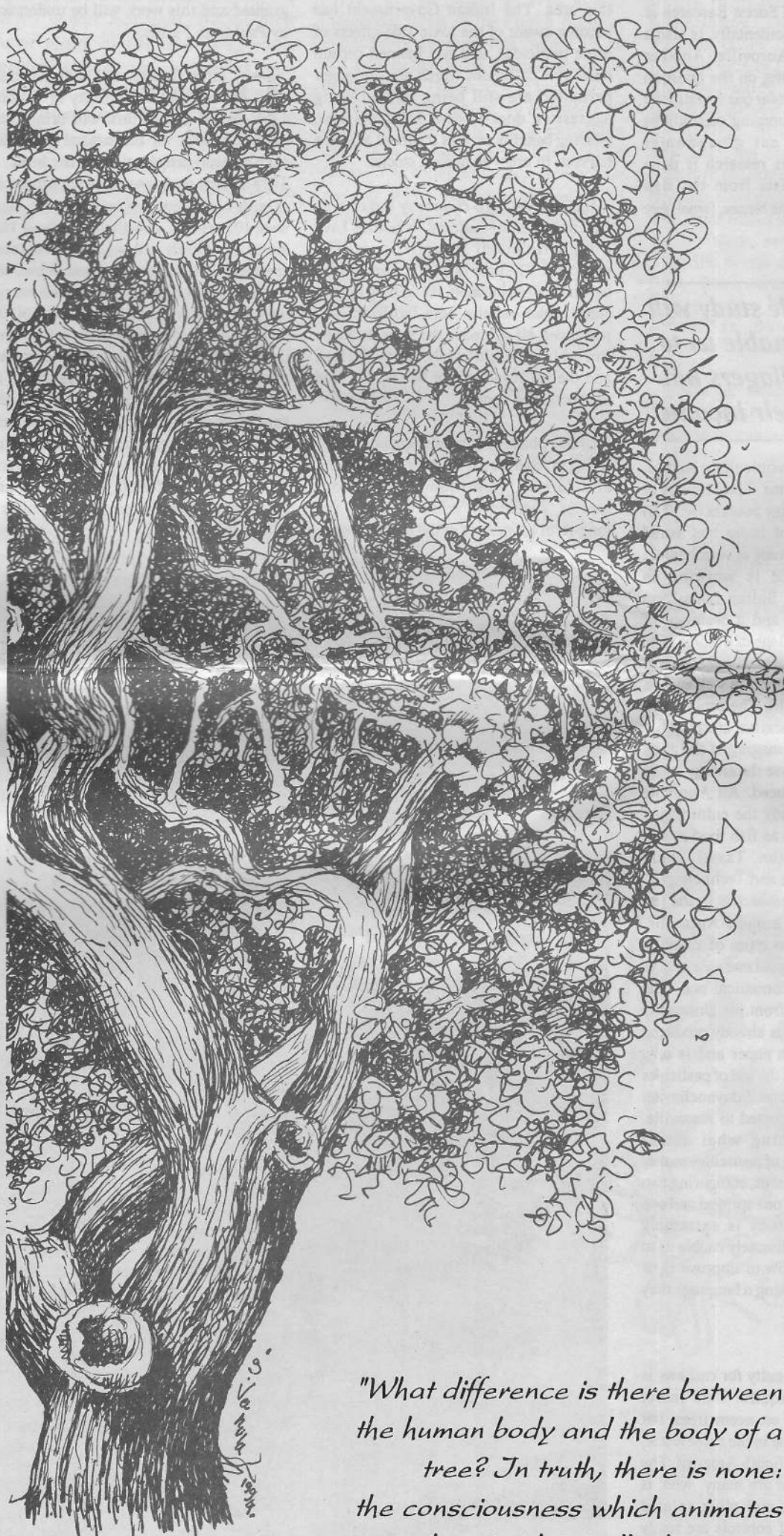


AUROVILLE TODAY

June/July 1994, Number Sixty-Five/Sixty-Six



*"What difference is there between
the human body and the body of a
tree? In truth, there is none:
the consciousness which animates
them is identically the same."*

DRAWING: S. VAHULA

The Mother, April 1917

Auroville's land is scattered in a patchwork pattern interspersed with temple and village lands, fields and plantations, over an area of some twenty square kilometres. When the first settlers moved out to the Auroville plateau in 1968, they were confronted by a soil that was visibly dying. Occasional palmyra trees, neems and cashews, and a few lone banyans dotted the vast open expanse of red earth scarred by a network of gullies and ravines carved deeper each year by torrential monsoon rains.

This was the result of two hundred years of deforestation, bad land management practices and overgrazing. Previously, the land was covered by scrub jungle with an ecosystem unique to the Coromandel plains, containing an abundant variety of species of trees as well as many plants and shrubs of medicinal and other values. According to temple inscriptions and local records, tigers and elephants once roamed the area.

Auroville's earliest settlers were confronted with the needs of shade and water. Most of them had little or no experience in greenwork, but more than enough will and determination to compensate this lack of experience, and they learned as they went along. Wells were sunk, holes were dug to plant trees; cart loads of compost were collected from nearby villages, the first nurseries for raising tree seedlings were established.

Nature under Research

Over the years millions of trees were planted and the land was regenerated, thousands of kilometres of "bunds"—raised earth banks and ditches—were dug to catch and hold rain water and control runoff: thus encouraging percolation and recharging of the underground aquifers. Check-dams were built to catch the remaining runoff, and existing catchment ponds were desilted and enlarged to augment the land's water holding capacity.

Auroville has now entered another phase. While large areas of degraded land still have to be bought and reforested—in particular the eastern greenbelt of Auroville ranging from Pitchandikulam to Edayanchavadi and Kottakarai—concentration is now focussing on research. Scientific work is being done to redefine the existing environment and forest and to reintroduce the indigenous species; to study natural soil regeneration and vermiculture processes; to determine if the pumping capacity of trees significantly affects the ground-water level; to find a solution to the problem of pesticide spraying by studying its entomological and economical consequences; to study wildlife, especially bird and snake populations, and build up an Auroville eco-database.

This combined June/July summer issue focuses on nature under research; it also gives a portrait of the new Secretary of the Auroville Foundation, Mr. S.C. Dey, and some short news items.

Eds.

Scientific Approaches

We have accomplished a lot, we are in the eyes of a lot of organizations, national as well as international, who want to study what we did and do, but there is no scientific documentation—we Aurovilians are all busy and none of us are scientists. So we have to find means to make our knowledge accessible, and for that we have started a programme under Auroville's Greenwork Resource Center (AGRC) to encourage students to come to Auroville to do research. We offer the environment and all assistance; we get scientific documentation and research papers."

The speaker is Ed, an Aurovilian who has been involved with greenwork for the last 16 years. We talk about the shift in Auroville's approach to nature. "Before, Auroville's endeavours would concentrate on planting as many trees as possible; nowadays, the trend has shifted to a more systematic and scientific approach. Many questions concerning the scrub jungle that was indigenous to the Auroville plateau (the *Albizia amara* community) have to be studied.



Albizia amara twig

Questions such as 'Where can we find those original species and how can we re-introduce them' give rise to many other but equally important questions that often require detailed research, some of which could last for many years.

Quite a number of research activities are going on. Research on the re-introduction of the indigenous forest is being undertaken by Walter (see article page 3). Bhavan, a student from the Tamil Nadu Agricultural University at Madras, is doing a two year programme monitoring the natural regeneration processes on various soils. Bhavan has little racks of one square meter distributed all over Auroville's forests and he studies what seeds, leaves and other materials fall on them. He also monitors rainfall and the stem flow of the tree, the amount of water that washes over the tree when it rains. This water is imbued with a lot of nutrients from the tree surface which,

in turn, is nutritive for other vegetation under the tree.

Anupama, a researcher from the University of Pondicherry, is doing a similar kind of work. The coordination is done by Anil through AGRC, and is scientifically supported by Prof. Jambulingam from the Tamil Nadu Agricultural University, Institute of Forest Research at Mettapalayam who, incidentally, is also a long time friend of Auroville. Another research is concentrating on the question of exactly how much water our forests take up and whether the pumping capabilities of our trees exceed our groundwater carrying capacity. This research is done together with scientists from the Ben Gurion University of The Negev, Israel. (see article on page 8).

"The pesticide study will ultimately enable us to advise the villagers how to increase their income"

Then there are the vermiculture studies, the studies of earthworms. The Ministry of Non-conventional Energy Sources (MNES) of the Government of India has asked Auroville to execute a study of vermiculture in biogas slurry. Ed is working in cooperation with Dr. Sultan Ismail, an expert in earthworms and a professor of Zoology from New College of Madras. The object is to study practical methods of vermiculture in biogas slurry as well various applied uses in the field. The project will also include a comparative study using Kirlian photography (imaging of the aura, the ionic field) to analyse the energy levels of various crops produced. An Auroville project proposal to study the culturing of aquatic worms for use as fish food is still being studied by the Tamil Nadu Department of Science and Technology.

Next there are the researches in the use of pesticides in and around Auroville. Actually, there are two types of research going on: an entomological one (see article on page 6), and an economical one. The latter is done by Ravi from the University of Pondicherry. Ravi has already produced a first quality research paper and is now continuing his study on the use of pesticides in the Kuilapalayam and Edayanchavadi area, two villages connected to Auroville. He is now researching what actual difference the spraying of pesticides makes to the yield of cashew crops, comparing two identical cashew topes, one sprayed and one not sprayed. This study is extremely important, as it will ultimately enable us to advise the villagers how to improve their income, which is speaking a language they will listen to.

The main difficulty for cashews is the Tea mosquito. This insect lives mainly on neem trees, but has found a second home in the cashew tree, which came here from South America. The questions to be studied are many: what is the life cycle of this and other related insects? What types of controls are really effective and not harmful for the environment? Pesticide cocktails are sprayed against problems that have not been identified or do not even exist. To what extent is excessive prophylactic spraying

compounding and creating the problems?

Once the data are available, we can go to the villagers and inform them how they can increase their yields and income by decreasing the amount of pesticides they use and eventually by discontinuing their use. Right now that is nearly impossible, as there is an incredible pesticide lobby in this area. The Indian Government has become aware of the toxic side-effects of some pesticides, and has banned certain ones. But pesticides which are no longer permitted are still being offered using aggressive door-to-door sales policies, offering benefits such as payment after the harvest, in order to unload stocks.

India's own agro-chemistry industry as well as big multi-national industries have a high financial interest in selling pesticides. The poor farmer is manipulated beyond comprehension. He ends up buying seeds which require both fertilizers and pesticides, all offered in the same package. But his income, ultimately, is less and less, and the net result is that he and his land are becoming poorer.

In this phase of our development we are trying to redefine the existing environment and forests, reintroduce indigenous species, keeping in mind the short and long-term economics of the forest (timber,

charcoal, firewood, fruits, oils) so that we can think about sustainability in a real sense.

We are trying to understand the whole picture in the larger context and see the interrelationship of all phenomena including the wild life that functions in and around the forest. And that brings me to two other types of research: one is a study of the snake population of Auroville (see separate on page 7) and the other is the building of an eco-database of all the natural phenomena in the Auroville region. A project proposal for this has just been granted and this work will be undertaken by Paul from Fertile.

Better forests will automatically increase the diversity of wildlife, and that in turn will bring more natural vectors for the natural processes, such as seed propagation by the birds. In 1974 a study was done in which 40 species of birds were identified here; in 1986 there were 102 species, now there are about 183, many of which are on the 'protected species' list. If you look at them as part of a work force, you see an increased energy level, an increased metabolic rate of the forest as a whole because of the activity that the birds bring. Simultaneously there are the other kinds of wildlife such as mongooses, civet cats, monitor lizards, snakes and other reptiles, amphibians, insects, micro-organisms etc., enhancing the different life energies. The more diverse we can make the forests, the stronger and healthier they will become, and the nicer it will be to be here." *Carel*

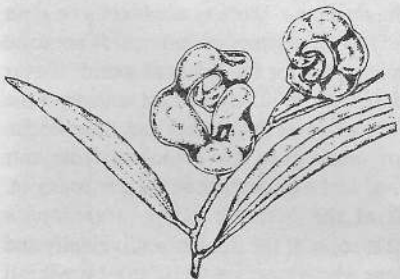


Work trees: *Acacia holosericea* (front) and *Acacia auriculiformis* (back)

Reintroducing Plant Life in Auroville

BACK TO THE INDIGENOUS FOREST

It is a well-known fact that Auroville's reafforestation has been a success. Millions of trees have been planted, erosion halted, forests reintroduced. But have we really done well? Haven't we created a monoculture of foreign plants in Auroville, whose future is uncertain? During the recent winter monsoon, storms blew down many of the non-indigenous species, leaving the indigenous ones untouched. Isn't that a pointer towards the necessity for change? We talked to Walter, who lives in Shakti near Aspiration, to ask him about the reintroduction of plant life in Auroville, about the mistakes and the successes.



Fruiting twig of the work tree

Walter: In the early years of Auroville we planted mainly *Acacia auriculiformis*, a tree from the north of Australia. It is quite drought resistant and a fast grower. Mother named it "work", and it really did its work: it helped to slow down the erosion and stopped the dust storms. Due to its vigorous regeneration—they seed themselves out very easily—the Auroville forests⁽¹⁾ might give the impression of a monoculture in some places, but in reality other species were also planted at the same time such as *Albizia lebbbeck*, *Pongamia pinnata*, *Cassia siamea*, *Khaya senegalensis* and *Dalbergia latifolia* and many more. The original planted "work" trees now are dying out as they don't grow much older than 20 years.

