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RITAM

Volume 3 Issue 2  
FEBRUARY 2006

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**PUBLISHED & PRINTED BY**

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Sri Aurobindo International Institute  
of Educational Research

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Auroville - 605 101

Tamilnadu India

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<http://www.auroville.org/index/ritam.htm>

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**PRINTED AT**

ALL INDIA PRESS

Kennedy Nagar

Pondicherry 605 001

India

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*We thank the Sri Aurobindo Ashram Trust,  
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**CONTENTS**

2 Man, the Thinking Animal (*poem*) .... *Sri Aurobindo*

3 Towards a True Scientific  
Psychology ..... *Sri Aurobindo*

6 Udavi-Challenges of an Educational  
Experiment in the Village ..... *Sanjeev Aggarwal*

10 Meditation And Painting  
- a Research Project` ..... *Claire Le Touze*

15 Redemption  
through Art? ..... *Heinrich K. Weihrauch*

18 Can Architecture lend itself to a change  
in consciousness? ..... *Mona Doctor-Pingel*

20 Auroville Earth Institute ..... *Satprem Maini*

26 On Thought - II ..... *The Mother*

# *Man, the Thinking Animal*

*Sri Aurobindo*

A trifling unit in a boundless plan  
Amidst the enormous insignificance  
Of the unpeopled cosmos' fire-whirl dance  
Earth, as by accident, engendered man:

A creature of his own grey ignorance,  
A mind half-shadow and half-gleam, a breath  
That wrestles, captive in a world of death,  
To live some lame brief years. Yet his advance,

Attempt of a divinity within,  
A consciousness in the inconscient Night,  
To realise its own supernal Light  
Confronts the ruthless forces of the Unseen.

Aspiring to godhead from insensible clay  
He travels slow-footed towards the eternal day.

*Sonnets - undated*

# *Towards a True Scientific Psychology*

*Sri Aurobindo*

When the ancient thinkers of India set themselves to study the soul of man in themselves and others, they, unlike any other nation or school of early thought, proceeded at once to a process which resembles exactly enough the process adopted by modern science in its study of physical phenomena. For their object was to study, arrange and utilise the forms, forces and working movements of consciousness, just as the modern physical Sciences study, arrange and utilise the forms, forces and working movements of objective Matter. The material with which they had to deal was more subtle, flexible and versatile than the most impalpable forces of which the physical Sciences have become aware; its motions were more elusive, its processes harder to fix; but once grasped and ascertained, the movements of consciousness were found by Vedic psychologists to be in their process and activity as regular, manageable and utilisable as the movements of physical forces. The powers of the soul can be as perfectly handled and as safely, methodically and puissantly directed to practical life-purposes of joy, power and light as the modern power of electricity can be used for human comfort, industrial and locomotive power and physical illumination; but the results to which they give room and effect are more wonderful and momentous than the results of motorpower and electric luminosity. For there is no difference of essential law in the physical and the psychical, but only a difference and undoubtedly a great difference of energy, instrumentation and exact process. The Supreme Existence which expresses itself equally in soul and matter, moves upon one fundamental principle on all its sevenfold levels, and even by one set of medial processes, but It varies their minute arrangement and

organic functioning to suit the material which it is using and the objective which it has set before Itself in Its divine movement.

Exact observation and untrammelled, yet scrupulous experiment are the method of every true Science. Not mere observation by itself – for without experiment, without analysis and new – combination observation leads to a limited and erroneous knowledge; often it generates an empirical classification which does not in the least deserve the name of science.

The old European system of psychology was just such a pseudo-scientific system. Its observations were superficial, its terms and classification arbitrary, its aim and spirit abstract, empty and scholastic. In modern times a different system and method are being founded; but the vices of the old system persist. The observations made have been incoherent, partial or morbid and abnormal; the generalisations are far too wide for their meagre substratum of observed data; the abstract & scholastic use of psychological terms and the old metaphysical ideas of psychological processes still bandage the eyes of the infant knowledge, mar its truth and hamper its progress. These old errors are strangely entwined with a new fallacy which threatens to vitiate the whole enquiry, – the fallacy of the materialistic prepossession.

