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Restoring Tranquebar

e got involved with Tranquebar

in 2002 when Francis Wacziarg,

the owner of the Neemrana

Group of hotels, asked Ratna and me if we would be interested to

renovate a building in Tranquebar," says Ajit. "The building

was a former Danish private property which the British, after

making Tranquebar the headquarters of a British collec-

torate, had bought to use it as their Collector's Residence. In

its day it was a grand building, but when we first saw it, it

was in an advanced state of disrepair. Large parts of the

verandah had collapsed and the roof of the first-floor veran-

dah had been dismantled. We decided to restore the building

on the basis of the policy of 'least intervention with the orig-

inal structure', using traditional materials and old construc-

2004, the tsunami struck. Fortunately, not much damage was

done and The Bungalow on the Beach, as it was then called,

was inaugurated in March 2005. Just before it was finished,

Francis had bought another property nearby the old Danish

Gate to Tranquebar. The Gatehouse became the second

restoration project for Ajit and Ratna and their colleague Mr.

Das, a senior engineer and former Aurovilian, who has a lot

the Beach, it devastated other parts of Tranquebar. Ajit takes

up the story. "One day, a Danish gentleman, Mr. Torkil

Dantzer, turned up at the INTACH office in Pondicherry. He

is the managing director of the Danish Bestseller Fund

which came to bring relief to Tranquebar. He visited us

because he had heard that INTACH restored old buildings

and wanted to see if parts of the former Danish colony could

be restored by us. Unlike the other organizations involved in

tsunami relief who only wanted to build houses and provide

food and boats, the Bestseller Fund also wanted to protect

the heritage. He told us that the Danes had been trying to do

something about Tranquebar's heritage for a long time.

Almost everybody in Denmark knows that they had once

had a colony there and that now it was falling apart. So this

was a wonderful opportunity to do something. INTACH was

INTACH began by making an inventory of all the her-

"But I felt they shouldn't just become offices. There

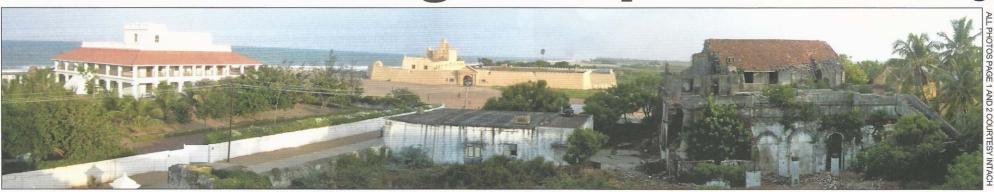
Though the tsunami did not damage The Bungalow on

The work was almost completed when, on December 26,

tion techniques like the 'Madras terrace method'."

of experience in restoration work.

happy to help them.'



Renovations in Tranquebar. From left: The renovated Bungalow on the Beach, the Danish Fort 'Dansborg', the not yet restored post office building and the Governor's Bungalow (meanwhile restored)

In the early years of Auroville, all the energy of its inhabitants went into establishing a foothold on this laterite plain. Today, however, more and more Aurovilians are going out and sharing the skills and experience they have accumulated here with the rest of India. One example is the Adyar Poonga project which brought together many Aurovilians to restore a degraded estuary in Chennai [see Auroville Today January, 2011, no. 259]. Another example is the restoration of Tranquebar, now called Tharangambadi, a small town on the Tamil Nadu coast about 120 km south of Pondicherry. Its name means "place of the singing waves"

Tranquebar was founded by the Danish East India Company in 1620. In 1846, after 225 years of Danish rule, the colony was sold to the British. Tranquebar was then still a busy port but it lost its importance when, in 1861, a railway line was opened to Nagapattinam and commerce slowed down. The town fell into a dormant state, and its historic part went into a steady decline with traditional heritage buildings being modified beyond recognition or falling into disrepair.

This situation started to change when, in 2002, the Neemrana group of hotels, which had bought a bungalow on the seaside, asked Auroville architects Ajit and Ratna to renovate it. It became The Bungalow on the Beach, a five star heritage hotel.

But the major change came after 26 December 2004, when the tsunami struck. It killed nearly 800 people and flattened the adjoining fishing village north of Tranquebar. In its aftermath, a number of NGOs stepped in to provide disaster-relief. One of them was the Danish Bestseller Fund, which was also interested in restoring a number of old Danish heritage buildings. It contacted the Pondicherry branch of INTACH (Indian National Trust for Art and Cultural Heritage). As Ajit is the local INTACH coordinator, this led to more and more Aurovilians becoming involved in restoring and beautifying this historic town.

Much of the initial work has now been completed. In this issue we present the work that has been done, to showcase what can be achieved when people work together to restore life and beauty to a place which was in decline.

Bestseller Fund helps turning

Tharangambadi into a model

heritage town







Top: Front view of the restored Bungalow on the Beach; renovated houses in Goldsmith Street; the restored Governor's Bungalow.

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Bestseller Fund helps turning Tharangambadi into a mo

Torkil Dantzer is the Managing Director of the Bestseller Fund, a Danish charitable organization which was established in 1995. The Fund is associated with Bestseller, a Danish family-owned clothing company. Since 2005, the Fund has been active in the town of Tharangambadi, formally known as Tranquebar.

Auroville Today: What are the activities of the Bestseller Fund?

Torkil: For the first few years after the Bestseller Fund was founded, it supported Danish cultural activities and the renovation of old buildings in Denmark. In later years, as the Bestseller Company grew and developed a network of international contacts, it began working outside Denmark. We started helping groups from the poorest levels of society in India and China, two countries where the Bestseller Company has become very active. Though not directly related to the Company's activities, the Bestseller Fund became a means to give something back to these developing societies.

Why did Beststeller Fund get involved in Tranquebar?

Denmark has a small colonial history. Tranquebar was one of three colonies Denmark had in India in the 17th and 18th centuries. Danish East India included the Nicobar Islands (Ny Danmark), Serampore (also Frederiksnagore) in Bengal, and Tranquebar in Tamil Nadu, which it acquired in 1619 from the Nayak of Thanjavur. In 1845 Tranquebar, together with the other colonies in India, was sold to the British East India Company.

Nowadays all Danes know about Tranquebar. It is something like a Shangri La - though perhaps many Danes would have a problem finding the place on a map. In the last decades, Danish historians, architects and well-wishers have visited the dilapidated and impoverished town and have come up with proposals for renovation of the old buildings and improvement of the inhabitants' living conditions. But apart from the partial renovation of the Dansborg Fort, the citadel of the old Danish trading post, by the Tamil Nadu State Archaeological Department in collaboration with the Tranquebar Association in 2002, nothing much happened. Tranquebar remained enclosed in a time capsule.

This dormant state was broken by the tsunami of December 2004. It brought an influx of funds from many relief organisations amongst which was Bestseller Fund.

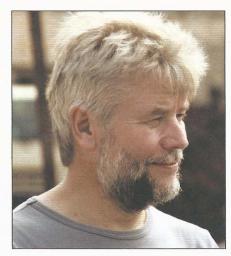
The work in Tranquebar

We found that the best way to help the people was through the Indian Saint Joseph Development Trust, an organisation working at the grassroots level for the weaker sections of society. It runs Children and Women and Community Development Programmes.

But contrary to the other relief organisations, we also wanted to get involved in heritage protection. We contacted INTACH [the Indian National Trust for Art and Cultural Heritage] Pondicherry and met with Auroville architects Ajit and Ratna, who were already working in Tranquebar on the restoration of The Bungalow on the Beach and The Gatehouse.

One of our first actions was to buy five small destroyed houses in the Goldsmith Street, which INTACH, under guidance of Ajit and Ratna, then renovated in the original Tamil style. We also started work on building a new sea promenade. The original road along the coast had been swallowed by the sea and the Indian government had built a new sea-wall of huge boulders right on top of the sunken road. We were afraid that the area would be overrun by new concrete houses which would have changed the character of the town. We managed to acquire all the lands along the coast. Some lands were then laid out as a public park, which was designed by Auronevi, another Aurovilian; and the other lands were used for the sea promenade. Today everyone can walk along the sea and

Another ambitious project was the renovation of the former Danish Governor's



Torkil

residence, a building from the 18th century, which was close to collapsing. This building is owned by the Tamil Nadu Government. Negotiations to restore it were unsuccessful for quite some time, until in 2009 it was agreed that INTACH could restore the building with finance provided through the Danish National Museum. Danish architects got involved to decide how best to renovate it in accordance with its historical past, while the Bestseller Fund served as the intermediate between the Danish and Indian parties.

