

The background of the slide features abstract, hand-drawn blue lines. These lines are of varying thickness and are scattered across the page, with a higher concentration in the top-left and bottom-left corners. They appear to be scribbles or gestural marks, possibly representing a network or a series of connections.

Project 3: Exploring Alternatives in Education | Sakshi Gambhir | IDC

Approval Sheet

This Project Report entitled 'Exploring Alternatives in Education' by Sakshi Gambhir (08625006) is approved towards partial fulfillment of the requirements for the post graduate degree of Master of Design in Visual Communication.

Project Guide:

Chairperson:

Internal Examiner:

External Examiner:

Industrial Design Center
Indian Institute of Technology, Bombay
January - April 2010

Declaration

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/ data/ fact/ source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Signature:

Name: Sakshi Gambhir
Roll No.: 08625006

Project 3:

Exploring Alternatives in Education

Submitted in partial fulfillment of the requirements
of the degree of Master of Design

By
Sakshi Gambhir
Roll no.: 08625006



Visual Communication
Industrial Design Centre
Indian Institute of Technology, Bombay
2010

Acknowledgments

I wish to express my gratitude to:

Professor Raja Mohanty for being an extremely patient, encouraging and helpful guide throughout the project.

Raghu and Martin for being the facilitators of the project and stay at Auroville.

Deepanam School and its entire team for their precious time and attention.

People of Auroville for being warm hosts.

Ashwin, Mamata, Sukreet and Shivani for being the support system away from home.

Mom and Dad for the much needed emotional support and strength.

Rohit and Somya for always being there.

Contents

ABSTRACT	1	Chapter 3: DEEPANAM SCHOOL	43
		The student's prayer	45
Chapter 1: INTRODUCTION	3	A day at Deepanam	47
The experiment	5	Project and portfolio	59
The plan	7		
A dream	9	Chapter 4: BOOK DESIGN	72
The city the earth needs	11	Initial explorations	73
The Matrimandir	13	Final concept and designs	74
The great sense	14		
Seventeen kilometres	17	CONCLUSION	79
Green practices	19		
Conversations	31	Appendix 1: Education alternatives	80
		Appendix 2: Learning theories	82
Chapter 2: EDUCATION IN AUROVILLE	33	Appendix 3: Inumella Sesikala	98
SAIIR	34	Appendix 4: Teachers at Deepanam	100
Sri Aurobindo on education	35		
The Mother on education	40	REFERENCES	119

Abstract

People across the globe are bothered about the future of the planet, a future that none of us have any answers to. With a hope that the generations to come will save the world, both outside them and within, alternate and non-traditional models of education have to be explored. A holistic education of the child is necessary to find an answer to that question. That is what sketches the outline of my project this semester.

Goals for the current project:

- * To attempt an understanding of how children behave in a given environment.
- * To observe their responses to materials and learning through art.
- * To document the Free Progress education model followed in Deepanam School, Auroville, in the form of a book.
- * To explore book-design.



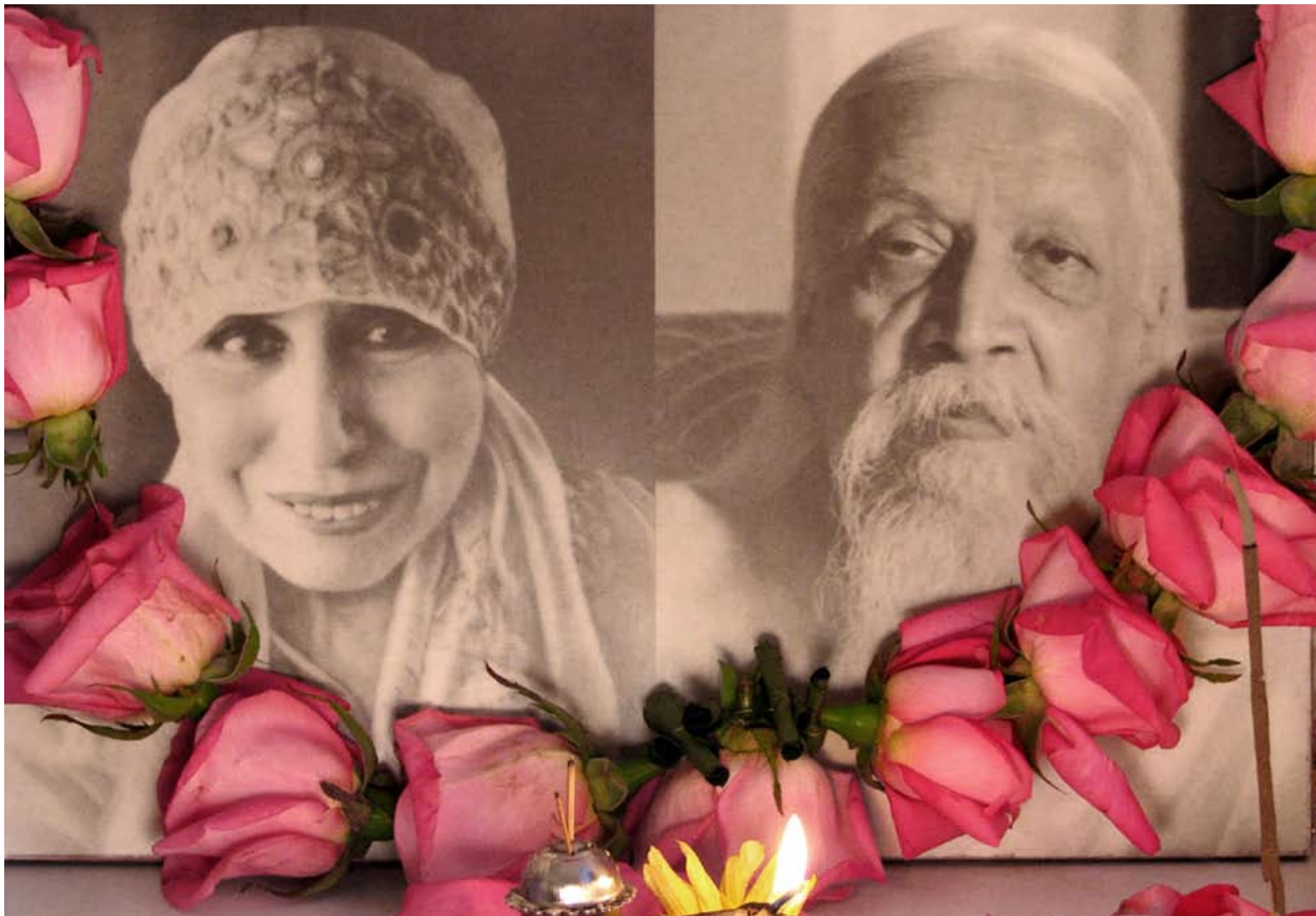
Play of light and shadow on a scorching mid-summer day at La Terrace, Auroville

Chapter 1: Introduction

It now feels unreal and luxurious to be back to an airconditioned classroom, sitting at leisure and typing this report on a laptop with high speed internet. When I was on my way back to the IIT campus from the airport, I was, for a moment, shocked to look at the huge buildings and their facelessness, the grey concrete all over, the infinite luxury cars and the choking smoke they emitted. Everything seemed larger than life, huge, like I never knew them to be. Maybe this was reality that I didn't want to accept and I soon grew uncomfortable of the questions that stared at me, in my face, without answers. Who I am in this concrete jungle? Why am I here? What are we all trying to find? What is the future of the planet? These thoughts were always there somewhere in my mind but never so intense. The three months of stay in Auroville had a complete transforming effect on me. It burst my bubble and exposed me to the reality I was accustomed to but never realized before. Auroville is like another planet, a township almost extra terrestrial, an eco-village that tries to solve some of the universal problems

that the planet faces today. I didn't have much idea about the experiment that Auroville is before I actually visited it. I had read little about it and knew a bit from some of my friends who had gone there for internships. But seeing a place in pictures and experiencing it by staying there are two different things, the latter obviously having no parallel.

Auroville's attitude and approach to life is totally different from the outside world. People are more cooperative than competitive, aspiring for higher ideals and freedom. Overall, life seems more deliberate and slower over here. It is indeed a culture shock but once you get used to this way of life, the metropolitan lifestyle would seem bizarre. What I have also noticed in Auroville is that if you are not occupied in doing some kind of work you can quickly get very frustrated. It is not a tourist destination. It is an extensive research laboratory. Here one can have the highest 'highs' and lowest 'lows' in very quick succession. It was a kind of emotional roller-coaster that I had never experienced before.



The founder of the Auroville project, The Mother and Sri Aurobindo

The Experiment

In a world that continues to be torn by ethnic strife, wars, environmental destruction, petty politics and a widening gap between the rich and the poor, Auroville stands as a notable experiment towards manifesting another future for mankind. It wants to be a universal township where men and women of all countries are able to live in peace and progressive harmony above all creeds, all politics and all nationalities. The purpose of Auroville is to realize human unity.

Auroville was founded as a project of Sri Aurobindo Society on Wednesday 28 February 1968 by Mirra Alfassa, also known as The Mother. She was the spiritual collaborator of Sri Aurobindo, who believed that "man is a transitional being". The Mother expected that this experimental "universal

township" would contribute significantly in the "progress of humanity towards its splendid future by bringing together people of goodwill and aspiration for a better world." She also believed that such a township will contribute decisively to the "Indian renaissance".

The foundation of Auroville was something where everyone was caught suddenly in a common cry for the future. The project was very young, fresh, utopian and hopeful.

The Government of India endorsed the township, and in 1966, UNESCO also endorsed it inviting the member-states to participate in the development of Auroville. UNESCO re-endorsed Auroville four times more in the course of the last 40 years.



The Master plan of Auroville: Evolution from the Nebula to the Galaxy model

The Plan

In 1965, The Mother invited Roger Anger, the architect, to design the township. The energy for manifestation was high. Mother herself started to make a few rough drawings. In 1966, Roger submitted two proposals to the Mother. One was a fairly conventional grid-type town plan, the other a concept reminiscent of Mother's symbol. The latter became known as the Nebula model. However, Mother wanted the concept to be made dynamic. In November 1967, Roger returned with a new model - the so called Macrostructure model - in which two huge buildings swirled around a central core. Mother did not like huge buildings blocking the view of the centre, so Roger started splitting the Macrostructure model into smaller elements. Finally in February, 1968, he presented the first Galaxy model. Here the long curved sweeps, which give the impression of centripetal and centrifugal forces radiating in and out of the centre, were defined by what Roger termed 'lines of force': long, curving buildings, some of which ascended, some of which descended as they approached the centre. The extraordinary Galaxy plan was an inspiration

for many. It came at the right time: the youthful idealism of the 1960s was strong and young people were searching for new forms to embody a completely new consciousness.

The first Master Plan was approved by the Residents Assembly and the Governing Board in May, 1994. What is striking about this plan is that, as one of its drafters explained, "It only defines what is necessary and widely agreed upon at this stage of Auroville's development, giving ample space for everything unfolding. The report says that nothing can be considered as fixed, final and determined until it has finally been put into matter."

In this plan there are no lines of force, no densely urbanized cityscapes. And while the geometricism of the Galaxy is still evident in the perfectly circular Crown and outer ring road, the dynamic sweeps are now defined by four city parks which divide the Zones, while the original radial roads have been reduced from twelve to eight. The mantra now was 'green city', 'sustainable city'.

Auroville is meant
not for the satisfaction
of desires
but for the growth of
the true consciousness.



A Dream

"There should be somewhere upon earth a place that no nation could claim as its sole property, a place where all human beings of goodwill, sincere in their aspiration, could live freely as citizens of the world, obeying one single authority, that of the supreme Truth; a place of peace, concord, harmony, where all the fighting instincts of man would be used exclusively to conquer the causes of his suffering and misery, to surmount his weakness and ignorance, to triumph over his limitations and incapacities; a place where the needs of the spirit and the care for progress would get precedence over the satisfaction of desires and passions, the seeking for pleasures and material enjoyments.

In this place, children would be able to grow and develop integrally without losing contact with their soul. Education would be given, not with a view to passing examinations and getting certificates and posts, but for enriching the existing faculties and bringing forth new ones. In this place titles and positions would be supplanted by opportunities to serve and organize. The needs of the body will be provided for equally in the case of each and everyone. In the general organization

intellectual, moral and spiritual superiority will find expression not in the enhancement of the pleasures and powers of life but in the increase of duties and responsibilities. Artistic beauty in all forms, painting, sculpture, music, literature, will be available equally to all, the opportunity to share in the joys they bring being limited solely by each one's capacities and not by social or financial position. For in this ideal place money would be no more the sovereign lord. Individual merit will have a greater importance than the value due to material wealth and social position. Work would not be there as the means of gaining one's livelihood, it would be the means whereby to express oneself, develop one's capacities and possibilities, while doing at the same time service to the whole group, which on its side would provide for each one's subsistence and for the field of his work.

In brief, it would be a place where the relations among human beings, usually based almost exclusively upon competition and strife, would be replaced by relations of emulation for doing better, for collaboration, relations of real brotherhood."
- The Mother



Seeds of a new idea, an experiment, a journey the path of which is not known

The City The Earth Needs

In the inauguration ceremony attended by delegates of 124 nations on 28 February 1968, The Mother gave Auroville its 4-point Charter setting forth her vision of Integral living:

- * Auroville belongs to nobody in particular. Auroville belongs to humanity as a whole. But to live in Auroville, one must be the willing servitor of the Divine Consciousness.
- * Auroville will be the place of an unending education, of constant progress, and a youth that never ages.
- * Auroville wants to be the bridge between the past and the future. Taking advantage of all discoveries from without and from within, Auroville will boldly spring towards future realisations.
- * Auroville will be a site of material and spiritual researches for a living embodiment of an actual Human Unity.

The immense scope of the Auroville vision and its work is awe-inspiring. It has many elements of a truly sustainable community. It is a beautiful dream unfolding into reality. It is a micro-cosmic reflection of all the challenges that India and the world are faced with, riddled with imperfections and intractable problems, as any visitor will quickly find out. Yet it strives to model a low-impact way of life, and demonstrates ways that we can work together to restore our social, ecological and spiritual balance. More than anything, Auroville is an ongoing experiment, a positive, practical solutions-based research station. Auroville is a living laboratory intent on the search for a sustainable future and a city the earth needs.



The soul of Auroville, The Matrimandir, the twelve petals (having meditation rooms inside them) and manicured gardens around them

The Matrimandir

Literally, in Sanskrit, 'Temple of the Mother' (though it is not in fact a temple), the Matrimandir is the "soul of Auroville" and symbol of Auroville's aspiration for the Divine. It is a huge gold-disc-clad slightly flattened spherical structure, supported on four pillars named after the four aspects of the Supreme Mother. It is located close to the Banyan Tree (which is the geographical centre of Auroville) and Amphitheatre in the Park of Unity at the centre of the township. Radiating from this centre are four zones of the city area: the Residential zone, Industrial zone, Cultural & Educational zone and International zone. Around the City lies a Green Belt which is an environment research and resource area and includes farms and forestries, a botanical garden, seed bank, medicinal and herbal plants, water catchment bunds, and some communities.

In its all-white marble-clad Inner Chamber, a beam of sunlight, or artificial solar powered light at night, focuses onto a 70 centimetres diameter

optical quality glass globe surrounded by twelve pillars. Silence is maintained inside to ensure the tranquility of the space. According to The Mother, this represents "a symbol of future realisation."

In the first week of my stay at Auroville, I had visited Matrimandir for a meditation session of about half hour. I was spell bound. I still remember the complete whiteness of the Chamber and an overpowering silence in which even the sound of a pin drop would get amplified. The space for meditation had a positive energy that descended through the beam of sunlight from top and found its way into me.

