Thirty years of research in Auroville

Auroville's vocation as a centre for research, exploration and experimentation is clearly enunciated in its Charter, which speaks of it as a "place of unending education", a "bridge between the past and the future" and "a site of material and spiritual research ...."

While the earlier years had to be dedicated to establishing the material base for life in this social, cultural, educational and spiritual community-experiment, new perspectives are opening up now as the "living laboratory" celebrates its 30th anniversary. This has led us to devote this issue of CIRHU Papers to the theme of "Learning in Auroville". The articles grouped in three sections, "The Physical Base", "Towards a new society" and "Explorations" represent a small sample of the very diverse types of research currently being pursued in Auroville, while a fourth section, "Looking Forward", explores some of the possibilities Auroville now offers for new dimensions of exploration and interchange with the world.

As a unifying visual theme we have included images, dating from the Auroville's Foundation Day on February 28 1968 up to the present, of the ancient banyan tree at the centre of Auroville, to which the Mother gave the significance "Unity".
The Physical Base

Earth needs a place where men can live away from all national rivalries, social conventions, self-contradictory moralities and contending religions: a place where human beings, freed from all slavery to the past, can devote themselves wholly to the discovery and practice of the Divine Consciousness that is seeking to manifest. Auroville wants to be this place, and offers itself to all who aspire to live the Truth of tomorrow.

The Mother
Regenerating the natural environment:  

The work of Shakti

Walter Gastmans

The history of Auroville's greenwork is well documented. The bare and scorched plateau was settled by pioneers who needed to protect themselves with the shade of vegetation and create an atmosphere within which they and others could live. This work stands as a testament to the possibilities of rejuvenation that can occur with human input. Now that the pioneering forests have been well established the imperatives of basic environmental survival are reduced and a more long term strategy can begin. One approach to this is to examine the type of forest cover that evolved in the local environment and to recreate it to some degree or other within Auroville. It is with this point of view that various members of the community have taken up the work of reestablishing the Tropical Dry Evergreen Forest (TDEF).

TDEF is the name given to the forest type of the area in which Auroville is located. It is situated in the coastal plains of Coromandel-Cirpar from Point Calimere in the south of Tamil Nadu to the southern tip of Andra Pradesh. From the coast it extends inland for 30 – 60 km. Further inland, up to the eastern slopes of the Western Ghats, it has been degraded, due to very intense biotic pressure over centuries, into what are now called the Thorn Forests of South India. Beyond this point the rainfall pattern changes and with it the species composition.

Unfortunately, overwhelming human pressure in the tract of the TDEF has reduced the forest cover to less than 1% of its potential area. The pockets that remain are few and far apart and all of them are degraded to some extent. It is to these remnants that the research has been directed, in order to discover exactly what our indigenous vegetation might be.

The people involved

At present there are several different groups within Auroville researching our relationship with our immediate surroundings, i.e. the bio-region. The research to discover the exact species composition of our forest type has been run from Shakti with 3 Aurovilians consistently involved in the investigation:

Walter, who lives and works there, has been in Auroville for close to twenty years and has always, in one way or another, been involved with greenwork and in particular with nursery work and seed exchange.

Jaap, a real old-timer who began in Kottakarai, moved to Ravana some years ago where he is involved in restoring some of the most badly eroded land within Auroville.

Finally Paul, a relatively new arrival to the Green Belt, who before coming to Auroville had studied ecology in Edinburgh University.

In conjunction with these three work other Aurovilians, guests who contribute expertise for a limited period, and a number of paid staff ranging from a graduate botanist to local women who help to process the specimens collected.
**Nature of the research**

The aim of this particular project is to provide a complex and definitive understanding of the vegetation type indigenous to the Auroville area, the TDEF. As with all scientific investigation, this is a process of building on what has gone before. In this particular instance the work began quite some time before Auroville existed, and the best of it took place in the French Institute of Pondicherry under the supervision of Dr. V.M. Meher-Homji. He had already produced a species list for the forest type and investigated the reasons for its distinct character. However, as with all ecological work, more data can be collected and more observations be made and consequently a greater degree of accuracy and understanding obtained.

Our work began from this base line, as we familiarised ourselves with the common species of our area: trees, shrubs, vines, lianas and herbs. We inherited a list of 266 species, the majority of which we reasonably quickly discovered and were able to recognise. We also began to collect and identify species that previously had not been included in the list, in a few cases discovering species that were considered rare or even "probably extinct". Since the beginning our list has expanded to include at least a dozen more species found in the TDEF region.

