

# AVEI NEWSLETTER



*AVD Workshop at the Archi'Terre Conference in Algiers*

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Read more about our newest architectural project, Green Casbah, page 2.

Check out the recognition that AVEI's Al-Medy Mosque continues to garner, page 3.

Read about Satprem and Lara's participation in Archi'Terre in Algeria, page 3 and 4.

Learn about the destruction caused by the cyclone and AVEI's efforts at Repos Beach to save a house, page 6.

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Review the conclusion of our research into waterproofing methods, page 7.

Our team is growing! Meet our two new team members on page 8.

View the dates of upcoming courses on the last page.

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

## The Green Casbah Project Unveiled

The architecture department of the Auroville Earth Institute has finished the design phase of its ambitious new residential project, Green Casbah, which takes its inspiration from the densely situated dwellings of the Algiers Casbah. Continuing in the vein of Vikas and Realization, this environmentally-minded housing complex is composed of four blocks distributing 50 apartments and studios and community spaces. The buildings are constructed from CSEB and employ some of the Institute's research discoveries for

insulating against solar radiation. The spaces retain a green aspect through the preservation, whenever possible of pre-existing trees and the incorporation of planters into stair landings.

On November 14th, Satprem Maini unveiled the project to the Auroville community in an evening presentation at Town Hall. Satprem showed the commitment of the project to the Galaxy Design of Auroville, the tenets for housing set out by the Mother, and the efforts of the arrangement to create a peaceful and natural environment for residents. The layouts of the different apartments and studios were presented as well

as the costs for each. Interested attendees were encouraged to sign up for the email list for Green Casbah news.

The Institute hopes to be able to secure the necessary participation to commence construction on the first two blocks soon. ■



*Conceptualization of the stair slab garden*



*Rendering of Green Casbah*



**Al-Medy Mosque  
Nominated**

The Auroville Earth Institute has been nominated to compete in the first ever Abdullatif Al-Fozan Award for Mosque Architecture. This award recognizes exemplary instances of mosque architecture in Saudi Arabia which have been built since 1970. It seeks to appreciate the important role of mosques in modern Muslim societies as a focal point for worship and gathering, as well as an intrinsic part of the urban landscape.

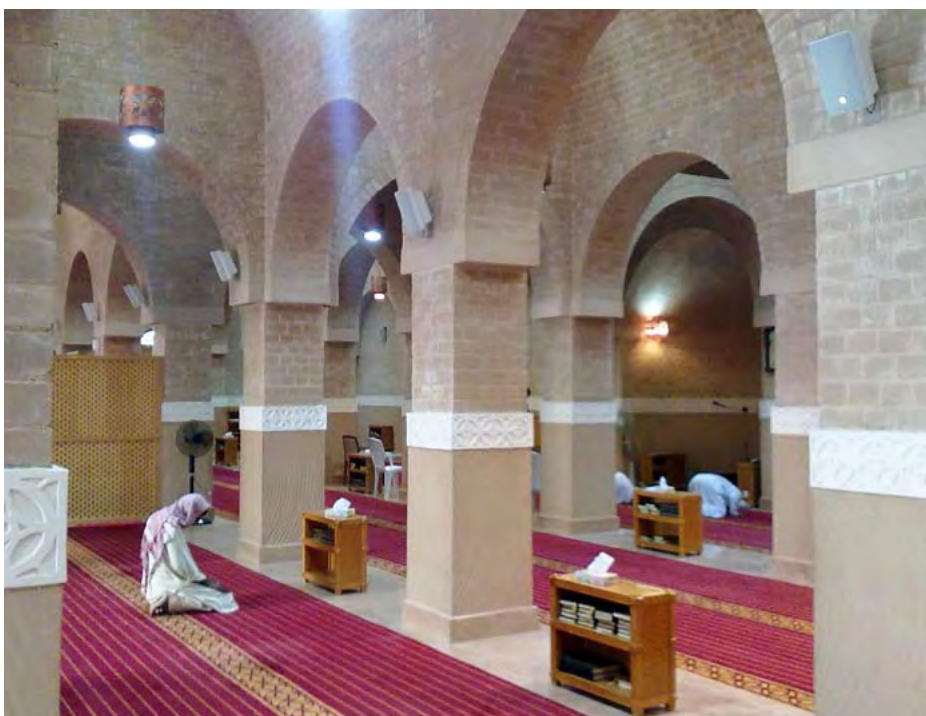


*Al-Medy Mosque viewed from above*

At the end of 2003, Satprem Maïni and a team of five masons began the ambitious project of building a mosque in central Riyadh. The finished project, Al-Medy Mosque, which took only seven weeks to complete, boasted free spanning

vaults and domes, an 18.05 m tall minaret, and a total interior area of 457 m<sup>2</sup>. The construction used a concrete slab base with walls, domes, and supports built from CSEB produced on-site. This beautiful earth-built mosque,

which was a finalist for the 2007 Aga Kahn Award for Architecture and was granted the 2010 award "Prince Sultan Bin Salman Award for Urban Heritage", has now been nominated to contend in the first cycle for the Al-Fozan Award. ■