In cooperation with the Ministries of Tourism of the Central and Tamil Nadu Governments we also began the first phase of streetscape restorations - the Parade Ground and Goldsmith Street are now fitted with new underground electricity cabling, stone paving, street lighting and with trees from Auroville nurseries.

So Bestseller Fund's focus is mainly on heritage conservation?

Not only. We are also working to improve the income possibilities of the local population. The economic development of Tranquebar is not easy - agriculture and fisheries yield meagre results and have been in crisis for many years. But with all the heritage work being done, we expect an increase of tourists, which will benefit the population by providing income and job opportunities. We will also be helping owners of heritage buildings to renovate their buildings. We will pay 50% of the costs of the heritage restoration works, if the owner also contributes 50%. The first interested parties have already come forward and we expect that in a not too distant future many house owners will offer 'heritage home-stays'.

Our perspective is holistic; we are trying to include the whole town and its surroundings in the planning. Our vision is to help realize a socially and environmentally sustainable transformation of Tranquebar into a model heritage town which will be managed by the local population. For in future, they will have to take responsibility for maintaining and further developing Tranquebar.

How was your personal experience doing

The process of the involvement of the Bestseller Fund in Tranquebar has been very complicated, and I do not think that I will ever do such a project again. But it has given unexpected rewards to me personally, apart from the satisfaction of seeing a derelict town being renovated and people's living standards improved. For I came into contact with Auroville and with many Aurovilians without whose help the restoration of Tranquebar could never have succeeded. Auroville has grown on me. It was very rewarding that, in 2010, I was accepted as 'Friend of Auroville'.

In conversation with Carel

Bestseller Fund recently published the book If Waves could Sing: Tranquebar in past and present by Rune Clausen.





The buildings on the frontpage before restoration: the former Collector's residenc



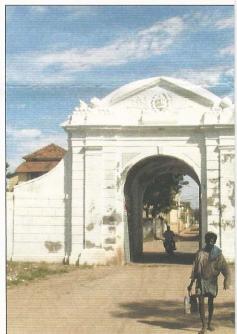
One of the finest public urban spaces in Tamil Nadu: the Parade Ground with left the rest and right, the entrance to Fort Dansborg. Compute



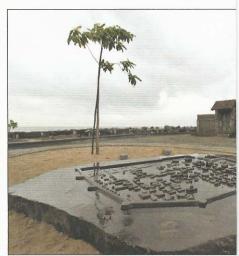




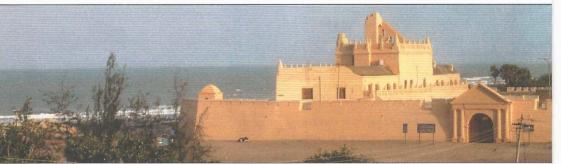
Front views of the Gatehouse before and after restoration. View of the swimming pool in its former backyard.



The old Danish entrance gate to Tr



Model of the old town of Tranquebar, car Murthy in a granite rock, on display at



Fort Dansborg

odel heritage town





, the Goldsmith street and the Governors' Bungalow.



red Governor's Bungalow and The Bungalow on the Beach. simulation by INTACH



anquebar

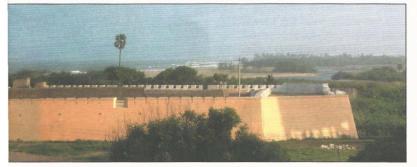
red by Aurovilian

the sea walk.





Front view of Nayak House before and after restoration and of its interior.



Restoring Tranquebar

continued from page 1

It was a good beginning, but at some point INTACH and Bestseller Fund felt that saving the heritage of Tranquebar was not enough. They also wanted to make the place clean and beautiful. One of INTACH's colleagues had been involved in running a solid waste management project in Pondicherry for two years as part of the Asia Urbs Programme, so he was called in to develop a similar project in Tranquebar. Then Auronevi, an Aurovilian with experience of garden design, came in and created what has become a small public park. Meanwhile Walter of Auroville's Shakti Nursery had started work on planting a small forest to the south of the town. All these projects

were funded by Bestseller.

Later, with the help of a grant from the Ministry of Tourism, Government of India under their Destination and Infrastructure Development Scheme, it was decided to put energy into urban landscaping. This included creating a pleasant square for pedestrians on the old Parade Ground next to the fort - the square will be ringed with trees provided by Walter - the resurfacing of Goldsmith Street with cobbles and creating a sea walk from Goldsmith Street to the Parade Ground.

The biggest restoration challenge,

however, had not yet been tackled. At one time the former Danish Governor's Bungalow, now owned by the Tamil Nadu Tourism Department, had been one of the most imposing buildings in Tranquebar fronting the Parade Ground, but now it was in a terrible state. For many years, there had been discussions about what to do with it. Francis Wacziarg had wanted to run it as a hotel and the Danish Government had agreed to pay for its basic restoration but this idea didn't take off as the Tamil Nadu State Archeological Department felt it should become a cultural centre for the people. The government commissioned the Tamil Nadu chapter of INTACH to make a feasibility study.

Meanwhile, the Danish Government had withdrawn its offer to fund the restoration. Then funding suddenly became available through the National Museum of Denmark. At that point, the Tamil Nadu Government handed over the project

to the INTACH group already working in Tranquebar, specifying it should become a cultural centre. The work began in June, 2009.

"Actually, when we first saw the building we were very excited because it was such a challenge," remembers Ajit. "We had never encountered a building in worse condition - the walls of one room had collapsed and 12 foot trees were growing out of the roof! - but we felt it could be done because you can reverse almost anything provided you have an understanding client and a free hand. And here we had complete freedom to do whatever was needed and, for the first time ever, someone who would cover

"We had a lot of design discussions with the Danes and INTACH Chennai and the Tamil Nadu Government people before we began. The Danes didn't feel it looked any longer like a Danish Governor's bungalow because of the front colonnade pillars that were round below and square above and the first floor tiled roof hall that was added after the Danes left. However, in good restoration practice one has to respect different historical phases in a building. Finally, we agreed to modify the pillars and not rebuild the eastern part of the collapsed first floor structure. We made pillars all the way around and we set back the big sweeping tiled roof so that the front of the building is more imposing, as it used to be in the past."

"As far as possible we reuse the original materials," says Das. "One reason for this is that the quality of materials available today is not what it was. For example, today's bricks are not nearly as strong as the ones used in the original building. Even the wood quality has gone down. We use old teak as much as possible, but sometimes we have to buy new. Old teak came from trees which were 70-90 years old whereas now the trees are felled as soon as it is commercially attractive, and this has an impact on their strength. So here and there we have had to install twin teak beams whereas a single one would have been strong enough in the past. But, essentially, we try to preserve as much as possible the spirit and form of the original. We've been helped in this by finding masons who still have the knowledge of the old techniques, like the making of Madras terrace roofs."

On November 12, the near-completion of the renovation was celebrated with a visit of the Danish Ambassador to India together with representatives of the National Museum of Denmark and of Bestseller. The building is scheduled to be inaugurated in January by the Tamil Nadu Minister of Tourism. The event will be followed by a week-long Festival of Tamil Nadu. "Then we want the local people to come in and use it," says Ajit. "There will be a reception hall

where information about Tranquebar and other local tourist places will be displayed and a room which shows how the building was restored and an exhibition on the history and architecture of the town. There will also be a small boutique selling local products, a small reading room and children's library and, on the first floor, a hall where films can be shown. Aurovilian Marc is also going to manage a beautiful coffee shop there which will overlook the parade ground.

