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Auroville's housing crisis slowly easing

This year, the construction of five collective housing projects in the Residential Zone and two in the City Centre has started. A few other projects are awaiting building approval. The housing shortage, which worried the Entry Service so much that it once considered stopping new applications for joining Auroville, is slowly being resolved.

“We are moving fast,” says Sauro, L’Avenir d’Auroville’s Housing Coordinator. “Drive around and you’ll see

new housing projects coming up everywhere. We expect *Citadines*, which began in 2008, to be ready in four to five months. It will have 35 apartments. *Luminosity*, *Arati III* and *Realization* may be ready by the end of the year or early 2010; *Joy* and the first phase of *Maitreya* will be ready the same year. That means that by the end of 2010 about 108 new units will have been built for 170-180 people against an estimated yearly population increase of about 100 persons. The pressure for housing will diminish.”

It doesn’t stop at that. L’Avenir d’Auroville has applications pending for more collective housing projects. *Swayam* is starting (20 units) and *Surrender phase 2* which will have 5 houses including a youth house, *Muyerchi*, is awaiting approval. The plans for the extension of *Progress*, Auroville’s first *Line of Force*, are being elaborated. *Sailam* also will be extended with 6 units for 10 people; a proposal for building about 10 houses in *Prarthna* is expected; *Realization* and *Maitreya* will start their second phase once the first phase is completed; there are plans for the expansion of *Grace*, *Courage*, and *Sukhavati*; and a new community, *Determination*, is being planned between *Grace* and *Gaia*.

Who pays? “The total cost of the projects that are now being built is Rs 15 crores (\$ 2.75 million) or more,” says Sauro. “About 63% is paid by the future inhabitants or by the Auroville Housing Service from their income from contributions; 14% is a donation from the Government of India (the *Joy* project); and the rest, approximately 23%, comes from private donations. For the extension of the *Line of Force* outside funding is being sought.”

In spite of all these ongoing projects and new ones in the pipeline, L’Avenir d’Auroville remains cautious about the ground reality. “We are in a peculiar situation,” says Sauro. “Although we welcome the new trend where significant grants for housing are made by the Government of India as well as by some private parties, the majority of funds are provided by the individuals who will occupy the houses. Auroville does not yet have sufficient funds to finance collective housing projects. Architects and project holders have to promote their proposals; they need a certain number of interested individuals, who have to give a sound financial commitment before their housing project is allowed to begin. Otherwise there might be unfinished projects which would cast additional burdens on those who have committed themselves, as well as on Auroville.”

With all the concentration on collective housing projects, L’Avenir d’Auroville has not forgotten those who wish to build individual houses. “Today we have ten applications to build individual houses, three of them inside the city area. As a general policy we will not allot land inside the city area for individual housing projects,” says Sauro. “Those who wish to have free-standing houses should participate in low-density projects like *Surrender phase 2* or others planned in the *Sukhavati* area, or join *Determination*. We are also thinking about allowing clusters of free-standing individual houses around the *Line of Force*. And if someone would like to build in an empty space in a community outside the city area, we would consider it if the neighbours agree.”

L’Avenir d’Auroville is also in the process of identifying an area for people who want to construct their own houses to save on costs. “We are talking with two groups. We are concerned that



The first of the Citadines buildings under construction

those cost savings would only be apparent and that due to the low quality of construction, in the long run the maintenance costs would exceed the savings,” says Sauro. “And those costs might then have to be carried by the community.”

Joseba and Amy of the Housing Service estimate that, if all the projects are finished, still another 100 units will be required. But what about the people without money who need housing? “We did a survey a year ago,” says Joseba. “At the time there were 80 Newcomers without a house; 60 of them did not have any means or had insufficient means to contribute to a house. We proposed to the Funds and Assets Management Committee to sell a piece of outlying land so that we would have funds to construct a ‘free’ housing complex for these people. This proposal was accepted in principle; however no action has been taken. More needs to be done.”

Joseba continues, “There were suggestions at the time that the community should build a settlement such as *Aspiration* with simple huts and keet roofs. But we observed that present-day Newcomers do not like to move into such accommodation. At one point there were four huts available in *Aspiration* and it was difficult to find any Newcomer to occupy them. The demands and expectations have changed. Moreover, cheap building now implies extra costs in the future. The condition of *Aspiration* is such that the community would have to invest about Rs 2 crores to bring all these huts up to present-day standard. Keet huts are no longer a solution.”

“Together with the Housing Service we are thinking about an Auroville rent or loan scheme,” says Sauro. “But our discussions are still in a very early stage. The first problem is to raise the capital; the second one to regularize a system of renting which, though it has never been officially accepted, is still done by quite a few people. Once this is done, all rental agreements could then be between the individual and Auroville, and no longer, as at present, between Aurovilians themselves. We also have to see how someone can pay rent from a basic monthly Auroville maintenance

(at present Rs 5,500 a month). Perhaps renting is only an option for people who have a little money outside Auroville.”

The housing crisis is easing, though it will still be years before Auroville can offer ready places to new people wishing to join. But Sauro warns: “There is still an expectation that when people join Auroville, they will get a house for free. That is not possible. Under the present economic circum-

stances some financial commitment will be required.” Joseba agrees. “A discussion is going on concerning whether we shouldn’t ask a financial commitment for a house before a person is admitted as Newcomer. There are pros and cons to this idea. But to continue as at present, where people are admitted who cannot obtain housing, is surely unsustainable.”

In conversation with Carel

Moving to the centre

Western civilization, in particular, has long had a love-hate relationship with cities. “People come together in cities in order to live,” wrote Aristotle. “They remain together in order to live the good life”. It’s no accident that the term ‘civilization’ comes from the same root as ‘city’ and that those who pictured ideal societies often located them in cities. Yet throughout the ages cities have also been seen as dirty, corrupt, and as evidence of the debilitating effects of ‘soft’ living; more recently the industrial city has been characterised as dehumanising and alienating.

Perhaps something of this ambiguity regarding cities can be sensed in Auroville. In the early years, a number of the people were drawn to Auroville through seeing pictures of the Galaxy model; some even arrived here expecting the city to have been built. Yet very few – if any – saw themselves living in one of Roger Anger’s multi-storey ‘Lines of Force’. Somehow the concept attracted them more than the reality.

In truth, the city was not a big topic for early Aurovilians – they had more pressing concerns and, anyway, city planning was more Roger’s province. But some of the early Aurovilians did have major reservations about the Galaxy plan and this was partly tied up with negative images of urban life. It was never clearly verbalised, but somehow cities expressed everything that was

wrong with modern civilisation: overcrowded, artificial, mechanical, lacking in true human contact. Indeed, in one sense the initial tree-planting project in which so many Aurovilians took part was like a cleansing, a renewal, a return to Eden (sores and all). So it’s not really surprising that the Galaxy languished on the drawing-board.

Fast forward to the late 1980s. As the forests grew up and the pioneering edge softened, a different breed was attracted to Auroville. Unlike the early Aurovilians, many of these newcomers had had professional careers, they had financial means and didn’t seem to share the same hang-ups regarding urban life. Meanwhile the situation on the ground had changed; much more land had been acquired in the city area. So it was, after some agonising reflection – there were still Aurovilians who felt nothing should be built in the city area unless it conformed to the ideal forms of the Galaxy model – that the first urban communities began to be constructed. ‘Urban’, of course, is a relative term. While all of the new settlements were located within the city zone, *Surrender* with its individual houses and gardens had more the feeling of a suburb. *Arati*, *Invocation* and *Vikas* are all apartment buildings, but that is about all. They lack the urban context, the density and variety of activities which make a city so dynamic. Nor were these new apartment blocks necessarily an advertisement for relatively high-density living.

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Luminosity is not just another apartment block with tailor-made flats according to personal needs. It is a collective project which incorporates new ideas and technologies and wants to be an example for denser collective living in Auroville,” says Nadja, the project co-ordinator. “I call *Luminosity* ‘a temple for living and working’ because we are aiming at creating simple, yet beautiful spaces for daily life that will help one’s growth of consciousness. The emphasis is on quality, not quantity. To this end, the individual rooms are not especially vast but are spacious. The materials are not particularly luxurious but are both hard-wearing and beautiful, and the detailing is not just aesthetic but also functional with a focus on ‘low-maintenance’ solutions.” And she adds, “The acoustic, climatic and environmental aspects of the project have strongly influenced the design”.

Luminosity is a rectangular block containing twelve apartments and eleven office-studios. The residential areas have been raised off the ground; the office-studios and common facilities occupy the ground floor. Says Nadja, “This will assure a high degree of privacy for all the residents, avoid the need to build fences and private water-intensive gardens, and help nurture an Auroville that ‘belongs to no-one in particular’ since everyone is then free to walk wherever they choose.” In order to improve and enhance the energetic foundation, the principles of *feng shui* and the ley-lines of Auroville have also been taken into account in locating the building.

Luminosity is built on the site of the former *Mangalam* project, which started in 2001. This project consisted of six apartment clusters; four were to be built in the shape of a half circle, one in an L-shape and one as a rectangle. [see *AVToday* #196, May 2005] But only one of the half-circle clusters, *Creativity*, has materialised. “The problems connected to this particular design, in particular regarding noise, caused these clusters to be scrapped,” says Nadja. “But we found that we could work with the concept of the rectangular building. We changed the original orientation

Luminosity

‘A temple for living and working’



The north (top) and south facades of Luminosity

somewhat to profit from the prevailing winds and prevent sound affecting the neighbouring community. Building permission was given very quickly, as the master plan of *Mangalam* had already been approved.” The rest of the *Mangalam* area has now been allocated to build *Realization*.

