddhisatwas, Lamas, and other eminent Buddhist saints." This image shows the temple with numerous small stupas in the foreground.

from: Online Gallery of the British Library
See: <http://www.bl.uk/onlinegallery/>



All images from the online Gallery of the British Library.
See: <http://www.bl.uk/onlinegallery/>

Summary Data Table of Post-Damage Assessment in Swayambhunath World Heritage Site

1) Swayambhunath-Zone I (Refer map)

	Religious Places		Dwelling Places	
	Shirines/ Chaityas/ Gates/ Stone posts....	Important Heritages (Temples, Stupas, Bihar.....)	Concrete Houses	Non-concrete Houses
Totally Collapsed	3	1	0	9
Threated	5	8	2	17
Slight/Extensive Damaged	9	5	2	2
No Visible Damages	148	7	10	1
Total	165	21	14	29

2) Swayambhunath-Zone II (Refer map)

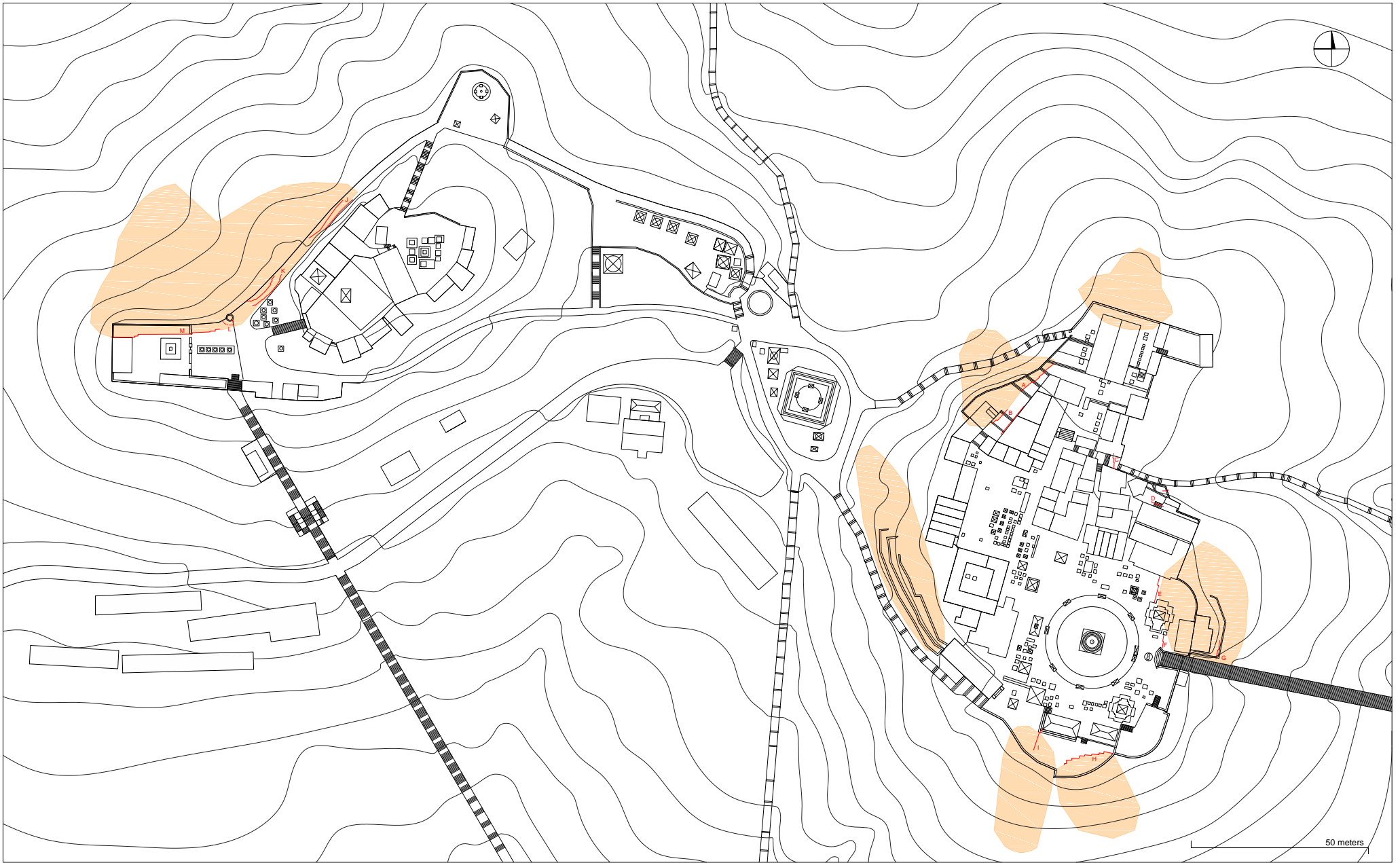
	Religious Places		Dwelling Places	
	Shirines/ Chaityas/ Gates/ Stone posts....	Important Heritages (Temples, Stupas, Bihar.....)	Concrete Houses	Non-concrete Houses
Totally Collapsed	0	1	0	0
Threated	0	5	0	4
Slight/Extensive Damaged	5	6	0	2
No Visible Damages	42	12	0	1
Total	47	24	0	7

3) Swayambhunath (Refer map)

	Religious Places		Dwelling Places	
	Shirines/ Chaityas/ Gates/ Stone posts....	Important Heritages (Temples, Stupas, Bihar.....)	Concrete Houses	Non-concrete Houses
Total	212	45	14	36
% Totally Collapsed	1.42	4.44	0	25
% Threated	2.36	28.89	14.29	58.33
% Slight/Extensive Damaged	6.64	24.44	14.29	11.11
% No Visible Damages	89.62	42.22	71.43	5.56



View towards the East | May 2015



Location of landslides








Skycatch image
landslide areas indicated in red



Location map and number references for Manjushri Hill (Zone 2)









LEGEND

-  Photos taken before the second earthquake of May 12, 2015
-  Photos taken after the second earthquake of May 12, 2015
-  Totally collapsed building
-  Partially collapsed building
-  Danger of collapse
- B** Brick building
- C** Concrete building



Location plan

- 17** Dwellings
- 17** Public and religious buildings
-  Platform cracks
-  No visible damage
-  Light | extensive damage
-  Threatened | dangerous
-  Collapsed
-  Not assessed

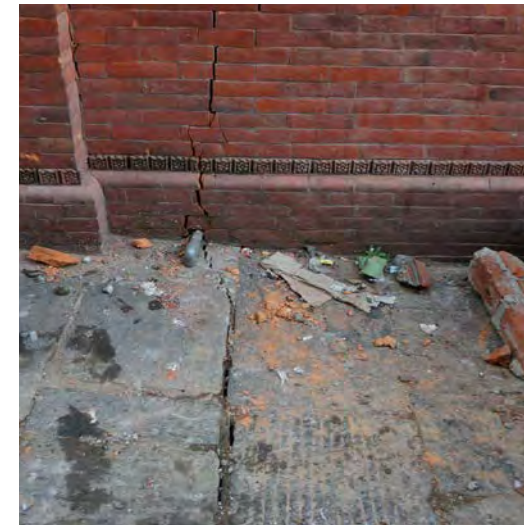
Location map and number references for main hill (Zone 1)

LOCATION OF CRACKS



NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION
A B	Stone paved staircase and walkway	Longitudinal cracks seen on the joints of stone pavement and staircase. Crack A is extends about 12 meters and crack B is about 6 meters long, average width is approximately 7-8 mm.

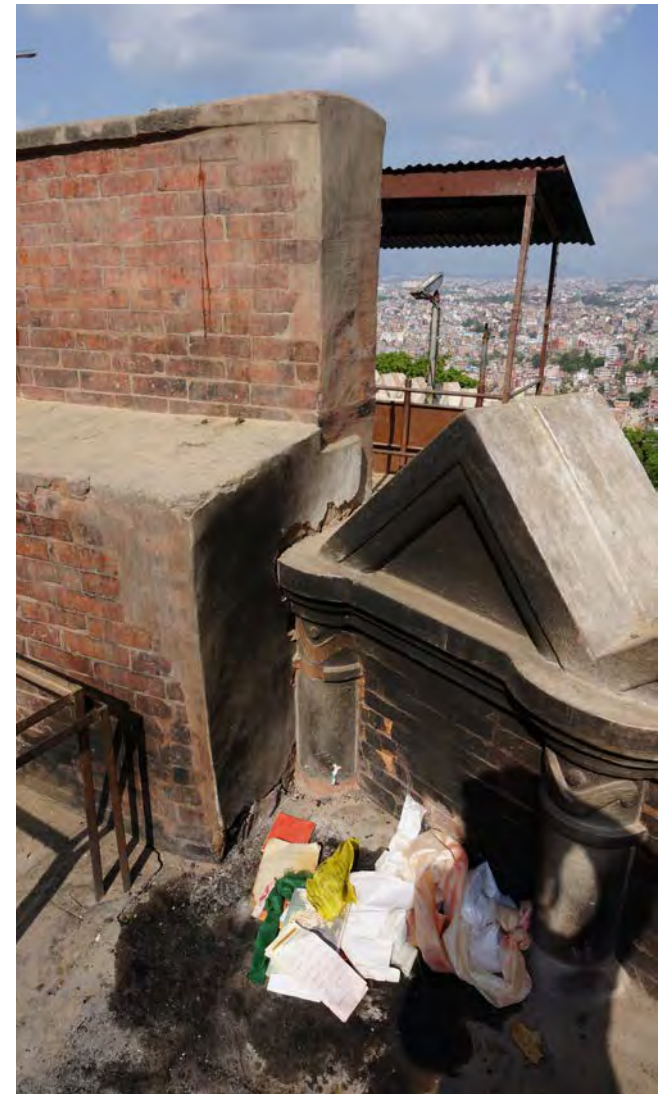
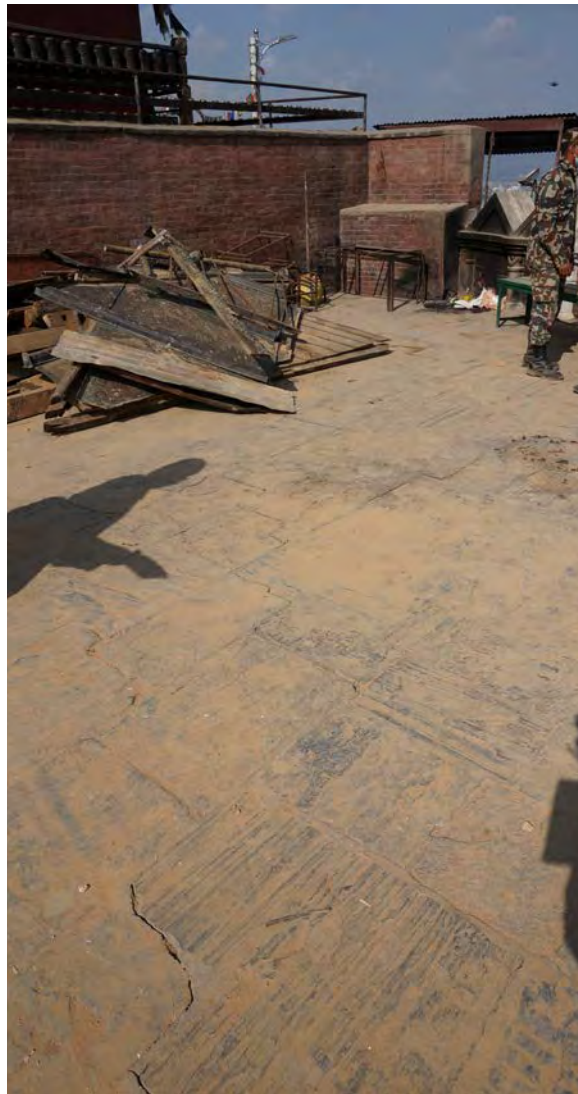
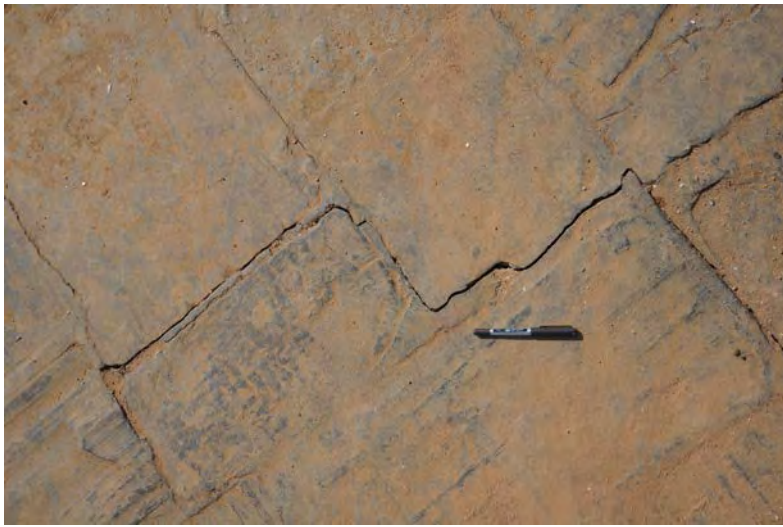




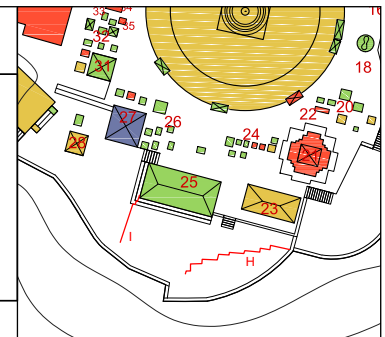
NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION	
C D	Concrete staircase and stone paved walkway	Longitudinal and horizontal cracks on stone paved staircase with additional cracks along the concrete and wall junctions	