The other work which is ongoing is the restoration of the Van Theylingen House in King Street. This building was bought by Bestseller who plans to use it for a women's selfhelp organization.

> 'The whole Tranquebar project has been a learning curve for us," says Ajit. "With the restoration of The Bungalow on the Beach and the small houses we took certain things further we had learned while restoring the Hotel de L'Orient and a street with Tamil heritage houses in Pondicherry. Now, with the Governor's Bungalow, we are extending our knowledge even more. But, basically, restoration is not difficult if you know how to approach it in the right way. You have to find out how a building was originally built, what has been changed to the detriment of that, and then you need to know how to undo that and repair it in a sensitive way. Sometimes you need expert help, but generally it's a

matter of common sense. The main thing is to work in a spirit of humility and learning."

"For the future, we would also like to improve the town's water supply in cooperation with the Tamil Nadu Government and Bestseller and we're also thinking of a decentralized sewage system. And then we should like to set up a matching grant scheme which helps house owners repair and restore their traditional houses.'

Clearly, a huge amount of energy and goodwill has already been invested in the Tranquebar project. How have the townspeople responded? "When you come as an outsider to a new place you are looked upon with suspicion and that was no different here," says Das. "However, we made a mistake in not having enough interaction with the local population from the beginning. Both Ajit and I are doers rather than

> communicators and the man who headed the INTACH team on site in the early days lacked social interaction skills. This led to a lot of misunderstandings and soon all kind of rumours were circulating. One was that the Danes were returning and they were going to throw out all the present inhabitants! Another was that INTACH was behind an amendment of the 'Ancient Monuments and Archaeological Sites and Remains Act' which the Central Government passed at the time. We had nothing to do with it, but still we came in for a lot of flak and there were even demonstrations in front of our office,

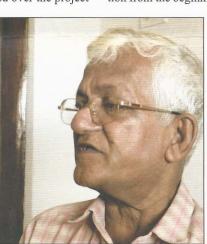
telling us to leave. "Fortunately, we managed to defuse the situation and we have now appointed a link person to liaise with the local people. Now the attitude of the townspeople is much more positive. They see the benefits we are bringing and they are beginning to realize the value of heritage preservation. But we have still not succeeded in our long-term plan of establishing a committee of the townspeople which will run this project in the future. The problem is that Tranquebar is made up of different communities – a Hindu community which constitutes about 85% of the population, a Muslim community of around 7% and the balance which is Christian – which in the past have tended to stick to themselves and not being involved with anything considered

the area of other communities. "The Tamil Nadu government is very happy with what's happening here," adds Ajit, "because they see the quality of the work and it has all been happening with private funding. Now the Central Government has also given funds under their Tourist Destination Scheme for infrastructure develop-

Does this mean Ajit and Das envisage Tranquebar becoming another tourist attraction, like Mahabalipuram? "The idea is not to make Tranquebar only a tourist site but to preserve its heritage and improve the quality of life for its inhabitants. We would like the entire historic town to be given a special status and the local people to manage it under the town panchayat and this will automatically promote tourism and local economy," says Das.

"Most people who come here", adds Ajit, "say, 'Wow, what a place!' It has a very special atmosphere and that's what we want to preserve. The almost completed Parade Ground landscaping with trees and cast iron street lamps has become a wonderful public space exclusively for pedestrians - the local people and visitors alike will enjoy this. As the trees planted by Walter grow, this plaza will become better and better - one of the finest public urban spaces in Tamil Nadu!"





Taking care of the greenwork



Creating a public park

estseller wanted a coastal park in Tranquebar which would be open to the public. Auronevi, an Aurovilian with experience in garden and landscape design, was asked to plan it and plant it out. Auronevi began planning the park in 2007 but couldn't begin planting until the hardscaping had been completed. As the park is right by the sea, there were some particular challenges involved. As water is an issue in Tranquebar, Auronevi had planned a low water use park, but Bestseller wanted to include some tropical plants requiring more water, so she had to find a compromise.

It was not easy to find plants and shrubs for such a special environment. With every monsoon the increased wind and salt spray would kill some of the plants, which then have to be replaced. To solve the problem, it was agreed to plant a Casuarina buffer along the coast which offers the needed protection. As an experiment, also Andaman species of coconuts and mangrove trees are being planted along the sea promenade and the park, to see if they can

View of the park (top) and of one of the many cosy gazebos (below)



grow in close proximity to the sea. They will offer some greenery and shade to strolling tourists.

The park, with its trees, shrubs, walkways, stepping stones and a small garden houses, was inaugurated this November. A local team is being trained to maintain the park.



Planting beach forests, streets' and the Parade Ground perimeters

alter from Auroville's community Shakti got involved with Tranquebar after the tsunami. His first project was to plant, at the request of Bestseller, a beach forest south of the fort as coastal protection. "It was not an easy proposition because these are really special conditions: beach plantation is always very tricky. For example, the area here gets flooded every year with brackish water and we also have to cope with the salt in the sea air. So, firstly, I created shelter belts of casuarinas and inside I planted species which will grow well under these conditions: Pongamia, Work Trees (Acacia auriculiformis), Hibiscus deviatus, Cordia etc."

Walter and his team started planting this forest three years ago and now some of the trees are 3-4 metres high. next year they we will start planting another beach forest on a site to the north where the former fishing village was washed away. "The local people want fruit trees. This doesn't really make sense, but we will plant some coconuts."

The forest projects will take at least another three years to complete. This year, Walter's team also planted out Goldsmith Street, the sea walk from Goldsmith Street to the Parade Ground and the perimeter of the Parade Ground itself. "There will be 46 trees around the Parade Ground. The canopies will have to be protected for some years against the salt: they are not used to these conditions as they have been raised in our nursery in Shakti."

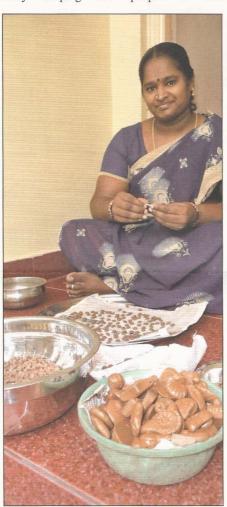
Does he enjoy working in Tranquebar? "Very much so, mainly because it is privately funded. It is so less complicated than working on a government project."

The Tranquebar Crafts Resource Centre

Project leader Mandakini talks about its origins. functioning and challenges.

the end of the Goldsmith street stand a line of renovated Tamil houses, two of which serve as the Tranquebar Cultural Resource Centre or TCRC as it is simply known. A shiny brass plaque announces its presence - bearing the colourful logo with motifs of the 'singing waves', the town's gate, the gopuram of the Masilamani Nathar temple and the ubiquitous kolam.

"The TCRC is a space dedicated to all the c's - culture, crafts, cuisine and communication!" says Mandakini, its Project Manager, with a twinkle in her eye. She explains that the idea for the TCRC came three years after the Tsunami, when INTACH began the restoration work on the buildings brought by Bestseller. "Ajit recommended that Bestseller talk to Uma of Auroville's unit Upasana to see if any intervention could be done in the craft sector. This would make for a more holistic development, while simultanehelping the people



Making terracotta bead jewellery

Tranquebar." This led to the opening of the Tranquebar Crafts Resource Centre in December 2009 as a space dedicated to promoting traditional crafts, where artisans could have exchanges with designers coming from outside, and a place where they could display their own wares and products.

Upasana had got involved in Tranquebar in 2008, when it conducted a survey to determine the predominant modes of livelihood in and around Tranquebar. After fishing, the second most common mode of livelihood was crafts, and it mostly involved women. "Twenty-nine crafts were identified," says Mandakini. "Upasana then selected six traditional crafts - palm basketry, terracotta work, coconut shell craft, bamboo basketry, sea shell craft and woodwork - for possible design intervention and further development.

It was at this point that Mandakini joined the project. An alumnus of the Sri Aurobindo International Centre of Education of the Sri Aurobindo Ashram in Pondicherry, Mandakini was looking to do something different with her life. "It was by chance that I was introduced to Uma who invited me to come along with her to Tranquebar."

