

AVEI NEWSLETTER



Earth Institute workers fighting the sea to fill sandbags at Repos, Auroville

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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

Emergency Work at Repos Beach

Due to the construction of a jetty in Pondicherry bay which dramatically disrupt the natural currents of the sea, Auroville's beach community of Repos has lost 25 m. of land over the past year. In November 2012, the Auroville Earth Institute led a cleanup and reinforcement effort when Cyclone Neelam pulled one beachfront house into the sea and risked breaking the foundation of Bhaga's house (see [Issue 7](#) for the full story). But recently, the erosion has escalated to a rate of up to 5 m. of land loss in a week.

With the financial support of Auroville for supplies, Satprem Maïni led the Earth Institute team and 50 volunteers in a relief effort on 15 September. In order to protect the foundation of Bhaga's house and the neighboring guest house, they employed large polyethylene tubes which were tied and filled with sand. The sandbags were then secured together with GI fencing mesh to form a solid breakwater barrier.



Filling sandbags to prevent eroding under the guest house's foundations

Approximately 34 polyethylene bags were filled with sand from the beach by hand over the course of the day.

The following Sunday, the effort was again undertaken, this time to protect Philippe's house. During the week, the foundations had become exposed and one of the primary columns of the house was completely unsupported. Unfortunately, only 20 volunteers participated and so the barrier created was only large enough to protect the southern end of the house and half the supplies were

unused.

The sandbag barriers have effectively withstood the waves with minimal shifting, thus protecting from the erosion witnessed in unprotected areas. Still, on 23 September, the front walls of both Bhaga's house and the guest house collapsed. The only longterm solution remains for the Tamil Nadu government to change its coastal policy.

Satprem's full report can be found [here](#). ■



Exposed foundation at Philippe's house



Volunteers working to fill sandbags in the surf

**Earth Architecture Today
and the Networks
Promoting It**

Earth Architecture has a long history of practice with techniques such as rammed earth, adobe brick, stacked earth, and wattle & daub. But the advent of modern earth architecture dates only to the past century. This has been brought about by the increased awareness of the need for appropriate building technologies that can meet the requirements for modern buildings while still meeting economic and environmental benchmarks.

One of the fundamental players to galvanize research and training in modern earth architecture techniques and conservation has been CRATerre, the International Center for Research in Earth Architecture. CRATerre was founded at the National Superior School of Architecture in Grenoble (ENSAG)

in 1979. Through its promotion and research into techniques of earth architecture, it has aimed to encourage the use of local resources, the improvement of global living conditions, and the preservation of architectural heritage. In 1984, ENSAG began to offer a Masters of Advanced Studies (DSA in French) in Earth Architecture. This specialty certification proved pivotal in training the future specialists of earth architecture across the globe, including the Auroville Earth Institute’s own director, Satprem Maïni.

<http://www.craterre.org/>

**The UNESCO Chair for
Earthen Architecture**

In 1998, CRATerre’s international perspective attained a new level with the creation of the UNESCO Chair for “Earthen Architecture – Constructive Cultures and

Sustainable Development”, headquartered at CRATerre/ENSAG. This network sought to bring together the many geographically disbursed specialists in earthen building techniques (many CRATerre alumni themselves) in the aim of promoting, researching, and disseminating knowledge of earth architecture. Since its inception, the network has quickly grown to include 39 member institutions in 21 countries.

The Auroville Earth Institute is one such member, serving as the Representative for Asia of the UNESCO Chair for Earthen Architecture since 2005. AVEI maintains strong ties with CRATerre and the rest of the network through hosting researchers at the Earth Institute campus, participating in collaborative consultancy projects, guest lecturing, training students through teaching partnership agreements; and sharing information resources. →



Satprem teaching a child about domes during “Les Grands Ateliers” in Isle d’Abeau, France, 2006 ; The results of a completed AVD course in Isle d’Abeau, 2005 ; Satprem collaborating on the post-earthquake consulting at Arg-e-Bam in Iran, 2004

Earth Architecture in Algeria

Algerian architect Yasmine Terki is also a CRATerre alumnus who has brought the knowledge and connections gained through the DSA in Earth Architecture to another corner of the world. With her passion from an early age for Algeria's vernacular traditions of building with earth, she has been working at the Algerian Ministry of Culture to preserve and promote these building techniques. Two earth architecture

exhibitions, "Terres, d'Afrique et d'ailleurs" ("Earth, from Africa and elsewhere," in French) and "De terre et d'argile" ("From earth and clay"), have attracted a wide public. In 2012, CAPTerre, the Algerian Center for Cultural Heritage Built from Earth was created by Executive Decree in Timimoun in Southern Algeria.