A much later introduction by Auroville is the *Acacia holosericea*, again an Australian species. It is very drought resistant and a fast grower and provides an excellent firewood. There is a big demand for seeds now from all over India. A few years ago a few hundred kilograms of seeds were sent to Rajasthan alone, and the demand continues. I am afraid though that much of it will be planted as a monoculture.

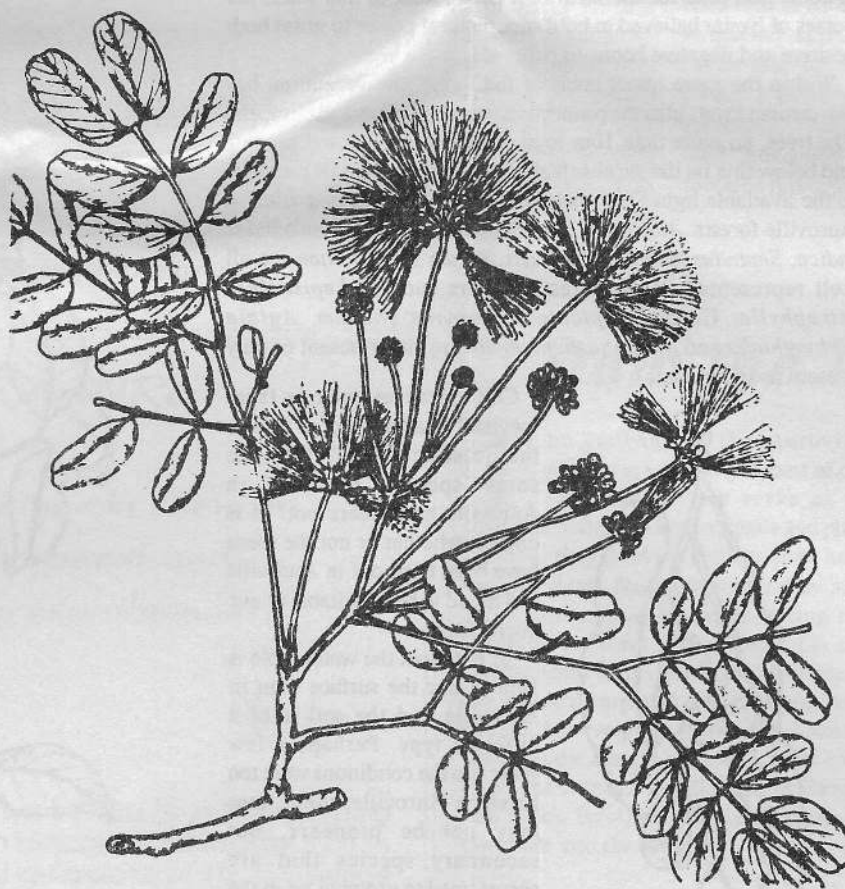
In Auroville I think the focus has now shifted towards the reintroduction of indigenous species, the original shrubs and trees of this area. Dr. V.M. Meher-Homji, the Dean of the Salim Ali School of Ecology of the Pondicherry University and head of the Department of Biogeography and Bioclimatology of the French Institute in Pondicherry⁽²⁾, has made a study of the floristic composition of our indigenous forest (formally called "The Tropical Dry Evergreen Forest" but more properly described as "The *Albizia amara* community") and compiled a list of 266 plant species belonging to this type of forest.

Our forest is rather a scrub jungle, an uninterrupted mass of green, three to four meters high, interspersed with small trees that never form a closed canopy. It contains an amazing amount of shrubs, vines and lianas and is in places so dense as to be almost impossible to penetrate. A recent

survey of the potential area of our indigenous forest by the French Institute, Pondicherry, revealed that hardly 1% of that area in the plains is actually covered by that forest. That is next to nothing.

We are lucky that at 10 km north of Auroville there exists still a patch—not more than 10 hectares—of this original forest. It is called Puthupet. (see article page 4). It is a small area around an old deteriorated temple, where a shrub Mother called "Miracle" (ironwood, *Memecylon umbellatum*) is the dominant species. Until about five years ago it was very much a protected place.

But then a priest came who revived the temple and called people to worship there. They offer mainly chickens, and used to take the firewood out of the forest to cook them. Though we managed to stop that (they now sell the firewood at the entrance of the forest) cutting and lopping is still going on because 'modern' man is no longer afraid of the gods that protect the forest. But this forest can still be considered as a representative part of the original forests. We go there now every week and try to reintroduce everything which is growing there into Auroville. We study the phenology: the time of flowering, fruiting and seed setting and the time of leaf shedding and new growth.



Albizia lebbbeck twig

We also compile a list of all the species growing there.

AVT: How do you get the funding for this work?

Actually, it is a sideline of a project for the conservation and propagation of local medicinal plants sponsored by Danida, the

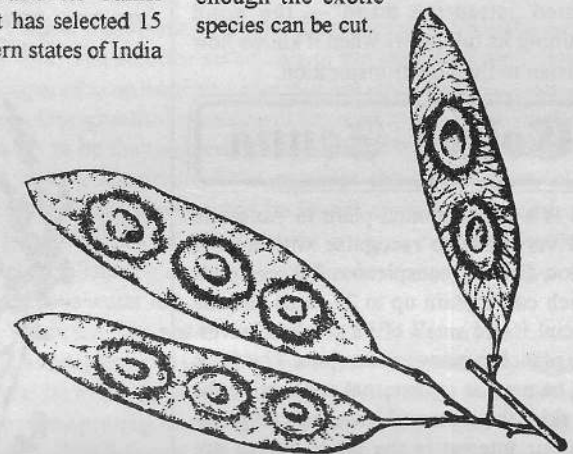
Danish International Development Aid organization. The coordinating organization is the Indian Foundation for Revitalization of Local Health Traditions. This Foundation aims to revive the old medicinal systems of India, as described in the ancient Ayurveda and its Tamil equivalent, the Siddha. It has selected 15 centers in the three southern states of India (Kerala, Karnataka and Tamil Nadu) to do this work, and Auroville is one of them. The coordinating office is located in Bangalore.

The project started last year in June. Its funding is guaranteed for four years. We have just finished a building here in Shakti which will be used as office and herbarium for the collection of dried plants. The next step will be that the whole of Shakti will be changed into a nursery and will become an ex-situ⁽³⁾ conservation plot, a gene pool for the medicinal plants of our region.

The more public parts of this project will be located in Pitchandikulam. They are an arboretum, a park with all kinds of indigenous and foreign plants, and a demonstration garden where only the medicinal plants will be shown. There will also be a seed museum and a museum for raw drugs, that means the part of the plant that is used for the medicine.

Wasn't it a risk to introduce the Work tree into the bio-system of Auroville?

No, actually it was a boon. The work tree provided a lot of biomass and opened up the soil so that the rainwater could infiltrate more easily. It literally prepared the ground for other plants to grow. You see, many of the indigenous species would have a very hard time if planted out in full sun, or would never make it at all. Now they can be planted in the protection of an existing forest-cover, and when they are big enough the exotic species can be cut.



Pods from *Dalbergia latifolia*

How many of Dr. Meher-Homji's list of 266 species are found in Auroville now?

That is hard to say. We know that a few weeds have come back naturally, and we have collected about 75 out of the 266 species. But the system as a whole is still unbalanced and it will take much work and time to re-create the original indigenous forest.

Some months ago we made a survey of Shakti to understand what had happened on this barren land since we settled here (See AVToday # 21, September 1990). It was amazing! When we started Shakti there was nothing growing, except for a lone line of Eucalyptus trees and a few herbs. Now I find 184 species of trees, shrubs, vines, parasites and herbs, not even half which belong here naturally.

(contd. on the next page)

Notes:

(1) Whenever we talk about the Auroville forest we mean in particular the stretch west of Auroville, ranging from Pitchandikulam to Discipline, and the Forecomers-Ravena and the Auro-brindavan-Hermitage areas. But there is still a large part of Auroville designated as "greenbelt" where nothing has ever happened: the area east of Auroville, between Pitchandikulam, Edayanchavadi and Kottakarai, where the majority of the land is still not owned by Auroville.

(2) An interview with Dr. Meher-Homji on the water situation in and around Auroville appeared in Auroville Today # 15, of March 1990.

(3) The term ex-situ is used to indicate the re-introduction of a forest, the term "in-situ" to indicate the conservation of an existing forest.

All illustrations to the nature-articles are from K.M. Matthew 'Further Illustrations to the Flora of the Tamilnadu Carnatic'.

Coffee is as essential to the Auroville Today team as ink is to a writer. All editorial meetings start with it, warnings against caffeine intake notwithstanding. Mother named the Coffee plant „Perfect Path“, which she defined as that path which leads most quickly to the Divine. But it is open to doubt whether she meant that coffee as a drink would be the medium, as she normally discouraged its use.

The solution to the problem is evident: to replace coffee by a beverage of similar appearance and taste. World-wide attempts are being made, ranging from burned grain seeds to chicory. In Auroville there is another solution which uses the seeds of the *Cassia Occidentalis*, also known as Negro coffee, Coffee Senna, wild coffee or Café Marron. It is a plant that Mother named „attentive mind“—the mind attaining its full utility when it knows how to listen to the higher inspiration.

Coffee-Senna

It is a very common plant in Auroville and very easy to recognise with its big yellow flowers, conspicuous flat seed pods which can contain up to 25 seeds and the special foetid smell of its crushed leaves. The plant has many applications. The seeds can be used as an external application for the skin, the roots and leaves as purgative. But our interest is the seeds, which are recognised in Africa and Saudi Arabia as a substitute for coffee. They contain no caffeine or tannin.

The right time to collect the seeds is when the pods have a light brown colour, are rather shiny and rattle when they are shaken. If one waits longer until the pods are a dull dark brown, almost black, then most of the seeds will have been spoiled by insects. The seeds should be roasted, in the same way as coffee beans and then ground to a very fine powder. Its use in Auroville is still restricted to Walter and Tine's house in Shakti where they use it as their hot drink. Walter claims that the aroma and taste are amazingly like that of coffee. The Auroville Today Team has agreed that it is a good idea, awaits with attentive mind for the coffee senna to become available at Pour Tous while continuing the Perfect Path of habitual poison.

Carel/Paul

Walter-Interview

(contd from page 3)

It is a case of spontaneous regeneration. Shakti was a disturbed land, and that is why exotic species could come in. They cannot enter an established indigenous community, and I expect that they will disappear once the *Albizia amara* community will have taken over again. And, interestingly, we have discovered five species that we cannot trace back in our floras.

The botanist of the French Institute in Pondicherry thinks that some may be new species, never before described. We intend to contact the Kew Botanical Garden in England. They will decide if they are new species, and if so, we could be allowed to name them. It would be nice to name a species „auroviliensis“, wouldn't it?

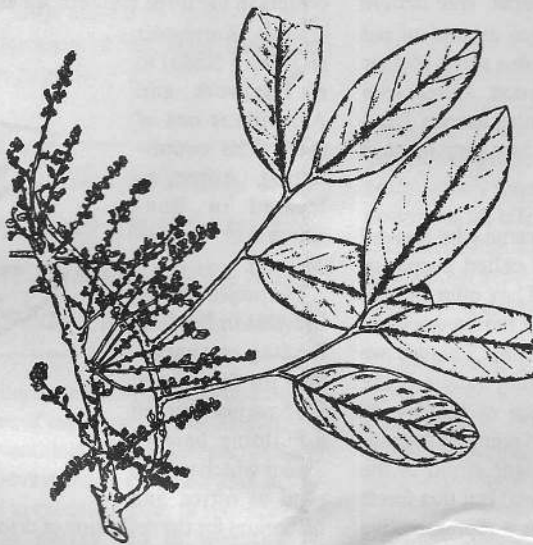
And in Puthupet we discovered a plant that is supposed to be endemic (only growing there, nowhere else on earth) to Sri Lanka.

Where the completion of the botanical survey of the Auroville area may still be a far off dream, the distribution of indigenous species all over Auroville is already a fact and I hope that these plantings will improve our eco system and attract ever more birds and other animals.

Interview by Carel

Puthupet: A Forest with Dignity

In each of us the word forest evokes a conception, a matrix of all five senses; we associate it with the childhood impressions that surrounded us as we learned the word and connected it to our vocabulary. But whatever our definition of a forest, everyone agrees that Puthupet fulfils it. Puthupet—17 acres of land, evergreen trees, bushes, creepers and in the middle an old temple, probably from the Chola period, dedicated to the god Manjini; 10 km north of Auroville on the southern ridge of Kaliveli tank. Scattered in surrounding fields are other indigenous trees, giving an impression of the previous extent of the forest that has now given way to peanut and tapioca production.



Twig of the *Lepisanthes tetraphylla*

The survival of this forest must be due to the presence of the temple and other sacred places found within it. The name „Puthupet“ comes from the presence of a termite mound with a large snake hole in it, called a puthu. It is a venerated place to come and pray for the birth of a child. Next to this stand the horses of Iyenar believed to hold supernatural power to grant both positive and negative boons to believers.

Within the more intact areas of the forest, the vegetation has two distinct layers plus the connecting weave of lianas and climbers. The trees, no more than 10m high, form a nearly closed canopy, and below this lie the shrubs thickening and thinning in response to the available light. The species are both familiar and alien to Auroville forests: *Albizia amara*, *Pongamia pinnata*, *Tamarindus indica*, *Sapindus emarginatus*, *Pterospermum suberifolium* are all well represented in our forests. Others such as *Lepisanthes tetraphylla*, *Garcinia spicata*, *Diospyros ebenum*, *Aglaia roxburghiana* and *Atalantia monophylla* are either absent or only present as individuals.