Acoustics

The prevention of noise pollution is a major issue. To minimize impact sounds, all the apartments are separated from each other by four parallel walls made of dense fly-ash bricks (a waste product from power stations) and fired bricks. The cavities between the walls are used for water pipes, cables and the ducts for the dehumidification system. The staircase is free-standing and separated from the apartments by double walls. A similar approach has been taken for the floors: the inverted beams above the slabs are filled with fly-ash to help deaden vertical sound-transmission between the apartments.

with the bedrooms faces a 30-metres deep green corridor which will not be built on. The north side which has the kitchens and living rooms, is equipped with vertical acoustic louvers made of sound-absorbing anutone board. They can be closed during the rains or when there are noisy activities either inside or outside the living space. “It is like *Golconde* in the Sri Aurobindo Ashram,” explains Nadja. “There they have horizontal louvers, here we have vertical ones.”

Water

The project will have a unique rainwater harvesting system. Alok from CSR has tested the idea in the desert state of Rajasthan. A hole 35 metres long, 5 metres wide and 7 metres deep, lined with Bentonite waterproofing, will be filled with sand. “Rainwater is collected in this huge sandbox, and from there we pump it up to the overhead tank on the roof. The sand serves as a filter; for drinking

Nadja. *Luminosity*’s waste-water will be fully treated and then reused for flushing toilets and gardening. The system is identical to those installed in various places in Auroville.

Climate control

The building has been oriented to make the most of the summer breeze, with both sides of the apartments having full-height sliding doors and the inverted beams providing an uninterrupted ceiling where no heat can get trapped. The cavity walls will minimise heat transfer, as will the roof gardens. *Luminosity* also offers the option to hook-up to one of three de-humidification systems which will be built above each staircase and which will blow dry air through the cavity walls to each studio and apartment (the air has the same temperature as before but feels cooler because the humidity has been removed).

The roof

The roof is seen as an extension of the *Luminosity* community. It will have laundry and drying areas, solar water heaters, common dining and relaxation areas and roof gardens with Tropical Dry Evergreen Forest plants at each end of the building. Although each apartment will be connected to the grid, there will also be a possibility of connecting to photovoltaic panels for electricity. “A new factory near Hyderabad is being built that will produce thin film solar panels,” says Nadja. “This is the type we want to install on the roof.” There is even an idea to do roof-top agriculture, by dedicating an area to grow spirulina for everyone in the building”. Asked if all this is not increasing the overall project costs, Nadja smiles. “Yes they do. But there are things we choose to do because we think it is the right thing to do.”

Luminosity II

One of the other idealisms is that Nadja and her team (architects David and Ganesh, site managers Baskar and Ajay, and landscape architect Marie) have decided to work for an Auroville maintenance instead of charging the clients a percentage of the construction costs. “We don’t build *Luminosity* to make money. We could have charged a fee, but we want to set an example and live up to the ideal that in Auroville the architect and contractors work on maintenance and do not make money out of their clients. In the case of *Luminosity*, this has saved each of our clients at least 3 lakhs, which is substantial taking into account that the *Luminosity* apartments cost Rs 13-14 lakhs for a 70 square metre apartment”.

This approach is perhaps one of the reasons why *Luminosity* was fully booked before the drawings were ready. But Nadja believes in another more compelling reason. “An integral part of the process has been the integration of feedback. A lot of thought and consciousness has gone into the design and into its acoustic, climatic and environmental aspects. I have lived in eleven places all over Auroville and have learned what worked and what doesn’t. So have many of my clients. All this interaction has immensely improved and enriched the project.”

Meanwhile, the waiting list for *Luminosity II* is filling up.

In conversation with Dianna and Carel

Luminosity fact sheet

Number of units: twelve apartments and eleven office-studios. There are two two-bedroom apartments and ten one-bedroom apartments, all with covered balconies on two sides while the office-studios on the ground floor will have a covered balcony on one side

Costs: Each 70 sq.m. apartment incl. the 17 sq.m. covered balcony is estimated to cost between Rs 18,500 and 20,000 per square metre including infrastructure and Auroville contribution.

Features: Connection to RZ tank, waste water treatment, grey water set up for toilet flushing and watering plants, rainwater catchment system for showers, solar hot water heaters, dehumidification system, telephone and internet connection, communal washing machines, laundry space and open parking shed.

Extras (not included in the costs): Gardens, common dining area, spirulina farm and relaxing area on the roof and general landscaping.

To be observed: Dogs are not allowed.



Location of Luminosity near Creativity

To minimise sound travelling to other nearby buildings, *Luminosity* has blank walls facing the neighbouring communities, which will be covered by hanging ‘curtain creepers’. The south side

quality the water will again be filtered using carbon filters. If our calculations are correct, the system should be able to provide 100 litres of water a day for each resident of *Luminosity* throughout the year. As safeguard, we have a back-up connection to the water tank of the Residential Zone,” explains

Moving to the centre

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The *Prarthana* apartments, for example, had such poor acoustic insulation that it was possible to hear the tinkle of your neighbours’ teacups, to follow every twist and turn in their convoluted relationship, while sitting comfortably ensconced in your armchair. *Vikas* began with a set of rules for community living which made it sound rather like an army boot camp before the residents revolted and settled down to nuclear living.

No doubt these teething problems were one reason why people still continued to regularly turn up in the Greenbelt prospecting for a place to build their dream house. (“I need only a very small space, like between those trees over there. Well, maybe one or two of the trees would have to go...”)

Today the next phase in city construction is well under way. Over the next few years, at least six new apartment blocks and other urban settlements will be built, providing many new residences. A substantial number have already been purchased or allocated. Partly, no doubt, this is because the present policy discourages the construction of individual houses in the city and it is difficult to build your dream home anywhere else. But it may also reflect a seismic shift in how Aurovilians view the city and city living.

For example, some of those who have signed up for the new apartments are gnarled old-timers.

As one of them put it, “it’s time to move to the centre”. Why?

Well, there comes a time in life when the pleasure of living on three acres with two cows, a broken biogas plant and a small army of workers begins to wane; when a neat little labour-saving apartment which can simply be locked up when you go away becomes increasingly attractive.

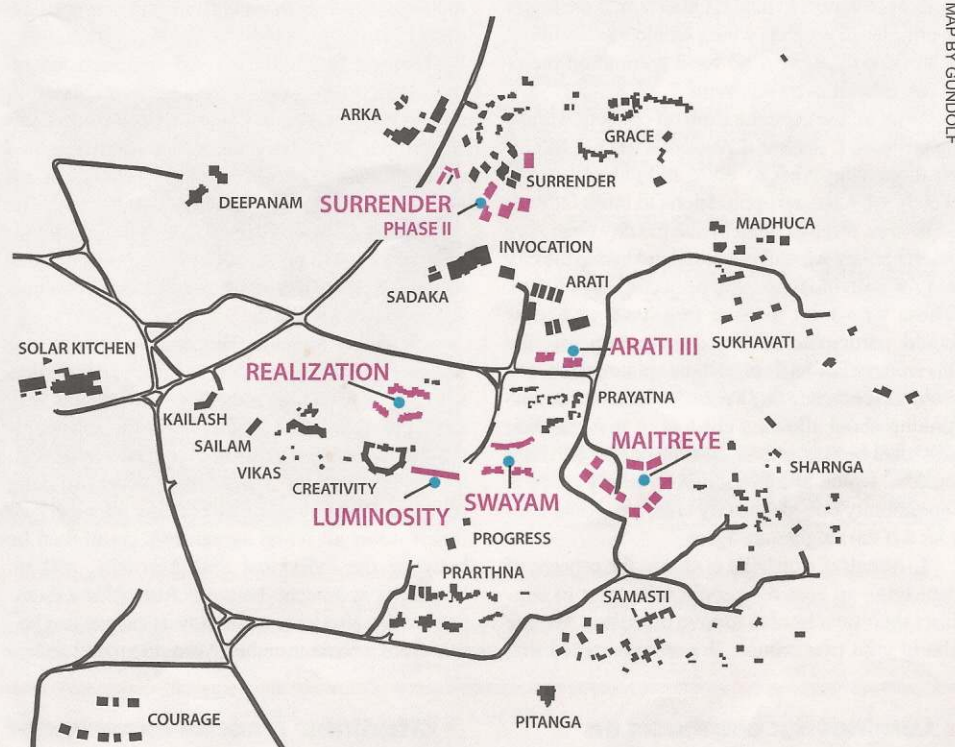
But perhaps it’s more than that.

For the centre, at least potentially, provides a richness and diversity of experience and interactions not available in the boondocks. Then again, as the Greenbelt is progressively nibbled away by developers and outsiders building farmhouses, spas and guest houses, there’s a feeling that the centre is better protected from such ‘dilution’.

At a much less mundane level, many are convinced that building the city is bound up with the *raison d’être* of Auroville, that Mother wanted a city here and it’s time we began living it. And then, of course, there is the Matrimandir. It’s difficult to know how many Aurovilians visit it regularly. Yet even those who visit it infrequently seem to feel that the centre of the city has a different presence; as one of them put it recently, “the air is different here”.

