

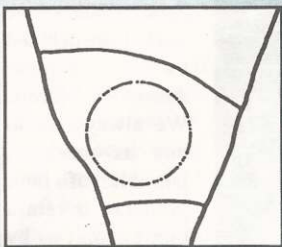
Auroville Today

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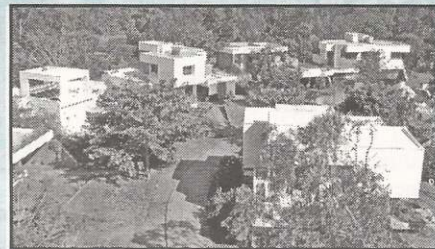
COVER STORY:

Planning the city of the future



- The Auroville Master Plan explained
- Making cities livable and sustainable
- Auroville as a motor-free city.

pages 1, 4 & 5



Auroville, as the French suffix 'ville' meaning 'town' suggests, is intended to become a city. The Auroville Foundation Act even contains a unique provision: it requires the Auroville Foundation to formulate a Master Plan for Auroville and makes the residents and the Governing Board responsible for developing the township accordingly. As The Auroville Universal Township Master Plan receives the final touches before being presented to the Government of India, Auroville Today focuses on what it implies to plan a city of the future.



City planning: Lalit, Anupama and Mr. Dattatri (left to right)

Master Plan ready for Delhi

The Auroville Universal Township Master Plan will soon be presented to the Minister of Human Resource Development.

In July, 1999 an overwhelming majority of the Residents' Assembly ratified a first phase Master Plan and appointed a task group of Aurovilians to present the document to the relevant authorities. In its meeting of August, 1999, the Governing Board of the Auroville Foundation appreciated the concept but felt that eminent town planning authorities at state and national levels should be consulted before the plan be presented to the Government of India. [see AVToday # 128, September 1999]

Mr. Meshram, Chief Town Planner of the Town and Country Planning Organization, New Delhi, and Mr. Dattatri, former Chief Town Planner of the Chennai Metropolitan Authority and UN consultant, spontaneously offered help and expertise. Mr. Meshram and two of his officers stayed in Auroville for short periods, while Mr. Dattatri has been coming to Auroville for a few days each week. It is because of their continuing support that the draft Auroville Universal Township Master Plan will be presented to the Minister of Human Resource Development by February 2001.

Perspective plan

"Actually," says Mr. Dattatri, "the term master plan has come a bit into disuse, but we couldn't get around it as the Auroville Foundation Act specifically uses this term. We have learned that most city 'master plans' made under Indian town planning acts have so far had a very limited impact on the orderly growth as was envisioned. Most planners nowadays use a different terminology. We speak of 'structured planning' which often is divided into three phases. The first phase is: a 'Perspective' or directional plan, which contains the basic broad concepts and philosophies. This plan has a time scale of about 25 years, but aspects of it can be adapted every five years or so, so that it becomes a useful rolling perspective plan. Within the framework of the perspective plan we create the more detailed development plans, which have a time scale of up to 5 years. Development Plans can only be made once the ground realities are clear; they require surveys to obtain all the necessary data. Lastly, there are the Annual Plans which are made for implementation. What will be presented to the Government of India is the Perspective

Plan, and while we await its expression of support we will start working on the first 5-year Development Plan.

"One of the specific purposes of Auroville's Perspective Plan," continues Mr. Dattatri, "is to show the Government of India that Auroville is a very important experiment which will not only benefit Auroville, but also be an example to the rest of the country as in Auroville the city and small village settlements could be developed complementarily in a move

towards an integrated sustainable development.

The Perspective Plan primarily indicates the land-usage for the 20 square kilometres that contain the four zones of the Auroville township and the greenbelt. The Plan does not at this stage include the areas connecting the Auroville city area to the sea and towards Aurobrindavan, which include communities such as Aspiration and those in the Auromodèle area, as the first priority

is to consolidate the township area."

Anupama, an Auroville architect, explains further: "In the early days we spoke about three areas — Auroville proper comprising 20 square kilometres, the immediate bio-region which is 40 square kilometres, and the so-called 'area of influence' which would extend up to 800 square kilometres around the latter. What has evolved now is a plan for the first area only — which is what the Auroville Foundation Act allows us to do — as the immediate task right now is to safeguard the land use in this area.

However, our earlier area of influence concept will continue to be taken further."

The Green Use Zone and road patterns

"In earlier town plan concepts," continues Anupama, "we made very clear distinctions between the four zones of the city proper — the residential, the international, the industrial and the cultural zones — and the surrounding Greenbelt.

Our advisors asked what the proposed function of this Greenbelt was to be.

(continued on page 4)

Goals and Objectives of the Master Plan

Simply stated, the goal of the Master Plan is to translate into physical terms — land use & infrastructure — the needs for the growth of Auroville into a Universal Township benefiting mankind.

More specifically, the objectives include:

- Establishing the zoning of land use on all lands falling within 20 square kilometres from the centre of Auroville irrespective of land ownership
- Identifying locations in the Green Belt for agriculture and farming, land

regeneration and special activities such as water and soil conservation and recreation

- Determining the hierarchy of roads and access ways, particularly emphasising where non-polluting movement should take precedence over general traffic
- Identifying policies and ways by which the neighbouring villages can be integrated in the plan to take advantage and benefit from Auroville's location for their economic betterment

(from the Master Plan)

Food processing crisis

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Food-processing unit desperately seeks new location

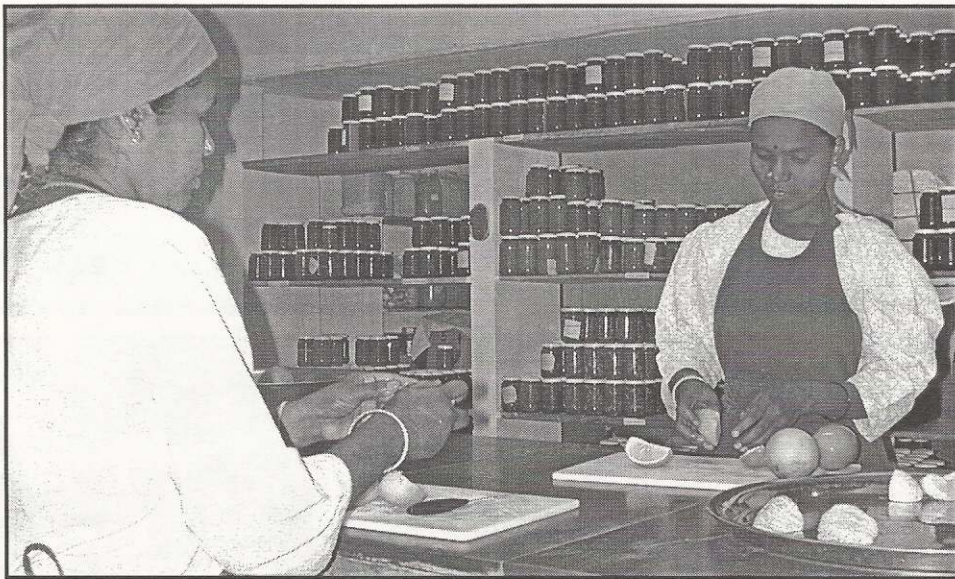
Jars jam the shelves of the cramped area in the Bharat Nivas restaurant where Auroville's food-processing is located. The unit has to move out soon, but there are no funds for a new building.

"We are being shown out. This building will finally get finished, starting some time next year when the government grant arrives. And that might mean the end of Auroville's food-processing service as we have no money for a new building. It's just too bad," says Martina.

It all started eight years ago when kindergarten teacher Martina, unhindered by any professional knowledge, decided to do some food-processing — making jams, pickles and marmalades, learning about nut butters and other consumables. The location that was offered to her — a shed adjacent to the Pour Tous building — was sub-standard by any yardstick, but she managed there — for three years. Then she moved to the Bharat Nivas restaurant — one of the grand unfinished structures dating from Auroville's early years — where she was given a small corner. The unit has done well and now employs 16 people.

"This unit was started in order to serve the needs of Aurovilians, but soon spawned a commercial arm called *Naturellement* to sell its products in Pondicherry," explains Vishwanathan, the unit's accountant. "Now roughly two-thirds of the products are sold in Auroville, and one-third outside. The profit margin is extremely small, less than 10%, and the unit has never been able to make any substantial savings."

At first glance this is surprising since the products are highly priced by Indian standards. A 400 gram jar of marmalade or peanut butter costs slightly under Rs 50.



"Our prime aim is quality": preparing ingredients for jam

"The prices in fact are not high enough," retorts Martina. "We make high-quality products which, in Europe, would be sold in exclusive health food stores and in delicatessens for high prices. You can't compare them with industrially-made products."

"Our prime aim is quality. We check our raw materials with minute care, rejecting the bad and even slightly damaged products, and washing non-organic fruits in vinegar water before processing. We do this in order to prevent there being pesticides and aflatoxins in the end product. The presence of pesticide residues is common in the produce we buy from Pondicherry. For example, they sometimes add a handful of DDT to a bag

of sesame. Aflatoxins are another great source of concern. Aflatoxins result from mold growth on foods. These toxins remain in the food long after the mold producing them has died and can be present in foods that are not visibly moldy, and they survive cooking and processing. One variety of aflatoxin, aflatoxin B1, is most frequently found in food [particularly in peanuts] and is one of the most potent carcinogen known. Liver cancer due to aflatoxin is common in India. So we try to prevent this. The Auroville laboratory in Aurobrindavan regularly tests our products for the presence of pesticides and aflatoxins.

"Another of our aims is to contribute towards the self-sustaining city

Mother had envisaged. When we started, we decided to support Auroville farms. We always try to buy as much as possible of their products. In return they support us by giving us a good rate during peak fruit seasons.

"And then there is our employment policy. We operate throughout the year which is unusual for food-processing units. Usually such units close down when

there is no supply of raw material. But we care about our employees. We work with 12 ladies from the nearby villages, who have shown an exemplary dedication to the unit. They all have gained a lot of status and self-esteem because of their work. We do not want to send them home when there is nothing in season, so we struggle to keep them usefully occupied in the slack seasons. The two main fruit seasons are from May-June (mangoes) and July-August (lemons). Out of season I deal with any other fruits that are offered, such as star-fruits, papaya, kumquat, nartanga; with seeds such as sesame and mustard; with groundnuts; or with eggs for mayonnaise. In all, we make over 40 different products."

"All this would not have been possible without the financial and moral support from two donors in particular, the Dutch *Stichting de Zaaier* and an Aurovillian, Ila. If it were not for them, the unit would not be what it is today. But notwithstanding their support, today we are at a crossroads. If our unit is to continue as a service unit, the community has to come forward and help.

