

AVEI NEWSLETTER



Rendering from Lara's "Garden of the Unexpected" proposal

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After a very long and more than slightly over-productive year, we are all kind of taking stock at the end of 2018.

This year, we had 10 publications go to print... the Auroville 50th anniversary here in Auroville, with an open house and rammed earth stele... 50th events across the subcontinent... We closed up a 3 year construction at Sharanam and another small local construction... Lara has worked on a proposal for the Matrimandir Garden of the Unexpected... Satprem has continued technical support for HfH Sri Lanka... Ayyappan has added a new course on Wind Turbine design... and the Bioclimatic Earth workshop has hit full swing.

So we will be reconfiguring our publications schedule for a **quarterly newsletter**, with the first issue at the end of March!

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



Matrimandir Garden of the Unexpected (GoU)

Since June, Lara has been working on a proposal for the Garden of the Unexpected (GoU) at the Matrimandir Gardens in the center of Auroville. Lara is now, along with Jyoti, assisting the Unexpected Four team (Mona, Joss, Andreas, and Greg) in an integration period for their final garden design.

Very sincere thanks to all of the members of the community and experts who have generously shared their knowledge, as well as the GoU organizers!

<https://www.auroville.org/contents/4498>

<http://gou.auroville.org/>



Renderings from Lara's "Garden of the Unexpected" proposal



What is the Spirit of Auroville Gardening ?

Rather than refer to outside examples from Japanese gardening, why not celebrate the unique spirit of gardening that has developed in Auroville over the course of the last 50 years? Much inspired by the Japanese "art of nature", the spirit of Auroville gardening has evolved out of nothing - a brief and impressive history of reforestation, from the challenging barren land and climate that has played and inspired several generations of green belt stewards and landscape gardeners. When the early settlers saw the barren land of Auroville, some cracked timeless jokes, like B. But they saw its "becoming" in the barren red earth.

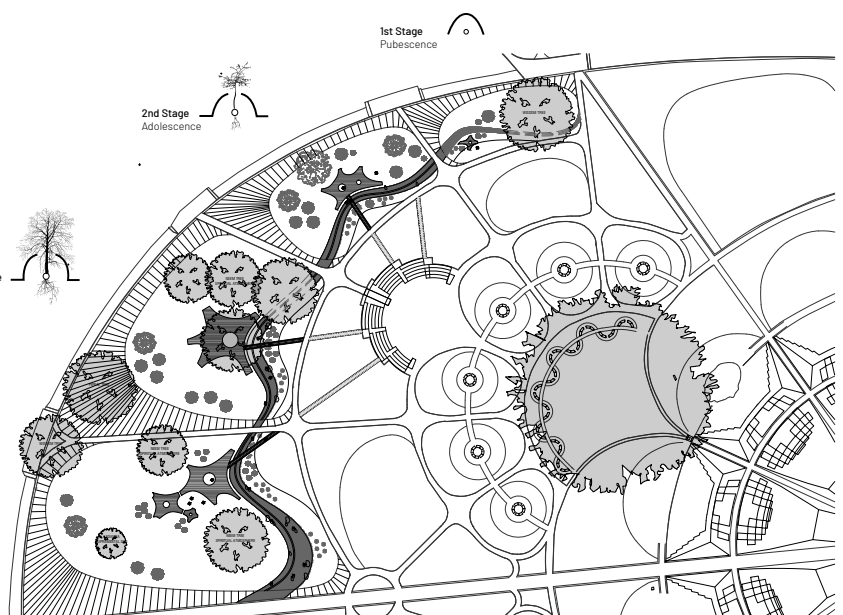
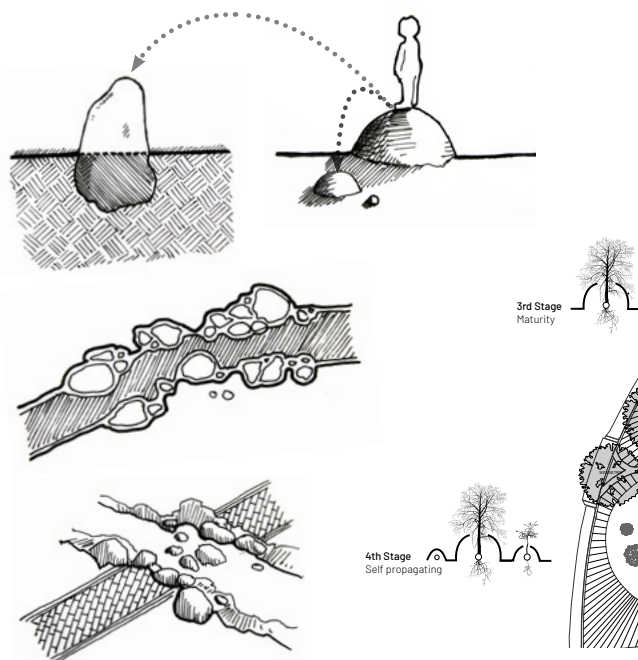
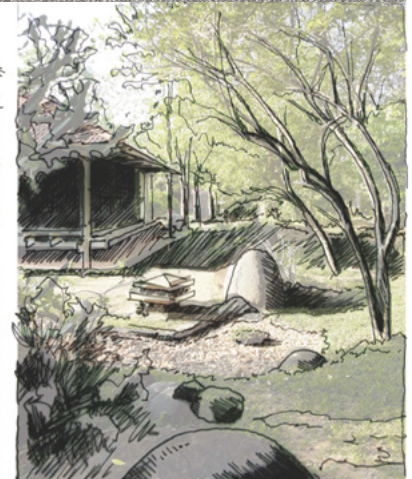
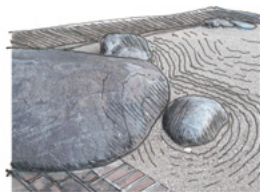
So many beautiful gardens in Fassbender's "Landscapes and Gardens of Auroville". For me, Poppo's gardens are a source of great inspiration. Some of them are thriving and growing, like *Abaanah's*; some lost to time, like *Thomson's*. But they have all taken the pioneering inspiration of "becoming" and transformed it into a beautiful and very unique landscape aesthetic. Anchored in the spirit of labour - our *Shlophas* of Auroville, eternally moving stones from place to place; craft - each stone placed by the hands of the maker; resourcefulness and creativity - valuing and reappropriating the broken, the rejected; culture and history - way markers of time eternal, calling forth archaeological funeral monuments of ancient Tamil heritage; and nature - the subtle hidden art and visual modesty of the forests.