In order to provide ourselves with standard reference material a herbarium was started, with specimens of all the species collected. This process continues and heads towards its intended aim of becoming a specialised herbarium with collections from all of the remaining pockets of the TDEF. At present the herbarium holds upwards of 2,250 specimens.

Once basic familiarity with the species was established it became possible to begin surveying the remnants of the TDEF in the Auroville area. These areas, always small, are dotted all over the plateau, around small temples or temple ruins, on government land, around village ponds, on the sides of canyons, or even alongside old roads. In all, 12 sites of remnant vegetation were surveyed in the Auroville area, all of them highly degraded with sometimes only the occasional tree recorded.

At the same time a weekly phenological study of the nearby Puthupet sacred grove was begun, to ensure that an exhaustive list of all plants perennial and annual was made and to provide us with data on the fruiting period of many of the species of the TDEF. This is still one of the best examples known to us of a forest with large trees forming a closed canopy, although it is only 17 acres in area.

With the increase in experience new opportunities for work presented themselves, and a two year quadrat survey of a scrub jungle, 30 km north of Auroville in Marakkanam, was undertaken. This was a chance to do some quantitative plant survey and to begin to understand the plant associations that exist within the forest. A total of 349 species were recorded, of which 116 were classified as woody. One result of the survey was to begin to notice how different species predominate in different areas depending on soil type and the surrounding vegetation.

With the completion of this work the surveys continue as an ever-increasing number of locations with remnant vegetation of the TDEF come to our notice, through word of mouth or by scouting the countryside. Until now we have made 92 surveys, in 29 different localities, recording 927 species, and at most new locations one or more new species are added to our collection and consequently to our list of species that were known to exist in the original forest cover of the Auroville plateau.

Running concurrently with all of the botanical surveys has been the concept of re-establishing
the TDEF within the Auroville greenbelt. On every trip seeds are collected and brought back to the nursery at Shakti for propagation. Over the past few years funds have been made available for planting these species within the forest area, and to date at least 130 species of trees, shrubs and vines have been re-introduced to our forest area. In the nursery a data bank is kept on the viability of the seeds, recording properties, germination and methods of breaking the dormancy if needed.

In a sister-project to the one running from Shakti, a group of people in Pitchandikulam are gathering information from local people about the medicinal properties of plants and their traditional uses. The seeds of plants considered medicinal are collected, propagated in a nursery and distributed in the surrounding villages.

Between these two projects a vast wealth of information is being gathered - and none too soon either, for the surviving remnants of indigenous forest are by no means protected from increasing human pressure, and old knowledge and medicinal practices are fast disappearing, together with the plants. This gives the work in Auroville increasing relevance as it becomes a depository not only for the species themselves but also for the human knowledge connected with them.
Where are we now.

For the foreseeable future the surveys of the remnant vegetation will continue, since even after 5 years of work we are still discovering species as yet unrecorded in the region. As the surveys become more wide-ranging the extent of the TDEF can be accurately demarcated and the transition zone between it and the Dry Deciduous Forest and the Thorn Forest of South India studied. It may well be that in these transition zones more of the plant-ecology gets revealed.

Questions follow one after the other, such as:
— why do some species occur in great numbers and other ones only sporadically?
— why do some occur only at one location?
— why does the species mix vary from one remnant to the other — even though they may only be a kilometre apart?

These and other quandaries quite rightly provide interest in the purely scientific line of investigation, but they also become increasingly relevant to the practical tasks we are facing, in particular the reclamation of wastelands in this region. We are now in a position to compare almost 30 different sites and to recognise in our terms which are the indicator species of the health of each particular remnant.

Some species thrive on one soil but not on another, some species are always present whereas others are less tolerant to human interference and consequently more at risk and only found in locations some distance away from human settlements.

Within Auroville, as planting continues in a wide variety of locations and soils and the results are monitored, the subsequent choice of species for new areas becomes more precise and our level of expertise increases. And as the flora becomes more diverse it also becomes more resilient and robust, less susceptible to the environmental fluctuations that are inherent in any geographical region.

Finally we come to see how the work draws us into contact with the outside world, whether local villagers, Indian academic institutions, the Forestry Department, or Botanical Gardens all over the world through seed exchanges.

It seems important that in every region of the world today something similar to what the various projects in Auroville are doing in connection with the TDEF should be undertaken. Responsibility needs to be taken so that this information can be stored and retained, concerning the plants themselves and their relationship to each other, to the environment and to human culture. But before we can do this we need to know exactly which species originally made up our forest type, and that is what we are attempting to do.
Auroville as a seat of learning

Shraddhavan

In its Charter, Auroville's vocation as a place of unending education and of material and spiritual research is made very explicit. Now as Auroville turns 30, this aspect, always present, is becoming increasingly evident and dominant.

