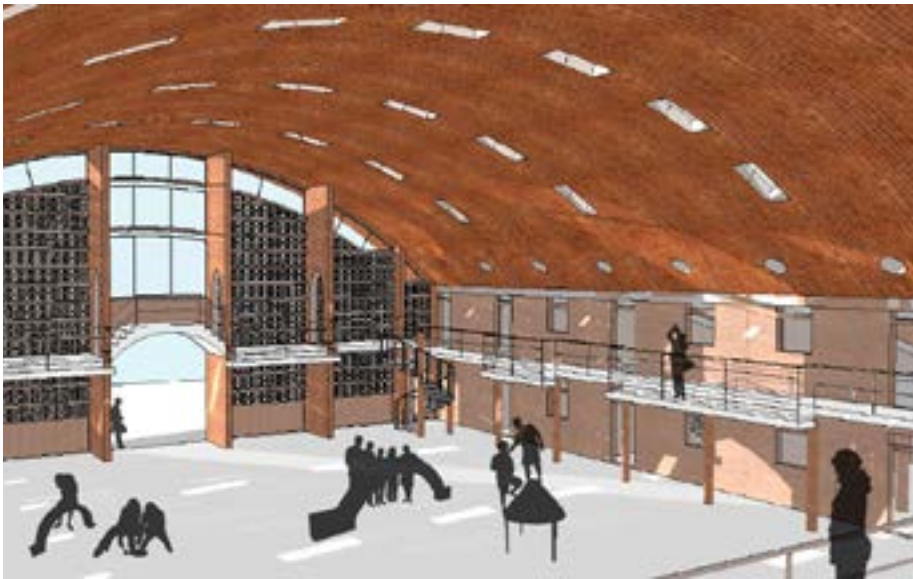


AVEI NEWSLETTER



Rendering of the Masonry Hall for the AVEI School extension

IN THIS ISSUE

- Announcement of the AVEI School Extension page 2
- Mangalam Campus Development page 3
- Spiti Eco Community Center Progress page 4
- AVEI in the Press page 5
- Conferences & Presentations page 6
- Meet Our New Team Members page 7
- Overview of Training Courses at AVEI page 7
- AVEI Training Courses for Early 2014 page 7

AVEI announces its initiative for the extension of the AVEI school, page 2.

Read about the Mangalam Campus development, site of the proposed AVEI school, page 3.

Follow the progress of the Eco Community Centre construction in Spiti, page 4.

Read critical reviews of AVEI's work in the press, page 5.

Read about AVEI's recent conference activities and presentations, page 6.

Meet our returning researcher and AVEI puppies, page 7.

Review recent AVEI courses, page 7.

View upcoming AVEI course dates, page 7.

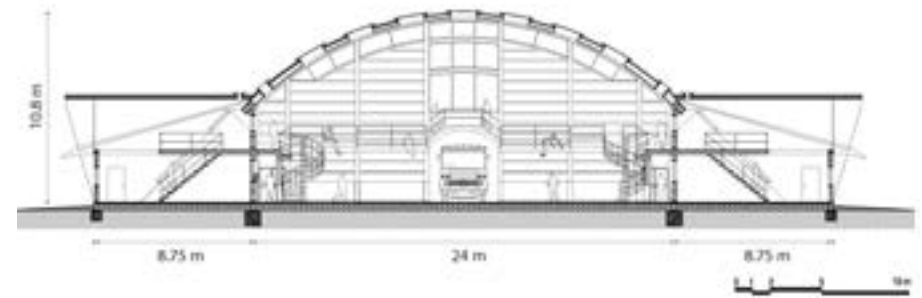
Please feel free to share this newsletter with your friends and colleagues as we spread the knowledge of earth architecture to the world!

Earthily yours,
The AVEI Team

Announcement of the AVEI School Extension

The Earth Institute is announcing a major initiative for the extension of our educational programs and facilities. For 24 years, AVEI has educated young architects and engineers from India and abroad in sustainable building technologies and land management practices, focusing on the use of earth as a building material. New facilities are now being designed to meet the increasing demand and to make a greater impact on affordable, sustainable, climate resilient housing in India and globally. AVEI will introduce 1-year diploma programs for post-graduate students of architecture and engineering, masonry technicians, and vocational masonry craftsmen.