"It should start simply like a fungus!
You have to listen. What is the determination of that ground?
Practically it is the mumpst that decides."
- Poppo Pingel

"The attentive observer can, even through the external sense, become aware of the apparently impossible. [...] for we throw ourselves down in worship before the secretive core foundation of all things." - Goethe

"A miracle is nothing but a sudden descent, a bursting forth of another consciousness and its powers ... into this plane of matter. There is a precipitation, upon the material mechanism, of the mechanism of a higher plane. It is as though a lightning flash tore through the cloud of our ordinary consciousness and poured into it other forces, other movements and sequences. ... If we have eyes and know how to observe we can see miracles in abundance. Especially must they be constant among those who are endeavouring to bring down the higher reaches into the earth consciousness below." - The Mother

POPPO'S WORK



Excerpts from Lara's "Garden of the Unexpected" proposal

"Homes Not Houses" Project Evaluation in Sri Lanka

Satprem went to Sri Lanka from the 8th to 18th October to conduct an evaluation mission of the work which happened during the last year for the HfHSL "Homes Not Houses" project. This mission was initially scheduled for last October, to check the initial stages of implementation after the various training courses given in 2017 to Habitat for Humanity Sri Lanka (HfHSL) and World Vision Lanka (WVL).

The scope of the mission changed from what was initially planned, as the production of earth concrete blocks in Kilinochchi was too expensive. Thus, the main scope of work for this mission was to evaluate the potential of new quarries in Kilinochchi and Mullaitivu, the suitability of soils for the production of CSEB in the north. The evaluation included also the block production in Batticaloa and the houses built in the north and east.

It was encouraging to see all of the good work accomplished, especially the construction of houses by HfHSL, and their efforts in problem solving and promotion of CSEB. One house even resisted *an elephant attack*!