I couldn't speak for an hour when I came out of there. Such was its charm and long lasting effect. After that, I went there several times to concentrate. It was the most peaceful space to meditate, introspect, question, find answers and make sense of my existence in this universe.

The Great Sense

Here, I would like to cite an excerpt from the book The Great Sense by Satprem, an important disciple of The Mother:

“We look to the right or to the left, we build theories, reform our Churches, invent super-machines and go out in the streets to break the Machine that stifles us – we struggle in the small sense. When the terrestrial ship is sinking, does it matter whether the passengers drown to the right or to the left, under a flag black or red, or celestial blue? Our Churches have already sunk: they are reforming their own dust. Our patriotisms are crushing us, our machines are crushing us, our schools are crushing us, and we build more machines to break out of the Machine. We go to the moon, but we do not know our own heart nor our terrestrial destiny. And we want to improve what is – but the time for improvement is past: can one improve rot? This is the time for SOMETHING ELSE. Something else, which is not the same thing with improvements. The earth is not going through a moral crisis, but through an ‘evolutionary crisis’. Unknown to ourselves, we are in search of the New Being; we are in the midst of a human revolution.

They preach violence to us, or nonviolence. But these are the two faces of the same Falsehood, the yes and no of the same impotence: the little saints have gone bankrupt with the rest, and others want to seize power – what power? That of the

statesmen? Are we going to fight over the prison keys? Or to build another prison? Or do we really want to get out of it? Power does not flow from the barrel of a gun, neither does freedom flow from the bellies of the dead – for thirty million years now, we have been building on corpses, on wars, on revolutions. And the drama is enacted over and over again. Perhaps the time has come to build on something else and find the key to the true Power?

There is a Consciousness within, there is a Power within, the very power that strained and strove in the dinosaur, in the crab, in the ape, in man – it strives still, presses farther on, clothes itself in a more and more perfected form as its instrument grows, and creates its own form. If we grasp the lever of that Power, it will itself create its new form, for it is itself the lever of the Transmutation. Instead of letting evolution unfold through millennia of fruitless, painful attempts and useless deaths of fake revolutions that revolutionize nothing, we can hasten the time, we can make a concentrated evolution – we can be the conscious creators of the New Being.

In truth, this is the time of the Great Adventure. The world is closed, there are no more adventures outside: only robots go to the moon and our borders are guarded everywhere – in Rome or in Rangoon, the same functionaries of the great Machine are watching us, punching our cards,

checking our faces and searching our pockets – there is no more adventure outside! The Adventure is within – Freedom is within, Space is within, so is the transformation of our world by the power of the Spirit. Because, in truth, that Power was always there, supreme, all-powerful, prodding evolution

on: it was the hidden Spirit, growing to become the Spirit manifest upon earth, and if we have trust, if we want that supreme Power, if we have the courage to descend into our hearts, everything is possible, for God is in us.”



Day one: My pink 'ladybird' and me finding our way to the speakers, pedalling the cycle-paths on mudroads (in the background is the foundation of the Japanese pavilion)

Seventeen Kilometres

I packed my bags and reached Auroville on 17th January, in the evening. The project (the one that I had initially gone to Auroville for) was supposed to start the following morning. It was driven by Raghu Kolli, an alumnus of IDC and Martin Scherfler, a volunteer from Germany. It was a communication design project and we were to meet about thirty Aurovilians, experts in the field of sustainability (water, forest, food, energy, waste, habitat etc.) and talk to them about what they were doing in their field of work. This was supposed to be documented visually and communicated in the form of a website, a book and presentation material that would be shared in the format of a conference in August this year, which people fundamentally interested in sustainability (professionals and students) would like to attend.

Day one, at 7 AM I got up woken up by Mamata, one of my dorm mates. She had also come to Auroville to work on the same project as me. We were supposed to meet Raghu and Martin at 8:30 AM for breakfast at a decided place. We quickly rushed into the common toilets and got ready to

go (note: men and women shared the toilets in this hostel, so I was bit taken aback initially). After eating our first breakfast in Auroville, we were given cycles to ride (a pink 'ladybird') and we were on our way to meet the experts and sight-see in Auroville. Martin rode a cycle too and showed us around. From hostel, to cafeteria, to speaker one, to speaker two, to speaker three, to four and so on. We pedalled some seventeen odd kilometres on the first day. I was exhausted. Considering I had not cycled for the last ten years (or so I remember) of my life and suddenly having pedalled for all day long, I was dead. My legs and feet were swollen, I was bed ridden for ten hours flat. I couldn't get up. The next morning there were more meetings. The next to next, even more. So the first three-four weeks went in meeting people of Auroville, getting a feel of the place, taking notes, photographs, reading, collecting data, cycling around. I think, we cycled a hundred kilometres in the first few weeks.

From the data we collected from all the speakers, here is a summary of each of the categories and the story of sustainability in Auroville.



An electric bicycle by EV-Future that is noiseless, pollution-free and rechargeable

Green Practices

Forty years ago Auroville was a barren wasteland, the result of two hundred years of deforestation, overgrazing and poor land stewardship. Violent monsoon rains were washing tons of topsoil into the Bay of Bengal each year, carving deep and dangerous canyons along the way, and the scorching sun of the dry season was baking the remaining red laterite earth into brick. Yet in a relatively short period of time, Auroville has been transformed from a desert into a lush green jungle supporting a diverse community of people, plants and animals. Auroville has become a laboratory for the organic working out of many problems. Aurovilians have learnt much about land, about construction in the tropics, about needs of bioregion and its people, about themselves.

Over two million trees have been planted to stabilize and refertilize the soil, canyons have been dammed and hundreds of fields bunded

to prevent water run-off. There has been much experimentation in developing environmentally-friendly building techniques and recycling waste-water, while solar power is widely used for pumping, heating water and providing electricity. Auroville is a city of sustainable living that was founded on ideas of unity and possibility. Through their far-reaching vision, Sri Aurobindo and The Mother constructed the blueprints for a city like no other before it. It can potentially support over 50,000 people. Since its beginning, Auroville has been a testing ground for green practices and alternative technologies. Research and project implementation can be found in many areas such as afforestation, alternative farming, water related implementations, solar and wind energy, building technologies and waste management. A flagship community of the ecovillage movement, Auroville has been commended by notables such as the President of India and the Dalai Lama.



More than two million trees were planted in Auroville, each one with warmth and care, to protect from the merciless sun and restore the vegetation of Tropical Dry Evergreen Forest

SOIL & WATER CONSERVATION

When the Auroville pioneers arrived, regeneration of the environment was their first concern. There was no electricity, water or shade, and finances were limited. Through careful observation and listening to local traditional knowledge, they slowly developed an integrated soil and water conservation strategy that restored the fertility of the land. Extensive networks of raised earthbanks and ditches called bunds were placed along the contours of the land along with a series of check dams and catchment ponds. Learning the hard way to work with nature, they placed features near the top of the watershed following the topography and through trial and error succeeded in their goals. As they became more skilled and efficient, Aurovilians turned their efforts towards bioregion.

Work units like 'Water Harvest' are currently targeting the rehabilitation of an ancient network of community catchment tanks that once covered the land, in an attempt to recharge the aquifers, prevent saltwater intrusion and conserve water for irrigating the farms and gardens.

REFORESTATION

Since the 1970s, millions of trees have been planted behind bunds, next to dams and ponds. Fences have been made from thorn and cactus to protect the vegetation from grazing. As the vegetation has grown the microclimate has changed. It has become cooler and more humid, which facilitates more plant growth, and brings in many species of animals, birds and insects. This in turn further enriches the environment through seed dissemination and fertilization. Now trees are harvested, and efforts are focused on recreating the native vegetation of a TDEF.

Auroville's Botanical gardens and Pitchandikulam Bio-Resource Centre have plots of land that are being developed into research and demo sites with specimens from the native forest. Both have seed banks to protect forest biodiversity. Today, the Auroville forest is acknowledged and safeguarded as an invaluable resource for the community: for medicine, food, firewood and building materials, erosion control, as a microclimate moderator and as a sacred sanctuary.



Sustainable living practices at Buddha Garden: The solar panels getting charged with the sun energy in the daytime while the agriculture experts till the land and sow seeds with the help of volunteers

APPROPRIATE TECHNOLOGY

Having established vegetation and water control, Aurovilians started building their infrastructure. Keen to integrate appropriate technology into their designs, they aimed for solutions suitable to the climate that would incorporate solar passive features, protect from rain, reduce energy consumption and utilise rainwater harvesting, wastewater treatment and renewable energy systems. They were both constrained and motivated by such factors as no electricity, transportation, machinery, or conventional building materials on the one hand, and an abundant but unskilled labour force on the other. Solutions had to use local people and materials, be inexpensive, and simple to implement and maintain. The basic building material was an obvious choice, since earth was available in abundance.

The Auroville Earth Institute and Centre for Sustainable Research (CSR) have developed a successful manual press to create Compressed Earth Blocks (CEBs) that are used like bricks. Auroville mostly uses ferrocement for water tanks, toilets, roof materials and biogas plants.

RENEWABLE ENERGY

Early on Aurovilians searched for renewable energy solutions, since for many years there was no conventional electricity source available. Research was focused on solar energy, since this is abundant for most of the year. Early houses had solar water heating and cooking facilities installed, and today some houses run entirely on solar photovoltaic (PV) panels, while many more use them in combination with other power sources. Small solar panels can be spotted on the thatched roofs of several mud houses, called capsules.

Several Auroville work units actively research, develop and maintain a wide range of solar energy products, including cars, trams, cookers, water pumping and desalination systems, charge controllers and inverters.

Other forms of renewable energy used are wind and biogas. Wind energy, like solar, has been used in Auroville since the beginning, primarily for water pumping. There are over 20 different designs for windmills in the community, including Aureka's efficient and successful multi-blade windmill (AV55)



Waste water treatment setup and 'green' plants outside Satprem's office



A rural woman carrying the water pipe to the field to irrigate the crops

that uses high towers, has a low cut-in windspeed (more regular output), is reliable, inexpensive, suitable for deep and shallow wells, and requires minimum maintenance.

Currently over 20 biogas digesters are being used, both floating drum and fixed dome models, constructed out of prefabricated ferrocement. They use cow dung and biomass to produce methane for its use in cooking.

WASTE WATER TREATMENT

The first wastewater recycling solutions that Auroville developed were simple, inexpensive combinations of septic tank and soak pit. Later, the CSR developed planted filters called constructed wetlands or root zone treatment systems. Currently Auroville has over 40 water treatment systems using planted filter beds, baffled tank reactors, biogas plants. Recently Auroville has been researching Effective Microorganism technology to improve system efficiency and performance.



Annapurna farm nursery: Different types of experiments are first carried out in small pots in the nursery and only after the seeds respond well are they planted as saplings in the crop field

ECOLOGICAL AGRICULTURE

Aurovilians have always practised organic agriculture, with the intention of restoring fertility to the degraded land and becoming self-sufficient in food production. At present it is self-sufficient in dairy and seasonal fruit.

A variety of food products are made by Auroville food-processing units, including nut spreads, jams, pasta, breads, pastries, dairy products, oils and even spirulina. There are 14 farms, managed by the Auroville Farm Group. Most farms are diverse, with a combination of fruit trees, field crops,

vegetables and livestock. There is a strong focus on traditional breeds and varieties, non hybrid seeds and on keeping seed banks to preserve agricultural biodiversity. Each farm integrates appropriate technology, such as rainwater harvesting, wind pumps and drip irrigation.

They experiment with perennial agriculture, biodynamics, natural farming and more recently EM technology (an EM-fermented plant extract from the leaves of the indigenous Neem tree) has been developed for pest management.



Sunset by the windmill in Auroville

“

शहरों से मीलों दूर,
छोटे से एक गाँव में,
यूँ अकेले बैठ कर,
मन में एक ख्याल आया -
कि पृथ्वी का भविष्य क्या है?

पेड़ों का निरंतर कटना,
जानवरों का मरना,
प्लास्टिक का बढ़ना,
पेट्रोल का जलना,
मोबाइल पर बात करना,
क्या यही है हमारा भविष्य?

कहाँ गए वोह दिन
जब मम्मी खाना खिलाती थी
और पापा जू घुमाने ले जाते थे?
दोस्त सड़क पर क्रिकेट खेलते थे
और चोटों का बहता खून,
आँखों से टपकते आसूँ

पल में बंद हो जाते थे?
अब दुनिया इतनी आगे बढ़,
प्रगति की सीमा पार,
महा प्रलय का जशन मना रही है...

और इसी दुनिया के
छोटे से एक गाँव में
करोड़ों पेड़ों से घिरी,
समुद्र के तट पर बैठी
में सोचती हूँ -

की दस साल में
शायद ये किनारा ना हो...
की शायद इस धरती पर
पैर रखनी की जगह ही ना रहे...
ऊंची ऊंची इमारतें
और ऊंची होती जायें,
कंप्यूटर बढ़ते जायें,
गाड़ियाँ आदमी की संख्या पार कर दें,

पीने का पानी ना मिले,
इन सम्भ्रमणों का कोई अंत नहीं
इसी लिए
छोटे से एक गाँव में
मुट्ठी भर कुछ लोग
निरंतर यही प्रयास कर रहे हैं -

पेड़ लगते,
साइकिल चलते,
पानी बचाते,
खाना उगाते,
मिट्टी के घर बनाते
हुए ये लोग,
सारे विश्व के कुकर्मों को सुधार,
धरती को जीवन दान देने की कोशिश
कर रहे हैं...
छोटे से एक गाँव में...

”



Coffee addiction: Martin's six-coffees-a-day would get us talking to a lot of people after lunch and dinner at the Solar Kitchen which proved really beneficial to know the people and the place better

Conversations

Parallel to the visits, a logo design task was also introduced. All of us had to design logos for the conference, called Auroville Green Practices. Along with exploring options for the logo, I also kept talking to more people, went for several conducted walks in the forests where a number of people would come. I would visit the La Terrace Café and meet up with a lot of people. Martin was a great help in putting me on to the right ones. Actually that is the best thing about Auroville. Different types of people come here from all over the world and get involved in so many interesting activities; it is amazing to just have a conversation with them. That itself opens up a whole new world of ideas as one has never seen before. It gives a fresh perspective to look at things.

I was basically a clean slate when I went to Auroville. I had no pre-conceived notions of a fancy project outcome, I wanted to experience the place, its people, read in-depth about its philosophy and

do something rich in its essence. I knew it had to be something meaningful, fundamental and not frivolous. Basically, something that wasn't done just for the heck of it. The place has ample of research opportunities and volunteer activities but there lies the catch as well. One can't do everything, so the first step was to filter the thoughts and focus them.

Reading brings clarity, they say. It did. While I was engrossed in understanding the writings of Sri Aurobindo and The Mother on education, I also happened to meet a few people who were volunteering as teachers in schools in and around Auroville. "The schools here are not like the ones outside", one of them told me. I wanted to know more about them; how they functioned, what the approach of the teachers was, the nature of activities, everything. What better than education to make better the future of our planet. I began my homework: reading about the theories of learning and the model of education in schools of Auroville.



Litterfree Auroville Campaign: School children (along with other resident Aurovilians) volunteered to make Auroville litterfree on 29th February 2010 and picked trash from all over the city

Chapter 2: Education In Auroville

First of all, I acknowledge the fact that I am not the best person to write about education or anything related to it at the moment. I haven't worked in this domain before, this project is only a beginning, an attempt to understand a little bit of the wide area that it is, waiting to be explored. Writing about something one has done himself is easy. To write about something without actually really having done it is not the same, obviously.