Auroville, in fact, has already come forward. A location has been found without any of the usual problems that go with trying to find a site in Auroville. But money is needed, about 24 lakhs (US\$ 50,000) for the building and 11 lakhs (US\$ 23,000) for equipment which includes a generator and steam boiler. "If we do not get donations or soft loans from within Auroville, there will be no option but to go in for a commercial loan, something I would not like to do," says Martina, "for we would have great trouble repaying it. It would mean that we would have to become 100% commercial, and sell our products exclusively outside Auroville in exclusive shops in Bombay and Bangalore, for that is the only way we would be able to repay our loans. It wouldn't be too difficult to find and supply that market — but it would be to the detriment of Auroville."

Quo vadis? Nobody yet knows.

Carel

(For more information contact Martina at Auroville Food-processing, Bharat Nivas, Auroville. E-mail: avfoodpro@auroville.org.in)

OPEN FORUM

An unfair organization?

In a meeting between Dr. Kireet Joshi, Chairman of the Auroville Foundation, and Aurovilians, Sanjeev stressed the need for a series of meetings to solve the problem of Auroville's organization. He expanded his views a few weeks later in the Auroville News.

One of the problems facing Auroville today is the exercise of unrestrained power by various Auroville working groups or individuals. Every so often this power is used against individuals in a way that would be quite impossible in the ordinary world around us. The difference is that within Auroville there is no avenue of redress available to an aggrieved person.

Before the Government came into the picture, cases of unfair treatment could be dealt with effectively in collective meetings. At present this is not possible as large collective meetings are no longer happening in Auroville. There are many reasons for this. One of them is that by virtue of the Auroville Foundation Act it is now the Chairman, Governing Board and Secretary who hold much of the effective power in Auroville to appoint or remove executives of Auroville working groups who wield unrestrained power. Now the decision making bodies of Auroville, like the Working Committee or Residents Assembly, have no power to effectuate anything in Auroville for the simple reason that their powers and functions have so far not been defined, nor is there an agreed process to select working committee members or any process of decision making by the Residents Assembly. Hence no one takes these bodies seriously.

While the Auroville bodies are unable to redress any cases of wrongdoing, the administration of the

Auroville Foundation does not take up the responsibility of maintaining an equitable and just functioning of administration in Auroville on the grounds that these are internal matters which Aurovilians must deal with amongst themselves. Aurovilians, too, do not want the Foundation to touch the inner functioning of Auroville without realising that it has already done so by the mere fact of being the sole authority to appoint or remove executives.

There is an urgent need to rectify this situation as much harassment is being caused to individuals. Auroville, too, suffers, proclaiming the high ideals enshrined in its Charter but living far below acceptable norms.

The diagnosis

With Aurovilians coming from different cultural and social backgrounds there is the basic question of how these differences are to be reconciled when they are in conflict. This is a challenge that is fundamental to the Auroville experiment.

Mother has indicated at various places that Auroville can only be organised by those with a high and wide consciousness:

"The conditions to organise — to be an organiser (it's not 'to govern', it's to organise) — the conditions to be an organiser should be these: no more desires, no more preferences, no more attractions, no more repulsions — a perfect equality for all things.

Sincerity, of course, but that goes without saying: wherever insincerity enters, poison enters at the same time. And then, only those who are themselves in that condition can discern whether another is in it or not. At present all human organisations are based on visible fact (which is falsehood), public opinion (another falsehood), and moral sense which is another falsehood! So..."

"For the world to be happy, power should only be in the hands of those who are conscious of the Divine Will. But for the time being this is impossible because the number of those who are truly conscious of the Divine Will is very small and because they necessarily have no ambition.

To tell the truth, when the time comes for this realisation, it will take place naturally.

The duty of each one is to prepare himself for it as completely as he can."

It is clear, therefore, that we are dealing with an interim situation in which the higher consciousness is not so widespread in Auroville. The Government was forced to take over the Auroville project when conflicts between Aurovilians and between Aurovilians and the Sri Aurobindo Society became irreconcilable and violence was used. While the physical violence has stopped, there are other more subtle forms of violence being practised which should have no place in Auroville.

Having recognised the ideal and being aware of the difficulties in attain-

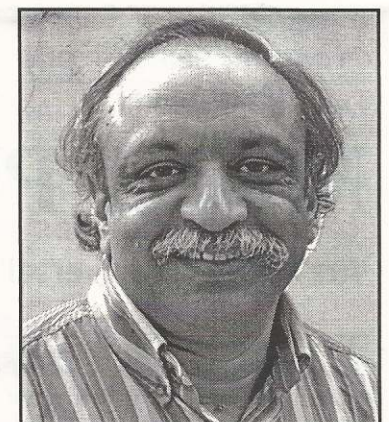
ing this ideal it becomes necessary to see what kind of interim arrangements can be made so that we can at least have the level of fair play that is available in the common world.

A proposal

As we survey the Auroville scene we find that most areas of work are fairly well organised and managed by working groups. What is weak are the collective or co-ordinating functions as there is a lack of a shared vision with each working area or individual trying to pull their own way.

The Aurovilians have tried to keep the Auroville Foundation administration at arms' length by keeping the powers of the Working Committee to a minimum of liaison between the Foundation's officers and Aurovilians. The Auroville Foundation Act, however, envisages a key role for the Working Committee as the executive body of the Residents Assembly. For managing all internal organisational matters the Executive Council has been set up, but it is not effective in dealing with the many issues that come before it.

With a powerless Working Committee and an ineffective Executive Council, ways have been devised to work directly with Foundation's officers so that the day-to-day practical work does not suffer. However, there is no control over those who wield power. On the contrary those who wield power are clever



Sanjeev

enough to associate the Foundation's officers with their decisions, thereby insulating themselves from the need to listen to the views of other Aurovilians.

If the Foundation administration is not to be a mute witness to the injustice being perpetrated here there is a need to take effective action. This action can only be the empowerment of a group that plays a co-ordinating role with other working groups and if necessary can override their decisions. I propose the following:

The Auroville Foundation should give six months to Aurovilians to propose (a) a process for arriving at a decision of the Residents Assembly (b) the powers and functions of the Working Committee (c) a process of choosing members of the Working Committee. If Aurovilians are unable to come up with these in the stipulated time, the Foundation should propose the necessary regulations and put them into effect till such time as Aurovilians can come up with an agreed formula.

If the above proposal is not workable, and the Foundation is also not willing to act by itself, then the Foundation convicts itself of disabling the Auroville organisation. If that happens, it is time that the Foundation reviews what its true role is in Auroville — why it came here and what it is doing.

The death of diesel?

Can sustainable transport and energy generation be realised using plant oils instead of diesel? The Indian Institute of Science in Bangalore believes so, and Auroville proposes to be its guinea pig.

"In Europe and the USA they are experimenting with canola (rape-seed) oil, an agricultural crop, which needs either chemical processing before it can replace diesel oil as a fuel — in which case they call it bio-diesel — or a modified engine. In Germany now bio-diesel is available everywhere. In India we have a better alternative: there are more than 300 different species of trees that produce oil-bearing seeds. More than 140 varieties produce seeds that contain adequate quantities of oil which can be used instead of diesel, which is a fossil fuel. One of those species produces an oil which can be put directly into the tank. Though there are as yet no comparative data on levels of pollution caused by diesel and tree-seed oils, experience has shown that pollution levels when using the latter are substantially less. This makes these oils an extremely interesting renewable energy for Auroville."

It sounds too good to be true. But it is difficult not to get infected by the enthusiasm radiated by Manfred, a scientist from Germany who joined Auroville in 1993. For he talks about a solution to a problem which affects many cities in India: the air pollution caused by diesel transport and generators. In the 36 biggest cities of India, an estimated 52,000 people die each year from air pollution. In New Delhi, India's most polluted city, over 70% of its air pollution is caused by vehicle exhaust fumes. Diesel engines responsible for nearly 100% of the emissions of polluting sulphur dioxide, nitrogen dioxide and suspended particle matters.

"The Indian Institute of Science (ISS) in Bangalore has a research project called SuTRA, Sustainable Transformation of Rural Areas," says Manfred. "They experiment with pongam oil, oil from the seeds of the *pongamia pinnata* tree. This is a fatty oil which is used for leather dressing, soap making, lubrication, lighting — in particular in temples — and for some medical purposes. This oil can also be used as fuel. They are running a Tata Sumo car and a few generators on it. They discovered that the oil only needs filtering before being used, and that there was no need to modify the motor, save to add a heat-exchanger to solve starting problems in cold weather. For machines with a kick start or handle this problem would not even arise. They gave me some oil for initial experiments with a generator and a diesel motorbike in Auroville. There were no problems."

The advantages of using this oil are immense. Air-pollution is lessened as there is reduced emission of sulphur dioxide, suspended particles, and of nitrogen dioxide. The exhaust fumes do not contribute to global warming. The oil is bio-degradable and does not pollute the ground water when spilled. It is a renewable source of energy. The trees can be grown all over India and the oil can be extracted by expellers or by village crushers, thus minimising costs of transportation. And the trees themselves also act as carbon 'sinks', thus helping to reduce global warming. Economically too, there are many advantages. The costs of the (unsubsidised) oil are the same as (heavily subsidised) diesel and the mileage per litre is better.

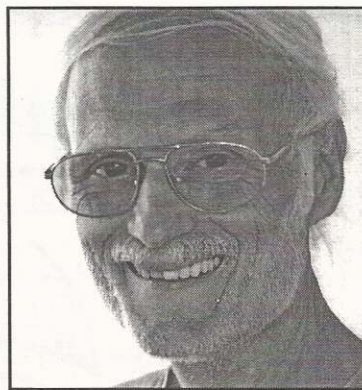
The *pongamia pinnata* is a medium-sized tree, which can grow up to 18 meters high with a 1.5 meter girth. It is found almost throughout India. It is not exacting in its soil and climatic

requirements and grows in dry places such as wastelands. It often grows as an avenue tree as it is a good shade-bearer, is resistant to drought and highly tolerant of salinity. It starts bearing seeds at the age of 3-4 years, and the yearly yield can vary from 80-160 kg. per tree. The seed contains about 25% oil and 70% seed cake which has a high nitrogen content and is used as manure.

Pongam oil, however, is not easily available in the Indian market. Says Manfred: "The ISS has agreed to sell 5000 litres to enable a number of extensive field tests to take place in Auroville in co-operation with them. If the tests are successful — and I expect them to be so — I want to propose to ISS that they supply Auroville with all its pongam oil requirements, so that all our diesel engines will become eco-friendly. This means that all the diesel cars and taxis, all the generators and all the diesel motorbikes will use this oil instead of diesel. It would be a great accom-

plishment for Auroville if we could show that eco-friendly transport and power generation are possible. The ISS would be very happy to prove to India that locally available oils derived from the seeds of trees are a feasible substitute for diesel, which would also make villages and small towns like Auroville self-sustainable in this respect."