As of 16th October, 42 houses were fully completed, 30 houses were in the finishing stages and 42 houses were at other stages of construction. It is important to mention that this project is



Ongoing work for the HfHSL "Homes Not Houses" project.

an owner-driven initiative and that HfHSL is only assisting beneficiaries to build their own houses. HfHSL proposed various types of houses and adapted these designs to the wishes of the homeowners.

Soils in the north are not the best for the production of CSEB, as they are in general very gravelly, with often 40 to 60% of gravel. Nevertheless, a quarry was identified with a good quality

soil that was centrally located in the main areas of development in Kilinochchi and Mullaitivu.

Block production, organized by WVL, continued in Batticaloa with the Auram machinery and Sri Lankan made manual presses.

Congratulation to the HfHSL teams in the North and East who managed to achieve these impressive accomplishments during the last year! ■



Exhibition in Premanand Hall and Vast Performance

Auroville 50th Anniversary: Baroda Festival

As a continuation of Auroville's 50th Anniversary celebrations this year, the "Journey of Auroville: Baroda Festival" was held at the end of September in Vadodara (previously Baroda) in the western Indian state of Gujarat. The primary venue for the festival was the campus of The Maharaja Sayajirao University of Baroda (MSU).

The Journey of Auroville festivals are taking place in cities of particular importance to the life of Sri Aurobindo, the Indian philosopher and freedom fighter whose philosophy, along with that of the Mother, forms the founding principles of Auroville. The Baroda Festival aimed to engage the

youth and citizens of the city by tapping into areas of mutual expertise between Auroville and Baroda, to form lasting connections between these two communities. The Earth Institute's librarian Hilary joined as a core team member in organizing the five-day Baroda Festival, as she had previously taken part in the Auroville Expo in Delhi in November 2017 as part of the Sustainability Kiosk (see **Newsletter 36**).

The opening ceremony took place on 25th September with dignitaries from the Auroville Foundation and MSU on the dais and a concert by the Raga Mantra Trio, a fusion music group from Auroville. The festival then continued with different events led by Auroville units and Aurovilians: an art camp by Upcycling Studio; theater

performances and workshops with the Vast team; Odissi dance performances; lectures and seminars on youth engagement, conscious consumerism, and integral education; and film screenings. On 28th September, an architecture symposium was held in conjunction with the Vadodara Chapter of the Institute of Indian Interior Designers (IIID), where Lara and Aurovilian architects presented on architecture in the Auroville context on a triple-wide Matrox screen (see next page). The festival concluded on 30th September with a performance



of *Bhu*, a magnificent theatrical performance and homage to the earth inspired by the South Indian martial art *kalaripayattu*.

The events were well received, with strong participation by the student body and larger Barodian community. The Journey of Auroville team is now preparing toward the "Journey of Auroville: Kolkata Festival", which will take place at the end of January 2019 in Kolkata (Calcutta).

Learn more about the Baroda Festival in the three short films by Serena Aurora and AuroVenkatesh and the *AV Today* article by Hilary and Ravi M. ■



A seminar led by WasteLess on the MSU campus

https://www.youtube.com/watch?v=YnSn_uoxC24

<https://www.youtube.com/watch?v=UZhtkb3JVrw>

<https://www.youtube.com/watch?v=9qJwlvelkfg>

<https://www.auroville.org/contents/4551>

Baroda Architects' Symposium

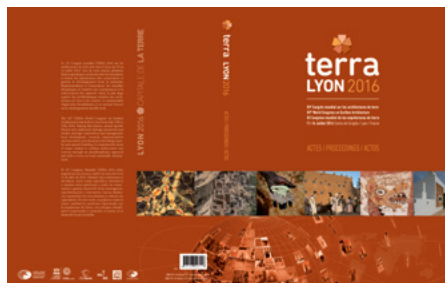
The architects symposium during the Baroda Festival, organized and hosted by Vadodara Chapter of IIID, was held at FGI Auditorium. Four AV architects gave lectures on various holistic aspects of Auroville's design and constructive culture. Beginning with the urban scale, Lalit Kishor Bhati spoke about the unique set of environmental, socio-economic and socio-cultural factors in 50 years of urban planning in Auroville. Mona Doctor-Pingel showed many beautiful examples of the language of Auroville's experimental building

materials and technologies. Lara zoomed in further, showing the diverse experimental approaches in building with earth. Then Shailaja Sudhalkar Bhati zoomed back again to talk about the unique culture of design that

has evolved over these 50 years. There was enthusiastic debate with the professional community of Baroda's architects. Sincere thanks to Kalpesh Joshi for his work in organizing this symposium! ■



