

Sri Aurobindo and The Earth's Future

A two hour twenty minutes documentary 'Sri Aurobindo and The Earth's Future' will be released on YouTube on August 15, 2023 at 4:30 am Indian time, the hour Sri Aurobindo was born in 1872.



WATERCOLOUR BY INDIA LETIZIA

A still from the film *Sri Aurobindo and The Earth's Future* showing Sri Aurobindo meditating in the dim, dust-laden storeroom on the first floor of Motilal Roy's house in Chandernagore.

For all those interested in India's history in the beginning of the 20th century, and for the devotees of Sri Aurobindo and The Mother, this film is a 'must see'. Not only because it is very beautiful, but also because it highlights a period in the history of India's freedom struggle which is not sufficiently known. "Sri Aurobindo is 'The Great Unknown'," says Olivier Barot, who wrote the screenplay and realized the film. "Many people in India know only his name – in the best of cases – but have no idea about his work and achievements."

The film depicts the period from Sri Aurobindo's birth in 1872 to his arrival in Pondicherry in 1910. It contains many photographic images from this time in chronological order: from Calcutta, Manchester and London, Bombay and Baroda and again from Calcutta, the Alipore Jail, the French enclave of Chandernagore and, finally, French Pondicherry. The film is beautiful because of the many water colour illustrations of Sri Aurobindo made by 18-year old Aurovilian India Letizia; the paintings of more than 20 famous and lesser-known artists – including Aurovilians Nathalie Nuber, Milo and Jyoti Khare; and, last but certainly not least, the stunning photographs by Olivier himself.

After posting the movie on YouTube, Olivier plans bringing out a second and perhaps even a third part in the years to come. "These parts will be very different from this one," he says. "I will continue the movie in chronological order, but after Sri Aurobindo settled in Pondicherry there aren't so many external events. I hope I can show the continuing evolution of Sri Aurobindo in his thought and vision. And there will be flashbacks, such as on the life of The Mother. I plan to show who she is and why she came to Pondicherry and what she contributed to Sri Aurobindo's yoga. Another part of the film will focus on their joint yoga and on their work on bringing down the Supermind in matter."

Olivier had been dreaming about making this film for many years. But the time was never ripe. "I first thought about it when I did the exhibition *Sri Aurobindo and The Mother, the Advent of a New World* at the Visitors' Centre in 2012, which was sponsored by Mr. Koolesh Shah of Sri Aurobindo Trust, London. Then, on the occasion of Auroville's 50th anniversary, I made the coffee table book on Auroville. When the book was finished, I had no work, and the old idea of making the film strongly resurfaced. Koolesh and I had brainstormed about making the film many years ago. I contacted him. He still supported the plan and agreed to sponsor it."

Olivier started writing the screenplay, consulting books such as Purani's *The Life of Sri Aurobindo*, Rishabhchand's *Sri Aurobindo - His Life Unique*, Satprem's *Sri Aurobindo or The Adventure of Consciousness*, and Sujata's *Mother's Chronicles*, and reading many of Sri Aurobindo's own writings. Making the draft took him more than six months. "Then I consulted the specialists of the Sri Aurobindo Ashram Archives. They were very helpful. Bob Zwicker meticulously went through the draft and proposed many changes and corrections, while Kiran Kakad provided numerous photographs and documents, including some photos which I had never seen before."

In the meantime he put a note in Auroville's *News and Notes* that he was looking for artists who would be interested to contribute. "Three or four people responded. I finally settled on India Letizia, a talented young Aurovilian from Italy who finished Last School last year. I wanted Auroville youth to be part of this project and she suited admirably. She is passionate about painting and I was touched how she was able to portray Sri Aurobindo. I wanted to have something impressionistic, not too precise, and she managed quite accurately." Another young contributor was Shrishti Dangi, who narrated the introduction of the film. "It wasn't easy to find the voices I wanted," he reflects. "I chanced on Hamish Boyd when I heard him speaking in a public meeting at Kalabhum. I realized his was the voice I needed! He agreed to participate. Aravinda Maheshwari became the third narrator, voicing Sri Aurobindo."

All in all, making the film took him three years. "I did it all alone and that was really too much for me," he says. "More than half of the time I was on the internet looking for documentation. I saw thousands of photos from the 19th and early 20th century and had to work on the ones I selected as many were in a very poor state. I included the pictures of those young freedom fighters who were imprisoned together with Sri Aurobindo, of whom The Mother had said that she was able to see their psychic beings. I also included some scenes from a few Indian films. For example, from the 1971 Bengali film *Mahabiplabi Aurobindo* by Dipak Gupta, I took the scene of these people singing and dancing in the Alipore jail court house and not paying any attention to the proceedings. There were some scenes from movies by Satyajit Ray, such as a train passing by, to show the times. And I included a very touching scene from the 1951 Bengali film *Anandamath* by Satish Dasgupta, where a young boy passionately sings *Bande Mataram*, which later became India's National Song."

Does the film give a correct exposure of India's history in the beginning of the previous century? "The information provided is correct, but of course it is incomplete as I had to make many cuts," he says. "The importance of this film is to show that long before Mahatma Gandhi there was a movement towards self-government and independence. The ideas of *swaraj* [self rule] and *swadeshi* [boycotting foreign goods and encouraging the use of domestic products] came from Sri Aurobindo and from people such as the Maharashtrian Bal Gangadhar Tilak, the first leader of the Indian independence movement who was called by the British 'The father of the Indian unrest' and later by Mahatma Gandhi 'The Maker of Modern India'; the Punjabi Lala Lajpat Rai whose fierce brand of patriotism and potent vocalism against the British rule earned him the title of *Punjab Kesari* [the Lion of the Punjab]; and the Bengali Bipin Chandra Pal, who had started the English language weekly newspaper *Bande Mataram* to which Sri Aurobindo contributed so much. Many of these people and their followers have been forgotten; this section of the film pays homage to the early freedom fighters of India."

After a three-year 'Sri Aurobindo intensive', Olivier is exhausted. "My eyes are tired," he says. "There was such a massive amount of material to go through! It became a work of distillation. I wanted to have a minimum of text, going to the essence, and with very powerful imagery. Of course, I had to cut – two hours and twenty minutes of the final version is already very long – and I was not pleased about that. But that's the process. However, I won't be able to go on like this. I'll need an assistant for the next movies."

There is also gratefulness. "It's always good to be with Sri Aurobindo. I learned a lot. The final movie has nothing to do with what I envisaged at the beginning. It was kind of a revelation; I discovered the film while doing it. I learned that if you have an idea and follow it with patience and persistence, something will come out of it."

The 'immediate next' will be to subtitle the film in Hindi, Tamil, French and perhaps other languages, and make these versions also available on YouTube. Then the work on part 2 will start, which, says Olivier, will have a large section on Mother India and the importance of India to the Future of the Earth, as conceived by Sri Aurobindo.

Carel

To find the movie go to YouTube channel 'Olivier Barot'

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We need to rethink everything

François Gautier came to India in 1969 at the age of 19, with the first Auroville caravan. Deeply impressed by Sri Aurobindo's writings, he chose to reside in the Sri Aurobindo Ashram for about seven years, after which he joined Auroville, where he has been living since. He is the South Asian correspondent for multiple reputed French-language dailies, has written a large number of books on the history of India, and authored an authorised biography of Sri Sri Ravi Shankar. He established the Foundation for Advancement of Cultural Ties (FACT) and founded a private museum in Wadgaon Shinde, Maharashtra, which seeks to portray Indian history from an Indian nationalist's point of view. In 2003, late Prime Minister Shri Atal Bihari Vajpajee conferred on him the Bipin Chandra Pal Award, named after India's early freedom fighter Bipin Chandra Pal.

PHOTO COURTESY FRANÇOIS GAUTIER



François Gautier

Auroville Today: How do you perceive the present situation in Auroville?

François: For many years I have been feeling that Auroville is going on the wrong track. I will give you two examples. One is the Galaxy Master Plan. The plan was conceived in the late 1960s, when there was no concern for ecology or the environment, when there was no apprehension about the availability of water, when it was thought to be okay to build 20-30 storey buildings with millions of tons of concrete. This has changed a lot today. When I go to France or the US, I see that, apart from in the very big cities, nobody builds huge apartments anymore. Instead, there are smaller complexes of apartments, which are integrated into a forest or their environment. But Auroville is still stuck in the plan from the 1960s.

Another concern is that nothing is being done to prevent Auroville from getting strangled from the outside. We have been concentrating on the small city and greenbelt area, while all the lands around us, and quite a few lands in our greenbelt around the city area, are being bought up by promoters, who are building hotels, restaurants and souvenir shops which have nothing to do with Auroville.

A few years ago a national highway was planned to pass between the greenbelt and Kuilapalayam village. I was one of those who fought against this project and we managed to stop it—for the moment. For me, this was a warning that we need to think bigger and that on no account we should sell or exchange Auroville-owned lands outside the city and greenbelt areas for land within the city area. When The Mother was still in her body, lands were bought far outside the present Auroville area. Some lands were purchased when the centre of the planned city was to the west of where it is now. But also lands elsewhere were bought, such as the beach lands, the land next to the Tindivanam – Pondicherry highway and farther away lands. Many of these lands have been exchanged. Even within the

Auromodèle area, Auroville lands were sold to outside developers instead of being sold to people who are interested in Auroville. I think that was a huge mistake. These decisions allowed for the body of Auroville to be invaded and desecrated.