At the same time Auroville would have to start its own *pongamia pinnata* plantations. A provisional estimate shows that Auroville consumes roughly 200,000 litres of diesel per year, which would require 50 hectares of plantations. With an average density of 100-200 trees per hectare this will yield about 16 tonnes of oilseeds per hectare. Such plantations are feasible in sections of Auroville's greenbelt. A test plot of 1000 trees will be planted soon. But the cultivation of this tree can also be taken up around Auroville. Manfred is confident that, once the market for the oil is estab-



Manfred

lished, the local village farmers will cultivate the trees as another cash crop, thus diversifying the present mono-culture of cashew or casuarina (a tree used for firewood) crops.

As Manfred puts it, "Mother has said that coal and oil are fossil fuels and so by their very nature belong to a dead past, and that ultimately we should get our energy directly from the sun, as it is the symbol of the Supramental. During the transitional period we can use seed-oils as renewable forms of energy. Now we start to replace diesel with pongam oil, the next stage of research will go into using this oil for cooking. Future research will concentrate on devising systems to replace petrol."

Carel

(For more information contact manfred@auroville.org.in)



Cartoon: Emanuele

MATRIMANDIR

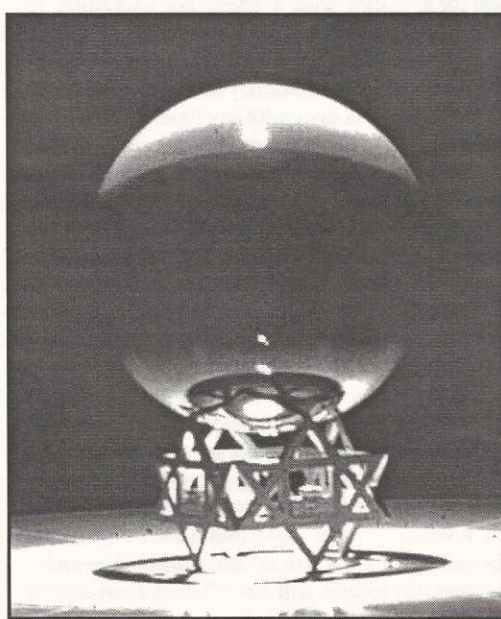
The crystal connection

by August Timmermans

This morning I had such a beautiful meditation-vision that brought tears to my eyes, and fifteen minutes later I had to rush to work, such is the life of a yuppie-yogi. But it looks that it is going to be a wonderful day today. I would like to share this vision because it concerns Auroville and all of us in the Integral Yoga.

Without really thinking of it, the image of the Crystal appeared when I was concentrating in the heart centre. So I focused on this image, and eventually I could feel the solidity and stability of the Crystal along with force and joy, and obviously the true image of the psychic. However, what was so striking was that I also experienced the Inner Room or the inner space of the Matrimandir, and eventually I felt as if I was being connected to the Matrimandir and Crystal. This gave a kind of world-wide vision of the possibility of many individuals being connected to the Crystal at the same time, and so being connected to the living force of the Matrimandir, which is a concentration of the supramental force.

I believe that this experience of this morning is telling me that the



The Matrimandir crystal

Crystal can bring us into contact with the psychic being within us, together with a living force of the Mother. And that people, worldwide, are connecting themselves to the Matrimandir and become living lines of force. This would mean a living support for

Auroville, worldwide, going parallel with one's own development in the Yoga.

We have never really exchanged much about our experience and understanding of the Matrimandir, and I think if we only could understand a tiny fraction of the significance of the Matrimandir, then this will help us all on our way to unity and collaboration and, most of all, to being true companions on the Path.

(August Timmermans, who is Dutch, lived in Auroville from 1977-1985. He worked mainly at Matrimandir where, as he puts it, "I was born". For the past ten years he has worked in the International Affairs office of Bangkok University. The above is an edited version of an email he sent recently to a forum on the yoga.)

In brief

Budget deficits

The Economy Group reported a Central Fund deficit of Rs 2 lakhs in the month of November. After a painstaking exercise, a decision was reached to cover 21 budgets fully, 15 budgets partially and not to cover 2 budgets. Special requests and requests for new budgets have been deferred.

Schools SOS

The Auroville School Board has sounded the alarm. From January 2001, there will be a severe shortfall of funds amounting to Rs. 1,70,000 (approx. US \$ 4,000) a month as funds provided by the Gateway project have been exhausted. Teachers have become involved in fundraising because of the emergency situation. There is also a shortage of space at the crèche, kindergarten and primary schools. The crèche and kindergarten are fully booked for the next school year. Transition primary school can only expand in some classes while other classes are full. Deepanam primary school lacks teachers in the age group 7-9 years old.

"If children are to be the central focus of Auroville, funds and human energies have to be redirected," says the Board.

Foresters SOS

The Forest Group reported that the foresters' maintenance of Rs 2,700/month cannot be raised as the Central Fund is in deficit. The Economy Group, agreeing that the maintenance is inadequate, advised the Forest Group to look for additional funds from sources within Auroville and outside.

Town planning problems

The Interim Development Council (IDC) has called for new members to join the IDC Monitoring sub-group as well as the Residential Zone sub-group. The Interim Development Council itself also struggles because of insufficient community participation. The creation of an Auroville Town Council to facilitate efficient town development is seen as a possible step out of the impasse.

Avitra

A new unit, Auroville International Translators (AVITRA) has started. Given the presence of people from many nations in Auroville, it aims to offer a translation service in many different languages for clients both in Auroville and abroad. Avitra would like to work together with the Auroville International Centers to share knowledge and exchange translation work.

For more details contact: avitra@auroville.org.in

"Connections" started

Connections, a centre for connecting people and work, has started operating from the SAWCHU building at Bharat Nivas. It will create a database of Auroville's human resources and of all the work situations available in order to help both units and Aurovilians.

Postal strike

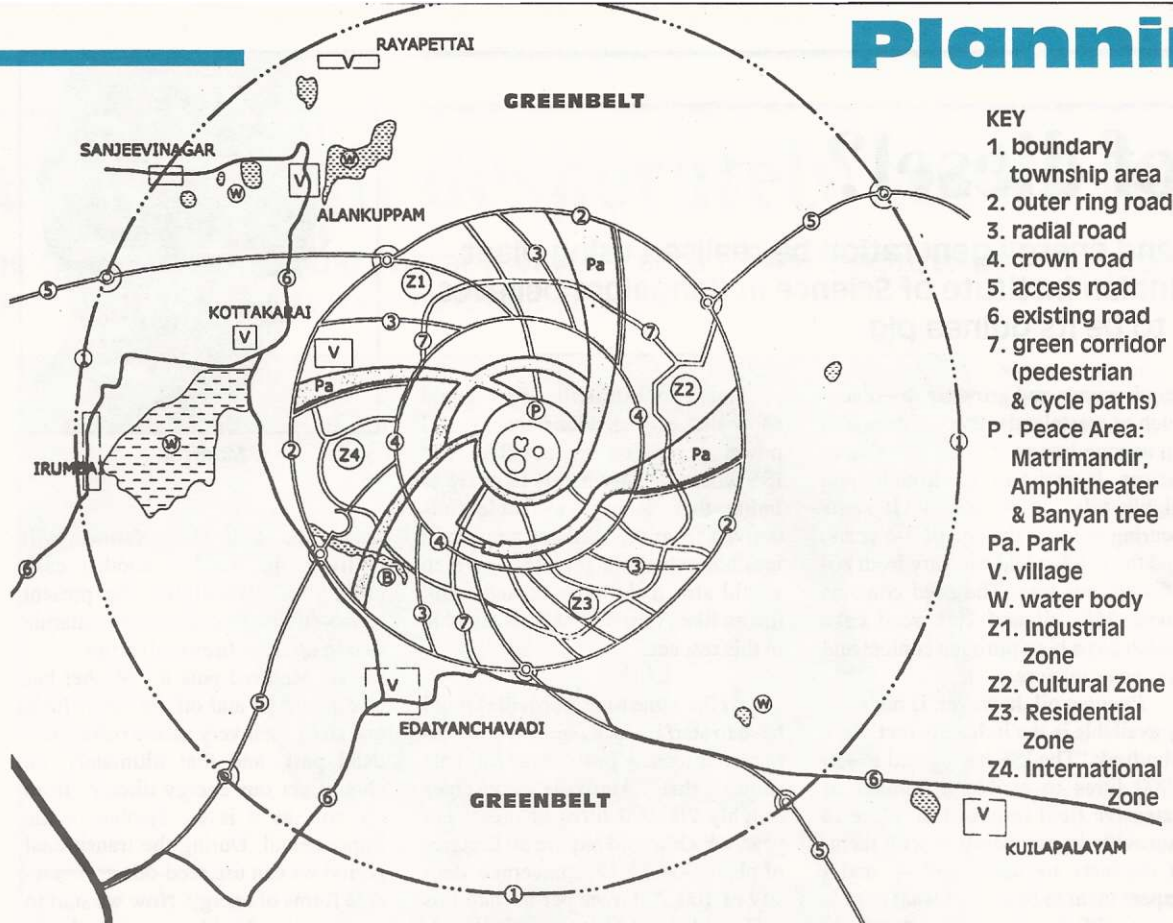
The December issue of Auroville Today was delayed due to an all-India postal strike. We regret the inconvenience.

Master Plan ready

(continued from page 1)

Why, in fact, do we need so much land for so few inhabitants? While they understood that 20 square kilometres is not large for a city with the ideals of Auroville, they could not accept the greenbelt as just a buffer in between the outside and the inside." "The word greenbelt has not been coined by Auroville," points out Mr. Dattatri, "it is a familiar term in town-planning circles. Its function is to restrict and contain the growth of the city, but in no city in India has this really worked. In Auroville's greenbelt there are already all kinds of existing developments — there are a number of village settlements, there are Auroville settlements and there are different activities. What evolved after discussions with many Aurovilians is that the greenbelt will be a green use zone which is an integral part of the township, not just a buffer, as a connecting linkage between the urban and rural areas."

"Another major observation of the town planners was that we need to define our road patterns, both those leading to the city as well as the patterns within the city," says Anupama. "In the present concept we have foreseen that there will be four main access



- KEY**
1. boundary township area
 2. outer ring road
 3. radial road
 4. crown road
 5. access road
 6. existing road
 7. green corridor (pedestrian & cycle paths)
- P. Peace Area:**
Matrimandir, Amphitheatre & Banyan tree
- Pa. Park**
- V. village**
- W. water body**
- Z1. Industrial Zone**
- Z2. Cultural Zone**
- Z3. Residential Zone**
- Z4. International Zone**

development of the city will be located, as well as reception areas for day visitors. The town planners see the reception of tourists as an area of concern, as the number of tourists in proportion to our population is very high.