The little seaside village cast an immediate spell over Mandakini. "You go to Tranquebar and that is it it takes you 'home'. The place was special! I just knew that I had to be part of the project though I'd no clue what was going on. But I was so inspired and I was so happy to be connected to Uma and to Auroville." Mandakini joined the Tranquebar project a week

"Upasana's craft development model focuses on four components - development of skills, leadership training, enterprise development, and linking to local markets. So the question arose how to bring these concepts to the artisans of Tranquebar and how to balance the new with the old - the design intervention coming from outside with what was already existing so as to best meet the market potential outside."

Workshops were conducted around these six crafts bringing designers from

outside. "The interaction between the artisans and designers was very positive," says Mandakini. "Designers were inspired to work side by side with the artisans. The artisans enjoyed the attention and got exposed on what else could be done with their medium. It became a great space to express creativity, and some products got developed."

However the project did not take off as expected. Only three of the six crafts picked up on the new ideas. "In general, the artisans were often not interested since continuing would mean working in groups," explains Mandakini. "Most were satisfied doing things the way they were used to. The ambition of these artisans was not so much to pursue new ideas or to go and get orders for large quantities - they were comfortable in their own secure areas, happy to work with what they knew well, and participate in the small exhibitions around the area."

With this new reality, the team had to rethink its strategy. Mandakini reflects: "Many times we go into a com-

munity with our own ideas about what it needs. But every community's need is not really what we think they need. To be able to tune your own project to the way the community wants to grow is the challenge and Upasana has been very open to that. At Tranquebar, there was nothing that we needed to prove - we've just wanted a more 'hap-



Basket weaving with palm fronds

pier' people; that they feel they belong to a particular place, and that they are proud of it."

The team concluded that the best way to sustain the model would be to support the artisan's basic infrastructure needs. "All the women work from home, so if we can make their work easier, we are helping them tremendously. For example, one of the women makes jewellery out of coconut shells. We got her a buffing machine to polish the shells and this improved her production and product quality.

Developing Tranquebar's public image.

Apart from creating the TCRC, Upasana has also been active in unfolding Tranquebar's public image. A Tranquebar logo was developed, which is now used in all its communication. Auroville cineaste Basile created a 7-minute documentary on the town of Tranquebar and its history. A children's animated movie on Tranquebar's past and present (in Tamil and English) was created by Aurovilians Tina and Emanuele. Upasana has also been active in designing a website (www.tranquebar.in), and publishing a coffee table book on Tranquebar's heritage buildings and a book on Tranquebar's history and present challenges.

> "Simultaneously we saw that something intangible was happening at the workshops. The unanimous feedback from the participants was that they enjoyed the relaxed and informal setting. At TCRC, unlike other at trainings, they were able to laugh and interact with each other and even bring their children along. So TCRC came to be seen as a place where they could come together, and it helped forge an identity

that they 'belong' to Tranquebar." This pushed the TCRC into playing a role that extended beyond crafts and into culture.

"When it became clear that craft is good but it is not enough, we decided to do something to encourage other local talent," says Mandakini. The TCRC decided to host a cultural event in which everyone, children and adults, could participate. "We organized different kinds of competitions from singing, to dancing, to drawing, to Kolam making, cooking, and sports for the youth!

Simultaneously we promoted crafts through stalls selling TCRC artisans' products." This has now become an annual event.

"It happens in late January, around India's Republic Day holiday," adds Mandakini. "The event draws people, both local and from outside, and this has done a lot to foster the sense of community and pride in being associated with Tranquebar." Many Aurovilians too participate in this venture, like Saraswati and Anna who have offered several terracotta workshops.

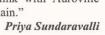
Mark (of Coffee Ideas) is another Aurovilian involved with TCRC, this time through food. "Besides promoting crafts, TCRC also runs a small café offering a fine selection of coffees and crêpes," says

Mandakini. "And it was Mark who trained our in-house chef, Geetha." Mark was also responsible for training twelve local women who will soon be capable of running their own businesses.

"It is an entrepreneurial venture to promote local cuisine," continues Mandakini. "Our team felt that 'local food' deserves due importance and every household has the expertise. So we organized a cooking contest under

four categories. The winners were offered a chance to train with Mark who helped them in perfecting some forty traditional recipes! TCRC will be involved in helping them for a year until they get established."

Today, after almost four years of involvement, Upasana is actively thinking about its exit strategy. Mandakini explains: "We want the TCRC and the entire Tranquebar project to become independent in due time and have an income-generating activity to ensure the maintenance of the building and the continuation of the work. Evidently, the tourist industry should become a main source of income and we hope that the TCRC will promote the development of home-stays and expand its present work. We will guide the process carefully. However, the link with Auroville will always remain."





Buffing coconut shells to a high polish

Developing the food sector

offee' Marc first became involved with Tranquebar six years ago when he designed the kitchen for The Bungalow on the Beach and also blended two unique coffees for the hotel: 'King's Blend' and 'Queen's Blend',

named after the two main streets of the old town. Two years ago, when Uma and others were developing the Craft Centre, he felt it was also time to develop the food sector in Tranquebar to provide local skills and employment opportunities to the new people - he could see that the restoration of Tranquebar would attract many more visitors.

Some local women were trained in food processing, cooking and hospitality, and they began offering tea, coffee and snacks at the Crafts Centre, making it into something of a social hub.

As the aim is to strengthen the local economy, wherever possible they use locally-grown food and locally-made cooking utensils like terracotta pots.

The next project was the Peter Anker café (named after the last Danish Governor of Tranquebar) which opened in November. This coffee shop, situated on top of the Governor's Bungalow, has a marvellous view of the Parade Ground, the Fort and the sea. The café will serve not only fine coffee but also continental snacks, "which will include, of course, Danish pastries: we want to provide a Danish experience." The local people don't have skills in preparing food like this, so Marc started cooking sessions where chefs from other parts of India and abroad came in and worked with the local women. "We had a great time. One chef came from Nice to share his knowledge and learn about south Indian cooking. Now, one night a week in his restaurant in France, he has a 'Tranquebar

evening' when he cooks South Indian food. It's all

about building bridges...'

Talking of local food, another project is to turn the old post office behind the Governor's Bungalow into a restaurant which will prove local Indian food, like thalis and dosas, at reasonable prices to locals and visitors.

The other Tranquebar project which occupies Marc concerns the mobile carts from which street vendors sell snacks and drinks. As Marc points out, these carts are often shabby and poorly maintained,

so he has designed a smart new model for the Parade Ground in Tranquebar. "The idea is to provide micro-financing to local people so they can purchase these carts and make a living selling food or craft items. Rishi from Auroville's alternative energy unit, Sunlit Future, is providing LED lanterns with a light battery to go with the carts as most activity takes place in the evenings, when everybody comes to the Parade Ground. I'm very excited by this pilot project to encourage local entrepreneurship because the Tranquebar project is not only about restoring old buildings and improving the infrastructure: it's also about providing alternative employment for the local people.'



magine an Indian bus stand without trash. Imagine streets lined with trees and lampposts instead of being littered with plastic. Imagine a city where the does not smell like burning garbage. That place exists. It's Tranquebar.

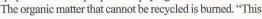
"Why is this place so clean?" asked the Secretary, Ministry of Tourism, Government of India, when he visited Tranquebar to check on INTACH's application for funds for urban landscaping under the Government's 'Destination Development Scheme'. Why indeed. It wasn't always like this; like any other Indian town, the streets of Tranquebar too were once littered with waste.

"Bestseller and INTACH decided that beautification of the city included managing its

solid waste," says Thambusamy, who is in charge of the solid waste management project that started in August 2007. "During the first six months of the project we did a massive cleaning of the city, collecting all the garbage. We also cleaned the water reservoirs." Once the place sparkled, INTACH and Bestseller wanted to keep it that way. They funded the porgramme, helping it grow. The programme subsequently expanded beyond Tranquebar to include five nearby villages.