Do you think Mother or Roger would have made a different master plan if they were here today?

I am convinced that the Mother, if she were here today, would say that we should rethink the Galaxy, because she lived from moment to moment. But what Roger left behind has become a 'holy legacy', and people are fighting to manifest it, stating that Mother 'approved' the Master Plan and that therefore it has to be built as originally conceived. There is an occult force which makes people think that the Galaxy is still okay today. I completely disagree.

You have been arguing that Auroville is not welcoming for newcomers anymore.

The present newcomer policy is in my opinion too bureaucratic and so rigid that new and young people have difficulty to join. Compare that to the beginnings of Auroville. Many of those who came with the caravans in the 1960s didn't know anything and had not read Sri Aurobindo. They came here by accident or by fate, but they had trust in The Mother and stayed to help develop Auroville. I am convinced that they were guided by their psychic being.

That trust in the Divine guiding our steps seems to have gone out of the window. We have been developing a plethora of rules and regulations. Instead, the next step should be 'trust'. We must trust again. The mantra for the coming times should be 'Welcome to Auroville' instead of 'We mistrust you', 'You have to donate

money to become the steward of an apartment,' and 'You must read Sri Aurobindo', all present conditions before one will be accepted as Aurovilian. That's too much of an imposition. It probably developed because in the past there have been cases of people who have gone astray, who wanted to exploit Auroville. But the majority of people are coming because their psychic being brought them here.

We need to revive the pioneering spirit. We need to open the lands on the outskirts of Auroville to young people, and give them the freedom to build what they like with the money they have, like we used to do, with keet and bamboo and a few bricks. In this way we will attract a young generation and revive something of that pioneering spirit which brought the early Aurovilians to Auroville.

When they came to Auroville, there was nothing. If today Auroville prides itself on the rejuvenation and re-afforestation of the land, it was because so many young pioneers planted trees and worked the land. But now, if you want to be in Auroville, you need to donate 50-70 lakhs to get the stewardship of a flat, otherwise you cannot integrate. It is almost impossible for a new person to build something in the existing greenbelt, as the foresters believe that forest areas should not be densified by more people. That's why we need to open up the lands on the outskirts to young newcomers.

Nowadays, many decisions and regulations are imposed by the Secretary and by working groups appointed by the Governing Board of the Auroville Foundation. What is your view on this?

A few years ago, I interviewed Paolo Tommasi. [an Italian architect who met The

Mother just before Auroville's inauguration in 1968, and who played a significant role in the conception of the Matrimandir. He passed away in 2020, eds]. He was very disturbed about the fact that his aunt had been murdered by the Nazis in a concentration camp. He spoke to The Mother about it. He told me that She had said, speaking about the Second World War, that the hand of Mahakali had been resting on Europe. Similarly, I think that now the hand of Mahakali is on Auroville.

I do not agree with the Board constituting working groups and appointing its members without interaction with the Residents' Assembly; I also disagree with many of the decisions that have been made. But I believe that the Secretary has come to Auroville because we needed a major kick to wake up. She is very active and has been making decisions including many that none of the Auroville working groups were able to make. Many Aurovilians agree that Auroville was stuck; our own working groups were unable or powerless to take decisions and carry them through. I think the Secretary is here because we need to rethink everything we have been taken for granted, from the lands to the planning, from entry to government. We need to wake up, come out of our restrictions, step out of our complacency. But has Auroville woken up to the necessity of rethinking everything?

I am afraid most people are still sleeping, or are thinking that things will go 'back to normal' once the term of office of the Secretary ends. That would be awful, and a waste of the moment. It reminds me of Sri Aurobindo's essay *The Hour of God* where he warns that woe will befall those who are caught sleeping or unprepared when the hour arrives.

You have had many interactions with the Prime Minister of India and many other high dignitaries, speaking about Auroville. How effective are these interactions?

I have been able to give some perspectives on Auroville which they did not have before. Nowadays, it is primarily the Secretary who is interacting with the various ministries and officials; of course, she gives them her views on what's happening and what she believes has to happen. There seems to be little drive from Auroville working group members appointed by the Residents' Assdembly to come out of their comfort zone and go to Delhi to meet officials. In the past I have campaigned for Auroville to have its own office in Delhi to keep in close touch with ministers and bureaucrats, because everything happens in Delhi. Sadly, this has never manifested. But Auroville must have an active presence in Delhi.

Are you yet hopeful about Auroville's future?

I am, because I feel that the presence of Sri Aurobindo and The Mother in Auroville is still very strong. But as I said, we have to start thinking about and planning for the future, and not waste the moment.

In conversation with Chandra and Carel

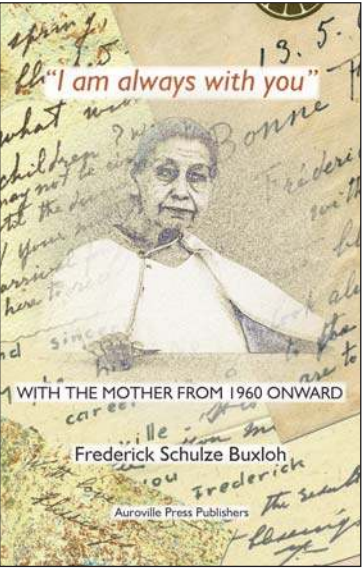
NEW BOOKS

I am always with you

Many people have met The Mother. Some were blessed by Her responding to their questions in writing. One of those is Frederick Schulze Buxloh, who first came to India in 1960 when he was 20 years old and then met The Mother for the first time. As he recalls in his recently published book "I am always with you", *There she was sitting behind the door, her legs resting on a little stool as they did not even reach the ground, her thin arms on the hard black carved armrests. She looked so fragile. I had made up my mind not to kneel down. But before I knew it, my knees buckled and I was kneeling. She looked at me and she said, "What do you want to do, do you want to be quiet or do you want to talk?" What rose up in me was "Can I do both," but I could not speak. Then*

her eyes became very physical, almost a tangible force, like a beam ... Never before had I felt that there was somebody who had seen me totally – not "accepted", not "approved of", but looked at – and it was such a joy to be fully known, to be free. It was the beginning of Frederick's surrender and dedication to The Mother he loved.

We may expect that in the years to come many disciples and devotees will start sharing the memories of their contact with The Mother. But this book is the first of the kind of an Auroville resident and, as such, not only gives an insight into The Mother's help with the author's personal and family issues, but also of Mother's views and support for the budding Auroville of which Frederick, his partner Shyama and her



children became the early residents.

In the chapter "Surrendering to The Mother" he describes what it meant to him to be close to The Mother, and how, when he once asked to see her, she wrote back *I am always with you*. Reflecting on these words many years later, Frederick realised that the 'I' is not really the physical Mother as he had come to know her, but rather an intensity of presence.

The book has 11 chapters and an epilogue. Each chapter's focus is on a different aspect of The Mother: as a personal guru, an elder sister, a mother, an executive, an initiator, a leader of the evolution, as form maker, as manager, as referee and as the presence within.

In the epilogue Frederick talks about the recent happenings in

Auroville, starting in December 2021 with the destruction of the Youth Centre, and continuing today, as if the Auroville ideal is slowly being corrupted, shrunk, reduced to normalcy, and so in danger of becoming dead. Yet, he writes, there is another dimension too – there is a living presence now. "When The Mother speaks of a cradle for the Superman, or laboratory of the new world – it's now."

Carel

I am always with you
Published by Auroville Press
ISBN 978-81-955314-9-3
187 pages, price in India Rs 440.
Available from Auroville Press, the White Seagull bookshop at the Visitor's Center and at SABDA and Casablanca, Pondicherry.

Prosperity and decline since antiquity

An ecological overview of life in the Auroville region

Deepika Kundaji is known in India for her work in seed-conservation and land regeneration. She is regularly called on to conduct trainings for farmer groups and to speak about her work. Over the last 29 years, she and her partner Bernard have restored life and biodiversity to eight acres of severely eroded land at Pebble Garden in Aurobrindavan, Auroville. In 2018, the President of India conferred on her the Nari Shakti Award 2017, India’s prestigious award for women, for her work in the field of biodiversity and seed conservation.

Deepika has been studying historical sources to find out how the Auroville area became a desert and how an awareness of past ecological blunders can shape a conscious vision for the future.

PROSPERITY

A Contradiction

Two facts about the Auroville region are strikingly contradictory – the extreme desertified condition of the land at the beginning of Auroville and the antiquity of human occupation in this area.



Beginning of Auroville – Canyons near Utility

Photographs from the early days of Auroville serve as harsh reminders of what the land was like 50 plus years ago – a scorched, red, treeless terrain scarred by gullies. By no measure could this land be called fertile, with canyons cutting through all sides of the Auroville plateau, eroded red soil, intense monsoons followed by long dry periods and no perennial water source. There are reports from back then of severe water scarcity in summers when residents of Edayanchavadi had to walk to Kulilapalayam to fetch drinking water. At least 8 sq kms of land west of Tindivanam Road from Aurobrindavan to Usteri Lake is even now highly eroded, with no topsoil whatsoever.