So could the movement to the centre signal something deeper than a mere longing for lazier living and the city ‘buzz’? A realization, perhaps, that it’s time to return to essentials? That the real work of building Auroville is about to begin?

Alan



Map of the Residential Zone

Maitreye is a residential housing project situated between Prayatna and Sharnaga in the Residential Zone. The aim is to provide various types of housing for approximately 250 residents. In the first phase, 16 houses are being constructed. There are units for single persons, couples and families.

"I developed four designs to cater for different needs," says Sonali the architect. "However, when we launched the project nobody bought for many months. It turned out that many people didn't want to pay more than ten lakh rupees for a house yet they still wanted two bedrooms. So I had to reintroduce an earlier design and that is the one which has sold best. Most of *Maitreye's* clients now have houses which cost ten lakhs or less."

The project brief states that *Maitreye* is intended to "cater for the needs of Newcomers and Aurovilians with limited resources for their housing needs." Sonali characterizes *Maitreye's* method of construction as 'cost-effective'. "When we studied most of the existing houses in Auroville, we realized two things: that the basic structure often costs lots of money and that people don't want to compromise on finishing. So we developed a less costly structure by having random rubble masonry rather than reinforced concrete foundation and by making the whole structure load-bearing, using frame construction only for lateral ties against earthquake forces. We also provided three different types of finishing options."

Because the houses are relatively scattered (this is a low-density sector of the Residential Zone) and not parallel to each other, noise should not be a major problem. When an internal wall is shared by two houses the cavity will be filled by sand. "There are more sophisticated ways of noise insulation but we don't have the money for this." The external walls are constructed by laying two hollow fired bricks side by side, creating two different cavities to dampen sound as well as provide thermal insulation. "In Kerala many archi-

Maitreye

Affordable housing with quality construction.



Model of a family house in *Maitreye*

itects use these hollow blocks for insulation against solar radiation. The other problem we have here is high humidity, so all the houses in *Maitreye* have cross-ventilation. Also the rooms have high ceilings and the windows can be opened at different heights to maximize the air flow. Moreover the roof slabs are also made of hollow terracotta blocks for insulation and to save on the amount of concrete used.

"When it comes to ventilation, the experts discourage very compact design in the tropics. It's better to have scattered houses so that the air can circulate around them. Scattered structures also help create different air pressures: even if your house is not oriented to the prevailing wind, air will be sucked in if your house is so designed that the rear develops negative pressure. But this is a science in itself."

How sustainable is *Maitreye*? Wastewater treatment and rainwater harvesting systems are all included. But what about the building materials? Doesn't brick have a lot of embodied energy? Sonali pauses. "They say fired brick is less sustainable than earth blocks, but I feel fired brick has a longer life than non-fired brick so in the long term it may be more sustainable. Actually, I started planning *Maitreye* with a completely eco-

friendly approach. For example, I thought of doing rammed-earth foundations and walls but when it came to implementation the team considered other factors. Rammed-earth foundations, for example, get penetrated by tree roots, and contractors don't feel comfortable making houses which may require more maintenance later on. So we had to step back from the most eco-friendly approach. Even some of the residents didn't want earth walls because they think there would be problems with termites and fungus."

There will be a lot of green space in *Maitreye*. "We tried to save as many trees as we could, cutting only Work Trees and even shifting some houses to save trees. We attempt to balance the personal and collective

by having open landscaping in the centre of the community while allowing residents to have private spaces behind their houses. In terms of collective facilities, we have only a laundry in the first phase. Originally we thought of building a community kitchen but shelved it because the Solar Kitchen is close by. But if the residents want it, we can introduce it in the second phase.

"As to social sustainability, it turns out that almost every resident is of a different nationality and 70% are Newcomers, 30% Aurovilians (one of whom will be me). We also have people from different economic backgrounds. We have a number of ideas to sustain the community economically. One is to construct a number of studios which the community can rent out.

And the look? "I have used traditional materials – brick, stone, terracotta – but the forms are very modern. In this way I think *Maitreye* reflects something of the ethos of Auroville."

Interesting as the technical innovations are, Joseba, one of the project holders, believes that the most important thing about *Maitreye* is the spirit of service behind the project which is reflected in the efforts the team are making to reduce overheads. "Basically there are two approaches to all the housing projects today in Auroville. One is a commercial approach; the other is providing a service." The commercial approach, he points out, often results in up to 20% being added to the total cost of a house because of architects', contractors' and general management fees. "Architects typically charge 5-7%, contractors between 10-15% and there may be an additional 2% on top for management. But in *Maitreye's* case the overall overheads have been reduced as much as possible. The total overheads, including architect's, contractor's fees etc., are below 10%. This is one of the reasons we can offer the houses at an affordable price. I'm happy to see that quite similar approaches are being adopted in *Realization* and by the team behind the *Luminosity* project."

Alan

Maitreye fact sheet

Number of houses: 16
Size: From 51 sq. m. (single) to 131 sq. m. (3 bedroom)
Total cost: Approx. Rs 11.500 sq.m (includes infrastructure and Auroville contribution)
Features: Laundry, wastewater recycling..

Arati III

Reflecting diversity

"**A**rati III came about because I wanted to finish an existing community, using skill sets that were developed when working for real estate companies outside of Auroville," says Aurovillian architect Shama Dalvi. "The original concept of *Arati* consisted of three phases of which two phases had been built. The builder had moved on to other things so I offered to complete the community, and that offer was accepted."

This is Shama's first apartment complex in Auroville. She has gained experience in designing and supervising construction of many individual houses in Auroville, and is currently also involved in building a vacation home complex in the hill station of Yelagiri.

"What kept me away from taking up larger projects in Auroville were the endless meetings to convince the different groups and get building permissions," says Shama. "The lack of a single client or single group to which one is answerable is also daunting. In Auroville, one is pretty much on one's own after getting building permission whereas in projects such as the one in Yelagiri, it is an interactive team work together with the client. I have involved some of the people in the *Arati* community as well as the new people who'd be joining in – but most decisions have to be made on my own."

With a total of 12 apartments divided between two buildings, the final phase of *Arati III* will have single, double and three bedroom homes. "Arati III differs in two major ways from other ongoing housing projects," says Shama. "The main difference is that apartments are individualized, each having their own design. The collective facilities are minimal. The level of interaction desired between the residents would be left to the people moving in. It is an experiment in living together while encouraging diversity and differences between people."

"The second difference is that the homes will be spacious, with floor plans ranging from 63 to



Arati III model

125 square metres of carpet area. Most of the people taking up the apartments want larger spaces for visiting family and home offices. It is an interesting mix of people who'll be staying in these buildings and I look forward to living in one of the apartments myself."

The design and construction method of *Arati III* does not follow those of the first two phases. After thoroughly studying all options, the choice was made for a conventional building system with RCC and fired bricks. Long term maintenance has been one of the priorities besides cost effectiveness. "When I started the project, I tried to understand why people don't want to live in apartments. It was because the apartments were not individualistic enough, or that they are too close to each other and had noise issues."

"We addressed this by coming up with a flexible design where every apartment type could be personalized by the occupant."

At present, the first of the two buildings is being constructed. Construction on the second building will start within the next two months. "A couple of people who would like to join Auroville have expressed their interest in *Arati III* and propose to put their money now into an apartment so

that by the time they come, there is a place for them to live. The Housing Service is working on the modalities of such a scheme whereby the person will only be allowed to occupy the apartment once he or she is accepted as Newcomer. If that does not happen, the money will be returned. If the person becomes a Newcomer, the normal rules apply."

Arati III's first building is scheduled to be ready by February 2010.

In conversation with Priya Sundaravalli

Arati III fact sheet

Number of units: 12. Every apartment has an additional room on the ground floor – this can be used either as a store room or as an office.
Costs: Rs.15,000 per square metre total built up area including all infrastructure, Auroville contributions, and consultancy fees.
Feature: Closed garage for bike parking.
Special feature: Pets are welcome.

Noise

When is a sound a noise? Auroville must be one of the quieter places in South India yet many people complain about croaking frogs, squawking crows, howling cats, barking dogs and the raucous cries of love-sick peacocks. There are also the big irritants, the blasting of temple music, of other people's televisions, the revving of motor bikes and the shouting of ammas. But maybe we have become spoilt as most of the time Auroville, surrounded by silent forest, is peaceful and there are only 2,000 of us in 25 square kilometres. But what will it be like when there are 50,000 of us?

The residents of Creativity, a community that is plagued by noise pollution due to its particular design, have learned to deal with noise. They accept, in the words of one of the residents who prefers to remain anonymous, that "People make a noise, otherwise they would be dead." But while



gentle background noises have come to be accepted, Creativity has asked the ammas to take their tea break in a little room instead of sitting in the courtyard, so that their chatting and laughing does not disturb. The community has also evolved rules like no toilet flushing between 10 pm. and 7 am. and no use of the washing machine till 10 am. on Sunday. It helps, but only to some extent. Says the resident, "The trouble is that because of these regulations people develop very sharp ears and become sensitive to something that in the normal course of events they would have taken for granted. For example, I love to listen to the cricket commentary and have the radio on very low. My next door neighbour tells me he can hardly hear it. Yet someone in the next block complains about its noise! People have different noise thresholds. I could use a head phone, but that does require getting used to. The best solution, of course, is learning to give and take, which is a necessity for community life anywhere."