The work begins at dawn when teams of nearly two dozen women collect waste from each house. The households have already separated their garbage into two distinct buckets. The women empty the garbage into their rickshaw, ensuring it is properly separated. By afternoon they have reached 625 houses and collected over 52 kilograms of

The waste is then taken to a composting centre, constructed with government funding, where six additional workers transform it into biocompost, vermicompost [a method using earthworms to transform organic waste into a nutrient-rich fertilizer], vermiwash [a liquid byproduct of vermicompost that is used as bio-pesticide spray and as a growth promoter] and sellable waste. The sellable waste goes to 'junk dealers,' who sell it to recycling companies. The biocompost, made with cow dung and a combination of naturally existing and useful micro-organisms (EM solution), is sold for Rs 4 per kg to big companies who make it into fertilizers, to farmers, or to households who use it in their gardens. The vermicompost is of a higher quality and goes for Rs 10 per kg. The vermiwash, Rs 20 per bottle, also has a local market, thanks in a large part to smart business practices. "At first we gave the vermiwash to our workers for free," says Thambusamy. "But it became very popular and now people start paying for it. We sell lots."





Women waste collectors start their work with their rikshaw

is one of our biggest challenges," Thambusamy says. "We need a small landfill. And we need people to better segregate their waste so there is less we can't use." For better segregation would make the solid waste management program more affordable. "We want to make it completely financially sustainable, but it isn't yet," says Thambusamy. "In the first two years all costs were covered from donations and government funding. Since then, the operation is funded 25 percent through compost sales, 25 percent through the sale of recyclable materials, and 50 percent through user fees. In Tranquebar, the fee is covered by Bestseller, but each household in the other villages pays Rs.20 per month. If the waste was properly segregated, we could increase our income from compost and recyclable goods to cover 70 percent of our expenses."

This points at the need for education. "In the beginning it was extremely difficult to get people to understand and act," Thambusamy recalls. "Earlier, every house would burn its waste." Support from panchayat leaders helped significantly, as well as better communication and interaction with the villagers. "We knocked on the door of every household, and continue to do so every other day. We try to teach them how to make their own compost by simply burying their chicken or fish bones. We also plan to teach them the benefits of using cloth instead of plastic carry bags."

Education is also used to beat the competition. "People have the habit – the tradition – of giving their plastic to the onion or salt dealers that come by, in exchange for onions or salts. People now are sometimes asking us what they are getting from us giving us their waste. We try to explain that it is better in the larger picture."

It's catching on. "The people are happy!" says Thambusamy. "The outside fishermen communities are happy to pay and participate. It is a little different in Tranquebar, as it

has such a varied population mix: Hindus, Muslims, and Christians. The Muslims tend to go abroad to work, the Hindus are masons and workers, and the Christians are often teachers and service providers. Then the different groups point at each other saying 'You all can afford it but we can't'

That the programme is a success is shown from the interest expressed by panchayat leaders from other villages who have asked if the programme couldn't come to their villages as well. "People from all over India come to Tranquebar to learn about the programme, and we do exhibitions across the country," says Thambusamy. "But the moment of triumph came when Tranquebar won an award from Delhi for the 'Best Civic Management of a Tourist Destination in India' in the green practices category."



The composting centre

Catherine

Auroville has a new library

On November 28th, the new Auroville library located on the Crown Road opened its doors.

he main hall is 600 square metres large. It is connected to a study room and office. There is a separate children's section and we have a kitchen and three bathrooms. Compared to the 180 square metres of the previous library in Bharat Nivas, it is a huge improvement!" Ashatit, the new Auroville librarian, has reasons to be satisfied. The main hall has pleasant proportions and is airy and light, and the many bookshelves invite browsing. Contrary to the old library, the shelves are not packed. "There is a lot more space," says Ashatit. "We have about 26,000 books now and we can add another 5,000." He expects that to happen within the next five years.

The Auroville library first started in 1975 with donations of private collections of Aurovilians and Auroville friends. At the time, the bulk of the collection, 5,000 books, was gifted by the mother of the late Aurovilian Namas and shipped all the way from America. Over the years, many Aurovilians have donated books and various book-lovers have acted as librarians. But the person who doubtless has done the most for the development of the library is former librarian Jürgen Klein, who took up the work in 1998.

At that time the library was located in the rather dingy basement of one of the unfinished pavilions of Bharat Nivas. Jürgen improved the set-up of the library with more books, more shelves, a study section, better lights and cushions that invited one to plop down on the floor for relaxed reading.

He also installed a pump, a necessity as the library was regularly flooded during monsoons and on a few occasions many books had suffered considerable water damage. But his major achievements were cataloguing all the books according to the Dewey Decimal System and being the driving force behind building the new library. "He has left us an incredible gift," says Ashatit. "We are very grateful for his work."

"But notwithstanding all of Jürgen's pushing and the obvious unsuitability of the Bharat Nivas basement, it was years before the community accepted the idea that a new library was necessary," says Suhasini, the architect of the new library. "Over the past decades a few architects had made sketch-designs for a new library, but they failed to kindle the collective imagination. Then architect Fabian designed a huge library, intended for a population of 30,000 people. That became the catalyst which got people to take the project seriously."

But it took the intervention of Governing Board member Mr. Bagchi to push the project onto the Auroville priority list, which was then submitted to the government for funding. For financial reasons, the large library designed by Fabian would have to be built in phases. Fabian, however, objected to this and soon afterwards left Auroville for a while. As the late Roger Anger had objected to aspects of Fabian's design for aesthetic

reasons, a new approach became necessary. The project went to Suhasini and a library support group was created that acted as the client.

"We were requested to plan a library for an Auroville population of 25,000 people, to be reached in a period of 15 years – which I believe is a bit of wishful thinking – but we had no idea how much money would be available for the first phase,"



says Suhasini. "We worked with the premise that the building would not be air-conditioned and therefore would need solar-passive ventilation. Direct sunlight had to be avoided. As much as possible, locally available materials should be used to keep the ecological footprint low. The books should not catch dust from passing vehicles, so a certain distance from the Crown road was required — even if this did not exactly match with the development guidelines as outlined by L'Avenir d'Auroville. The interior spaces should be suitable for multi-purpose usage. Most importantly, we agreed to build phase one for the 'here and now' and not for a possible future development. The present building, for that reason, has minimal foundations and non-load bear-

The new Auroville library: unobtrusive

The present building is an unobtrusive construction, hardly noticeable from the road. "It was done on purpose," says Suhasini. "Many of Auroville's public buildings, such as the Matrimandir, Savitri Bhavan, the Unity Pavilion and even the Solar Kitchen, are imposing and, because of that, are often thronged by the random tourist and by architect students. We wanted the library to be for Aurovilians." Plans for future extensions, she says, are ready, involving a multistorey building to house the books, a video and music library, conference and audio-visual rooms, and study cells. "When that happens, the present main hall will become a reading room," says Ashatit.

space really warm and cosy. We are looking for a donor."

While the community will carry the library's running costs, there is very little money for buying new books or subscribing to periodicals. "We depend on donations," says Ashatit. "Most of the books in the library have been donated by the Aurovilians and we have Tamil, English, French, Russian, Dutch, Italian and Spanish sections. It is a truly Aurovilian library. But the shortcoming of such a development is that you may have too many double copies or too many books on a particular subject while major works are missing."

Ashatit, considering himself as being 'only the administrator' of the library, has therefore

persuaded Aurovilians from different nationalities to take charge of the various language sections. "They keep an eye on what books should be added to the collection and what books have very little or no interest and could be discarded. I also hope they will do fundraising or find other ways to increase the collection of their particular section."

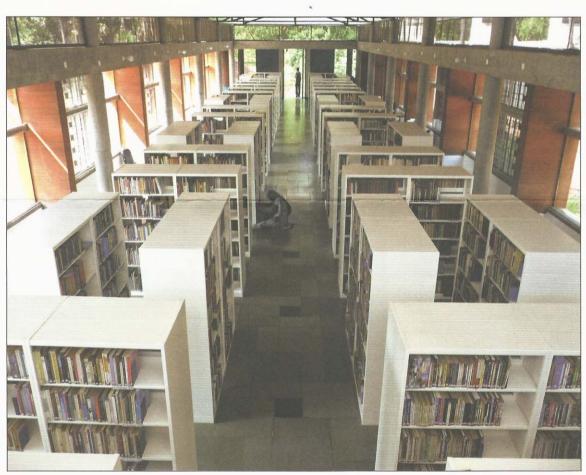
There is a development which could be of great help. Auroville could become a member of a government project which connects the major libraries of India. "This will give us access to a virtual library of hundreds of thousands of books and periodicals, which can be downloaded," says Ashatit.