Was Auroville and the area around always a desert? If yes, then how could people have possibly inhabited this land for millennia? How did they manage their water and food? What can historical / archaeological evidence tell us about how people lived here in ancient times, what was the condition of the land and the environment?

Cairn Circles and Indian Ocean trade 2nd Century BCE

The cairn circles or *pandukals* right at the centre of Auroville testify to human presence on this plateau at least 2500 years ago and a society that was quite advanced. People who crafted iron, stone beads and terracotta objects surely had the basics of water, food and shelter behind them.

Arikamedu, close to Pondicherry, was a bustling international port from the 2nd century BCE to 7th century CE, connecting South India with West Asia and the Mediterranean world, as well as South East Asia and China. Luxury goods from this region, sought after in Greece and Rome, included fine textiles, gemstone beads, pepper, medicinal products, spices, pearls, monkeys, parrots and peacocks. The favoured products that came to Arikamedu from the West were olive oil and wine in Roman amphorae! This period overlapped with the time when cairn circle or *pandukal* builders were present in the Auroville area. There is specific mention of *Ferrum Indicum* (Indian Iron) and ‘Indian’ ebony among the 54 valued goods being taxed in Alexandria, both sought after for their unparalleled quality around the world. Ebony wood, from *Diospyros ebenum*, a tree native to this region (now almost extinct), was so prized worldwide in ancient times that it was offered as a tribute between kings, on a par with gifts of gold and silver.

Overseas trade and advanced seafaring skills assume agricultural surpluses, a range of well adapted crops and livestock, perfectly managed water resources and, of course, different kinds of trees to make different kinds of boats, ships and cargo vessels for varied merchandise. A complete and prosperous society that not just survived but thrived.

Overseas trade and mobility in Sangam poems

Several poems from the earliest Tamil texts, known as the *Sangam* literature dated between 600 BCE to 300 CE, mention

‘Yavana’ people and ‘Yavana’ ships – a word referring to the Greeks and Romans, but also to anyone from the West. Tamil inscriptions and artifacts of Indian origin have been found in Egypt, Oman, Thailand, Sumatra and China. *Sangam* poetry describes horses transported in ships from Arabia.



Ships bringing Horses – Temple murals - Ambasamudram

There were at least 36 kinds of boats and ships with unique names mentioned in the early Tamil texts, each needing specific kinds of wood, implying that diverse suitable trees were in abundance. Equally used were bullock carts (the chief means of inland transport) which, as described in the *Pattinapalai*, one of the *Sangam* anthologies, were built to perfection with “wheel hubs made from huge trees”.

The *Sangam* poetry contains picturesque depictions of the social and environmental landscape in those times. A five-fold land classification forms a thread running across many of the poetic verses describing the physical features of the land but also metaphorically the ‘inner landscape’ of people.

Traditional landscapes and cultural diversity

The five categories of land are *Kurinji* (mountain), *Mullai* (forests and grazing lands), *Marudham* (fertile agricultural land), *Neythal* (coastal) and *Palai* (desert). It is very interesting to note that *Palai* or desert lands were not a separate category of land but rather considered to be a degraded form or seasonal expression of *Kurinji* or *Mullai* lands.

Each of these regions and micro-regions were distinct ecological units or miniature worlds. The way in which people lived was shaped by the unique physio-geography and natural resources of each type of land. Everything about life, not just human life, emerged from the land and the *Sangam* poets describe this diversity and oneness with the land most beautifully.

The occupations, the kind of houses people lived in, the food they ate, the flowers they wore, the trees they used, the gods they worshipped, even the mood, temperament and dominant emotions of the people, were extended features of the land. Every region had its own natural advantages and people prospered by adapting to each with unique skills and tools, making every region as culturally distinct and as diverse as the landscape itself. Human life and diversity was embedded in and inseparable from the natural richness of a place.

For instance, the hunter gatherers of *Mullai* regions (forest and grassland) in the Tondaimandalam – the ancient name of the region in which Auroville is situated – are described to have been skilled in collecting grass grain (from rodent holes) which they pounded and cooked. A special meal served to visitors would consist of bold upland paddy with *poriyal* of monitor lizard. They were skilled in hunting hare and wild boar. The *Mullai* pastoralists, on the other hand, apart from animal husbandry, also grew rainfed millets and their staple food was *koozh* (fermented *ragi* or *kambu*). They would serve guests a special meal of *varagu* rice with *avare* beans or *thinai* rice cooked with milk. These descriptions are from the *Sangam* text *Perumpanatruppadai*.

Auroville plateau as Mullai land

These *Sangam* descriptions strongly suggest that the Auroville plateau would traditionally have been characterised as *Mullai* – forest and grazing lands. This is supported by many current facts. Idayanchavadi gets its name from *Idayars* or pastoralists, and *chavadi* meaning a meeting place. *Ragi* and *kambu koozh* was the common food, until recently when free rice from the Public Distribution System invaded diets. Rainfed paddy varieties were still grown in the uplands when Auroville began. The wild vegetation mentioned in descriptions of *Mullai* lands is common in this area – *icham*, *vengai*, *makilam*, *ookam* grass. *Mullai* lands were named after the *mullai* flower – the wild jasmine (*Jasminum angustifolium*) whose flowers are ‘fragrant from afar’. *Kaya* (*Memecylon umbellatum*), *kondrai* (*Cassia fistula*) and *thondrai* (*Gloriosa superba*) are flowers typifying *Mullai* territory and are seasonal marvels of the regenerated



Wildflowers of *Mullai* lands, mentioned in *Sangam* poems, now grow in Auroville Forests. From left: *Memecylon tinctorium*, *Jasminum angustifolium* and *Gloriosa superba*

forests of Auroville. The hunting of small game – hare, partridges, monitor lizards – was common in this area even 20 years ago and would not have existed without forested areas.

The natural lay of the land and the fact that the Auroville plateau slopes in three directions suggest that there must have been considerable forests on the uplands in order to preserve wildlife habitat, safeguard soil fertility, prevent silting up of water bodies and enable rainwater percolation.

Ecological wisdom in the *Thirukkural*

“Multi layered forests are the fortresses protecting life, ensuring crystal clear water and fertile soil.” *Thirukkural* (742)

This verse, from the classic Tamil *Sangam* treatise on the art of living, superbly sums up the foundational wisdom underlying life and prosperity in ancient Tamil Nadu. Protecting the environment was not seen as something separate from human well-being and development. The wisdom contained in the poems were not poetic abstractions but grounded in the lived reality of people in those times.

Looking at its relevance today, the *Thirukkural* is a forgotten guide to daily living, consistently emphasising an ecological way of life as being the ONLY way.

Rainfall and water management

There is no life without water. Society is entirely shaped by water, and prosperity in the region hinged on how effectively people managed excess rain and shortage through varied practices to ensure food and water all year round. Avaiyyar was very articulate about how water that was managed well in paddy fields was directly connected to the success of a king.

The Auroville area has no natural perennial water source like a river. We get a lot of rain annually – 1000 to 1200 mm on average. But there are only 40 to 50 rainy days in a year.

Often 1/6th or even 1/5th of the annual rainfall occurs in one day. This intensity can potentially turn the life-giving force of water into a destructive one. Intense wet periods followed by a very long dry season – this was the challenge people had to confront and manage.

Native ingenuity and engineering perfection is evident in the different kinds of water bodies – *eri* (irrigation tanks), *kolam* (ponds), open wells – that were made to hold rainwater during intense rainy spells and make it available during the dry season for agriculture, livestock and domestic use. In the *Sangam* literature, 47 names for specific kinds of water bodies are mentioned. There were precise terms for different kinds of water reservoirs used for irrigation – *ilanchi*, *kayam*, *keni kottakam*, *madu*, *salandiram*, *eri*, *poikai*, *kuttam*, *kanmay* etc.



Numerous water bodies covered at least 40% of land area in 1914. Extract from a US army map based on a Survey of India Map.

The *eri* system

An *eri* is a reservoir created by an embankment strategically built between two ridges, in a location that has a good inflow of water during the monsoon. Once an *eri* is full during heavy rains, the overflow becomes the inflow for the lower *eri*. In this way entire drainage basins or watersheds were ‘landscaped’ into a linked chain of *eris*, making it possible to capture maximum rainwater and reduce wasteful runoff. The stored water was then used to irrigate fields in the lower areas by means of sluice gates and through distribution channels. In all probability, the Cholas supported the construction of these engineering marvels, which were then maintained by the village community as a common asset, that in turn supported the king as well.

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Prosperity and decline since antiquity

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The lands irrigated by the *eri* could grow finer varieties of paddy and sugarcane. These were normally grown on fertile agricultural *Marutham* lands on alluvial soils irrigated by canal distribution systems from rivers.

The *eri* system made it possible for agriculture to develop and thrive and support human life even in relatively dry areas where no perennial rivers flowed.

Each *eri* was scrupulously maintained by the local people – sluice gates and embankments repaired. Desilting was carried out annually to maintain the water holding capacity and at the same time to fertilise the rainfed upland fields. Silting up of water bodies was minimised in the past by maintaining forest cover on the uplands, particularly at the top of the watershed.