Education has been a research area for people all over the world. Many have conducted experiments (objective or subjective) and made observation on how children behave and respond to the world around them. Though I read about some learning theories by Indian and western educationists/philosophers (included in the appendix of this report), a major part of my reading comprised of the works of Sri Aurobindo and The Mother on Integral education, which focuses on the holistic development of the child. This model of education is followed in Sri Aurobindo International Centre of Education (the Ashram School) in Pondicherry

and several schools of Auroville that run under the umbrella of Sri Aurobindo International Institute of Educational Research (SAIIER).

The dream of building a new city for the future on a clean slate, with the purpose of promoting research and experimentation alongside integral development, has been bringing students, volunteers and researchers to Auroville from all over the world. Not being bound by the conventions of human society has allowed a multitude of expressions to manifest in the course of the city's development, as natural extensions of the quest for the new.

Auroville now provides schooling from Crèche and Kindergarten through Middle and High school. The subjects include Arts, Sciences, Mathematics, Languages, Humanities, Physical Education, Sports, Cultural Activities including the fine arts and the performing arts, Environmental Education (which in Auroville is more hands-on). The schools give immense importance to free growth of individuals.

SAIIER

The Sri Aurobindo International Institute for Educational Research (SAIIER) was created in 1984 to coordinate and further develop the educational research in Auroville. The work of SAIIER forms an integral whole with the experiment of Auroville. The experiment is an attempt to work out, give content and practical shape to the vision of Sri Aurobindo and The Mother on the future evolution of man.

SAIIER aims to serve as an institution for new experiments and research in integral education within Auroville, ultimately an endeavour towards human unity. Twenty five years after its founding, there are some 190 researchers working under the Institute umbrella, organized in research teams around the following ideas:

Experiments in objectives, contents and methods of a new system of education,
Experiments in fine arts,
Experiments in village extension work,
Experiments in physical education,
Research in special themes such as Indian culture, evolution and Savitri.

The Institute is composed of various research units, each of which is autonomous in its functioning and follows a democratic style of internal organisation where decisions are taken as a team. Groups consisting of various educational units, like the Auroville School Board, meet periodically to attend to issues that concern all of them. An all-SAIIER meeting is held twice a year.

The following seven centres of SAIIER cover all aspects of Auroville experiment:

Centre of Educational Research
Centre of Studies in Sri Aurobindo and The Mother
Centre of East, West and Human Unity
Centre of Indian Culture
Centre of Arts, Crafts and Technologies
Centre of Man, Nature and Environment
Centre of Physical Education and Perfection of the Body

Auroville schools under Centre of Educational Research are Future school, Last School, Transition school, Deepanam, Kindergarten, Nandanam, Auroville Pre-creche, Kailash residential program.

Sri Aurobindo On Education

"All that is needed is a change of control, of the medium of instruction, of the frame and fitting of the curriculum and to some extent of the balance of subjects. I presume that it is something more profound, great and searching that we have in mind and that, whatever the difficulty of giving it shape, it is an education proper to the Indian soul and need and temperament and culture that we are in quest of, not indeed something faithful merely to the past, but to the developing soul of India, to her future need, to the greatness of her coming self-creation, to her eternal spirit. It is this we have to get clear in our minds and for that we must penetrate down to fundamentals and make those firm before we can greatly execute. The first thing needed is to make clear to our own minds what the national spirit, temperament, idea, need

demands of us through education and apply it in its right harmony to all the different elements of the problem. Only after that is done can we really hope with some confidence and chance of utility and success to replace the present false, empty and mechanical education by something better than a poor and futile chaos or a new mechanical falsity, by a real, living and creative upbringing of the Indian manhood of the future.

The true basis of education is the study of the human mind, infant, adolescent and adult. Any system of education founded on theories of academic perfection, which ignores the instrument of study, is more likely to hamper and impair intellectual growth than to produce a perfect and perfectly equipped mind."

THE HUMAN MIND

1 "The first principle of true teaching is that nothing can be taught. The teacher is not an instructor or task-master, he is a helper and a guide. His business is to suggest and not to impose. He does not actually train the pupil's mind, he only shows him how to perfect his instruments of knowledge and helps and encourages him in the process. He does not impart knowledge to him, he shows him how to acquire knowledge for himself.

2 The second is that the mind has to be consulted in its own growth. The idea of hammering the child into the shape desired by the parent or the teacher is a barbarous and ignorant superstition. It is he himself who must be induced to expand in accordance with his own nature. There can be no greater error than for the parent to arrange beforehand that his son shall develop particular qualities, capacities, ideas, virtues or be prepared

for a prearranged career. Everyone has in him something divine, something his own, a chance of perfection and strength in however small a sphere which God offers him to take or refuse. The task is to find it, develop it and use it. The chief aim of education should be to help the growing soul to draw out that in itself which is best and make it perfect for a noble use.

3 The third principle of education is to work from the near to the far, from that which is to that which shall be. The basis of a man's nature is almost always, in addition to his soul's past, his heredity, his surroundings, his nationality, his country, the soil from which he draws sustenance, the air which he breathes, the sights, sounds, habits to which he is accustomed. If anything has to be brought in from the outside, it must be offered, not forced on the mind."

SIMULTANEOUS AND SUCCESSIVE TEACHING

"A child of seven or eight, and that is the earliest permissible age for the commencement of any regular kind of study, is capable of a good deal of concentration if he is interested. Interest is, after all, the basis of concentration. We make his lessons supremely uninteresting and repellent to the child, a harsh compulsion the basis of teaching and then complain of his restless inattention!

A child, like a man, if he is interested, much prefers to get to the end of its subject rather than leave it unfinished. To lead him on step by step, interesting and absorbing him in each as it comes, until he has mastered his subject is the true art of teaching. A foundation should be laid at this time for the study of history, science, philosophy, art, but not in an obtrusive and formal manner. Every child is a lover of interesting narrative, a hero-worshipper and a patriot. Appeal to these qualities in him and

through them let him master without knowing it the living and human parts of his nation's history. Every child is an enquirer, an investigator, analyser, a merciless anatomist. Appeal to those qualities in him and let him acquire without knowing it the right temper and the necessary fundamental knowledge of the scientist. Every child has an insatiable intellectual curiosity and turn for meta-physical enquiry. Use it to draw him on slowly to an understanding of the world and himself. Every child has the gift of imitation and a touch of imaginative power. Use it to give him the groundwork of the faculty of the artist.

The usual practice is to train the logical reason by teaching the science of Logic. This is an instance of the prevalent error by which book-knowledge of a thing is made the object of the study instead of the thing itself."

EDUCATION - INTELLECTUAL

"We in India have become so barbarous that we send our children to school with the grossest utilitarian motive unmixed with any disinterested desire for knowledge; but the education we receive is itself responsible for this. The source of the evil we complain of is therefore something different; it is the fundamental and deplorable error by which we in this country have confused education with the acquisition of knowledge and interpreted knowledge itself in a singularly narrow and illiberal sense. The first mistake has been to confine ourselves to the training of the storing faculty memory and the storage of facts and to neglect the training of the three great using (manipulating) faculties, viz. the power of reasoning, the power of comparison and differentiation and the power of expression. The easy assumption of our educationists that we have only to supply the mind with a smattering of facts in each department of knowledge and the mind can be trusted to develop itself and take its own suitable road is contrary to science, contrary to human experience and contrary to the universal opinion of civilised countries."

PERFECTION OF THE BODY

"In their more superficial aspect they appear merely as games and amusements which people take up for entertainment or as a field for the outlet of the body's energy and natural instinct of activity or for a means of the development and maintenance of the health and strength of the body; but they are or can be much more than that: they are also fields for the development of habits, capacities and qualities which are greatly needed and of the utmost service to a people in war or in peace, and in its political and social activities, in most indeed of the provinces of a combined human endeavour. Of a higher import than the foundation, however necessary, of health, strength and fitness of the body is the development of discipline and morale and sound and strong character towards which these activities can help. Another invaluable result is the growth of what has been called the sporting spirit. That includes good humor, tolerance and consideration for all, a right attitude and friendliness to competitors and rivals, self control and scrupulous observance of the laws of the game, fair play and avoidance of the use of foul means, an

equal acceptance of victory or defeat without bad humour, resentment or ill-will towards successful competitors, loyal acceptance of the decisions of the appointed judge or referee. These qualities have their value for life in general and not only for sport, but the help that sport can give to their development is direct and invaluable. In the use of such activities as sports and physical exercise for the education of the individual in childhood and

first youth, which should mean the bringing out of his actual and latent possibilities to their fullest development, the means and methods we must use are limited by the nature of the body and its aim must be such relative human perfection of the body's powers and capacities and those of the powers of mind, will, character, action of which it is at once the residence and the instrument so far as these methods can help to develop them."

The Mother On Education

"If we truly want to progress and acquire the capacity of knowing the truth of our being, that is to say, the one thing for which we have been really created, that which we can call our mission upon earth, then we must, in a very regular and constant manner, reject from us or eliminate in us whatever contradicts the truth of our existence, whatever is in opposition to it. It is thus that little by little all the parts, all the elements of our being, could be organised into a homogeneous whole around our psychic centre. This work of unification demands a long time to be brought to some degree of perfection. Hence, to accomplish it, we must arm ourselves with patience and endurance, with a determination to prolong our life as far as it is necessary for the success of our endeavour. All this can be realized by means of a fourfold discipline. These four aspects of the discipline do not exclude each other, and can be followed at the same time, indeed it is better to do so.

1 The starting point is what can be called the psychic discipline. We give the name 'psychic' to the psychological centre of our being, the seat within of the highest truth of our existence, that which can know and manifest this truth. It is therefore of capital importance for us to become conscious of its presence within us, to concentrate on this presence and make it a living fact for us and identify ourselves with it. You must find in the

depths of your being that which carries in it the sense of universality, limitless expansion, termless continuity. Then you decentralize, spread out, enlarge yourself; you begin to live in everything and in all beings; the barriers separating individuals from each other break down.

In its natural state the human mind is always limited in its vision, narrow in its understanding, rigid in its conceptions and a certain effort is needed to enlarge it, make it supple and deep. Knowledge belongs to a region much higher than that of the human mind, even beyond the region of pure ideas. The mind has to be made silent and attentive in order to receive knowledge from above and manifest it. For it is an instrument of formation, organisation and action. And it is in these functions that it attains its full value and utility. True education of the mind comprises of development of power of concentration, capacity of attention, expansion, wideness, complexity and richness, organization of ideas around a central idea, thought control, mental silence and more total receptivity to inspirations coming from higher regions of the being. Fear nothing that awakes imagination; it is imagination that develops the creative mental faculty and it is through that that study becomes a living thing and the mind grows in joy. In order to increase the suppleness and comprehensiveness of his mind, one should not

2

only look to the number and variety of subjects for study, but particularly to the diverse approaches to the same subject; by this means the child will be made to understand in a practical way that there are many ways of facing the same intellectual problem, dealing with it and solving it. The brain will thus be free from all rigidity and, at the same time, thought will gain in richness and be made ready for a complex and comprehensive synthesis.

3 The vital being in us is the seat of all impulses and desires, of enthusiasm and violence, of dynamic energy and desperate depression, of passions and revolt. It can set in motion everything, build up and realize, it can also destroy and mar everything. With the collaboration of the vital no realization seems impossible, no transformation impracticable. Education of the vital has two steps. The first is to develop and utilize the sense organs, the second is to become conscious and gradually master of one's own character and in the end to achieve its transformation.

Lastly, we must, by means of a rational and clear-seeing physical education, make our body strong and supple so that it may become in the material world a fit instrument for the truth-force which wills to manifest through us. The education of the body has three principal aspects: control and

discipline of functions, methodical and harmonious development of all parts and movements of the body, rectification of defects and deformities if there are any.

As we rise to this degree of perfection which is our goal, we shall perceive that the truth we seek is made up of four major aspects: Love, Knowledge, Power and Beauty. These four attributes of the Truth will spontaneously express themselves in our being. The psychic will be the vehicle of true and pure love, the mind that of infallible knowledge, the vital will manifest an invincible power and strength and the body will be the expression of a perfect beauty and a perfect harmony.

5 Education to be complete must have five principal aspects relating to the principal activities of the human being: the physical, the vital, the mental, the psychic and the spiritual. The most effective starting point, the swiftest method is total self surrender and as it becomes more and more perfect and integral, it will carry with it the aspiration for identification, a total fusion with That to which you have given yourself, and little by little this aspiration will overcome all differences and all resistences, especially if the aspiration has, added to it, an intense and spontaneous love, for then nothing can stand in the way of its victorious onset."

4



Learning made fun at Deepanam: Playful learning materials, games and the project approach at the school 'engage' the children in the activities they perform till the very end, unlike textbooks

Chapter 3: Deepanam School

Deepanam School has been in existence since 2001. The earlier team that was running the school tried to apply several models of education but were unsuccessful in the implementation. Basically, they were focusing too much on the theory of the models than their essence. Hence, a lot of parents started withdrawing their children from this school. The school was going through a crisis. That is when some of the parents volunteered to join in as teachers. The current chapter of the school began in October 2006 with just 12 students.

The school is based on the method that the Mother called Free Progress. It is a term pregnant with meaning, the accent being on the word 'progress', with 'free' as the adjective that defines the method by which one progresses. "It is a progress guided by the soul and not subjected to habits, conventions or preconceived ideas," said The Mother. The spirit of this approach demands that the school organization and programs be as diverse and supple as possible, to remain plastic enough to respond to each student's line of progress. The main object of this method is to help the adolescent find that part of himself that can then take up his own education. This process develops the students' faculties of the mind, the powers of the will, the refinement of the aesthetic and emotional being and build all of this upon a strong and balanced physical being. There is an attempt

to address each of these elements of the youth's psychological nature as consciously as possible.

The teacher's task is to suggest, not impose, and a broad process of consultation is fundamental to the school's approach. In this active and free progress oriented approach, classrooms are replaced by areas of work and play, where children can move freely, following their own rhythm and inner guidance. Subjects include Languages, Mathematics, World and Science, Art and Craft, Role-play, Materials Workshop, Dance and Music, Gardening and Sports. In each of these areas children can find a variety of consciously chosen material and a guiding person to assist them. The teachers also make sure that the prepared environment is always organized, safe and updated with new material. Besides this, several projects are always offered in which children can 'choose' to participate because the gift of learning cannot be confined to just the teaching of academic subjects, however important or powerful their claim may be. Hence, to constantly arouse in children the enthusiasm for knowledge and progress is the aim of all the endeavours and programs at Deepanam.

Two to three times a month, there is an excursion exploring life in and around Auroville to gradually extend the area of the child's experiences. That way the child grows his understanding of

himself in a larger environment and context. The weekly School Assembly gives the students the opportunity to make their own decisions regarding the functioning of the school and to closely come in touch with decision making process. Deepanam offers a harmonious, organized and safe learning environment to all children, so they can grow integrally in their own rhythm.

The children are divided in groups depending on their age or mastery of the English language, not on how well they know their academic subjects. The children are from 7 to 14 years of age. Each batch has about 8-10 kids, for greater intensity and one-on-one interaction. It is not necessary that everyone belonging to the group does the same thing, but they do work towards the same goal or task by contributing differently, each according to his ability. Each batch also chooses a 'name' that they want to be called (currently the groups are called Welcome, Rainbows, Horses, Giraffes, Unicorns, Lions). Several activities happen in mixed age groups as well, like Carpentry, Craft, Singing, Dance, Capoeira, Field-trips and so on.

The school works with children through flexible projects rather than sticking to rigid textbooks in fixed classes, and strives to make the process of learning appealing and interesting. No stress or obligation is imposed regarding the pace of study nor any marks are given to them on that score. Rivalry and unhealthy competition is immensely discouraged. Thus, the values of cooperation and cooperation are automatically learned.