Circumstances such as these inevitably lead some of us to pose the question „why“? Why are some species thriving in Auroville and others not? It is unclear whether or not the seeds have been tried out in Auroville and found to be unsuitable in our microclimate.

In Puthupet the water table is 10m nearer the surface than in Auroville and the soil is of a different type. Perhaps a few years ago the conditions were too harsh in Auroville; these trees may not be pioneers, but secondary species that are accustomed to growing up in the shade of others. Maybe conditions now are more suited to them, especially in the shade of the „Work“ trees (*Acacia auriculiformis*). An unending



Tamarindus indica fruits

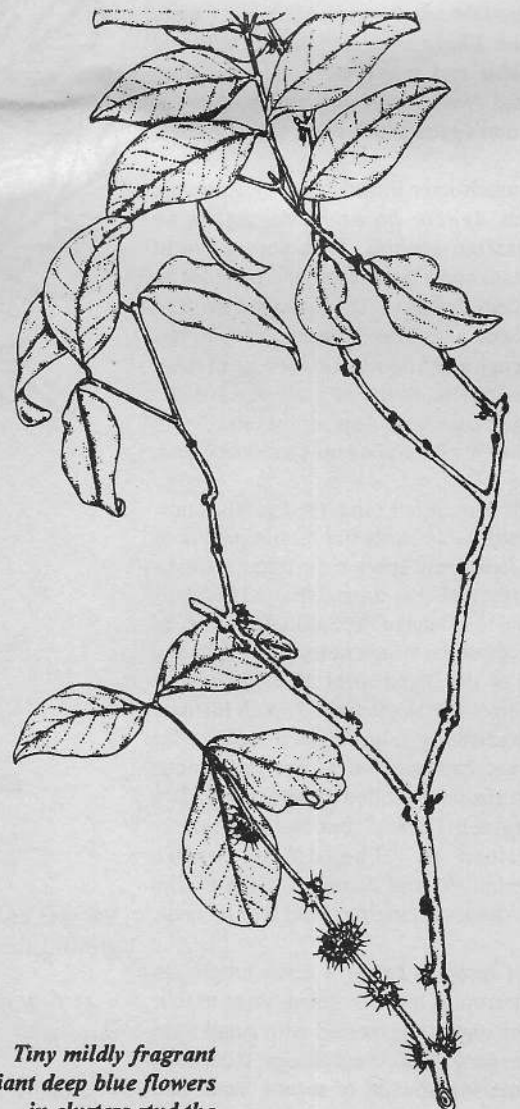
stream of questions flow and thus Puthupet becomes a stimulus for our intellect, a place to begin to identify an ecosystem and all its constituents, to collect information about flora and fauna, and also as a resource, a point to begin experiments in germination and establishment.

From the abstract back to the material world. Within this small forest survive plants that can be utilized in the human sphere.

Although slow growing, the wood of *Diospyros ebenum* is highly prized as ebony, the small lemon fruits of *Atalantia monophylla* are used to make pickles. As always, many of the herbs and shrubs are important in ayurvedic medicine. More examples can be spun out, but why dwell here? The real mystery of Puthupet is not to be found in its practical applications for the material world. If ever an example were needed in order to justify a forest outside of the commercial and economic world, then Puthupet is such an example. It is a small pocket of vegetation far removed from our preoccupation with survival and exploitation of the environment. The deep vital greens of the Miracle plant (*Memecylon umbellatum*), the incredible scent of the flowers, individually and mixed in exotic concoctions where trees are found side by side, all add to the microcosm that is encapsulated by these few acres. Within this scenery the various characters of our lives experience colours, sounds, movements and smells of trees, seeds, flowers, birds, the temple and other humans.

Finally it is a challenge, not least because even within this small area, this isolated remnant, people still cut the trees for fuel and fodder. In places only Miracle survives but survive it does. Soon the East Coast road will pass within 100m of the edge of the forest and this will have consequences. The temple is also being restored and this too will have effects. Will Puthupet survive?

Paul



Tiny mildly fragrant brilliant deep blue flowers in clusters stud the branches of Miracle, *Memecylon Umbellatum*

Colonizing the Land

Way down south you'll find a land that is at once desolate and beautiful, inhospitable and welcoming, repugnant and challenging, and on this land you'll find folk that fit some if not all of these adjectives. Beyond the windmill in Ravena there lies a block of 12 acres of Auroville land that has just been supplemented by the purchase of another three acres. It is on the edge of the Forecomers canyon and it is a harsh, stony, sloping plot that is surrounded up above by a proliferating collection of borewells, peanut and sugarcane fields, and electric pumps. Years ago the land was planted with „Work“ trees (*Acacia auriculiformis*) and cashews. These survive and grow but still the land looks bare and holds little water, as much of the bunding system is in need of repair.

As you walk across this land the eyes spot a few other species as well. The scrubby colonizers of the land seem very few, but compared to an adjoining plot that has never had any work done on it, they give the impression of luxuriant growth. The *Dodonaea* seems to be the toughest of all, often going out on its own with no other companions. Then amongst clumps of thorny scrubs tenacious tree saplings can be found: often neem, occasionally *Albizia lebbek* or other shrubs such as *Ixora*, *Pavetta* and *Ochna*, all having dark shiny leaves whose waxy cuticles prevent excessive water loss.

When the canyons that cut through the plot are encountered, the excitement and bewilderment grow exponentially. Hugging the sides of the canyons, growing up from damp niches, protected from any grazing or cutting, the climbers wind their way up over the sandstone layers that have been exposed due to the abrasion of water and sediment. But now it is a wonderland, full of mystery to be discovered, and beings to be encountered, recognised and made familiar.

Adjoining this land are a couple of plots of land that Auroville has acquired on a 10 year lease. Over the past few years they have been bunded and planted with a mixture of species. Now they provide a valuable reference for the performance of the various species under these conditions. It is very noticeable which species are at home in this landscape, the most striking example being the *Pterocarpus* 'sp, especially the *Vaengai*. You get a real sense of a tree in its element, outstripping all of its neighbours, which in less harsh conditions do equally well.

The plan for this land is to re-establish a purely indigenous forest. A fence will be established and the bunding repaired and enhanced. Then to the differing niches already present on the land, applicable techniques will be used to take the next step towards full vegetation cover.

Paul



The horses of the Iyenar

A PLEASURE

*They sat together in silence
the host, the guest and
the white chrysanthemum*

Ryota

At one time pleasure was symbolized by a man jumping with joy in Egypt (of course in hieroglyphics) and by a drum in China and later in Japan. At last a pleasure is to sit in silence with the white chrysanthemum—meditation without any sound and movement.

The Mother's name for the white chrysanthemum (*Ch. morifolium*) is purified Dynamic Life Energy.

Boris

Note of the editors: Boris came to Auroville in 1991 from Irkutsk, Siberia. He is a biologist and shares his small nature observations through the Auroville news. A few of them have found their way to this issue.

Dam the Water Runoff

The canyons of the Auroville plateau are an integral part of our landscape. They serve as an important refuge for both animals and plant species, they provide scenes that have inspired many people, however they also serve as the main highways during the monsoon for fresh water runoff. On the northern and western slopes of the plateau the canyons run into a water management system that eventually flows into Kaliveli tank. On the eastern slopes the water runs down the canyons into the Bay of Bengal and is lost before it has had a chance to percolate into the soil.

Below Matrimandir, in between Grace and Sharnga, one of the canyons begins. It no longer creeps up the slope, as the bunding of the last twenty years has reduced the surface flow of this higher area to a minimum. But as it travels eastward, past Sangha, along the southern edge of Samriddhi, out into the swami tope, it gathers water. In the swami tope other tributaries join it and the gully increases in width and depth. It sweeps down past

Utility, over a 6 m drop, and then meanders its way along the north side of Bommappalyam, out into the sea.

Once the water is in the canyon the only method to save it is by check dams. Years ago the Government gave a contract to construct granite check dams, but as with many contracts corners were cut, cement was left out and the strong flow of water quickly washed the weaker dams away. The better constructed ones held and they proved that check dams are effective instruments for conserving water.

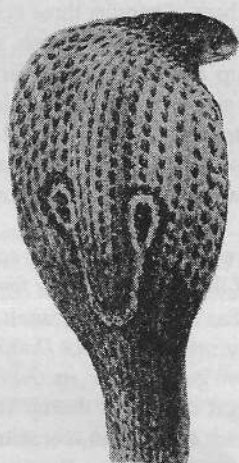
Two years ago a project to repair and improve the system of dams was initiated. The dams that had not crumbled were gathering soil behind them, and so it was time to raise them. Using the stones from broken dams, 5 new ones were built and 7 existing ones improved and repaired. Now a 2.5km stretch of the canyon is under effective water management, with large amounts of water being held back and allowed to penetrate into the soil.

Paul

Snakes

"The snake physically represents, embodies in the material world, the vibration of evolution."

The Mother



Indian Cobra Binocellate

Of all the creatures on earth beneficial to mankind, surely snakes are the most widely feared and shunned. Perhaps because of their sinuous motion (which some find sensuously beautiful); their clammy feeling (they are cold-blooded); or the fear of their being poisonous (less than 50 of the 236 species and varieties have a bite giving toxic symptoms) they are widely persecuted. Blinded by their unreasonable fears of snakes, people overlook the good that these reptiles do for the environment. Snakes do a fantastic job of pest control, eating unwanted creatures like rats, cockroaches and scorpions. Considering the fact that rats destroy 20-50% of the harvest each year in India, we should be

grateful to the snake for keeping the rat population in check.

Last October, a snake exhibition was held in Auroville with the aim of rooting out people's fears and promoting a love and awareness about this much misunderstood creature. The exhibition featured about a dozen live specimens of snakes commonly found in Auroville. These included tree snakes such as the vine-snake, the cat-snake, the bronze-back tree snake; water-snakes like the chequered keelback and the olive-green keelback; the most docile and gentle snake—the trinket snake; the longest snake in the area—the rat-snake; and other non-venomous snakes like the striped keelback, the burrower and the sand-bo.

Amongst the venomous snakes, there was the cobra, the Russel's viper and the saw-scaled viper. The only other poisonous snake in Auroville, the common krait, evaded capture.

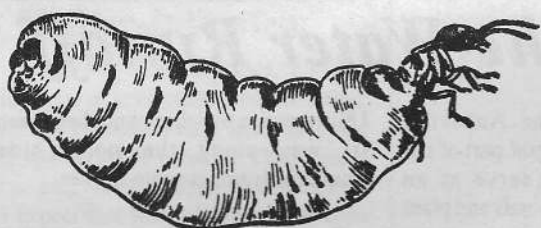
The exhibition, which lasted for twelve days, attracted children and youth from Auroville schools and neighbouring villages. The children were totally captivated by the snakes—many were eager to have them for pets. According to Rajiv, one of the main organizers of the exhibition, the interest shown by the kids was something totally natural and spontaneous, as they have an inherent respect and appreciation for the variety and

(contd. on the next page)

Termites

HUNTED

Pitanga is a nice building, situated in Samasti. It is home to many activities, ranging from body work like dance, tai chi and hatha yoga, to video, music and a hair cutting saloon. It is also home to a couple of million termites who maintained a hidden existence until about a year ago, when a corner of the wooden floor of the yoga room suddenly gave way. An in-depth investigation revealed that the damage was more extensive, and showed that cohabitation of termites and humans is not a healthy one, at least not for the termites who were annihilated by the emergency use of termiseal, a chemical pesticide.



Queen Termite

Six months later, however, they surfaced again, this time in the wooden floor of the dance room next to the yoga room. It proved that the termiseal had not really killed the termites but only chased them to new feeding grounds. Meanwhile, Nolly, the caretaker of Pitanga, had received a lot of advice, some of it unasked for. Many pointed out that the use of chemical pesticides was a mistake and should be stopped, as it was more likely to endanger the human beings on top of than the termites underneath the floor. But few offered a helpful solution to the problem. Is there actually a solution?

The Auroville builders have conducted many experiments. For example, putting galvanised iron sheets or tar sheets in between the foundations and the walls. Or putting copper wires around the entire

foundation. Or simply putting poison in the foundations. But all to little avail. As one of them said: "We choose to ignore termites at present; we know that galvanised iron sheets rust and that tar sheets deteriorate so that there will be holes in later years. We know that chemicals just seep into the ground, are not effective anymore after a couple of years and that most, if not all of them, are harmful to the environment." So preference is given to construction methods which encourage prevention. All of these aim at forcing the termites to come out into the open—by making a ring beam of exposed concrete higher than the floor level, for example, or by casting an entire concrete floor (though this is a costly solution), or by putting wooden frames against instead of into the wall, and 10cm above instead of into the ground. Once termite traces become visible, they can easily be eradicated.

It is good advice for new buildings. But what about Pitanga? Back to the Vedic

sciences, was the answer Nolly ultimately received. The ancient Ayurvedic knowledge mentions a non-poisonous and non-toxic remedy to fight termites, prepared exclusively with herbal and plant alkaloids. It is marketed in India, and Nolly is going to try it to see if she can finally convince the termites that each species has its own place.

RESEARCHED

There are about 2,000 species of termites or white ants in the world, of which about 260 are recorded to inhabit the Indian region. They occur ubiquitously up to an altitude of approximately 2,700 meters, are prolific in the tropical rain forests and comparatively less in dry areas. In Auroville they occur abundantly.