Abundance in the songs of Irumbai

The ancient Mahakaleswarar temple, near the Irumbai *eri*, the biggest in the Auroville area, was visited by Sambandar, one of the three 7th century CE Shaivite saints who composed the *Thevaram*. Sambandar composed 11 verses in praise of the Irumbai deity. Three of the verses describe the surroundings of the temple – mentioning trees so tall that they touch the sky and gardens on which the clouds settle, honey flowing, monkeys feasting on jackfruits and playing on tall trees: an environment of prosperity and plenty.

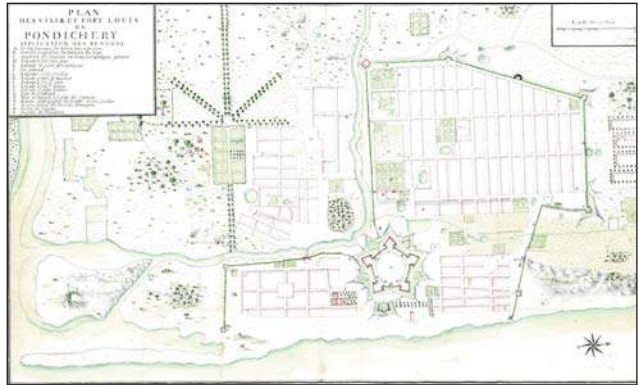
The inscriptions in old temples in this area – at Irumbai, Kiliyanur, Arisili – mostly record donations of goats, sheep, cows and sometimes grain to sponsor the lighting of lamps at the temple. Agriculture and animal husbandry flourished in the 7th century.

The Kaduveli *siddhar*, who is associated with the temple of Irumbai, usually inhabited forested areas, like other *siddhars*. Their yogic practice gave them insights into the healing properties of wild plants that surrounded them. Of the local TDEF (Tropical Dry Evergreen Forest) species, 150 have documented medicinal properties and are traditionally used to treat more than 52 human ailments. It was only because the *siddhars* were immersed in the living surroundings of forested areas that this knowledge developed and could be used to heal and serve people.

Wealth of India and the Coromandel Coast

Herodotus back in the 5th century BCE had pronounced India to be the “wealthiest country on the face of the earth”. Millennia before its ‘discovery’ by Western Europeans, India’s natural commodities and exquisite artisanal products – silk and cotton textiles, steel, spices, timber, gemstones, pearls – had lured seafaring traders from distant lands in Arabia, Egypt, Persia, Africa, South East Asia and China, apart from Mediterranean Europe.

The Coromandel Coast (Cholamandal, to be correct) was strategic for seafarers navigating these distant continents, serving as a fulcrum of trade in the Indian Ocean. The Portuguese were well settled in Madras and Nagapattinam in 1522. By the end of the 1600s, other European fortified trading settlements (called ‘factories’) were established along this coast – the Dutch East India Company at Pulicat and Sadras, the Danish at Tranquebar, the French in Pondicherry and the English in Madras Fort St. George and Cuddalore Fort St. David.



1714 Plan of Pondicherry by Denis de Nyon, Chevalier de Saint-Louis (Gallica, Public Domain)

As these trading centres evolved into expanding territorial powers, a large body of written material was created to inform European administrators and officials posted in different districts about the region. These reports, manuals, gazetteers, handbooks, journal articles and guidebooks throw detailed light on subjects like crop diversity, agricultural practices, forest trees and valuable species, water harvesting and water lifting devices, blacksmithing expertise and pearl fishery skills, to name a few subjects.

Indigenous agriculture described in colonial records

Francis Buchanan, a Scottish physician and naturalist, was commissioned by the British East India Company to tour the lands which had been under Tipu Sultan after his defeat in 1799. He started his journey in Madras and in his travel account of 1807 writes about the Sembarambakkam *eri* near Madras, “...it supplies with water the lands of thirty two villages (should the rains fail) for eighteen months. (...) In a country liable to famine from want of rain, a reservoir such as this is of inestimable value.” He describes what people do during heavy rain spells, losing no opportunity to increase the water holding capacity of the *eri*, and how they then monitor the situation day and night during heavy rain to avoid breaches and flooding. He describes the upland as being too stony and dry for any cultivation, but where palmyra and wild date abound and where forest trees would be beneficial, if introduced.

Almost all the early colonial records describe an advanced indigenous agriculture whose success was the result of three



‘Saal’ grain silos, once used in the Auroville area

synchronised elements: 1) efficient water management; 2) appropriate land use systems that took into consideration topography and the place and role of forests and trees in agriculture; and 3) farmers’ ingenuity in developing and using crop cultivars and livestock breeds for a range of specific uses and unique field conditions.

For example, in 1878, farmers of South Arcot District (now Villupuram and Cuddalore districts) cultivated 40 varieties of rice and several millets including *panikambu* – a variety of pearl millet – that could grow post monsoon with just dew. Although paddy is a wetland crop, farmers had developed varieties like *pulthikar* that could grow on uplands with minimal field preparation and not a drop of artificial irrigation. At the same time, in contrast, there were four long stemmed varieties of paddy that were grown inside irrigation tanks. They have “stem lengths that vary from three to nine feet according to the depth of the water,” records Garstin in 1878 in the Manual of South Arcot. Even thirty five years ago, Aurovilians spotted these long stemmed varieties growing inside a tank near Kasipalayam.



Ettram water lifting device for irrigation from wells

The creative way in which farmers used plant varieties to the maximum advantage is illustrated in an extinct traditional practice, recorded in the Gazetteer of South Arcot in 1906, of growing two varieties of paddy (*ottadam* and *kar* – of 8 and 3 months duration) in the same field. “The seeds are mixed, sown together and transplanted mixed in the same field. When the *kar* matures it is harvested and removed. The *ottadam* has not by this time put out any ears and so it suffers no injury from the harvest.” This practice, if revived, could have immense contemporary relevance, given that the movement to revive traditional seeds and agriculture has gained momentum.

In 1897, J.A Voelcker, an agricultural chemist from England, was called to India on a special assignment to suggest how to improve Indian agriculture. After travelling the country, he says, “I do not share the opinions which have been expressed as to Indian agriculture being as a whole primitive and backwards, but I believe that in many parts there is little or nothing that can be improved. (...) Taking everything together, and more especially considering the conditions under which Indian crops are grown, they are wonderfully good.”

Productivity of indigenous agriculture

Exceptionally high agricultural yields were reported in pre-British and colonial times. The average produce from lands of various kinds in South Arcot District for the Chola period (10th – 13th century CE) was estimated to be around 33 quintals per hectare. Based on data collected by British engineer Thomas Barnard between the years 1762 to 1766 of nearly 2,000 localities in the Chengalpet *taluk*, noted historian Dharampal analysed paddy production figures from 800 villages and brought out some staggering truths about agricultural productivity.

Of the 800 villages, 130 villages with irrigated lands showed average yields of more than 50 quintals of paddy per hectare. Among these 130 villages, many produced more than 100 quintals of paddy per hectare. Average productivity of these 130 villages with 7,000 hectares of cultivated paddy was as high as 82 quintals per hectare. These yields are from Chengalpet lands which are of moderate fertility in comparison to delta areas like Thanjavur. The reported maximum yields around the same areas today, with chemical inputs and modern varieties, is about 65 quintals per hectare in *eri* irrigated lands and 49 q/ha in well irrigated lands.

How did traditional farmers get such high yields? Why is there such a decline in modern times despite ‘scientific improvements’? These are significant questions to ask today as the challenge of food production for a growing population keeps coming up.

An explanation for high yields may likely be found by looking not only at what was happening on the farms, but at the context surrounding them – the way in which the total land in each area was used. In the 800 villages, Dharampal writes that “The total cultivated area in these villages is about 54,000 hectares. The area covered under various sources of irrigation amounted to 26,000 hectares. Another 18,000 hectares was under forest. This high proportion of greenery and water perhaps creates conditions where high productivity becomes more easily possible.”

It has been reported that by 1871, within 100 years of colonial rule, the land use patterns in the same region drastically changed, with 83% of the land brought under cultivation.

DECLINE

Changing land use: industrial crops

The introduction and promotion of ‘cash’ crops or ‘industrial’ crops for export was the major reason for forest land being brought under cultivation. People were granted *patta* or ownership of lands if they cleared ‘scrub jungle’ or land categorised as ‘uncultivated wastelands’ and planted industrial crops. In South Arcot district, these were indigo (for the textile industry), ground nut (exported to Marseilles for the soap industry), sugarcane (for sugar – Nellikuppam factory from 1842), tobacco, casuarina (after 1882 for railway fuel) and cashew. This necessarily meant a significant reduction in the forest cover.

The holistic view of life and land use – integral to the indigenous way of life for millennia, where native wisdom acknowledged the role of forests in preserving soil fertility, providing water and supporting all life – had started to erode from the base.

The process of falling farm productivity and agricultural decline had commenced. Forces of ‘development’ were chipping away at the foundations of agricultural and societal wealth that had long brought prosperity to these lands.