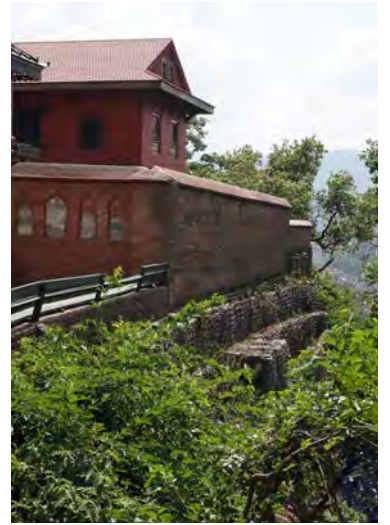


NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION	
G	Brick wall and cement plaster	Random cracks in corners and plastered walls	

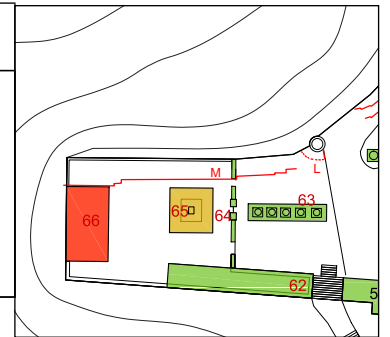


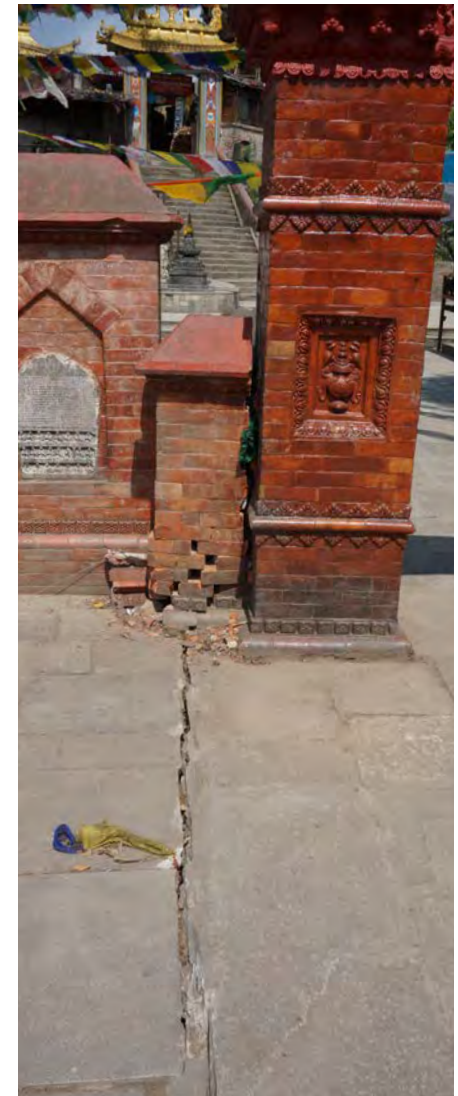
NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION
H I	Stone paved walkway platform	Longitudinal cracks of about 0.5 cm wide seen on the joints of stone



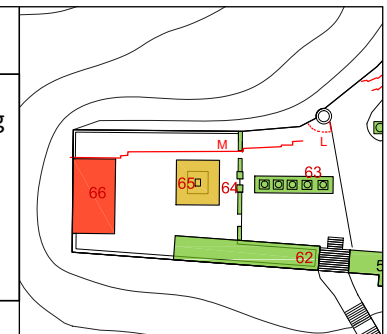


NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION
M L	Stone paved platform and brick boundary walls	Longitudinal cracks of 10-20 mm width extending along the North side of platform



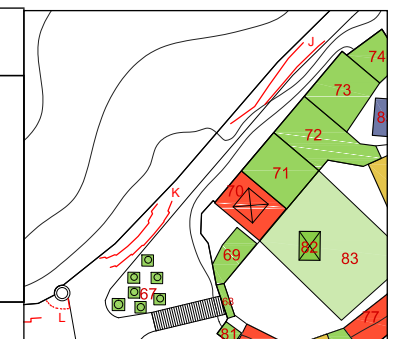


NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION
M L	Stone paved walkway platform and brick boundary walls	<p>Longitudinal cracks of about 1-2 cm extending along the whole North side of platform with certain degree of tilting and subsidence</p> <p>Longitudinal cracks of about 1.5 cm wide seen on the joints of stone</p> <p>3-4 cm of subsidence below the stairs on crack L</p>





NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION
K	Stone paved walkway platform	Two parallel longitudinal cracks along the paths of nearly 1cm wide extending from trees to temple gateways

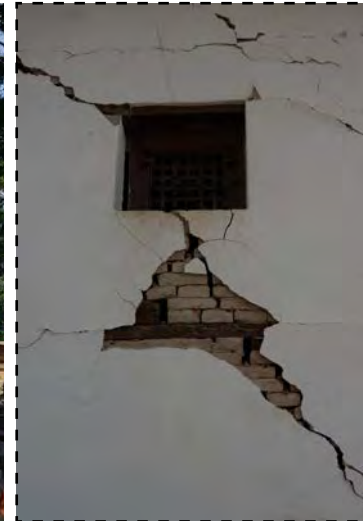




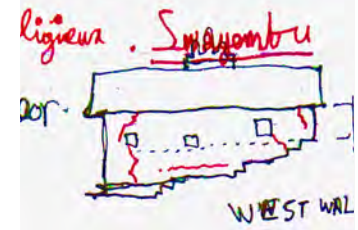
NUMBER NAME	CONSTRUCTION MATERIAL	GENERAL DESCRIPTION
J	Stone paved walkway platform	Two parallel longitudinal cracks near the edge extending from trees



RELIGIOUS AND PUBLIC BUILDINGS



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
1(K-326) Shantipur Temple		Temple	G+1 Building Structure Brick laid in mud mortar, timber roof framing, metal roof	S wall with diagonal and horizontal cracks with cracks and spalling in right pillar	1/2 N Wall	

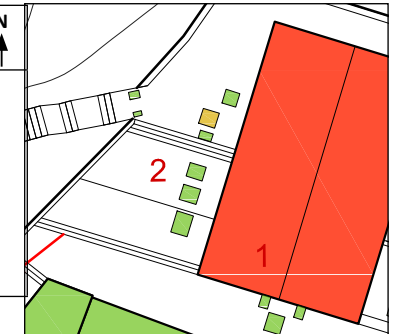


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
1 (K-326) Shantipur Temple		Temple	G+1 Building Structure Brick laid in mud mortar, timber roof framing, metal roof	W and E wall with diagonal and horizontal cracks N wall with major diagonal cracks and gable wall collapsed	1/2 X N Wall	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
2		Chaityas	Group of 6 Chaityas Stone and brick structures	No visible damage except for some missing finials and small parts.	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
3		Chaityas	<p>“Group of 14 Chaityas</p> <p>3 Chaityas at upper part</p> <p>2 Bigger Chaityas</p> <p>9 Small Chaityas</p> <p>Stone and Brick structures</p>	No visible damage except for some missing finials and small parts.		

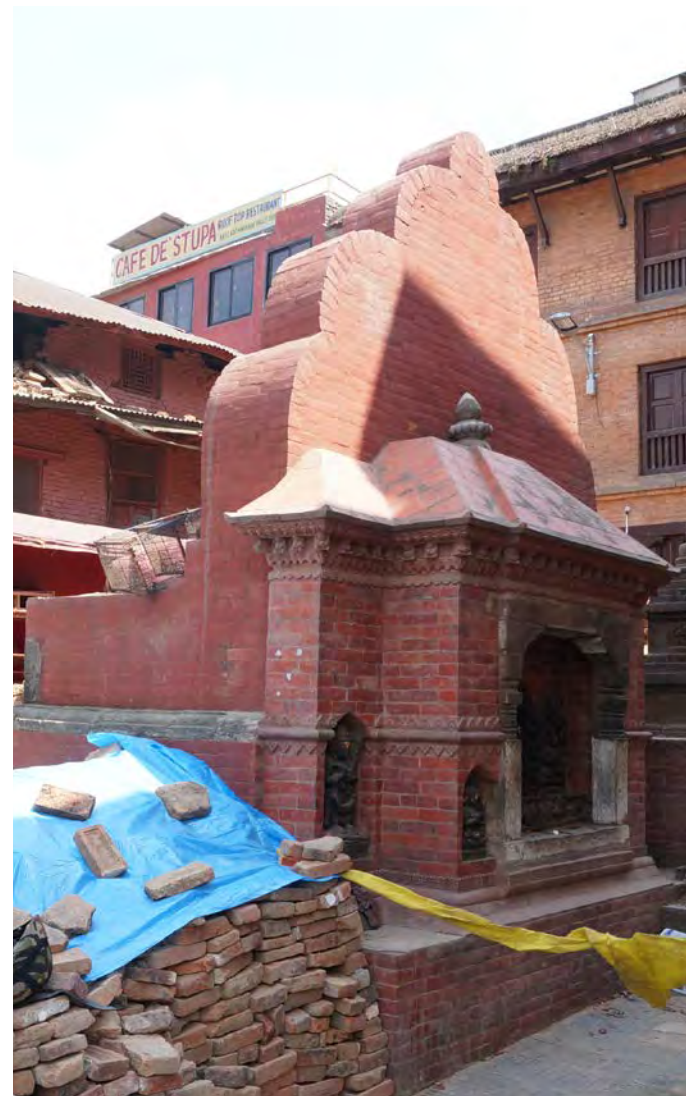


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑	
4		Sattal (public rest house)	G+1 Building Structure Brick and wooden joist system construction	N-E corners with major cracks and falling off N wall with half of wall collapsed E wall with major diagonal cracks	1/2 X N WALL		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
5		Pati	Small pati under construction Stone and wooden structure	Under Construction and no visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
6 Buddha Statue		Statue	Statue of Buddha Concrete, stone, and brick structure	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
7		Chaityas	Group of 4 Chaityas Stone structures	No visible damage		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
8		Chaityas	Group of 10+ Chaityas Stone and brick structures	No visible damage		

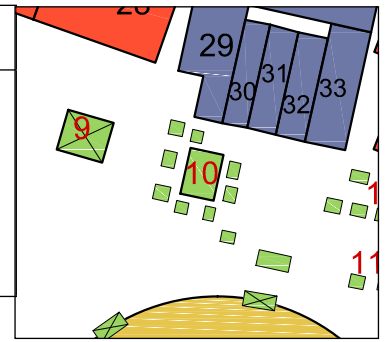




NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
9		Stupa	Brick and lime made stupa	No visible damage		

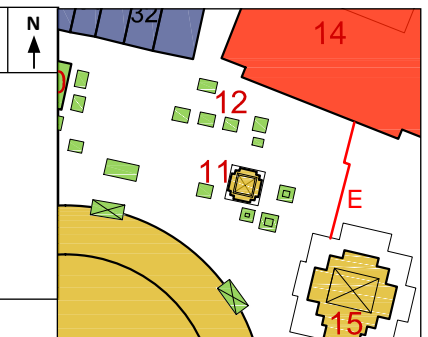


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
10		Chaityas and small stupa	Group of 8+ Chaityas Stone and brick structures	No visible damage except for some missing finials and small parts.	



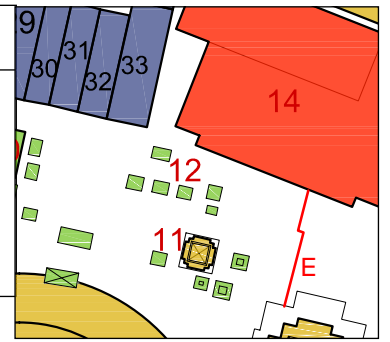


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
11		Shikhara style	Brick and lime structure about 6 m height	Horizontal cracks in lower section	




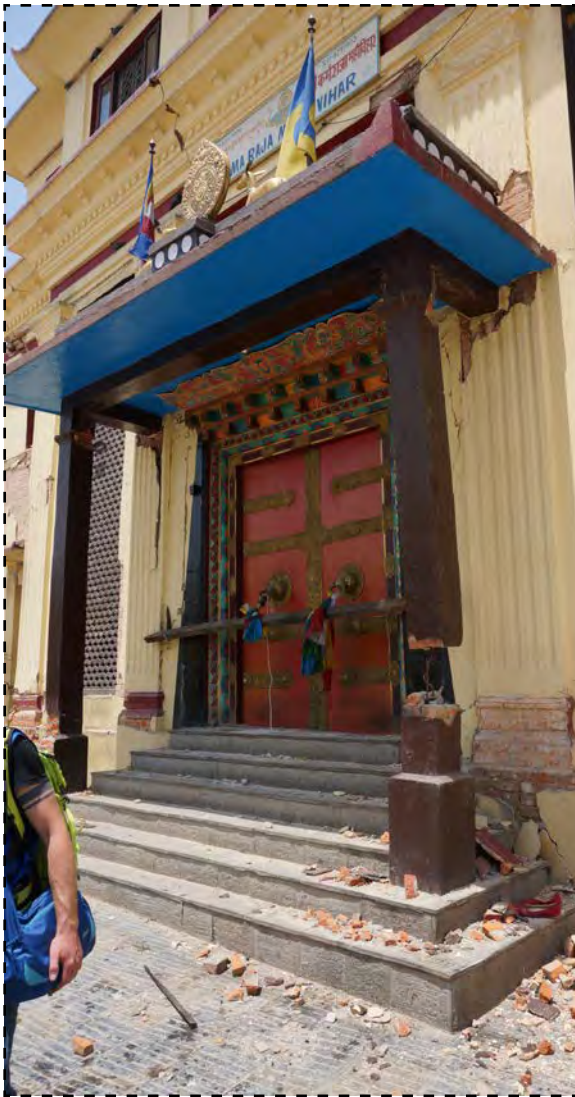


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
12		Chaityas	Group of 6+ chaityas Stone and brick structures	No visible damage	