Already we can see developing most of the functions of a University — that is, a living centre for learning that covering all aspects of human knowledge. It is not only that a number of research centres have grown up in Auroville, which can form the seeds of future "faculties" and departments; nor that both Aurovilians and visiting researchers are actively involved in investigative projects, often to be presented for degree qualifications from academic institutions; nor that innovative processes and products are being almost routinely developed and utilised in Auroville workshops and units. There has also grown up over the years a vibrant cultural life, characteristic of a seat of learning, which is quite out of proportion to the small permanent population of only 1200 Aurovilians, and reflects much more the world-wide circle of friends, supporters and regular visitors who enhance the life of the city with their input and interest.

Calendar of Events

These highlights from the large number of presentations and performances by Aurovilians and distinguished guests over the last few months gives a striking picture of the quality of Auroville's cultural life.

October 1997
11th: David Hykes and a group of Aurovilians gave a "Concert of Harmonic Chant" at the Sri Aurobindo Auditorium as the culmination of a month's workshop.
15th: Ikebana demonstration by members of Ikebana International, Tokyo, at 7.30 p.m. in the Sri Aurobindo Auditorium.
16th: At 4 pm Professor A.T. Das gave a talk at Bliss on "The Essence of Form: an Indian perspective"
At 7.30 pm Dr. Varun Sahne of the Inter-University Centre for Astronomy and Astrophysics, Pune, gave an illustrated lecture on "The Structure of the Universe" in the Sri Aurobindo Auditorium, Bharat Nivas.
24th: The Lieutenant Governor of Pondicherry opened an Exhibition in the Centre for Indian Culture on "Ancient Rome and India". Sponsored by the Italian Embassy in New Delhi as part of the programme of the Italian Pavilion in Auroville, the exhibition from October 24th to November 2nd showed a wide range of exhibits covering commercial, cultural and spiritual links between Ancient Rome and India. An added feature was the display of archaeological finds from the Auroville area itself.

November:
10th: At 7 pm in the Sri Aurobindo Auditorium there was an audio-visual presentation by the eminent archaeologist and discoverer of many Harappan sites, Dr. R.S. Rao on "Underwater Excavation of Dwaraka and Poompuhar."
December:
23rd: At 8 pm in the Sri Aurobindo Auditorium, a joint concert by the adult and children's choirs of Auroville
27th: Sri Aurobindo Auditorium 7.30 pm, recital of Odissi dance by Smt. Madhavi Mudgal

January 1998:
1st: Sitar recital by Shri Kartik Sheshadri, 7.30 p.m., Sri Aurobindo Auditorium.
3rd -9th: Visit of Mr. Gerhard Endenburg, the developer of Sociocracy. During his visit Mr. Endenburg gave an outline of the Sociocratic system, sat in on the meetings of numerous Auroville working groups including a Residents' Assembly, and wound up by giving some comments and advice for future follow-up. This stimulating visit was much appreciated by Aurovilians.
4th: Pitanga Hall, 4 pm: Dr. Nirodharan of Sri Aurobindo Ashram spoke about his correspondence with Sri Aurobindo on Karma Yoga
9th: Sri Aurobindo Auditorium, Dance performance, "Savitri", by the Auroville Dance Group
24th: Bharatnatyam performance by Smt. Chitra Visweswaran, 8 p.m. Sri Aurobindo Auditorium.
29th: 8 pm Merriam Hill Centre, talk by Dr. Rashmi Mayur on "Population: the most critical planetary issue of our times; the North-South question: a compelling challenge for human unity.
30th: 3 pm, CSR, Dr. Ekhart Hahn, town-planner from Germany, spoke on "Ecological Urban Restructuring".

February:
1st: A full day workshop with many distinguished visitors on the proposed new "Sri Aurobindo World Centre of Human Unity" - for a more detailed report see below.
2nd: Performance of Indian Classical Dance by Smt. Sonal Mansingh, 7.30 p.m., Sri Aurobindo Auditorium
11th: 7pm in the Sri Aurobindo Auditorium: a talk on "Science and the ultimate nature of man" by the eminent nuclear scientist Dr. Raja Ramman.
12th: At 8pm in Pitanga Hall: Dr Raja Ramman, who is also a fine pianist, gave a concert of western classical music.
19th: Recital of classical Hindustani music on Surbahar by Gerard Kissel of Germany, Pitanga Hall, 8.15 p.m.
27-28th: "Dialogue with Death" a performance based on Sri Aurobindo's Savitri by a group of Aurovilians.