Building the city of Pondicherry and its needs

According to the Gazetteer of Pondicherry, in 1703 “Francois Martin who acquired Kalapet village, then famous for its timber, from Nawab Dawood Khan is reported to have used the wood from its forest for building houses in the town newly founded by him. The origin of ravines in Kalapet may perhaps be attributed to this process of depletion.” It is believed that it took barely 10 years for the canyons to form, after the cutting of the forests. Soil erosion resulting in canyon formation is the most extreme and irreversible form of land degradation, where soil is transported away from its place of origin, in this case ending up at the bottom of the Bay of Bengal. The Utility canyons of Auroville perhaps owe their origin to the same phase of deforestation. Given the canyons all around Auroville, it takes some imagination to picture what the place must have looked like before this immense loss of soil.

Nearly 30,000 people came to live in Pondicherry after Francois Martin’s efforts to develop the town, most of whom worked for the French to produce textiles for trade, ‘piece goods’ as they were called, and various kinds of ordinary and luxury fabric. Brocade, chintzes, velvet and cotton woven with gold thread were some of the luxury textiles with which outbound ships were loaded. The town was occupied by weavers and bleachers, yarn dyers and fabric painters. Coarse cottons, scarlet, blue and green dyed broadcloth were also produced in Pondicherry. Textiles took priority, replacing spices that initially attracted Europeans to India and the East. Indian textiles were in fact traded in South East Asia for spices, being used as a currency of sorts. Pondicherry saw ships landing from and taking off to Mocha (Yemen), Pegu (Myanmar), Manilla (Philippines), Mascareigne (near Madagascar), Macao (China), and other parts of India, like Chandannagar in Bengal.

The houses in Pondicherry’s ‘White Town’ area were built of wood, brick and lime, some double storeyed. By 1735, there were 80,000 inhabitants. A trading town had its need of timber for ship repairs and for house building, and this was sourced from “The surrounding forests and woods, filled with deer and wild pigs, hare and partridges (...) which the Europeans loved to hunt.” The French Governor Duplex used to favour the forested environs of Morattandi and resided there regularly. Red-wood (Red sanders) was sought after as a luxury timber and ships laden with ‘red-wood’ are mentioned in Rangapillai diaries. The ‘ebenistes’ derived their name from ebony – a wood favoured in mid 17th century Paris for luxury cabinets. Ebony was also probably sourced from the forests around Pondicherry as, together with Red sanders, it was a tree native to this area, until it went extinct. Charcoal was the preferred fuel of the Europeans residing in Pondicherry. Rangapillai in 1748 mentions that the jungles of Mattur (in the Auroville area) “were cut down by our Company’s people for charcoal”.

continued on page 5



Soil erosion in the Mattur area near Auroville, 1994

Prosperity and decline since antiquity

continued from page 4

Charcoal was so sought after that kilns were plundered. ‘Parc à Charbon’ was the old name of the area where the present Park Guest House is located in Pondicherry – possibly a charcoal godown or a place where charcoal was made.

Wars between the English and the French were so devastating that entire cities were razed to the ground after a defeat. Rangapillai notes the “smell of burning timber” after the English took Pondicherry in 1761. Three times the French lost Pondicherry – in 1761, 1778 and 1793. The town had to be rebuilt from scratch each time it was destroyed. The environmental costs of war are unestimated. However, neighbouring forests are always the first to bear the brunt of reconstruction, and the ripple effects of deforestation have far reaching consequences.

Internal mobility

To extend the area and depth of dominance, the English prioritised improving inland transportation through canal systems like the Buckingham Canal connecting South Arcot with Vijaywada and Kakinada, road development with the first highway in 1836 from Calcutta to Delhi, and eventually the railways.

For centuries, pack bullock caravans driven mostly by *lambadis* (a nomadic ethnic group also known as *banjaras*) were the most ubiquitous means of land transport, functioning extensively. Scenes of these caravans are brought alive in a sangam poem describing a woman with a child in her arms driving a bullock cart carrying salt inland. Rangapillai mentions 468 bullock cart loads of paddy, apart from other food grain and essentials, entering the Pondicherry bazaar in one single day. However, the shortcoming of draft bullocks for a colonial economy driven by growth was that for three months during the monsoon no carts could ply to and fro on mud roads.

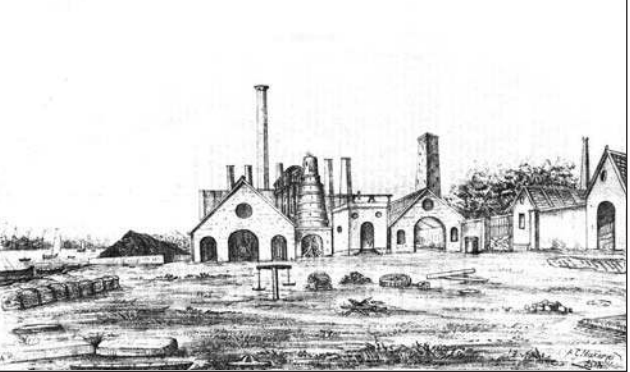
Porto Novo Iron Works and the projected railway

In 1830 a civil servant named Josiah Marshall Heath working for the East India Company in Madras, proposed to invest in and build the country’s first large-scale iron factory on the Coromandel coast. He had carefully studied the legendary native *wootz* steel technology and, based on the insights he gained, came up with proposed methods to scale up this kind of iron production.



Traditional steel kilns

The Salem ores were studied and found to be of excellent quality. The company directors supported Heath’s enterprise because steel availability on a large scale was promising for the manufacture of rails for the projected Madras Railway. Heath was given a grant of 9000 pounds, permission to source iron ore from 98,500 sq km in the Salem hills, and granted the right to cut the entire South and North Arcot jungles for all the fuel required for the production of iron. All this without any payment.



The Porto Novo Iron Works

The factory started functioning in 1830 at Porto Novo (now known as Parangipettai, 65 km from Auroville), known initially as the Porto Novo Iron Works, located on the bank of the Vellar river, half a mile from the sea. Four blast furnaces produced iron considered equal to the best Swedish iron. After producing fine steel for nearly 30 years, providing for all the iron needs of Britain and British India, the company went into a tailspin. The harsh truth was that there was simply no fuelwood left.

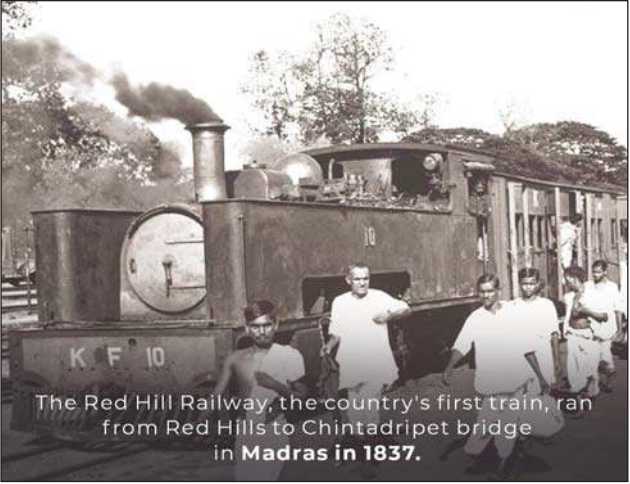
Deforestation and forest conservancy

Vast tracts of land throughout the entire Madras Presidency were deforested and valuable timber indiscriminately cut for firewood and charcoal to feed the Porto Novo Iron Company. There is every reason to infer that Auroville area forests were also axed during this period from the 1830s to the 1860s.

This devastation is well documented and criticised by almost all British officers posted in South Arcot district. The Imperial Gazetteer of 1908 states that the forests of South Arcot are not at present important as timber producing areas as they had been completely ruined before conservation began.

The jungles leased to the factory were under the District Collectors. Farmers were given free *patta* of a piece of jungle. They were allowed to clear it for cultivation, and the crops from these cleared lands were not taxed for two years. After two years of cultivation, the same farmers would apply for new tracts of jungle. They converted all the cut forest into charcoal, profiting from its sale to the iron factory and from tax free crops. “The jungles disappeared year after year.”

The British, acknowledging the devastation, started regulating the cutting of firewood and timber by 1860, and Jungle Conservancy Rules were introduced by 1862. On the advice of Dietrich Brandis, the first Forest Acts were passed in 1882. The chief objective at that time was to provide a permanent supply of fuel for the railways. W. Francis in the Gazetteer of South Arcot notes that at the same time *Casuarina* and *Acacia auriculiformis* plantations were introduced, to provide for the railway and at the same time to protect valuable trees such as *Pterocarpus sp*, *Terminalia tomentosa*, *Hardwickia binata* (one of the hardest and heaviest timbers in all India), rosewood and sandalwood.



Railway or ‘timber way’?

The devastating environmental impact the railways must have had on the whole country is unimaginable. If just the production of steel for tracks at Porto Novo succeeded in removing all traces of forests in South Arcot district, imagine the impact of cutting through thousands of miles of densely forested tracts across the country to lay railway tracks. The very first railway line of the country was operational in 1837, running from Red Hills to Chintadripet to transport stones for road building work in Madras. Not a trace remains of the ‘six forests’ or *Aar kadu* that gave Arcot district its name.

