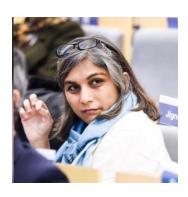# Participatory Approach and Digital Documentation of Built Heritage, Can the Two Meet?

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CHC CENTER FOR HERITAGE CONSERVATION
CRDF CEPT RESEARCH AND DEVELOPMENT FOUNDATION

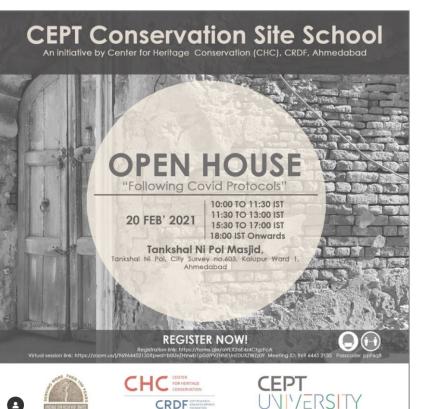CEPT UNIVERSITY
FACULTY OF ARCHITECTURE

CHC

Center for Heritage Conservation (CHC) focuses on advancing the discourse of built heritage conservation through the lenses of sustainability and equity in the Indian Context. The Center collaborates on the most pioneering international research projects on one hand, and engages with the government, city administration, and industry on the other, to inform policies and practices on ground. The team at CHC approaches conservation as a comprehensive process that is situated in an ever-changing environment and constantly engages with all actors and stakeholders that are a part of that change. The educational activities conducted by the team at CHC is recognized as one of the best practices internationally.

Key Activities:
- Creating a repository of knowledge on Heritage Conservation in India
- Engaging in research projects that advance the knowledge in the Indian Context
- Advising government, local bodies, and industry on aspects of heritage conservation and conservation led regeneration with solutions that are long-term, implementable, and equitable.
- Offer short courses for Continuous Professional Development of policy makers, practitioners, and implementers.
- Initiate actions that become a platform for engaging all stakeholder and right holders in an informed discourse of heritage conservation.

https://crdf.org.in/center/center-for-heritage-conservation
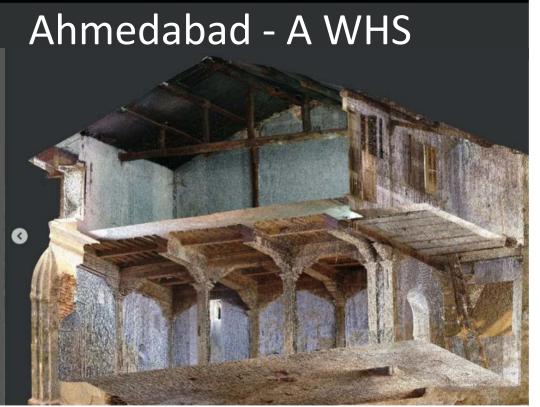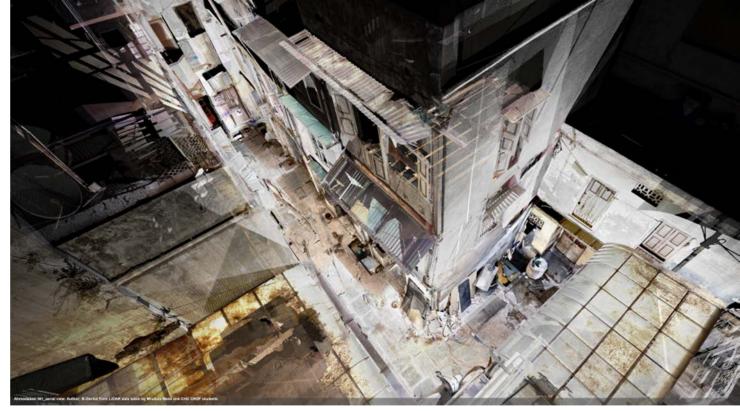
CHC's initiatives of Public Engagements

Conservation Site School is conceptually based on a premise that many heritage sites that are highly valuable for their historic importance are neglected due to lack of active use or lack of funds and resources. These sites are a great repository of historic knowledge and present an opportunity for conservation training and knowledge sharing. The Center adopts a site in need of conservation interventions/ efforts as the Conservation Site School, run short courses from there and in the process repair, restore and upgrade the site that can eventually be handed over to the owner/ custodian of the site.

Young heritage explorers' program designed for individuals of the age group five to twelve. Participants are exposed to the themes of migration, trading communities of Gujarat, and its consequence on the city's architectural fabric. through theme based activities in historic areas.