Termites live in colonies and consist of distinct types viz. workers, soldiers and reproductives (alates—the king and the queen). All these possess a remarkable social sense. The majority of the species feed on the cellulose obtained from wood or grass. Many species lead a subterranean existence and have diffused nests, not easily discernible. Some build huge mounds of cemented earth (termitaria) above the ground whereas others live in seasoned dry wood.

Fresh colonies of termites are primarily founded by the swarming alates. In the Auroville area this seems to happen simultaneously for all members of a species. Thousands of alates take to the air, and once the flight is over they break off their wings and then proceed in bonded pairs to dig out their first subterranean homes. If you happen to have left the outer light on, you will be surprised in the morning to see a carpet of discarded wings and a few late couples in search of a suitable spot to be excavated. Those nuptial flights are a treat for many bird species, and also for some human societies who collect the soft bodies of the de-winged newlyweds by the thousands for consumption.

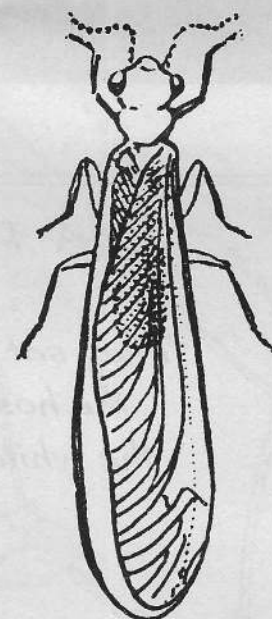
If a couple succeeds in avoiding the predators and excavating their homes, they may have a long life span: 25 years is no exception. They will spend their lives in a special inner chamber called the copularium, frequently re-mating to maintain the queen's prodigious output of up to 1,000 eggs a day. In the event of the sudden death of the queen, the primitive termites develop a fresh set of alates from immature stages, thus continuing the growth of the colony.

The natural enemies of termites are ants, dragonflies, robber flies, certain species of mites and rats, some birds, the scaly anteater (Pangolin) and of course humans.

Generally termites are considered to be a pest. They can cause heavy damage to a few agricultural and horti-

cultural crops, plantations of forest and fruit trees and to buildings and household articles. A few species are reported to be beneficial, as they act as scavengers, leaf litter removers, and help in promoting the aeration and fertility of the soil.

White ants are considered to be rich in fats and proteins. Termite queens are roasted or fried in fat and eaten as a delicacy by some tribes in India and other countries, for its supposed aphrodisiacal value.



Winged Termite

COOKED

Kill the crawling mass of termites by putting them in hot water. Next, dry them in the sun and then heat them on a metal dish over a fire. This separates the bodies, so wings and legs etc. can be discarded. Finally, add spices, chilli, dal or rice to taste and roast them over a slow fire.

Carel

(continued)

beauty of wildlife. As a part of the exhibition, the children were shown videos about the anatomy, the feeding habits and other characteristics of the snake.

One may be surprised to learn that the flickering tongue of the snake is not a poison-carrier. It is not even an aid for eating or tasting but a sensory organ of smell. The eyesight of the snake is poor and its hearing equipment is rudimentary, consisting of one single bone. This had led people to believe that snakes cannot hear. On the other hand however, snakes are very sensitive to vibrations and tremors on the ground. Their skin is hypersensitive to temperatures too. Thus even though snakes cannot hear the approach of a bird, rat or toad, they can sense their presence, because the bodies of these creatures have warmer temperature. The skin, which is shed at regular intervals also serves as an alarm system warning the snake about predators.

The exhibition was just the first step to generate interest in snakes. The second step will be to conduct a scientific survey on the snake population in Auroville. Several study sites of 400m sq., in different parts of Auroville, each with a different type of vegetation, will be selected for survey. Then with the help of a person from the Irula tribe (a local tribe who specialise in catching reptiles, especially snakes), each site will be closely monitored to find out more about the habits, and to determine the species of snake that dominates a given region or a particular type of vegetation. All this information would be then fed into the Database on the Wildlife of Auroville at Auroville's Greenwork Resource Center.

As a final step, the snake lovers of Auroville hope to bring out an album with coloured photographs featuring all the snakes that are found in this bio-region. This could be used not only in schools as educational material but also by adults. Perhaps, as we learn to appreciate and not fear these fascinating reptiles, we will begin to understand The Mother's words on snakes.

Bindu

Source material for pages 6 and 7

The Wealth of India, published by the Council of Scientific and Industrial Research, New Delhi; The Book of Indian Reptiles by J.C. Daniel, published by the Bombay Natural History Society; Nature Notes by Tim published in the Aurelec Times; and material provided by Rajiv from the Auroville Greenwork Resource Centre.

Aurobrindavan Activities

The winter months with their mild climate and cool nights are a pleasant interlude for those living in a sub-tropical area like Auroville. The grass is still green after the monsoon rains. Trees and bushes flower and migratory birds pay their annual visit. Many people who come to Auroville at the end of January remark upon the beautiful, delicate smell they sense while entering the township. This comes from the cashew trees that are in full bloom. For Aurovilians though, this smell brings mixed happiness, for it also means the onset of the pesticide spraying season. For about one and a half months the local farmers continue this spraying, resulting in health problems like burning eyes, colds, coughs, breathing problems and nervous irritation.

The pesticide spraying has actually become so bad that if alternative solutions are not found in the very near future, an irreversible contamination of Auroville's ground water and other large scale environmental hazards will indeed make the future look very bleak for generations to come. What we are talking about here is nothing less than our biological survival. The pesticide spraying has gone on for almost 10 years now, and some Aurovilians have tried all along to enlighten the local farmers about the dangers of heavy pesticide use, but it seems only to get worse. Even though this year the Government of India has banned the use of 9 major pesticides, still the owners of the agricultural shops did everything this season to get rid of their stock during the cashew flowering time.

In Aurobrindavan, a green work community on the outskirts of Auroville, Jürgen Putz is committed to offering alternative pest control solutions to the farmers.

In 1986, while searching for material on the misuse of pesticides on cashew trees for an article for "The Hindu", an Indian daily, and "Silent Summer", an early Auroville publication, Jürgen met E. Narayanan, a medical entomologist working at JIPMER hospital in Pondicherry. It was clear to Jürgen, who has been involved in Auroville's afforestation for 21 years, that in order to bring about a change in the awareness of the dangers of pesticides, to educate people about their use, and to come up with an alternative solution, it was important to first do a systematic entomological study of our bio-region.

When Dr. Narayanan retired from

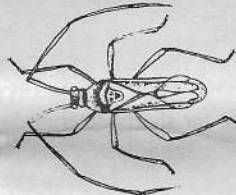
Government service last year, Jürgen asked him to join him in setting up and running a biological pest control laboratory at Aurobrindavan.

Today, the Auroville Bio-lab is jointly run by E. Narayanan, Jürgen, Brian, Ludwig and Anil Rao, a long-standing friend of Brian and Auroville. Anil Rao is also managing director of Pest Control India Ltd., Bombay, whose biological pest control section in Bangalore recently won a major national award for their research and development activities in the field of biological pest control and with whom they are working in close collaboration.

What is biological pest control?

In an undisturbed environment, every creature exists in a niche in an intricately woven web of life. Mankind has disrupted this system, causing havoc in the natural control mechanism that limits the growth of any one species, resulting in the multiplication of pests. Biological pest control is an attempt to use Nature's own tools to restore the balance.

What the biological pest control team wants to achieve is control of the pests which attack cashew and other crops by using their own natural enemies instead of synthetic pesticides. The advantage of biological control is that it is environmentally friendly, and—except for the initial expenditure on research—is quite cheap in the long run.



Tea mosquito

First of all what is needed is a detailed systematic entomological study of the complex life cycle of the pests in this area and to identify the pheromones (the male or female chemical sexual signals of the insect), the predators (insects that devour the pests), the parasites (insects that use the pest as a host in their reproductive cycle) and the pathogens (viruses, bacteria and other micro-organisms that kill the pest) that would limit the pest population in a natural undisturbed environment.

The first stage of the survey will investigate the main cash crops in this area, as well as the main pests destroying these crops. Important also is to know which pesticides are being used and in what quantities.

The next step will be to conduct research to develop effective pest control measures for insects like the Tea mosquito, *Helopeltis antonii* Signoret. This is an active reddish brown capsid bug menacing cashew and neem trees. It is also important to study the changes in the insect fauna of Auroville which have come about as a result of afforestation. In order to finance such research it is planned to produce bio-pesticides.

One such bio-pesticide is the Nuclear Polyhydrosis Virus (NPV) which attacks the notorious cotton boll worm, *Helicoverpa armigera*. In our own area, *Helicoverpa* has been found to attack crops such as red and black gram, tomatoes, lady fingers (okra) and groundnuts. Other crops may also be under attack as well, resulting in great economic loss.

In many countries including India the cotton boll worm has developed resistance

to almost all the synthetic pesticides used against it. As a result, NPV is often the only effective alternative to control it. This particular NPV attacks only the boll worms and is harmless to the other insects and animals. To die of NPV the larva of the boll worm must ingest the virus, which multiplies with the larva ultimately leading to its death. Larvae which die of the disease release enormous quantities of the virus particles which in turn attack other larvae, ultimately bringing the pest under control.

Next to the BIOLAB, other activities are also taking place at Aurobrindavan:

Vermiculture project

Away from the main building, in the old cow sheds, are many bins filled with cow dung, leaf litter and vegetable waste. A closer look reveals hundreds of earthworms inside. This particular kind of African species is called *Eudrilus eugeniae*. The worms help accelerate compost formation, and the end product, literally the excreta, which is often mixed with other organic matter and is collectively called "vermicompost", is an excellent organic fertiliser.

Tree Nursery

Walking from the main building towards the vermicompost place, one comes to a large tree nursery in which nearly 300,000 tree seedlings of various species are being raised for afforestation and soil and water conservation projects.

Soil and water laboratory

Part of the main building in Aurobrindavan houses another laboratory run by two Aurovilians: Igor, a young chemist-biologist from Ukraine, and Golam, a chemist from Bangladesh who helps part-time.

Their work is concentrated in three areas:

- * In collaboration with the Auroville Water Service, they check water samples for permissible levels of chemicals. Bacteriological testing is done by a Russian doctor at the Health Center.

- * Together with the organic food processing unit in Kottakarai (see page 11) food is tested for pesticide residues. In the future they will also be able to check the protein and vitamin content in foods. At a later stage, when the laboratory is better equipped, they will be able to test soil and water for pesticide residues.

- * They also test soil samples for their trace elements, moisture and conductivity, and the nutrient contents of the vermicompost.

Offices

Another part of the main building has recently been converted into a computer room, library, office and visitor's reception facilities, largely connected with Jürgen's activities of soil and water conservation and afforestation projects outside the main Auroville area on village-owned lands. These are integrated watershed development programmes for the regeneration of degraded marginal and wastelands in the Auroville area. Special emphasis is given to water and soil conservation and afforestation measures, which are easily applicable and ecologically sound; the eventual aim being to create an ecologically sustainable land use system, to be maintained and managed later by the villagers.

Tineke

THE HUNTSMAN SPIDER

The poetry of Earth is never dead

John Keats, 1795-1821

Surely, in Auroville not many poems were born without the Huntsman Spider, or Heteropoda Venatoria. It cleans our houses of mosquitos and cockroaches. A poet may not write quietly any poem if mosquitos are biting him or cockroaches are running around in masses.

The Huntsman Spider is a large brown creature with radially arranged legs, nocturnal activity, without webs. It prefers especially bathrooms but lives also in other rooms.

Boris

Do trees drink too much?

Some time ago Mr. Bernd Dreesmann, an old friend of Auroville, came to revisit Auroville after an absence of about ten years. He was surprised to see that so much progress in so many fields had been made, and suggested that Auroville should start an exchange programme with scientists of the Ben Gurion University of The Negev in Israel.

AN ASPECT OF FOREST MANAGEMENT

He later returned with Dr. Pedro Berliner, who is connected to the Centre for Desert Agrobiology of the University, as well as a few persons from around India and the Indian Ministry of Non-Conventional Energy Resources in Delhi.

A small workshop on basic water

management was organised in Auroville and during this Dr. Berliner set the house on fire with the statement that perhaps we had planted too many trees, as traditional hydrological wisdom has it that trees transpire more water than is lost from bare ground alone and that this might drain our

ground water level.

A heated debate followed for the next few days. From a scientific perspective he had all the logic. But in Auroville we are used to working through intuition and trial and error, which of course is unacceptable to a scientist.

Dr. Berliner suggested a scientific experiment to try to determine how much water the Auroville forests take up, and to see whether the pumping capacity of the trees might significantly affect the ground-water level. He obtained a grant from the German-Israel Fund for Research and International Development (Gifrid) in Tel Aviv and one of Pedro's students came to set it up."

Anil, an Aurovilian living in Sharnaga, who studied natural resource development and is responsible for the project, showed me the "white house" in Aurodam. It is a simple shed in which the top-technology is housed. In it: a sap flow multiplexer, the control center of the entire transpiration experiment, probably the only one in India; and a data logger, a small computer which records all the information onto a storage module. Eight trees are wired up to this box. It emits regular heat pulses to the trees. Two needles about seven centimeters long are inserted radially into the trunk below the bark. The lower needle emits the heat pulse at six different depths inside the tree. The higher needle, inserted 15 millimeters above the lower one, registers how quickly the heat pulse is received, from which the velocity of the sap at these six different depths inside the tree can be calculated.

Till now only two species of trees have been connected, four *Acacia auriculiformis* (Work tree) and four *Peltophorum pterocarpum* (Service tree or Copper pod). The first results are very interesting. It appears that the Service tree takes three to four times as much water as the Work tree, which is in accordance with the picture you get when you make a cross section of the tree.