For a long time, railway ‘sleepers’, which function as spacers to hold the tracks in position, were made of heavy timber. The size of planed timber for sleepers was 10 ft x 10 in x 5 in, only specified hard trees were used, and they had a life span of just 20 years. As these were placed at close intervals, some engineers referred to the railway track as the ‘Timber Road’. The carriages, too, were initially made with wood. Finally, the fuel required to run the locomotives was initially wood charcoal.

Industrialisation of life

The Industrial Revolution and its unimpeded spread was a consequence of colonial expansion and consolidation. Innovators in Europe developed technologies that shifted production from hand methods to machine manufacture. Obviously this shifted the economic advantage squarely in favour of the inventors of machine technology.

For Indians this led to the collapse of highly skilled age-old occupations and drove to extinction exquisite handcrafted products that had gained widespread legendary status since ancient times. Whether it was Indian dyes and weaves or the muslins so fine that they bore names like ‘evening dew’, ‘running water’ and ‘webs of woven wind’. Or the *wootz* steel that travelled across continents to make the famed Damascus swords used by the Egyptians. It all came to an end with mass produced goods.

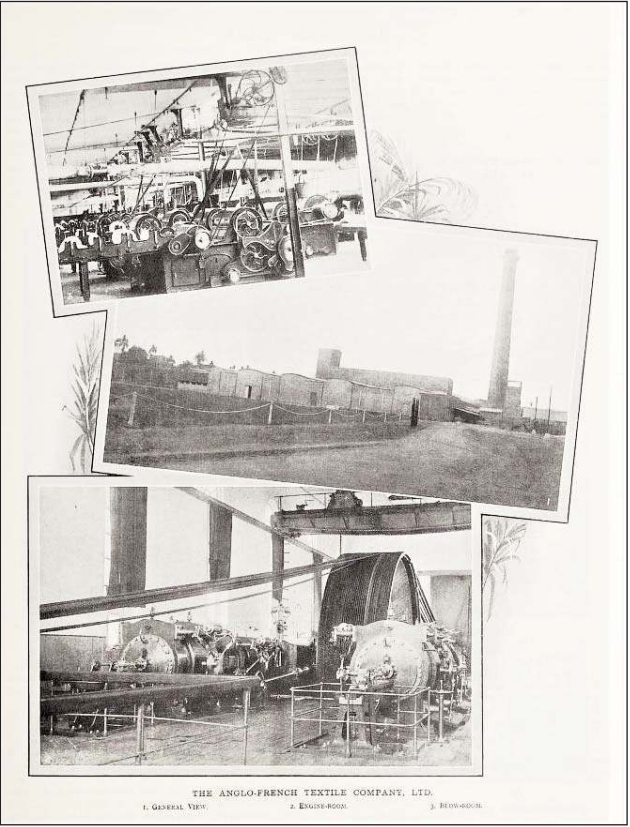
In Pondicherry, the Savana Mill was one of the earliest mechanised mills in the country, started in 1828 and powered by steam. Thousands of artisans involved in cotton spinning, dyeing and weaving lost their occupations when their traditional crafts, honed to perfection over time, turned sadly obsolete. Today even those mills stand in ruins.

Environmentally, these production methods were devastating because all fuel at that time was wood/charcoal based and the forest wealth of the country was plundered.

As underground mining and prospecting developed, fossil fuels took the place of wood. The pillage merely shifted underground. Today, society is grappling more than ever with the impact of over-exploitation of underground resources – whether petroleum, coal, water or minerals.



Savana Mills, Pondicherry, 1828



The Anglo-French Textile mills

Nation building the regenerative way

After Independence, we embraced the colonial legacy of an industrial way of life, characterised by unbridled growth and consumption – an economic system that is intrinsically socially and environmentally exploitative – rather than revert to and reinvent an indigenous way of life based on decentralised rural industries with sound ecological foundations.

Sri Aurobindo, in his 1908 essay entitled *Back to the Land*, wrote, “The life of a nation is always rooted in its villages but that of India is so deeply and persistently rooted there that no change or revolution can ever substitute for this source of sap and life the Western system which makes the city the centre and the village a mere feeder of the city.”

Auroville inherited a ruined land, plundered by deforestation from the 1700s. The Auroville canyons, now hidden in part under a cloak of green, still testify to the tonnes of soil that the land lost to the sea. An irretrievable loss.

Forests were an integral part of the traditional pre-colonial / pre-industrial landscape of Auroville. They were indispensable for continued human existence on this dry plateau. *Mullai* or forested lands existed side by side with *eri* and well irrigated fields. It was this combination of forests and fields that ensured water, preserved soil and made it possible for people to harvest crops, raise livestock, hunt, gather and prosper here for millennia. This wisdom is preserved in the Thirukkural. Contemporary studies based on the 1760s Chengalpattu survey have shown how changing land use patterns – reduced forest cover and shrinking water bodies – led to a decline in agricultural productivity, even though the area designated as ‘cultivated’ land evidently increased.

The problems of desertification and soil erosion caused by deforestation continue to be issues of grave national concern. As Sri Aurobindo noted in the same 1908 essay, “It is an ascertained principle of national existence that only by keeping possession of the soil can a nation persist,” and “...with the loss of soil (...) the source of life and permanence is sacrificed.”

Today, of India’s land mass of 329 million hectares, 147 million hectares of land are degraded. This includes 93 million hectares of land severely affected by water erosion and ravine formation – almost one third of the total land mass. In this larger context, the re-greening of Auroville stands out as an exemplary prototype showing how such heavily eroded lands deemed ‘unfit for biotic production’ can be dramatically regenerated. It is standing proof that the devastating effects of past ecological blunders can be mended, if not entirely reversed. In the long run the forests will undoubtedly build soil again, revive soil life and restore fertility to denuded farm lands.

As a pioneering effort, the eco-restoration work of Auroville has inspired and supported reforestation projects across India. Through several training programmes over decades for officers from the Indian Forest Service, Forest Department staff, farmers collectives and grass-root organisations, the knowledge and skills required for this work have been shared.

Ecology and the ideals of Auroville

This ‘city the earth needs’ has drawn many seekers, in search of a harmonious way of living – as humans in our larger natural home. Disenchanted with the alienation that urban/industrial society engenders, of human existence as separate from the natural environment, many have come to Auroville aspiring for a new society, a new world. Nothing exists in isolation and human life and well-being is inseparable from the well-being of all other life forms. Seeking a change of consciousness to break that illusion of separateness at all levels of our existence, the ecological quest is embedded in the purpose and goal of Auroville.

Deepika

“To share, coexist and protect biodiversity is the essence of all our hoarded wisdom.”

Thirukkural 322

Forest Group report



In June, two members of the Funds and Assets Management Committee appointed by the Secretary of the Auroville Foundation (FO-FAMC) sent an email announcing that this FAMC will stop maintenance payments as well as the regular Forest budget to green workers from July onwards. The reason given was the allegation that the management of Auroville’s forests had become ‘disconnected from Auroville as a City and the Master Plan’ and some forest work has been on a collision course ‘with these plans and Auroville’s larger purpose’. The FO-FAMC concluded that ‘The old Forest Group does not seem to have any willingness to change and be part of a fast developing Auroville according to its purpose.’

Practically, this means that 29 full maintenances and 11 half maintenances of Aurovilian foresters have been cut, as well as the Forest budget which helps pay the wages of 60 workers from the surrounding villages, many of whom have worked in Auroville forests for over 30 years. The effect of these cuts upon forest work and local employment could be devastating as many foresters have limited financial means of their own.

The foresters strongly deny they are impeding Auroville’s development and that, on the contrary, their work provides the necessary ecological foundation for such development. In support of this, they sent a comprehensive report of their present work and a history of Auroville’s afforestation to the Secretary and the FO-FAMC. Here is a slightly edited version of that report.

The early years

When Auroville was initiated in 1968, the area was a barren landscape devoid of trees, other than some palms and a few Banyans. The Auroville plateau with its red lateritic soil was as hard as iron; the summer temperatures reached over 40°C. , the humidity was 90%; and the long dry season was prone to dust storms. It clearly was a very harsh environment.

In the months of the Northeast monsoon, rainstorms that could deliver up to 50% of the average annual precipitation of 1250 mm within ten days transformed the plateau soil into a highly erodible substrate that would wash sediment, along with the precious rain water into the Bay of Bengal through a network of canyons. At that point there was no large environmental wisdom or vision, it was basic human necessity, that of water and shade, that spurred the initial environmental restoration effort. The main effort for all Aurovilians was to protect the land and create a liveable environment.

Certain members of the community were drawn to the task of working and toiling on the land, to prepare the physical body of Auroville. Later, in 1982, the Forest Group (FG) was formed with most of these land pioneers grouping together to work in a more efficient and coherent way.

With limited resources, the initial work of transforming the environment in those early days was that of soil and water conservation. This would be fundamental in ensuring that the seasonal monsoon rains were not lost, but would infiltrate into the subterranean aquifers, ensuring water security for Auroville as a whole. With the intensity of the Northeast monsoon, where 300 mm of rain can fall within a 24-hour period, the success of any sapling plantation would be questionable unless the rain water run-off was quelled. To address this, many kilometres of contour bunding were dug by hand on the open land that slopes from 50 metres to sea level, over a distance 4.7 km. In the highly eroded system of gullies, ravines and canyons that carried rainfall runoff across the watershed, gully plugs, earth dams and granite check dams were constructed.