Learning to take – some say to endure – is also a problem for the neighbours of the Youth Camp. Though situated in the forest well away from other communities, the Youth Camp's occasional party music into the early morning hours creates frustration. "It is that dum-dum, that vital pounding sound that gets to me at two in the morning," said an older person who was trying to sleep one kilometre away. "Why can't they start earlier in the evening? Why does it have to be so loud anyway?" "We are trying to make a sound proof underground area for our music" said Nikolai, a Youth Camp resident, "But it is a big project and we do not have the funds. Some Aurovilians suggest we go and party in Pondicherry. That is ridiculous as we have to travel there and back which is dangerous, especially at night. Surely music once a month is not too much to ask of our neighbours?" Another point of view comes from a mother of three teenagers: "If we don't allow our kids to have some fun occasionally they will ultimately not want to live here. Don't these complaining people remember what it was like to be young?"

Meanwhile, the Auroville's architects are considering noise pollution when designing new communities. Auroville's sound specialists are very much on-call.

Dianna

Citadines

The Citadines project is situated between two green parks in the habitat area behind the administrative buildings in the city centre. When completed it will consist of 108 apartments for singles, couples and families. The first phase of 30 apartments should be ready later this year.

“Two of the design priorities,” says Sonali, the architect, “were to maximise shade and wind flow.” So all walls are well-shaded or are constructed of double-skin aerocon blocks which are thermally very efficient. Wind-flow is assisted by having cross-ventilation in all rooms, by staggering the buildings both in plan and section and by utilising ‘stack ventilation’ – central atriums which allow hot air to rise, pulling in cooler air below (the atriums also function as light wells and sound buffers). Also, by orienting the buildings obliquely to the prevailing wind, positive and negative pressures are created on different sides of the building so causing the wind to be sucked through.

“Noise-reduction was a major factor in designing *Citadines*,” says Sonali, “so we took a lot of advice from Didier of *Sound Wizard*. The aerocon blocks are good for sound insulation and we made the walls 40 centimetres thick with a cavity of ten centimetres in the middle. Also, in our sample flat we have acoustic board on the wall which is close to the next apartment – Didier said if at least one wall has a surface which absorbs sound it will help – and in another apartment we have some acoustic panelling both in the ceiling and on the wall. We’ll check the sound levels of these apartments before deciding on the rest. The ceilings of passageways will also be treated with sound-absorbent panels.”

A third of the apartments will be fully furnished, others partially, (every apartment will have a furnished kitchen) and all will have an uninterrupted power supply for fans and lights and the phones will be IP (Internet Protocol) phones, allowing high-speed internet access as well as free calls within the *Citadines* community. In terms of alternative energy, there will be collective solar water heaters and all the lighting in the common spaces will be powered by solar panels. There will be no air-conditioning but there may be a less energy-intensive dehumidification system.



Citadines apartment

Part of Sonali’s brief was to minimise private space (the allocation is 35 – 45 square metres per person) and maximise common space in *Citadines*. Consequently, while the apartments range in size from 35 square metres to 100 square metres, an additional 20 square metres a person within the building is collective space. This includes the whole of the ground floor which will not ‘belong’ to the residents but be open to all Aurovilians. Common facilities include a laundry, café, reception desk and management office (responsible for maintaining the apartments: there will be no personal *ammass* in *Citadines*), a small internet café and an art centre which will be managed by Dominique Darr.



Model of Citadines

Some apartments will be accessible by lift.

As to the look, “It took me one year to get it right,” says Sonali. “I did many versions of the façade. Eventually, when I felt satisfied, I showed it to Roger who confirmed that I had finally got it.”

But *Citadines* is much more than an architectural experiment: primarily it is a social experiment. “The basic concept,” as the *Citadines* brochure describes it, “is that the time, energy and resources of the residents who are fully dedicated to the growth of Auroville will not be scattered and inefficiently used.” The intention is that all apartments in *Citadines* will be offered free to those who fulfil that criterion. It is also hoped that by eliminating the monetary factor and by providing all the essential furnishings (even down to plates in the kitchens), the sense of ownership will also be eliminated and that people will move in and out freely according to their circumstances.

“It’s very ambitious,” admits Maurice, one of the project-holders, “but we wanted to set the bar as high as possible because we know in Auroville that we don’t always achieve everything we set out to do.” “You could call it a utopia within utopia,” says Louis Cohen, the inspirer and main funder of the project. He had long thought it wasn’t correct that people who had come to Auroville to serve the ideal could not find proper accommodation; that while Auroville was taking responsibility for the health and nourishment of its committed inhabitants, nothing was being done for their housing needs.

But it’s not just Aurovilians who can’t find adequate accommodation who are attracted to *Citadines*. Maurice lives in a beautiful house in *Auromodèle*, but he is one of the long-term Aurovilians who will move to *Citadines*. Why? “I’ve been longing for a long time to live in the centre of the city, closer to Matrimandir. Now the time has come, I had to make the move.”

The residents of *Citadines* will be pioneers in what will become a high-density settlement (*Citadines* will be the first four floor building in the city). And, as pioneers, they must accept certain restrictions. Among other things, they agree not to have individual domestic help or pets, and music and TV’s can only be listened to using ear-phones. Above all, as the brochure puts it, “no rights of property will be accepted.”

Gerard, another of the project-holders, admits that there has been a certain ‘reticence’ among Aurovilians concerning living in

the city but he believes that the *Citadines* experience will change all that. *Citadines*, says Louis, “will allow us to start living the city”. He also hopes that the *Citadines* experiment will mark the beginning of a more collective consciousness and that the place will ‘vibrate’ with that. “I say this with much hesitation, but (I believe) that somebody who does not share the spirit of the project will not be able to come here.”

As to the financing, so far it has been provided mainly by Louis, although Dominique Darr’s Foundation is now financing an art centre on the lower floor of one building, two apartments and some collective spaces. In the future, the project-holders would like to develop a Revolving Fund to finance future phases of the project (there is an agreement with the Housing Service that the value of the former houses of *Citadines* residents will be transferred to this Fund) and a *Citadines* Maintenance Fund which will maintain the existing buildings. Residents will

contribute to this according to their means.

The project-holders are already dreaming of housing 600 people in a future phase of the project. “Beauty in simplicity, a certain quality of life. This should become a model building so that one can’t help but say, ‘This is what I would like for the rest of the city’.”

Alan

Fact sheet – Citadines

Number of apartments: 108 (30 in phase I)
Apartment size: From 38.55 sq. m. (single) to 114.47 sq. m. (2 bedroom apartments)
Collective space: 1300 sq.m
Total cost per square metre (including infrastructure and furnishing) Rs 20,000.
Features: Structure – RCC framed with aerocon blocks, Ground + 4, laundry service, reception/management desk, café, landscaped garden, workshop for ordinary repairs, common lounge, art centre, elevator for sixteen apartments, IP phone system, solar water heating, wastewater treatment, dehumidification system for all apartments, furnished kitchens in all apartments, eco-friendly paint on exterior façade.

Joy

The apartment complex provisionally called *Joy* was originally conceived as *Citadines 2*. However, it was renamed as the site and specifications as well as the philosophy behind it are different.

In the first phase *Joy* will consist of 15 single bedroom apartments for singles and couples. It will be one building consisting of four staggered blocks. The apartments will be simply finished and relatively small – all less than about 50 square metres – but this is compensated for by 250 square metres of collective space provided in the rest of the building. How these spaces will function is still not clear, but they may include a laundry and common room as well as gardens.

The Government of India is providing the funding, which is less generous than that for the *Citadines* project. Consequently ordinary bricks rather than the more expensive aerocon blocks are used for the construction. As ordinary brick is less efficient acoustically and thermally, a lot of attention is paid in *Joy* to ensuring that all the

outside walls are shaded – a rooftop pergola will shade the southern and western sides of the building – and to separating the apartments: all apartments face on to green spaces, not on to each other. The building is also orientated according to prevailing and secondary winds. These will be able to circulate freely as the structure is not one continuous façade but is ‘transparent’, with many openings through it.

While there will be a wastewater treatment system no alternative energy systems will be provided because of lack of funds. However, the necessary plumbing will be installed to allow residents to upgrade later.

Joseba, a member of the Housing Service

Fact sheet – Joy

Number of apartments: 15
Apartment size: 36 – 45 sq. m.
Collective space: 250 sq. m.
Total cost per square metre (all inclusive): Rs 16,000
Features: Structure – RCC framed, ground + 2, laundry, common room, wastewater treatment



Model of Joy

which is the project-holder for *Joy*, says that they would like to experiment with a new line of financing. One idea is that residents of *Joy* would make regular financial contributions, either as a form of rent or as payments for the apartment. The contributions would go into a

fund which would finance future housing. The Housing Service has not made any final decision as yet, but priority regarding occupancy may be given to Newcomers and new Aurovilians.

Alan

Realization

The Realization project is new in two aspects: it is the only collective housing project that is being built with compressed stabilised earth blocks; and it is the only project where the future inhabitants are invited to participate in building their own apartments.



IMAGE COURTESY SATPREM

“Welcome to a collective *Realization!!!*” says the *Realization* website. “*Realization* aims at building sustainable and affordable homes for Auroville with people’s participation. It aspires to contribute actively to the development of Auroville as a conscious community and as a city of never-ending education. Hence *Realization* proposes alternative ways to answer the present housing demand. The neighbouring villages do not have enough labour for the construction sites of Auroville and it is now hard to find construction workers. Hence Aurovilians, Newcomers and volunteers need to work with their hands in building Auroville”.