2019 AVEI Publications



Just in case anyone needs an explanation for why Lara has been a little crazy, the following is the list of 2018's publications (journal and conference papers, books, book chapters and technical reports), not including the most recent articles or the bimonthly AVEI Newsletters... ■

Terra 2016 (conference papers)

Davis, L. and Maïni, S. (2018). "AVEI School of Earthen Architecture", Proceedings of Terra 2016: XIth World Congress on Earthen Architecture, Lyon, France, 11th - 14th July 2016. Ed. Guillaud, Hubert; Joffroy, Thierry. The Getty Conservation Institute: Los Angeles.
<https://craterre.hypotheses.org/1827>

Maïni, S. and Davis, L. (2018). "27 years of Applied Research in Stabilized Earth Technologies at the Auroville Earth Institute", Proceedings of Terra 2016: XIth World Congress on Earthen Architecture, Lyon, France, 11th - 14th July 2016. Ed. Guillaud, Hubert; Joffroy, Thierry. The Getty Conservation Institute: Los Angeles.

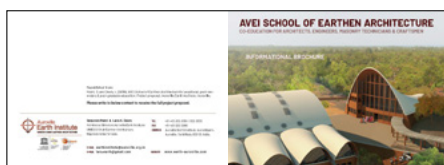


Building Owning & Belonging (book)

Davis, L. (2018). "Building with Earth: Sustainable resource management with the people's material", Building, Owning & Belonging: From assisting owner-driven housing reconstruction to co-production in Sri Lanka, India and beyond (Third Edition), Ed. Royo-Oléd J. and Fennell S. et al. European Union Delegation to Sri Lanka and Maldives and of the United Nations, Human Settlements Programme (UN-Habitat). Publications Office of the European Union: Luxembourg.
<https://www.eventbrite.co.uk/e/book-launch-building-owning-and-belonging-tickets-52308126013#>

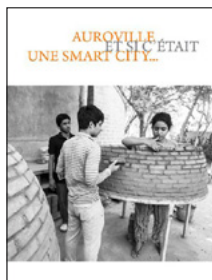
AVEI School (book)

Davis, L. (July 2018). "AVEI School of Earthen Architecture: Informational brochure", Auroville Earth Institute, TN India.



Smart Cities (book)

Davis, L. (2018). "Au Nom de la Terre", Auroville : et si c'était une smart city, English and French editions. Eds. C. Arpi, A. Bernard, C. Devin, J. Guignard, Auroville Press: Auroville.
<https://www.auroville.com/media-c-62/book/auroville-et-si-c-etait-une-smart-city.html>



Structures Journal (journal paper)

Davis, L., Varma, M. & Maïni, S. (2018). "Sharanam: Case study of a 15 meter span earthen conical vault", Special Issue on Advanced Manufacturing and Materials for Creative Structural Design, Structures. Elsevier. <https://doi.org/10.1016/j.jstruc.2018.11.014>

IASS (conference paper)

Davis, L., Varma, M. & Maïni, S. (2018). "Sharanam: Case study of 15m span earthen conical vault", Proceedings of the Annual Symposium of the International Association for Shell and Spatial Structures (IASS 2018), Boston, MA, 16th - 20th July 2018. IASS: Cambridge.
<https://www.iass-structures.org/Pubs-Proc-NonM/>

PROFAS C+ (technical report)

Davis, L. (Mars 2018). Rapport de mission: formation AVD, 4 au 17 mars 2018. Programme PROFAS C+ Renforcement des capacités des corps techniques du CAPTERRE. Projet de partenariat institutionnel établi entre CAPTERRE et ENSAG- Laboratoire CRATERRE. Chaire UNESCO, Architecture de terre, cultures constructives et développement durable. CRATERRE: Grenoble.

ISES (conference paper)

Davis, L. & Maïni, S. (2018). "Case Studies Pushing the Mechanical Limits of Poured Earth Concrete", Proceedings of the International Symposium on Earthen Structures (ISES 2018), Bangalore, 22nd - 24th August 2018. Center for Sustainable Technologies IISc, Bangalore: Bangalore.