Yet, though he recognises the usefulness of this new development, Ashatit is a bit anxious about the trend. "A library has a social function. It must offer an attractive physical environment where people can meet and are happy to browse through bookshelves; it shouldn't be a place for people who are sitting glued to computer screens." To promote this, Ashatit would like to create a tea area in the courtyard where people can interact, read books and magazines or play games such as chess, go and Scrabble. "This is absolutely necessary, especially for the youth," agrees Suhasini, and she adds that the library should also be a place where children will learn the love of reading. "My son loved to be read to when he was a pre-schooler. The library

should provide that space, where volunteers can read stories to children, especially during the holidays. This will inculcate the reading habit which is so necessary for their future development."

"The new library is a wonderful gift to the community. I believe that everyone will appreciate

In conversation with Carel



The main hall of the new Auroville library

ing rammed-earth walls. It is a 'ground-floor only' with a light-weight aluminium roof with a false ceiling for sound and heat insulation." The costs, she says, have exceeded the finally allocated amount of Rs 1,07 crores (approximately US\$ 215,000) by only 2%, which is an achievement at a time when the construction sector in the country calculates an inflation of over 10% a year.

A staff of six people, Kalaivani, Manjula, Mariama, Deborah, Juergen and Ashatit, now take care of the library. Deborah has charge of the children's library, which is located in a separate room immediately to the right of the entrance. "Children make noise, so it was a good idea to create a separate room for them," says Deborah. "But we still need cushions and bean bags and mats to make the

REFLECTIONS

On architects, architecture students, India and Auroville

frequently get asked the same questions: why are there so many Indian women architects in Auroville? Do you only employ women interns and architects? Is your office a 'women only' place? I decided it was time to look for answers rather than dodging the question out of ignorance. And here is what I found out.

There are presently about 237 institutions in the country recognized by the Council of Architects teaching architecture to 33,000 students or more in India, with a gender composition of 70% women and 30% men. This implies that more women than men will be looking for internships and jobs. As we recruit 2 interns per semester in CSR, statically we end up with women rather than men. Of course, one could take on one of each sex, but somehow the CVs and the portfolios of women seem to be more in tune with the ethos of Auroville.

According to Professor Vijay Shrikrishna Sohoni, the President of the Council of Architects, there are about 54,000 officially registered architects in India of which only about 30,000 are practicing and

the rest have either moved on to more remunerative professions or have retired. This means that for a population of ± 1.2 billion we have one registered architect⁽¹⁾ with requisite qualifications for every 33,333 people living in this country.

But when you look at the male – female ratio of registered practicing architects, the gender ratio gets reversed in comparison to the academic institutions. About 66% of them are men (19,238) while only 34% (9,847) are women practitioners⁽²⁾ Now the question is; what do all these women architects do after they finished their studies? Why do they not practice the profession? Is it that after 5 years of academic exposure women realise that there are better things to do in life than design buildings for a country peopled with philistines? Or do they stop practising when they start families? There is no official answer.

Looking at Auroville; today we have about 35 practicing architects (not counting hobbyist and enthusiast, sorry) working alone, in partnerships and within teams, involved in architecture and

town planning. And, notwithstanding the prevailing perception, we have an almost equal number of male to female architects making this a profession with gender equality, something the COA and the rest of India is still grappling with.

This means that, as per Indian statistics, we have enough architects in Auroville to design for a population of 1.7 lakhs (Auroville was intended for 50,000 people, remember?). But as there are only about 2,200 people living in Auroville, we have in fact one architect for every 65 Aurovilians, which means we have the human resources to have a meaningful, informed, aesthetic and sustainably built environment to live in. This is great. However, it will come to nought and all these human resources will be squandered if the urban planning process continues its top-down approach and does not become more participatory and flexible.

Suhasini

(1) http://www.coa.gov.in/home/home.htm

(2) http://houseconstructionindia.blogspot.com/2009/02/architects-in-india-statistics.html

Volunteers in Auroville

hen you actually look at the numbers, it's amazing!" Michael says as he clicks from chart to chart, each one showing different statistics on the guests, volunteers and students in Auroville. For more than three months, Michael, a volunteer, has worked closely with the Residents' Service, the Aurocard [the debit card payment system designed for guests] team and SAVI [the organisation devoted to attracting, organizing and supporting volunteers in Auroville] to gather, analyze and present data on the 'other' population of Auroville.

We have known for a while that there are more guests in Auroville per year than Aurovilians. But, for the first time, someone is analyzing who comes and why, and the results are enlightening. Most importantly, almost 40% of those who come to Auroville to contribute to the community do that through an official structure - whether it's a university, a foreign state-sponsored program, or SAVI. "That means about 3,000 of the people coming here are volunteers or students - more than the Aurovilian population. In September this year there were more volunteers than guests in Auroville," says Michael. Moreover, the volunteers tend to be exactly the kind of people Auroville wants – the young (most are in their 20s and 30s) and educated.

Michael's research is provoking some important questions. If the volunteers are so helpful and desirable, why isn't there a better infrastructure in place to introduce them to Auroville? Why aren't we investing more in supporting SAVI and the other organizations focused on receiving volunteers? Why does Auroville segregate its transient population? And what impact is all this having on the volunteers, students and guests who, like it or not, the com-

'There is real confusion. Aurovilians often consider a volunteer just as another guest," Michael adds. "There is a real need to have an official status for volunteers. We are not 'just a guest.' Volunteers shouldn't feel so detached from the Aurovilian population and forced to stay mainly with other volunteers and guests, especially when so many volunteers stay here." Michael didn't have the time or resources to find the conversion statistics - how many volunteers become Newcomers or return later to join Auroville – but hopes to do that in the future. He anticipates that this information, like all the data gathered so far, will help make a case for organizations like SAVI to attract the resources they require to provide better services. "It's good for everyone,"

Michael first came to Auroville in November 2010 as a guest. He deeply appreciated the community and wanted to contribute in some way. After some weeks, he agreed on this year-long project with SAVI and returned with an Entry visa in July 2011. He had worked in human resources in France. "I was mainly hiring and firing people and doing statistics around that, but it was a negative experience. I really wanted to be useful in Auroville, and when the opportunity arose to do statistics for something positive, I thought it could be really interesting."

Michael is also working with Aurocard and Residents' Service to streamline their systems. The best option, from Michael's point of view, would be for the Residents' Service and Aurocard to merge their information into a single online database and create consistency around how they enter information - especially the format of dates. "Age and gender are also important statistics that are too often skipped by the Residents' Service," he says.

Other interesting findings include who comes for vacation (the Italians) versus who comes to work/volunteer (the Koreans). More young women come than young men, but as the age increases, the gender ratio levels out. "This is just the beginning," Michael says. "If Auroville continues to collect this kind of data, the community can discover many new things about who comes and why."

Catherine

Auroville's population stagnates

t's been a very quiet year on Auroville's population front. The total population has increased by a grand total of eight, which represents an increase of 0.36% over the previous year. This is the slowest increase in many, many years. If we continue to increase at this rate, it will take several thousand years before we reach the magic figure of 50,000. Between 2005 - 09, the annual increase in population varied between 3.7% and 6.8%. However, the rate of increase already began to drop between 2009 - 2010, when it only registered 2.4%.

Numerically, the largest increase this year was in the Indian population: they added 19, or 2% to their total. They now represent 42.37% of the total Auroville population, virtually unchanged from last year. The French go on quietly accumulating - they added 8 - but the Germans, the other major nationality in terms of population, shed 12 of their number. Overall, however, these three nationalities still make up over 67% of the total population of Auroville.