Ahmedabad - A WHS
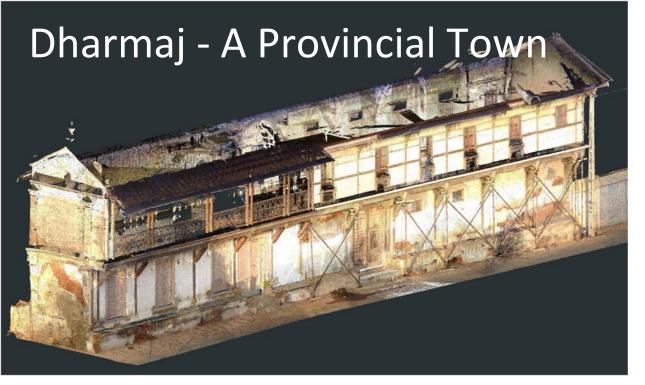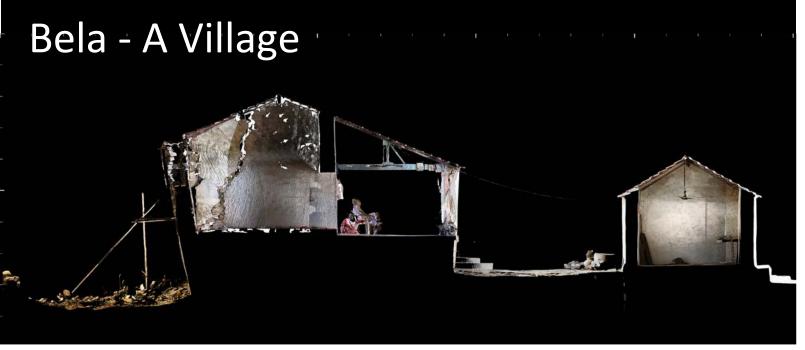
Dharmaj - A Provincial Town

Bela - A Village

3D4Heritage_India_Aerial view of a construction inside the fortress in Bela, Gujarat, 2021. Authors: B. Devilat & F. Lanuza, based on 3D laser scan data captured on-site by M. Mane & Z. Pithawalla

Charters and Guidelines

Principles for the Recording of Monuments, Groups of Buildings and Sites **(1996)**	**The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas** **(2011)**	**UNESCO's Recommendation on the Historic Urban Landscape** **(2011)**	**National Disaster Management Guidelines for Cultural Heritage Sites and Precincts, India** **(2017)**

The document deliberates upon the Reasons for Recording.

It promotes the interest and involvement of the people in the preservation of the heritage through the dissemination of recorded information.

"Good governance makes provision for organizing broad orchestration amongst all stakeholders: elected authorities, municipal services, public administrations, experts, professional organizations, voluntary bodies, universities, residents, etc. This is essential for the successful safeguarding, rehabilitation and sustainable development of historic towns and urban areas."

"Participation by the residents can be facilitated through distributing information, awareness raising and training." (p. 10)

Civic Engagements Tools
Knowledge and Planning Tools

The guidelines recommend documentation through 3D mapping of the heritage, Geo-tagging, GIS Mapping, Crowd Maps, Creation of a comprehensive database, and use of digital documentation as a tool for disaster risk preparedness of the respondents and communities associated with the heritage assets.

Field Work

1	2	3	4	5	6
Interactions with house owners	Scanning the context of the house	The threshold scan to connect the spaces	Detailed scanning of the house	Informing the house owners about the data	Drone Mapping for areal views of the houses

Z. Pithawalla, 2021

Advantages

Issues

Z. Pithawalla, 2021

- Accessibility to critical spaces
- Data collection in relatively and considerably less time duration (average duration for each color scan was 5 minutes and for B/W scans 2 minutes 30 seconds.)
- Requirement of relatively low manpower
- Documentation as per the existing conditions in that time frame without any errors due to subjective interpretation.
- A comprehensive process of data collection can offer an accurate connection between indoor and outdoor spaces along with the transition spaces. This aspect is usually challenging to document in conventional, manual methods.
- Due to these advantages the process lends itself to post-disaster documentation of heritage assets

On Field

- Informed Consent for data collection
- Weather conditions
- Staggered working hours
- Animal movements
- Managing curiosity of adults and children
- Data management and back up due to poor internet connectivity

Post Processing

- Availability of Digital infrastructure
- Processing time
- Data storage facility
- Data accessibility
- Copyright of processed data?

Potential for Governance

- Participatory mechanism for identifying historic structures, sites, settlements for digital documentation can create possibilities of understanding what people aspire to conserve as their heritage.

- This bottom-up approach towards documentation can essentially diversify heritage assets making it more inclusive.

- The digital data can be effectively used for governance of multi-layered historic settlements and structures. The dynamic nature of the data allows the continuous updatation by multiple agencies simultaneously.

Possible Way Forward – Digital Twin and Digital Divide

Possibilities of the Digital Twin

- Non-invasive nature of the technology is desired trait for the derelict historic buildings.
- A well processed digital data is considered as digital twin of the heritage asset.
- Such accurate and realistic information enables wider possibilities of study, analysis, interpretation of the historic buildings by a multidisciplinary team situated in different parts of the world, making the expertise available to local communities.
- The realistic visual form of the data is effective for interaction with communities, authorities and other associated contributors.

Addressing the Digital Divide

- Reducing the 'Digital Divide' created on the field during documentation as well as in post data collection processes, between:
  - Experts and the Communities
  - Developed and Developing/ Under-Developed regions
  - Technological Expertise and Local Knowledge Systems
- Devising methods to use the digital documentation process as a tool to connect diverse knowledge systems for effective conservation

Possible Way Forward – Rethinking Documentation

- Devising participatory methods of identifying heritage assets to record through digital methods; discussing the purpose of digital documentation

- Ways to acknowledge and record the layered relationship of the built fabric to traditional knowledge systems and aspirations of people for alternate heritage futures

- A research for efficient combination of tools and techniques to minimise of the resources and time required in the processes and accessibility.

- Ways to use the documented data to discuss aspirations of people for alternate heritage futures and build-back-better in case of post disaster situations through participatory methods with the communities

- Developing an ethical mechanism of transparent communication and consent for digital documentation and data management with owners and custodians of the heritage assets to be digitally documented

Thank you

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