Students are encouraged to maintain their own portfolios wherein they collect their worksheets and evaluate their own progress. In essence, Deepanam aims to contribute to the Integral development of the children in an environment of beauty, creating an atmosphere where children can become aware of themselves and grow into conscious, active and responsible individuals. It chooses to focus on giving individual attention to the children, following their own path of learning and interest. It is an experimental school in an environment which gives possibility to the children to develop the necessary qualities for the Free Progress education and the joy of learning for its own sake.

The Student's Prayer

Umberto Maturana (young son of a Chilean biologist) became unhappy at school because he felt his teachers were making it impossible for him to learn. They wanted to teach him what they knew, rather than drawing out what he needed to learn. As a result, Maturana wrote 'The Student's Prayer', of which this translation is an abridged version. It perfectly expresses the spiritually intelligent individual's response to the conforming pressures of parents, teachers, bosses or the crowd.

The prayer's printout is pinned at the main softboard of the school office as a reminder of the Do's and Don'ts of teaching and learning:

"Don't impose on me what you know,
I want to explore the unknown
And be the source of my own discoveries.
Let the known be my liberation, not my slavery.
The world of your truth can be my limitation;
Your wisdom my negation.
Don't instruct me; let's walk together.
Let my richness begin where yours ends.
Show me so that I can stand
On your shoulders.
Reveal yourself so that I can be
Something different.
You believe that every human being
Can love and create.
I understand, then, your fear
When I ask you to live according to your wisdom.
You will not know who I am
By listening to yourself.
Don't instruct me; let me be.
Your failure is that I be identical to you."



Morning Assembly at Deepanam where everyone sits together everyday, chants shlokas, meditates and discusses issues if there are any

A Day At Deepanam

Every morning the day starts with a 10 minute concentration with all the children together. Some elevating music is played, shlokas are chanted. This helps the children to quieten down and focus within.

The subjects carried out presently in the mornings are: Languages: English, French, Tamil, Sanskrit, Mathematics, Science, Nature studies, Geography, General knowledge, Sandbox, Singing and Painting (not all of them everyday).

In the afternoons, every child chooses his/ her own activity. A free choice is made, irrespective of age.
Handwork: Clay, Crafts, Carpentry and Origami
Dances: Bharatnatyam and Capoeira
Resources: Computers and Library

Every class has a project day too, wherein the class takes up a project in Science, Gardening, Archeology etc. Depending on the childrens' enthusiasm the possibilities can be endless. In this way group dynamics is encouraged. The feeling in children to be able to work together is most important to cultivate at this age. All children

in Deepanam are encouraged to attend the Dehashakti sports program for it is part of Integral development. Physical education needs, especially in children, to be thorough and well balanced. The kids go to the sportsground after school everyday.

A special emphasis is laid on involving the children in daily life at school; this includes arranging the room, cleaning up, working in the garden, cooking etc. Progressively children are encouraged to take up more initiative in making their schedule over a few years and eventually charting out their paths.

Once a month there is a Special Assembly where issues are discussed together and children are encouraged to resolve conflicts outside and within themselves as well.

The school greatly stresses on freedom of expression and growth, but to achieve this perfection of the inner being's free flow, an outer discipline is indispensable. Contradictory though it may sound, they do best together. Discipline and freedom are complementary.



Aerobics volunteers conducting a physical fitness session for the young kids at Deepanam in the garden of the school



Capoeira stage performance where the girls are performing martial arts through harmonious body movements and the boys are playing the instruments



Kids doing gardening with Adele, growing plants around the symbol of Auroville that they have created with stones and differently colored flowers in their garden



Sandbox room where children come and make their picture story with miniature toys in the sand and narrate them



Life Science class: A young, fearless boy handing over a small snake to a girl ('appreciating nature and wildlife in Auroville')



Rajeev rescuing a snake while the kids watch in bewilderment



School trip to Botanical Garden to learn about farming techniques and sustainable practices in Auroville



The Butterfly project: The children in the garden for their Life Science project to spot butterflies, identify them, learn their names, take notes from books and click pictures for records



Pattern making exercise that enrich the understanding and aesthetics of shapes and colors: Each one contributes their bit in building the 'whole'



Open House: All the children of the school exhibit their projects, craftwork, worksheets, material explorations and notebooks at the end of the academic year and parents and friends are invited to see



A young boy updating his portfolio with his latest worksheets, illustrations, newspaper clippings and archaeological drawings

Project And Portfolio

Each class is free to work in the way it would best help them progress. The teachers emphasize on the learning and not on the books selected or completed. Kids have a strong disposition to explore and discover. Project approach builds on natural curiosity, enabling children to interact, question, connect, problem-solve, communicate, reflect and more. This kind of authentic learning extends beyond the classroom to each student's home, community, nation and the world. It is learning about real life and children become active participants and shapers of their world.

Record of their work includes worksheets (exercises on paper - Maths, English, Language, Illustration etc), booklet of Project, chart sheets and models. The sheets go into each child's portfolio which is updated at the end of each term. It is a delight to see these. Flipping the folio of a child gives a glimpse of his character and thoughts. The 3D models are exhibited in the classrooms and become a part of it. Projects and portfolio are shared with all the other teachers and parents in an Open House, which is like an exhibition at the end of the academic year.



Mathematics worksheets that make the students feel less burdened of thick fat textbooks and more enthusiastic about completing sheets one after the other



Science project where children are collecting iron from the surface of the earth by rubbing the magnet in the sand and storing it in a box for future experimentation



Child Art with Everyday Material workshop under the treehouse which happens every afternoon and is a free-choice activity to explore material like paper, wood, feathers, strings, newspaper, shells



Art and Design Workshop: Mixed media exploration and a Stilt workshop being given by two young kids as a part of their 'construction' project



Debu's Design and Construction Workshop under the trees that facilitates material exploration and skill based work where he assists kids in giving their idea a tangible shape



Planks of wood painted and put together by kids outside their classroom (these are two different paintings to be seen from two different angles - left and right)



Clay Modelling, a free-choice activity where kids come and mould the soft material into different forms and shapes to express their feelings and also to take a break from classroom studies



A scenery with broken ceramic pieces and tiles



Crafts: Exploring paper flowers as a part of free-choice activity with the aim of exploring paper as a material



Children making keychains with dried and varnished multi-colored seeds of fruits while the teachers assist them in tying the knot with metal wire



Self Portrait Project: Each child had to depict himself with fabric and pencil colors which aided understanding of the material and also themselves

Auroville in the Future

When I grow up I would like Auroville to be a place on Earth with a lot of trees, animals and lots of happy people from all over the world.

I would like there to be peace on Earth and Auroville will be an example of all cultures living happily together.

I would like there to be no more pollution in the world and in Auroville we will find a way to live happily without polluting the Earth. Instead of transport we will use teleportation, everything we need will grow on trees and there will be no more need for.....

Chapter 4: Book Design

Inspired by the energy of the children at Deepanam and the model of education they follow that I completely identify with, I started putting together my thoughts that took the shape of a book. It is actually a read for anyone fundamentally interested in education or teaching but is largely a delight-to-see sort of a book. It starts with an introduction of my thoughts and to present that, I pan across the education I have received or witnessed in my life, starting from the school I went to, to where I am now, both literally and figuratively. Each chapter in the book is a phase of my life beginning from early school to college and then back to school with the kids at Deepanam which is a zoom-in of the chapter on schools in Auroville. The fourfold model of integral education is explained in great depth in that part of the book.

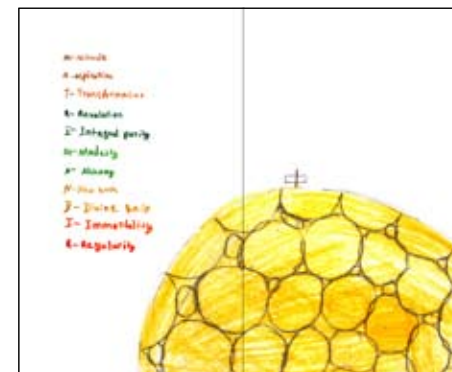
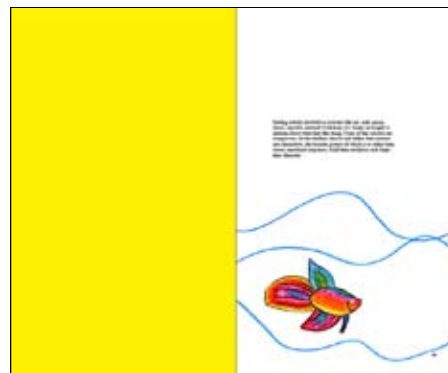
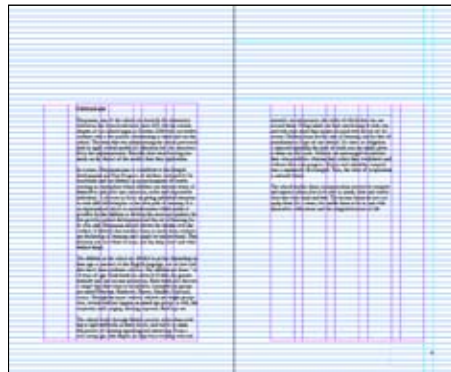
Initial explorations were very basic. I only played with illustrations (which are all original artworks of the children of Deepanam) and images (some of which are from the imagebank of the school and have been used with their prior permission). I had started off with a square 8x8" book called 'I love school', to be written in first person, in a child's voice but with time, I realised it was unfair to give my thoughts a child's voice. Instead, I decided to write my thoughts in my voice and be honest about them. The square page of the book evolved into a rectangle when the text of the book was finally

written out. The size wasn't thought about too much initially but as the content took shape, so did the shape and size of the book which demanded it to be a certain way. One column per page was convenient (less strenuous) to read and looked nice too instead of multiple columns. The size of the book was finally frozen to 6.25x10.25". The first few pages have a very serious feel to them with only text, typeset in Garamond font. That gets balanced out in the following pages with a lot of colorful, happy illustrations and pictures.

Choice of font and pictures had to be a very careful one. At each step, there was constant feedback from faculty and friends regarding the layout, what looked nice, what did not, what looked jarring (out of place), what words sounded incorrect while reading etc. Different types of font types were printed in varying column widths and test-read to see which ones read fine. And also looked fine. Some pictures had very bright colors, so they were desaturated to avoid overload of color to the reader's eye. Proofreading was done at each stage. With every print, something or the other did not read fine, that was corrected. So it was a constant correction loop. Several titles were thought of for the book including 'I love school', '.edu' (to be read as dot e d u) but finally I settled on 'Integral education' which was straightforward (though not catchy) and simple.



Initial layout explorations for the 'I love school' square book



Some of the pages in book that finally got printed (the first page here shows the columns, guides, margins followed through the book, the second one is an all-text spread of the first few chapters)

FOREWORD

Visiting Auroville and its schools this semester brought to me an enriched understanding of this world to which I belong. It introduced me to reality as it was and woke me up from deep slumber and ignorance. We are heading at jet speed towards a future that doesn't seem too bright unless we change the way we look at things. We are progressing towards a collapse that will destroy everything. The world is going through an evolutionary crisis which we need to quickly address. Understanding education is an attempt to find an answer to that effect. Exploring alternatives to traditional methods of education provide for resolving conflicts in the world outside and within. The journey that I undertook completely transformed me in the last four months, getting me interested in interacting with children and learning from them. To present that learning, I pan across the education I received in my life, starting from the school I went to, to where I am now, both literally and figuratively. This book is for people who love children for who they are, not who they should be.

Foreword and Acknowledgments

Visiting Auroville and its schools this semester brought to me an enriched understanding of this world to which I belong. It introduced me to reality as it was and woke me up from deep slumber and ignorance. We are heading at jet speed towards a future that doesn't seem too bright unless we change the way we look at things. We are progressing towards a collapse that will destroy everything. The world is going through an evolutionary crisis which we need to quickly address. Understanding education is an attempt to find an answer to that effect. Exploring alternatives to traditional methods of education provide for resolving conflicts in the world outside and within. The journey that I undertook completely transformed me in the last four months, getting me interested in interacting with children and learning from them. To present that learning, I pan across the education I received in my life, starting from the school I went to, to where I am now, both literally and figuratively. This book is for people who love children for who they are, not who they should be.

FOREWORD & ACKNOWLEDGMENTS

Visiting Auroville and its schools this semester brought to me an enriched understanding of this world to which I belong. It introduced me to reality as it was and woke me up from deep slumber and ignorance. We are heading at jet speed towards a future that doesn't seem too bright unless we change the way we look at things. We are progressing towards a collapse that will destroy everything. The world is going through an evolutionary crisis which we need to quickly address. Understanding education is an attempt to find an answer to that effect. Exploring alternatives to traditional methods of education provide for resolving conflicts in the world outside and within. The journey that I undertook completely transformed me in the last four months, getting me interested in interacting with children and learning from them. To present that learning, I pan across the education I received in my life, starting from the school I went to, to where I am now, both literally and figuratively. This book is for people who love children for who they are, not who they should be.

The book got done very quickly because there were people whom I kept going to for feedback and help. Since this was my first attempt at book design, I faced problems but those got solved along the way. Here's the process in more detail:

Content writing: This phase was only writing out the content and parallelly working on the pictures, deciding which ones to put in the book. Though the whole of it was written at one stretch, it required a few reads for corrections.

Test print 1: The very first print was to get a basic idea of the way the pages were going to flow. Small things that one can't really notice on screen can well be figured out in the first print like considering color in photographs (the need of color in a picture or the absence of it), font type and size, leading, margins etc. Though one has to keep at it for as long as it demands, the very first prints set things right for you. The font might be too big or too small, so you have to read a paragraph and see if it reads fine, the margins might be too broad or too less for gripping the book, so have to be treated accordingly, etc. In this phase, I also decided to desaturate a few pictures that were too loud and didnot contribute to the color palette of the book, which was warm, towards the yellows and browns. So the bright blues, pinks and multicolor photos were convered to black and white. An overall character of the book was kept in mind, a sense that the

pictures had to add to, not take away from.

Test print 2: The second tests were only for font type and size. Explorations were done for legibility of serif and sans serif fonts. Sans serifs (Gisha and TheSans fonts) got ruled out in the very beginning because they weren't as easy to read and the number of words increased in a line. Tests for serifs included ITC Souvenir Std, Baskerville Old Face, Garamond Premier Pro (finally used for body copy), TheSerif (finally used for titles). Only one column was placed on each page for a clean look.

Test print 3: This was where small but really important decisions were taken. Name of the book was a major one, finally decided to call it 'Integral Education'. Chapter markers were considered but realizing that there weren't so many pages in each chapter, they got dropped. The pages opposite the section markers (bright yellow pages) have quotes by Sri Aurobindo or The Mother in another font. Just to add that little something!

Final prints and binding: Digital and screen printing techniques were tried. The pages of the book have been digitally printed on cartridge sheet (though other paper types were test printed upon too, but I chose cartridge over the others; it had a nice feel to it) and the cover is screen printed on handmade textured paper. Section stitching has been done (two-up saddle stitch) and finally a hard bound cover was made to drape the book!