2010 was a good year for Israelis. Their number swelled by 15 to register a total of 42, an increase of 55.5% over the previous year. However, in 2011 they lost five. The Danish were also decimated: five of them left, leaving a single lone representative. Other nationals who may be feeling lonely include the sole representatives of Algeria, Kazakhstan, Moldavia, and Ireland.

On the bright side, for the first time in many years we have Mexicans (4), Estonians (2), an Ecuadorian, an Egyptian and somebody who the Residents' Service refers to as 'Hellenic', by which, more boringly, most people mean 'Greek'.

Today, there are nationals from 46 different countries living in Auroville, although 28 of these nationalities fail to muster more than 7 representatives each, so we can hardly call ourselves a thriving international community.

As to the male: female ratio, the latter continue to increase their representation. There are now 48.3% women over 18, and 47% girls below 18, in both cases a slight improvement over last year.

Will the next year bring a sudden influx of new residents or will Auroville fall into population recession? Will the Israelis bounce back, the Italians continue their run on the rails, the Brits continue their slide towards

Watch this space...

Alan

and the same of th		Nov. 06	Nov. 07	Nov. 08	Nov. 09	Nov. 10	Nov. 11
Indian	736	760	799	876	918	932	951
French	261	279	290	303	323	324	332
German	226	232	226	228	242	247	235
Italian	85	89	93	100	111	118	116
Dutch	77	75	83	78	81	88	86
American	61	65	67	70	80	80	80
Russian	40	41	45	46	52	50	55
Swiss	42	50	53	52	53	47	45
Spanish	30	32	33	34	36	43	42
British	50	51	45	49	47	46	41
Korean	20	25	19	24	31	36	38
Israeli	16	21	28	23	27	42	37
Belgian	17	19	19	18	19	26	26
Swedish	12	13	14	17	24	22	20
Canadian	23	23	24	23	23	17	19
Ukrainian	15	16	16	16	15	16	15
Australian	12	12	12	12	13	13	13
	100000	THUNG	VENT	300	Charles .	600	100,000
Austrian	10	10	7	7	8	8	8
Argentinian	8	7	7	7	7	6	7
Japanese	4	4	4	4	4	7	7
South African	1	1	6	7	6	8	7
Slovene	2	2	2	4	7	6	6
Brazilian	2	3	5	3	3	5	5
Hungarian	3	3	4	6	6	3	5
Icelandic	0	1	1	2	2	3	5
Tibetan	7	6	7	6	6	7	5
Mexican	0	0	0	0	0	0	4
Sri Lankan	4	4	4	4	4	4	4
Belorussian	1	1	1	2	3	3	3
Bulgarian	2	2	2	2	2	2	3
Nepali	1	1	3	4	4	4	3
Portuguese	0	0	0	0	1	3	3
Colombian	1	2	1	1	2	2	2
Ethiopian	2	2	2	2	5	2	2
Latvian	2	2	2	2	2	2	2
Estonian	0	0	0	0	0	0	2
Taiwan	0	0	0	0	3	3	2
Algerian	1	1	1	1	1	1	1
Danish	3	3	3	2	3	6	1
Ecuador	0	0	0	0	0	0	1
Egyptian	0	0	0	0	0	0	1
Finnish	1	1	1	1	0	0	1
Hellenic	0	0	0	0	0	0	1
Irish	1	1	1	2	2	1	1
Kazakh	1	1	1	1	1	1	1
Moldovian	0	0	0	1	1	1	1
Chinese	0	0	0	0	2	0	0
Lithuanian	2	2	1	1	1	1	0
New Zealander	1	1	1	1	1	0	0
	0	0	1	1	1	0	0
Norwegian	11.01			2	1	0.00	1000
Thai	1783	1865	1936	2045	2184	2237	2245

Adults and minors by gender											
	Nov. 05	Nov. 06	Nov. 07	Nov. 08	Nov. 09	Nov. 10	Nov. 1				
Adults	1370	1464	1489	1587	1704	1722	1731				
males	728	786	788	836	890	898	895				
females	642	678	701	751	814	824	836				
Minors (< 18 years)	413	401	447	458	480	515	514				
males	220	215	231	243	262	276	269				
females	193	186	216	215	218	239	245				
Total	1783	1865	1936	2045	2184	2237	2245				

PASSINGS

Huta

n November 17, 2011 - the anniversary of the Mother's passing - Huta, a very special child of the Mother, left her body in the Ashram Nursing Home. Born Savita D. Hindocha, she joined the Sri Aurobindo Ashram permanently on February 10, 1955 while in her late teens. The Mother gave her the name 'Huta' meaning 'The Offered One'. The Mother trained her in painting, and worked with her from 1961 to 1966 to create the series of oil paintings illustrating passages from the whole of Savitri called Meditations on Savitri. During this time Huta recorded the Mother's readings of the passages corresponding to the paintings, which are familiar to many, accompanied by the compositions of Mother's musician, Sunil.

Huta had a very special connection with Auroville – a letter of hers to the Mother in 1965 inspired the creation of Matrimandir, The Mother's Shrine; and it was to Huta that the Mother first explained, with sketches, her concept for the town plan of Auroville. In 1966, Huta produced the painting which the Mother named The Spirit of Auroville. All this is told in her books Matrimandir - the Mother's Truth and Love and The Spirit of Auroville. In 2001 Huta entrusted the care of the Meditations on Savitri paintings and a lot of other related art works and materials to Savitri Bhavan.

She has also become well-known for her many books, beautifully designed by Huta herself, all inspired by her contacts with the Mother, such as White Roses (translated into Tamil, French and Russian by

Aurovilians), The Story of a Soul, About Savitri, and most recently You said So ... a record of some of the Mother's talks with her. In fact she was still working on her latest project, My Savitri Work with the Mother, when she became too weak to continue. She was extremely happy to learn, some six weeks before her passing, of the completion of a series of 18 DVDs made by Manohar of her Meditations on Savitri paintings, and even more recently of another one of her Paintings Inspired by Sri Aurobindo's Poems. This film will be premiered at Savitri Bhavan on December 5th.

Huta had no fear of death. During the time when she was working with the Mother on the Savitri paintings the Mother had guided her through all the subtle worlds, even the darkest subconscient, and assured her that when the time came she would be immediately carried up by Sri Aurobindo to her true home. She chose a significant day on which to leave, indicative of her identification with the Mother.

She has been a true friend of Savitri Bhavan and we all remember her with deep gratitude and affection.

Shraddhavan

Anna Maria

n the early morning of November 2nd, Anna Maria Pezetta, Italian, surrounded by her closest friends, passed away in the house of her friend Marika in Samasti where she had been staying in the last weeks. She had been battling cancer for years. She was 72.

Anna Maria came to India in the seventies, stayed from 1975 for two years in the Sri Aurobindo Ashram, and then joined Auroville living in a collapsed hut on the beach, teaching village children and working at the Matrimandir construction. Then, for eight years, she came to live in the Matrimandir Camp.

Having a journalistic background, Anna Maria did a lot of writing. She was also

involved in efforts to get an Italian pavilion off the ground and worked in one of Auroville's working groups, where her remarkable capacity to listen to others, sharing their feelings, giving them her full attention, and her readiness to accept everybody without judging, were most useful.

But most Aurovilians will remember her from her work of later years, when she started painting, creating delicate canvases subtly displaying emanations of light, which were often exhibited in Auroville as well as in a joint-Aurovilian exposition in Mumbai last year. These paintings will remain in Auroville as sweet memories of her.

Anna Maria's remains were cremated at the Adventure's Farewell Grounds on November 5th.

Is there a future for small wind generators in Auroville?

uddled in a damp workshop in Windarra Farm, Jorge labours over numbers, drawings, plans, dreams. "This is our very own, made-in-Auroville and made-for-Auroville domestic wind generator," he says proudly. Jorge has designed two sizes of domestic wind turbines, one 300 watts and the other 1000 watts, both catered to the unique qualities of this particular plateau. He has constructed four and raised two in Auroville and the bioregion. According to him, this is just the beginning.