March:
5th: Professor Mangesh V. Nadkarni gave a lecture on Sri Aurobindo's Savitri, at the site of Savitri Bhavan
Otto and Srimoyee's Savitri performance

April:
11th: Classical Hindustani Vocal Concert by Dr. Prabha Apte, 7.30 p.m., Sri Aurobindo Auditorium.
13th: Sri Aurobindo Auditorium 7.30 pm, performance of contemporary dance by Astad Deboo
22nd: Sri Aurobindo Auditorium 7.30 pm traditional Mangalacharan performance of Odissi dance by the Nrityagram Dance Ensemble of Bangalore

The Sri Aurobindo World Centre for Human Unity

One of the most outstanding events during this period was the full-day conference held in the Sri Aurobindo Auditorium on February 1st 1998, to launch the Sri Aurobindo World Centre for Human Unity.

The event was opened by Dr. Nirodharan, senior sadhak of the Sri Auobindo Ashram, and was attended by a distinguished panel of invitees headed by Dr. M.S. Swaminathan, Chairman of the Governing Board of Auroville, and other members of the Governing Board and International
Advisory Council (Dr. Karan Singh, Begum Bilkees Latif, Dr. A.R. Ariyaratne, Mr. N. Krishnan). Also present were Lama Doboom Tulku of Tibet House, M. Philippe Babry, Consul General of France in Pondicherry, Dr. Ismael Serageldin and Shri Mahendra M. Shah of the World Bank, Dr. Xuan Zengpei, a representative of the Chinese Government, Dr. Norman Myers, British environmentalist, Dr. Ramadasan from Malaysia, Ms. Sonal Mansingh, distinguished artist and long-time friend of Auroville, Ms. Mia Berden from Holland, chairperson of Auroville International, as well as friends from the Sri Aurobindo Ashram in Pondicherry.

One of these, Shree Jayantilal, explained: "The concept of the Sri Aurobindo World Centre for Human Unity is the result of a concerted effort of all those in India who are interested in the manifestation of Sri Aurobindo's vision ... together they presented a paper to the Government of India suggesting that in this 125 birth anniversary year of Sri Aurobindo there should be founded a research centre where various disciplines which lead to the goal before us can be studied in a free and unhampered way; and it was found that Auroville would be the best place to locate it.

The Centre has a most essential function to fulfil: to research ways to manifest Sri Aurobindo's vision, to find ways and means to fulfil his ideals. Sri Aurobindo and the Mother have often indicated how to obtain guidance on how to proceed: to quieten the ordinary thinking mind so that the inspiration and truth which are hidden from us can be received."

Other speakers expressed their confidence that Auroville is the right place for starting such a venture. For example Dr. Serageldin said: "There is a certain specificity that is unique to Auroville, which is the combination of spirituality with action in the material world. Spirituality calls forth the better angles of our nature and enables us to fuse passion and compassion in our work. But we also need to ground it in reality, and this is something which is unique in this experience here. It is not disengagement from life, but engagement with it. It results in a holistic view where reductionist science can work side by side with spiritual uplifting. It seems to me that you are building on real achievements here, which give me the feeling that this Centre will be true."

And Dr. Norman Myers remarked: "Auroville is a place where we leave our labels behind in the car park, where each of us can be what they are and accepted for what they are. I have spent a good part of my life in universities and research centres, and I am often reminded of the person who said, 'When all is said and done, there is a lot more said than done'. But in Auroville I find that much more has been done than said. Here you are getting on with it, you are not thinking and debating about human unity, but doing it, living it."

The Sri Aurobindo World Centre will help to fulfil Auroville's aims of effective Human Unity and Peace upon Earth by fostering interaction between Auroville and the world, providing a material platform and field of experimentation. It will draw together all the existing centres of research in Auroville for more effective mutual interaction and communication with interested people around the world. Through seminars and workshops, practical research in the field, training and dissemination of information.
Learning in Auroville

Nowadays the term "university", in most countries, refers to a distinct organisational structure, normally under Government surveillance, within which learning and research are conducted according to defined academic norms.

Auroville was envisioned and is functioning in a more organic and integral way: learning takes place not only in classrooms and laboratories but in every aspect of life at any moment. This is why this cultural, social and educational experiment has been referred to as a "living laboratory" — where in one sense the participants are not so much the scientists as the guinea-pigs.

As an example of how this works, I would like to say something about my learning experiences over the past three weeks.

At the beginning of the month I joined 10 other Aurovilians on a one week residential "healing retreat" at Quiet - a recently established centre focussing on alternative approaches to health and healing. This was an initial programme to introduce the facilities and the team, and was meant to be a learning experience both for the Quiet team of therapists and staff, and for the Aurovilians participating.