The cover of the book, screen printed title

Conclusion

Visiting Auroville and its schools this semester brought to me an enriched understanding of this world to which I belong. It introduced me to reality as it was and woke me up from deep slumber and ignorance. We are heading at jet speed towards a future that doesn't seem too bright unless we change the way we look at things. We are progressing towards a collapse that will destroy everything. The world is going through an evolutionary crisis which we need to quickly address. Understanding education is an attempt to find an answer to that effect. Exploring alternatives to traditional methods of education provide for resolving conflicts in the world outside and within. The journey that I undertook completely moved me in the last four months, getting me interested in interacting with children and learning from them, changing, for better, the way I look at everything. To add to that, I would like to quote The Mother:

"It is a future which has just begun, but which will take some time to be realized integrally. Meanwhile we are in a very special situation, extremely special, without precedent. We are now witnessing the birth of a new world; it is very young, very weak – not

in its essence but in its exterior manifestation – not yet recognized, not even felt, and denied by most people. But it is there. It is there, doing its best to grow, absolutely sure of the result. But the road towards it is a completely new road which has never been traced out before – nobody has ever gone there, nobody has ever done that! It is a beginning, a universal beginning. Therefore it is a totally unexpected and unpredictable adventure. It is not a matter of repeating spiritually what others have done before us, for our adventure begins beyond that. It is matter of a new creation, entirely new, with all the unforeseen events, the risks, the hazards it entails. It is a real adventure, of which the goal is certain victory, but the road to which is unknown and must be made step by step in the unexplored. It is something that has never existed in this present universe and that will never be again in the same way. If this interests you, well, embark. What is awaiting you tomorrow, I couldn't say. You must leave behind all you have foreseen, all you have planned, all you have built up, and start walking into the unknown – come what may! And this is that."

- The Mother, 1957

Appendix 1: Education Alternatives

In India, from the early 20th century, some educational theorists discussed and implemented radically different forms of education. Rabindranath Tagore's Visva-Bharati University, Sri Aurobindo's Sri Aurobindo International Centre of Education and Mahatma Gandhi's ideal of "basic education" are prime examples. In recent years many new alternative schools have formed including Kanavu in Wyanadu, Kerala, and Timbaktoo Collective (Andhra Pradesh).

Alternative education includes a number of approaches to teaching and learning other than mainstream or traditional education. While some have strong political, scholarly, or philosophical orientations, others are more informal associations of teachers and students dissatisfied with some aspect of mainstream or traditional education. Educational alternatives, which include charter schools, alternative schools, independent schools and home-based learning vary widely, but often emphasize the value of small class size, close relationships between students and teachers and a sense of community.

Holistic education is a philosophy of education based on the premise that each person finds identity, meaning, and purpose in life through connections to the community, to the natural world, and to humanitarian values such as compassion

and peace. Holistic education aims to call forth from people an intrinsic reverence for life and a passionate love of learning. The term holistic education is often used to refer to the more democratic and humanistic types of alternative education.

Robin Ann Martin describes this further by stating, "At its most general level, what distinguishes holistic education from other forms of education are its goals, its attention to experiential learning, and the significance that it places on relationships and primary human values within the learning environment." A holistic way of thinking tries to encompass and integrate multiple layers of meaning and experience rather than defining human possibilities narrowly. Holism understands knowledge as something that is constructed by the context in which a person lives. The idea of connections is emphasized as opposed to the fragmentation that is often seen in mainstream education. Where multidisciplinary and interdisciplinary inquiry may focus on the contribution of disciplines to an inquiry transdisciplinary inquiry tends to focus on the inquiry issue itself. Holistic schools seek to respect and work with the meaning structures of each person. Forbes states, "In holistic education the classroom is often seen as a community, which is within the larger community of the school, which

is within the larger community of the village, town, or city, and which is, by extension, within the larger community of humanity.”

John Holt adds, “Real learning is a process of discovery, and if we want it to happen, we must create the kinds of conditions in which discoveries are made. They include time, freedom, and a lack of pressure.”

Ron Miller has identified five core elements common to many contemporary educational alternatives:

- * Respect for every person
- * Balance
- * Decentralization of authority
- * Noninterference between political, economic, and cultural spheres of society
- * A holistic worldview

Schools that have holistic elements of learning in their educational philosophies include:

- * Democratic school and Free school
- * Homeschooling, Unschooling and Deschooling
- * Krishnamurti Schools
- * Montessori Schools
- * Open Schools
- * Waldorf Education (or Steiner Education)
- * Camphill Schools

Appendix 2: Learning Theories

BEHAVIORISM

Behaviorism is a learning theory that only focuses on objectively observable behaviors and discounts any independent activities of the mind. Behavior theorists define learning as nothing more than the acquisition of new behavior based on environmental conditions. Experiments by behaviorists identify conditioning as a universal learning process. There are two different types of conditioning, each yielding a different behavioral pattern:

- * Classic conditioning occurs when a natural reflex responds to a stimulus. We are biologically “wired” so that a certain stimulus will produce a specific response. One of the more common examples of classical conditioning in the educational environment is in situations where students exhibit irrational

fears and anxieties like fear of failure, fear of public speaking and general school phobia.

- * Behavioral or operant conditioning occurs when a response to a stimulus is reinforced. Basically, operant conditioning is a simple feedback system: If a reward or reinforcement follows the response to a stimulus, then the response becomes more probable in the future. There have been many criticisms of behaviorism, including:
 - * Behaviorism does not account for all kinds of learning, since it disregards the activities of the mind.
 - * Behaviorism does not explain some learning—such as the recognition of new language patterns by young children—for which there is no reinforcement mechanism.

CONSTRUCTIVISM

Constructivism is a philosophy of learning founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world we live in. Each of us generates our own “rules” and “mental models,” which we use to make sense of our experiences. Learning, therefore, is simply the process of adjusting our mental models to accommodate new experiences. Constructivism calls for the elimination of grades and standardized testing. Instead, assessment becomes part of the learning process so that students play a larger role in judging their own progress. There are several guiding principles of constructivism:

- * Learning is a search for meaning. Therefore, learning must start with the issues around which students are actively trying to construct meaning.
- * Meaning requires understanding wholes as well as parts. And parts must be understood in the context of wholes.
- * In order to teach well, we must understand the mental models that students use to perceive the world and the assumptions they make to support those models.
- * The purpose of learning is for an individual to construct his or her own meaning, not just memorize the “right” answers and regurgitate someone else’s meaning.

PIAGET

Swiss biologist and psychologist Jean Piaget is renowned for constructing a highly influential model of child development and learning. Piaget's theory is based on the idea that the developing child builds cognitive structures - in other words, mental "maps," schemes, or networked concepts for understanding and responding to physical experiences within his or her environment. Piaget further attested that a child's cognitive structure increases in sophistication with development, moving from a few innate reflexes such as crying and sucking to highly complex mental activities. Piaget's theory identifies four developmental stages and the processes by which children progress through them. The four stages are:

- * Sensorimotor stage (birth - 2 years old): The child, through physical interaction with his or her environment, builds a set of concepts

about reality and how it works. This is the stage where a child does not know that physical objects remain in existence even when out of sight.

- * Preoperational stage (ages 2-7): The child is not yet able to conceptualize abstractly and needs concrete physical situations.
- * Concrete operations (ages 7-11): As physical experience accumulates, the child starts to conceptualize, creating logical structures that explain his or her physical experiences. Abstract problem solving is also possible at this stage. For example, arithmetic equations can be solved with numbers, not just with objects.
- * Formal operations (beginning at ages 11-15): By this point, the child's cognitive structures are like those of an adult and include conceptual reasoning.

LEARNING STYLES

This approach to learning emphasizes the fact that individuals perceive and process information in very different ways. The learning styles theory implies that how much individuals learn has more to do with whether the educational experience is geared toward their particular style of learning than whether or not they are "smart." In fact, educators should not ask, "Is this student smart?" but rather "How is this student smart?"

The concept of learning styles is rooted in the classification of psychological types. The learning styles theory is based on research demonstrating that, as the result of heredity, upbringing, and current environmental demands, different

individuals have a tendency to both perceive and process information differently. The different ways of doing so are generally classified as:

- * Concrete and abstract perceivers - Concrete perceivers absorb information through direct experience, by doing, acting, sensing, and feeling. Abstract perceivers, however, take in information through analysis, observation and thinking.
- * Active and reflective processors - Active processors make sense of an experience by immediately using the new information. Reflective processors make sense of an experience by reflecting on, thinking about it.

BRAIN-BASED LEARNING

This learning theory is based on the structure and function of the brain. As long as the brain is not prohibited from fulfilling its normal processes, learning will occur. People often say that everyone can learn. Yet the reality is that everyone does learn. Every person is born with a brain that functions as an immensely powerful processor. Traditional schooling, however, often inhibits learning by discouraging, ignoring, or punishing the brain's natural learning processes. The core principles of brain-based learning state that:

- * The brain is a parallel processor, meaning it can perform several activities at once, like tasting and smelling.
- * Learning engages the whole physiology.
- * The search for meaning is innate.
- * The search for meaning comes through patterning.

- * Emotions are critical to patterning.
- * The brain processes wholes and parts simultaneously.
- * Learning involves both focused attention and peripheral perception.
- * Learning involves both conscious and unconscious processes.
- * We have two types of memory: spatial and rote.
- * We understand best when facts are embedded in natural, spatial memory.
- * Learning is enhanced by challenge and inhibited by threat.
- * Each brain is unique.

Feedback is best when it comes from reality, rather than from an authority figure. People learn best when they are solving realistic problems. The big picture can't be separated from the details.

RIGHT BRAIN VS. LEFT BRAIN

This theory of the structure and functions of the mind suggests that the two different sides of the brain control two different “modes” of thinking. It also suggests that each of us prefers one mode over the other. Experimentation has shown that the two different sides, or hemispheres, of the brain are responsible for different manners of thinking:

- * Left Brain: Sequential, Rational, Analytical, Objective, Looks at parts, Logical
- * Right Brain: Random, Intuitive, Holistic, Synthesizing, Subjective, Looks at wholes

Most individuals have a distinct preference for one of these styles of thinking. Some, however, are more whole-brained and equally adept at both modes. In general, schools tend to favor left-brain modes of thinking, while downplaying the right-brain ones. Left-brain scholastic subjects focus on logical thinking, analysis, and accuracy. Right-brained subjects, on the other hand, focus on aesthetics, feeling, and creativity. In order to be more “whole-brained” in their orientation, schools need to give equal weight to the arts, creativity, and the skills of imagination and synthesis.

MULTIPLE INTELLIGENCES

This theory of human intelligence, developed by psychologist Howard Gardner, suggests there are at least seven ways that people have of perceiving and understanding the world. The students will be better served by a broader vision of education, wherein teachers use different methodologies, exercises and activities to reach all students, not just those who excel at linguistic and logical intelligence. In his conception, a child who masters multiplication easily is not necessarily more intelligent overall than a child who struggles to do so. The second child may be stronger in another kind of intelligence and therefore 1) may best learn the given material through a different approach, 2) may excel in a field outside of mathematics, or 3) may even be looking at the multiplication process at a fundamentally deeper level, which can result in a seeming slowness that hides a mathematical intelligence that is potentially higher than that of a child who easily memorizes the multiplication table. He labels each of these ways a distinct "intelligence"—in other words, a set of skills allowing individuals to find and resolve genuine problems they face:

- * Verbal-Linguistic: The ability to use words and language
- * Logical-Mathematical: The capacity for inductive and deductive thinking and reasoning, as well as the use of numbers and the recognition of abstract patterns
- * Visual-Spatial: The ability to visualize objects and spatial dimensions, and create internal images and pictures
- * Bodily-Kinesthetic: The wisdom of the body and the ability to control physical motion
- * Musical-Rhythmic: The ability to recognize tonal patterns and sounds, as well as a sensitivity to rhythms and beats
- * Interpersonal: The capacity for person-to-person communications and relationships
- * Intrapersonal: The spiritual, inner states of being, self-reflection, and awareness
- * Naturalistic

Gardner advocates instructional methods that appeal to all the intelligences, including role playing, musical performance, cooperative learning, reflection, visualization, story telling, and so on.

OBSERVATIONAL LEARNING

Observational learning, also called social learning theory, occurs when an observer's behavior changes after viewing the behavior of a model. An observer's behavior can be affected by the positive or negative consequences—called vicarious reinforcement or vicarious punishment—of a model's behavior. There are several guiding principles behind observational learning, or social learning theory:

- * The observer will imitate the model's behavior if the model possesses characteristics—things such as talent, intelligence, power, good looks, or popularity—that the observer finds attractive or desirable.
- * The observer will react to the way the model is treated and mimic the model's behavior. When the model's behavior is rewarded, the observer is more likely to reproduce the rewarded behavior. When the model is punished, an example of vicarious punishment, the observer is less likely to reproduce the same behavior.
- * A distinction exists between an observer's

“acquiring” and “performing” a behavior.

- * Learning by observation involves four separate processes: attention, retention, production and motivation.
- * Attention and retention account for acquisition or learning of a model's behavior; production and motivation control the performance.
- * Human development reflects the complex interaction of the person, the person's behavior, and the environment. A person's cognitive abilities, physical characteristics, personality, beliefs, attitudes, and so on influence both his or her behavior and environment. These influences are reciprocal, however. A person's behavior can affect his feelings about himself and his attitudes and beliefs about others. Likewise, much of what a person knows comes from environmental resources such as television, parents, and books. What a person observes can powerfully influence what he does. But a person's behavior also contributes to his environment.

CONTROL THEORY

This theory of motivation proposed by William Glasser contends that behavior is never caused by a response to an outside stimulus. Instead, the control theory states that behavior is inspired by what a person wants most at any given time: survival, love, power, freedom, or any other basic human need.

Responding to complaints that today's students are "unmotivated," Glasser attests that all living creatures "control" their behavior to maximize their need satisfaction. According to him, if students are not motivated to do their schoolwork, it is because they view it as irrelevant to their basic human needs.

VYGOTSKY AND SOCIAL COGNITION

The social cognition learning model asserts that culture is the prime determinant of individual development. Humans are the only species to have created culture, and every human child develops in the context of a culture. Therefore, a child's learning development is affected in ways large and small by the culture in which he/ she is enmeshed.

Culture makes two sorts of contributions to a child's intellectual development. First, through culture children acquire much of the content of their thinking, that is, their knowledge. Second, the surrounding culture provides a child with the processes or means of their thinking, what Vygotskians call the tools of intellectual adaptation. In short, according to the social cognition learning model, culture teaches children both what to think and how to think. A difference exists between what child can do on her own and what the child can do with help. Vygotskians call this difference the zone of proximal development. Less known is Vygotsky's research on play, or children's games,

as a psychological phenomenon and its role in the child's development. Through play the child develops abstract meaning separate from the objects in the world, which is a critical feature in the development of higher mental functions.

"Play is such that the explanation for it must always be that it is the imaginary, illusory realization of unrealizable desires. Imagination is a new formation that is not present in the consciousness of the very raw young child, is totally absent in animals, and represents a specifically human form of conscious activity. Like all functions of consciousness, it originally arises from action", he says.

Another aspect of play that Vygotsky referred to was the development of social rules that develop, for example, when children play house and adopt the roles of different family members. The rules of behavior between kids that go unnoticed in daily life are consciously acquired through play.

WALDORF EDUCATION

"The need for imagination, a sense of truth and a feeling of responsibility. These are the three forces which are the very nerve of education." - Rudolf Steiner was an Austrian philosopher who believed that education should enable a child to become a special person - successful in practical life driven by an inner divine inspiration.

Learning is interdisciplinary, integrating practical, artistic, and conceptual elements. The Waldorf approach emphasizes the role of the imagination, developing thinking that includes a creative as well as an analytic component. The overarching goals of this educational approach are to provide young people the basis on which to develop into free, moral and integrated individuals, and to help every child fulfill his or her unique destiny, the existence of which anthroposophy posits. Schools and teachers are given considerable freedom to define curricula within collegial structures. Steiner's pedagogical model of child development describes three major developmental stages of childhood:

- * Early childhood learning is largely experiential, imitative and sensory-based. The education emphasizes learning through practical activities.
- * Elementary school years (age 7-14), learning is regarded as artistic and imaginative. In these years, the approach emphasizes developing children's emotional life and artistic expression across a wide variety of performing and visual arts.
- * During adolescence, to meet the developing capacity for abstract thought and conceptual judgment the emphasis is on developing intellectual understanding and ethical ideals such as social responsibility.