In the middle of the site a tower has been erected. It serves to measure meteorological

(contd. on the next page)



A happy banyan with its own pond

FOTO: JAN

Each drop counts

Water management is of the utmost importance. The Auroville area is highly exploited by farmers who grow water-intensive cash crops such as sugar cane and paddy (rice); as per the policy of the Tamil Nadu Government, they do not have to pay the electricity charges for their water consumption. In Pondicherry the ground water table has dropped tremendously, and

it is estimated that only 10% of the original water capacity is left. Instances of salt water intrusion into the groundwater are increasing, and is already observed about 200 meters inward from the coast near the Pondicherry University.

A hydrologist from Pondicherry, Mr. Vasant Kumar Reddy, gives the area four to five years before it is in deep trouble. And then an similar situation to that in Madras might arise, which imports 1000 tankers of water a day from almost 200 kilometers away. Madras keeps growing, far overstepping its possibilities, so that often in the summer times water is available only once every three days. This is where Dr. Berliner's question becomes quite relevant.

In Auroville the water levels are dropping less quickly than in the coastal areas, which may indicate a positive effect attributable to trees. It may also indicate that in Auroville we consume less water. The reduction in rainfed agriculture and the increase in ground-water irrigated agriculture coincides very strongly with the declining bore well hydrographs.

But Auroville cannot sit back. Bunding alone is no longer sufficient. Contingency plans for the inevitability of water shortage here have to be worked out. Roof water harvesting systems will have to be installed,

and dry crop farming reintroduced. We must start thinking about desalination of sea water.

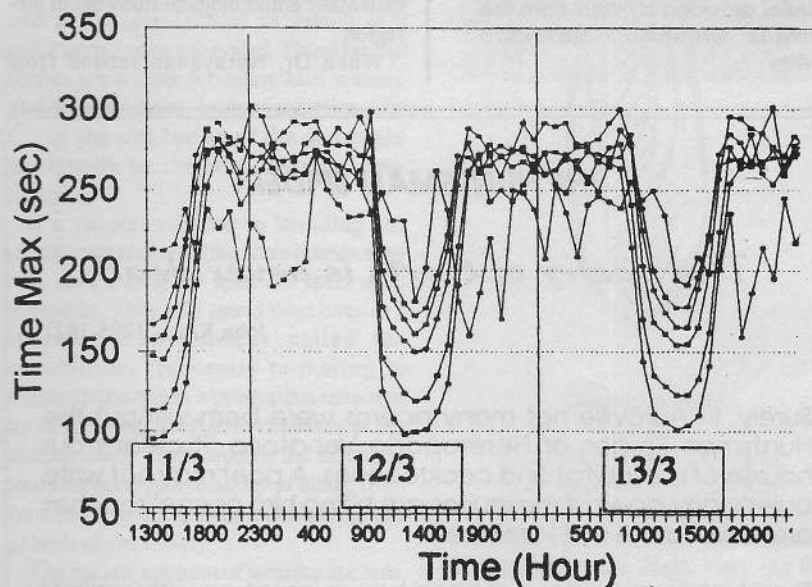
Every drop counts.

Ed



Plastic boxes cover the needles and their electrical connections

FOTO: BILL



This graph shows the velocity of the sap during the day in a Service Tree. Between 1 and 2 p.m. the sap takes 100 seconds to travel the fifteen millimeters distance between the two needles. Tree literally turns itself on as soon as the sun rises and is almost straight away at its maximum. During the night there is hardly any movement apart from the so-called diffusivity movement, the speed at which the heat is moving through the wood itself.

(continued)

data, so that the actual transpiration data found using the heat-pulse method can be compared with the potential evapotranspiration, thus giving an idea as to whether the tree is posing a barrier to water loss or not. Other data being recorded are wind speed, global radiation, reference (wet and dry bulb) temperature and net radiation.

Can the outcome of the study help to understand and formulate a better water management in Auroville? Anil hopes so. "It is very difficult to know what the reason for decrease of the water table is, and the outcome of the study will certainly serve as one of the factors that needs to be computerized in an overall water balance model. But this is just a small start. The study itself is a huge job, which will take a minimum of three to four years to be completed. In this period more tree varieties will have to be monitored as well as the under vegetation and other aspects, such as pumping from Auroville's wells, the agricultural consumption pattern of the surrounding village farms, natural recharge etc. This will be essential to make the picture more complete."

Some Aurovilians are suspicious of this experiment. Will it serve to justify the cutting of trees? Anil: "It should be stressed that water balance is just one aspect of forest management. Trees are planted for a variety of reasons and you may want to plant a tree, even if it takes more water, just because you like the flowers or the shape or the fruits or for its medical or commercial value or whatever. There are all sorts of other variables, and the water intake is one aspect only."

When a tree is growing it helps the water to infiltrate into the soil, encourages micro flora and fauna within the soil. The canopy reduces soil crustation by rain, organic matter adds nutrients to the soil as it breaks down etc.. The tree not only acts as pump to bring water from below to the leaves but it is doing many other essential works at the same time. "

Interview by Carel

ABOUT A JELLY FISH

*"Jack and Jill
went up the hill
to fetch a pail of water..."*

A newborn human baby consists of water up to 74 percent of the body weight. But an adult has water only 50 to 60 percent of the weight. The German biologists Haeckel and Müller formulated the famous biogenetic law, "individual development ... is more or less a recapitulation of the phylogenesis...". A human baby is more like a jellyfish, which has more than 95 percent water in its body. The history of Auroville is partly a history of receiving, preservation, cleaning of water—at first for adults only, after, for children too. Our requirements of water are happily lower than those of the jellyfish.

Boris

The New Secretary takes Office

On May 16th, 1994, Dr. S.C. De officially joined the Auroville Foundation as Secretary. Dr. De was born in 1938. Before joining the Auroville Foundation, he was Director General of Police, Fire Service and Commandant General Home Guards for the state of Orissa. He is an accomplished singer, a composer of 'bhajans' (devotional songs) in Oriya and in Bengali, author of several books and a follower of Sri Aurobindo and The Mother. A portrait.

De: I first met The Mother in 1968. She was extremely gracious and put a ring with her portrait on my finger. That same year I participated in the foundation ceremony of Auroville. And ever since then, I have been connected in one way or the other with the work of Sri Aurobindo and The Mother. In Orissa, I was on the editorial board of The Oriya Aurovilian, a quarterly bi-lingual (English-Oriya) journal "devoted to shed the light of Sri Aurobindo and The Mother along with other matters relating to art and literature". The name of the journal was given by The Mother herself in her own handwriting. When she was asked about this name, as someone felt that it might give rise to a kind of regional or provincial feeling, she insisted that this name should remain as it is. The Mother had a special liking for the state of Orissa because of its spiritual and psychic opening. Today, Orissa is undoubtedly in the forefront of spiritual activity. A large number of Sri Aurobindo study circles have come up and there are about 210 schools all over Orissa called integral education schools, because they try to emulate the integral pattern of education of the Sri Aurobindo International Centre of Education of the Ashram in Pondicherry. It is a free progress system that emphasises on the overall development of the mind, vital, body and psychic. The integral education schools depend to some extent on funding from the Government of Orissa, which allows the schools to follow the teachings of Sri Aurobindo and The Mother up to 60% in their curriculum. The remaining 40% is according to the syllabus prescribed by the government. So there is a blending of conventional and the new experimental patterns.

When I was posted in New Delhi I was deeply associated with the Sri Aurobindo Ashram, Delhi branch. My daughter had earlier studied at the Sri Aurobindo International Centre of Education in Pondicherry, and later both my daughter and my son studied at The Mother's International School in New Delhi. I was also associated with the Sri Aurobindo Centre in Delhi, which was founded by Dr. Karan Singh. This Centre is running a school, and I was conducting classes on some selected topics from the Bhagavat Gita. As I am very fond of music we used to organise performances of bhajan singing and other music, dance, exhibitions, flower shows and so on. I had never any business or official dealings with the Sri Aurobindo Society in Pondicherry. I have been associated with the Sri Aurobindo Ashram more than with any other institution, particularly as I was involved with the installing of Sri Aurobindo's relics in various places in Orissa and in Ayodhya.

Since 1968, I have been posted all over India. I was trained at the Royal Institute of Public Administration, London, in International Personnel Management. I am not really aware of all details of the history of Auroville. We used to hear some stories, once in a while, when we came for Darshan to the Ashram. Whatever little we used to hear about the conflicts of Auroville's past, that gave us a lot of pain and sorrow. After all, Auroville should be a place of harmony and international unity. Now I suppose all these problems have melted away.

I belong to the Indian Police Service which is one of the premier All India Services, created under the Constitution of India. The others are the Indian Administrative Service (IAS), the Indian Foreign Service (IFS) and the Indian Forest Service and then there are the Allied Services like Railways, Income Tax, Customs and Excise, Postal service etc.. Of late the Indian Education Service and Indian Engineering Service have been created. The entrance conditions for all these services are the same. Young people who have graduated from different universities pass through a competitive examination and then choose for one of the services. The IPS is one of the most challenging services because of the professional hazards involved. At a late stage in one's career IPS officers as well as officers from any of the other services may become eligible for top positions, such as State Governor or Ambassador or Chief Secretary.

I have been with the IPS for the last 33 years, and done a number

of assignments. I have been working for the Intelligence Bureau, for the Ministry of Home Affairs, for the Ministry of Defence, for the Ministry of Steel and Mines, and I was Director of Administration of the Geological Survey of India, one of the oldest scientific research and survey organisations of our country founded by the British. This job gave me the opportunity to work with scientists and with trade union members. I was also deputed as Chief of the Anti-Corruption wing of many organisations, such as the Visakhapatnam Steel Plant. This job involved investigation and detection of cases relating to corruption and malpractice. I was the Superintendent of Police in two districts of Orissa, and I have also worked for the Central Industrial Security Force (CISF), which is a para-military force (like the Central Reserve Police Force, the Border Security Force and the Indo-Tibetan Border Police). The CISF has been constituted to look after the security of major industrial undertakings throughout the country. It is primarily concerned with internal security measures and measures against sabotage, espionage, terrorism etc.. I have worked in the CISF for quite some time and I organized two international exhibitions in New Delhi on various electronic gadgets and different kinds of safety equipment. I have also been the Chairman of a Government Public Sector undertaking, a commercial transport corporation which had nothing to do with police.

My last assignment was as the Director General of Police, Fire Service and Commandant General, Home Guards of the state of Orissa. The first organisation looks after fire safety, fire fighting measures, and imparts training to students and young people. It is also responsible for training people in cities and villages in rescue operations, accidents, floods, cyclones and various other disasters. The Home Guard organisation has certain peripheral

security duties, like traffic management, assisting the district police in crime control measures, in law and order situations and is active when large amounts of people gather for 'melas', large political gatherings or important sports matches. In this function I was not involved with crime. Another Director General of Police is responsible for crime and law and order matters. The Central Government Police Medal for Meritorious Service and the President Police Medal for Distinguished Service have been awarded to me.

I have authored a few books and publications. One book is on Industrial Security Management, another is titled The

Quest for Music Divine, based on my Ph.D. dissertation on Musicology in the Rabindra Bharati University (named after Nobel laureate Rabindranath Tagore) of Calcutta. I was chief editor of a special publication "Blissful Living" and wrote a book in Oriya: Utkal Sangeeta Gouraba, depicting the life and achievements of the Odissi music maestro Sangeet Sudhakar Balakrushna Dash. An audio cassette entitled "Banhi Anupama" (The wonderful fire) containing 'Bhajans' and 'Stotrams' relating to Sri Aurobindo and the Mother has been produced under my supervision from Matru Bhavan, Cuttack in Orissa. The cassette has songs in Oriya, Bengali, Hindi and Sanskrit and one in English based on a sonnet of Sri Aurobindo. My wife, Smt. Tripti Dey, is also a singer and she has rendered one 'bhajan' on this cassette.

I have got two more years before I reach the stage of official retirement (or superannuation as it is called). You may call it the last stage of my career, but if one is a little inspired by The Mother's teachings, one should never get old. There is no 'last stage', everyday is a new beginning.

I have understood that the job of Secretary of the Auroville Foundation is quite challenging, because the major task is how to create that sense of Human Unity through international living and understanding and truly become "willing servitors of the Divine Consciousness", as The Mother put it in the first line of the Auroville Charter. There are also some practical challenges, such as how to create that non-monetary economy about which The Mother spoke in Her 'Dream' and later conversations on Auroville.

I have heard that there are quite a number of problems to be solved in Auroville, but I am confident that we will be able to overcome them. If we can concentrate a little, and surrender our endeavours and our problems at Her lotus feet, the solutions will start flowing automatically.

In conversation with Carel on 22-2-1994

The Auroville International Meeting 1994

The annual gathering of Auroville International (AVI) Centres took place this year from the 12th to the 15th of May in the south of Holland at Gasterij de Voorde—a former monastery by the river Maas—which has been converted into a beautiful venue for groups concentrating on personal growth. Thirty three people attended the meeting, including representatives from AVI centres (Holland, Germany, U.K., France and USA), four Aurovilians (Paulo, Ulla, Alan and Annemarie) and two guests, Richard and Kailash from the Sri Aurobindo Ashram in Pondicherry.

The programme was this time designed to allow participants to contact and appreciate each other at an individual and 'aspirational' level first, before potentially controversial topics were brought into the arena. The gathering started on Thursday evening with an introduction to the programme for the following days, and a greeting dance.