"Within the city, the first need is to define the roads and their parameters, depending on the kind of transport envisaged. So far this has yet to be done. We have based ourselves on the master plan made in 1994 which indicates the Crown Road and a few radial roads. The outer ring road (the road separating the city area from the greenbelt) is still kept, but it is unclear whether the community actually opposes or accepts this road."

Village participation

Once the Human Resource Development Ministry has given its support for the Perspective Plan, the Auroville Foundation will have a certain supervisory role over the land use of a specified area. This area contains lands which Auroville may never acquire. The next steps will be to involve the Governments of Tamil Nadu and Pondicherry (a small area of Auroville is located in Pondicherry State) more, with the request that they help Auroville by respecting the land use indicated. It is equally important to contact the villagers around Auroville in order to explain Auroville's aims and

intentions. Mr Dattatri observes, "The Perspective Plan does take into account the adjoining villages and how they can be integrated within Auroville's philosophy and development. But before we go to them to ask their views, it was necessary that Auroville formulated its own ideas in this Perspective Plan, something which in fact had never yet happened. The salient features of the Perspective Plan will be translated into Tamil, and then there will be meetings with village leaders and women's groups to refine the plans and incorporate their requirements, so that there is a real kind of participatory planning. For it is only when they become convinced that Auroville is an important experiment which also works to their benefit that they will be ready to co-operate and accept the indicated land-use patterns. Without their co-operation, there will be no progress."

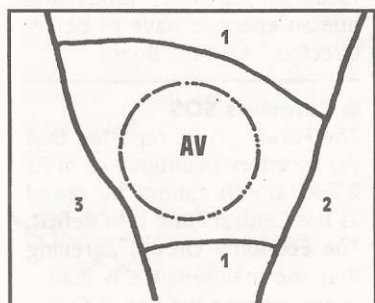
"In our contacts with the Governments of Tamil Nadu and Pondicherry we will also stress the need for a regional plan around Auroville," says Anupama. "Auroville has offered to participate in the making of such a plan, and our present work will be useful as we will be able to provide the state governments with much of the data they will require. Also, the Perspective Plan indicates that future by-pass roads — for example, the one

between the East Coast Road and the old Madras road — will have to be located outside the Auroville area. We hope that the Government of Pondicherry will initiate this effort in co-operation."

Next steps

"The next step," says Mr. Dattatri "is to start with the Development Plan, but Auroville is poorly equipped to do all that work. There is hardly a town planning department here, though I have experienced a great deal of goodwill and a real willingness to co-operate. What we need now is a professional team and a clearly defined set-up. There needs to be a senior planner, service staff, and quite a few resource people to do surveys and obtain data relating to traffic, sustainable development, economics and so on. There is also a need for more active citizen participation. The Aurovilians must start to become actively interested in the development of their city — and not only come to the town planning department to see if a projected road runs through their back garden. The future town-hall as foreseen in the Asia-Urbs project [see AVToday October 2000] must become an active hive for the sharing of experience in order to materialise the envisioned township in which all of us have a full stake."

Carel



1. proposed by-pass roads
2. east coast road
3. Pondicherry-Tindivanam road

roads towards the city, which will terminate at four so-called nodal points on the outside of the greenbelt. These points will serve as transit stations where people can shift to environment-friendly transport to go anywhere within the city. They will also be places where activities between the urban and rural areas and activities for the further

Towards a motor-free city

Helmut, an Aurovillian architect, on saving our city from the motorcar.

The last 50 years have shown that the car cannot remain the instrument of urban mobility without destroying the city. Cars and other motorized vehicles are the cause of serious environmental, social and aesthetic problems. Among other things, they kill street life, foster urban sprawl, contribute to noise and air pollution and are inefficient users of scarce energy resources.

Better alternatives are available. Most European cities now have car-free areas in their centres, and everywhere these are in the process of being expanded. In fact, the completely car-free city is possible, as successful examples like Venice demonstrate.

Car-free cities will probably become the norm this century due to energy constraints. It seems appropriate, therefore, that Auroville should be willing to take a lead in this. But how could we design Auroville as a city which would function without cars and motorbikes?

Recently Mr. Hans Billinger, a traffic planner who lives in Stuttgart, Germany, told some Aurovilians that he considers the structure and propor-

tions of the Galaxy Plan are ideal for a car-free culture. All areas of the city are within 5 or 6 minutes walking distance from the Crown Road. The outer ring road could take motorized traffic and connect with centralized parking areas there. Onward travel into the city would be on bicycle or public transport via the radials and along the Crown Road, which could become the backbone of a public transport system (buses, tramway or monorail). The Crown Road is 4 kilometres long. Assuming an average speed for public transport of 16 kms./hour (including stops) the Crown Road can be circled within 15 minutes. If only one bus or tram is circling constantly, and one walks to and from the bus, it would still be possible to reach any point in town in less than 30 minutes (see drawing).

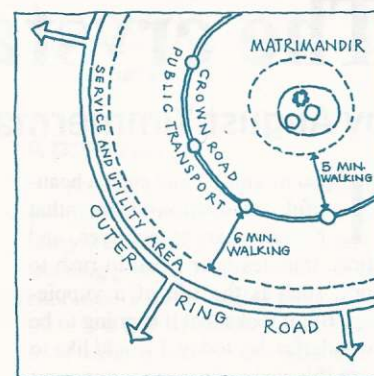
Inside the outer ring road area, transport of people and goods would be by pedal-power (there will be a network of pleasant cycle and walking paths) and electric-powered vehicles: they would not overpower the streetscape because they are quiet and slow. (In September, 1965, Mother noted that electrically-powered vehi-

cles with a speed not exceeding 15 kms./hour would be used for transport in the city.) Doctors, ambulances and other emergency transport could enter, of course, with any type of vehicle.

This raises the question of what would happen to our cars and motorbikes. If we feel like keeping them, they would only be used for transportation outside the city area and could be kept in secure parking areas or garages along the outer ring road (exceptions might be made to allow taxis carrying people with a lot of luggage or sick and elderly persons into the inner city area). Also located on the outer ring road will be large storage-yards for accommodating supplies while awaiting dispatch into the city.

The pedestrian-based city would have a special atmosphere. The architecture will be different from that of auto-centred cities, providing a 'closeness' found in towns before the advent of the automobile. There will be visually-interesting passageways, as well as urban spaces based on a human scale.

This ideal plan cannot, of course, be established immediately. Major construction activities in the city will



continue for a long time and, as yet, Auroville lacks the means to substitute non-polluting transport for the diesel-powered brick lorries and delivery vans. But if we are agreed upon the aim of creating a pedestrian-based city, then we can begin outlining steps towards its implementation.

At present there are many millions of automobiles in the world, and the numbers are increasing almost exponentially: for those who don't own one, particularly in the developing world, the car remains the badge of prosperity and modernity. Can we tolerate the noise, danger and global climate change which more and more cars will bring? Or is Auroville willing to demonstrate that another way is possible?

Features of the township

The Auroville area extends over 20 sq. km. Auroville has two identifiable parts — the City, 5 square kilometres in extent, which is distinctly urban, and the Green Belt, 15 square kilometres in extent. The City Area is delineated into four zones — Residential, Industrial, International and Cultural — each with its specific use, centred around the Peace Area which includes the Matrimandir, the Amphitheatre and the Banyan Tree. The Green Belt, where also six village settlements are located, consists of areas of farming, regenerated forests, and areas for recreation and other non-urban uses and will be a rich laboratory for sustainable development practices.

The population of Auroville will consist of peoples of all nationalities voluntarily attracted to it to serve humanity. It is designed to accommodate 50,000 residents when fully developed, the majority of which will live in the Residential Zone of 173 hectares. The Master Plan envisages a 1st phase with a population of 15,000 by 2010 and 5,000 by 2006. The projected density of the Residential Zone is 240 people per hectare.

The Township's design is eminently suited for cost-effective decentralised systems in terms of water supply, waste treatment and recycling. Auroville's goal in terms of energy is to become entirely independent through development of alternative sources, although in the initial years it will draw energy from the grid. The road system has been designed to encourage use by non-polluting traffic. A network of cycle and pedestrian paths is envisaged in the green corridors within the city area.

The indicative Development Plan 2000-2006 envisages an investment of Rs. 350 crores spread over the different zones to enable Auroville to reach its full potential progressively and quickly. This will also help Auroville to extend the benefits of its development to the surrounding villages and bioregion.

The Development Plan is complemented by a set of zoning regulations that will help Auroville to develop and channel all land uses within 20 square kilometres into planned and desirable directions. The Plan has also identified an organisational set-up that will assist the process of plan preparation and implementation to achieve the goals, objectives and vision in the establishment of this Universal Township.

(from the Master Plan)

Auroville: what kind of future city?

What is the latest thinking about making cities more livable and sustainable? Do we have anything to learn from the urban renewal movements which are becoming increasingly influential in the West?

Here's a paradox: for the first time in history more than 50% of the world's population live in cities, yet surveys demonstrate that many city dwellers would prefer to live elsewhere if given the chance. Why?

The answer lies in understanding how and why cities have evolved.

Cities past and present

The first cities were constructed at least 5,000 years ago. People chose to live in cities because of the need to defend themselves against enemies, but also because cities, in their density and diversity, offered a more diverse, stimulating and cultivated lifestyle than that of smaller social units. It's no accident that the term 'civilization' comes from the same root as 'city'. "People come together in cities in order to live," wrote Aristotle. "They remain together in order to live the good life".

Most early cities were small: when Greek cities approached about 10,000 they tended to throw off new colonies, as if they sensed that a larger unit would be unmanageable. By the Middle Ages cities in Europe, the Middle East and China were becoming larger, often approaching 50,000 inhabitants. These cities were high in population density, yet they were so-called places because they provided, through their squares and secluded streets, plenty of opportunities for people to meet each other and experience community. From a modern point of view their inhabitants lacked many conveniences yet, as urban historian David Morris points out, "there is solid evidence that their standard of living compares favourably in many respects with that of our own era. For the vast majority of people today, attaining the living standard of the typical medieval city inhabitant is still a distant dream."

The industrial revolution created a new kind of city. As the mill and factory owners constructed thousands of cramped, featureless dwellings for their workers, cities expanded enormously and their ethos changed. Now profit became more important than culture, mobility more important than social interaction. This was reflected in the fact that the volume of traffic within and through cities increased exponentially, public spaces were reduced, and urban architecture became more functional, linear than the 'organic' style of the medieval city. The great buildings of the modern industrial city are banks and office blocks rather than the cathedrals and temples around which pre-industrial cities coalesced. The industrial city remains the dominant model today. However, some of the old cities of India, China and the Middle East have preserved more of their medieval fabric, and along with that a greater sense of community.