The new campus will be built with low carbon, earthen technologies to demonstrate best practice in sustainable design, construction and land management practices, including: administration building and library,



Section of the Masonry Hall at the AVEI School

exhibition centre, conference hall, lecture rooms, masonry hall (with laboratories for soil analysis, structural testing, material testing and environmental monitoring), masonry shed and blockyard, boarding facilities, dining hall, and parking. The campus will incorporate CSEB, rammed earth, poured earth, adobe and cob earth techniques, along with other low carbon building technologies such as earthen arches, vaults, domes. The features will be a large span vault of 24m, a hyper shell, multi-story vaulted structures, an underground earth berm vault, and thin-tile staircases. The site for the future school extension is the newly proposed Mangalam Campus in

the Industrial Zone of Auroville. Site permission has been granted by l'Avenir and the Town Development Committee (TDC) and approved by the TDC Chairman, architect B.V. Doshi.

This initiative aims to impact all levels of society, in India and abroad, through the co-education and networking of building specialists: equipping underprivileged workers with the technical and entrepreneurial skills for leadership in the housing sector, and mobilizing the future generations of young Indian architects and engineers with the skilled personnel required to build affordable mass housing with low carbon earthen technologies. ■



Rendering for the Exhibition Centre at the AVEI School

Mangalam Campus Development

The “Mangalam Campus” is a joint development initiative of five Auroville units - the AVEI School, the Bamboo Centre, Wellpaper, Aureka and AVDzines - selected on the basis of the zone’s operational goals: Clean, non-polluting industries of small and medium scales, which expand local employment, provide vocational training, encourage local entrepreneurship, maintain good working environments for workers, and function with efficient management practices. As Mangalam is situated in the Industrial Zone of Auroville directly on the edge of Kottakarai village, it functions as a unique interface between industry and human skill development in the bio-region, with the goal to combine small scale industrial production and vocational training.

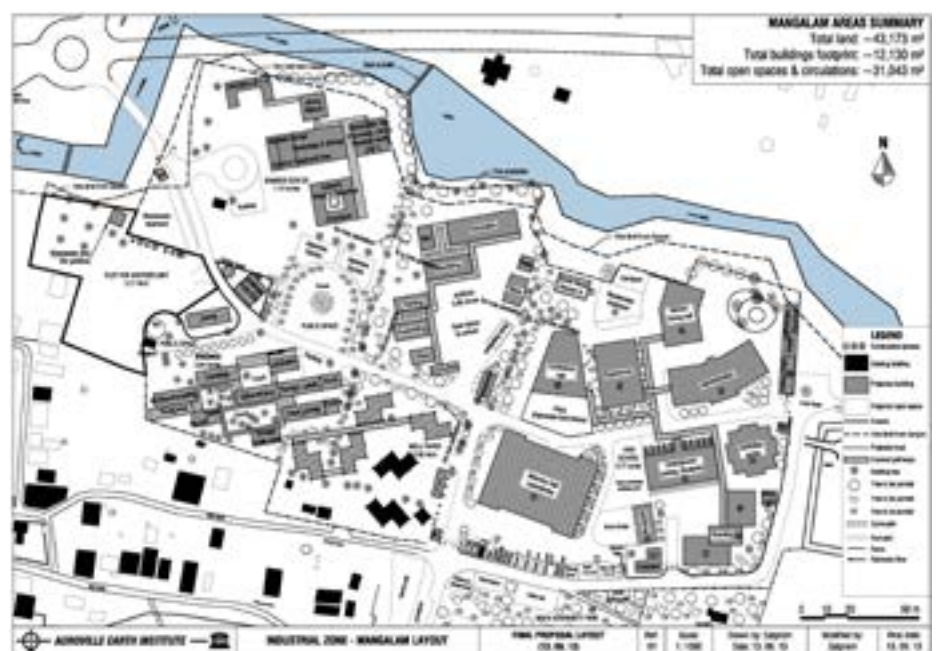
The uniqueness of this campus lies in the common theme of the “material research” engaged by each of the units: earth, bamboo, paper, wood and steel. The campus will represent this diversity of material research through an eclectic approach to the architecture and materials of construction. The project aims to be an exemplary model of sustainable small industry development, demonstrating sustainable approaches to materials use and

industrial production. This will be manifested in the development for architectural design, construction, operating energy consumption, and land management practices, including: Minimized initial embodied energy and operating energy; Use of local materials; Bio-climatic building orientation and natural ventilation; Solar & energy-efficient lighting.