It was the acute housing shortage that propelled a group of Aurovilians and Newcomers to start *Realization* in October 2007. Coordinated by the *Auroville Earth Institute*, they embarked on an ambitious project to build over the next 4 to 5 years 70 apartments for around 170 people. On February 29, 2008, a *Realization* tree (*Delonix Regia*) was planted on the site, marking the start of the first phase of 17 apartments for about 25 people. So far, 11 apartments have been booked.



Perspective drawings of Realization

But the enthusiasm of the early days gradually cooled. Today, no future residents are involved in the construction. “We have been forced to hire local labour,” says Satprem. “*Realization* started as a participatory movement of young Aurovilians, Newcomers and guests. The first months were exciting for them and they had a lot of fun, playing and sweating while making earth blocks. This went on till

nologies and renewable energy sources that will be used include stabilised earth blocks as the main building material, solar and wind energy, recycling wastewater treatment and rainwater harvesting systems.

“The biggest innovation,” says Satprem, “is the planned earth tunnel to cool the apartments”. Earth tunnels have been used in Europe and Canada, and are now being experimented with in India and Nepal. The temperature of the earth at a depth of more than 3 metres is constant at about 27° C. The *Realization* system consists of a set of 15 metre long pipes that run through the rainwater harvesting tank at a depth of about 6 metres. “According to our calculations, the earth tunnel should create a temperature difference of at least 10 degrees,” says Satprem. “We still have to see how we run the fans – perhaps with solar energy or a wind pump.”

The rainwater harvesting system is another important feature of the project. All rainwater falling onto the roofs (estimated at 1,100 m³ a year) will be stored in 4 underground tanks. This water will provide 25 people with 120 litres per day for a year. A wind pump will raise water from the underground tanks to an overhead tank. The overflow from this tank will flow back into the underground tanks while being dynamised with a vortex. Irrigation water will come from recycled wastewater treated with a baffle reactor system.

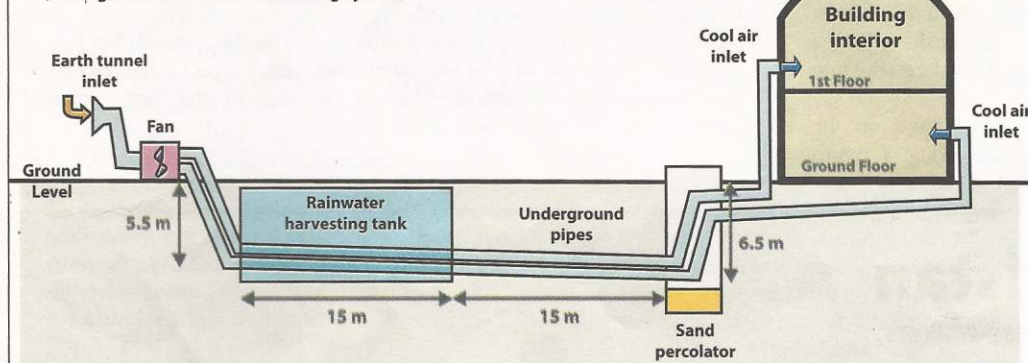
Costs

The free labour which initially went into the block-making was but a fraction of the total cost of the building. This is now estimated at Rs 15,000 per square metre, which includes the basic infrastructure, such as water tanks, electricity and telephone connection and the wastewater treatment plant.

The costs of systems like the earth tunnel, the rainwater harvesting system, the overhead tank and the pumping system and common facilities such as a covered parking shed and a community building with common laundry and storerooms and landscaping with walkways, are not included in the price. “These facilities will again add about 20% to the cost and people cannot afford that. That is why we are trying to raise funds for this aspect of *Realization*,” says Satprem. “We invite well-wishers to help by either funding a part of the project – say the earth tunnel or the parking shed or the landscaping – or by supporting the project in general. For without outside funding, this project might not succeed.”

In conversation with Carel
For more information
visit www.realization.in

Earth Tunnel in Realization (Underground Ventilation and Cooling System)



Sharing labour and resources

“*Realization* differs in many aspects from other housing projects in Auroville. A major one is that we want the future inhabitants to share resources to help those with low budgets,” says Satprem, the executive of the *Auroville Earth Institute* who is the architect and driving force behind the project. “People should give what they can: money and/or work, so that everyone gets an apartment according to their needs and not according to their financial means. We want people’s involvement to be according to their abilities: some help in making bricks and building the units, other are involved in communication, or do accounts, or help find the additional funds needed to fully materialize *Realization*.”

This was the way it started. Since November 2007 more than 200 people (Aurovilians, Newcomers and volunteers) from over 25 countries have been working on *Realization*. Most of them got involved in making the Compressed Stabilised Earth Blocks (CSEB) required for the project. Earth was brought to the site by trucks and then was turned into bricks on the Auram machines. “Echoes of Russian, Italian, Tamil, Hindi, French, German and a few other languages linger in the bricks,” says Satprem. And he adds, “And each brick also contains a substantial amount of volunteers’ sweat.”

the construction of the caretaker’s house that we built in 64 hours in February 2009. Then gradually all the young people disappeared as they realized that building *Realization* would be a long endeavour; they were not ready for this. Nowadays, the intended residents are older and their other activities do not allow them to work on site. In a way the initial spirit has disappeared.” The first phase of the project is expected to be ready by the end of 2009.

Sustainability.

Building and living in a sustainable and eco-friendly manner is a second major objective of the *Realization* project. The appropriate building tech-

Realization fact sheet

Number of units: 17 apartments, 6 single-room from 38 - 43 sq.m., 5 two-room from 52 - 57.7 sq.m.; 6 three-room from 70 - 84.3 sq.m. Ground floor apartments have garden and first floor apartment have a terrace with pergola.

Costs: Rs. 17,000 per sq.m. carpet area, including basic finishing and infrastructure and Auroville contributions.

Common facilities. The planned common facilities are a community building with 2 or 3 rooms, laundry, and storeroom; covered parking shed, landscaping, walkways, rain water harvesting, earth tunnel, solid waste deposit facility. These facilities will add about 20% to the cost. Fundraising is being done to cover this aspect of the project.

In brief

Security meeting

A General Meeting with special invitees the Superintendent and Deputy Superintendent of Police, Villupuram, the Inspector and two Sub-Inspectors was held in Auroville. The Superintendent shared his thoughts on how to improve relations between Auroville and the police, as well as with the neighbouring villages and how to improve the internal security situation.

Private developments in the Master Plan Area

L’Avenir d’Auroville has expressed concern about land in the Master Plan area being sold to developers for private developments such as tea-shops, guest-houses, private houses, shops, spas, and colleges. L’Avenir also questions the attitude of Aurovilians who are involved in those developments.

Roads and cycle paths

The construction of the first prototype stretch of the Crown Road from the Solar Kitchen to Arka (450 m) has begun. It will be paved with ‘paver blocks’. New sign boards for the Crown Road are also underway. A 50-metre long stabilised earth road towards Deepanam School was made by the Auroville Earth Institute. An extension of the existing cycle path network is being prepared.

Participatory Planning

L’Avenir has recently founded a Participation Task Group with representations from non-L’Avenir members which will advise on and organize an effective community participation approach in matters related to integrated planning and development.

Pre-paid lunch scheme expanded

Aurovilians who are working at least half-time in a City Services activity are now given pre-paid lunches either at Pour Tous Distribution Service, Solar Kitchen, or the Visitors’ Centre Cafeteria.

Annual Children’s Book Fair 2009

The Tamil Heritage Centre in collaboration with Ilaigarkal School and *Kapilan Pathipakam*, Puducherry, successfully conducted the Third Book Fair for Children at Kalakendra, Bharat Nivas from 20th to 29th March. This year nearly 15 publishers participated by sending their books, CDs and other colourful, attractive and useful educational materials. Children from Auroville, neighbouring villages, and other schools came to visit Auroville.

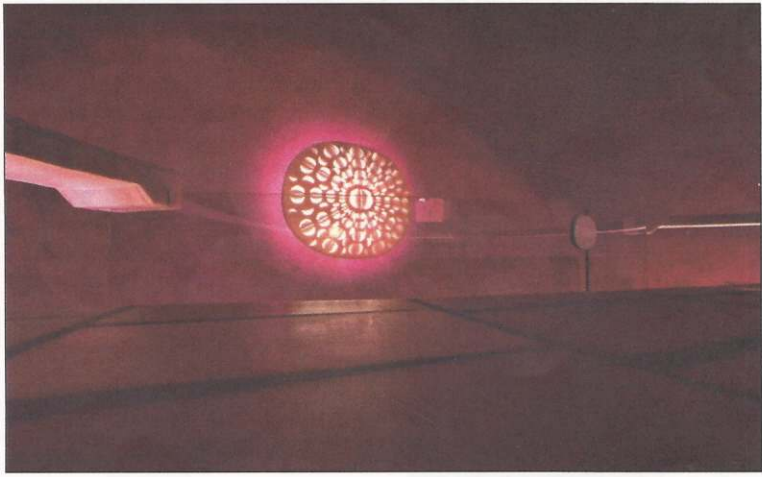
Food Laboratory Activities

The Food Laboratory located at the Mechanical Training Centre, Horizon, holds open information sessions on various food related issues such as how to avoid a cold, skin rashes and the benefits of vegetarianism.