As city life became less pleasant, it generated a reaction. In the late 19th century, the new discipline of town planning saw high-density living as an evil, responsible for major health and social problems. Consequently the concept of the 'garden city', a city of parks, private gardens and generous spaces around dwellings, was born. The garden city, in turn, spawned the concept of 'New Towns', relatively low-density settlements where strict zoning principles were applied to ensure that residential areas were separated from places of work and industrial manufacture.

New Towns were most popular in Europe. Meanwhile, in post-1945 America, the government provided loans to city dwellers to buy homes in newly constructed suburbs: at the same time an extensive freeway system

began to be constructed. The result was a mass migration from inner city areas to the suburbs, and the continuing development of those suburbs along the routes of major roads in what has become known as 'ribbon development' or 'urban sprawl'.

The worst of all possible worlds

The consequence of all these developments is a worst-case scenario. The suburb, as urban planner Peter Newman describes it, "is the most unsustainable form of settlement yet developed" because detached houses with large gardens take up an enormous amount of land which could be used for agriculture, the distances between residences and shops often means that car ownership is essential, and low-density settlements weaken the sense of community. Meanwhile, many inner city areas have become vandalized ghettos for the poor and marginalized.

Traditionally there was a reciprocal relationship between a city and its surrounding countryside: the city provided a market for the farmer and rural artisan. However, today's megacities, whether of the East or West, have entirely distorted this relationship. To sustain their enormous metabolisms, these cities suck an enormous amount of energy — in terms of food, petroleum, raw materials, labour, intellectual capital etc. — not only from the sur-

rounding countryside but also from countries far away. The pollutants and waste they generate are then 'externalised', released into the air, the soil or the sea to poison the lives of those far beyond the city limits. "In the name of progress, development and growth," writes Satish Kumar, editor of *Resurgence* magazine, "modern industrial cities have embraced the manipulation of nature, the subjugation of people and the exploitation of the countryside."

use. Moreover, the concentration of production and consumption makes for more efficient use of resources. In recognition of this fact, a new movement aimed at revivifying existing cities and creating 'sustainable' new ones has grown up in the past 30 years. Various known as urban ecology, neo-urbanism, the eco-city or sustainable city movement, it attempts to make cities once again places of exuberance and community by "making them greener and more human" (Peter Newman). This involves, among other things, creating high-density but diverse neighbourhoods where homes, shops, public spaces and offices are intermixed. Each neighbourhood would be well-served by public transport, but many smaller roads and streets would be traffic-free to allow them to become the 'outdoor rooms' which are such a valuable feature of medieval cities. Pedestrian and cycle paths would run everywhere: in fact, everything would be arranged to discourage the use of private motorized vehicles, for these are one of the main sources of air and noise pollution (and social alienation) in cities today.

In the new type of city people would live in close proximity, but architecturally there would be much greater variety in styles of construction. However, the 'language' of a particular neighbourhood or bioregion would be preserved through the use of local materials and indigenous stylistic

a city has to have well-defined limits to avoid urban sprawl.

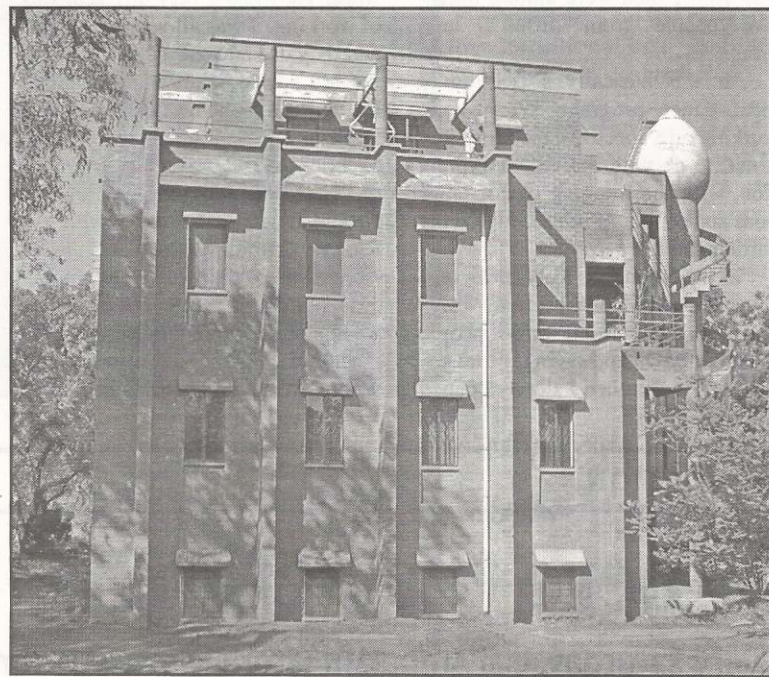
The relevance to Auroville

How far is this relevant to the proposed city of Auroville? In many ways, Auroville is a special case. A city which puts Matrimandir at its centre is clearly not based upon the same premise as the industrial city. Again Auroville began by restoring rather than by laying waste its environment, and the designated city area is very

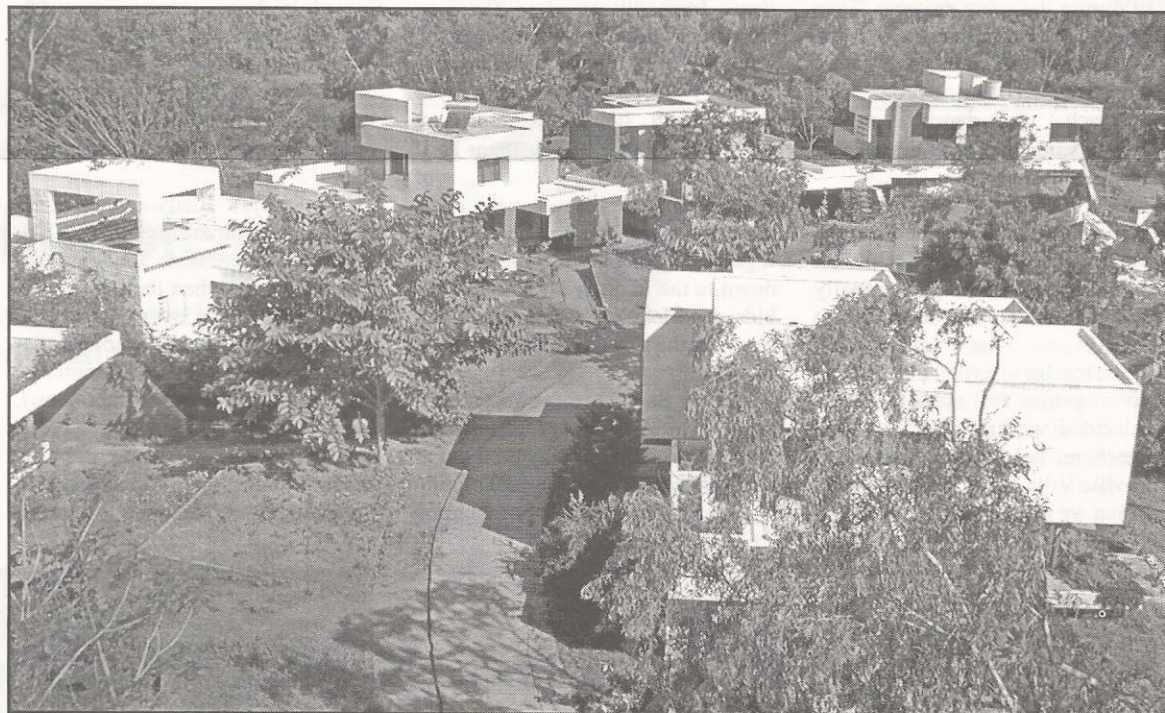
ment to a particular place. Neo-urbanists designate these 'organic' cities.

The question is, are we in Auroville with our present rather fragmented sense of community (and zoning principles which will ensure that shops, cultural arenas and residences are kept separate) able to create such organic spaces? Or will we take the failed New Town route of 'engineering' social spaces which attract nobody?

Again, a city planned for 50,000 in such a small area will need to be quite



Which way will we go? Medium density apartments in Vikas (top), or suburban housing in Surrender (below)?



high-density. Yet relatively few Aurovilians seem ready to live in such close proximity at present, preferring the unsustainable suburban model of large gardens and thirsty lawns even within the designated city area. Then again there is the question of architectural style, the 'language' which identifies us as a community rather than as clusters of individuals. Cities like Siena had a 'pattern language' which enabled great diversity to be expressed within an overall unity. Auroville as yet lacks such visual cohesion, reflecting more the different styles and preoccupations of various architects.

Then there is the question of the roads. Today, aspects of the 'Galaxy' plan are retained in the planned configuration of the feeder roads which will sweep in regular arcs through the zones. As these 'geometrically pure' roads take no account of the landscape or of human-scale perspectives, this seems to represent the triumph of aesthetic over organic principles of growth.

Can Auroville be a model?

When Mother spoke of Auroville as 'the city the earth needs' it seems she was referring to the need for Auroville to spiritually embody and resonate principles of human unity and truth. Yet in terms of modern India, which contains not only some of the biggest but also some of the most polluted cities on the planet, it seems reasonable to suggest that Auroville should also find practical ways of alleviating these problems by developing practices and techniques which can be replicated in urban India. For as the proportion of humanity which lives in cities continues to grow, it's time to recognize, as the town planner Harley Sherlock puts it, that cities must become "the major ingredient of any ecologically sustainable way of living in the 21st century".

Alan

Smiling his way through America

Hailing from Kuilapalayam, 24 year old Kalya (Satyamoorthy) grew up in New Creation. During his last two years in After School, he also worked as a trainee in landscaping with Francois Grenier, and subsequently completed some landscaping projects in Pondicherry.

Last summer, he and Satyavan, a sixteen year old who also grew up in Auroville, had the opportunity to travel to the USA for four months. Melissa Michaels, who came to Auroville fifteen years ago and ever since has felt a very strong connection to the place, was the one who invited them to Boulder, Colorado, to take part in a one month dance program which she organised. The young men were among thirty-five people from different age groups.

"It was basically a free-movement dance program. We weren't working on a specific dance form but it had to do with individual expression, with the bringing out of emotions and communication between the participants."

In the beginning Kalya was very shy and didn't involve himself. "I was quite shocked at all those people breaking down and crying, or laughing loudly. But then I slowly opened

up, and it was very interesting. I discovered a lot about myself..."

Melissa Michaels made sure that during their stay with her, Kalya and Satyavan felt at home and lacked nothing. "We got very close, we became a part of her family, she really was like a mother to us..."