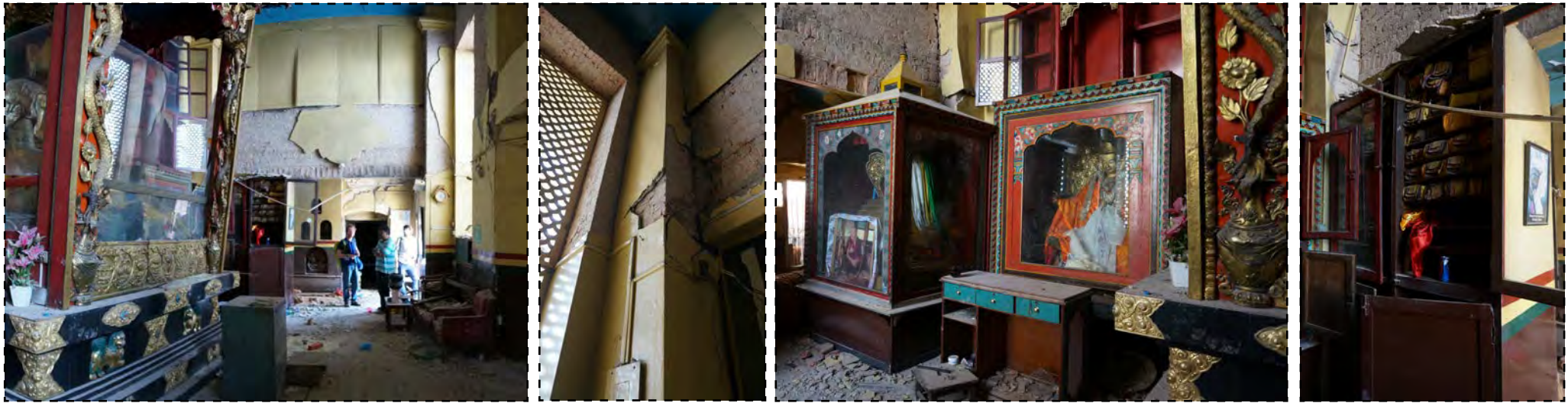


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
13		Monastery at back of Karmaras Gumba	G+4 Concrete structure	Upper part damaged Cracks and separation from stairs Some minor cracks at wall and plaster	



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
14 (K-327) Karmaraj Gumba		Gumba	"G+2(EL) Ground and 1st storey brick made 2nd storey concrete made Big Buddha statue is established and big Buddhist wheel"	N-W and N-E corner is half collapsed Over weight due to over elevation S-E corner with diagonal cracks	1/2 X





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N
14 (K-327) Karmaraj Gumba		Gumba	G+2(EL) Ground and 1st storey Brick made 2nd storey concrete made Big Buddha statue is established and big Buddhist wheel	N-W and N-E corner is half collapsed Over weight due to over elevation S-E corner with diagonal cracks	1/2	



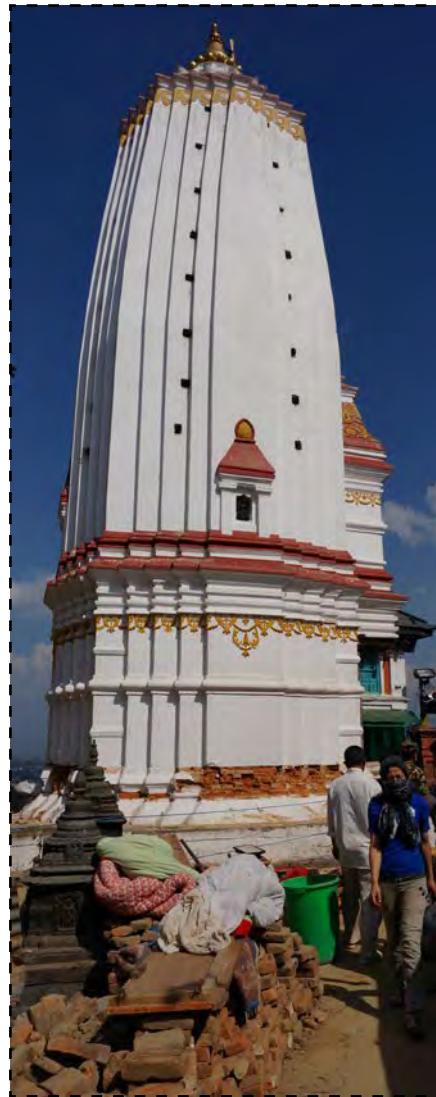
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
14 (K-327) Karmaraj Gumba		Gumba	G+2(EL) Ground and 1st storey brick made 2nd storey concrete made Big Buddha statue is established and big Buddhist wheel	N-W and N-E corner is half collapsed Over weight due to over elevation S-E corner with diagonal cracks	1/2



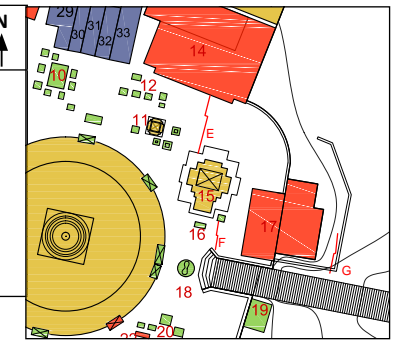


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
14 (K-327) Karmaraj Gumba		Gumba	G+2(EL) Ground and 1st storey brick made 2nd storey concrete made Big Buddha statue is established and big Buddhist wheel	N-W and N-E corner is half collapsed Over weight due to over elevation S-E corner with diagonal cracks	1/2 ⊗	



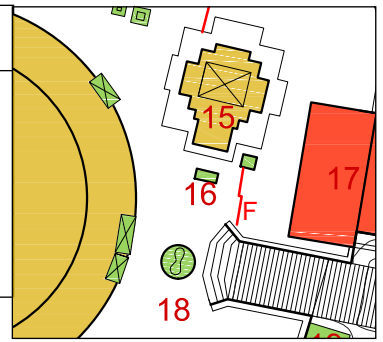


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
15 (K-328) Pratapur Temple		Shikhara style temple	Brick, Lime and stone made structure of about 15 m height	Basement heavily damaged Stone pillars at entrance collapsed and some temporary wooden poles are installed to support the upper part	



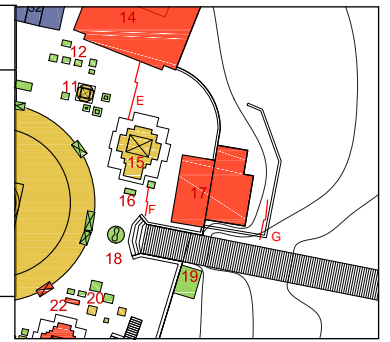


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
16 Big Bell		Bell	Stone and metal structure	No visible damage	



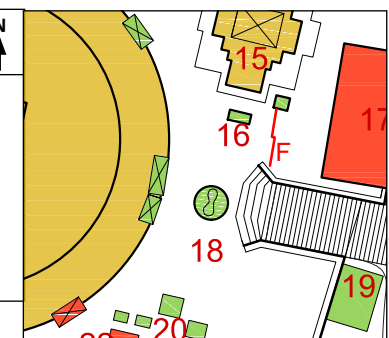


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
17		Sattal + building	G+4 Brick and wooden structure 2 storey sattal built at platform and other house attached at its back part	4th floor slightly drifting towards N and E Basement cracks Slight joint separation between front and back part of building Weak wood structure parts in 3rd floor Bricks falling	⚠



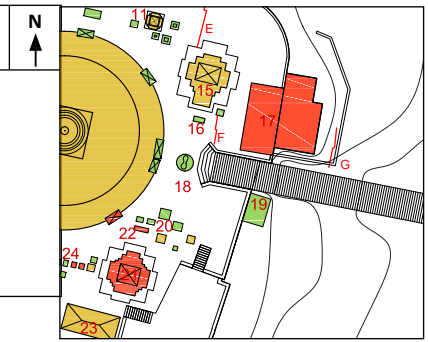


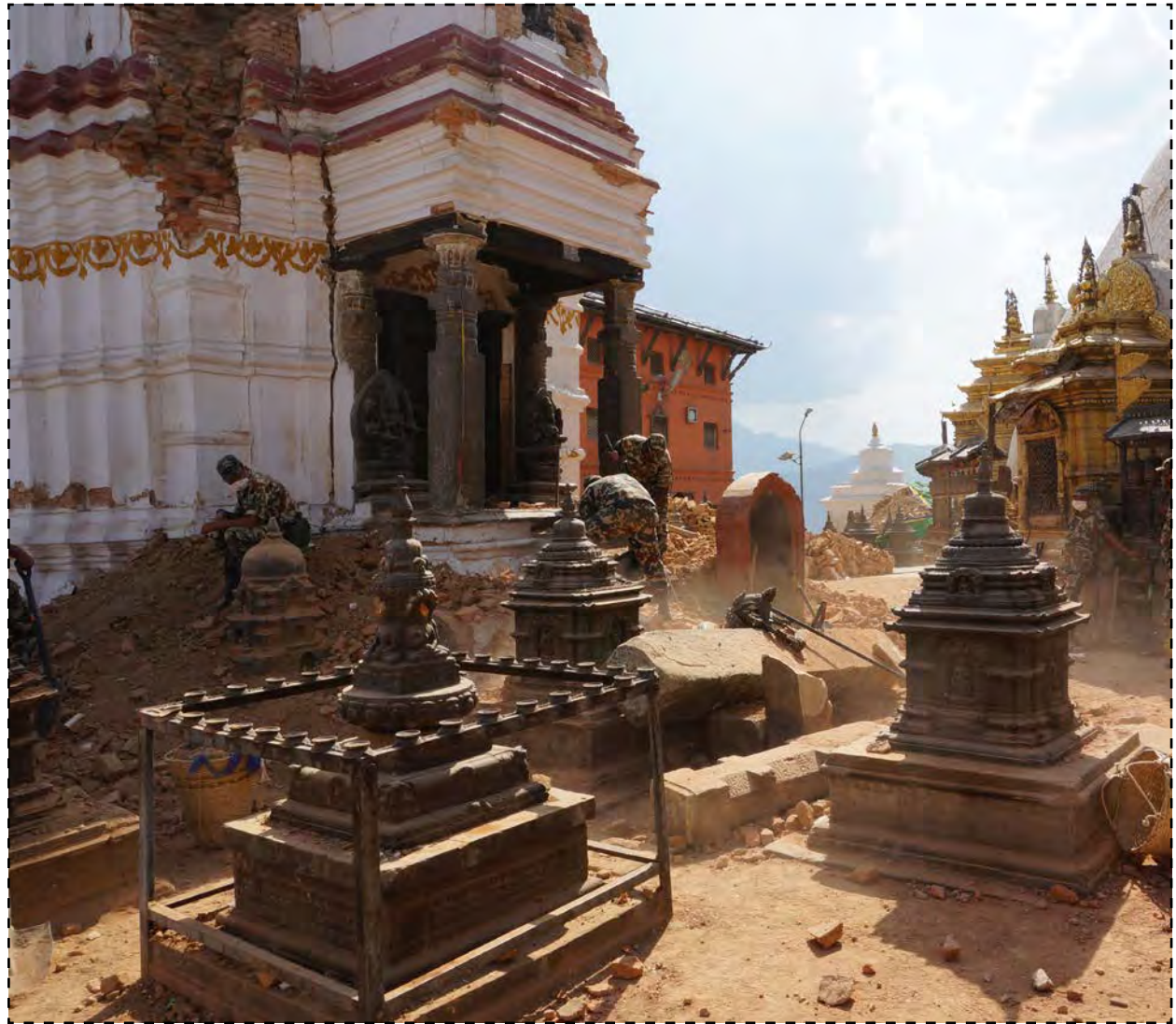
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
18 Bronze Bajra		Bajra	Bronze bajra on stone carved base of about 1.9 m height Two stone lions	No visible damage	



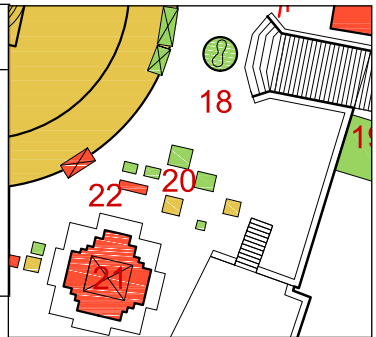


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
19		Pati	Small Pati at left of top Thado Bharyang Brick structure with some pillars and open spaces	No visible damage	