All infrastructure will respond sensitively to the local ecology and will be shared to promote sustainable development. This will include drinking water resources and storage tanks, wastewater systems, roads, underground network, boundary wall, and public lighting. The road network has been planned to efficiently meet the needs of an industrial zone and to positively impact the human environment. Transportation and mobility will

give preference to pedestrian traffic and cyclists (non-fossil fuel consuming modes of transportation) in order to promote sustainable transportation and good working and living conditions. Infrastructure designed in conjunction with sustainable land management practices include rainwater catchment systems, wastewater treatment and compost and recycling. Existing trees and vegetation will be protected to maximize water recharge, enhance natural green boundaries, provide an acoustic screen for industrial noise pollution, and capitalize on open green spaces for public, social use.

The centres of life and place at Mangalam will be the open public spaces around the banyan tree, the well, the Japanese garden, and the dining hall and amphitheatre. ■



Mangalam Campus plan drawn by the AVEI Planning Team.

Spiti Eco Community Centre Progress

The first phase of construction of the Eco Community Centre in Kaza was completed on the 28th of September 2013. The construction period lasted 5 months. This phase included raw construction of the masonry foundations, ground floor rammed earth, ring beams, lintels, ventilators and corbelling, and site preparation for the oncoming winter season. The building has now been covered for protection against the winter snow and low temperatures of -30 C. The second phase will commence at the end of May 2014. Although the climatic conditions in Spiti are favorable for construction by the end of March, pipe lines will remain frozen until the end of May, preventing construction activities. ■



ABACUS

Former AVEI architects Tesia Wal-sky and Neelakshi Joshi published an article in ABACUS entitled "Realizing Utopia : Auroville's Housing Challenges and the Cost of Sustainability", a fascinating critical analysis of the cultural and institutional factors which play into the use of sustainable building practices in the international township of Auroville.

The article evaluated the way in which governance structures, urban planning and policies, housing demand, and market forces impact the user demand for sustainable construction and infrastructure. It made an intriguing argument that investment-return incentives for sustainable infrastructure do not function in Auroville, because at present, these costs are financed by individuals, when the land ownership model is collective (i.e. the cost are financed only by individuals without an ownership model for perceived long-term "resale" value). The article concluded that new financing models and incentives, such as integrated sweat equity programs, are necessary for user-investment in sustainable construction and infrastructure.

The article showed some of the work of AVEI as examples of sustainable construction initiatives in Auroville. ■

<http://www.bitmesra.ac.in/cms.aspx?this=1&mid=776&cid=560>

Project Vendor Magazine

Hilary presented the outlook of the Auroville Earth Institute on "green buildings" in an interview with Project Vendor magazine, defining a more critical position and dispelling many of the myths of perception.

The article addressed the need to define the target criteria for sustainable development, to qualify sustainable building materials, and to address all approaches to energy efficient construction (e.g. low embodied energy, low carbon footprint, low operating energy derived from renewable resources, the use of local material, incorporation of waste/recycled materials to reduce waste streams and the use of primary resources, appropriate design lifespan and strategy for reuse at the end-of-life stage. It discussed the example of CSEB as a low carbon/ low embodied energy material, and elaborated AVEI's philosophy on the co-design of buildings and sustainable land management practices. ■

<http://www.eril.co.in/eMagazines/projectvendor/2013/oct13/pageflip.html>



The Hindu

Design That Speaks a Meaning

The Hindu interviewed architect Siddharth Menon on his path towards defining a sustainable practice. Menon, who completed his professional internship at the AVEI, spoke of his early impressions of urban architecture in Mumbai, the opulence of structures and lifestyles he experienced in the Arabian gulf, and his initiation into the concept of sustainability in Auroville. Continuing to pursue earthen construction, he went to Himachal Pradesh to work with his mentor Didi Contractor. He spoke of her philosophy on sustainable practice, his intellectual de-schooling, and his view on the use of non-mainstream building technologies in Indian cities. ■

<http://www.thehindu.com/todays-paper/tp-features/tp-propertyplus/design-that-speaks-a-meaning/article5202414.ece#>

Rediscovering Age-old Techniques

An article and interview with Satprem was published in The Hindu on AVEI's work. The article discussed the varied traditions, energy efficiency, and cost-effectiveness in building with earth. ■

<http://www.thehindu.com/features/homes-and-gardens/design/rediscovering-ageold-techniques/article5354386.ece>

Exhibition on Low Cost Housing

AVEI was invited to present some samples of its work at the exhibition "Low Cost Housing: An Innovative Approach" at the Goethe-Institute, Chennai. Organized in cooperation with Hindustan University and artist Markus Heinsdorff (Germany), and sponsored by the Goethe Institute/ Max Mueller Bhavan Chennai and Hindustan University, the exhibition ran 11 – 18th October 2013. ■



Technical Workshop on Operational & Embodied Energy

Satprem and Lara presented a study on Embodied Energy in Green building design at the workshop "Guidelines for Energy-Efficient Residential Buildings in India: Technical Workshop on Operational & Embodied Energy".

