In our research we use 3D-laser scanning technology (also known as LiDAR) to survey traditional villages with great detail and precision. In this way, we can gather information to understand how to best repair and intervene them, and to improve their resistance to earthquakes. Our research would be incomplete, however, if we do not learn from people's experiences of heritage and earthquakes, which is why your involvement is crucial for our work.







LiDAR survey of House 361, Ahmedabad, by Mrudula Mane and CEPT students. March 2021. Photographs by Zeus Pithawala.



Visit to Bela, reconnaissance trip in Kutch, by Jigna Desai, Mrudula Mane (CHC) and Aditya Singh (from Hunnarshala). February 2021. Photograph by Mrudula Mane.

The project's results (anonymised) and visual material from the 3D laser scan data may be available in the project's website and shared with local authorities, stakeholders and communities to help to conserve more houses, and enhance the heritage value of the villages, and partially stored in a digital public repository.



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3D for Heritage India is a project conducted by researchers at the Centre for Architecture, Urbanism and Global Heritage at Nottingham Trent University in the United Kingdom; ICCROM in Italy; the Centre for Heritage Conservation at the CEPT Research and Development Foundation, and the Hunnarshala Foundation in India.

If you agree to participate, we might use your personal data (name, address, e-mail and phone number only) for contacting you to arrange interviews, ask you questions and request material, record your house or work place using 3D-laser-scanning (also known as LiDAR), and invite you to participatory workshops. Following a strict Data Protection Policy, your personal data will not be publicly displayed or linked to the research material and will be stored safely.

If you want to learn more about our project and its updates please visit:

www.3d4heritageindia.com

For any questions or concerns please contact: Mrudula Mane: mrudula.mane@cept.ac.in, phone +91 9004434568 (India) Felipe Lanuza: felipe.lanuza@ntu.ac.uk, phone: +44 7748455831 (UK) You can also reach us at: 3D4heritage.india@ntu.ac.uk



3D for Heritage India

A sustainable re-construction method for seismic-prone heritage areas of Kutch, based on advanced recording technologies.

CHC

CRDF





We aim at improving the re-construction and repair of houses in heritage villages after earthquakes in Kutch, India. We would like to learn about your views and experiences, so we kindly invite you to take part in our research.

We will always follow strict COVID-19 safety measures. Please read this leaflet carefully before agreeing to take part.



House 361, Ahmedabad, Elevation. Author: B. Devilat from LiDAR data captured by Mrudula Mane and CEPT students.

There are four parts of our study to which you can contribute, if you wish. You can choose either to take part in all of them or select just the one(s) that suit you the best.

1) INTERVIEWS

Overall questions about your experience of earthquakes and reconstruction approaches in the place where you live. This conversation may be recorded.

2) QUESTIONNAIRES AND RELEVANT MATERIAL

To respond to a series of guided questions, and share with us materials, such as old photographs, plans, drawings, maps, or any other document or domestic object, that can help you explain your experiences with earthquakes in your life, and how they affected the house in which you live or have lived. We may record the conversation and take photographs or copies of those materials. We kindly ask you to allow us to use those images in the context of this research project. We will always name the corresponding author.

Here we show an example of what can be done with the information we collect. In this image we have captured the deteriorated facades in a passage of the historical neighbourhood of Indrakot, Zaveri Wad, in Ahmedabad. The information can be used for technical assessments, representations, planning and design, and other actions to improve the conditions of the buildings, whilst being a form of digital record of this important cultural heritage.

3) 3D-LASER-SCANNING

We might need to record your building or house using a terrestrial 3D laser scanner. This is one of the most innovative aspects of our research. Up to three members of our team would need to enter your building or house with a machine resembling a big photo camera, which they will place on a tripod in every room and exterior spaces within and around it. The machine will accurately and comprehensively measure, photograph and record your building or house and all the objects in it. With the information collected we will be able to make a virtual model of it, as part of our research project. The whole record should not take more than 2 hours and can be done while we interview you (parts 1 and/or 2). Regarding the 3D laser scanning process, the equipment can record anything that is in sight. In case you do not want any personal items or anything else to appear on the record, you can remove them from the room or store them out of sight.

4) PARTICIPATION

To agree in participating in a community workshop in your area, which we will be organising. We will be showing you the information collected about your houses and the village in the form of a virtual model, which we will show through images and videos, and discussing how this may be useful for assessing, protecting, and enhancing your houses and your village in order to mitigate risks in future earthquakes. This workshop may be recorded in audio and/or in video, and we may also take a few photographs of the event. The final format of this event and its arrangement will depend on the COVID-19 situation and restrictions in place in your area at the time (for example, to be carried out outdoors, to consider small groups or to go from house to house in case gatherings are not safe or not allowed). We estimate that the workshop will last no more than 3 hours.