After that, for three weeks he worked for a landscaping company. "It was three weeks of hard physical work. They had a very different way of working, it was all very organized, and they use a lot of materials which are not environment friendly. But I learned a lot of new techniques for work in landscaping. It was a good experience."

Then the two of them left for New Mexico and stayed with the Rusky family, who also visited Auroville in the past. The family arranged for them to attend a two week course where they studied permaculture. "At the end of the course we had to give in a written project

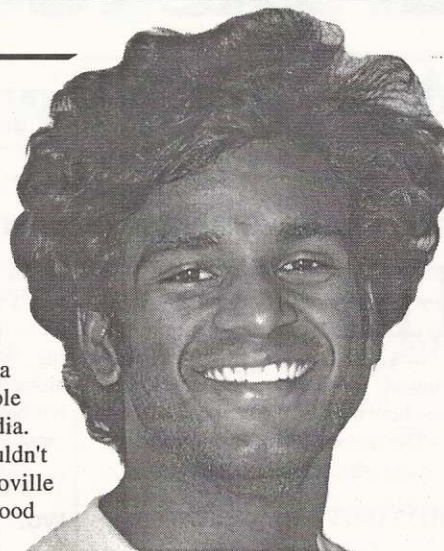
and we received a certificate. I feel happy to have done the course as it is important to have knowledge of permaculture for landscaping."

After that, Kalya went his own way. He spent two weeks in Sacramento, California with the Alexander family, then he left to Seattle, where he stayed with Bill Leon. In Seattle he was invited to Washington University to give a speech to a group of twenty students planning to come to visit Auroville in January. "I was so nervous," I told Bill: "I've never given a talk in front of people like those before, I don't have the experience." Bill told him, "Don't worry, you only need to know how to smile. "And sure enough, as Kalya has the sweetest and most disarming smile, his speech was a success and the students were very impressed by and eager to experience Auroville.

All in all, Kalya had a very good stay in the US and learned a lot "I

met a lot of very friendly and interesting people and made a lot of new friends. Most people showed great interest in India. Some were very moved and couldn't believe that a place like Auroville actually existed. I think it is a good experience to go out of Auroville, to experience the differences, because then you realise how important and special Auroville is and you are so happy to come back. Now, after this travelling experience, I somehow feel the world is so small and Auroville and what it represents is so great, so vast."

In the future, Kalya wants to concentrate on his main interest, landscaping. He would eventually like to establish his own office. Of course, it will be difficult and challenging in the beginning, but Kalya feels confident that in the future, "I will be able to implement my creativity. I hope that I will receive project offers



Kalya

where I can manifest all of my dreams and my imagination.

"Having grown up in New Creation, I still feel a very strong relation to it. New Creation has done and is still doing incredible work in bringing up so many Tamil children, in helping them integrate into Auroville, and in opening up new possibilities for their future. My life wouldn't have been the same if New Creation hadn't existed. It was my stepping stone to what I am today."

From an interview by Emmanuelle

EDUCATION

Where the action is

Every Saturday, Isai Ambalam (literally a "stage for music") school offers classes in various performance arts.

Auroville Village Action Group (AVAG) collaborates with over 30 rural schools to supplement the primary education they offer. One of the initiatives is a summer camp in Auroville.

Auroville Village Action Arts (AVAA) came into being after the summer camp this year. The summer camps on dance, drama, sports etc. brought to light the talent and enthusiasm of the rural school children which would never have blossomed in less encouraging circumstances. The inspiration for AVAA came from Aurelio, an Aurovilian who was touched by the outpouring of joy that greeted the music and dance-based performances held at Vérité

Hall during the summer camp. Then an AVAG team of Bhavana, Partha, Shivaraj, and Sankaran got together and designed an ongoing programme to teach folk-dance, music, Bharatnatyam, painting, drama and physical education to the children.

As expected, AVAA drew a tremendous response right from the word go. The number of children kept increasing from the originally conceived number of 100 to almost 250, driving the "artistically" inclined teachers beyond the fine line between genius and madness. Then we decided we had to draw a line somewhere, before AVAA became Auroville Village Action Asylum!

First we decided to eliminate stu-

dents from 4th standard (as they would have their chance next year), retaining only the 5th standard students. The selected students were issued with Identity Cards (you should see them display them as if they had become Members of Parliament!) to prevent new additions to every camp. The teachers regained their equilibrium and got down to the intensive training of the kids. And Isai Ambalam once again regained the air of a "Gurukul" that it is.

Every Saturday the chosen children, some of whom walk miles to reach there, assemble by 9.30 am at the Isai Ambalam Resource Training Centre. The day begins harmonious-

ly with 15-20 minutes of live music. Many Aurovilians, and as many instruments, have performed to a joyous ovation. Thereafter the young "shishyas" (disciples) move in an orderly manner to the classroom of their chosen "gurus" (teachers).

In Saroja's Bharatnatyam class the young aspirants begin with the traditional namaskar, touching the dance floor and then their eyes with their hands. Then over 20 pairs of hands and feet move in unison displaying various "bhavas" (emotions) and "mudras" (hand symbolisms). Meanwhile colours are being splashed about on white drawing sheets with gay abandon in Sivakumar's drawing class.

Elsewhere Selvam has the volleyball in eternal flight from hand to hand, while Arjuna's drama class is a world apart of scenes and plots. The vigorous rhythmic movements in Murugesan's dance class makes passing visitors almost involuntarily dance on a step or two, only to move towards the space where Tamil songs are rendered in Karpagavelli's mellifluous voice.

Truly a new step has been taken by Auroville in its rural education programmes. And the delight in the air at Isai Ambalam every Saturday morning augurs well for AVAA's future.

Sankaran

Constant remembrance

Tamil students from some Auroville schools learn about consecration

Consecration, as Sri Aurobindo has pointed out to his disciples, is a powerful way of practising Integral Yoga. When rightly done, consecration leads to the constant remembrance of the Divine and enables practitioners to feel the Divine in and around them in their day-to-day life. Consecration helps one to live and act at one's highest level of consciousness all the time. As this quality is very essential for the development of Auroville, it is important that Auroville students learn to become aware of this process and observe its effects in their daily life.

In November two Auroville teachers, Lourdes and Subash, held a camp at New Creation to show children how to consecrate their daily acts to the Divine. Twenty two students from New Creation School, Isai Ambalam and Arul Vazhi schools participated in the camp.

The children were told about the meaning of consecration in its simplest sense; that is, remembering

Mother in whatever one does and offering that to Mother. Then activities, mostly in the form of games, were undertaken by the children to learn the practice of consecration. Out of the 10 steps given by the Mother for discovering the psychic being, we took up the first three steps which are the consecration of eating, sleeping and actions.

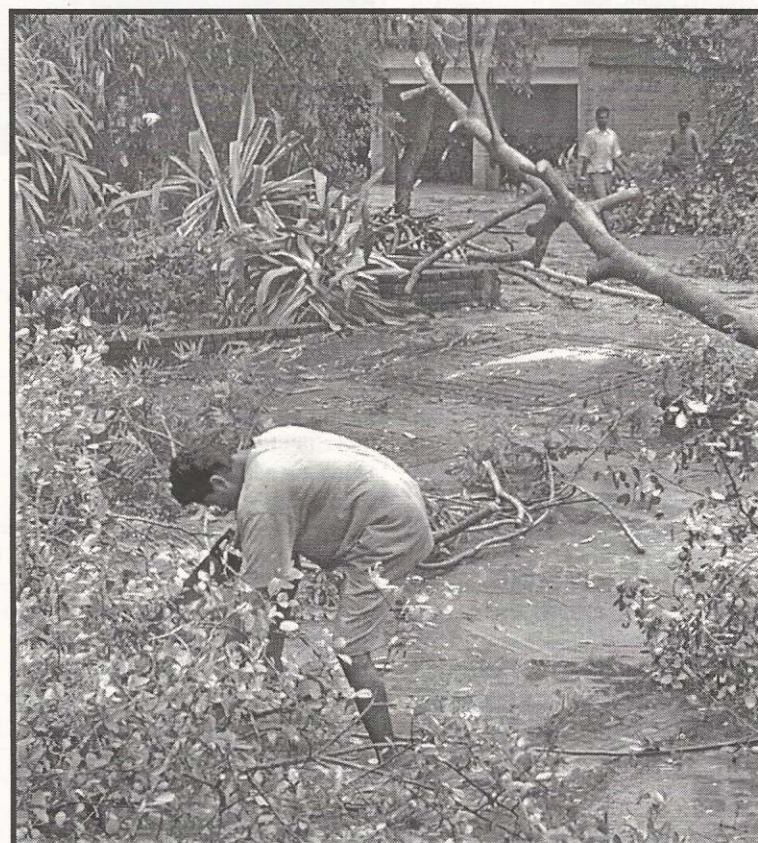
On the first day the activities of eating and sleeping were taken up for consecration. On the next day, after some warming up exercises, the activity of walking was taken up for consecration. Surya Namaskar (a hatha yoga exercise) was taught on the third day. Then the children visited Sri Aurobindo's Ashram in Pondicherry where they went to Sri Aurobindo's room and had their lunch in the Ashram dining room. While eating, they consecrated each morsel of food. In the evening, they saw a video on the Mother and were given a 7-page booklet containing some writings of the Mother and Sri Aurobindo pertaining to consecration and a small piece of writing on self-

consecration by Karmayogi, a great Tamil disciple.

On the last day they were asked to meditate on different flowers and later they were shown a video about flowers and the significance that the Mother gave to them. Emphasis was placed on the activities, observations and sharing of the children, and explanations and answers were kept absolutely to a minimum.

Judging from their evaluations, it turned out that the children really enjoyed the camp and actually felt the Mother's help in all that they did. Prabhu, one of the participants confessed, "I was reluctant to participate in the camp as I was told by my friends that there would be only meditation and it would be boring. But, on the contrary, the camp was delightful and interesting and I learnt several things." As requested by the participants, we now plan to continue practising consecration regularly at such camps.

Lourdes



Hundreds of mainly non-indigenous trees were damaged and uprooted by a severe cyclonic storm which hit the area on November 28th. The Auroville Electrical Service team worked overtime to clear trees, but it took nearly five days to restore power in some communities.

Photo: tree clearing work at Samasti

The need for a global renaissance

Robert Thurman is Professor of Indo-Tibetan Buddhist Studies at Columbia University, an acclaimed translator of many Tibetan texts and co-founder and President of Tibet House, New York.

At the end of November Robert Thurman gave a talk about India and the new spiritual renaissance at the Pavilion of Tibetan Culture in Auroville, in which he mentioned that the main spiritual gift of India to the world is 'inner science', the knowledge of how to cultivate the soul.

Auroville Today: From your experience of studying Tibetan Buddhism and of living and teaching it in the West, do you think there is a difference between eastern and western notions of consciousness?