Psychology ought to be rather than is the science of consciousness and of the motions of consciousness as distinguished from the science of form and of the motions of form. We are dealing, therefore, in psychology with a more subtle, flexible and versatile material than in the physical sciences; its motions are more elusive,

its processes harder to fix; but when once grasped and ascertained, its laws and activities are found to be quite as regular, manageable and utilisable as the processes of physical Nature. They give room to even more wonderful and momentous results. There is no difference of essential law in the physical & psychical, but a great difference of instrumentation and exact process. For the Supreme Existence moves on one fundamental principle or one set of principles in all its manifestations, but varies its organic arrangement and functioning of the principles to suit the material which It is using & the objective which It intends to reach. In both fields observation & experiment are the only sound foundation of knowledge. But observation without experiment leads only to a limited and erroneous science, often to an empirical system of surface rules which do not deserve the name of science at all. It is this defect which has so long kept European psychology in the status of a pseudo-science; and, even now when real observation has begun & experimentation of an elementary kind is being attempted, the vices of the perishing sciolism mar and hamper this infant knowledge. It has not rid itself of all its old scholastic swaddling clothes; therefore it still walks on all fours and cannot yet learn to stand up erect and walk.

Psychology is the science of consciousness and its status and operations in Nature and, if that can be glimpsed or experienced, its status and operations beyond what we know as Nature.

It is not enough to observe and know the movements of our surface nature and the superficial nature of other living creatures just as it [is] not enough for Science to observe and know as electricity only the movements of lightning in the clouds or for the astronomer to observe and know only those movements and properties of the stars that are visible to the unaided eye. Here as there a whole world of occult phenomena have to be laid bare and brought under control before the psychologist can hope to be master of his province. Our observable consciousness, that which we call

ourselves, is only the little visible part of our being. It is a small field below which are depths and farther depths and widths and ever wider widths which support and supply it but to which it has no visible access. All that is our self, our being, – what we see at the top is only our ego and its visible nature.

Even the movements of this little surface nature cannot be understood nor its true law discovered until we know all that is below or behind and supplies it – and know too all that is around it and above.

For below this conscient nature is the vast Inconscient out of which we come. The Inconscient is greater, deeper, more original, more potent to shape and govern what we are and do than our little derivative conscient nature. Inconscient to us, to our surface view, but not inconscient in itself or to itself it is a sovereign guide, worker, determinant, creator. Not to know it is not to know our nether origins and the origin of the most part of what we are and do.

And the Inconscient is not all. For behind our little frontal ego and nature is a whole subliminal kingdom of inner consciousness with many planes and provinces. There are in that kingdom many powers, movements, personalities which are part of ourselves and help to form our little surface personality and its powers and movements. This inner self, these inner persons we do not know, but they know us and observe and dictate our speech, our thoughts, feelings, doings even more directly than the Inconscient below us.

Around us too is a circumconscient Universal of which we are a portion. This Circumconscience is pouring its forces, suggestions, stimulus, compulsions into us at every moment of our existence.

Around us is a universal Mind of which our mind is a formation and our thoughts, feelings, will, impulses are continually little more than

a personally modified reception and transcription of its thought-waves, its force-currents, its foam of emotion and sensation, its billows of impulse.

Around us is a permanent universal life of which our petty flow of life-formation that begins and ceases is only a small dynamic wave.

Psychology is the science of Consciousness; it is the knowledge of its nature, its processes and the aim or results of its processes, its law or laws of being, its habitat and instruments, its what, why, where, whence and whither.

But what is consciousness and can there be a science of consciousness? We are not in presence of a body of concrete, visible or sensible facts, verifiable by all, which form an indisputable starting-point, are subject to experiment and proof, where theories can be tested at every point and discarded if they do not accord with the facts, with all the facts. The data here are subjective, fluid, elusive. They do not subject themselves to exact instruments, can lend themselves to varying theories, do not afford proofs easily verifiable by all. Their presentation is difficult and can hardly be more than scanty and often infantile in their insufficiency. Theories are numerous, but few or none have any solidity or permanence.

To understand the psychology of others we depend upon our observation of them and our own interpretation of the movements we observe and our comparison with our own psychological actions and reactions. But our observation is limited by the fact that what we observe is not the psychological events we wish to study but signs of speech, action, facial or bodily expression which seem to us to indicate them; but it is still more limited by the possibility of error in our observation and still more in our interpretation. Errors of wrong attribution, exaggeration, diminution, false [?evidence], false valuation, crop up at every turn; indeed, the whole observation may be nothing but error, the interpretation purely personal and mistaken.

