



Auroville Outreach

A newsletter from Auroville Universal Township

October 2002

Pitchandikulam Bio-Resource Centre

Pitchandikulam is an area of 50 acres located within the Green Belt of Auroville, on the southern fringe of the township. Prior to 1973, the area was dry and desolate with only a few scattered palm trees. Today it is a peaceful sanctuary of self-regenerating forest with a wide diversity of flora and fauna, where important conservation work is being conducted. Located at the heart of the area is a 2-storey Bio-Resource Centre.

There has always been a strong interest in conservation of indigenous plant species in Pitchandikulam, which in the past few years has led to an increasing focus on medicinal plants. Now teams of botanists and community

outreach workers are operating from the Centre. Initially funding came from the Foundation for the Revitalisation of Local Health Traditions (FRLHT), a NGO based in Bangalore. Other funding for conservation work has come from CAPART (Govt of India) and DFID (UK Govt). Also since the beginning of 2002 the Centre has coordinated the new European Commission project to restore the Tropical Dry Evergreen Forest (TDEF) in the Kaliveli bioregion. This project involves many members of the Auroville Forest Group, and requires close collaboration with the Tamil Nadu Forest Department. Pitchandikulam has also become one of a network of Medicinal Plant Conservation Parks spread over the southern States of Tamil Nadu, Kerala and Karnataka.

The bio-region in which the

Auroville is an international township in Tamil Nadu, South India, founded in 1968.

Inspired by the vision of Sri Aurobindo and The Mother, over 1,700 people from India and some 30-35 other nations are building a township dedicated to an experiment in human unity, with the eventual hope of contributing to international understanding and the evolution of human consciousness. Nearly 5,000 of the 40,000-plus local people living in the dozen-or-more villages that comprise the Auroville bio-region are also involved in the project, providing their skills and labour.

The township, projected for 50,000 people, will radiate out from the central Matrimandir and its surrounding gardens in 4 zones, the International, Cultural, Residential and Industrial. A large forested area, the Green Belt, will eventually surround the entire township area.

Present activities in Auroville include wasteland reclamation and reforestation, organic farming, village development, education, health care, renewable energy, appropriate building technology, arts and culture, handicrafts and small-scale industries, architecture and town planning.

As described by its founder, Auroville aspires to be "a universal town where men and women of all countries are able to live in peace and progressive harmony, above all creeds, all politics and all nationalities."

For more general information visit the website: www.auroville.org



Pitchandikulam Bio-Resource Centre building

Pitchandikulam team works extends 40 kms north and west, and embraces the Kaliveli lake. By accessing local knowledge, specially that of traditional healers, the team has learned which plants are endangered in the region. The Auroville botanists have also discovered that only a few thousand acres now remain of the TDEF unique to the area, making the situation critical. Remnant forest patches, sacred groves and individual heritage trees have been identified, and seeds are being collected for propagation in Pitchandikulam and other Auroville nurseries.

By planting out the seedlings in the well protected ethno-botanic garden at Pitchandikulam, and in other Auroville sanctuary areas, living gene banks are now being created. Seedlings are also being planted in village medicinal plant gardens, in school compounds, and - wherever possible - in the sacred groves and remnant forest areas themselves. At the same time the team has been encouraging the village communities to get involved in the process of eco-restoration.

The Bio-Resource Centre at the heart of this work, coordinated by long time Aurovilian Joss Brooks, acts as a teaching and training place



Coordinator Joss Brooks



One of a number of cadappa stone educational panels in the garden area surrounding the Centre

for the work, and for the protection, propagation and use of medicinal plants. It is also actively encouraging local traditional healers in their practices by way of plant information exchange meetings and other activities. The meetings are specially appreciated by the local healers, who are happy to be getting renewed recognition for their ancient skills; for the encouragement they get to use their knowledge for primary health care in their area; and for the opportunities they provide to exchange knowledge with other healers.

Today the Centre houses an English and Tamil reference library and computer data base for research, a photographic display of 240 of the 400+ medicinal plants found in the bio-region, a collection

of 350 different kinds of medicinal plant seeds, and a variety of artifacts representing traditional technologies from the area. The whole building runs on solar energy, the panels on the roof powering everything from the lighting and the computer system to a video editing facility. Water for the Centre, as also for the rest of Pitchandikulam, is pumped up by windmills.

There are now more than 700 plant species growing in the larger 50-acre Pitchandikulam forest area, of which 500 are medicinal. Of these nearly 300 can be found in the

demonstration garden maintained at the Centre.

To summarise the above: while Pitchandikulam Forest acts as an important sanctuary for the threatened species of the area, both floral and faunal, the Bio-Resource Centre is coordinating crucial work in the fields of medicinal plant conservation and propagation; is helping to conserve the knowledge and promote the practices of traditional healers; is collecting and distributing essential genetic material to help regenerate the bio-diversity of the region; and is acting as a training place for village-based ecologists intent on restoring the ancient eco-system to full health.

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Sound Wizard

On the plane back to France in 1992, after a first visit to Auroville, Didier Weiss - a degree holder in Electronics, Computer Systems, Physics and Structural Engineering - and his partner Cecilia started dreaming about returning to Auroville to take part in the project. However, it was a full two years before they could free themselves from Didier's complex business commitments, as a partner in a sound engineering studio in Paris.