Waldorf education is unusual and perhaps unique in the consistency, thoroughness and creativity with which it implements a K-12 curriculum. It finds links between art and science, encourages play, drawing, story telling, nature study and learning for its own sake, not for just writing examinations.

MONTESSORI METHOD

The Montessori Method is an educational approach to children based on what Maria Montessori referred to as "the child's true normal nature", which happened in the process of her experimental observation of young children given freedom in an environment prepared with materials designed for their self-directed learning activity. The method itself aims to duplicate this experimental observation of children to bring about, sustain and support their true natural way of being.

The natural development of children proceeds through several distinct planes of development, each one having its own unique conditions and sensitive periods for acquiring basic faculties in the developmental process. The first plane (ages 0-6) involves basic personality formation and learning through physical senses. During this plane, children experience sensitive periods for acquiring language and developing basic mental order. The second plane of development (6-12) involves learning through abstract reasoning, developing through a sensitivity for imagination and social interaction with others. The third plane (12-18) is the period of adolescent growth, involving

the significant biological changes of puberty, moving towards learning a valuation of the human personality, especially as related to experiences in the surrounding community. The fourth plane (18+), involves a completion of all remaining development in the process of maturing in adult society. The young child has an absorbent mind which naturally incorporates experiences in the environment directly into its whole basic character and personality for life. This mental faculty allows them to learn many concepts in an effortless, spontaneous manner.

Children learn from each other in a spontaneous manner that supports their independent self-directed activity. The ordinary Montessori classroom therefore consists of a mixed-aged group, such as 2-6 (primary level) or 6-12 (elementary level). Applying this method involves the teacher in viewing the child as having an inner natural guidance for his or her own perfect self-directed development. The role of the teacher (called guide or enabler) is therefore to watch over the environment to remove any obstacles that would interfere with this natural development.

HOMESCHOOLING

Homeschooling or homeschool (also called home education or home learning) is the education of children at home, typically by parents but sometimes by tutors, rather than in other formal settings of public or private school. Although prior to the introduction of compulsory school attendance laws, most childhood education occurred within the family or community, homeschooling in the modern sense is an alternative in developed countries to formal education.

Homeschooling is a legal option in many places for parents to provide their children with a learning environment as an alternative to publicly-provided schools. Parents cite numerous reasons as motivations to homeschool, including better academic test results, poor public school environment, improved character/morality development, and objections to what is taught locally in public school. It may be a factor in the choice of parenting style. It is also an alternative for families living in isolated rural locations or living temporarily abroad.

UNSCHOOLING

Unschooling refers to a range of educational philosophies and practices centered on allowing children to learn through their natural life experiences, including child directed play, games, household responsibilities, work experience and social interaction rather than through the confines of a conventional school. Exploration of activities is often led by the children themselves, facilitated by the adults. Unschooling differs from conventional schooling principally in the thesis that standard curricula and conventional grading methods, as well as other features of traditional schooling, are counterproductive to goal of maximizing education of each child. The term "unschooling" was coined in the 1970s and used by educator John Holt, widely regarded as the "father" of unschooling. While often considered to be a subset of homeschooling, unschoolers may be as philosophically estranged from homeschoolers as they are from advocates of conventional schooling. While homeschooling has been subject to widespread public debate, little media attention has been given to unschooling in particular. Popular critics of unschooling tend to view it as an extreme educational philosophy, with concerns that unschooled children will lack the social skills, structure, and motivation of their peers, especially in the job market.

A fundamental premise of unschooling is that curiosity is innate and that children want to learn. From this an argument can be made that institutionalizing children in a so called "one size fits all" or "factory model" school is an inefficient use of the children's time, because it requires each child to learn a specific subject matter in a particular manner, at a particular pace, and at a particular time regardless of that individual's present or future needs, interests, goals, or any pre-existing knowledge he or she might have about the topic. Many unschoolers also believe that opportunities for valuable hands-on, community based, spontaneous, and real-world experiences are missed when educational opportunities are largely limited to those which can occur physically inside of a school building. Unschoolers often state that learning any specific subject is less important than learning how to learn. They assert, in the words of Alec Bourne, "It is possible to store the mind with a million facts and still be entirely uneducated", and in the words of Holt, " Since we can't know what knowledge will be most needed in the future, it is senseless to try to teach it in advance. Instead, we

should try to turn out people who love learning so much and learn so well that they will be able to learn whatever needs to be learned."

This ability to learn on their own makes it more likely that later, when these children are adults, they can continue to learn what they need to know to meet newly emerging needs, interests, and goals. They can return to any subject that they feel was not sufficiently covered or learn a completely new subject. Many unschoolers disagree that there is a particular body of knowledge that every person, regardless of the life they lead, needs to possess. They suggest that there are countless subjects worth studying, more than anyone could learn within a single lifetime. Since it would be impossible for a child to learn everything, somebody must decide what subjects they are to explore. Unschoolers argue that "Children... if they are given access to enough of the world, they will see clearly enough what things are truly important to themselves and to others, and they will make for themselves a better path into that world than anyone else could make for them."

DESCHOOLING

Deschooling is a term used by both education philosophers and proponents of alternative education and/or homeschooling, though it refers to different things in each context. It was popularized by Ivan Illich in his 1971 book *Deschooling Society*. Philosophically, it refers to the belief that schools and other learning institutions are incapable of providing the best possible education for some or most individuals. Some extend this concept beyond the individual and call for an end to schools in general. This is based on the belief that most people learn better by themselves, outside of an institutional environment, at a self-determined pace. This is the meaning of the term as used by Illich. Another common criticism is that institutionalized schooling is used as a tool for the engineering of an ignorant, conformist working class through constant schedules and prearranged time blocks and one-size-fits-all teaching methods. Practical alternatives arising in place of institutionalized learning have been free schools, unschooling at home and forming networks with other deschooling families and individuals.

THE INTENT OF KRISHNAMURTI SCHOOLS

It is becoming more and more important in a world that is destructive and degenerating that there should be a place, an oasis, where one can learn a way of living that is whole, sane and intelligent. Education in the modern world has been concerned with the cultivation not of intelligence, but of intellect, of memory and its skills. In this process little occurs beyond passing information from the teacher to the taught, the leader to the follower, bringing about a superficial and mechanical way of life. In this there is little human relationship. Surely a school is a place where one learns about the totality, the wholeness of life. Academic excellence is absolutely necessary, but a school includes much more than that. It is a place where both the teacher and the taught explore not only the outer world, the world of knowledge, but also their own thinking, their own behaviour. From this they begin to discover their own conditioning and how it distorts their thinking. This conditioning is the self to which such tremendous and cruel importance is given. Freedom from conditioning and its misery begins with this awareness. It is only in such freedom that true learning can take place. In

this school it is the responsibility of the teacher to sustain with the student a careful exploration into the implications of conditioning and thus end it. A school is a place where one learns the importance of knowledge and its limitations. It is a place where one learns to observe the world not from any particular point of view or conclusion. One learns to look at the whole of man's endeavour, his search for beauty, his search for truth and for a way of living without conflict. Conflict is the very essence of violence. So far education has not been concerned with this, but in this school our intent is to understand actuality and its action without any preconceived ideals, theories or beliefs which bring about a contradictory attitude toward existence. The school is concerned with freedom and order. Freedom is not the expression of one's own desire, choice or self-interest. That inevitably leads to disorder. Freedom of choice is not freedom, though it may appear so; nor is order conformity

or imitation. Order can only come with the insight that to choose is itself the denial of freedom. In school one learns the importance of relationship which is not based on attachment or possession. It is here one can learn about the movement of thought, love and death, for all this is our life. From the ancient of times, man has sought something beyond the materialistic world, something beyond the materialistic world, something immeasurable, something sacred. It is the intent of this school to inquire into this possibility. This whole movement of inquiry into knowledge, into oneself, into the possibility of something beyond knowledge, brings about naturally a psychological revolution, and from this comes inevitably a totally different order in human relationship, which is society. The intelligent understanding of all this can bring about a profound change in the consciousness of mankind.

- Ojai, 1984

Appendix 3: Inumella Sesikala

"I only want to enjoy my childhood, Ma.
Amma, I don't want to go to school.

I am just a child, Ma. I want someone to tell me stories and teach me. I want to watch tadpoles and butterflies and know what they eat, where they sleep. I want to climb a hill and catch a cloud to see what it is made of.

I want to wait with my hands in the stream and feel the fish swimming,

I want to run with the puppies, sing with the birds, and play with paper-boats in the rain.

I want to lie down on the soft green grass and hear the wind whisper.

Only then I want to learn more about them from the printed word.

Only after my imagination is fired, my thirst to know more has begun, a seed of 'Why?' is planted in my brain.

Amma, I feel trapped in the prison-like classroom.

I feel my spirit slowly weakening with the monotonous teaching. Often, when I ask a basic question our teachers say, "No time for all that. Let us finish the syllabus."

I get tired of studying just for marks without pausing to truly understand,

I want to go to the museum with my classmates and hear my teacher explain the stories of the artefacts.

I want plenty of nature trips where real Biology classes would be held.

I want to see colourful videos of volcanic eruptions and deep-sea dwellings.

I want our whole school to visit together the historic and cultural places in my city.

I want to learn astronomy after looking through a telescope once.

I don't want to just read them in my textbooks; I want to see, hear, touch, smell and taste whatever I can. I want to experience.

Why can't the school make at least one such trip every year?

And, I cannot stoop down anymore to carry my school sack. My back is ready to break. Why should I carry the books everyday? Why can't we have only two subjects per day? Or, why don't we have lockers like in the Western schools? And, why should I squeeze in that over-crowded auto?

But, Amma, growing up no longer seems to be fun. I see only more of homework, winter projects, summer classes, weekly tests, monthly tests, quarterly, half-yearly and annual exams, external competitive exams, more tests, more competitions, more pressure, more stress...

When can I sing, paint, dance, swim or cycle?
When can I just play cricket or even hide-and-seek?
What happened to that minimum sleep that you always say a child needs?
Why should I always study, study?

Amma, I am scared of increasing atrocities, by untrustworthy teachers, ragging-raving seniors, acid-loving nuts, perverted adults...

Ma, right now, I don't want to be a doctor, engineer or anything else.

I just want to feel safe and secure, play and learn without any stress before I become an adult like you.

I only want to enjoy my childhood, Ma."

Appendix 4: Teachers at Deepanam

PRITI

"I am in Auroville primarily because of education. I was searching for alternative education for my children and I found this school in Auroville and it was very near to what I was searching for. As a parent I am very happy that my children are here. They enjoy the school. Even on weekends they come to school not for classes but activities like cleaning up, some extra classes or Capuvera classes, etc. They spend most of the time in the school. They adapted very quickly and since it is very close to nature, they were very happy. One month of summer program (trial period) and they wanted to stay in Auroville. They didn't want to come back to Gujarat as the school back there was very strict and structured. They had experienced the strictness, the homework, not very active participation in the classes. In these three years they have learnt a lot. Their true character has come out.

Since they were in the school, I started working with Deepanam. It has been three years here and I can see the difference. Education is not putting a lot of information in the mind of the kid. It has to come from within. Most of the children here enjoy the school because it is according to their level and their need. We give them what they need and if the need is not fulfilled, we just don't move further. We fulfill the need and only then we go further. That is

because we give individual attention. We set targets for ourselves for a year and if the children can't finish that, we follow it up and continue it next year. Few children are not good with studies but they are great with Drawing. Some are good with Music. Each one has their own characteristic. We don't give importance to only reading and writing. We don't make any judgments.

Each term I do three to four projects. In these we read, write and make models. They kids think a lot while doing that – how to put it up, how to create as many things in the topic. We discuss first. We give them few topics and they can choose. If they don't get excited with any one, they are free to suggest as well. They usually choose a topic that they know little bit about. They then feel sure about going in depth (know more) as they know the basics. After selecting the topic, we put down what we already know about the project. And then we put down pointers of what we don't know about the topic and would like to know. The sources are books, internet (not so much of that source as they are very young) and environment. For example, if I am doing insects, they practically catch insects around the school. Then they can know the name of the insect, how it is identified – what is bee, beetle, bug, dragonfly, etc. Same with any other

topic. When they are done writing the basics about it, they build a model. That way it becomes fun!

When there is something new to introduce, we always sit around the table and discuss. Suppose I am doing Maths and I have to introduce Multiplication, we all sit together and till they don't get the concept we do it orally, like jumping on number three, four.. So it becomes a game and once they get the concept, we do exercises on the board. They gain their confidence about knowing it well. They also do a lot of puzzles. That makes it interesting for them. So it is like a games class and the same time, they are learning. In English also we have games. I do a lot of crossword puzzles with them. There are memory games, games of opposites etc. When I introduced Opposites we played a card game. So I gave them example of long and short, thick and thin, day and light etc. Practically, they have made these cards for thin, thick, day, night etc. Now it is like a fun game to revise the learning. Each time we plan different exercises for them to make the concepts interesting and avoid repetition. Kids get bored very easily so we are constantly on our toes too all the time.

I have only ten kids and I know their each and every action. So I know when a child is not in his best

of spirit. I know when there is something wrong – something must have happened with friends or at home. That is how I keep track. We keep working on the weak areas of each child. In a class of ten also, we have three levels. They all are not same in their grasping ability or performance. The first group is great with reading, writing, everything. They get it very quickly. The second group gets it little slowly but the third level is where I work most. They have difficulty with reading and writing. They can speak very well. So I give them tasks according to their level. So the first group is given activities to keep going on while I work and bring up the level of the third group.

None of us are professional teachers. We started working with kids and that is how things happened. Time to time we update ourselves. We also visit the Ashram School in Pondicherry and we get a lot of inspiration from them. The sad thing about schools outside is that most of the children see school like a jail. On weekends they are so happy that they don't have to go to school. But here, in Deepanam, the kids love school. It is not a burden to spend 3-4 hours and then go out and play. Deepanam is like second home. They connect with teachers and friends. They learn in a way that they don't realize. Since, they don't have it in their mind that they're

SUGUNA

coming to school for learning, it is fun! There is a mix of group projects and individual tasks. In group activities, the aggressive and the shy balance out. This bridges the gap between them. They give lot of ideas to each other, which is very interesting. They are helpful. It builds team spirit. Individual projects on the other hand open up the kids and they gauge their capacity, identify the needs. We discuss a lot, talk a lot. The kids develop their character here. And once they do that they know what they're good at and what their interest area is. The sooner it happens for a kid, the better for him to work upon it. Our work is to help them identify their real self. It is like the spiritual side of the kids. They develop their inner confidence, their psyche here. Then they choose their way in life.

Deepanam is to train kids to work in Auroville to be a part of this township. They know the philosophy and understand what they're here for. This education will help them be themselves. Those who are into certificates and degrees cannot be a part of this way of learning. You have to accept it to let it happen. The teachers, the parents and the children have to be in a harmony. Each one has to understand and choose and accept this kind of education for it to be beneficial for the child."

"I am from Pondicherry and I came to Auroville in 1993. I got married and settled here. I was working with leather, making bags, belts, file covers, clips, etc. I also did embroidery in a few units. I learnt many things in Auroville. I enjoy handicrafts. The school I come from was quite a strict one and we were beaten with a stick every time we would not follow an instruction. Whenever I was late to class, I wasn't even allowed to enter. I was punished for the whole day and was made to stand outside. I never liked going to school. When I came to Auroville I didn't speak much English, only Tamil, because my school was Tamil medium. My cousin (with whom I stayed here previously) taught me atleast five sentences of English every day. That's how I picked up conversations in that language.