This effort to maintain “zero run-off” has been a continued effort as Auroville developed and as impermeable surfaces, paths and roads were built. To this day, soil and water conservation remains a high priority.

The early days created a history of rich tales about the collective efforts of tree planting. This was a grassroots movement where saplings were planted in a passionate, albeit haphazard way. The absence of any local nurseries and knowledge of the flora of the area led to a mix of seeds being collected and germinated from a variety of sources, including the Pondicherry Botanical Garden, roadside plantations, the local government forest department, and seeds that community members had collected en route to Auroville. Plant nurseries were set up and the challenges of seed germination were overcome.

Once the saplings were ready, due to the harsh environment they were planted in large pits with as much organic matter added as possible, as the soil was so compacted and devoid of nutrients. It also became apparent that the plantation season was limited to the period of the Northeast monsoon, a narrow, yearly, window of opportunity.

The plantation areas were nurtured, with manual watering and mulching whenever possible. Initially, the plantations were not contiguous but spread out over large areas due to land ownership. This made aftercare and protection from grazing and browsing by the local livestock very challenging, but as the land was progressively purchased this became more manageable.

As the decades progressed and the yearly seasonal plantation continued, it was observed that out of the many species of plants that were experimented with most failed to get established. The species success rate in protected areas, such as around dwellings and public spaces, like schools, were higher due to ease of aftercare. In the larger tracts of land which were designated as green areas or forests, or reserved for future development, the species survival rate was lower. Certain species like the *Acacia auriculiformis*, an exotic wattle from Australia, outperformed the others. With its nitrogen

fixing capacities it not only thrived on the lateritic soils with almost non-existent topsoil, but it also grew rapidly, and in later years provided firewood and timber when it died naturally after 25 to 35 years.

Luckily, the tree planting in these Acacia areas was prolific, so though the diversity was not as rich as hoped, the areas were covered and by the late 80’s a hybrid forest with an assemblage of exotic and native species emerged.

As the forest flourished, birds returned quickly, benefitting from a diverse set of flowers, fruiting plants, and an increasing variety of insects. The bird list now has reached over 100 species. The butterflies were also attracted to this new environment, with current studies estimating over 200 species. The reptile population was also seen to increase, with over 20 species of snakes recorded. Other species, such as the monitor lizard, increased in numbers.

The common mammal population soon grew, making this forest a habitat for the Indian mongoose, civet cat and the jackal. In recent years, even the porcupine and spotted deer have made their way back to the area, with occasional sightings of the jungle cat and the rusty spotted cat. The mammal biodiversity indicates a thriving ecosystem.

The next steps, the early 90's

It was clear that this newly grown forest, though it held beauty and offered the services of shade, water and soil security, microclimate creation and biomass production, would not be the final vegetation type aimed for. It could be said that it was a pioneer forest. It was only in the mid to late 90’s, after an in-depth study of the tropical indigenous vegetation type of the area and its dynamics, that the native species of the area were planted in volume. This coincided with the conditions created by the pioneer forest to be optimum for this next stage of development: the shade, the biomass, the soil health, and rainwater conservation were all in place.

Working from the Pitchandikulam Bio-research Centre and Shakti Herbarium, and with funding from the Foundation for the Revitalization of Local Health Traditions (FRLHT) and a European Commission (EC) funded project, work began on researching the native Tropical Dry Evergreen Forest (TDEF).

During this research period, with guidance from the French Institute in Pondicherry and Pondicherry University, the team set out to locate potential remnants of the TDEF. Once the remnants were located, visits to 85 sites were arranged for plant identification, phenology, samples were collected for the newly created herbarium, and seeds collected to be germinated and propagated in the Auroville nurseries.

It was during this period that the work of interplanting the hybrid Auroville pioneer forest with the native TDEF species in volume was initiated. One key advantage of planting these native species was that they are adapted to the conditions of the geographical location and are drought resistant. This meant there was little or no watering required after planting under the pioneer canopy. With minor aftercare, mulching and management of opportunistic species around the sapling pit, a survival rate of 90% was achieved.

As the years progressed and these TDEF species got established, there was a natural transition from the hybrid forest to a more native TDEF prominent ecosystem. This became the single planting focus of the Forest Group, and today half a million TDEF saplings of over 200 species have been planted.

Presently the TDEF has become established, with more than half the species reaching maturity and regenerating. This is a clear indication of success, and it is now apparent that the Auroville greenwork has created one of the largest areas of TDEF in this zone. Although it is but a young forest, it is starting to mature, and to regenerate. This vibrant growing forest, with its rich biodiversity, has become a valuable gene bank for the TDEF, securing these rare species for the future.

What is the Forest Group doing now?

The FG is a collective of individual Aurovilians with the common task of maintaining and developing the Auroville forest land and green spaces, of which there is currently approximately 1250 acres and currently 44 separate stewarded areas.

The FG is made up of land stewards, co-stewards and Aurovilians working within or for the forest. With approximately 80 members, the group is very diverse. The land stewards for each of the areas being managed for Auroville have responsibilities that include: a) protection, including prevention of encroachment of land, prevention of grazing and unwanted cutting b) soil and water conservation, in particular through a “zero-run-off” policy c) afforestation, involving management of the land according to a coherent concept of land management, the main focus being on the Tropical Dry Evergreen Forest d) the creation and maintenance of parks, cycle paths, footpaths and green corridors and maintaining relationships with local neighbours.

The FG’s work benefits not only Auroville as a whole but also the local and bioregional population through the environmental work that is implemented and maintained. The work of establishing and protecting the biodiversity of the TDEF within the Auroville green spaces has larger benefits for future generations.

The FG offers the Auroville community many services, some of these tangible and others intangible. These include microclimate management, water table enhancement and recreational spaces. Recently it was estimated that the annual value in Indian rupees of the carbon sequestered in Auroville forests is Rs 3,56,32,360; of air pollution removed is Rs 36,22,334; and of run-off avoided is Rs 41,192.

Land use past and present

In the past, land was allocated to the FG mainly for land protection and preparation. This led to some lands being managed by the FG in areas that are not projected as long-term green space or forest. These lands were handed over once they were needed for city development.

Presently, when land is purchased in designated green spaces and Greenbelt, a process of assessment and appropriate allocation is followed. As a general rule, any land that has fertile, agricultural grade soil goes to the Farm Group for management, and if the soil is poor or the area falls within a park/green corridor area, then the FG takes up its management. This process is according to and involving the protocol of the planning and FAMC groups.

Presently the land which the FG manages is 786 acres in the Green Belt, 291 acres in the inner city area, and 183 acres outside the Master Plan area: a grand total of 1260 acres.

Within the diverse management of different areas, the forest group creates various types of green space. These include sanctuaries, mixed forest, firewood plantations and timber stands, orchards and agro-forestry.

The Forest Group's next steps

The future step would clearly be to continue this work of protecting and enhancing the forests and green spaces within Auroville. Parallel to this, the work has started to survey and document the state of the forest, to record the species that have reached maturity and are regenerating.

The information gained will allow a longer-term planning process of the green belt to be undertaken, and would help in creating a long-term strategic plan for Auroville forest land management. The information gathered will also be useful for research and education, as recent studies have indicated that the Auroville forests are one of the largest and most diverse contiguous areas within the TDEF zone.

Forest Group finance

Due to the size of the operation that the FG runs there is a lot of expenditure. Presently, the largest expenditure (36%) is on wages to permanent forest workers, another 19% goes towards other wages, while personal maintenances come to 26%. Like all environmental restoration work, initially, and for the first decades, the work itself did not create any income, therefore funding had to be sought and made available.

The FG has benefitted from being partially supported by the Auroville Central Fund, now called City Services. This support came in the form of personal maintenances for those FG members whose needs required one, and a monthly reoccurring Forest budget which goes towards partially covering the FG’s employed watchpersons and forest workers. These staff are required to help protect and develop the large landholding the FG manages for Auroville.

The plantation work has been funded over years with donations coming from various sources, initially from the Indian Government’s Department of Environment. Later, project funding came from NGO’s, foreign donations, Auroville friendly funding agencies, industrial CSR programmes, carbon offsetting programmes, Auroville units and Aurovilian well-wishers.

In the last 20 years the FG have created a Forest Fund, into which all foresters in the group place 10% of the gross amount of any forest products sales. This fund is used yearly exclusively to help cover plantation and soil and water conservation.

Inevitably, even with all the goodwill and funding, the costs of creating, developing, protecting, and maintaining the Auroville forests, along with the infrastructure and tools required to do this work were never fully covered. In fact, since 1997 the City Service budget has covered less and less of the overall expenditure of the Forest Group members, while the shortfall which forest stewards need to cover has extensively increased. This has meant over the years the stewards of the areas have had to utilise personal savings, inheritances, or have had to go out to do seasonal work abroad just to keep the work going.