After settling in Auroville, for six years they immersed themselves in a range of totally different activities, though from time to time Didier also gave a hand - or rather, an ear! - with concerts or sound recordings of Aurovilian artists, or would go for a recording and mixing session to Chennai studios. He also visited many audio facilities, did sound reinforcement for indoor and outdoor concerts, and started to get to know more and more people in the audio field in Chennai and Bangalore. He felt specially at ease with the musicians, whose specific recording and mixing tastes he could understand better than most Indian-based sound engineers.

One day the idea came to them that Didier's years of experience in sound could be fruitfully used in a totally new and creative way. It had been Didier's experience that the acoustics of the auditoriums or studios he visited were generally quite poor, often confused with mere 'sound proofing' or 'sound isolation'. Also a market study all over India revealed that there were few professionals in the specific field of acoustics at the national level. Since a few years, the entire Indian music and film industry had been experiencing a boom in the launching of recording studios, and in almost all cases these were multi-crore projects featuring the best equipment and designed by foreign

acoustic engineers at a very high cost, but knowledgeable experts able to conceive such projects were hard to find. In these circumstances Didier felt confident he could become a sought-after acoustic designer in India.

Finally they decided to go ahead with a small scale audio design & consultancy operation of their own.



The 'Wizard' at work

Specialist books on acoustics were purchased, plus two computers, a printer and scanner, some highly sophisticated computer acoustic programmes, and instruments for calculations, measurements and simulations. Add to all that the two of them running the show - Didier designing and Cecilia doing everything else - and that's all it took to start their unit, which they named "Sound Wizard".

It wasn't long before projects started to come in, including a collaborative tie-up with Modi Digital Audio in Madras for studio and control room design. Now more and more requests are reaching them from recording studios, and they feel confident that the unit can be successful.

In the past year, Didier has been asked to work on the acoustics of a

number of different projects in Auroville, such as the sports hall at Transition School, the upgrading of Bharat Nivas auditorium, the setting up of four home studios for Aurovilian musicians, and the improvement of the meditation and chanting hall at Verité. Also during a full school year, he trained several youths in the field of sound

recording and sound reinforcement. Presently he is researching ways to work in cooperation with Auroville architects on sound proofing of buildings in general, and particularly collective housing and apartments - a real challenge in India's tropical environment, where people like to keep all their windows wide open!

By the way, incase you are wondering where the name 'Sound Wizard' came from, it arose in France. There Didier was known as Le Sorcier Blanc - The White Sorcerer - among the black African musicians thronging Paris' studios, so today's name is like a carry-over from his professional past!

For more info see the website
www.soundwizardonline.com or
e-mail: soundwiz@auroville.org.in

Auroville's AV55 windpump

Some set out deliberately to become successful and famous, others just end up that way as a result of what they are or do. Something along the latter lines seems to have happened with Auroville's AV55 windpump!

Some 12 years ago India's Ministry of Non-conventional Energy Sources (MNES) initiated the introduction of low cost windpumps on a large scale in India, by way of a Dutch designed machine which could be easily manufactured locally in rural areas. The result was that several hundred 90%-subsidised machines were manufactured and installed in various States.

Although outwardly the project seemed sound, it failed because of poor manufacturing by workshops with no previous experience or technical knowhow, combined with a demand from the Ministry that the windpumps be produced at such low cost that there was insufficient margin for the manufacturers. Also, as the pumps had been supplied virtually free, users had little personal incentive to get them to work really effectively or to maintain them. Although a US design dating back to the 1930s was later adopted and promoted by MNES, heavy price restraints again meant that quality was often poor, and overall the pumps did not prove very cost effective, giving only moderate water output.

It was against this backdrop that Auroville - located as it is in a rural area lacking dependable electricity supply, therefore largely motivated by self-interest - took up the design and manufacture in 1982, via its Aureka workshop, of a suitable windpump to meet local needs. What they came up

with after a number of years of research and development, encouraged by environmentally-conscious users in Auroville and funded by Tata Energy Research Institute, was the steel structured AV55 design, built for strength and reliability, with large diameter rotors and automatic safety device. In the 1993 report "Windpumps in Developing Countries: a view of the market", which was produced for the Dutch Government, a cost comparison of different pumping methods was included, which showed that the AV55 is by far the most cost-effective windpump in India, and possibly the world; cheaper than solar pumps or even diesel.

This report was a real feather-in-the-cap for Aureka, and specially for its Chief Executive, long time Swiss Aurovilian Robi Trunz, who has been the key person behind the AV55's development over the years.

With life expectancy of 40 years or more per windmill, subject to regular maintenance, and proven performance not only in cost-effective terms and pumping capacity (typical outputs are 100,000 litres from ground level, 30,000 litres from 100 ft depth, etc), but also in durability, the AV55 could become the leading windpump in India.

Regarding its durability, it's interesting to note that 39 out of 40 of Auroville's installed pumps survived last year's cyclone without



An AV55 in Auroville's Botanical Garden, one of many used to pump up water in the township area

a problem (the one that failed did so only because a shut-down rope caught in a tree and couldn't be freed in time; not because of technical failure); also that an AV55 tower carrying a wind generator came through the Gujarat earthquake undamaged.

Today, with Rs.45,000 subsidy from MNES against a total cost of around Rs.150,000 (inclusive of installation), and a growing reputation among users, the AV55 is doing well. Some 60+ pumps have now been installed, the majority still in Auroville, but others elsewhere in Tamil Nadu and Karnataka, specially in the Tibetan settlements of Mundgod and Bylakuppe, where - incidentally - the rotating heads are treated like prayer wheels and have "Om mane padme hum" inscribed on the blades!

**For more information e-mail:
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Enquiries or feedback relating to this newsletter and its contents are always welcome, and can be communicated to:
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