The next day, six small groups practised 'creative listening' (without discussion) on topics like how to abolish the ego, and to what extent we can let go of our national identity and open to the ideal of human unity; and in participating—both as individuals and centres—in an abbreviated version of the 'Game of Transformation', the intention of which was to ascertain the next steps to become aware of in our relationship with Sri Aurobindo, the Mother and Auroville. In the evening, the rough-cut version of the Dalai Lama interview on video was shown; followed by a slide presentation by Richard and Kailash on flowers and their significances as given by The Mother.

The second day began with the four Aurovilians giving a report on activities and trends in Auroville and its larger bioregion, and this was followed by individual centres raising topics on which they wanted further discussion. These included the present status of the concept of 'Friends of Auroville'; the perceived need to professionalise the centres' work for

Auroville and Auroville's contact with the centres and individual supporters, and a question about how each nation could identify its root psychological and psychic traits as a preliminary to embodying them in their national pavilion.

The following session, in which participants split up into small groups to discuss one of the above topics, was perhaps the most interesting of all. The 'professionalisation' group, for example, were dealing partly with the frustration experienced by two members of AVI Germany who had visited Auroville recently and tried, in vain, to interest some Aurovilians in supporting the setting up of a kind of Auroville agency in Germany to put the relationship of Auroville to the larger world on a more professional basis. In the ensuing discussion, the need for Auroville to be more responsive and efficient in its communication with the outside was acknowledged, but it was also pointed out that the term 'professionalisation' should also be applied to the way in which such matters are brought to the attention of the community, since, historically, there have been instances of outsiders trying to impose their vision upon Auroville—with predictable results.

The 'Friends of Auroville' group concluded that clarity about how long-term supporters of Auroville could provide

accommodation for themselves when they visit the community was sorely needed and appealed to Auroville for clear guidelines. The 'Pavilions' group discussion ended with representatives from each centre present agreeing to make a study—on the basis of the writings of Sri Aurobindo and The Mother—of the psychic traits of their nation, and its contribution to human evolution, and to hold regular fax meetings to share their findings and to eventually draw up a report for consideration by all AVI members.

Later in the afternoon, Paulo performed a dance improvisation with intense concentration to Sunil's music inspired by 'Savitri', book VII, canto II, and in the evening a former resident of Auroville, Danny Becher, gave an extraordinary concert which included 'overtone' chanting and the playing of assorted gongs, 'sound bowls' and bells, layering and weaving different worlds of sound and coloration.

On the final morning participants took turns to read aloud passages from 'Savitri' (book I, canto II) and then shared their feelings about the meeting as a whole. The final few minutes were devoted to resolutions—to begin again a circular letter to be sent to all centres, and to hold the 1995 AVI meeting in the U.S.A., with France as a backup should this not materialise.

So, how was the meeting? During the final evaluation most participants were enthusiastic about the process and outcome of the meeting, and were very appreciative of the efforts of those members of AVI Holland, and Caroline from AVI UK, who had organised and 'held' the meeting so well. The 'creative listening' session in particular seemed to have been crucial in helping participants to appreciate and

respect differing views and perspectives—and to lay the foundation for a more relaxed and integrative approach to issues like the process of constructing national pavilions, issues which have tended to be divisive at times in the past. In this sense, the keynotes of the meeting seem to have been openness and respect. And if nothing much concrete was decided upon, this new awareness may well bear fruit in the near future.

On the other hand, as a newcomer to such meetings, and arriving fresh from Auroville, I had—and still have—some questions about the event. One concerns the true function of such meetings. Is it, primarily, a way for AVI members to reconnect with each other while exploring together aspects of the yoga? If so, the meeting was clearly a success. But if a motive is also to reconnect, or touch something of the spirit, the texture of Auroville, I am less sure that the meeting was entirely successful. Why? Maybe because much of the energy, the 'magic' of Auroville happens through work whereas here the emphasis was necessarily more introspective. Again, the presentation of Auroville activities by the Aurovilians was rather rushed due to the programme being so packed—which also reduced the time for 'casual' extra-curricular discussion among participants which are often so important for the outcome of such meetings.

Further, while the great majority of participants seemed happy to use the 'Transformation Game' as a tool for extending inner awareness, I wonder if it is not possible to evolve approaches which draw more directly upon the writings and inspiration of Sri Aurobindo, and which—at least for me—require less translation in terms of the yoga in Auroville. In a slightly similar way, although I appreciated the heart-centred quality of this meeting, in a paradoxical way I also missed something of the 'roughness' of the Auroville interaction which sometimes, in spite of all the bruising, breaks us open and allows something else to flow through...

Finally, however, it seems churlish to criticise a meeting which was planned with, and succeeded in evoking, such goodwill and good feeling between the participants. For this, after all, is the foundation for so much else.

Alan

Youth Initiatives

Recently, a dynamic group started by some concerned youth has been receiving encouragement and support for the initiative they have taken in a number of areas of the community's life. AVToday went to talk to three Aurovilians involved in youth-oriented activities: Ramesh (Arc-en-Ciel), Shiva (Protection) and Auroprem (Aspiration), and asked them about their aspirations for the future, as well as their feelings about the present.

AVToday: *There have been youth groups in the past. How is this one different?*

Auroprem: In the past there was no one really to organize it, to get youth together. So it failed. For us, it was just an idea at first, put a notice in the Auroville News, see what happens. We met at Arc-en-Ciel, and sixty people showed up! So we knew we had something. Then, it was up to us to find some regular activities to do. But whatever it is, it is our activity, and we do it with love. This is what makes the difference.

How many people are involved?

Shiva: There are thirty five young Aurovilians, mostly between 15 and 23. But it's not just for youth. Anyone can come. You have to be young at heart.

What was the first thing you did?

Ramesh: The first thing was the bonfire for Auroville's birthday. We got such good feedback about the organization—being together made it a success. From this event, lots of young people felt they had been applauded. Then all the youth wanted to get involved.

Auroprem: After the incident where an Aurovilian woman was attacked one night on the way home from a cultural event at the Visitors Centre, we decided to take on a night patrol duty. We had already spoken about this before. The first month, thirty five people worked in three groups. It was quite tiring, especially when we also had school and work the next day.

Ramesh: Now we have seven groups. There are four in a group, and they patrol from 8 P.M. to 1 A.M. We try to be in various places: the greenbelt, the Pitchandikulam bridge, other places.

What do you look for on this patrol?

Auroprem: Some people who are here late at night, driving drunk. We stop people if they're driving too fast, too loudly. We ask them where they're going, who they are going to see. We would like to ask Aurovilians to accompany their guests late at night. Then someone is responsible.

Shiva: But really, there have only been some small incidents. Most people understand what we are doing.

What other activities do you plan?

Auroprem: We have already started to work with village clean-up in Kuilapalayam. We get help from the youth in the village. For the most part they've been supportive. One project is a clean-up of the water. We got the okay from the village leaders to build soak pits for water drainage. If we do this, the water from corner taps will be able to drain properly. Gillian has been helping with many clean-up problems such as compost and garbage. We would also like some help from Village Action. Maybe they could help by refocusing their attention on environmental education.

Ramesh: We have the manpower—we need some financial support. We would like more people to help, to get involved.

What do you plan for the future?

Shiva: In the future, we would like to work more with the summer camps, with Peace Trees, with cultural programmes for youth, maybe even seminars—national and international. **Auroprem:** The youth should be everywhere. All youth should get involved in making decisions about Auroville's progress, because it is our future: the traffic, the building, the schools. We should be following up on groups and activities. Now, only 10-15 young persons are really involved. It would be nice to have more cooperation from the youth who are going out. Really, Auroville has to find a solution to keep the youth here. Many times, it is the parents pushing them to go. Why? How can we build for the next generation if so many leave?

Interview by Jill

THE GOLDEN ANCHORITE

*Beata Solitudo, sola beatitudo
Blessed solitude, the only
blessing*

(an ancient expression)

Without the permission of Auroville's Housing group a golden backed woodpecker, or *Dinopium bengalense*, has taken residence in a tree's (*Enterolobium cyclocarpum*) hollow, about two meters above the ground. It does not like company: the nest is alone. For meditation solitude isn't bad at all. But sometimes the bird laughs, perhaps at the noisy flocks of mynas and crows in the Banyans. One usually hears its chuckling call when it is in flight.

Boris

A TALE OF TAILS

Animal Reflections



A collection of modern fables by VITTHAL

Auroville's "Shanta Books" has issued two new publications.

A Tale of Tails

"A Tale of Tails" is a collection of fables, written by Vitthal, full of small chuckles and surprising twists and turns. The cover story deals with a tail contest, which is ultimately won by Snake-in-the-grass, convincing the jury that her presence heals and energizes. "Not only do I have a most beautiful and useful tail," says Snake-in-the-grass, "but I am a most beautiful and useful tail", which leads to the morale that "Being" is more important than "Having"...

Population

"Population" is a picture book without words that has been created to show the consequences of the population explosion. The book is designed to be used in schools and community action programmes.

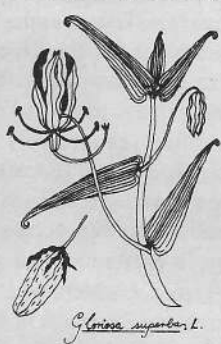
For further information contact Shanta Books, Success Road, Auroville 605101.

Index Seminum

The Auroville Index Seminum 1993 has just been released. It contains, as usual, a full description of all the seeds, resulting from open pollination, which are collected in the Auroville area and offered for exchange. For further information write to Auroville Index Seminum, Shakti, Auroville 605101, Tamil Nadu, India.

NEW PUBLICATIONS

INDEX SEMINUM 1993-94



Auroville

"INDIA'S REBIRTH" back in Circulation

In Auroville Today # 59 of December 1993 we mentioned the publication by the Institut de Recherches Evolutives, Paris, of "India's Rebirth", a chronological selection from Sri Aurobindo's writings, talks and speeches in which he strikes at the heart of what ails India and shows the key to her rebirth. The distribution of the book was however stopped that same month as the Sri Aurobindo Ashram Trust obtained an injunction from the Madras High Court for infringement of their alleged copyrights. Subsequently the Institute and the Ashram Trust started studying the possibility of an amicable settlement. Finally, on April 25, 1994, a memorandum of compromise was signed in Madras by both parties agreeing to an acknowledgement to be pasted in the book by the publisher and agreeing also that the publisher was free to resume distribution immediately without any other condition. On April 26, the suit filed by the Ashram Trust was dismissed as withdrawn. "India's Rebirth" is now back in circulation.

Recycling High School Students

Alan, Claude, Tency and Tineke, the organizers of a series of seminars on sustainable development, had an idea to run a course for younger people in their last year of high school. Previously the courses were run for architects and technicians and N.G.O.'s only, so it was an experiment which, according to me, was a success. Students from the Krishnamurti school in Madras, from the S.O.S. Children's village of the Tibetan settlement in Bylakuppe near Mysore and from Last School (Auroville) got to know each other quite well during the seminar, and had lots of fun learning the Tibetan national anthem and listening to them play and sing their traditional songs.

During the seminar there were lectures on solar energy, mud and ferro-cement technology, water management and recycling. The students compressed mud bricks and made a ferro-cement door, just to get a feel of what it is like. The pity was that the seminar lasted only five days, which was really too short a time to go into any of the topics deeply and at the same time get a feeling for Auroville and meet the participants. Only on the last day did I feel that we were all really friends and understood each other quite well. I found

that the seminar was interesting, but what I found equally as important was the exchange between different participants of different backgrounds. It is good for Auroville to have such programmes.

Akash
(Last School student)



Compressing stabilized earth blocks

PHOTO: BILL

IEF NEWS BRIEF NEWS BRIEF NEWS BRIEF NEWS BR

HERS

Health-Education-Research-Service is the name of the new organic food processing unit in Kottakarai. The new shop opened last month, next to the Ganesh Bakery on the cross-roads as you enter the extended community of Kottakarai.

EAST COAST ROAD UPDATE

The first section of the planned East Coast Road (ECR) which will run from Madras to Cuddalore (see AV Today # 53 of June 1993) is a step closer to materialisation now that the Tamil Nadu Government has agreed to abide by all the recommendations contained in the report of the Environmental Appraisal Committee (EAC). The EAC had been set up by the Ministry of Environment and Forests after concern was expressed by various environmental groups about the ecological and social impact of such a road, and the Madras High Court had issued an injunction restraining work on the project from proceeding. The recommendations of the EAC include:

- ✗ No more felling of mature trees.
- ✗ No further displacement of people for the purpose of construction of the road.
- ✗ Those who have already been displaced should be adequately compensated and rehabilitated.
- ✗ Avenue trees should be planted throughout the route.
- ✗ The width of the blacktop portion of the road should be limited to seven metres, rather than ten 10 metres as originally envisaged.
- ✗ There should be no further industrial or hotel construction on the sea ward side of the road.
- ✗ Further clearance should be sought for the second phase of the ECR (Cuddalore - Kanyakumari) after preparing Environmental Impact Assessment for the government proposal as well as the alternative suggested by INTACH (Indian National Trust for Art and Cultural Heritage).

The EAC also stipulated in a subsequent letter to the Tamil Nadu Government that the road should be constructed to Other District Road (ODR) specifications rather than the Highway specifications. However, for people and groups involved in the ECR issue for the last two years, the work is far from over. They have to make sure that the conditions get implemented on the ground and mobilise and inform people and activists along the second phase of the route. Aurovilians involved hope that the awareness generated by the ECR controversy will lead to a sustainable development plan for the Tamil Nadu coast.