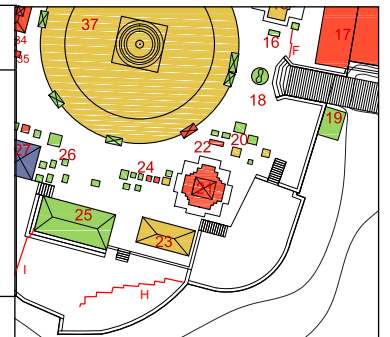


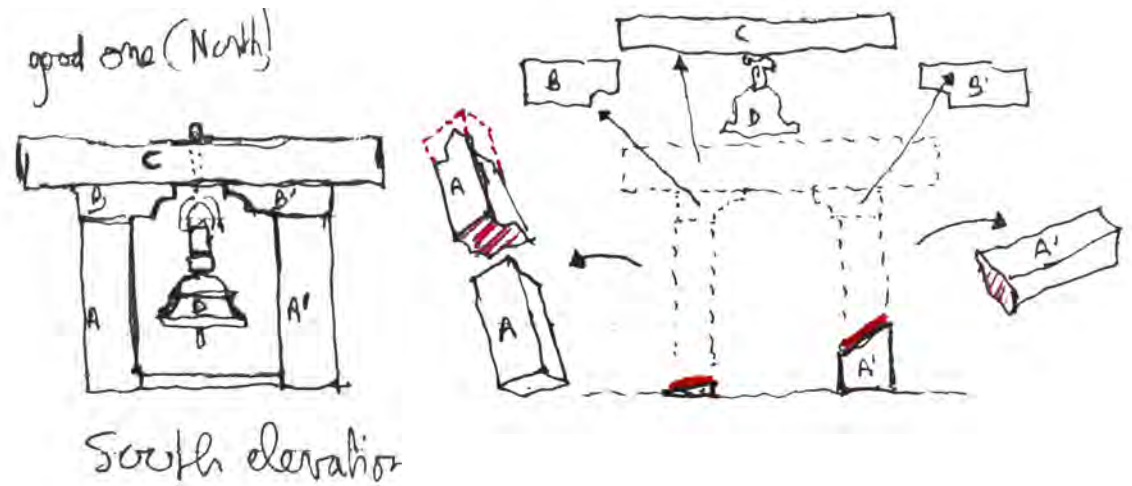
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
20		Chaityas	Group of 3+ Chaityas Stone and brick structures	No visible damage	



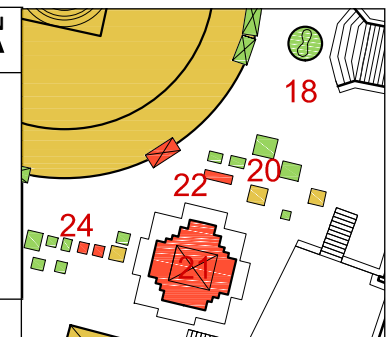


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
21 (K-329) Anantapur Temple		Granthakut style	Brick, lime and stone structure approx. 15 m tall	Upper part collapsed Pillars and door are tilted	1/2



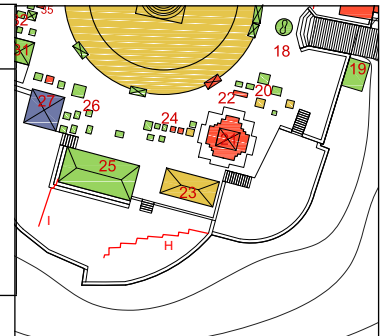


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
22 Big bell		Bell	Stone and metal structure	Stone support frame collapsed Bell not damaged	



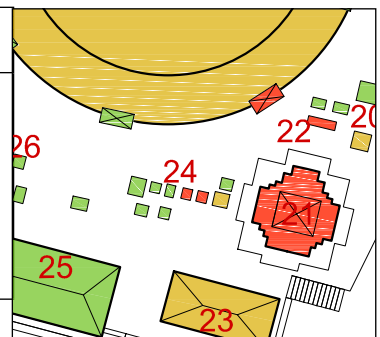


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
23 Basundhara Temple		Temple	Single storey brick made temple with metal roof and wooden supports and gajur.	Roof was partly damaged by falling parts of temple no 9 Need repair of roof to prevent water damage	



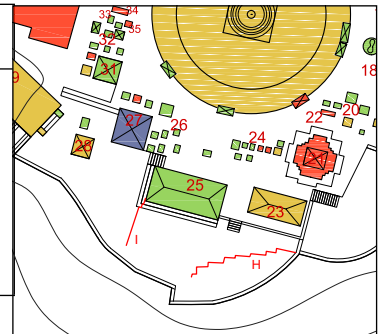


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
24		Chaityas	Group of 10+ chaityas Stone	2 Chaityas are missing, No visible damage on other chaityas	



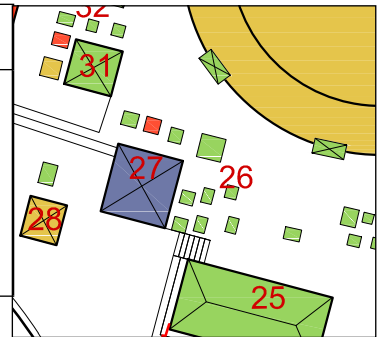


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
25		Public House	G+2 house Brick and wooden joist system of construction Tiled roofing	W wall with stepped cracks No visible damage	



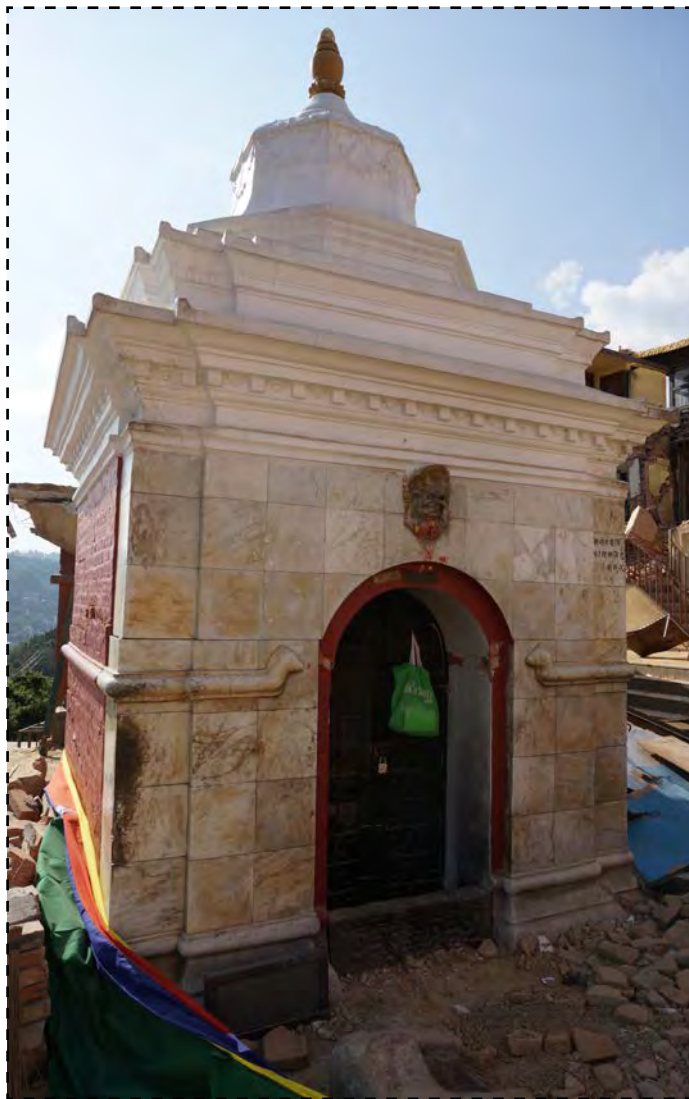


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
26		Chaityas	Group of 10+ Chaityas Stone and brick	No visible damage except for second chaitya in front of temple no. 27	



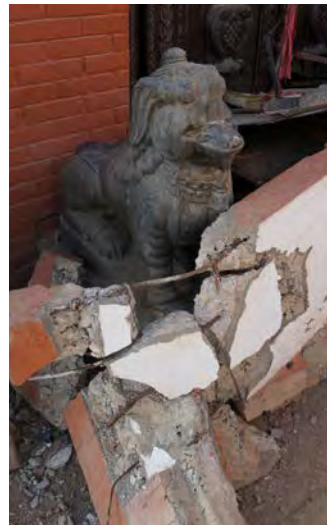


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
27		Shikhara Style		Totally collapsed	⊗	

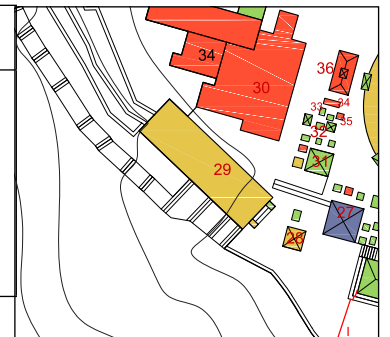


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
28		Enclosed shrine	Little Shivalaya with brick made walls and tile covering on all four sides Dome roof painted white	Horizontal cracks on all four sides Upper half part of temple is leaning towards N by about 1-2cm	






NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
29		Museum	G+1, RCC structure and cantilevered slabs	Partially collapsed wall Cantilever part of slab is partly collapsed which caused some damage to the monuments	





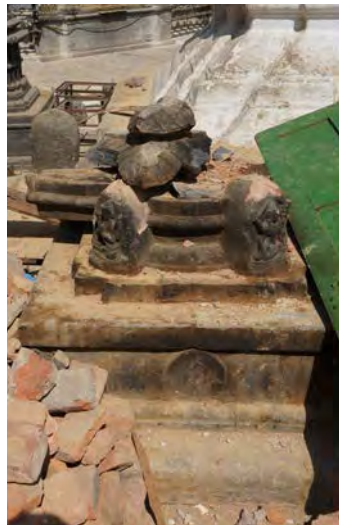
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
30 (K-323) Shyambhu Gumba		Gumba	Brick and wooden structure	S wall totally collapsed Problem of soft storey drift N wall collapsed N-E corner with severe cracks and separation	



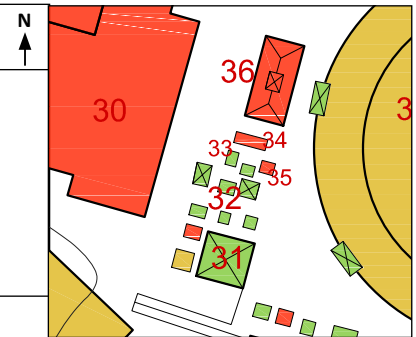


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
31		Chaitya	Large chaitya Brick and lime made structure	No visible damage	



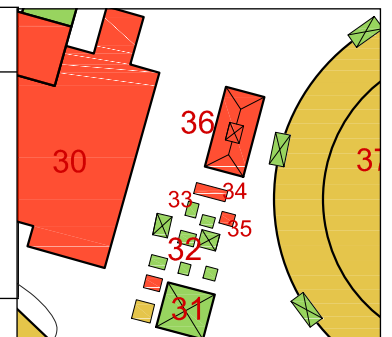


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
32		Chaityas	Group of 10+ chaityas Stone and brick structures	No visible damage except for few which have missing top and some parts.	



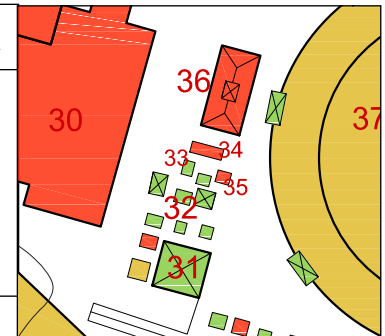


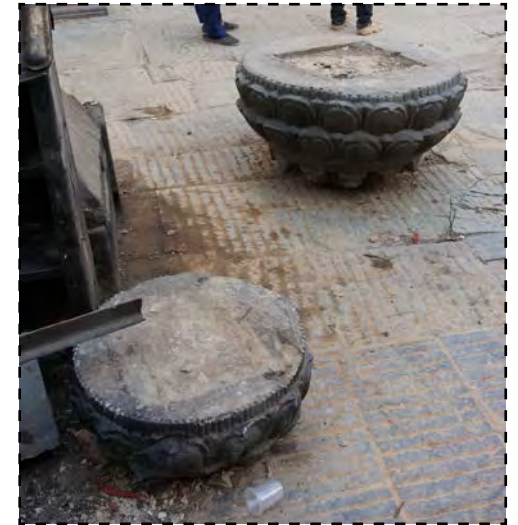
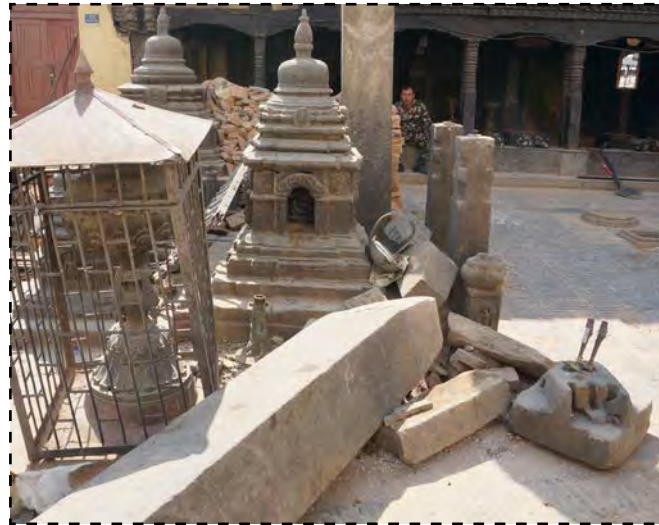
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
33		Stone Stele	Big stone stele	No visible damage	



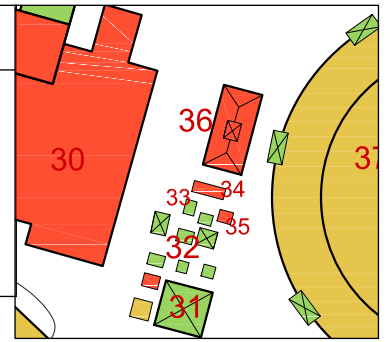


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
34		Bell	Big metal bell supported by stone frame Stone and metal Structure	Stone cross beam and bell collapsed		