Comparison with ourselves may be a fruitful fountain of mistakes; there is no doubt a general similarity in the mass of human reactions, but the differences and variations are also marked and striking; there is here no source of certitude. A direct experiential and experimental psychology seems to be demanded if psychology is to be a science and not merely a mass of elementary and superficial generalisations with all the rest guesswork or uncertain conclusion or inference. We must see, feel, know directly what we observe; our interpretations must be capable of being sure and indubitable; we must be able to work surely on a ground of sure knowledge.

Modern psychologists have aimed at certitude in their knowledge, have found it or thought they found it by mixing up psychology and physiology; our physiological processes are supposed to be not only the instrumentation or an instrumentation of our consciousness, but the base or constituents of our psychological processes. But by this method we can only arrive at an extended physiological, not at a true psychological knowledge. We learn that there is a physical instrumentation by which physical things and their contacts work upon our consciousness, reach it through the nerves and the brain and awake certain reactions in it which may however vary with the brain and the consciousness contacted; we learn that the consciousness uses certain physiological processes as well as physical means to act upon outward things and conditions; we learn too that physical conditions have an action upon our state of consciousness and its functionings. But all this was to be expected, since we are a consciousness embodied and not disincarnate, acting through a body and with a body as a habitation and instrument and not a pure consciousness acting in its own right[.]

# *Udavi – Challenges of an Educational Experiment in the Village*

Sanjeev Aggarwal

*“No, there will be a primary class problem for the whole population...for Auroville. And that will be an interesting problem: how can we prepare the children, children taken from anywhere, who have no way of learning at home, whose parents are ignorant, who have no possibility of having any means to learn nothing, nothing, nothing but the raw material, like that—how can we teach them to live? That will be an interesting problem.”*

**The Mother**

Udavi Gentillesse School is amongst the first schools started in the Auroville area, on the outskirts of Edayanchavdi village. Presently it has two hundred and seventy students starting at the age of three at the lower kindergarten and going up to matriculation (class X). Studies are conducted in the English medium. Students also study Tamil and some opt for French as a second language in the sixth grade. There is an almost an equal mix of boys and girls and most of them belong to Edayanchavadi village.

Sri Aurobindo International Institute of Educational Research (SAIIEER) took up the management of Udavi school from the Auroshikha Agarbatti company belonging to the Sri Aurobindo Ashram sometime in 1999. This was necessitated as violence broke out in the Agarbatti factory on account of labor disputes and its management took a decision to close the factory adjacent to the school and remove themselves from the premises. The school was also closed for about six months. Responding to the pleas of the parents to open the school, the Auroshikha management entered into an agreement with SAIIEER and the The Udavi Gentillesse School Trust to hand over the management of the school to SAIIEER. Anubh from the Ashram is the director of the school and I am its co-director.

The school as we found it was cast in a traditional mould with the difference that on one day of the week there were only creative activities. There was a daily sports programme and a morning assembly dedicated to prayer. The stress was on rote learning and there were exams each month to ensure that there was no let up in the work of memorizing. The saving grace was the Kindergarten section where teachers prepared innovative learning games and used them in the class.

The challenges have come in the creation of an environment of the school, in making changes in the expectations of the parents of the students, the underlying assumptions of the teachers in what they are supposed to be doing as teachers and the expectations of the children, in what was their role as students.

I would like to share my experience of the last 6 years at Udavi in meeting all these various situations.

## **School Environment**

The physical environment of a school plays an important role in the education of children. A clean and beautiful environment in and around the school stimulates the aesthetic sensibilities and nurtures the psychic being of the children. We are blessed with a very big school campus with a large number of beautiful trees growing in it. No garden could be created in the extensive lands around the buildings as the boundaries of the school were quite porous. Goats, cattle and thieves could easily intrude. The main school area is now completely protected by a compound wall and the bit that remains to be done is in the sports area. The trees needed trimming and some trees needed to be pulled out as they were growing into each other. Improvements on all these areas have been going

on steadily and have not posed any serious challenges. The school campus is beginning to have the feel of a cared-for garden.

When we entered the school, the first thing we found was that there were exams every month, as a revision for what children had studied that month. So, at any given point of time you would find children with open books and note books in the morning walking around in the school memorising their lesson for the pending exam after the morning assembly.

