



Hunnarshala Foundation for Building Technology & Innovations

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Community Empowerment 2



Three major housing programs, Rajiv Awas Yojana, Indira Awas Yojana and Housing for riots affected in Shamli and Muzzafarnagar have been in progress. While RAY and IAY are inching towards implementation mode, support to build 100 more housing units and toilets have been received for rehabilitating the riots affected victims in Uttar Pradesh. The construction for the Campus of Ujas Mahila Sangathan in Mundra, Gujarat has also started.

Knowledge Networks 4



The courses in masonry and carpentry offered to students at Karigarshala engage them through the learning mode and the production mode. The learning mode helps the students understand the theoretical concepts along with practical training at the school. During the production mode, the students get to apply their learning and training on an ongoing project.

In the last three months, the students from both the courses got into the production mode and worked on different real time projects.

Artisan Empowerment 3



Alternate and appropriate technologies are being promoted by the artisan empowerment unit through the artisan entrepreneur companies. Different technologies are being implemented on different projects of variable nature, from farmhouses to restoration. Technical and design assistance for new projects are being taken with the objective of expanding options with the artisans.

Research and Development 4



The research and development unit have been working on the design and improvement of hydraulic press, laboratory set up for testing of waste water to improve the efficiency of dewats plants, and generating data on thermal comfort for the urban housing projects. The research initiatives are taken up in collaboration with different institutes and organizations to expand knowledge an research base of Hunnarshala.

Dissemination, Workshops and Seminars 5

Community Empowerment

Technical Facilitation for Indira Awas Yojana in Gujarat

As part of 'Housing Facilitation Support System' for Indira Awas Yojana, Commissionerate of Rural Development, Government of Gujarat, has proposed to set up Building Technology Museums in each of the five typology zones. To demonstrate the range of solutions, deriving inspiration from the cultural heritage of the region, its tradition of artisans and crafts, as well as ensuring rigour of modern science and technologies, five locations have been identified to set up Building Technology Museums. The building Technology Museums will inform and educate on design and technologies for housing, sanitation and other related aspects of habitats in the region. Commissionerate of Rural Development has already identified 2000 sqm. land for the construction of these museums in Kutch, Sabarkantha, Ahmedabad, Surat and Rajkot districts.



Construction of a house in progress in Shamli

Campus for Ujjas Mahila Sangathan

The design and construction for the campus of a women's organisation, Ujjas Mahila Sangathan has started in Mundra, Kutch.



Campus for Ujjas Mahila Sangathan



Construction of a house in progress in Shamli

Housing for riots affected in Shamli and Muzzafarnagar

Construction of about 16 houses was completed in the first phase of the project. Another 100 houses along with 100 toilet blocks are under construction in Shamli and Muzzafarnagar districts.



Meeting with the beneficiaries for new DPR in GIDC-2

Rajiv Awas Yojana

The land papers identified for the redevelopment of 314 houses in 3 slums; Bhimrao Nagar, Ramdev Nagar-1 and GIDC were filed as per the Layout plans development in reference of BHADA Development Plan, and existing land under the slums to DLIR for justifying the ownership of the land. DLIR surveyed the land and earmarked a new boundary for redevelopment. As per the land finally made available, Layout plans were revised. Bank accounts for 285 beneficiaries of the 3 slums were opened in ICICI Bank. 7 new slums; Vansoda, GIDC Phase-2, Din Dayal Nagar, Bhimrao Nagar-2, Macchu Faliya, Lakhurai, and Bhadeshwar with 450 houses were also identified for preparation of new DPRs.

Artisan Empowerment

Technologies

Rammed Earth

The artisan enterprise 'Layers' has completed stabilized rammed earth construction on the farmhouse for Dr. Vilas Sathe in Jam Nagar.

Thatch

Mathachaj, a women enterprise specializes in Thatch work. Currently, they are involved in production and installation of thatch roofs at Dr. Vilas Sathey Farm house in Jam Nagar and Bhopal.

Wooden Floorboards

Ozari, the incubation company completed the construction and are in the process of installations of wooden floorboards for Dr. Villas Sathey's farmhouse in Jam Nagar.

Wooden Understructures

Artisan enterprise 'Woodgrain' constructed and installed the wooden understructures for Dr. Vilas Sathey's Farmhouse in JamNagar

Lime Plaster

A team of 6 artisans from worked for the restoration of 'Panha de Franca' church in Goa in collaboration with Heritage Acoustics. Lime plaster sampling was done to arrive at an appropriate material mix for restoring the entire church building. Dr. Allan made a new recipe for the lime plaster which will be used by the artisans for restoration.