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
35		Stone stele	Stone stele	Totally collapsed	

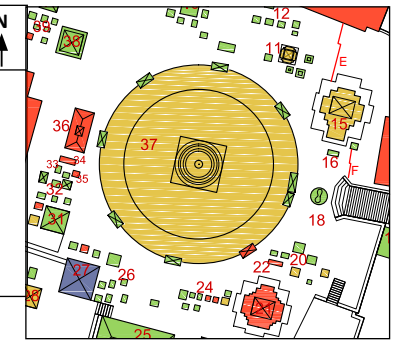


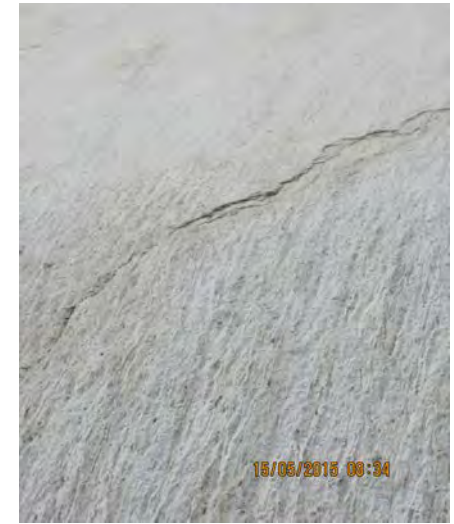
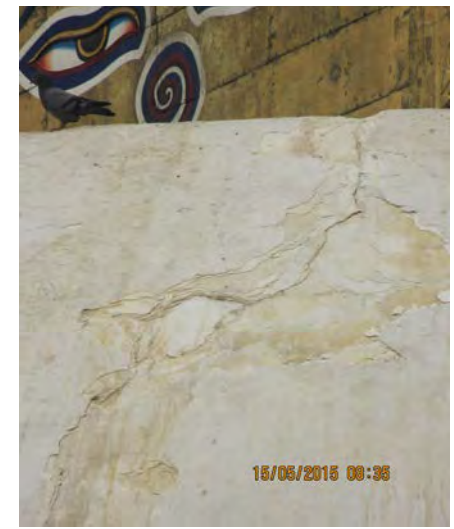
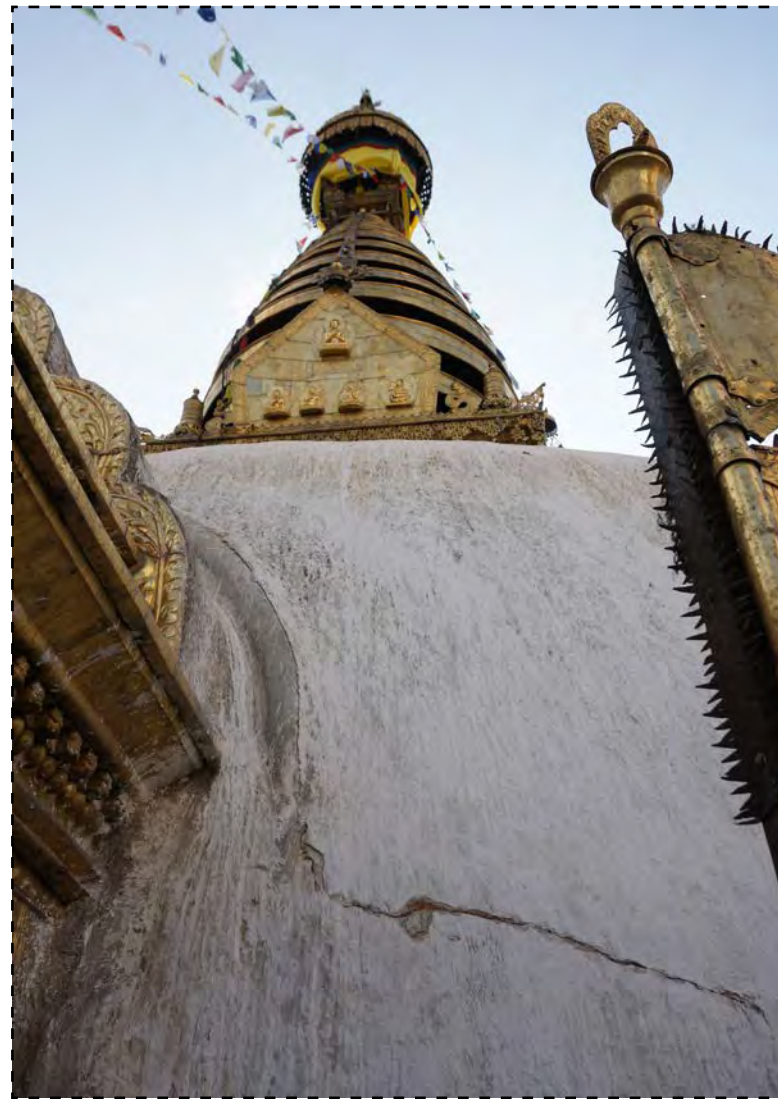


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
36		Statue	Single storey Metal roofing and stone poles covered by steel plates. Statues protected inside glass covering.	Major damages One stone post is broken Metal roof partially collapsed		

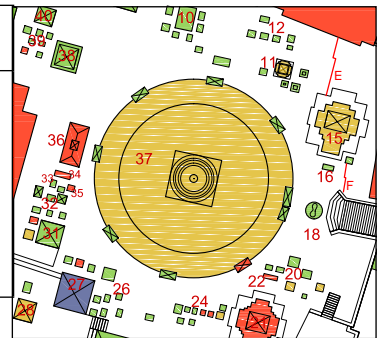


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	ANGER DESTROY
37 (K-322)/ Shyambhu Stupa		Stupa	Brick, Stone, Mud and Lime made structure	Vertical and horizontal cracks on dome structure	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
37 (K-322) Shyambhu Stupa		Stupa	Brick, stone, mud and lime made structure	Vertical and horizontal cracks	





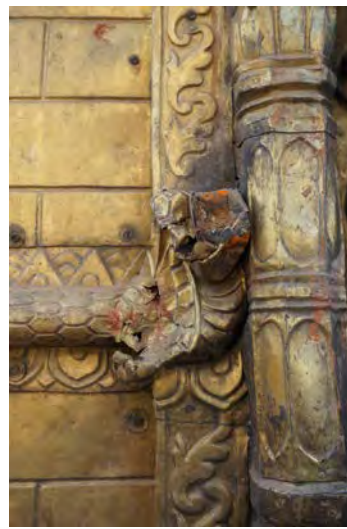
A



B



C



D



E



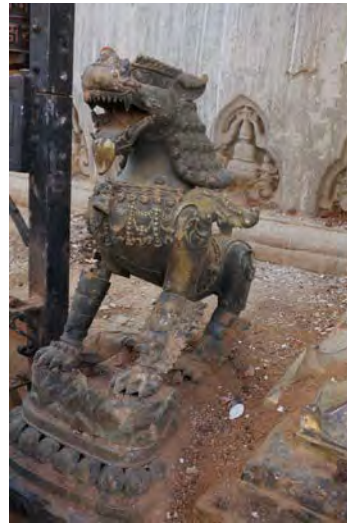
F



A



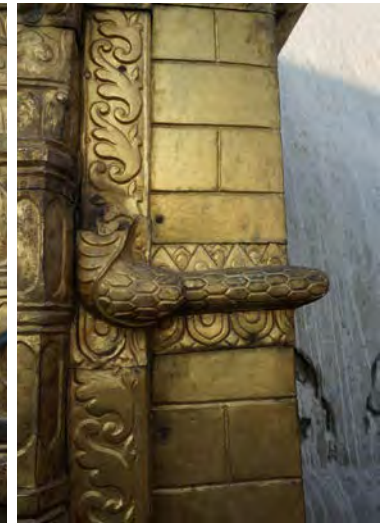
B



C

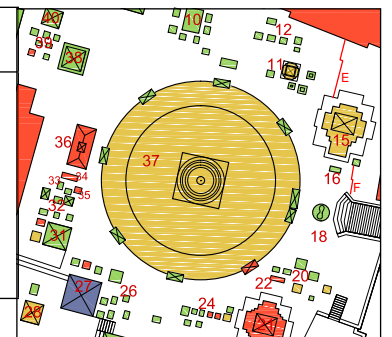


D



E

NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
37 (K-322) Shyambhu Stupa		Stupa	Brick, stone, mud and lime made structure	No visible damage to shrines a, c, e, f and g Shrines b and d with some damages due to fallen parts from temple no. 9 Shrine h with damage on lower part of left lion	



PLAN 1/1000



E



F



G



H



E

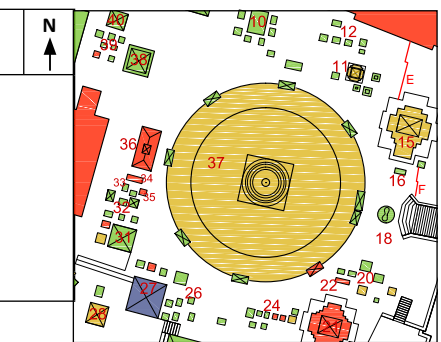


H

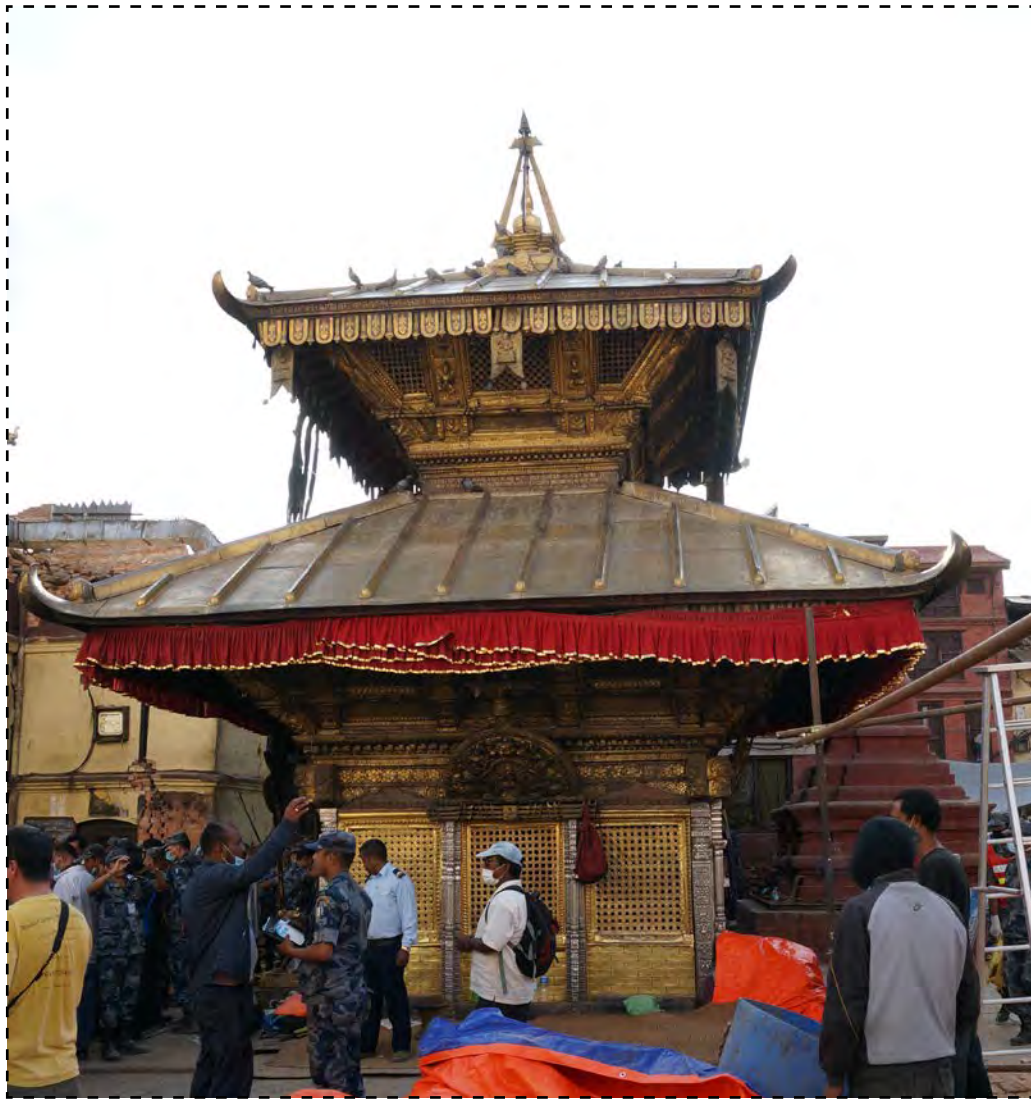


H

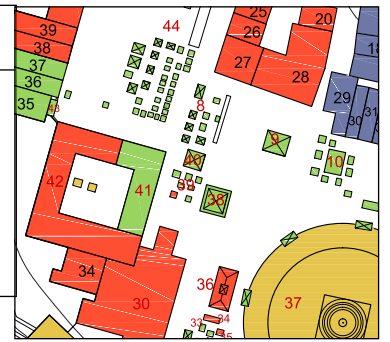
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
37 (K-322) Shyambhu Stupa		Stupa	Brick, stone, mud and lime made structure clad in gilt copper	No visible damage to Shrines a, c, e, f and g Shrines b and d with some damages due to fallen parts from temple no. 9 Shrine h with damage on lower part of left lion	