CULTURAL EVENT

The month of May is hot and silent, as many Aurovilians are out of station. Cultural events are as likely to occur as snow - but a refreshing evening was given by Pushkar, playing piano pieces of Spanish composers: Mompou, Granados and Albinez.

TO SUBSCRIBE

The contribution for the next 12 issues of AUROVILLE TODAY in India is Rs. 150, for other countries Rs. 750, Can.\$ 30, French F. 150, DM 47, It.Lira 35,500, D.Gl. 52, US \$ 25, U.K.£ 14. This includes the postage by airmail. Please send your contribution (or your supporting contribution of double the amount) either to the Auroville International centre in your country (add 10% for admin. and bank charges) or directly to Auroville Today, CSR Office, Auroville 605101. **Cheques should be made payable to Auroville Fund**, specifying: 'Contribution for Auroville Today'. You will receive the issues directly from Auroville. Personal cheques are preferred to bank cheques. Please do **not** send postal money orders. Subscribers will receive a reminder when their subscription is about to expire.

Addresses of Auroville International centres:

- AVI **Deutschland**, c/o M. Soerensen, Bleicherstrasse 60, 28203 Bremen, Germany.
- AVI **España**, c/o Arjun and Anandi, Apartado de Correos 36, 31.610 Villava, Navarra, Spain
- AVI **France** c/o Satyakam Karim, 14, rue du Colonel Grancey, 94500 Champigny Sur Marne, France.
- AVI **Italia**, c/o Aurofilio, Anjali Schiavina, Corso Marconi 11, Torino 10125, Italy.
- AVI **Nederland**, c/o M. Berden, Lobelialaan 51, 2555 PC Den Haag, The Netherlands.
- AVI **Canada**, c/o Denis Henley, 847 Chemin Perry, Aylmer (Quebec), J9H 5C9 Canada.
- AVI **Sverige**, c/o Ulf Carlberg, Borgholm, Broddeb<179>, S-59700 Atvidaberg, Sweden.
- AVI **U.K.**, c/o M. Littlewood, Canigou, Cot Lane, Chidham, W.Sussex, PO18 8SP, U.K.
- AVI **USA**, c/o Jack Alexander, P.O.Box 162489, Sacramento CA 95816, USA

AUROVILLE TODAY provides information about Auroville, an international township in South-India, on a monthly basis and is distributed to Aurovilians and friends of Auroville in India and abroad. It does not necessarily reflect the views of the community as a whole.

Editorial team: Tineke, Roger, Jill, Carel, Bill, Annemarie, Alan. Proofreading: Barbara. Assistance: Bindu. Layout & DTP: Martin. Printed at Auroville Press.

IEF NEWS BRIEF NEWS BRIEF NEWS BRIEF NEWS BR

The Auroville International Meeting 1994

The annual gathering of Auroville International (AVI) Centres took place this year from the 12th to the 15th of May in the south of Holland at Gasterij de Voorde—a former monastery by the river Maas—which has been converted into a beautiful venue for groups concentrating on personal growth. Thirty three people attended the meeting, including representatives from AVI centers (Holland, Germany, U.K., France and USA), four Aurovilians (Paulo, Ulla, Alan and Annemarie) and two guests, Richard and Kailash from the Sri Aurobindo Ashram in Pondicherry.

The programme was this time designed to allow participants to contact and appreciate each other at an individual and 'aspirational' level first, before potentially controversial topics were brought into the arena. The gathering started on Thursday evening with an introduction to the programme for the following days, and a greeting dance.

The next day, six small groups practised 'creative listening' (without discussion) on topics like how to abolish the ego, and to what extent we can let go of our national identity and open to the ideal of human unity, and in participating—both as individuals and centres—in an abbreviated version of the 'Game of Transformation', the intention of which was to ascertain the next steps to become aware of in our relationship with Sri Aurobindo, the Mother and Auroville. In the evening, the rough-cut version of the Dalai Lama interview on video was shown, followed by a slide presentation by Richard and Kailash on flowers and their significances as given by The Mother.

The second day began with the four Aurovilians giving a report on activities and trends in Auroville and its larger bioregion, and this was followed by individual centres raising topics on which they wanted further discussion. These included the present status of the concept of 'Friends of Auroville'; the perceived need to professionalise the centres' work for

Auroville and Auroville's contact with the centres and individual supporters, and a question about how each nation could identify its root psychological and psychic traits as a preliminary to embodying them in their national pavilion.

The following session, in which participants split up into small groups to discuss one of the above topics, was perhaps the most interesting of all. The 'professionalisation' group, for example, were dealing partly with the frustration experienced by two members of AVI Germany who had visited Auroville recently and tried, in vain, to interest some Aurovilians in supporting the setting up of a kind of Auroville agency in Germany to put the relationship of Auroville to the larger world on a more professional basis. In the ensuing discussion, the need for Auroville to be more responsive and efficient in its communication with the outside was acknowledged, but it was also pointed out that the term 'professionalisation' should also be applied to the way in which such matters are brought to the attention of the community, since, historically, there have been instances of outsiders trying to impose their vision upon Auroville—with predictable results.

The 'Friends of Auroville' group concluded that clarity about how long-term supporters of Auroville could provide

accommodation for themselves when they visit the community was sorely needed and appealed to Auroville for clear guidelines. The 'Pavilions' group discussion ended with representatives from each centre present agreeing to make a study—on the basis of the writings of Sri Aurobindo and The Mother—of the psychic traits of their nation, and its contribution to human evolution, and to hold regular fax meetings to share their findings and to eventually draw up a report for consideration by all AVI members.

Later in the afternoon, Paulo performed a dance improvisation with intense concentration to Sunil's music inspired by 'Savitri', book VII, canto II, and in the evening a former resident of Auroville, Danny Becher, gave an extraordinary concert which included 'overtone' chanting and the playing of assorted gongs, 'sound bowls' and bells, layering and weaving different worlds of sound and coloration.

On the final morning participants took turns to read aloud passages from 'Savitri' (book I, canto II) and then shared their feelings about the meeting as a whole. The final few minutes were devoted to resolutions—to begin again a circular letter to be sent to all centres, and to hold the 1995 AVI meeting in the U.S.A., with France as a backup should this not materialise.

So, how was the meeting? During the final evaluation most participants were enthusiastic about the process and outcome of the meeting, and were very appreciative of the efforts of those members of AVI Holland, and Caroline from AVI UK, who had organised and 'held' the meeting so well. The 'creative listening' session in particular seemed to have been crucial in helping participants to appreciate and

respect differing views and perspectives—and to lay the foundation for a more relaxed and integrative approach to issues like the process of constructing national pavilions, issues which have tended to be divisive at times in the past. In this sense, the keynotes of the meeting seem to have been openness and respect. And if nothing much concrete was decided upon, this new awareness may well bear fruit in the near future.

On the other hand, as a newcomer to such meetings, and arriving fresh from Auroville, I had—and still have—some questions about the event. One concerns the true function of such meetings. Is it, primarily, a way for AVI members to reconnect with each other while exploring together aspects of the yoga? If so, the meeting was clearly a success. But if a motive is also to reconnect, or touch something of the spirit, the texture of Auroville, I am less sure that the meeting was entirely successful. Why? Maybe because much of the energy, the 'magic' of Auroville happens through work whereas here the emphasis was necessarily more introspective. Again, the presentation of Auroville activities by the Aurovilians was rather rushed due to the programme being so packed—which also reduced the time for 'casual' extra-curricular discussion among participants which are often so important for the outcome of such meetings.

Further, while the great majority of participants seemed happy to use the 'Transformation Game' as a tool for extending inner awareness, I wonder if it is not possible to evolve approaches which draw more directly upon the writings and inspiration of Sri Aurobindo, and which—at least for me—require less translation in terms of the yoga in Auroville. In a slightly similar way, although I appreciated the heart-centred quality of this meeting, in a paradoxical way I also missed something of the 'roughness' of the Auroville interaction which sometimes, in spite of all the bruising, breaks us open and allows something else to flow through...

Finally, however, it seems churlish to criticise a meeting which was planned with, and succeeded in evoking, such goodwill and good feeling between the participants. For this, after all, is the foundation for so much else.

Alan

Youth Initiatives

Recently, a dynamic group started by some concerned youth has been receiving encouragement and support for the initiative they have taken in a number of areas of the community's life. AVToday went to talk to three Aurovilians involved in youth-oriented activities: Ramesh (Arc-en-Ciel), Shiva (Protection) and Auroprem (Aspiration), and asked them about their aspirations for the future, as well as their feelings about the present.

AVToday: There have been youth groups in the past. How is this one different?

Auroprem: In the past there was no one really to organize it, to get youth together. So it failed. For us, it was just an idea at first, put a notice in the Auroville News, see what happens. We met at Arc-en-Ciel, and sixty people showed up! So we knew we had something. Then, it was up to us to find some regular activities to do. But whatever it is, it is our activity, and we do it with love. This is what makes the difference.

How many people are involved?

Shiva: There are thirty five young Aurovilians, mostly between 15 and 23. But it's not just for youth. Anyone can come. You have to be young at heart.

What was the first thing you did?

Ramesh: The first thing was the bonfire for Auroville's birthday. We got such good feedback about the organization—being together made it a success. From this event, lots of young people felt they had been applauded. Then all the youth wanted to get involved.

Auroprem: After the incident where an Aurovillian woman was attacked one night on the way home from a cultural event at the Visitors Centre, we decided to take on a night patrol duty. We had already spoken about this before. The first month, thirty five people worked in three groups. It was quite tiring, especially when we also had school and work the next day.

Ramesh: Now we have seven groups. There are four in a group, and they patrol from 8 P.M. to 1 A.M. We try to be in various places: the greenbelt, the Pitchandikulam bridge, other places.

What do you look for on this patrol?

Auroprem: Some people who are here late at night, driving drunk. We stop people if they're driving too fast, too loudly. We ask them where they're going, who they are going to see. We would like to ask Aurovilians to accompany their guests late at night. Then someone is responsible.

Shiva: But really, there have only been some small incidents. Most people understand what we are doing.

What other activities do you plan?

Auroprem: We have already started to work with village clean-up in Kuilapalayam. We get help from the youth in the village. For the most part they've been supportive. One project is a clean-up of the water. We got the okay from the village leaders to build soak pits for water drainage. If we do this, the water from corner taps will be able to drain properly. Gillian has been helping with many clean-up problems such as compost and garbage. We would also like some help from Village Action. Maybe they could help by refocusing their attention on environmental education.

Ramesh: We have the manpower—we need some financial support. We would like more people to help, to get involved.

What do you plan for the future?

Shiva: In the future, we would like to work more with the summer camps, with Peace Trees, with cultural programmes for youth, maybe even seminars—national and international.

Auroprem: The youth should be everywhere. All youth should get involved in making decisions about Auroville's progress, because it is our future: the traffic, the building, the schools. We should be following up on groups and activities. Now, only 10-15 young persons are really involved. It would be nice to have more cooperation from the youth who are going out. Really, Auroville has to find a solution to keep the youth here. Many times, it is the parents pushing them to go. Why? How can we build for the next generation if so many leave?

Interview by Jill

THE GOLDEN ANCHORITE

*Beata Solitudo, sola beatitudo
Blessed solitude, the only
blessing*

(an ancient expression)

Without the permission of Auroville's Housing group a golden backed woodpecker, or *Dinopium bengalense*, has taken residence in a tree's (*Enterolobium cyclocarpum*) hollow, about two meters above the ground. It does not like company: the nest is alone. For meditation solitude isn't bad at all. But sometimes the bird laughs, perhaps at the noisy flocks of mynas and crows in the Banyans. One usually hears its chuckling call when it is in flight.

Boris

A TALE OF TAILS

Animal Reflections



A collection of
modern fables
by VITTHAL

NEW PUBLICATIONS

INDEX SEMINUM 1993-94



 *Auroville*

Auroville's "Shanta Books" has issued two new publications.

A Tale of Tails

"A Tale of Tails" is a collection of fables, written by Vitthal, full of small chuckles and surprising twists and turns. The cover story deals with a tail contest, which is ultimately won by Snake-in-the-grass, convincing the jury that her presence heals and energizes. "Not only do I have a most beautiful and useful tail," says Snake-in-the-grass, "but I am a most beautiful and useful tail", which leads to the morale that "Being" is more important than "Having"...

Population

"Population" is a picture book without words that has been created to show the consequences of the population explosion. The book is designed to be used in schools and community action programmes.

For further information contact Shanta Books, Success Road, Auroville 605101.

Index Seminum

The Auroville Index Seminum 1993 has just been released. It contains, as usual, a full description of all the seeds, resulting from open pollination, which are collected in the Auroville area and offered for exchange. For further information write to Auroville Index Seminum, Shakti, Auroville 605101, Tamil Nadu, India.

"INDIA'S REBIRTH" back in Circulation

In Auroville Today # 59 of December 1993 we mentioned the publication by the Institut de Recherches Evolutives, Paris, of "India's Rebirth", a chronological selection from Sri Aurobindo's writings, talks and speeches in which he strikes at the heart of what ails India and shows the key to her rebirth. The distribution of the book was however stopped that same month as the Sri Aurobindo Ashram Trust obtained an injunction from the Madras High Court for infringement of their alleged copyrights. Subsequently the Institute and the Ashram Trust started studying the possibility of an amicable settlement. Finally, on April 25, 1994, a memorandum of compromise was signed in Madras by both parties agreeing to an acknowledgement to be pasted in the book by the publisher and agreeing also that the publisher was free to resume distribution immediately without any other condition. On April 26, the suit filed by the Ashram Trust was dismissed as withdrawn. "India's Rebirth" is now back in circulation.