Vermicompost

Water Harvest, which works with many different village groups, has started a vermicompost income-generating project for women. They receive training and funds to build sheds and worm beds to create very fine vermicompost. The production is now about 15 tonnes per month.

Personal experiences in the Petal Chambers



Goodness

While the Inner Chamber of the Matrimandir has been open for some years, all the Petal Chambers around the Matrimandir have opened only recently. The Mother specified the colours for each of them and equated each of the twelve colours with one of the twelve qualities of the Universal Mother. In the order of the colour spectrum, starting with red and ending with violet, these are: *Courage, Progress, Receptivity, Aspiration, Perseverance, Gratitude, Humility, Sincerity, Peace, Equality, Generosity, and Goodness.*

On my recent trip to Auroville, I had the privilege of practicing concentration in four of the Matrimandir Petal Chambers. This occurred on different days. The following describes some of my personal experiences.

Goodness (violet): The chamber is dark. It takes some time for my eyes to adjust. The first thing I can see clearly, just at eye level and seeming to float on the wall, is an elliptical panel that is lit from behind. The light shines softly through a series of concentric shapes. The innermost shape is a luminous oval egg that is cut in half by a vertical line. This is an image of the first act of creation, a division of the light from the darkness. All manifestation of multiplicity issues from this.

The mandala anchors me in that dark sea of colour that surrounds the smooth surface of the marble circular platform, where I sit peacefully on a white cushion. The mandala reminds me of an eye, reflecting my own vision back to me. As I sit in the Petal of Goodness, I feel that the colour is closely related to compassion. Later, I find, connected with this petal, a

quote from Sri Aurobindo: *The violet is the light of Divine Grace and Compassion.* Later again, I learn from Shanta – the artist who worked for many years on the interior design of the petals – that the vertical line dividing the oval egg is the line of Sincerity, which cuts to the essence of every creative act.

Aspiration (golden yellow): If the Matrimandir as a whole symbolizes a supreme dawn, appearing as a sun arising from the earth, it could also be seen as the head of a new human being emerging from the heart of the earth. This new cosmic baby has a multi-faceted vision, glancing in all directions like a great bee, as sunlight flashes in the gold mosaics of the Matrimandir discs. In the Petal of Aspiration with its golden-yellow colour, I feel like a bee in the cup of a flower. The colour of the frescoed walls becomes as rich in potential as fertilizing pollen, as perfect in meaning as gold. This tone of fertility and potential perfection surrounds me in an egg-shaped chamber of coloured light. Yes, all around me breathes Aspiration.

Receptivity (light orange): In the Petal of Receptivity, the mandala is formed of twelve alternating rays of ellipses and dashes. The pattern of twelve suggests movement and intensifies the metaphor of dynamic wholeness. All of a sudden, and quite unexpectedly, I feel the image of a sacred city coming out of nowhere, descending into me and occupying my inner space. It seems to have a pre-existent, independent identity, like a living archetype or a pattern of light that can find habitation within us.

Courage (crimson red): I sit in the Petal of Courage, immersed in redness, but it is not a red that I have ever seen before. The red of blood, of tomatoes, of wine, of poppies – these are reds I know. But this red has something indescribable – a quality of mystery. Its mysterious quality would seem to suggest that there is a mystery in courage. And this is true. To act with courage means to take a risk of some kind, to make a leap into the unknown.

I meditate in Courage on the morning of the day when I return



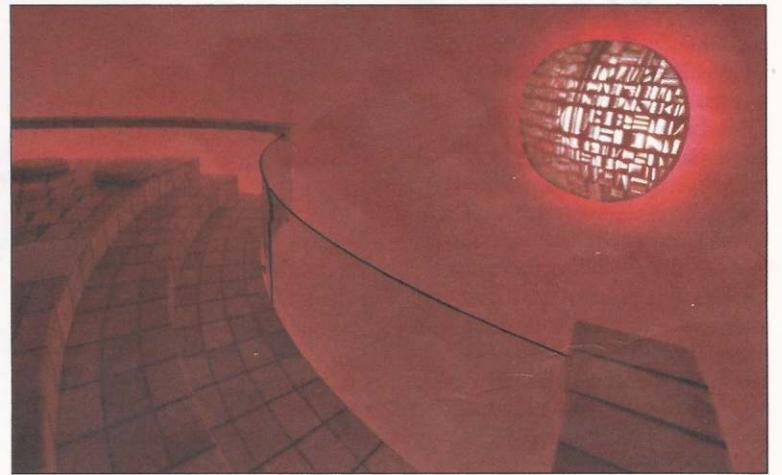
Receptivity

home to Europe. A few days ago, I learned that one of my oldest and dearest friends there has a terminal illness and has only a short time to live. I gather my thoughts and emotions and prepare to face the situation. I surrender and open my heart to the quality of Courage and concentrate on the mandala.

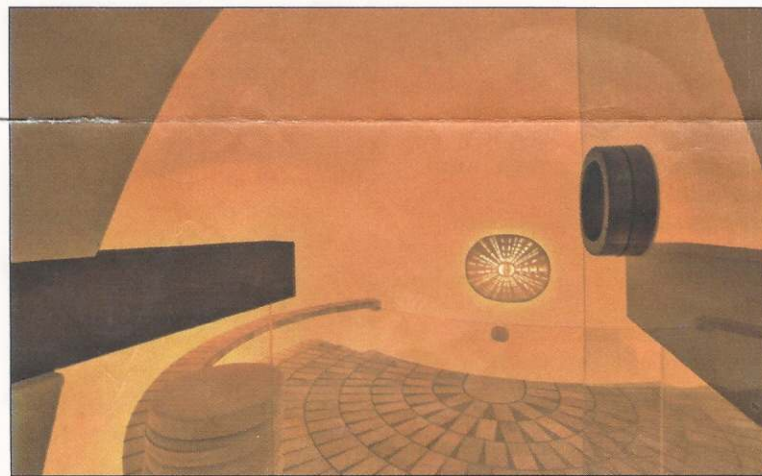
The shapes in the Courage man-

dala are organically varied quadrilaterals in a series of horizontal rows, suggesting a force that is not circular and radiant, but four-square and powerfully contained. To me, this mandala becomes a shield for a courageous warrior who is well-grounded, concentrated, and full of inner strength.

Christine Rhone



Courage



Aspiration

Research on the Matrimandir Gardens

The Matrimandir Garden team, in designing the first three gardens, studied what has been written so far by Roger Anger, Narad, Richard Pearson, Kireet Joshi, Gilles Guigan, Paulette, Alain Grandcolas and Pierre Legrand, but above all what Mother and Sri Aurobindo have said or written about *Existence, Consciousness, Bliss, Light, Life, Power, Wealth, Usefulness, Progress, Youth, Harmony, and Perfection.* The research continues. Meanwhile, a compilation *The Twelve Gardens of the Matrimandir* has been prepared. A soft copy may be requested from marc.lili@auroville.org.in or Matrimandir@auroville.org.in. The marking out of the first garden, *Existence*, was started on April 16th.

OUTREACH

Auroville's outreach in Afghanistan

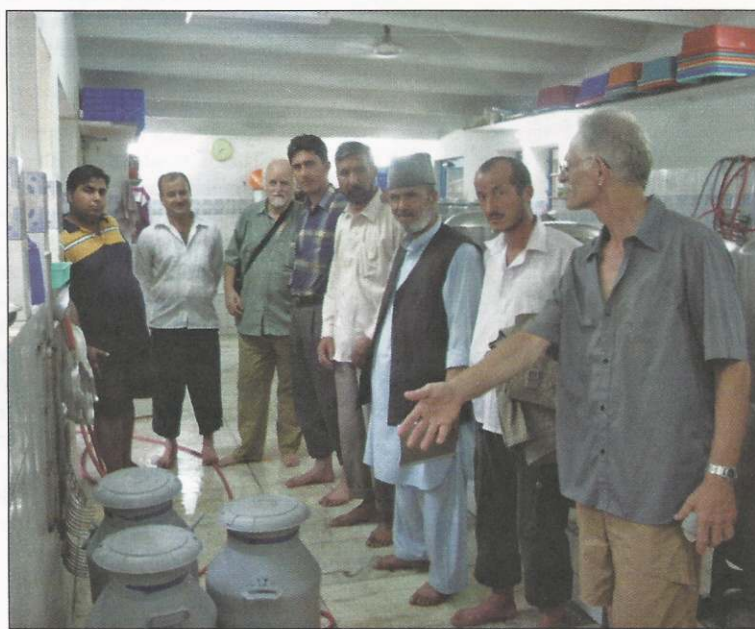
Auroville's 'La Ferme Cheese' is involved in advising and training Afghan cheese-makers.

It started in 2007 when Catholic Relief Services (CRS), an Afghan NGO connected to the Caritas group, contacted La Ferme Cheese in Auroville. CRS, which works in rural Afghanistan, wished to explore the possibilities of creating value-added products from dairy produce. They did some internet research and found that the nearest place with cheese expertise was Auroville. This led to an invitation to La Ferme Cheese's executive Olivier Hetzel to come to Afghanistan to study the market and the farmers' situation and advise on improving cheese processing possibilities.