Held on 15th November 2013 at the Development Alternatives Headquarters in New Delhi, the workshop was organized by the Indo-Swiss Building Energy Effi-

ciency Project (BEEP). Technical sessions were organized on the topics of "Operational Energy in Residential Building Design" and "Embodied Energy in Residential Building Design". The workshop was attended by speakers from both academic and industry sectors throughout India, as well as several energy and environment consultants from Switzerland.

BEEP is a bilateral cooperation project being implemented by the Indian Bureau of Energy Efficiency and Swiss Agency for Development and Cooperation (SDC). The objectives of the project are to reduce energy consumption in new buildings in India and to build capacities and knowledge of builders, architects, engineers, labs, institutions and others. BEEP will develop design guidelines for energy efficient residential buildings for three Indian climatic regions, addressing aspects related to embodied energy and operational energy. The aim of the workshop is to share data and discuss technical issues on operational and embodied energy which are to be considered in the design of new low energy and comfortable residential buildings. ■

<http://beepindia.org/>



Workshop at Andhra University

Satprem presented a one-day workshop "Earth Architecture for Sustainable Development" at the Department of Architecture, Andhra University, Visakhapatnam on the 26th October 2013. In Satprem's keynote address, which inaugurated the 25th Anniversary of the Department of Architecture at Andhra University, he spoke of the history of earthen architecture, the Auroville Earth Institute's roll in disseminating knowledge of building with earth, the global network and prominent programs on earth architecture, and the value of adding courses on building with earth into the curriculum of schools. Presentations were given on Earth architecture, Earth resource management, CSEB, Arches, vaults and domes, and Disaster resistance. ■

AGP Bamboo Workshop

Satprem presented on Earth Architecture at an Auroville Green Practices Bamboo workshop on the 9th and 12th November. Pradeep Sachdeva also gave a presentation on Bamboo as Building Material and Suhasini Ayer presented about her visit to the Green School and Bamboo Center in Bali. ■

Overview of Training Courses at AVEI

On 29-30 October, there was a two-day awareness course with students from Bharti Vidyapeeth College of Architecture, Mumbai. 22 people (2 professors and 20 students) were in attendance. ■

Meet Our New team Members!

Noureddine

Nourredine Kebaili has returned to AVEI from Ecole polytechnique d'Architecture et d'Urbanisme d'Alger (Algeria) to continue his PhD research. The aim of his research is to understand the way to meet the satisfaction of people living in earthen buildings. The pre-survey he produced last year during his first residency at

AVEI will be taken as the basis for a new and more elaborate survey. It will help AVEI to be closer to its fellow citizens and to produce a database on its "living" earth buildings. ■



AVEI Puppies!

This month we welcome the newest members of the AVEI family... covered in fur with eyes still closed. Six puppies were born under a desk in the AVEI offices on November 11th to Akka - beach rescue and teen mom. Please help them find good homes. ■



Puppies born at AVEI

AVEI Training Courses Schedule for Early 2014

February

3rd to 8th - CSEB Design
10th to 15th - CSEB Production
17th to 22nd - CSEB Masonry

April

7th to 12th - CSEB Production
14th to 19th - CSEB Masonry

June

2nd to 7th - Ferrocement
9th to 14th - AVD Theory
16th to 21st - AVD Masonry

July

7th to 12th - CSEB Design
14th to 19th - CSEB Intensive
21st to 26th - AVD Intensive
28th to 2nd Aug - CSEB Intensive

AVEI Newsletter

Issue 13 - November 2013
© Auroville Earth Institute

Editor-in-Chief: Hilary D. Smith
Guest Editor: Lara Davis

Auroville Earth Institute
Auroshilpam
Auroville 605 101 T.N.
India

Tel.: +91 (0) 413 - 262 3330
/ 262 3064
Fax: +91 (0) 413 - 262 2886

www.earth-auroville.com

info@earth-auroville.com
training@earth-auroville.com