With all these expenditures and incomes, it was one of the forest stewards’ responsibilities to maintain clear and transparent accounts and, subsequently, submit them to the Auroville financial groups for auditing. This has been diligently complied with and records have been kept for many years for future analysis.

Go with grace

Death is a topical theme in Auroville this year, reflected in the numbers of those who have left their bodies in recent months. Mauna, who has for years compiled our community’s obituaries, has pointed out that half way through 2023, we have already recorded as many deaths (16) as were recorded in each of the two preceding years (17 Aurovilian deaths in 2022 and 15 deaths in 2021).

It was only recently that I attended a funeral in Auroville for the first time, and I found it a powerfully moving experience. Subsequently, and seemingly by chance, I received an invitation from a Findhorn community linked group to attend an online event exploring the topic of death. To my surprise, I discovered their previous meeting had been spent watching what they called the ‘Auroville film on Death’, which I hadn’t heard of. The documentary, in fact entitled ‘Conversations on Death with Aurovilians’, came out two years ago and won the Wisdom Award at the Auroville Film Festival, 2022.

The film comprises a series of interviews with a dozen or so Aurovilians of various ages offering their perspectives on death and dying in Auroville and organised around conversational chapter-like themes, each introduced with quotes from Sri Aurobindo and The Mother. The interviews are conducted by Danielle de Diesbach, a long time Friend of Auroville, and the film is co-produced by Danielle, together with Serena of Aurora’s Eye Films.

The Auroville way of death and dying

The documentary explores whether there is such a thing as a unique Aurovilian way of passing on. Although there are differing perspectives, as befits the diverse nature of Auroville, emerging through



the answers is a tentative and understated sense that – yes, there seems to be. A commonality is the understanding of a life and body that has passed on but has a psychic self that continues. And funerals that mourn our passing and celebrate our life in this community.

Renu recalled that the first death in Auroville was a shock, then “we had to learn to deal with it”. Like so much of the best of Auroville, this emerged naturally until here we are, with a Farewell Centre, the Adventure burial and cremation grounds, and a certain spiritual understanding of the dying process.

A new kind of death

Mother’s passing in 1973 was a shock for the then young community, which had presumed that she would go beyond a conventional dying. Bhaga – who has herself since passed on – recalled seeing Mother’s “so-called dead” body and realising the need for “a new kind of death”.

Integral Yoga’s ‘death of deaths’

Auroville seems to have evolved its own particular understandings, influenced deeply by the exploration of death contained within Integral Yoga. These include seeing death as a transition to a different phase, what happens after we pass away, and Mother’s work on the ‘death of death’. The film illustrates this well through anecdotes from Mother, including Frederick narrating an instance where Mother spoke directly about the death of death.

The process of passing

Still there is a great deal of variation in how individual community members conceive of and experience this process. When interviewed, Dr Uma observes that some Aurovilians come home to die and others pass away in hospitals. How we perceive passing on a life to be fought for, or one to be released – from those values, so much plays out. If we have the choice, will we choose to pass to the sound of bleeping machines or cradled in the arms of friends and family?

The documentary is recommended. Various aspects of the community’s insights, awareness and learning about death, as well as Mother’s inspiration and deeper soul questions around life and death, are thoughtfully captured. In death as in life, Auroville is an adventure of consciousness, exploring new ways of being, paradoxically even within the dying process.

Peter Lloyd

The film can be seen at <https://www.youtube.com/watch?v=hNnKqnkzzSY>

Follow the flowers

Serena Aurora is an independent filmmaker based in Auroville and the creator of Aurora’s Eye Films. She has produced many community, spiritual and environmental documentaries conveying some of the explorations in Auroville and elsewhere to a wider audience. In this conversation she speaks about her experience of co-producing a film about death in Auroville.

Auroville Today: How did this project come about?

Serena: Danielle wanted to make a film about death. She is a Friend of Auroville who spends half the year in France and the other half in Auroville. So she realised she had a 50% chance of passing away in Auroville, and she wanted to explore what that could mean. She really liked what she learnt about Auroville in this regard and asked if I would make this film with her after she met me and saw my work.

At first, we wanted to look into the logistics, speaking to the Farewell Group which organizes cremations and burials in Auroville, and looking at the practical steps involved with death in Auroville. But that got quite complicated. So rather than filming a lot of Farewell’s work, which in any case was difficult to get permission for and was obviously a sensitive topic, the idea progressed to interviewing Aurovilians, seeing what death meant to them and their interpretations. Initially, Danielle didn’t want to be on camera, but I wanted this film to be an investigative documentary of her exploring this subject of death in Auroville, and eventually she agreed.

Is there a unique approach to dying in Auroville?

I think there is. There is definitely a consensus (in the interviews) of something higher here. People do believe in the divine, having faith in that. Death is not just the end of the story, particularly for the Aurovilians.

Funerals in Auroville are contemplative, silent, less mournful and a bit more joyful than is usual elsewhere. Each funeral is unique; yet there are similarities because there is a very strong energy.

Flowers are a very strong symbol, bringing us back to our roots, to being in India where flowers are significant, and to Mother who gave them a lot of significance. The way we follow the flowers to the funerals – in mass bulletins we even write ‘follow the flowers’ to announce funerals - is a very beautiful part of the Auroville ceremony.

In Auroville we are strongly influenced by Mother’s suggestions that we give time for the soul to adjust to its new reality before being cremated.

From my understanding, it depends on the consciousness of the person. It’s not a set deadline, not one or seven days. Reading Mother, she let each one take the time they needed. She had that power to see and to allow that time and space. I was reading that some people are in sudden shock, and Mother saw these people at night who didn’t know they had passed on and thought they were alive. If they are then cremated straight away, it’s a double shock, as they don’t have time to understand what’s happened to them.



Serena filming

There was a moving part in the film where both Frederick and Raman spoke of losing their sons.

I could feel the sorrow and heaviness. Faith stood out more than anything else. Their sons are still here and are living in a different form; nothing is lost. The main thing is that having faith opens up all possibilities and allows for so much more.

In the film you explore the difference between how we deal with dying and death in India and in the West.

From my own experience of being brought up in the UK, with the stiff upper lip mentality and not showing emotions, when I first witnessed an Indian funeral, especially in Edyanchavadi, it was quite a shock to see the mourning, how loud it was, how much of a show it was. This is what is done for around a week, and then it stops, and one can move on. Whereas in the UK, there is not really this expression or release. Grief stays in the body, or grieving is done in private, and there is more of a ‘good face’ in public. It’s healthy to get it out rather than grieve for a very long time with no chance to express it. It’s been a learning for me.

The day I first met Danielle, one of my closest friends died in the UK. This felt like such a sign and was a good chance to study what Sri Aurobindo and Mother taught. My friend was poorly for quite some years. I was there in the hospital before she passed, and I questioned her quality of life, whether it should be prolonged. I still question the use of technology and where to draw this line.

How we die is an important theme in the film.

When we pass, the environment has a key role in giving the space to transform. For me, I would rather be in a natural environment surrounded by friends and family and held in a

beautiful space, to allow the passing to the next phase. Whereas being in a clinical environment with machines, sometimes family members are not allowed in.

When the heart beat has stopped, we need to allow space and time to adjust. In a clinical situation there is rushing and the next person who needs a bed or room. Those situations don’t allow for transformation. Stress continues into death.

One of the aspects that struck me about Auroville funerals is the organic nature, the ingredients used in cremation – ghee, straw, wood – and also the pace that allows the ceremony to emerge naturally.

I feel that Auroville funerals give space for really being in tune with the energy, consciousness and coming from the heart, rather than the more structured ‘western’ approach. We just do what we have to do, in silence and in that energy, to be a channel for something more, to help guide the person passing to move on. Each funeral is different, depending on the person who we are supporting at that time.

Of all the interviewees which ones touched you the most?

Dr Uma was a very powerful interviewee, and it was touching the way she became emotional [about the problematic nature of death in hospital settings, eds]. I spoke out in that interview. In most of the other interviews, it was Danielle speaking. But with Dr Uma, I felt compelled to ask questions about medicine, technology and the atmosphere.

I always find it powerful to speak with Frederick. Because he met Mother, I feel the energy of Mother come in very strongly. He made a point about not using the word ‘death’ and changing our language to reflect this.

In conversation with Peter Lloyd

REPRINT

Death doesn't exist

Last year Prisma released a second edition of their 2015 compilation on the theme of death. As its title indicates this includes the ‘death of death’, exploring Sri Aurobindo’s passing and his journey into the inconscient and Mother’s grappling with the transformation of death. It mentions Auroville’s role in this work, as a location for a new supramentalised evolution, and gives stories and details as to the death and after death process.

It’s a comprehensive book, including topics as varied as Mother on the Spanish flu, Sri Aurobindo on rebirth, the protection of Ashramites after death (with Georges van Vrekhem making a case for this including Aurovilians), the fear of death and explores why death? and what death is, as well as Mother’s lifelong experiences with helping those who have passed on.

Drawing extensively on *Mother’s Agenda*, Sri Aurobindo’s writings and Georges van Vrekhem’s books it is an insightful and helpful compilation on the theme of death.

This book is also available in an open-access format and can be read by anyone on a gift-economy basis: <https://death.books.prisma.haus/en/>