*Interior of the Al-Medy Mosque*

**Archi'Terre Conference  
in Algeria**

Satprem Maïni and Lara Davis traveled to Algeria in November to take part in Archi' Terre, the second festival for the promotion of earth architecture in Algiers, which was organized by the Ministry of Culture, and coordinated by Miss Yasmine Terki. The festival, which lasted from the 18th to the 22nd of November, brought together architects and earth architecture specialists from Algeria and abroad to give workshops and conferences on the Ecole







*Lara being interviewed by the Algerian media*

Polytechnique d'Architecture et d'Urbanisme (EPAU) campus. The four workshops focused on specific types of earth architecture including rammed earth construction techniques, building with arches, compressed stabilized earth block production, and earth-based coatings & plasters. Satprem and Lara conducted the arches workshop with the assistance of Riccardo de Paoli and Abdelwahab Naoui.

The conference papers focused on the preservation of heritage buildings made from earth as well as the further encouragement of modern earth construction techniques. Satprem presented a paper entitled "Building with CSEB and the Renaissance of Earthen Architecture". Other presenters included members of CRAterre and the UNESCO Chair for Earth Architecture, and special guest, Architect André Ravereau. During an official function André Ravereau was presented by the Minister of Culture with the decoration

of "L'Orde du Merite National", which is the highest Algerian honor. The Algerian President awarded him this honor for his services unto Algeria in the conservation and promotion of the National Architectural Heritage.

A beautiful exhibition on earth architecture in Algeria and the world entitled "From Earth and Clay" opened in the Algiers exhibition halls of Riadh el-Feth in conjunction with the conference. It will continue through



*EPAU students constructing arches in the workshop*

mid-December, providing a moving and educational experience for the general public. ■

### They are talking About Us

GreenBuildingCanada.ca, a website that creates an online network for green builders in Canada, conducted an interview with Satprem Maini for the interview section of its site, which focuses on renowned practitioners in the field of green building. In this interview, Satprem was asked his views on various earth building techniques, the implications of their use in the West, and the state of earth building in Auroville. A link to the entire interview can be found here:

<http://greenbuildingcanada.ca/2012/earthen-construction-auroville-earth-institute/>



## Satisfaction Study of Residents of Earth Dwellings

In October, the Auroville Earth Institute welcomed returning researcher Nourredine Kebaili, an Algerian architect who is completing his PhD at the Ecole Polytechnique d'Architecture et d'Urbanisme. His research focuses on the satisfaction level of individuals living in earthen dwellings.

Nourredine developed a questionnaire that studied the impressions of the actual residents of earth houses and complexes to ascertain the most important aspects of earth architecture from the inhabitant perspective. Through these questions, he was able to see what contributed to the positive and negative image



*An earthen house in Surya Nivas*

of earth architecture, and what could be improved. He additionally studied what were the descriptive elements of earth architecture that made it distinctive from other styles.

Using lists of residents of earthen dwellings around Auroville, Nourredine conducted interviews and took pictures of the various structures with interested participants. His research took him throughout Auroville to the communities of Realization, Vikas, Samasti, Suryanivas, and others, collecting the answers to the questions and photographically documenting the buildings, their architectural elements, and their defects.

With this information, he will be able to compile a report that will provide invaluable information for the development of a popularly accepted form of earth architecture and the improvement of current practices. ■



*Vikas, an AVEI-constructed apartment complex*





*Bhaga's house before the reinforcement work*

### Aftermath of Cyclone Neelam at Repos Beach

On October 31st, Cyclone Neelam hit the coast of Tamil Nadu, bringing high winds and strong waves. While the force of the cyclone was not as powerful as initially feared, it impacted the beach communities along the coast, most notably the

community of Repos, where two beachfront houses and the café were damaged. This area has suffered over the years from the change in coastal currents resulting from the Pondicherry Harbor, which has caused the steady depletion of the sand and disappearance of the beach. But in the wake of the cyclone, the café and Sam's house were completely wrecked, while Bhaga's house survived with a

severely compromised foundation. The sand had eroded out below the foundation and the front side was supported only by two columns instead of five.

In order to prevent the house from breaking in two, Satprem Maïni led the Earth Institute team of masons in a two day emergency relief effort. New support for the foundation was created through the construction of a masonry platform made from rubble from the café and vertical supports made from granite pillars. This effective but vulnerable reinforcement was then protected by a masonry wall composed of large broken pieces from the nearby wreckage and granite pillars. This was then filled in with rubble, cement mortar, and sand. The original intent was to then put a barrier of large rubble—broken walls, beams, etc.—in front of the masonry wall to protect it from the waves, but this proved impossible for the JCB being used on the site.

At the end of this work, Satprem expressed his hope that this tragedy would motivate the community as well as the responsible Aurovilian bodies to act more concretely toward the protection of the beaches.