In this context, at 56, was a student. At the beginning of the week we were asked to formulate our goals or "focus" for the week ahead, and I found on self-examination that my aim in being there was to learn something that would help my body to be more in tune with my innermost aspiration. And in fact, in the course of the week, numerous keys for this were communicated to me by the other Aurovilians who were functioning, for that time, as our teachers and guides. Through their own processes of learning and self-development over the years they had gained skills and insights which they were now able to offer to us, for us to make use of according to our own capacities, aims and needs. What made this week particularly enriching was the very wide range of disciplines involved — no less than 16 "therapists" in the team - which complemented each other in a unique way for each of us who participated.

At the end of the week we were again asked to formulate our focus: How did we intend to integrate what we had experienced and learned in the course of the retreat into our daily lives? I found that my learning during that time had led to several "resolutions" - which were not purely mental or willed "good intentions", but integral decisions involving my whole conscious being. One of these was to make more time in my life for music, as a means of harmonising body and inner planes. And immediately on my return home an opportunity for this was available: Uday Bhawalkar, renowned Dhrupad singer, was not only giving a concert in Auroville, but offering a singing workshop to Aurovilians. I found his singing at the concert a deeply moving inner experience, and in tune with my resolution I enrolled for the workshop, despite the fact that I have not studied singing since my schooldays. This involved 3 hours daily study and practice under Uday's guidance over the following week - which meant getting up at four in the morning to attend the first session from 5 - 7 am; the second session was from 5 - 6 in the evening, after my day's work was over. Here again I was a student, this time learning the basics of a great art from a distinguished master who was sharing his expertise with more than 25 beginners from several different countries, in the course of a visit to Auroville.

During the same week, as part of my work, I was helping to host another visitor, an old lady of 86, herself a distinguished educator and social worker, Mrs. Purnima Pakvasa from Gujarat.
Showing her around Auroville and taking care of her needs was a learning experience of a different kind. While she was hearing from me about our way of life, I was learning much from her, about India, its culture, the Freedom Movement, her work with women and girls to help them become strong and self-reliant, and most of all from her unique personality.

On another level, in the course of my work for the "Entry Group", which has the responsibility for dealing with people joining or wishing to join Auroville, I and my colleagues, in addition to our normal duties, were involved at this time in an intense debate which arose in the Community relating to the criteria by which an individual may be accepted or refused for participation in the Auroville experiment. Certain fundamental guidelines on this point were given by the Mother in the early days of Auroville; others have been formulated by the Community over the years, and together these form the mandate by which the Entry Group functions. But occasionally a case in which it seems admission has to be refused will engender widespread discussion in the Community, and the process of reaching a consensus that is in tune with the aims and ideals of Auroville is a challenging one, when there are so many divergent viewpoints to be reconciled and synthesised. The present discussion focusses on whether Auroville is intended mainly or exclusively for followers of Sri Aurobindo and the Mother, and whether or how far and under what conditions other spiritual paths can or should be practiced, taught or propagated here. Involvement in this debate within the community, in the context of a particular individual case to be decided, was an intense process of questioning, research and learning on several different levels for me, as for many other Aurovilians.

In another aspect of my life I function both as researcher and "teacher". My own 30 year-long study of the teachings of Sri Aurobindo and the Mother, and my attempts to live what I have learned, have recently resulted in me leading a series of group explorations through Sri Aurobindo's writings. The people who form this study-group want to increase their understanding of Sri Aurobindo from the point of view of both the English language and of mental clarity. Amongst them are two who have acted as my "teachers" in other contexts: from one I have learned Sanskrit, another was one of the instructors from whom I learned most during the healing retreat at Quiet.

This points to what seems to me to be one of the key aspects of the unending education process taking place here in Auroville: there is no permanent stratification into "teachers" and "students" - everyone here is learning, and through our learning and growth each of us develops capacities and insights which can then be shared to enrich the lives and learning of others. In this process the whole society is growing in richness and complexity through a process of interchange, amongst the individuals here and with the world around us, from which we benefit and to which we can contribute.

Of course the unique contribution which Auroville has to offer has everything to do with the flowering and blossoming in unexpected ways of the seed planted here by the Mother: the Spirit of Auroville. So long as we are true to this spirit, this informing law of Auroville's being, we will be contributing to the high purpose which has brought us all here. Auroville is not meant to be an organization or an institution, but an organism - one that expresses something of the new consciousness that is seeking to manifest itself in the world, through an ever richer and more complexly harmonious life for the whole of humanity.