Earlier I was working at Pre-crèche. I love small kids, I was taking care of them. Four years back, I came here. I have three kids and all of them study at Deepanam. When Rajeev took over, some parents were helping in running the school. I wanted to help too. So I asked him if I could teach Craftwork and Tamil. I am like the kids here, they learn from me and I learn from them. I take Tamil classes for non-Tamil children (kids who don't speak Tamil as their first language). They learn orally and some of

them also try their hands on writing the script. For Tamil children it is easier to pick up the language since it is their mother tongue but for non-Tamil kids, it is slightly difficult as it is not their first language. I try and make it very simple and easy to understand for them. I show them pictures and that helps them remember and recall things very quickly. For example, if this is a metal, in Tamil it is 'Kambi'. Flower is 'Poo'. Stick is 'Kuchi'. I show them the object and tell them the name. That has a good recall value. I teach them words and tell them their pronunciation in Tamil.

I plan games for my classes. That makes learning fun. We play outdoors and all the conversations during the game have to be in Tamil. So they try to catch each other, count in Tamil etc. I help them build sentences and convey their thoughts in this manner. Sometimes we play memory-cards. There are images of objects on the cards and the first Tamil letter of that object as a clue. The children have to pick up a card and tell the name in Tamil. Suppose it has the picture of a mother. It will have

beneath the image 'A' in Tamil script for the child to guess 'Amma' (Tamil for mother). The picture of a leaf would have 'E' as the clue to 'Elaai' (Tamil for leaf). The children love the language. I am improving along with them.

I also take craft classes in the afternoon for first, second and third grades. We work with beads, threads, paper and fabric. The children can also suggest any other material they want to work with. They are free to decide what they want to do and I only facilitate that. Sometimes I also demonstrate and they try to imitate what I do. This makes for a good way to learn a material they don't have much idea about. For example, in embroidery and macramé they can't be completely on their own. So I tell them how to do it and then they work individually. They embroider on their handkerchiefs, t-shirts, pants etc. I learnt embroidery in Auromode. Over there we made huge cushions, bed covers, table mats etc. Whatever I learnt there, I want to share with everyone here. True learning is when each one grows in the process."

CHITRA

"I have been in Auroville for the past fifteen years. We came here in 1995, soon after I got married. We came here with the intention of not going anywhere else. I was halfway through my CA course then. I helped CSR in their accounts for about four months. When our daughter turned four, she joined school. We were very sure that our child either had to be in Ashram School or in one of the Auroville schools. That's when we decided that she had to be at Deepanam. 2006 is when I started working with Deepanam. Since I have joined, I have loved every bit of it. It is altogether a different experience to work with children.

I had been to very formal, traditional and strict school. I never enjoyed my school. The day I finished school, I thought I'm free. That is when I decided my child will not undergo this type of stress in education. Education is when you truly enjoy what you're learning. We were like flock of sheep; we used to follow what the teacher said. There wasn't any usage of the mind. There were eighty girls in one class, and one teacher. Sometimes it happened so that the teacher wouldn't even know the names of the students. We were scared to even clarify our doubts from the teachers because they would put us down saying 'Oh! You don't even know this?' making us

feel horrible. I still remember in my class, not even a single girl stood up and asked anything. It was probably considered below standard or whatever. We were always so scared of the teachers. Fear can put the self confidence of a child very low. If you keep telling a child he doesn't know even the simplest thing, he gradually starts losing his confidence and completely gives up one point in time. That never happens here and that is what makes all the difference.

I teach English, Mathematics and Geography through projects. I go through the books as I know their levels. Mostly we work through the worksheets. Each one solves them at their own pace. There is no hurrying up through the syllabus in this school. We work more with kids who are relatively slow in grasping the topic; we spend more time in making them understand because clarity of a concept is very important at this stage. In class exercises, the difficulty level is more so that we help them out and clarify their doubts. There is homework for Maths as the subject needs practice and they have to keep at it. Whatever they do in class, they practise at home. Homework is simple and of a low difficulty level so that they can work by themselves and not take help. The sight of a textbook makes children very bored. That is

what we have found out. If you give them a thick fat textbook, they feel it is huge to do. That is the psychology of the child. If you give them the same thing in worksheets, they are happy to work. They also keep a count of worksheets and it excites them to know how many they have completed. When you make something playful, just the use of word 'play' makes it interesting for them. They put their whole mind and heart into it. No matter what the subject is then, if it is done like a game, they participate with great energy, great enthusiasm. So normally before teaching them the numbers tables, we jump on numbers in circles. They enjoy that. After that we get back to the classrooms for worksheets. They remember the activity of jumping. That would give them a good energy to work; and a clear concept too. Worksheets are individual problem solving but projects are done in groups as well. Sometimes when I introduce a topic, kids know a bit about it already. Like for the topic Earth, they said 'Don't cut trees, don't throw plastic, don't waste water and don't waste paper'. Being in Auroville they have grown up on this culture. They are very conscious of it. They got involved in Litterfree campaign and celebrated the Earth day. They know they have to protect the planet. Even in English, when they see something they remember it well. We have flash cards, which have pictures of several things

on them. This helps them connect instantly to the image instead of having had to memorize tediously. Photographic memory is their quickest and best access point. In the class the way the kids interact with each other, the way they talk to teachers, all this gives us an idea of how the child is because children, they don't hide anything. Even the way they write. Sometimes they write stories, from that we're able to understand them. They express through drawings quite well as there is not so much command over the language. Sometimes they draw very violent stories, sometimes very pleasant. So we also work on reducing the violent streak in them. We keep talking to them and their parents. When it really becomes extreme, we call the parents. Basically what we have found out is that when the child is really stressed at home because of the relationships, the child definitely carries it to school. That is mostly reflected and we can see it in his lack of interest in any activity. So we try to speak to children a lot and solve the problem as much.

Since the number of children is very less, it is very easy for the teacher to connect with each child. We go from one child to another when he works through and make sure that he has understood the thing. If there is some mistake, we can correct it immediately. Where they are lagging or the topic

they have difficulty with, I make them practise that more. For example, if a kid has difficulty with eight's table, I give him more of it so that he learns it well. There are quizzes and worksheets to see how each child's understanding is of a topic. No marks are given at all. This is not the age when they should get into cut-throat competition. After thirteen-fourteen years of age, atleast they are mature enough to understand the concept of marks. Right now what will happen is they'll be pressurized. It could completely shut them off. This we see in a few children. If they find something difficult, when I explain anything twice or thrice, they completely stop, they won't even try to understand. They stop responding. So what we do in such situations is we stop it at that time and come back to it, try again. Once they come out of the Oh-I-can't-understand-this feeling, we start afresh with them when their mind is like a clean slate. Then they are able to

grasp it quickly. It is a joy to see them learn. When a child knows he is progressing, you can see the joy on his face. When you explain something and then he says 'Aah now I understand', the light that glows on their face is amazing. Once they understand something by themselves, they can never forget it. That brings great confidence to them. We are not bothered so much about finishing the syllabus. The more important thing is to make them understand a concept well. The early years of childhood are the foundation. If that is not strong, the building cannot be built. To have a strong base, let's go slow. That is what Sri Aurobindo has also said, "If you can't complete the course in four years, let it take six years". So the main thing is to concentrate on the child, whether the child has got the essence of it. If the child doesn't get anything, then there is no point of education at all. Children know how to decide and take responsibility for their decisions.

Decision making is very important at every age. Normally what happens in the traditional schools, you're told 'You do this, you do that', you don't think whether you like it or not. You just do it. Critical thinking in a free progress setup definitely helps a child to realize his interests and work towards a goal he establishes for himself. But free progress should have borders. Sometimes children misunderstand freedom for play. That is incorrect. There is freedom within a certain limitation. Within that they can explore. It also varies from child to child. Some understand the notion of balancing

freedom with discipline. Some just don't. They just freak out! The teacher has to be really responsible, careful and cautious of the amount of freedom given to a child in such a case. For example there was this girl who would ask 'Can I draw' and then she would do it very seriously with a lot of concentration. On the other hand, this young boy would draw only to spend his time and not do another subject. That is not the right spirit of doing things. Slowly, as the children grow, they are also able to understand that."

DEBU

"I came to Auroville last year and started working in an organic farm. Before this I was doing graphic design in Amsterdam but I resigned to follow my passion for the Arts. I started painting, carving and doing mixed media experiments. After finishing graduation in Physics in Calcutta, I went to study Astro Physics in Amsterdam but I didn't finish it. I came to live in Ashram and for sixteen years I lived there. I worked for the technical lab of the Ashram School, the Ashram Printing Press and Ashram Gas Station.

In the meantime, my instinct pushed me to do something creative with students. I knew Rajeev for a long time and so I asked him if there was any way I could help him. Then he asked me to start this project in Deepanam to make things with everyday materials. So we do installations, paintings, mixed media assembly with commonly found materials (natural and man-made). Sometimes we find them in the school like clay, newspaper, stones, sticks, wooden logs etc. and sometimes I source jute, cotton, wires, cardboards, discarded water bottles etc. from around Auroville.

Children are full of ideas. When they start with something, they want to do so many things that it sometimes gets chaotic. Sometimes they are not

even satisfied with what they've done because their ideas are of a much higher standard and perfection than the skill of their hand. So that is where I come into the picture. My role is to encourage them to do it, push their limits, and help them give a tangible shape to their idea. Obviously, young children can't carve a stone or hammer a nail like an adult so I help them in the skill domain but the perception is theirs and it is very clear. They know exactly what they want and if the output is not how they had imagined, they get disappointed. I try to give them more confidence in the task they have undertaken. There are children from 7 to 14 years of age coming to the workshop. For the older kids, I don't give them any project. They do what they like and I just give them the material. The more difficult is to handle the younger lot. Since a class has about ten students each, we divide them in two groups. So at a time, about five students come to the workshop and I give each one special attention. In Amsterdam, I remember, my professor told me, 'Debu, the best thing for a professor is to give his child so much love and attention that the student feels that he is my only professor.'

I give them the outline of the project, some hint of the direction to be taken and suggest them the materials but it is their creativity and imagination

that lets them work it out in their unique way. Last year we made DVD holder with cardboard and newspaper, furniture with cardboard, houses with thermocol and toothpicks etc. The materials vary according to the age group as well. The younger kids can't handle wood for example, so I give them paper and cardboard which is easier to work with. The project is the same for everyone but the manifestation is very personal. Every kid has a creative side to him. They're all so dynamic and full of ideas. They like thinking about how things should look. It is not a classroom activity that they just come and do it. Even with me, I never touched the brush till I went to Ashram. Over there I realized there was something hidden inside me and lazily I started painting. I learnt it by observation.

Here, there is no evaluation at all. It is not like their English is becoming better or their Maths is getting worse. It is not objective. Their perception of the world around them, observing light and shadows, forms, perfection in life are subtle things, incapable of being marked. I try to push them for this perfection. When they're doing these things,

they work with full attention. Creativity brings concentration with it. It is natural; I don't have to tell them to be quiet. There is an Open House at the end of the year; all of them showcase what they have done. It is like an exhibition and after that they can take it home. Open House is not from the academic point of view, it is more philosophical.

I recollect my own childhood, how I grew up. All the time I think about my spiritual motivation and living in this kind of atmosphere with kids. Here, to enjoy the nature through the kids' eyes is very special. The simplicity and the way of thinking in a Free Progress model inspires me to grow, to connect with the nature, to feel the wind, to see the insects, to look at the sunrise each morning, to be calm; all this I lost living in the modern society. This curiosity is coming back to me now, I observe details. My work was beginning to be too astronomical, that made me crazy. I had questions that the Machines didn't have answers to. That is when I started reading about Sri Aurobindo and his philosophy and started finding answers about life and the cosmos to which I belong."

KAMALA

"I was born and brought up in Auroville. I studied in Udavi school upto tenth standard (structured earlier and changed to free progress now). I was doing embroidery in a company. I joined Pre-crèche and worked for two years there. My son was studying in Deepanam and he told me that the teachers in the school were talking about getting in more teachers. I came and spoke to them and asked them if I could teach Tamil. So I joined Deepanam in 2003 as a Tamil teacher. Now my son studies in Kuillapalayam Trust School in eighth grade. My husband also shifted to Auroville.

Now I am in-charge of the library, classrooms and learning materials. I also substitute a teacher if he or she is absent. I teach oral and written Tamil. I prepare the words and tell them to make sentences orally. I help them with the alphabets and words. For Tamil children, I give them a few exercises from the textbook but for non-Tamil children, I work on the basics. I prepare names of fruits, animals, etc. Suppose they have to say 'I don't like this fruit or I like this fruit', I help them say it in Tamil. We have

games and through those games we teach them spoken Tamil. It becomes fun that way.

I teach Tamil from first grade to fifth grade. These are in the form of alphabets, stories, songs etc. We also help them in practising the pronunciations. They have to answer the questions we ask them in Tamil. So it becomes day to day, conversational learning rather than a classroom exercise. Question answers, notebook exercises, games are the activities I do with them. I usually plan my classes but sometimes it is impromptu as well. I monitor them lesson by lesson. Since the Tamil script is a little difficult, some children have a problem picking it up; so some take longer time to learn. We take individual classes for them.

In the afternoon I do craft exercises with the kids. These are out of choice and include stitching, embroidery, bracelets and origami. I also help the class teachers for various activities that they have planned. It is a loose and non-strict system. So there is multiple role playing in this school."

ADELE

"I first visited Auroville in 2004 and then I came to settle in 2005. My daughter is an Aurovilian. She used to work in Deepanam, and I joined as a helper. Now I am here and my daughter is in Germany. She wanted to study more in Berlin.

In my school, I learnt in German. Soviet Union is a closed place. You cannot meet another country's people but it is not like that here. I understand everything here. I couldn't speak English but that's not a limitation here.

I used to take care of books, help serve lunch and do gardening. Slowly I realized no one in this school did clay. This material doesn't need a language. So we started clay. Its been 3 years. Though you can't see results like glazes or colors, but it is fun to do. Sometimes we do use other schools' studios or pottery studios. We also do sandbox which is like a therapy for children. A silence corner of sorts. They take what they like and make stories with them. I like flowers and flowers like me. So I take gardening also. I like school. People run after certificates, this is not the place for them. Children come here because Aurovilian people are not after papers but the issue is you

can't really go anywhere without education. You need degrees. Its okay if you live here, but if you go abroad, then you do need papers to show your education.

Gardening is done once a week for an hour. We have flowers, fruits, vegetables; each in a different closure. It is childrens' choice. Experiments are done in the pots and if it grows fine, then they're planted in the soil. Now we are growing salad as well. We have brinjal, rosella, chillies, pineapple, beans, banana, papaya plants in the garden. Whatever we grow we cook here and eat. The kids love that. The children really enjoy it. For Horses, Giraffes and Rainbows, gardening happens here. Unicorns and Lions don't have much time to come as much but they do projects related to plants and visit the gardens of Auroville (Botanical Garden, Buddha Garden, Pitchandikulam etc.) where food is grown in larger scale.

We plan beforehand what we are going to plant. A gardener helps up prepare the soil and the children plant the seeds. When it grows enough, they harvest as well. They experiment with multiple cropping too."

FALGUNI

"I came to Auroville after my marriage in 1996. I didn't know anything about this place before I came here. I was really amazed that such a place existed on the face of the earth. I did my graduation in English but only after coming here did life start. It is here I actually thought about my interests, about myself, what I like doing. When I came here, I felt so relaxed, getting a space I had never felt before.