I don't believe that East is East and West is West. The key factor in distinguishing between societies, in my opinion, is the presence or absence of militarism. There is a strong addiction in some societies to violence or militarism, and the presence of violence in a society makes people shut down their sensitivity tremendously. I think of all the Asian societies India, through a long and steady effort, had become the most open, but then they were rebound again by being conquered by the Muslims and the Europeans.

AVT: Yet Westerners continue to be drawn to India and the East. Why?

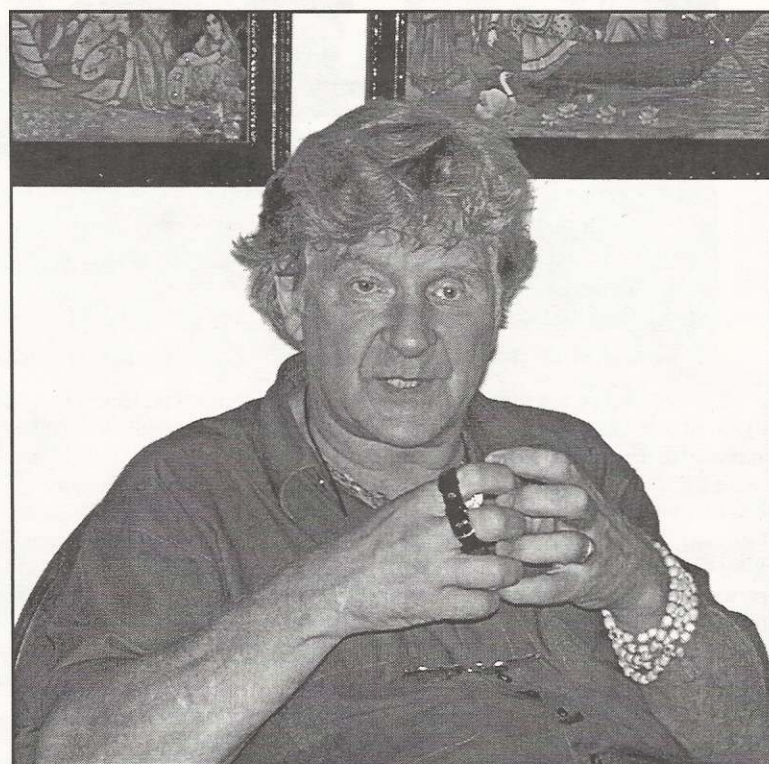
Here I find Sheldrake's concept of morphic resonance is helpful. It is not surprising that people have amazing experiences in ashrams or in the Himalayas because there the resonance is such that there is more room for them to relax and let go, and than there is more energy available for the

individual to do inner work. Western people have come to India and learned a great deal here. In this context, I think it's very crucial for the spiritual health of the world that Tibet is restored, the spiritual Tibet, to help us with the new leap everyone has to take.

AVT: What brought you to Auroville?

I came here because I wanted to see the experiment and to be a tiny bit helpful with the Pavilion of Tibetan Culture. Fifteen years ago in New York we created Tibet House to help preserve the very important but neglected Tibetan culture, so I was delighted that Auroville is also doing that. I think Auroville's marvellous, I love Matrimandir and people here have a wonderful spirit: it's wonderful that many people from many nations are trying to live in a higher way. Many young people on this planet, looking at the challenges the planet may be facing over the next 50 years are discouraged, but they should be encouraged to come here and look at what you are doing. Auroville is not centred around a living guru, like one of the Tibetan lamas, where an active charisma is experienced. Here you have a vast body of knowledge and writings, but without a living teacher you are forced to be more mature, more self-reliant.

AVT: What do you think is the most important task facing humanity today?



Robert Thurman

It is to develop an alternative to the financial and intellectual powers which are in control because, at least in the West, everybody's brain is locked up in a materialistic culture. My idea of a global renaissance is based upon the way of inner science, a new way of thinking about and understanding problems from an integral view. This means we should energetically pursue new forms of education, like teaching samadhi at high school

and having institutes for advanced studies which bring together spiritual people and scientists.

This is why, for me, a place like Auroville is of the utmost importance, because it is a place of education where you try to understand the nature of reality and yourself: where practically, intellectually and spiritually you work from the base of inner science.

From an interview by Bindu and Jana

Short news

● Christmas meditation

On the 25th of December a silent concentration was held in the Amphitheater.

● Welcoming 2001

On the evening of December 31st and throughout the night, the Inner Chamber of the Matrimandir and the area around the Banyan tree were open to everyone in Auroville for individual concentration. There was no traditional New Year bonfire.

● Lecture

Georges van Vrekhem spoke at Savitri Bhavan on the overman, the transitional being between mankind and superman.

● Dance performances

· Sangeeta Dash gave a performance of Odissi dance and Manas Rath of Chhou Dance
· The Shakti Bharat Natyam Company performed Bharat Natyam dance with a team of 5 acclaimed dancers and 4 world-class musicians.

Happy New Year

The Auroville Today team wishes all its readers a happy 2001 and thanks them for their continuing support.

INSPIRATION

'Pay me in bubblegum'

A young boy's hand is saved in a series of operations. And an original deal is struck.

In May of last year Istfan, an 8-year-old Belgian boy, slipped while climbing a tree. He managed to hold on to an electric wire. But when his foot touched the ground the current struck. Frantically he tried to get loose, then luckily the power went off. With a severely burned hand he ran to his mother Katelijne, who at first thought that he was carrying a jellyfish. But when he told her about the electric cable, she immediately rushed him to a nearby hospital.

Having worked as a nurse in Belgium, she knew that an electric shock could severely affect the heart and organs. Though these were found to be in order, the hand wasn't. The doctor's verdict was that nothing could be done save amputation, a conclusion which was repeated by all the other specialists consulted. Katelijne stubbornly refused to accept this and inwardly asked the Mother for help. Then, on a visit to the Auroville Health Center, the doctor on duty gave her a brochure about a new hospital in Chennai which happened to employ the best hand specialist in India. Katelijne phoned. The professor in charge told her to come to immediately, and a few hours later the boy was hospitalised. The series of operations began next morning at 5am.

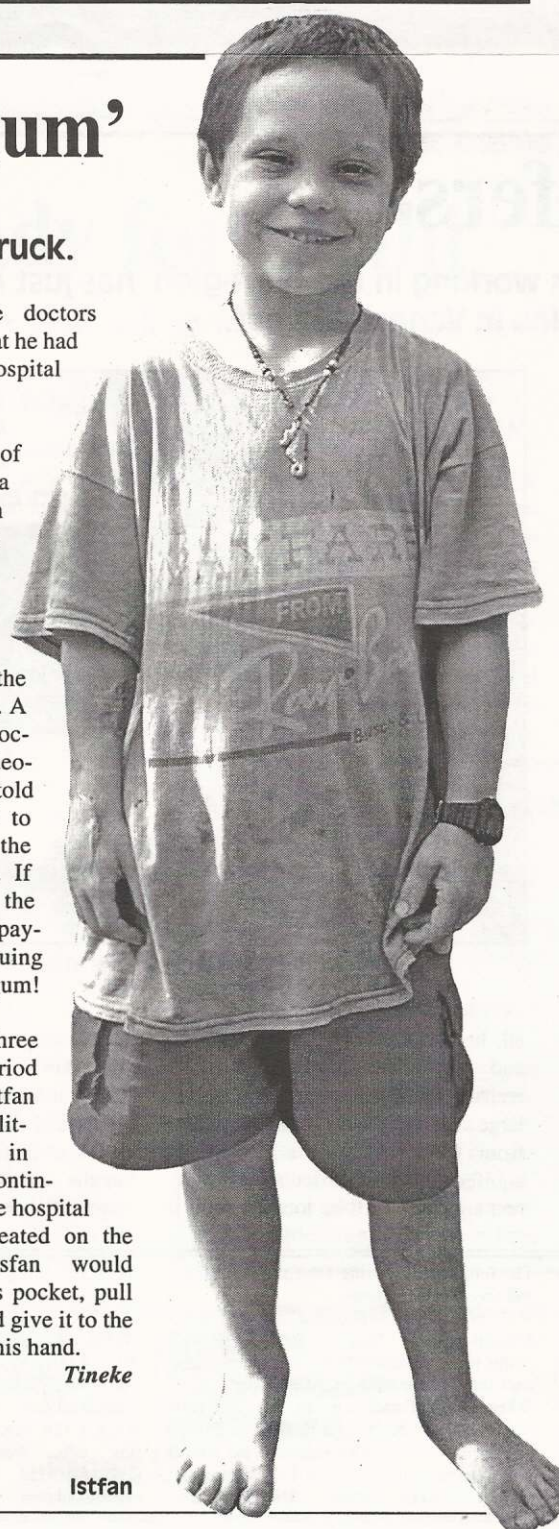
It took four operations to save Istfan's hand. He, however, felt miserable because of all the operations and medications, and after six weeks in hospital pleaded to be allowed to

go back home. The doctors agreed, but told him that he had to report back to the hospital every few days.

Istfan was aware of the fact that, though a discount had been given, his treatment had been very expensive. So at one point he decided that it was time to discuss finances with the specialist, man to man. A deal was struck. The doctor, who had been videoing all the operations, told Istfan that he wanted to continue filming the progress of the hand. If Istfan agreed to this, the doctor would accept payment for the continuing check-ups...in bubblegum!

And so, two or three times a week over a period of many months, Istfan and Katelijne visited a little sweet shop in Kuilapalayam before continuing on their way to the hospital in Chennai. There, seated on the treatment table, Istfan would solemnly dive into his pocket, pull out the bubblegum, and give it to the doctor who had saved his hand.

Tineke



Istfan

LETTER

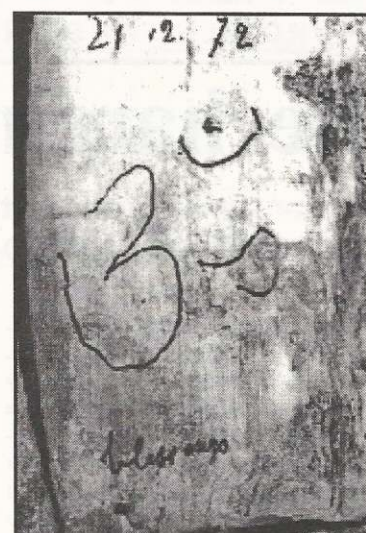
Dear Auroville Today,

In the last issue there was a reference to the Matrimandir foundation stone. In fact, there were two foundation ceremonies at Matrimandir. The first occurred on 21st January 1971. At that time, the land on which the Matrimandir was to be built could not yet be purchased. In any case, there would have been no point in laying a foundation stone on the future Matrimandir site since the first step would involve the digging of a huge hole.