Recycling High School Students

Alan, Claude, Tency and Tineke, the organizers of a series of seminars on sustainable development, had an idea to run a course for younger people in their last year of high school. Previously the courses were run for architects and technicians and N.G.O.'s only, so it was an experiment which, according to me, was a success. Students from the Krishnamurti school in Madras, from the S.O.S. Children's village of the Tibetan settlement in Bylakuppe near Mysore and from Last School (Auroville) got to know each other quite well during the seminar, and had lots of fun learning the Tibetan national anthem and listening to them play and sing their traditional songs.

During the seminar there were lectures on solar energy, mud and ferro-cement technology, water management and recycling. The students compressed mud bricks and made a ferro-cement door, just to get a feel of what it is like. The pity was that the seminar lasted only five days, which was really too short a time to go into any of the topics deeply and at the same time get a feeling for Auroville and meet the participants. Only on the last day did I feel that we were all really friends and understood each other quite well. I found

that the seminar was interesting, but what I found equally as important was the exchange between different participants of different backgrounds. It is good for Auroville to have such programmes.

Akash
(Last School student)



Compressing stabilized earth blocks

PHOTO: BILL

HERS

Health-Education-Research-Service is the name of the new organic food processing unit in Kottakarai. The new shop opened last month, next to the Ganesh Bakery on the cross-roads as you enter the extended community of Kottakarai.

EAST COAST ROAD UPDATE

The first section of the planned East Coast Road (ECR) which will run from Madras to Cuddalore (see AV Today # 53 of June 1993) is a step closer to materialisation now that the Tamil Nadu Government has agreed to abide by all the recommendations contained in the report of the Environmental Appraisal Committee (EAC). The EAC had been set up by the Ministry of Environment and Forests after concern was expressed by various environmental groups about the ecological and social impact of such a road, and the Madras High Court had issued an injunction restraining work on the project from proceeding. The recommendations of the EAC include:

- ✧ No more felling of mature trees.
- ✧ No further displacement of people for the purpose of construction of the road.
- ✧ Those who have already been displaced should be adequately compensated and rehabilitated.
- ✧ Avenue trees should be planted throughout the route.
- ✧ The width of the blacktop portion of the road should be limited to seven metres, rather than ten 10 metres as originally envisaged.
- ✧ There should be no further industrial or hotel construction on the sea ward side of the road.
- ✧ Further clearance should be sought for the second phase of the ECR (Cuddalore - Kanyakumari) after preparing Environmental Impact Assessment for the government proposal as well as the alternative suggested by INTACH (Indian National Trust for Art and Cultural Heritage).

The EAC also stipulated in a subsequent letter to the Tamil Nadu Government that the road should be constructed to Other District Road (ODR) specifications rather than the Highway specifications. However, for people and groups involved in the ECR issue for the last two years, the work is far from over. They have to make sure that the conditions get implemented on the ground and mobilise and inform people and activists along the second phase of the route. Aurovilians involved hope that the awareness generated by the ECR controversy will lead to a sustainable development plan for the Tamil Nadu coast.

CULTURAL EVENT

The month of May is hot and silent, as many Aurovilians are out of station. Cultural events are as likely to occur as snow - but a refreshing evening was given by Pushkar, playing piano pieces of Spanish composers: Mompou, Granados and Albinez.

TO SUBSCRIBE

The contribution for the next 12 issues of AUROVILLE TODAY in India is Rs. 150, for other countries Rs. 750, Can.\$ 30, French F. 150, DM 47, It.Lira 35,500, D.Gl. 52, US \$ 25, U.K.£ 14. This includes the postage by airmail. Please send your contribution (or your supporting contribution of double the amount) either to the Auroville International centre in your country (add 10% for admin. and bank charges) or directly to Auroville Today, CSR Office, Auroville 605101. **Cheques should be made payable to Auroville Fund**, specifying: 'Contribution for Auroville Today'. You will receive the issues directly from Auroville. Personal cheques are preferred to bank cheques. Please do **not** send postal money orders. Subscribers will receive a reminder when their subscription is about to expire.

Addresses of Auroville International centres:

Addresses of Advertisers International Companies:

AVI **Germany**, c/o M. Soerensen, Bleicherstrasse 60, 28203 Bremen, Germany.

AVI **España**, c/o Arjun and Anandi, Apartado de Correos 36, 31.610 Villava, Navarra, Spain

AVI **France** c/o Satyakam Karim, 14, rue du Colonel Grancey, 94500 Champigny Sur Marne, France.

AVI **Italia**, c/o Aurofilio, Anjali Schiavina, Corso Marconi 11, Torino 10125, Italy.

AVI **Nederland**, c/o M. Berden, Lobellalaan 51, 2555 PC Den Haag, The Netherlands.

AVI **Canada**, c/o Denis Henley, 847 Chemin Perry, Aylmer (Quebec), J9H 5C9 Canada.

AVI **Sverige**, c/o Ulf Carlberg, Borgholm, Broddeb<179>, S-59700 Atvidaberg, Sweden.

AVI **U.K.**, c/o M. Littlewood, Canigou, Cot Lane, Chidham, W.Sussex, PO18 8SP, U.K.

AVI **USA**, c/o Jack Alexander, P.O.Box 162489, Sacramento CA 95816, USA

AUROVILLE TODAY provides information about Auroville, an international township in South-India, on a monthly basis and is distributed to Aurovilians and friends of Auroville in India and abroad. It does not necessarily reflect the views of the community as a whole.

Editorial team: Tineke, Roger, Jill, Carel, Bill, Annemarie, Alan. Proofreading: Barbara. Assistance: Bindu. Layout & DTP: Martin. Printed at Auroville Press



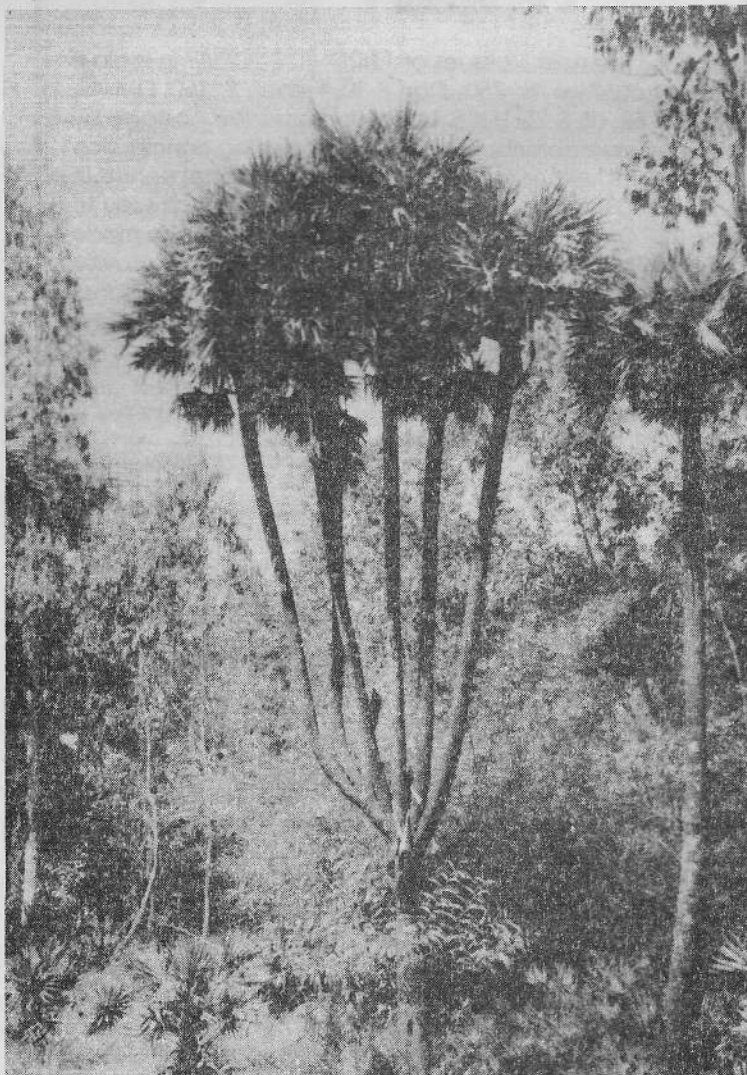
ANKE AND MICHAEL
GRACE
AUROVILLE

In this issue (12 pages):

Nature under Research, The New Secretary, AVI Meeting etc

June/July 1994

Number Sixty-Five/Sixty-Six



A normal palmyra has one stem. This one is growing in Auroville...

FOTO: BILL

Legends of the Land

In the beginning was a pilgrim route stretching from Kalivelli tank to the sea-shore of Muthialpet—a village north of Pondy, where still once a year on Masimargam, during the full moon in March, the gods bathe at moonrise. Statues from the sanctum sanctorums of temples are brought from villages and small towns as far as 100 kms away and lined up along the shore in dozens of palm-roofed stalls manned by brahmins who offer prayers for departed ancestors. For devotees it is a day of absolution and washing away of sins. Villagers walk for days to get there with their statues along a route lined periodically with stands offering free water and rice porridge. Such a keet-covered pilgrim-stand once existed near where Matrimandir now rises, along the short cut through the hinterland between Kalivelli tank and Muthialpet. Sixty years ago a villager from Kottakarai, in a votive offering for an answered prayer to the God Murugan, planted a banyan tree to provide shade for the stand where the pilgrims paused to rest and refresh themselves. To this day the Banyan tree is still called Tanipandalarram—the water shed tree—in Tamil.

The water conservation and irrigation works of Tamil Nadu commented on by Chinese travellers were one of the wonders of the world over a thousand years ago. Evidence of this system of reservoirs can still be found in our region. The tanks or lakes of the villages of Olinthyanphet, Kalupedumpakkam and Thiruvakkara date back to this period and are still used for the cultivation of the areas' wetland crops of paddy and sugarcane. The lake of Irumbai was the result of the concerted labour of the three villages of Edayanchavadi, Irumbai and Kottakarai.

The presence of the invisible is almost tangible in this part of the world: a phenomenon that expresses itself in different ways ranging from a pervading sense of the sacred to the mere supernatural. Termite hills that house a cobra are frequently worshipped and statues of the local God Iyenar mounted on his horse stand guard in front of many villages and temples. At midnight it is the rare villager you will find on the roads, as that is when the God makes his rounds with his otherworldly retinue to check that the tanks and kolams are well maintained. Those villagers returning home late at night will lie on the ground if he passes by so as not to attract his attention and distract him from his task. In the early years of Auroville he was frequently sighted in the Centre-field area but today sightings tend to occur towards Koot Road. Today many trees particularly the neem and tamarind—referred to as ghost trees—as well as groves, are usually avoided if possible at night. Women returning on the long trek home from the cinema will take the jasmine out of their hair at night in order not to attract ghosts.

In an age of shifting land use patterns, mopeds and cash crops, age-old techniques such as the use of natural pesticides are being lost as people turn away from the land. And yet a more symbiotic relationship once existed with nature and the land. Ancient Tamil Sangham poetry reflects this relationship.

In the Akam, or love poetry, emotion is subtly evoked by a sophisticated use of metaphor and "inscapes" drawn from nature, where landscapes, animals, flowers and trees subtly correspond to the lover's mood. In the heroic Puram poetry of war, attacking and defending armies daubed or decked themselves with different types of flowers depending on the task at hand, whether laying siege, or defending a fort, setting out on a cattle raid, returning with the spoils of victory, defending one's country, etc.. The neem and palm tree were respectively the royal emblems of the Pandya and Chera dynasties.

For this is a land replete with ancient presences. Every temple has a sacred tree that is protected accordingly. Frequently these are Peepal trees—a cousin of the banyan tree (also known as the Bodhi tree) and in whose shade the proceedings of open air courts of law used to occur. Both peepal and neem trees are considered special. They respectively represent Knowledge and Shakti (Force), and when they intertwine it is considered highly auspicious. When this occurs a marriage ceremony is performed and a statue of Ganesh, placed, consecrated at their base. Such a tree can be found in front of the temple of the village of Olundhiampattu. There is an interesting legend behind the lingam of the Arasaleesparam temple of this village. Many years ago a hunter saw a deer and shot at it with his bow and arrow. Wounded, the falling deer transformed into a lingam.

Local legend has it that some two hundred years ago a yogi was mocked by those gathered at a chieftain's celebration for having reached out to reattach a temple dancer's anklet as she danced for Lord Shiva. He invoked the God to vouchsafe his purity of intent upon which the lingam of the nearby Irumbai temple exploded scattering fragments for many miles around. The Yogi announced that the land would become waste but was persuaded to mitigate his curse and predicted that one day people from different lands would come and the land would become green again.

The last clear standing old neem and peepal forest on the Auroville plateau between Abri and Edayanchavadi was almost completely clear cut in the late Fifties with the use of tractors and stretched chains. The devastation was finally brought to a belated halt when a chain broke on a peepal tree near a small temple dedicated to Iyenar and a sandy mound that is said to be the grave of Kalivelli Siddha, the yogi of the Irumbai legend. This was taken as a sign by the landowner to stop the operation. The efforts and determination of the first pioneers and Auroville greenworkers down the years has invoked nature's tenfold response.

Each season has its signature. In these hot summer months as the leaf-litter of deciduous trees lines our forest paths, and silk-cotton blown from burst pods blows across the roadsavenued by flowering flame, copperpod and imagination trees, in scrub thickets or clinging to the side of rock-hard canyon earth the beautiful violet-colored miracle flower blooms.

Roger