AVEI would like to thank l'Avenir for their letter of encouragement, Housing Service for their financial support, the Working Committee for providing a JCB for cyclone relief, and Noel Parent for his generous volunteering. ■



*Reinforcement to the foundation done by the AVEI*

**Waterproofing Research: Cactus Juice and Lime**

The experimentation into the waterproofing qualities of fermented cactus juice, conducted jointly by the Auroville Earth Institute and Lara Davis from ETH Zürich has come to a close. The findings on the efficacy of the cactus juice were not as successful as hoped; however one sample which did not actually include any cactus juice, but which performed particularly well, gave ideas for potential future research. This sample was a lime-based plaster coating which was used to examine the effect of marble plaster on the mixture.

The proportions for this sample were 1 part lime : ½ part soil : 1 part sand : ½ marble dust. The success of this sample stemmed out of the richness of the lime at 1 part lime to 2 parts aggregates. The Institute intends to conduct further testing on the waterproofing properties of lime-stabilized plasters in the future. ■



Sample 11, lime but no cactus juice

**Earth Is Dying**

*Written by Sourabh Gupta as a reflection at the end of his internship*

“EARTH IS DYING”, They say...  
I wonder the ignorance!  
Why don't you accept, you are killing it?

.....  
Kill these euphemisms or you would kill the races.

“I fear nothing, but my responsibility;  
for I existed just for tomorrow  
but my responsibility exists for ever”

An introduction for me perhaps can be no better than a confession of the fact that, ‘ I am probably the one who is now studying Architecture for three years but still won't be able to define it.’ But I am really helpless for I see it in everything and see it everywhere.

Yet there are at least some things that put me on a sanguine disposition on this odyssey of learning, the one like earning of the cognizance,

“A design is far beyond a set of few lines of graphite on paper, but it is the level of conscious with which you fit your idea in this DIVINE ORDER OF NATURE”. And the invigoration of the belief, “The future of the creative world lies in the hands of those who can construct their own ideas”.

Architecture connects me to the past, thaws me to the present and wafts me to the future.  
Thus, I live a life with it.

Translation of ages, a growth that ever lives...

A dream that still aspires; a shade for all...

And an abode for mankind.  
This is my life, this is my work, the work of an Architect.

I LIVE NOT IN ME BUT IN MY DREAMS  
FOR I DIE WITH DECADES BUT MY DREAM LIVES FOR EVER.



**Awareness Programs at the Earth Institute**

In October and November, the Auroville Earth Institute conducted four on-site awareness programs for student groups on the topics of “Earth architecture for sustainable habitats” and “CSEB, AVD, Ferrocement”. A total of 121 students and faculty attended from both the fields of architecture and engineering.

These awareness programs are an important part of the AVEI mission as they combat misinformation that is rampant—even among students and professionals in the architecture and structural engineering fields. ■

## Meet Our New Volunteers!

The Institute is happy to announce the arrival of two new volunteer architects from Belgium, Simon and Camille.

### Camille

A few months ago, I quit my job in Brussels (Belgium) where I was working for the past 2 years as an architect. I enjoyed working there on sustainable architecture projects, but observed a lack of research on the use of local materials with low embodied energy.

Because of my convictions and all I learned during my master's degree in the School of Architecture of Grenoble, linked with CRAterre, it seemed a good opportunity for me to come to Auroville, to learn from the Auroville Earth Institute and work with local materials.

For me, working here means a chance to get involved in projects with different challenges than in my country. Constraints and opportunities of eco-responsible architecture remain valid all over the world, only the answers vary. By joining the AVEI, I'm hoping to learn sustainable architecture from a new point of view, in a new context and experiencing a new culture.

### Simon

I believe in earth as "a valid response to the challenges linked to the protection of the environment, the preservation of cultural diversity and the fight against poverty".

A few years ago, I heard about the Auroville Earth Institute during a workshop about building arches given by Satprem Maïni in France, during my masters of architecture. Since then, I have been working in Brussels, Belgium, as a site manager getting to manage the building of a passive house (low energy consumption) in the city. The problem I deeply felt about those kinds of buildings is that there is not enough concern about the embodied energy of the materials used to get to such performance out of a house. Only the result seems to matter, and not the way to achieve it.

Learning at the Auroville Earth Institute is an opportunity for me to go back to the essentials of local and sustainable building, even if the constraints are slightly different than in my country! ■



## Remaining Training Courses in 2012 and Schedule for Early 2013

### December

10<sup>th</sup> to 15<sup>th</sup> - AVD Theory  
17<sup>th</sup> to 22<sup>nd</sup> - AVD Masonry

### February

4th to 9th - CSEB Design  
11th to 16th - CSEB Production  
18th to 23rd - CSEB Masonry

### April

1st to 6th - CSEB Production  
8th to 13th - CSEB Masonry

### June

3rd to 8th - Ferrocement  
10th to 15th - AVD Theory  
17th to 22nd - AVD Masonry

### July

1st to 6th - CSEB Design

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