Dairy products are a staple of the traditional Afghan diet and can be bought at every street corner in the country. They are used in combination with the *Nan-e Afghani*, the national bread of Afghanistan which is similar to the Indian *naan*. Large amounts of cheese are imported from the Europe, Iran and Pakistan. The sizeable local manufacture is limited to fresh cheeses (*paneer*) and fermented milk products such as *chaka* (blended quark or sour cream cheese) and *quoroot* (dried curd balls). Western-type cheeses are produced by a few small cheese factories. The largest is the Baghlan Cheese Factory, situated close to the city of Baghlan in the north-east part of the country, which is under Dutch management.

Given the heavy imports, Olivier found a huge market potential for similar cheeses locally produced. He advised increasing the production of cow, goat and sheep milk by implementing improved dairy programmes and introducing high-yield mixed breeds. The production of fresh cheeses for local production could be done in simple village workshops. He also suggested providing further training to dairy processors and improving existing workshops.

In the course of his market survey, Olivier stumbled on an almost



Benny (right) with the six Afghan cheese trainees and the Dutch director of the Baghlan cheese factory (third from left).

lost tradition of cheese-making practised by some nomadic tribes, who use a sap collected from the wild indigenous flower *Gulzardak* as rennet for curdling milk. "This natural herbal enzyme is a cultural heritage that needs to be preserved for the world. This cheese, if matured in abandoned *Karez* tunnels (underground tunnels for water distribution where the temperature remains at 19° C at 85% humidity when

outside the dry summer heat reaches 40° C) could lead to a unique Afghan cheese that has the potential to become world famous and attract high value for its special taste and production parameters," wrote Olivier in his report *Potential for cheese and dairy production in Afghanistan*.

Olivier's report did not stop at cheese making. It also included advice on using biogas for pasteurisation and cooking, as animal husbandry accounts for over 18% of global warming in the world. Biogas plants are ideal for transforming greenhouse gases into clean energy. He also recommended using high nutrition alternative cattle feed such as spirulina (tiny blue-green algae that grow naturally in mineral-rich alkaline lakes and can be produced in small-scale algae farms) and recycled vegetable waste from other industries. Finally he suggested teaching trainers in Auroville.

The first training course was held in October 2007, when four Afghan cheese-makers came to Auroville. In March this year, six Afghans accompanied by two Dutchmen connected to the Baghlan Cheese Factory, came to visit Auroville's La Ferme Cheese. "They were quite positive about what they saw," says Benny who supervised the training course. "Their cheese factory has about the same productivity as ours – about 600 litres a day. We took them to some dairy farms in Auroville and in the Sri Aurobindo Ashram. We also showed them Auroville's Centre for Scientific Research where work is being done on

biogas plants, solar water heaters and alternative energy, which created a big impression." And he says, "After years of war, economic recovery in Afghanistan is beginning, indicated by an increasing production of all kind of goods, farm produce and services. We are happy that we from Auroville can give a helping hand."

Carel

City of the future decidedly wheelchair unfriendly

A new working group 'New Abilities Link' has been set up to ensure that all Auroville public places and recreational areas can be accessed by the disabled.

Their numbers are increasing: long and short-term visitors who are physically disabled. "It was nice to discover this place with its spirituality, its ecological living, its alternative technology and international culture," says 31-year old Alex from Germany who came for a 1½ months visit in January. "But apparently, you people haven't given much thought to those who are 'differently abled' – including those of us who have to move around in a wheelchair."

Since he was thirteen years old, Alex has suffered from muscular dystrophy, an illness which has made it impossible for him to walk. A wheelchair is essential. Nearly everywhere in Europe and in the USA, governments have passed laws mandating wheelchair access for public buildings. In India, the "Persons with disabilities Act" puts obligations on governments and local authorities to create barrier-free facilities. But few of the law's provisions are implemented. Auroville also has a complacent attitude and is certainly far from a society where 'the needs of the body will be provided for equally in the case of each and every one'. (From *The Dream by The Mother*)

Auroville Today highlighted the problems in May 2001, in an interview with regular visitor Christel who has been wheelchair-bound following an accident. She has tried to convince architects and town planners to make Auroville barrier-free. But not much has happened. Alex testifies to this state of affairs. "It's difficult for a wheelchair guy to move around in Auroville," he says. "The cycle paths we like to move on are riddled with bunds and potholes and often have sharp curves and barriers. For a cyclist this is no problem. For someone in a wheelchair, it's plain hell. The alternative is to drive on the main roads but that's playing with your life, quite apart from the dust raised by speeding traffic – if you have your nose about one meter above road-level, it's difficult to avoid



Top: Alex helped by his companion negotiates a dirt road
Left: Susmita



inhaling dust. Often I had no alternative but to take a taxi – with attendant complications."

While Alex appreciates that in Auroville's undeveloped state criticism of the roads is perhaps a bit unfair, he has no sympathy for the inaccessibility of Auroville's public places and recreational areas. "If Auroville wants to live up to its ideals, it should provide proper access for disabled people and ensure that there are appropriate toilet facilities," says Alex. "But only a few public buildings are properly equipped. Take, for example, the ramps leading down to the Matrimandir entrances. They are far too steep," he says. "I invite the architects to step into my wheel chair and try it out for themselves. If there is no-one to help you brake when you go down, you crash; and without someone to push, you don't get upwards." And he adds, "A slope shouldn't have a gradient of more than five per cent." The visit to the Inner Chamber is also fraught with difficulties. Writes

Jon Stein, another visitor who came to Auroville in a wheelchair: "My experience of being escorted into the Matrimandir like a maharaja on his throne would make an article in itself." Says Alex: "Initially I intended to go to the Chamber every day, but I changed my plans because it is very difficult for me and for my helpers."

Jon writes, "Auroville has been a wonderful place to convalesce, but there have been difficulties. The main challenges I faced included obtaining information on access issues, physically reaching buildings and subsequent entry into buildings. The experience has been frustrating, undignified and, at times, exhausting." He then made a number of suggestions about how the situation could be improved.

Jon and Alex's criticisms have found a sympathetic hearing with a group of Aurovilians who started the work group 'New Abilities Link'. Their objective is to ensure that all Auroville public places and recreational areas have barrier-free access and are disabled-friendly. Susmita, one of its members, describes the aim of 'New Abilities Link' as follows:

"Barrier-free access is important for many people. It benefits the young and the elderly, as well as those who walk with difficulty or insecurity or need braces or crutches, pregnant mothers and people with temporary ailments. *New Abilities Link* wants to sensitize planners and builders. In a later phase, we want to lay down by-laws for public and recreational places in Auroville. We are not only talking about ramps and railings and appropriate toilets, but also about creating special parking areas near the buildings and creating evenly levelled pathways from a parking area to the building."

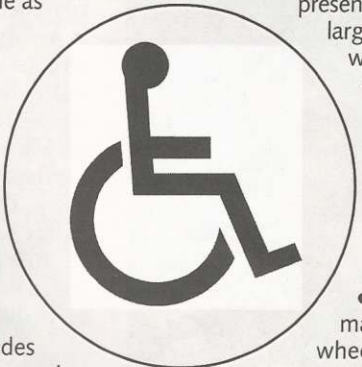
For the 'differently-abled', this would be a blessing. Says Alex, "Today, Auroville is too difficult for me. I had many talks with my girlfriend on joining Auroville permanently. But this would only be possible if these issues were to be addressed. Otherwise, I don't think I would return."

Carel

Accessibility of some public places in Auroville

Buildings with facilities for the handicapped

- **Solar Kitchen:** The dining area is easily accessible for someone in a wheelchair. However, the toilets are not accessible due to steps and there are no toilet facilities for the handicapped.
- **Town Hall:** The entrance facing the Matrimandir is accessible for wheelchair bound people. The entrance facing the road is unusable for people in a wheelchair due to steps. The first floor is accessible by using the ramps going via Café Morgan. The second floor is not accessible. There are proper toilet facilities for the handicapped underneath Café Morgan.
- **Auroville Foundation Bhavan:** A ramp has been created for wheel chair access, but it has a strange 'dip'. The ground floor is easily accessible; the second floor is inaccessible as the elevator has not yet been built. The toilet is not accessible with a wheelchair as the door is too narrow.
- **Cinema Paradiso:** This cinema is accessible for wheelchair-bound people.
- **Savitri Bhavan:** The main entrance is inaccessible due to the gravel on the road and the steps. The entrance for people in wheelchairs is provided through a side-door. Inside, an elevator provides access to all floors. The toilets are accessible for the handicapped.
- **Visitors' Centre:** The information section is easily accessible. The restaurant and shops section are partially accessible: steps prohibit access to the two boutiques, the bookstall and the area where events take place. There are toilet facilities for the handicapped, but they are not marked.



- **Amphitheatre:** There are no ramps allowing people in a wheel chair to go to the amphitheatre's stage.