Sacred Groves Followup Report (technical report)

Davis, L. (Aug. 2018). "Sacred Groves Project: Structural Safety Evaluation - Followup report", Auroville Earth Institute, TN India.

Selected 2019 Publications



AUROVILLE EARTH INSTITUTE

UNESCO CHAIR EARTHEN ARCHITECTURE

AVEI's New Graphic Design

The Auroville Earth Institute has just concluded a year-long project with graphic designer Muthiah Kasi to reconceive our visual identity and graphic materials. Muthiah joined the AVEI team in December 2017 to take on this body of graphic design work. After redesigning the logo – a revised symbol with a layer of inspiration from the AVEI “Freespanning” vault construction technique – then adding all-new beautiful fonts, these design sensibilities were incorporated into our

brochures, office and campus signage, letterheads, envelopes, and stamps. The result has been a striking collection of promotional materials that give a cohesive visual identity to AVEI and a beautiful new assortment of stationary items and fonts to work with. Thank you, Muthu, for your work! ■



AVEI's new graphic identity (carved by Lara)



NEW Wind Turbine Course

In response to numerous requests over the years, Ayyappan has developed and just taught the Earth Institute's first ever Wind Turbine Design training course this November. For this pilot course, Ayyappan worked with a small group of students to guide them through practical sessions on woodworking, metalworking, and generator fabrication. He then taught how to wind the generator coils, with extensive exercises on casting the starter coil and rotator magnet disks. He gave a small instructional session on the furling tail system and tower installation.

At the end of the workshop, the trainees had assembled a small wind turbine and were able to test the wind, learn the basics electrical driven turbine systems, and hook up a battery.

After this successful first course, the Earth Institute is planning to offer it again next year. ■



The first Wind Turbine Design training course led by Ayyappan

Alumni Activities

Former Earth Institute intern Salomé Bergsma and the other students of the DESIGNBUILDLAB of LabEx AE&CC at ENSA Grenoble have recently completed a beautiful pisé construction with an amphitheater in the community of Four, in the Rhône Alpes region of France. The building incorporates pre-fabricated pisé walls, deactivated concrete, wood, pre-patinated zinc, and glass. Congratulations to Salomé and her DESIGNBUILDLAB classmates on this impressive building! More photos can be viewed on Instagram:

https://www.instagram.com/lmpt_ensag



The completed building project of Salomé's DESIGNBUILDLAB class



Announcing IISc Energy Efficient Buildings Workshop

The Indian Institute of Science in Bangalore is organizing a 6-day workshop on **"Low Carbon Materials and Building Systems"** in the context of the Energy Efficient Buildings Workshop Series. Taking place at the Centre

for Sustainable Technologies on the IISc Bangalore campus from **21 to 26 January 2019**, the workshop will include lectures, hands-on training, and demonstrations of construction techniques. Some of the concepts that will be covered include energy in buildings, green building concepts, low carbon building materials (including stabilized soil blocks and rammed

earth, among others, alternative roofing systems, masonry of vaults and domes, Bi-PV, and climate responsive architecture. See brochure for further details:

http://www.kscst.iisc.ernet.in/workshops/2019/energy_efficient_building_workshop_Jan2019.pdf



AVEI Training Course Schedule for 2019

February
25th to (Mar) 11th : Bioclimatic Earth

March
11th to 16th : CSEB Design
18th to 23rd : CSEB Production
25th to 30th : CSEB Masonry

May
13th to 27th : Bioclimatic Earth

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

July
1st to 6th : CSEB Design
8th to 13th : CSEB Production
15th to 20th : CSEB Masonry

September
2nd to 7th : CSEB Production
9th to 14th : CSEB Masonry
16th to 21st : AVD Theory
23rd to 28th : AVD Masonry

October
14th to 28th : Bioclimatic Earth

November
4th to 9th : Wind Generator

December
2nd to 7th : CSEB Intensive
9th to 14th : AVD Intensive

AVEI Newsletter

Issue 42 - November 2018
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The first programs now being run at the fully functional Sharanam Rural Development Centre campus !!

(photo by the Sri Aurobindo Society)