Therefore, it was decided to lay the foundation stone under the west path leading to Matrimandir. A hole more than two meters deep was dug to lay a sandalwood casket given by the Mother. I'm not sure that anybody knows or remembers what was inside it. Nolini lay this casket, as requested by Mother, and a grey granite stone was placed above it at ground level to mark its position. Soon afterwards, the centre of Matrimandir was shifted northwards and, as a consequence, the west path also shifted. I've no idea what happened to that granite stone.

One year later, the excavation was complete and a foundation stone could be laid on the site itself inside the fourteen metre deep pit. In your last issue Ananda Reddy incorrectly described this stone as being "hard granite". For the sake of History, here is the story of that fortunate stone.

During the excavation, when the village workers had already dug some eight metres deep, a small piece of fossilised wood was unearthed. I was supervising the work at the time and, as the stone fascinated me, I took it back to my room in the Matrimandir Workers



Matrimandir foundation stone

camp. I used it immediately to keep my door ajar. When the search for a foundation stone for the soul of Auroville began, I thought of donating my piece of fossilised wood but I was hesitant at first to part definitively with something which had such nice memories attached to it (as well as being so useful). Finally, I agreed to give it a brighter future and an opportunity to make a leap in its own evolution.

One side of that fossilised stone was polished and given to the Mother who wrote "21.2.72" along with AUM and 'blessings'. Two young people were chosen to lay the stone under the future east pillar of Matrimandir — Piero's eldest daughter, Marta, and Ramalingam, a young child from a local village who joined Auroville and still works at Matrimandir. The construction of Matrimandir began with the first pouring of concrete which sealed the destiny of that stone.

Alain Grandcolas

Singing together unites

Nuria talks about the cohesive effects of group singing and how she gradually discovered her vocation as a choir conductor

"Singing together makes people come together. For you have to listen carefully to each other, reduce sometimes the volume of your own voice and be always sure you sing in tune together. That is an effort. If the choir has improved in quality, it is not only because it has worked so hard during the past years, but also because the quality of the human interactions has improved simultaneously."

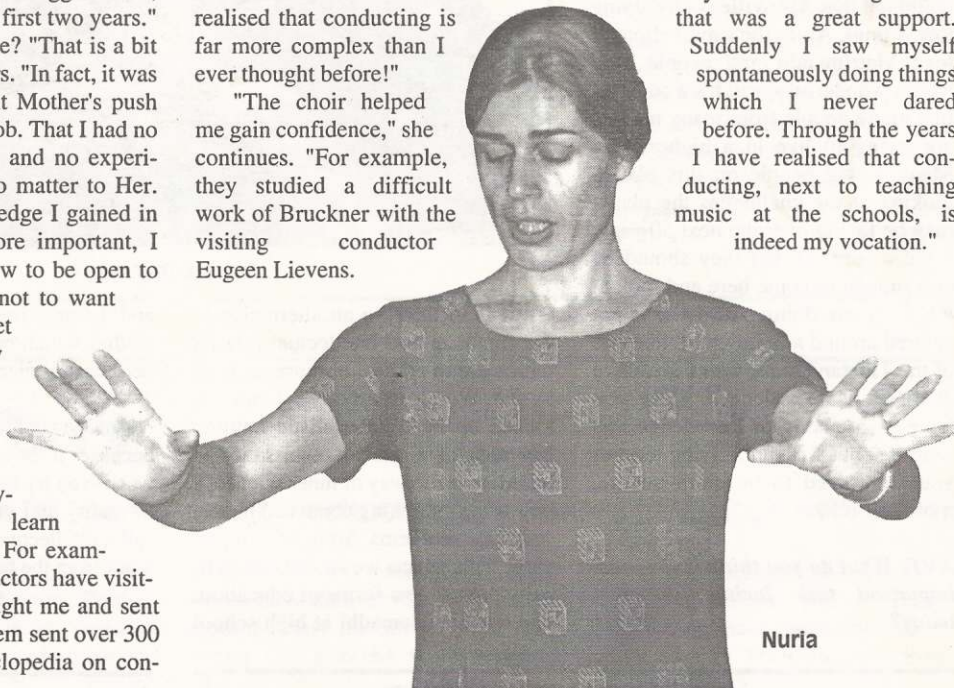
It is now nine years since Nuria reluctantly took up the conductor's baton to guide a group of amateurs, most of whom are not able to read music. But this is not apparent. At present, the level of the choir can be described as "advanced" to "occasionally very good." "There is an eagerness to learn," explains Nuria. "After a full day's work they come here twice a week and stand for 2 hours for rehearsal. And there is an amazing drive to take up difficult pieces. If we don't always do them, it is more often because I hold back. For I am not a professional, I am learning along with them."

Though Nuria comes from a family of musicians, conducting never appealed to her. "I wanted to sing, and when I was asked to start conducting, I was very reluctant. I struggled a lot, especially during the first two years." Why did she continue? "That is a bit personal," she answers. "In fact, it was because I always felt Mother's push that I had to do this job. That I had no technical knowledge and no experience did not seem to matter to Her. The technical knowledge I gained in the process. But more important, I gradually learned how to be open to Mother's influence, not to want for myself, but to let something flow through me. In this way, I gained incredibly much. It was like opening a door and everything I needed to learn came automatically. For example, so far four conductors have visited Auroville and taught me and sent me books. One of them sent over 300 scores and an encyclopedia on con-

ducting! Another conductor judged that I was a natural conductor and had already got 90%, then told me to now learn the 10% which is technique. I started and have now realised that conducting is far more complex than I ever thought before!"

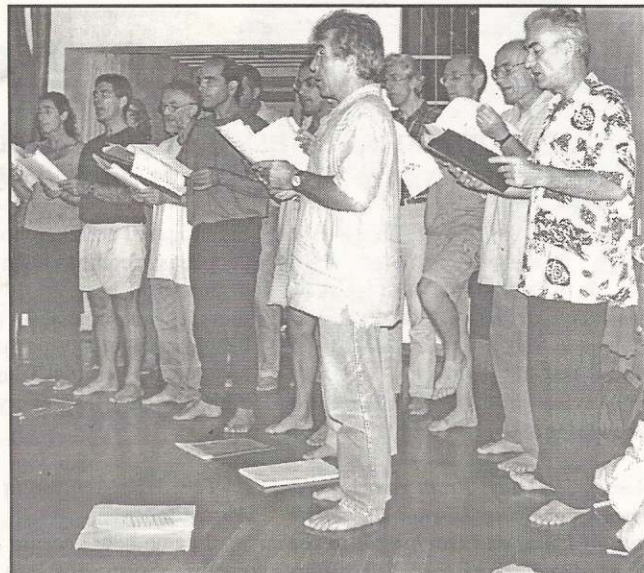
"The choir helped me gain confidence," she continues. "For example, they studied a difficult work of Bruckner with the visiting conductor Eugene Lievens."

After he left I was asked to continue. I started with trepidation and initially copied Eugene. Then they said, 'Don't be like him, follow your own style! You'll manage!' And that was a great support. Suddenly I saw myself spontaneously doing things which I never dared before. Through the years I have realised that conducting, next to teaching music at the schools, is indeed my vocation."



Nuria

Carel



Twice in December the Auroville choir drew a full house with a concert of favorite encores

The choir consists at present of around 40 people, the majority of whom are western. The repertoire too is mainly western, a Sanskrit song being the lone exception. "Indian music is a world which I know very little," explains Nuria, "and choir music has not developed in that tradition. But our western music has a wide variety. We practice songs from different periods as well as from living composers, such as the Polish Henryk Górecki. We also do folk songs from places like America and Ireland. The Irish song was one of the seven so-called 'Irish Blessings' which has as text 'May God hold you in the palm of his hand' as a departure blessing. To end a choir rehearsal with that is a beautiful way of saying 'Goodbye, till we meet again.'"

AUROVILLE AND INDIA

Recharging the aquifers

Water Harvest, one of the Auroville organizations working in the bioregion, has just received a large grant from the Central Ground Water Board to improve the water situation in Vannur district.

Water or, rather, the lack of it, is in the news again. Although by early December we had received the average rainfall for the year, the summer monsoon failed completely and the winter monsoon yielded only about 50% of the normal rainfall. This is significant because the intense monsoon rains are vital to recharging the underground aquifers: as Tom from Water Harvest points out, you need a downpour of at least 8-9 cms. to penetrate to the water-table. In fact, the last intense rain Auroville received was the miraculous 42 cms. downpour back in February.

But the recharge situation is even more serious because Water Harvest has discovered that, in parts of Auroville and the larger bioregion, an impervious layer of clay close to the surface makes it impossible for surface water to permeate through to the aquifers. This drastically reduces the recharge area for the aquifers. Meanwhile extraction from the aquifers in Auroville and the surrounding area continues at a totally unsustainable rate. The prognosis, according to Tom, is grim. "If the present rate of

extraction continues in this region, all the aquifers will be exhausted within 5-10 years."

What can be done? Tom points out that a multi-pronged programme of action is urgently required. "We have to do much more to harvest surface water, and we have to reduce extraction from the aquifers while increasing their recharge." Fortunately the Central Ground Water Board of India (CGWB) has just approved a proposal from Water Harvest to implement some of this programme in Vanur district of Tamil Nadu (an important catchment area for Auroville's deeper aquifers). The money allocated is Rs.1.3 crores (US\$ 290,000), the first time the CGWB has sanctioned such a big sum.

"A large component of the project money will be for continuing our tank and pond rehabilitation in the region. This will enable significant amounts of surface water to be harvested for irrigation, cattle and even drinking purposes for 2-3 months each year. But another important part of this project is for artificial recharge of the aquifers."

Water Harvest has identified where the main water-bearing strata are located,



Tom (left) speaking at the inauguration of the new project

how much water they can carry, and the optimum point to drill a recharge well. Once the well is drilled, large amounts of water will be injected from the surface directly into the aquifer. In this particular case, the recharge well will be located close to

an existing irrigation tank, allowing the overflow from the tank — which normally is wasted — to be collected, filtered and then injected into the well. But isn't there a danger that pollutants in the surface water will pollute the aquifer? Tom points out that sedimen-

tation in the tank and a rapid sand filter will remove many of the pollutants, and that drawing the water from close to the surface and only when the tank is already full will ensure that any pollutants in the water will be extremely diluted. He admits, however, that it's impossible to absolutely prevent heavy, long-term pollutants like pesticides reaching the water table (which they are already doing anyway). "We know there is a slight risk here, but the Pollution Control Board has requested us to monitor the effects of the recharge, and the experiment will clearly be stopped if we find any pollution of the recharge water. The thing is, this is an emergency. We have to move fast because the aquifers are already so depleted."

Alan

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