There have also been International Archi'Terre festivals in collaboration with EPAU, the top Algerian architecture school, which have brought the leading

earth architecture experts from around the world together. During the course of these festivals, introductory workshops are given by leading international experts in multiple earth building techniques, papers are presented at the symposium, and special cultural presentations related to earth are given. Satprem and Lara Davis participated in these annual festivals in the roles of presenter and workshop facilitator (See Issues [7](#) and [10](#) for the full stories). ■

Earth at the forefront in Algeria: an interview with Archi'Terre's assistant commissioner

Fadhila Bencherif is the assistant commissioner for the International Archi'Terre festival and the "De terre et d'argile" exhibition ("From earth and clay" in French). With a background in Sustainable Tourism, she had always had an affinity for earth. So in 2011, she joined Ms. Terki's team in the planning and promotion of the Archi'Terre festival and exhibitions.

In an interview, Fadhila gave her impressions of the changing landscape of earth architecture in Algeria.

What has been the status of earth architecture in Algeria? How is it perceived?

Before the initiation of the Archi'Terre festival, Earth Architecture had sunk into oblivion. Algerians perceived it as traditional, a part of their heritage, but not relevant for them currently. There was a lot of ignorance and misinformation. While looking at an earth-constructed wall at the exhibition, one architecture student asked, "When it rains, doesn't it fall down?"

For now, no architects are using earth for building apart from two architects who attended



Archi'Terre and who are operating on a very small scale in the South of the country.

What has been the response to the festival?

The Archi'Terre festival targets students in particular, because they are the future. The second annual conference saw many of the same students coming back. They really want to do something with earth architecture. In one region of Algeria, a group of architectural students are creating a student association for earth architecture.

Many professionals have wanted to come too. This year, a Tunisian architect attended, showing →

the growing reach of the Archi'Terre festivals. And so an additional day was added to the schedule with workshops specifically for professionals.

And the exhibition?

The first exhibition was inaugurated in Tlemcen (a city in the North-West of Algeria famous for its Islamic cultural heritage). After its marked success, the Ministry of Culture decided to extend the duration. In order to reach more people, it was moved to the capital Algiers, where it continued to have up to 3000 visitors per day. People would come with the mindset that earth architecture was not contemporary, it was utopic. The exposure helped to change this limited view of earth architecture.

What key factors will expedite the future of earth architecture in Algeria?

A big project sponsored by the government is necessary. This will make both professionals and clients more apt to choose earth. Recently, the governor of the South state of Tamanrasset called for the elimination of industrial construction materials and their replacement by earth.

Also important will be the promotion done by CAP Terre to familiarize the population with earth architecture. Programs will even cater to children.

What is the status of CAP Terre now?

Currently, CAP Terre has begun recruiting staff for its Timimoun office. For its first action planned for November, an architect from every municipality around Timimoun will be brought for awareness and training courses. These training courses for professionals and construction companies will last for ten days and incorporate courses on CSEB, led by Satprem Maïni of the Auroville Earth Institute, and plasters. ■

SEDAB Presentation at Unity Pavilion

On the 26th of August, Satprem Maïni took part in a presentation of the SEDAB Project at Unity Pavilion. SEDAB, an acronym for Sustainable Enterprise Development in the Auroville Bioregion, is an initiative launched through the collaboration of several Auroville units that focus on providing sustainable livelihoods in the villages around Auroville. It is in the framework of the SGSY program, which was developed by the Ministry of Rural Development to promote employment

through self-help groups.

The Earth Institute has been participating in this project since 2009 by organizing the set-up of e'block units, beginning with the Kaliveli bioregion around Auroville. Through this program, the e'blocks (an alternative abbreviation for Compressed Stabilized Earth Blocks which makes reference to the earth, ecological, and economical nature of the blocks) can be produced by the local self-help groups that already exist at the village level. Through these e'block units, unskilled workers will be able to find competitively paying employment and the use of sustainable materials will become a more available and

accepted option for construction in the villages.