Thatch work in progress at Dr. Vilas Sathey Farmhouse



Rammed Earth Walls at Dr. Vilas Sathey Farmhouse



Lime plaster sampling at 'Panha de Franca', Goa



Floorboard construction and installation in progress

Design and Technical Assistance

Artisan empowerment unit with Karigarshala is in the process of collaborating with an Architect, Ushma Sanghvi from Mumbai to design and build extension of a school campus in Kukeri, Valsad. Design of the project is underway and local techniques are being studied for implementation.

Knowledge Networks

Masonry

- The students under the guidance of Pangu Singh, walling system teacher, went on the Dr. Sathey Farm House to build rammed earth walls.
- The students were involved in the research activities taken up at the Parashpar Farm. They built a room from substructure to superstructure to test different materials and techniques.
- Some parts of the historic Bhujio Fort wall were restored by the students.
- Ferro-cement steps were built and tested by the students for classroom built upon the carpentry workshop in the Karigarshala Campus.



Ferrocement steps at Karigarshala designed and tested by the students



Bhujio Fort restoration work by Karigarshala students

Carpentry

- An exposure trip was organized for the students to IPSA, Rajkot where they worked to produce the designs made by the students of architecture.
- A new classroom for carpentry students was added to the Karigarshala campus. The construction was completely undertaken by the students which included the wooden floor and windows.
- Floorboards were constructed by students for a project by Architect Hiten Kakadia.

Research & Development

- The second phase of designing of a hydraulic press for Compressed Stabilized Earth Blocks in is completed. Testing of the blocks produced by hydraulic press is under way. This is being done with the help of Grama Vidya.
- The laboratory set up for testing of wastewater for Dewats is completed. Chemical tests can be performed on the waste water to test B.O.D, C.O.D, Ammonia, Nitrogen, Phosphate and alkalinity of water. Physical tests can also be conducted to determine total solids, suspended solids and dissolved solids.
- Data generated from the research undertaken with MIT postgraduate student on thermal comfort roofing solutions is being used to develop prototypes and test chambers using different roofing materials like Mangalore tiles and tin sheets.



Waste water testing



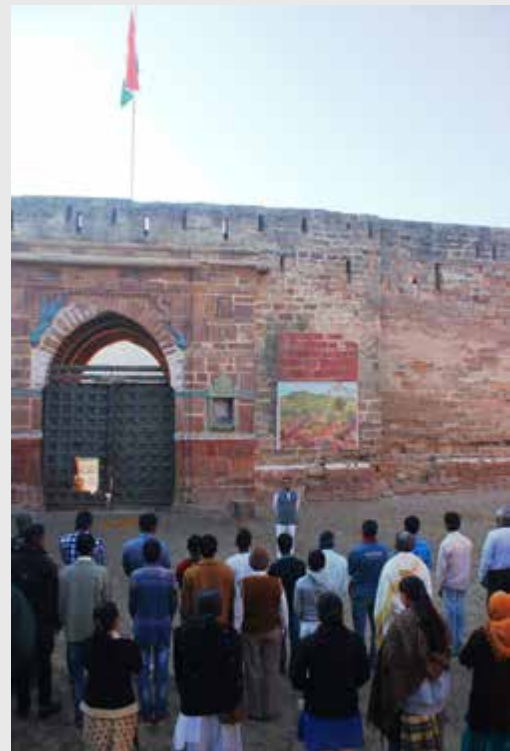
Test Chamber construction for thermal comfort research

Dissemination, Seminars and Workshops

- Educating the budding architects, engineers and young professionals is one of the main objectives of the artisan empowerment unit. It is imperative that the generation to come understands the context of local technologies with artisans for a more sustainable and holistic model of development. Workshops and visits were conducted by different architecture schools; BIT Mesra, LJ College Ahmedabad, Goa College of Architecture to understand Hunnarshala's work.
- A group of design students from Srishti School of Design, Bangalore visited Hunnarshala to work with the slum communities of Bhuj on the slum archiving project. The students interacted with the community for an entire week to dwell upon the aspects of community life and how a designer can intervene on different levels. Students from Sushant School of Architecture, Gurgaon; National University of Singapore and Sahyadri School, Pune also visited Hunnarshala for shorter durations to understand community work.
- Hunnarshala under the guidance of Kiran Vaghela organized an awareness program on the biodiversity of Bhujio fort for the citizens of Bhuj on 26th January 2015. The event started with flag hoisting ceremony followed by a nature walk through the bhujio hill explaining flora and fauna, and the threat they currently face due to various human activities. The citizens planted about 100 cactus plants and pledged to protect the biodiversity of Bhujio hill.



Glimpses from the Bhujio Biodiversity Awareness Event on 26th January 2015



For more information about the different initiatives of Hunnarshala Foundation, get in touch with Mahavir Acharya (Community Empowerment) at mahaviracharya@gmail.com
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