PLAN 1/1000



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
38 (K-325) Harati Ajima Temple		Two-tiered Pagoda style temple	Brick structure with wooden joist and tunals Gold plated metal roof and gajur	no apparent damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
39		Chaityas	Group of 6 chaityas stone structures	No visible damage		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
40		Stupa	Brick and lime made stupa	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
41 Singu Bahal		Bahal	G+1 Right corner and entry portion of the bahal Concrete and brick structure	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
42 (K-324) Singu Bahal		Bahal	G+1 All the remaining portion the bahal Brick structure	Courtyard filled with debris Collapsed Risk of falling parts	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
43		Standing Buddha statue	Standing Buddha at the corner Concrete Statue	No visible damage		





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
44		Chaityas	Group of Chaityas (about or more than 30) Stone and Brick structure	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
45		Chaityas and small stone statue	Group of Chaityas (about 4 monuments) Stone and brick structures	No visible damage		





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
46		Enclosed shrine	New brick structure	No visible damage	

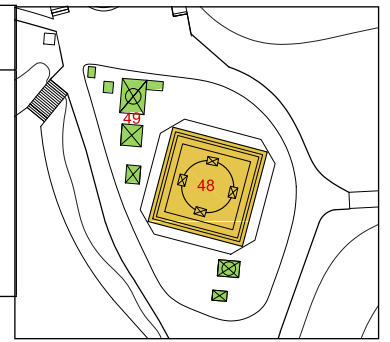




NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
47		Public toilet	G New brick and concrete structure	No visible damage		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
48		Stupa	Brick and lime made stupa. Stone statues which were initially used in main Swayambhu were brought down and installed in this stupa.	Vertical and diagonal stepped cracks at the upper parts. Vertical cracks on the dome	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	ANGER DESTROY	N ↑
49		Stupa, bell and water fountain	Stupa, bell and water fountain	No visible damage		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
50/ Aastu House		Public Place	Brick made small house where people store little mud made stupas and stone for their dead relatives	Roof with vertical cracks in near gable wall Protection from rain water is necessary to protect little stupas stored N wall corner with cracks and small settlement W wall with diagonal cracks	





51



52



53

NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	ANGER DESTROY	N
51 52 53		Chaitya	3 stone and brick chaityas	No visible damage		



54



54



54



55



56



56

NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
54 55 56		Chaitya	54-55) Stone made Chaitya 56) Two Chaityas constructed on same base Stone made Chaitya	54: some cracks at the corner of the second step of the basement 55: No visible damage 56: Minor cracks at upper parts		




58 (foreground)



57



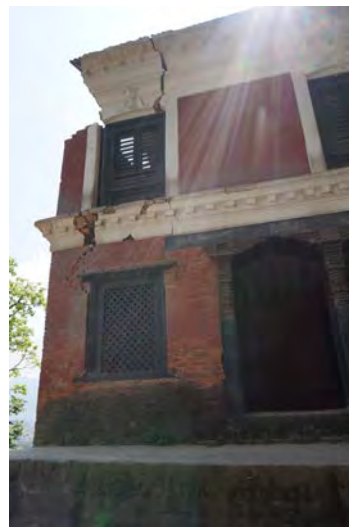
58

NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
57 58		Chaitya	Stone chaityas	57: Minor cracks at upper parts 58: Minor cracks in horizontal and vertical direction at the upper part		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
59		Stupa	Brick and stone made stupa, lime wash	Horizontal cracks on four faces above the dome of stupa	





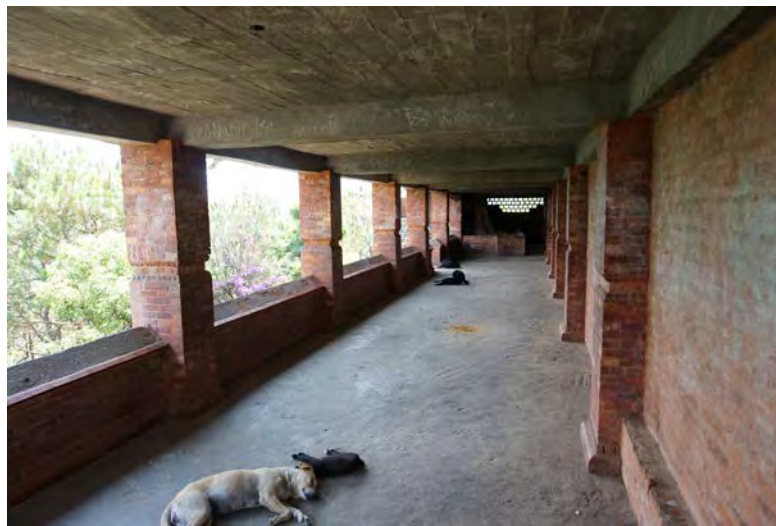
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
60		Public house	G+1 Brick made structure	Rising damp Soft storey system in ground floor Major vertical cracks about 5cm Major vertical cracks all over	1/2 X W Wall



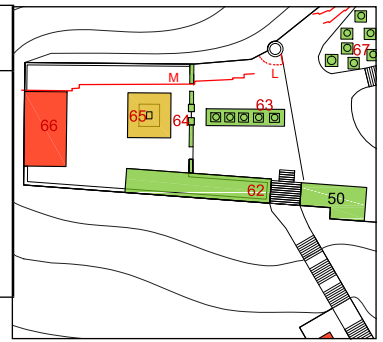


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
61		Shrine	Large shrine with staircase Brick made shrines with stone sculptures	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
62			Platform + Open space below Concrete and brick structure	No visible damage to the platform and the open space with RCC beams and large brick pillars below	





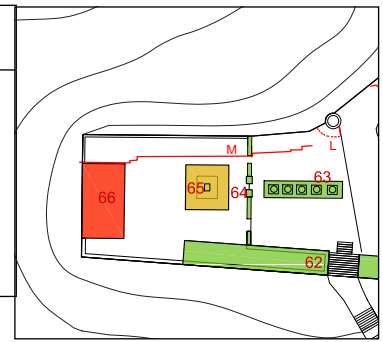
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑	
63		Chaitya	Small Chaityas in front of Manjushree Stupa Stone made and lime painted Chaityas	No visible damage			



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
64		Gates	3 brick entrance gates to Manjushree Stupa	Newly built and with minor cracks		

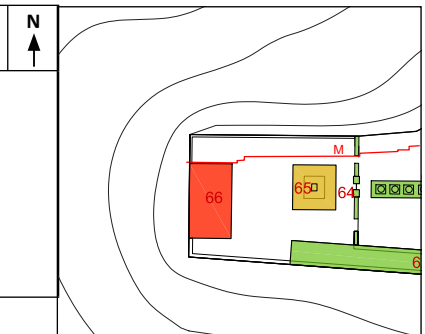


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
65 (K-331) Manjushree Shrine		Shrine	Brick and lime structure New wooden and metal structures installed	Vertical cracks extending from below to top in all the corners and mainly in front face New wooden structures and metallic roof constructed	



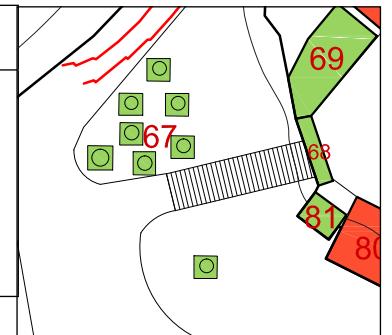


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
66		Sattal	G+1 Brick and wooden structure	Major vertical cracks at front face corners Outer part of front left corner wall is partly collapsed Plaster are mostly off from wall inside the sattal Left and right face walls are bulging and tilted by small amount	



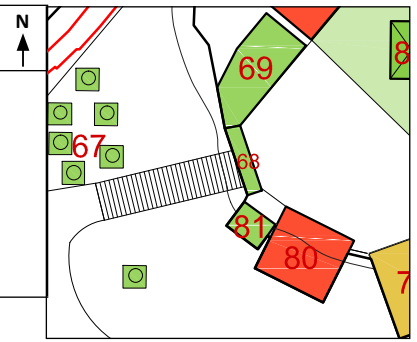


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
67		Chaityas	7 stone Chaityas	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
68		Gate	Brick made white painted gate with round upper part	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
69/ Dharma Chakra Bihar		Public House	Small house for light burning Brick made and cement plastered structure Small, long and open Medium height	No visible damage	

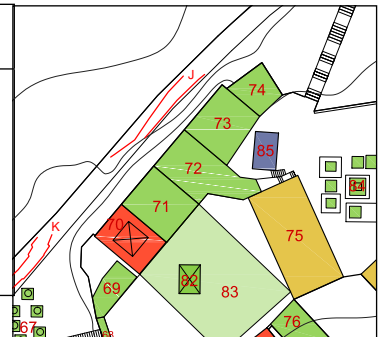




NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N
70 (K-332) Dharma Chakra Bihar	1947		G+2 Brick made monastery	No visible damage		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
71 Dharma Chakra Bihar		Public house	Small house for light burning Brick and cement plastered structure	Minor cracks	






NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
72 Dharma Chakra Bihar		Public House	G+2 Brick structure	Minor cracks	






NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
73/ Dharma Chakra Bihar		Public House	G+2 Brick structure (concrete pillars)	Kitchen hall Minor cracks No visible damage		



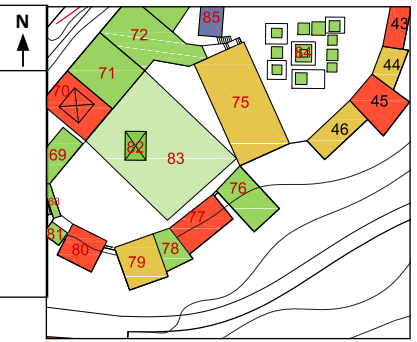
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	ANGER DESTROY	N ↑
74/ Dharma Chakra Bihar		Public house	G+1 Brick and RCC structure with corrugated metal roof	No visible damage		




NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
75 Dharma Chakra Bihar		Public house	G+2 Concrete structure	Cracks (mostly horizontal) above doors and windows and in stairs Balcony tends to fall down Suspect of over-weight Metal Poles are provided to support at 2nd floor but seems to not very useful		




NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
76 Dharma Chakra Bihar		Public house	G Concrete masonry structure corrugated metal roof	Temporary office building No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
77 Dharma Chakra Bihar		Public house	G+2 Brick structure	Owned by Manandhar family and now used by nuns. Roof partially collapsed Wall with vertical cracks		



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
78 Dharma Chakra Bihar		Public house	G+1 Brick structure	No visible damage		



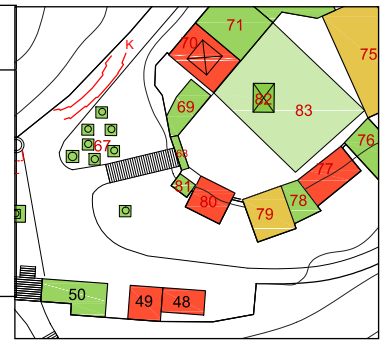
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
79 Dharma Chakra Bihar		Public house	G+1 Brick structure	Diagonal cracks Roof partially collapsed	1/2	




NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
80 Dharma Chakra Bihar		Public house	G+1 Brick structure	Owned by Manandhar family and now dwelling by cooks More than 75% of house is collapsed and damaged	3/4	



NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
81 Dharma Chakra Bihar		Public house	G Brick Structure	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
82 Dharma Chakra Bihar		Chaitya	Brick chaitya in the center part of the Vihar courtyard	No visible damage		

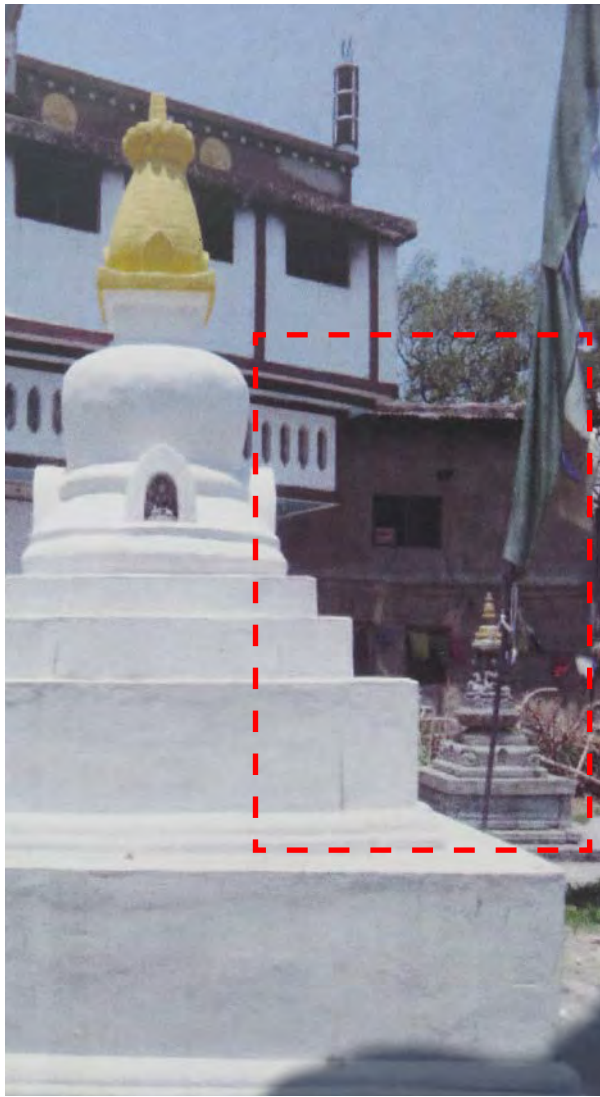


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY
83 Dharma Chakra Bihar		-	Metal poles and sheet roofing with barbed wire fenced at top.	No visible damage	





NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
84/ Dharma Chakra Bihar		Chaityas	Stone chaityas	No visible damage		

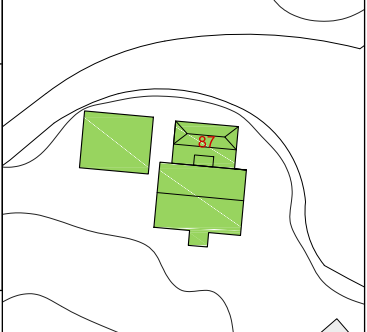


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
85 Dharma Chakra Bihar		Public House	G Brick structure	Totally collapsed	☒	

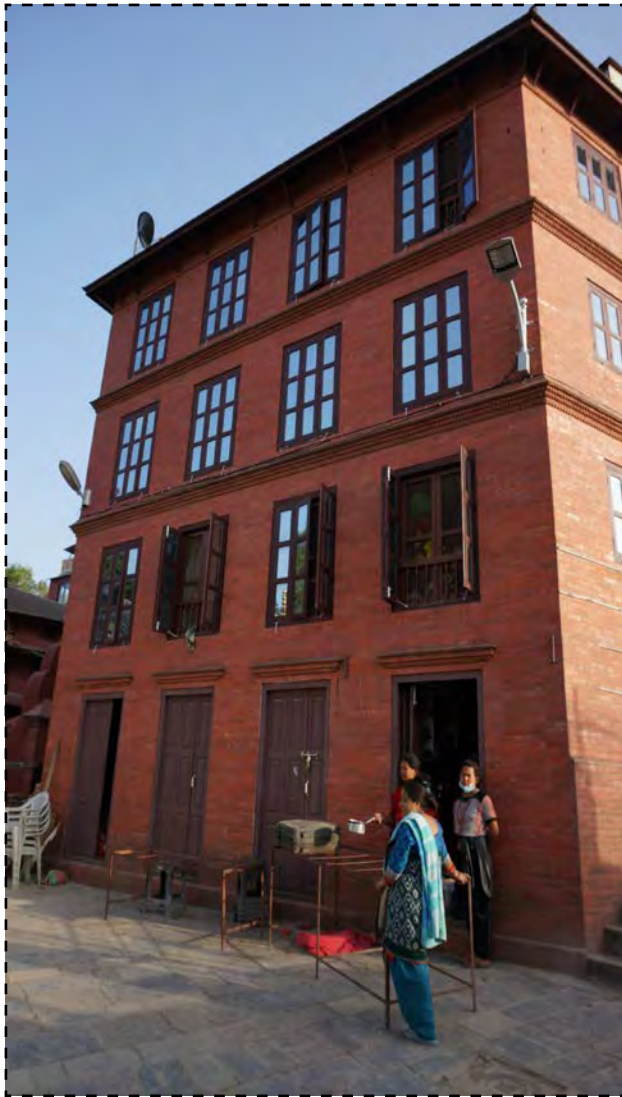


NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
86 (K-333) Pulan Singa Stupa		Stupa	Brick and stone made stupa	Finial is broken and tilted		



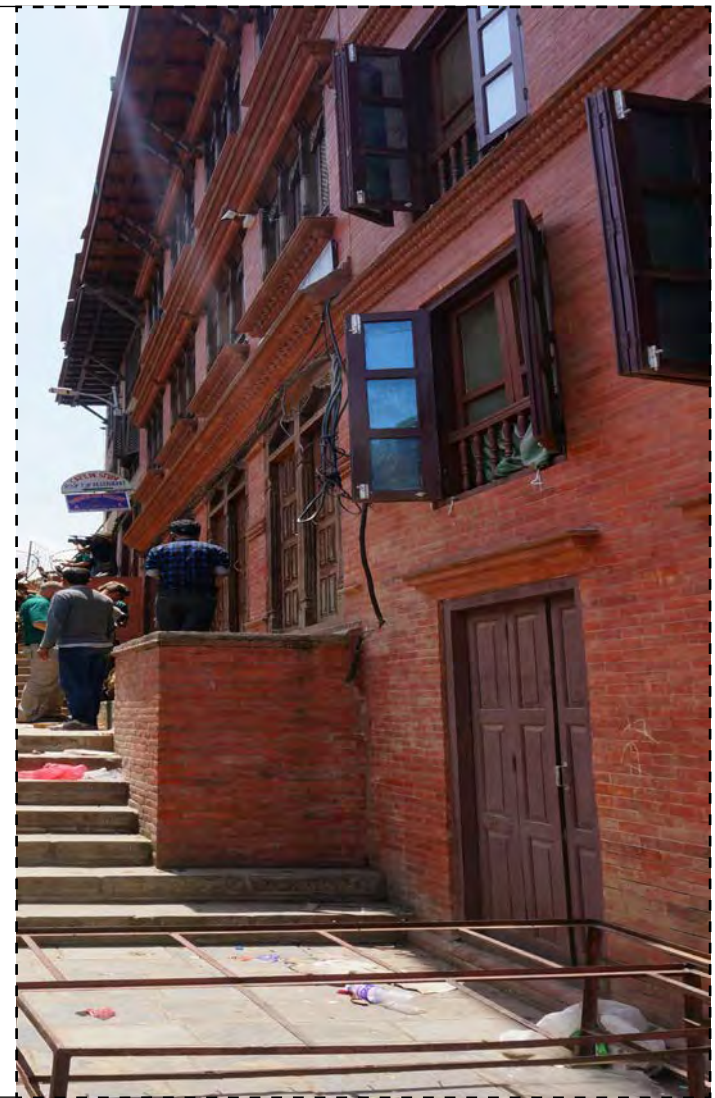
NUMBER NAME	DATE A.D.	TYPE OF MONUMENT HERITAGE SIGNIFICANCE	GENERAL DESCRIPTION	DESCRIPTION OF DAMAGE	DANGER DESTROY	N ↑
87 (K-330)/ Maitri Gumba		Gumba	Houses of G+1 to G+3 concrete structure	No visible damage		

DWELLINGS

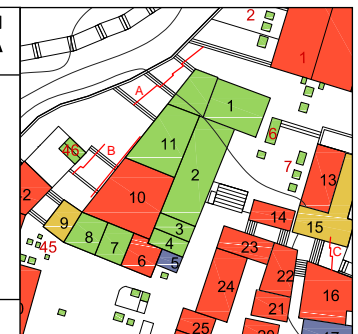


NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
1	G+1	C	No visible damage		





NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
2	G+3	C	No visible damage		



PLAN 1/1000

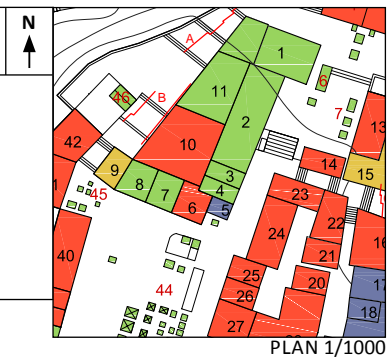


NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
3	G+2	C	No visible damage		





NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
4	G+3	C	No visible damage		









NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
5	G+2	B	Totally collapsed	☒	



PLAN 1/1000



NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N	
6	G+2	B	S-E corner collapsed E wall heavily damaged	1/2  			



NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
7	G+3	C	No visible damage		+

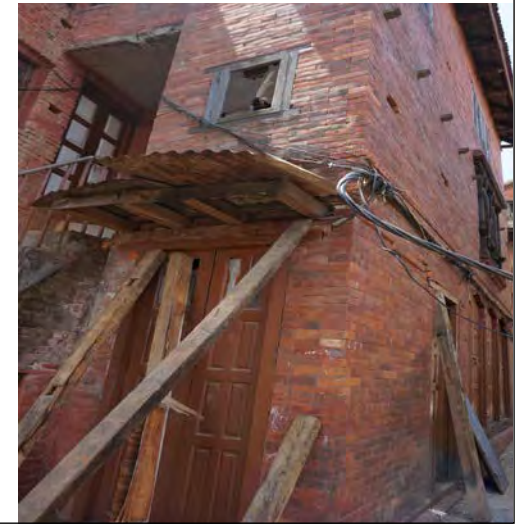
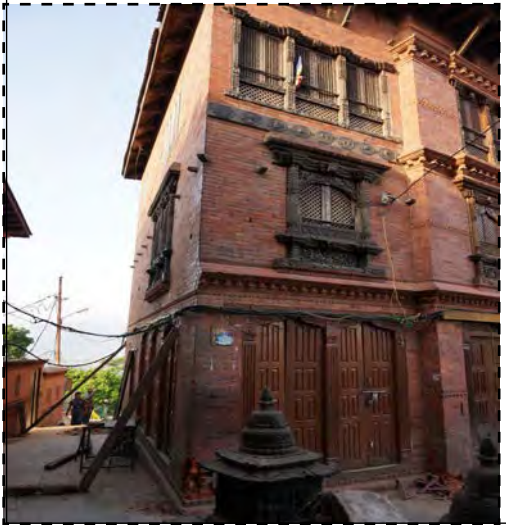




NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
8	G+3	C	No visible damage		+

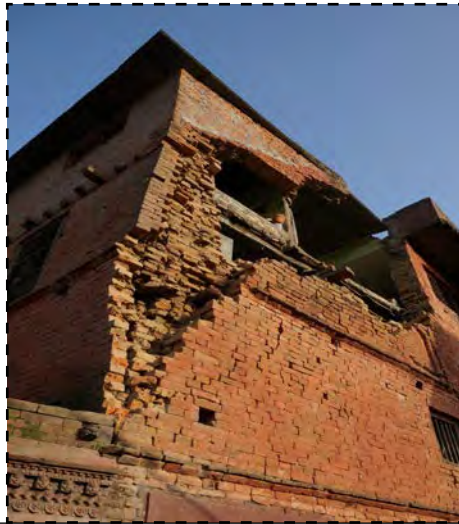
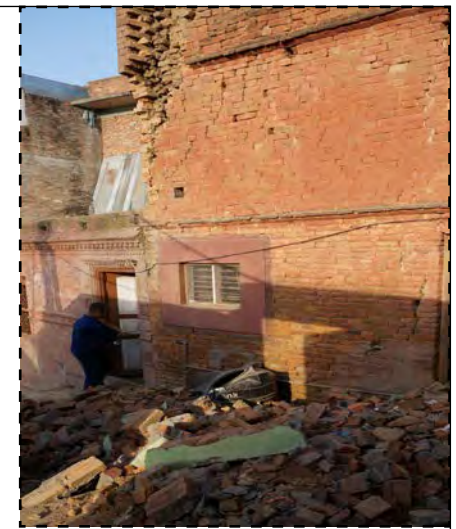


PLAN 1/1000



NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
9	G+3	B	N wall corner at ground floor is offset of about 7-8 cm		+



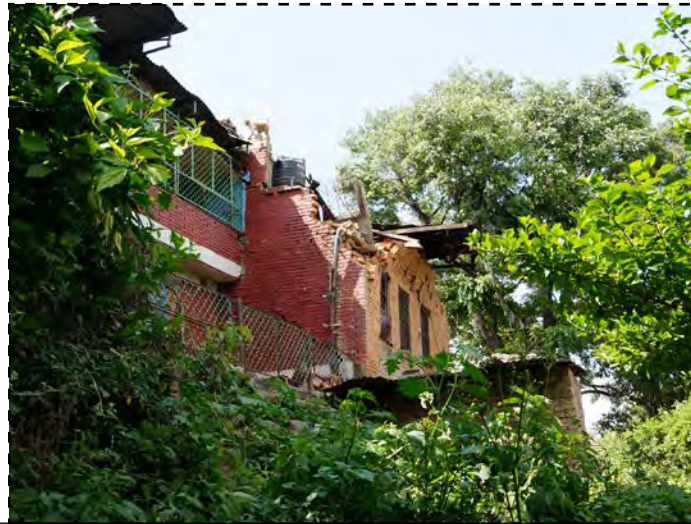



NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N	
10	G+3(EL)	B	W wall partially collapsed N wall heavily bulging out	⚠️		↑	



NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
11	G	B	No visible damage		





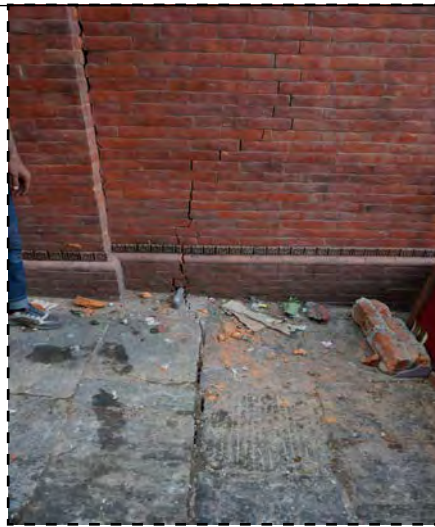
NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N
12	G+2	B	N wall is collapsed W wall with severe cracks (Mostly vertical and diagonal cracks)			





NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
13	G+2	B	N wall is collapsed W wall on 2nd storey is about to collapse	⚠		



NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N
14	G+2	B	S-W corner collapsed S wall bulging and tilting	⚠️		



NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N
15	G+2	B	Foundation in unstable condition Half portion of building about to fall on E side			



NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N
16	G+2	B	E wall damaged Inner portion were not possible to make an assessment	⚠️		



NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
17 18 19 29 30 31 32 33	G+2	B	Totally collapsed	☒	





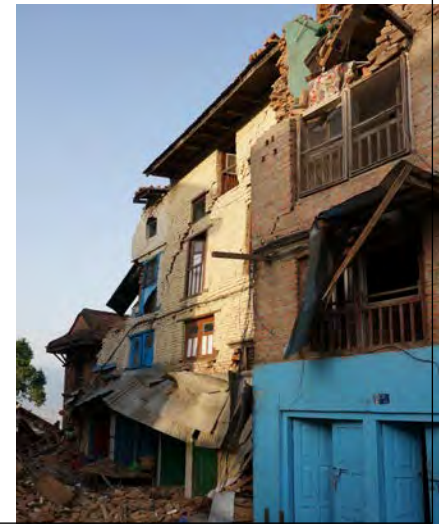
NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
17 18 19 29 30 31 32 33	G+2	B	Totally collapsed	☒		








NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
23	G+3	B	N wall with major bulging Risk of collapsing	⚠		

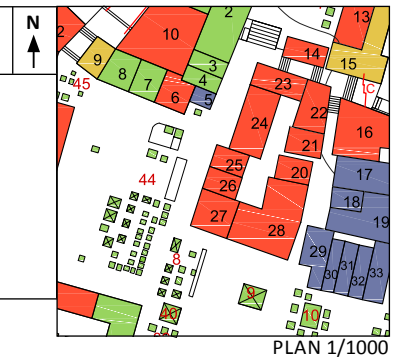




NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N
24	G+2	B	W wall bulging and cracks			

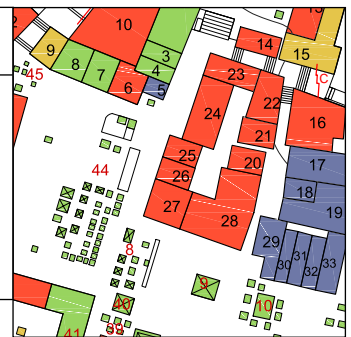


NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
25	G+4	B	Partly collapsed Upper roof is hanging 3rd and 4th floor is collapsed		



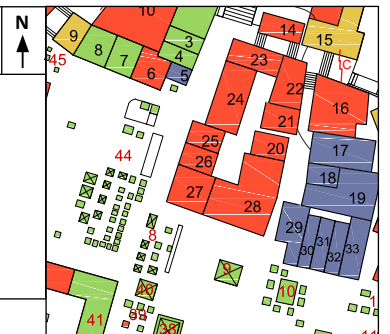


NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
26	G+3	B	W wall partly damaged		+





NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
27	G+3	B	2nd, 3rd and 4th floor collapsed Bulging problem	⚠️	

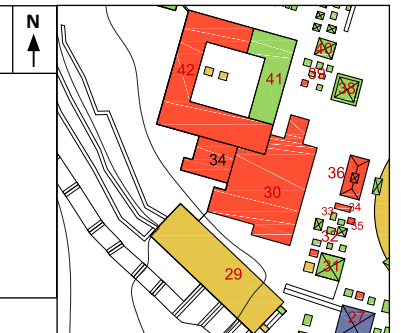


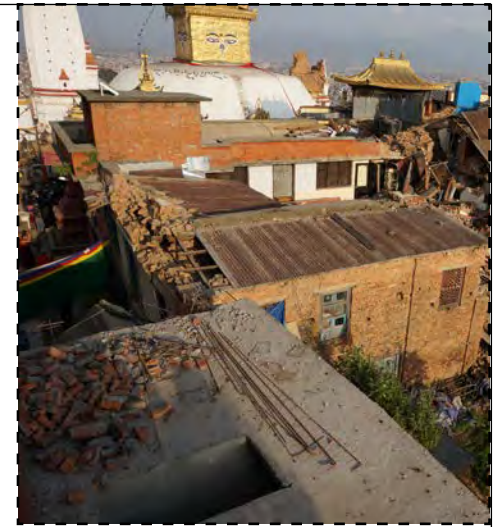


NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
20 21	G+3	C				
28	G+3	B	Upper floor collapsed E wall 1/2 collapsed	⚠		



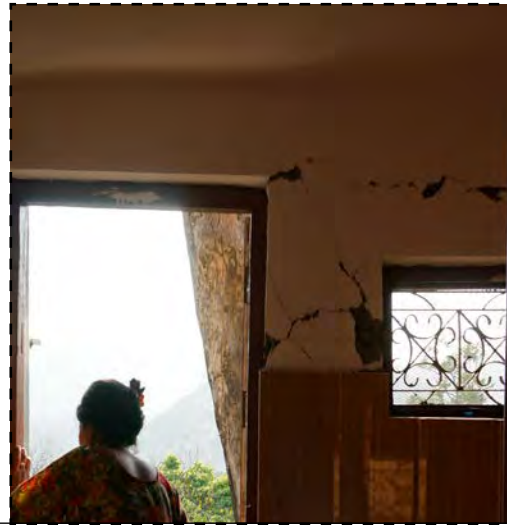
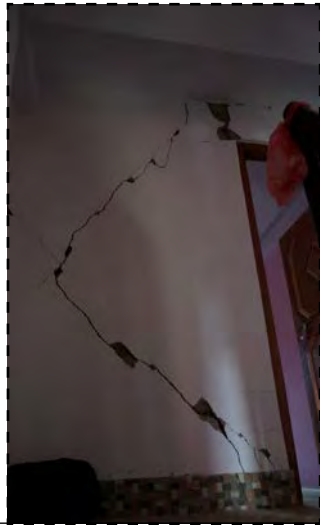
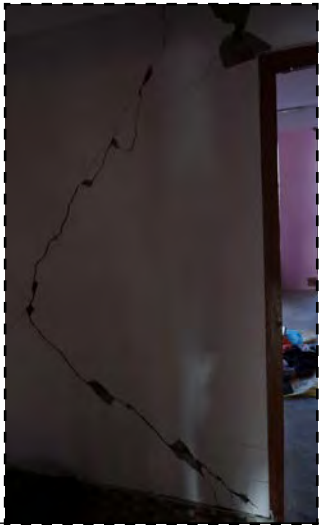
NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
34	G+1	B	No visible damage		





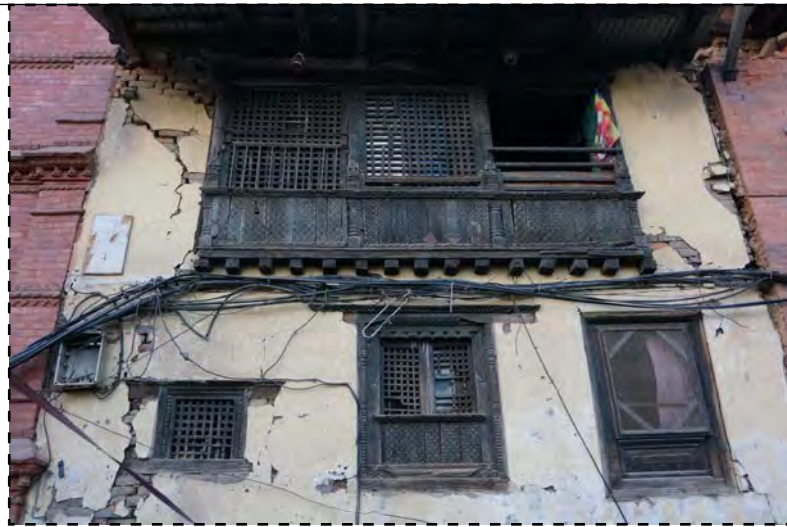
NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
35	G+3	C	Major X-shaped cracks in inner walls		





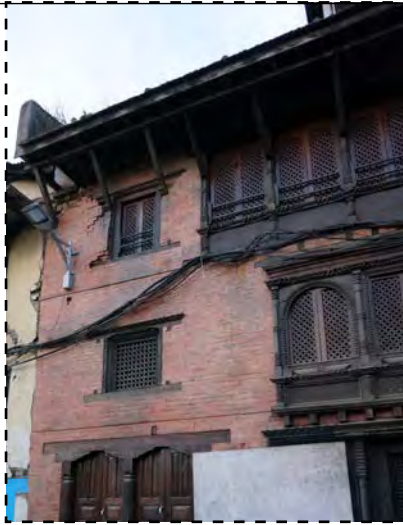
NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
36 37	G+3	C	Major X-shaped cracks in inner walls		+





NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
38 39	G+3	B	Major X-shaped cracks in inner walls of House no 38 E wall heavily damaged and Bricks from roof and terrace about to fall on house no 39	⚠	+	





NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
40	G+2	C	N wall with major stepped cracks E wall with stepped cracks from window corners Upper left part of E wall with risk of falling wall bricks		+





NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
41	G+2	B	W wall partially collapsed and tilted Front wall with upper part tilted		





NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
42	G+1	B	N wall with major horizontal floor cracks Offset of walls About to collapsed	⚠️		



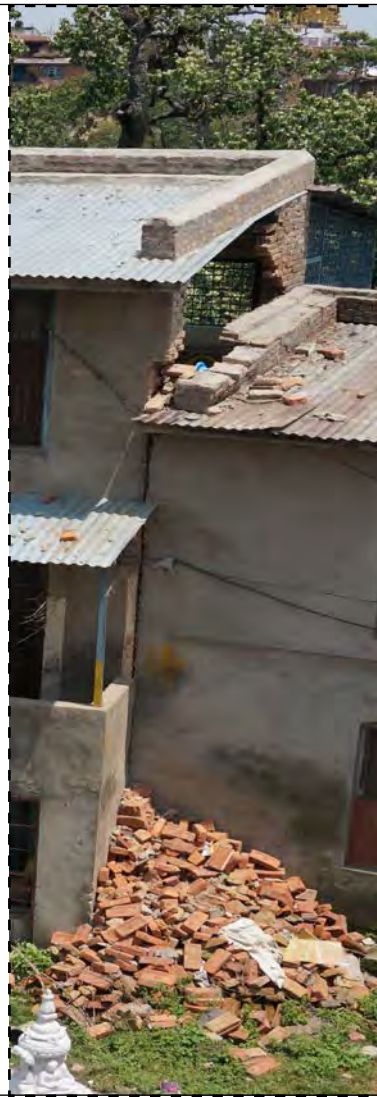


NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N ↑
43	G+2	B	Half collapsed Imposing danger to neighboring house	⚠ 1/2 ✖		



NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
44	G+2	B	Standing but in critical state G floor is only accessible House of American nun living there for 39 years		





NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE	N
45	G+2	B	Standing but in critical state and inner part heavily damaged according to American nun living there for 39 years.			



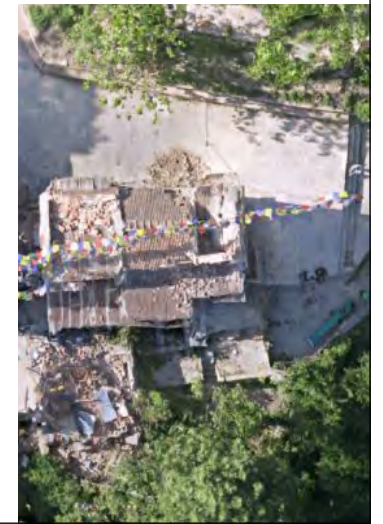
NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
46	G+2	B	Standing but in critical state and inner part heavily damaged		





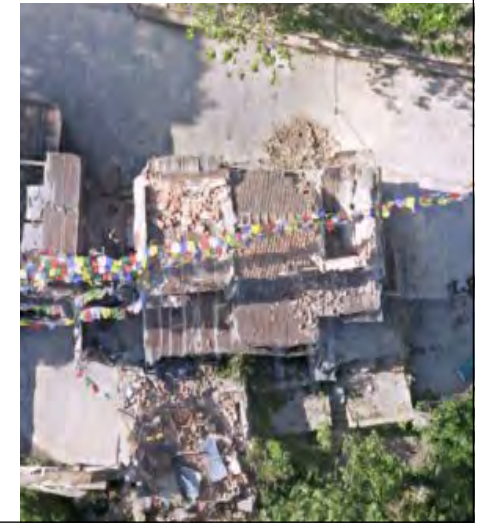
NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
47	G	C	House made for water-storage tanks. No visible damage"		



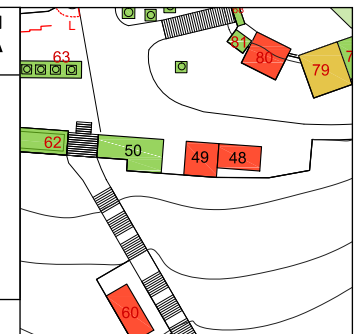


NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
48	G+2	B	Many cracks extending from windows and doors Half of the roof collapsed	1/2	



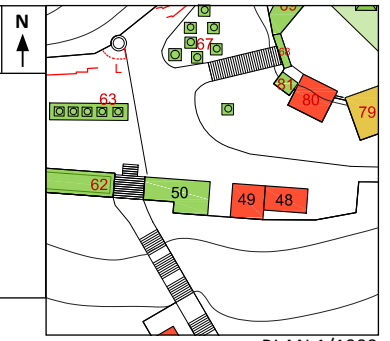


NUMBER NAME	NUMBER OF STORIES RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
49	G+2	B	Major cracks from windows tilting		





NUMBER NAME	NUMBER OF STOREYS RELATIVE POSITION	STRUCTURAL SYSTEM	DESCRIPTION OF DAMAGE	DANGER DESTROY	HERITAGE SIGNIFICANCE
50	G+2	B	Minor cracks below window Minor floor cracks near door Some defects in construction		





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