Meanwhile, across Auroville in a distant tip of the northeast Greenbelt, Martanda stands in a rare moment of sunshine, looking up, smiling. It's not the break in rain that makes him – a forester eager to keep his trees watered – happy. Instead it's the gentle whirring of his AirBreeze wind generator, designed and built in the USA, and the simultaneous red glow indicating it's charging the batteries. Like Jorge, Martanda imagines a not-too-distant future where many fully off-grid households like his are powered in part by wind.

Battling the past

But while Jorge and Martanda support each other and collaborate in their quests to bring domestic wind power to Auroville, they face a lot of daunting facts. "Auroville has very low average wind speeds," explains Toine, who served in senior management positions of international wind turbine companies. "The larger grid-con-

Martanda assembling the AirBreeze wind generator

nected wind turbines cannot be installed here. Small wind turbines are an option, but outputs will be relatively low."

Jorge begs to differ. "One of the biggest challenges is the perception that there isn't enough wind in Auroville," he says. According to Jorge, most of the 'wind experts' who have come to assess Auroville's situation were trained for large wind farms, and to them, the wind here is "a joke, because a large wind turbine will require six, seven or eight meters per second wind. But for a small wind turbine, the requirements are far less; it's a completely different world. You still need site evaluation, proper installation, some expertise — but it's different expertise than what's required for wind farms."

If you look at the past, it would seem there isn't enough wind. The community has witnessed a series of turbines made from cycle dynamos or car generators, and even the erection of several larger turbines. Most of these early experiments

have failed, showing that wind was seemingly not the way to go.

But times have changed. Today's wind energy tools leverage more powerful magnets, improved generator designs, and decades of knowledge gained from trial and error. Martanda and Jorge believe that now wind can work for Auroville; Martanda's trying with outside technology, and Jorge's trying to create his own.

Both Martanda and Jorge believe living proof will change minds. "Right now Martanda is an example. He's installed a turbine and it works; it keeps the batteries full," Jorge says, then adds: "And I hope he can collect data. We hope to get an anemometer here in Windarra and collect

data too, and maybe we can get data from other points in Auroville. Only then will we know the real wind situation in Auroville."

Turning dreams into reality

For Jorge, it's truly a calling. He has been building small turbines since childhood, as his father designed, built, sold and installed hydroelectric turbines for over thirty years in Ecuador. When Jorge arrived in the US, he secured a job at the American Wind Energy Association. "Back then there was very little in terms of wind engineering, so they sent me for training through the Department of Energy. Through that organization, I ended up travelling all over the world, installing

small wind turbines and promoting the technology." He went on to work for several well-known organizations including Southwest, who manufactures the AirBreeze, which is the model Martanda bought.

Despite his history, Jorge didn't think wind power would be amongst his contributions to Auroville. "I came with the assumption I wouldn't be doing much engineering; I was just here to work. But as the need arose, as I heard more people complain about solar, that inspired me to start working on wind again."

Martanda's dream to bring domestic wind power to Auroville is much more recent. "I saw the turbine in 2005 when I was in Switzerland. It was turning like crazy with hardly any breeze. I thought, 'Wow! Why don't we have this in Auroville?' Five years later, I finally managed to bring one back from the States. I saw it as a pilot project; if it works in the forest I steward, hopefully other communities around Auroville would get interested too."

So far the technology from outside works. "When there's less

wind it's only a trickle charge, so we depend heavily on our solar panels," Martanda explains. "But in the monsoon season when our solar panels are least effective, the wind generator keeps our batteries fully charged night and day."

The model Martanda chose, the AirBreeze, is considered to be the most affordable and efficient model for low-wind areas like Auroville, able to produce power with gusts. Even Jorge approves, as it comes 'fully equipped' (with charge controller and other elements) and 'operates as advertised.'

"In Auroville we too often re-invent the wheel," Martanda says when explaining why he chose the AirBreeze. "There are amazing things happening outside, and there are many useful, efficient, sustainable technologies. But rather than bring what exists to Auroville, we want to invent it ourselves. I was inspired, did the research, found the AirBreeze, and brought it here to inspire others."



The AirBreeze wind generator in Lumière Food Forest

Jorge's locally produced generator is also starting to spread its wings. Six months ago he installed his smallest design in a village outside Auroville. "It's generating electricity in such a way that we've had to disconnect it or it overcharges. So the system works," he says. In fact, Jorge has such faith in his designs that he plans to power his house in Windarra exclusively with wind – once the house is built, that is.

"I'd ultimately like to build a turbine like Martanda's that's adapted for our climate. I'd like to harness the expertise of the community to develop something that is affordable, maintainable and built here. That's sustainability to me," says Jorge.

Martanda agrees. "I'm glad Jorge is here. He has the knowledge, experience and passion to spread wind energy in Auroville. If he can make something that costs less and works better, maybe more Aurovilians will give wind a try."

Challenges and opportunities

It turns out there are many advantages to wind power or wind-solar hybrid systems. "Diversifying means more energy security," Jorge says. The other advantage is longer term: A wind/solar complimentary system will keep batteries living longer. Jorge explains, "A battery has only so many cycles – from charged up to charged down. With solar, you only charge during the day and usually most of the power is used at night, so you discharge the battery quite deeply. Those cycles are quite deep and constant, especially in the rainy season when you'd discharge a lot. As you can see at Martanda's place, with wind the battery isn't even discharging."

Affordability is crucial. The AirBreeze

today costs about Rs 30,000. Jorge's models, without the charge controller and only including the cost of materials, range from Rs 25,000 to Rs 40,000. But the tower is the most frustrating cost for imported or locally made models: A simple metal tower with guy wires and anchors costs at least Rs 25,000, depending on height and design.

"I wanted to figure out how to save money, so I started asking people for ideas," Martanda says.

The most interesting ideas came from the Youth Center gang, who proposed a bamboo model with concrete base that could cost about Rs 5,000." Martanda decided to stick with Aureka for his pilot project but encourages more out-of-the-box thinking to cut costs.

According to Jorge, wind does have financial benefits. "When you add up all the costs of solar and all the costs of wind, from battery banks to towers, the cost per kilowatt hour for our smallest generator is more expensive than solar. But there are economies of scale. The three-meter turbine, which is more than twice as powerful, becomes cheaper than solar power in Auroville in the long term."

Tapping the experts

"Still," Jorge adds, "one of the things we want to do is make wind more affordable by tapping the community and building with our own materials specifically for Auroville." Akash, an electronics expert working in Cynergy, helped design the charge controller. Ian, who now designs five-

kilowatt turbines for the Himalayas, helped teach Jorge the meticulous art of carving the blades. "Aureka could help with the towers, and we have many electricity experts who are familiar with wiring for alternative energy. We need to tap into this pool of expertise."

In fact, it was an industry expert who gave Jorge the foundation to adapt a wind generator to Auroville's unique conditions. Hugh Piggott, a physicist living in Scotland, has been building turbines for over 30 years. He offers workshops, sells manuals, and has been Jorge's muse from some time. "I email him whenever I change his design to get feedback, and he always responds with 'be careful of this' or 'good idea' or whatever." Jorge goes on about how Piggott lives entirely off-grid on an island that's 70 percent powered by alternative energy. "It'd be great to bring him over for a workshop!"

With or without Piggott, the workshops are a success. So far Jorge has offered three workshops and trained approximately 30 people. His students came from Africa, Asia, France, Germany, Kuilapalayam and elsewhere, "and about five or six Aurovilians." He hopes to expand his efforts and is lobbying the Project Coordination Group (PCG) and Varuna for funding.

The future

Then what? What does the future look like? For Martanda, success means Aurovilians having more faith in wind. "It looks like anywhere there's a windmill there could be a domestic wind generator. Some places would be better than others, of course. Imagine Citadines! A few generators on their roof would be incredible!" he says.



Jorge (fifth from right) and his team constructing a wind turbine during a wind generator workshop

And what does success look like for Jorge, who has chased wind almost all his life? "We want to teach people how to build the system, and we're looking to advance the technology so it's something that can be useful in Auroville." As he considers the question more, a toothy grin takes over his face and a mischievous sparkle lights his eyes: "It'd just be really cool to have more turbines in Auroville."

Catherine

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