The team that ran the school before us, was very dedicated but they changed the education system too frequently. That time we were parents, and we got too concerned about what was going to happen. At one point, we did trust the teachers, we had faith. But the teachers themselves wanted to back out. They approached us and said they wanted to merge the school with another one. That's when we thought we'll try running the school as parents. Whatever whenever we read about educationists and systems of education, we realized we don't have to go anywhere. Sri Aurobindo and The Mother have envisaged it already for us. This is where we are! Over the last 1.5 years, we have grown double. People have started seeing the need for an alternative.

I'm with the youngest group. I make them get used to the place as they're fresh out of KG. I do English with them, very basic reading and writing,

Geography and Maths. The young kids are so open. They become so happy when they're able to read. At the age of 7, their mind develops. They ask questions. They like discovering things. They're full of wonder. For English, if we start with vowels, I tell them they're helpers to read. That's how we start our reading process. When they're little confident about them, then we slowly go to more advanced level. We try to make the whole process very organic. It is not one after the other. But from one, comes the other. And since English is anyways a tricky language and a lot of phonetics are involved, sight words are seen time and again so they can remember through frequent seeing. We have to spend a lot of time with them in spellings and sentences too.

It is actually very very organic. Like, the other day we went to Rajeev's Life Science room. The kids were like, lets get one of the aquariums to our class. Then I told them, we can't have fishes because we don't know how to raise them. Then we started our project on fishes to learn more about them, how they eat, how they breathe, how to clean up the aquarium. Then at the end, we got a gift – an aquarium for our classroom. The next project was Myself. They had to think about themselves, what they liked, what interested them etc. lot of drawings are done at this stage, because that is true, they can't read and write that well. Behind all this is a

process that we can't really document. We have a lot of games for Geography and Maths. Sometimes they get scared of numbers. That is not really their cup of tea, so each one is dealt with individually, not on the blackboard. Each child does something different at his own pace. Some take longer to do it, some do it real fast. But at the end of the day, they play together. So, no matter their academic differences, in their free time, they're together. That is what makes each one special. There is no competition.

We are very open to teachers. Even though they're visiting Auroville for a brief while, we ask them to come and take workshops. If someone is good with paper or clay, or whatever material, they visit us and help kids learn that. So there's a variety for kids to explore. There is no restriction. You can't feed them with information. Education is developing the kids faculties by getting them interested in something.

Concentration is the basis of any work you do. There are small things to learn in every class that you can't learn otherwise. For example, there's this class on Fridays, Archaeology class. My daughter, one day, after returning from that class said 'Mumma, Popo taught us how to sharpen a pencil with blade'. Amazing isn't it? That is what they train the kids to do, appreciate beauty in the small things of life.

We go to Ashram school from time to time for inspiration and ideas because we're not trained teachers. We learn in the process of making kids learn. We refer to a syllabus but that is only for us, not for the kids. We refer to Ashram school, Transition school, CBSE and several others but work according to our capacity and the child's. So there's a balance between totally free progress and a structure within which one is supposed to work."

SAMUEL

"I came here 4 years ago. I was studying Laws and Rights in France but I discovered that a lot of things weren't going the way I wanted them to. So that was the period when I asked myself a lot of questions. I watched a documentary about India. I saw the Masterplan of Matrimandir. I didn't know what it was. Wondering what it was, I figured out on the net it was Auroville. I came here.

I started to work in Matrimandir, cutting the grass. Then I was the silent keeper. At the same time I started working in Auroville radio. That's how it started. I did that for a year and then I left it because I didn't want to spend the whole day in front of the computer. Then I started to work in the library and a friend of mine decided to move the library to Deepanam school. That's how I came here. My original work here was to manage the library but now am doing Computers, French and Capoeira.

I don't follow any methodology. I just do what the kids like to learn or what they like to do. For example, in Capoeira, I don't teach them anything. I prefer them to find their own movements. For Computers, some do programming (language C), some just play games, some just type, some do

graphics/ paint. I stick to what kids like doing, not what they're supposed to be doing. I don't know what model of education I believe in, but I know what I don't believe in. When I was a child, I was wondering why I did Maths. Though I was good at it, I still wondered why. No one ever knew why we did it. Today it is useless for me. They pushed me to learn English, which I never liked. In eight years I couldn't learn anything. Only when I came to India, I picked up the language because I wanted to, because it was needed. That is what. I don't like pushing children to do what we want them to do, but what they want to do. We spend few days to discover what they want. I don't even like calling myself a teacher. I think we are not able to teach anything. We just help kids get what they want.

I refuse myself to read anything by Sri Aurobindo and The Mother because I want to find my own path. It is not that I am not interested, but I want to have my own realizations. I try things. If they work, they work. If they don't, so be it. I try to see what I can do with things. I feel very close to what they have said, what they wanted, I know things about them but I choose not to read anything. I want to know who I am, what I want to do and how I want to do things, not what others have already said."

UTPAL

"I was born in Surat but we shifted to Pondicherry when I was four. My mother had visited Pondicherry once as a tourist and she instantly fell in love with the Ashram because of the many possibilities of sports, extra-curricular activities, just the atmosphere there. That time the family wasn't very happy with the decision and they thought it was quite crazy shifting from Gujarat to Pondicherry, which back then wasn't a very touristy spot. It was quite isolated and remote. My mother was quite adamant so we've been here since then.

A student of ecology, I did my kindergarten to graduation from Sri Aurobindo International Center of Education in Pondicherry. It was founded by The Mother on Sri Aurobindo's philosophy and is based on integral education. That means you have four layers of a personality – the physical (body), the vital (emotions), the mental (intellect) and the psychic (soul). The integral education is aimed at developing each one to their utmost capacity. I have been through this system for nineteen years. Later I was interested in the natural world and I was very curious. I studied Indian philosophy in college and then I felt like I actually needed something more hands-on. So I wrote the entrance exam for a Masters course in Ecology and Environmental science in Pondicherry University. I completed my Masters from there.

The free system in Ashram begins for most kids at the age of eighteen. By then you're expected to be mature enough to at least know what you want to do. College is actually when the free system actually comes in. They're trying it now with earlier standards and I was part of one such experiment. They start giving freedom from the age of sixteen. They select certain students who the teachers unanimously agree to. They are selected on the basis of certain capacities, certain talents that they have. For them the teachers feel that they can move forward on their own. So they choose kids whom they think would have the right balance of discipline and a talent that they'll be able to cultivate if they had more free time to themselves. So they follow their passion in their free time. After eighteen, you're free to choose the subjects you want to follow and with which teacher you want to follow. That is the free system.

The whole idea in Ashram School is basically to keep the student-teacher ratio very low so that the teacher can give attention to each student because finally in Ashram we don't have exams and no grade system. We move on to the next level based on the evaluation of the teachers. The teachers can do that best if they have a one on one rapport with the students whereas when you go outside, the ratio is terribly high. Since the teacher can't

give much attention to each one, hence we have examinations, a more objective way of grading and 'judging'. In the Ashram, the teacher to student ratio is 1:4. The maximum any teacher can guide is eight students. So we choose our subjects, teachers and we make up our time-table (we have a minimum number of periods that we have to have, that way they make sure that you're not spending your time doing nothing). There is a minimum of 'major' subjects that one has to do (subjects that have to be done in depth and reflect a certain mastery of intellectual capacity). At the end we get certificates stating the subjects we have studied. They have an understanding with the Government of India that this will be equivalent to either a B.A. or a B.Sc. degree depending on the subjects one has done.

But in general, I feel India is not fair to its students. Educational setup in India is not conducive to students. It is almost anti-students. It might be controversial to say this but we don't show our students enough respect. I might not be the best person to make this remark as the place I have grown up in is quite different. I have just had two years of experience in Pondicherry University. That left a bad after-taste but that was the chance when I got to see the outside world. We are 'protected' in the Ashram in the real sense. Only when I stepped out of my little cocoon I saw the real picture.

Ashram is kind of a utopia for students. I have no doubt that if the free system of education is implemented well, it is definitely better than the structured schools. But again, the children should know that freedom is not the sense that you do what you want but you have the freedom to choose something and do it well. Because in free system the child might end up doing nothing, which does happen, but at the same time you have to see that the teachers' responsibility is to see that it is implemented in a way that the child doesn't end up doing nothing. So freedom is in the choice of where you want to go with your education not whether you want to get educated or not; and education I don't mean in the strict sense of the word. Education is not only arts and sciences but following your passion and doing it well.

I am still a little confused about what exactly I am going to be doing in life but I know it is in the line of research. I am also interested in popularizing science; something that will keep me facing challenges. Larger aim is a little hazy right now as I am walking the line between science and art. Science appeals to me. At the same time I like to express what I learn in science. I like to share it in a way which is interesting for everyone.

I knew Rajeev because he is a pass-out from the Ashram School and he is a Gujarati. We had met

in several occasions before and we were in touch. He had requested to help him out and kept telling me that working in Deepanam is always an option open for me. I thought I should give it a try. I am here for two months, the 'probation' period.

My first responsibility in the school is to look after the Life Science lab. Since Rajeev believes a lot in eco-education, and he thinks that Auroville for obvious reasons is a place to start doing that. Here we keep all sorts of animals, insects, sometimes we rescue snakes so we keep snakes, fishes, birds. So basically he wants this place to grow in the sense that it becomes a part of the curriculum of the school so that students can come here and do projects on butterflies, etc. This place could work like a repository. Whatever they collect from the garden they can come and deposit here. So my first task is to look after this place and see to it that everything is in order. In the same context, I am helping him in documenting the common snakes of Auroville. This place is a snake-haven. We are also trying to bring out a journal on eco-awareness for kids. It'll basically have material written by the kids on ecology or the local wildlife.

My second responsibility is to teach Mathematics to four kids from the Unicorns. These four kids are supposed to be slow in the sense that their way of thinking is not really helping them keep up with the rest of the class. So my task was to initially get them interested. I asked them to find out why they didn't like Maths. One of them found it boring, one was scared of numbers, one didn't like her previous Maths teacher, one didn't like it because it was too bookish and not hands-on. So, then I worked on it. Now I try to make it interesting for them, make worksheets, plan games, make quizzes, offer brownie points to the one who solves it fast etc. and make it less abstract. I try and sustain their interest by making each class different from the previous one, weave stories around the problems we do, have the classes outside under the trees etc. I also teach sports in the evening. Basically Rajeev being from the Ashram School is trying to replicate the system of integral education here. So sports is compulsory for the kids who study here. They have athletics, games, swimming, and gymnastics. So I go to Dehashakti ground and pitch in wherever help is needed."

RAJEEV

"I have been in Auroville since 1992. I graduate from Ashram School. I was always attracted to the greens of Auroville, the major reason why I chose to be here. As a teacher I was with the sports program for over ten years but four years back, I got involved with Deepanam. I was never aiming to become a teacher. Teaching has come to me in a very unusual way. I was working in Auroville with green workers. My line of study was more towards reptiles and birds in Auroville. Doing that, I automatically got involved with children who are so naturally amazed with wildlife. Slowly more and more kids got to know about my research and they used to come with spicemen and ask questions. That is how my first interaction happened with children. Then it developed so smoothly, this relationship between wildlife, children and me. I oriented my research towards the children then.

There are so many myths about snakes which I try and dissolve. People fear snakes so much that anything that looks like it, they try and kill. Not all snakes are poisonous. That is the awareness I want to spread. It is hands-on knowledge. I started working with forest communities and now schools. Today, in the world, there is so much stress, demands from parents and society which kill children. In Deepanam, they grow without these interferences. We believe this dream, that Auroville is, cannot succeed if our youth is not participating

in it. This dream is very much to do with Karma yoga. It needs people with strength, vision, action and power. We need people who want to make it happen. The best people are the children who grow up in Auroville. If they can be helped to understand Auroville, not for the beauty it is but for the dream that has to be realized. They need to feel that drive to do simple things like farming, growing your own food, building electronics and technologies that are for better development of mankind, etc. We do projects in Deepanam that constantly link children to Auroville. People thought Aurovilians were a bunch of crazy guys but I always knew this was my place. This place has really grown in the last few years. It is out of the worldly issues of making money, getting salaries, having a secure job etc. People really love what they're doing here. They live for what life is, spend time with their close ones, take relaxed walks in nature and live peacefully.

Coming back to Deepanam, our children should grow in the luxury of enjoying life, not to be cramped with information or be forced of anything. They are just encouraged to follow their dream. Farming is not something to be laughed at. If someone likes it, he likes it. Many of our kids dream about having a farm, looking after animals, etc. Why not! We don't really have any guarantee about what kids will eventually do. We wish that they stay in Auroville for good and work for it."

References

BIBLIOGRAPHY

- * Sri Aurobindo, The Genius of India, Editions Auroville Press International, 1997
- * Sri Aurobindo and The Mother, On Education, Sri Aurobindo Ashram Press, 1956 (first edition)
- * Sunil Behari Mohanty, Theory and Practice of Integral Education, Manu Publications, 2007
- * Jane Sahi and Roshan Sahi, Learning Through Art, Eklavya publishers, 2009
- * SAIER Annual Report 2008-2009, Vol. 1
- * The Auroville Adventure, AV Today
- * The Auroville Experience, AV Today

IMAGES SOURCES

- * Page 4: <http://picasaweb.google.com/>
- * Page 6, 8, 12, 24: <http://images.google.com>
- * Page 16: Martin Scherfler, Auroville
- * Page 18: Malia, Australia
- * Page 20, 26, 28: Vimal Bhojraj, Auroville
- * Page 22: Mamata Volvoikar, Goa
- * Page 32, 42, 46, 48-58: Deepanam imagebank

WEBSITES

- * http://en.wikipedia.org/wiki/Holistic_education
- * http://en.wikipedia.org/wiki/Multiple_intelligences
- * http://en.wikipedia.org/wiki/Montessori_method
- * http://en.wikipedia.org/wiki/Lev_Vygotsky
- * <http://www.alternativeeducationindia.net/>
- * <http://www.funderstanding.com/about-learning>
- * <http://www.ddding.in/ddd.html>
- * <http://www.freedom-in-education.co.uk/steiner.htm>
- * <http://www.indiaedu.com/education-india/elementary-education.html>
- * <http://www.theviewspaper.net/education-system-of-india-its-functions-drawbacks-and-its-contribution/>
- * http://www.prayatna.typepad.com/education/alternative_education/
- * http://www.india.gov.in/sectors/education/education_guarantee.php
- * <http://www.permaculture.co.uk>
- * <http://www.sriarobindoashram.org/>
- * www.auroville.org
- * www.auroville.com

Contributors

Akash, EV-Future
(designing electric eco-friendly two wheeler solutions, solar electric vehicle charging station)

Alok Mallick, Auroville Renewable Energy, CSR
(renewable energy, solar photovoltaic systems, micro-hydro systems)

Anandi, KOFPU
(raw food, vegan products, education)

Carsten, Auroville Energy Products
(solar photovoltaic systems and components)

Danny, WELL Paper
(handicraft production, recycling paper)

Lucas Dengel
(water management, hygiene, sanitation)

Marc, Coffee Ideas
(organic coffee, holistic food systems)

Min, Auroville's Center for Scientific Research (CSR)
(renewable energy, carbon offsetting)

Priya Vincent, Buddha Garden
(sustainable agriculture, organic farming, education)

Satprem Maini, Auroville Earth Institute
(earthen architecture, disaster resistant buildings, building technologies, holistic architecture, heritage conservation of earthen buildings)

Suhasini Ayer Guigan, Auroville Design Consultants
(sustainable human settlements and building technologies, solar passive design)

Tlaloc Tokuda
(environmental activism and education, water management, sustainable development)

Toine van Megen
(renewable energy, infrastructure development, energy planning)

Tomas, Annapurna farm
(organic farming, cereal grains, dairy, horticultural practices)

Meenakshi Dangi
(naturopathy, eye therapy)

Raghu and Martin, Auroville Collaborative

Deepanam School team
(students and teachers)