This particular presentation, led by Joss Brooks from Pitchandikulam and Alain Bernard from Auroville Village Action Group, covered the history and aims of the project, as well as the current initiatives that have come to fruition, such as Well Paper's paper-crafted products, snake venom extraction, and the manufacture of natural beauty products. ■



Auroville Green Practices lecture

Lara taught a technical session on “Earth as Building Material” on July 29 for the Auroville Green Practices summer school. With the theme “From House to Home: Building for a Dignified Living”, this 3 week sustainable design-build workshop included design and hands-on construction of a prototype for a low-cost house using locally available material.

Lara’s lecture presented examples of buildings built with earth techniques around the world, emphasizing the diversity of vernacular and contemporary earth construction. The lecture discussed the principles of context and climate responsive construction with earth and presented the case study of earthen construction in remote Spiti Valley for discussion.

AVEI Work Specs to the Press!

The AVEI Work Specifications are now being published and are available for purchase at the Auroville Earth Institute. The Work Specs, which have been written over the course of this past year, describe the technical specifications for the many earth building techniques used by the Auroville Earth Institute, including Compressed Stabilized Earth Block,

Rammed Earth Walls and Foundations, and Composite Earth Techniques. Current building techniques are most elaborately covered, but the document also includes sections for techniques under development and some discontinued techniques.

While the Work Specs take into consideration the local conditions of the Auroville region, particularly for mix ratios, this document has universal applicability in establishing best practice for building using these techniques. The Earth Institute intends to spread awareness and access to these building techniques among construction professionals and potential builders.



The cover of the AVEI Work Specs

Meet Our New team Member!

The poured earth research has revived with the arrival of a new engineering intern.

Clémentine

I knew that I would come to Auroville one day as soon as I first heard of it through Albéric. He is a mechanical engineer student from my school, University of Technology of Compiègne, and I discovered when I came here that he worked on the same project as me two years ago. As a 4th year student, I am specialized in Urban Systems Engineering, a wide field that includes town-planning, new materials for building, public works, networks like water, electricity, transportation or heat, cultural life in the city and sustainable development.

The first thing that attracted me in Auroville was this will to experiment a new way of living. This communitarian experience could be similar in some ways to utopias, which have fascinated me for years. I could not imagine how rich and varied would be my experience of Auroville. There is no generalization to be done about one’s experience, people being unconsciously guided towards what will serve their personal and spiritual growth. Everything here makes this place is highly propitious to find oneself,



in my opinion. Apart from that, it is also the opportunity to discover lots of activities and learn from good and interesting teachers in any field. I was also happy to have the opportunity to meet musicians with whom I could practice my singing, and I have to say that I got hooked on tango here...

I arrived at AVEI 2 months ago to start a 6-month internship, researching on the Poured Earth project, as my friend did. I am deeply interested in innovative ways of building - which are often a throw-back to traditional methods. I deeply appreciate the Earth Institute's strong will to practice a sustainable development without concessions, which means not starting from an existing project and incorporating sustainable technologies but which means being sustainable and thinking locally in every process, every material chosen, with a thought towards the future and the eventual unmaking of the building. ■



AVD Masonry in action

Overview of Training Courses at AVEI

In the first week of August, 26 students from Hindustan University came for a week-long intensive CSEB course at the Earth Institute, as a follow-up to the lecture that Satprem Maïni had given at the Hindustan campus in July.

In September, courses geared up again, with a week of AVD Theory, a week of AVD Masonry, a week of CSEB Production, and a week of CSEB Masonry. The AVD courses attracted an attendance of 29 students and the CSEB courses attracted an attendance of 34 students. Among those who attended were primarily architecture students, engineers, and architects, but also represented were individuals from the health sector, hospitality and tourism, as well as software engineering. Foreign students were numerous with four Algerians, three Mauritians, two Israelis, one Sri Lankan, one American, one Malaysian, one Irish, and one Australian. ■

AVEI Training Course Schedule for 2013

December

9th to 14th - AVD Theory
16th to 21st - AVD Masonry



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