Buildings in Bharat Nivas

- **Sri Aurobindo Auditorium:** Wheelchair-bound people can enter the building through the stage entrance but this is not made clear at the main entrance. As no levelled pathway has been created around the building, this side entrance is impossible to access in the dark.
- **Main building:** The entrances consist of flights of stairs without handrails and are inaccessible for the handicapped.
- **Kala Kendra:** The main entrance is inaccessible due to steps. The side entrance is equally inaccessible due to lack of pavement in front and the presence of steps. Ramps inside make a large part (but not all) of the building wheelchair-friendly.
- **Auroville library and SAIER office:** The entrances are inaccessible due to steps.
- **Laboratory of Evolution:** The ground floor is accessible but most of the books are not, as the bookshelves are situated on platforms.
- **SAWCHU:** A flight of stairs make it difficult for people in a wheelchair to get to SAWCHU.
- **Auroville Post Office:** This public building is inaccessible due to steps.
- **Public Toilets:** None of the Bharat Nivas buildings have toilet facilities for the handicapped.

Other public buildings

- **Solar Kitchen Cafeteria:** This cafeteria, situated as it is on the first-floor of the Solar Kitchen, is inaccessible for people in a wheelchair.
- **Life Education Centre:** The path to reach it is difficult and the ramp is hard. There are no toilet facilities for the handicapped.
- **Auroville Language Laboratory:** Access is difficult or impossible. There are no toilet facilities for the handicapped.
- **The New Creation Swimming pool:** The toilet facilities are insufficient. The doors of the dressing rooms are too narrow for a wheelchair.
- **Pitanga:** Access to the ground floor is difficult due to the step. The toilets are inaccessible due to steps.

Buildings without facilities for the handicapped

- **The Matrimandir:** It is difficult for physically disabled people to access the Inner Chamber and the Petal Chambers. For the Inner Chamber a carrier chair is in place, which needs four attendants, and there is an electric wheelchair from the second level to the Chamber. The ramps and the stairs leading to the main entrances have no handrails, which is a handicap for people who walk with difficulty. Hand rails are also absent in the corridor leading to the petal chambers. There are no toilet facilities for the handicapped.

TONGUE-IN-CHEEK

Freeing your smile



Smiles from Deepanam school children Arun, Egor, Abhinash and Bouthan

It's time to run a workshop on an increasingly rare commodity in Auroville – smiling. The first morning will be devoted to loosening up atrophied muscles in the cheeks and jaw. This can be painful, even dangerous, for those who have not smiled for several decades and will only take place under medical supervision.

In the afternoon we'll start working on the corners of the mouth. Nothing too advanced, we'll merely practise twitching up the peripheries before letting them resume their usual sag. At the end of the first day you'll probably feel very tired from all this unnatural activity. Lie down and cover your face liberally in cucumber and tomato slices (with a dash of mayonnaise) to allow your poor facial muscles to relax.

The next morning we'll go for broke and try a full smile. Initially you'll probably simply bare your teeth like a rabid dog. Don't despair, it's simply your default setting kicking in. Try again, this time softening the lips, twitching up the corners and keeping your incisors hidden. I know it's difficult but, believe me, it can be done!

Once the lip smile is mastered, we'll start working on the eyes. Probably you never realized you can smile with your eyes; you thought eyes were just stuck up there above your nose to stop you running into trees. But a true laugh includes the eyes. When the eyes laugh they go all crinkly. At the same time the eyebrows lift and the ears flare, giving you the look of a slightly deranged bat.

All this sounds complicated and it does require some facial coordination. But remember. You could do this perfectly from the age of three weeks until the time you arrived in Auroville.

The final afternoon we'll shift to the belly-laugh. This is a tricky one because although it starts with a tremor in the belly it ripples out until the whole body is shaking uncontrollably. This is such a rare sight in Auroville that people have been hospitalized in the mistaken belief that they were about to peg out. This is why we advise you to practice the belly-laugh only in the privacy of your own home. And to leave clear written instructions so you do not end up, oh horror, in PIMS.

Smiley certificates will be awarded to all those who have followed this two-day course. This also qualifies you to attend the much more advanced course on cultivating a sense of humour. Details will follow.

Alan

Earth Day: Reaching out for a deeper connection

The celebrations for this year's Earth Day lasted a full week from April 16th – 22nd. The main events were on Saturday 18th to enable fuller community participation.

The underlying purpose of this year's festivities was to appreciate the beauty of life on Earth in all its richness and simplicity. The activities catered to a diversity of tastes: star-gazing; walks in Auroville's wilder areas; pledges and petitions for supporting non-polluting, alternative transport; rating of the eco-friendliness quotient of Auroville buildings and communities; bio-regional quizzes; poster and banner designs; film festivals at several venues both outdoor and indoor; workshops on sustainability; school plays; children's talks; conversation cafés around food; a parade of the 'Council of Beings'; open air concerts; organic vegan 'locavore' dinners; and a Farmer's Market with earth-friendly Auroville products. There was something for everyone to justify the theme 'People's Participation'. Yet, when Auroville Today spoke to the organizers they said were not fully happy with the turn-out.

AurovilleToday: How did this Earth Day get organized?

Natasha: More or less spontaneously. Over the years, many people have been involved. Jos initiated the first Earth Day, and I remember when he left the following year I thought, now what's going to happen? We won't have a celebration. But somehow it came together and someone took a lead role. This time it was Bindu and Bridget. It is amazing; everyone just does a little bit and a whole programme gets put together.

Why the theme 'People's participation'?

Martin: There was a frustration that Earth Day is organized every year but there is little participation from the community.

Bridget: That's why we picked 'People's Participation' as the theme. We wanted to get everyone actively involved. Among other things, the programme was more diverse than before. We wanted to somehow merge spirituality with ecology, and we offered more 'subtle' activities, like appreciating the beauty of nature and being in nature. The walks and the star-gazing came out of that. We wanted to provide an experience, not just an engagement of the rational mind...

Did you succeed? Did the people participate?

Natasha: In one way it was a disappointment. I would have liked to have seen more Aurovilians. But the open air market outside the Solar Kitchen on Saturday was successful. Many people came and different Auroville products were showcased. One visitor commented on how many Aurovilians and Auroville units are busy with ecological products on a daily basis; it is not just a production for Earth Day. And that made me change my outlook a bit.

The market was also special because all these people who have been working in an ecological direction were celebrating together. The market was a place of celebration rather than selling products, and a lot of them were not even selling! But when you see these people standing in front of the stalls, with smiles on their faces, you become aware of a deeper connection. And if more of these connections are made, this will be crucial for Auroville.

I felt very positive that afternoon.

Marc: The conversation cafés on food and holistic systems were also nice. We talked about how much food we can produce just by integrating a little farming in each community. If planning a community vegetable garden or fruit orchard could become the norm in Auroville, if it could be part of the planning process at the time of a building a house, like building a wastewater treatment plant, then we would be getting somewhere...

Natasha: The walks offered by early Aurovilians were also well attended. One group, led by Johnny, went all the way to Mathur and ended with a midnight swim.



TOP THREE PHOTOS GIORGIO

Marc: David of Aurodam did another walk. He looked so happy sharing with other Aurovilians what he has been doing for the past 25 years. One does not realize that the greenbelts have such a knowledge, and at the same time are so modest. I notice that people who work on the land do not have that arrogance which one often sees in business people. Perhaps working with nature, working with the earth, makes you more aware of yourself.

Bridget: We also got the schools involved. We had sixteen schools participating this year. We had given each school a three-metre long piece of canvas and the children were asked to paint their own image for Earth Day. The canvases were later hung along the roads for people to appreciate. Deepanam School played the host for a special morning programme for the community. Natasha also organized a parade of the 'Council of Beings'.

Natasha: What we were trying to do was to engage the artistic and the creative element in people. I believe art and creativity is a medium which connects people. So the idea behind the 'Council of Beings' is a process of connecting with nature and allowing a 'being' (usually a life form) to choose you. And then you go through a creative process of making a mask and letting any message come to you which you can express or share.

There had been some comments in the community that we were going back to tribalism, but it was not done in that spirit. It was meant to be about a deeper connection with other living beings, how we can be a medium for them to express themselves through us. There was a lot more thought put into this but it did not get across.

Most of the children in Transition School and Nandanam Kindergarten had gone through this process of taking on a being, creating a mask, and thinking about how they would represent this being. This time, there was a lot of participation from the villages and Thamarai in Edaiyanchavadi.

Marc: There was also the bio-regional quiz drawn up by Tlaloc. It made us all more savvy about our environment. How many edible plants are around? Where does your solid waste go? How much water does the average Aurovilian use? The questions seemed so basic. But it turned out that we really don't know much about what is going on around us. I think this is a very important way of being 'down to earth'.

Do you think the movement initiated by this Earth Day celebration will carry on?

Martin: Actually that was one of the questions we had – how to keep the momentum going throughout the year. You are always a little bit scared about being burned out after a big event. But now we are thinking about the small steps we can keep taking over the year.

Natasha: We sometimes hear that celebrating Earth Day in Auroville is like preaching to the converted but I don't agree. Of course, everybody in Auroville is aware of environmental issues, but how deep does that awareness truly go? Does it really bring change? This time we consciously focussed on trying to become more deeply aware, not just 'knowing' about sustainable technologies but somehow making this connection to life and living. Once that connection is made, then the change becomes automatic.

Bridget: When it touches you inside like that, a switch comes on, and a change becomes inevitable.

In conversation with Priya Sundaravalli

Photos from top:
Arriving in 'vandis';
Paul interviews 'the Council of Beings';
Auroville children reading the Earth Day pledge;
Bottom left: Bridget and Natasha at the T-shirt stall. **Right:** Rishi with the Kyoto Solar box cooker; Solar lamps at Carsten's stall

BOTTOM THREE PHOTOS JULETTA

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