This sight was the symptom of a state of affairs contrary to all that Sri Aurobindo and Mother stood for. So the first thing we did was to stop all these exams. Naturally there was a furious response from the parents who could not understand why this was being done. We had some meetings with the parents and their representatives and by way of compromise, it was agreed that a mid-term and a final exam would be held and that report cards would be issued to the parents so that they could see how their children are doing in their studies.

The next change that we introduced related to the curriculum. It was a tradition in the school to follow certain text books in every subject starting from second standard and the teachers would simply go through the books with the students, give them home work and so to say, cover the course. The whole work of the teacher was to finish the course. Since 1999 till today we have found teachers, who have been trained in other ways of teaching than the lecture method. A number of teachers from Mirambika (a school dedicated to free progress of children which has an extensive teacher training component and is part of the Delhi Branch of the Sri Aurobindo Ashram) have come and they have given another orientation through the project method. They have taken up projects at all levels of schooling except the ninth and tenth grades (at which time the focus progressively shifts to preparing for the Board exam) and started to teach children in a way that they take responsibility for their learning and find interest in their learning. This way of teaching did away with the traditional textbooks that were being used. Once again there

were objections raised from the parents. They could not understand how learning could take place without these books.

Many parents offered to pay for the books, thinking that we were trying to save money by not buying the books for the students. Some even complained they would go to the School board authorities to complain as what we were doing was not permissible. Fortunately for us the matriculation system gives a lot of freedom to the school, to teach in the way they want, and what they want. The prescribed curriculum is for the examination that takes place in the 10th grade level. We did not compromise here and explained to the parents the reasons for what we were doing. We were also fortunate as many teachers trained in the traditional methods who were working with us secured government jobs and left the school. We could then replace them by teachers who knew how to teach in a different way.

The next difficulty came in relation to crafts. As part of the integrated learning programme, we have introduced in our school many crafts like carpentry, clay work, tailoring, and electrical work. There has been a lot of resistance from the parents. They said that they had not sent their children to the school to learn carpentry and things like that. We had also invited the children to take responsibility for the maintenance of the school and participate in the cleaning of the school compound and watering of the plants etc. and there was a great resistance from the parents for this too.

Once again we did not compromise and discussed with the parents and explained to them why we do all these and what positive benefit it could have for their children. Slowly the resistance to this has become less. Yet in the minds of the children there is a feeling that manual skills are not what they come to school to learn. As other schools do not have that then why should they have it?

In relation to this about three years ago we had identified certain students who were academically very weak, and we felt did not have the capacity to prepare for the matriculation exam and that we

would be forcing them to learn certain subjects like physics, chemistry, biology, zoology and maths at a high level, as they were not really interested to study these.

We invited these students to stay in the school but follow a different scheme of education where they could learn things that they really wanted to learn and also master some manual skills so that they could prepare themselves for their future working life. Six students were invited to join this course. They joined reluctantly. The parents opposed the scheme vehemently but accepted only when faced with the alternative that their child would have to leave the school as their child had been regularly failing to secure pass-marks in the examinations. These six students found themselves stigmatised in the school and the other students considered them dull and they themselves started to think of themselves as inferior. This program had to be dropped under the cumulative pressure of these mindsets.

It became clear to us that we had to deal with the mindset of students who were affected by their environment and believed that education is all about passing examinations and ultimately getting a certificate which allows you to take up the next examination and getting the next certificate which will enable you to get a good job. It has taken us a long time – and we cannot say that we are fully successful in our endeavour – to change the mindset. In the school environment we introduced the idea that there is a value in many things apart from doing well in examinations. The idea that different students were good at different things like games, athletics, gymnastics, clay, tailoring, or carpentry or that there are students who have a spirit of adventure or are good in music, dance, painting or theatre has been fostered in our school environment by giving a good amount of time to these activities and properly honoring the achievements in all these areas. Slowly the children are experiencing another meaning of learning and going to school. They experience learning as joyful and as making some progress in themselves. They learn the art of concentration

and the need to making effort and persevere to progress. They begin to have a relationship of trust and friendship with their teachers.

They understand now that the school is meant for them and that it is not possible to live and work here without a basic collective discipline. What follows from this understanding is a self-discipline from the students and almost no necessity of teachers' supervision. This has come as a great relief as the school campus is very large and to supervise every corner of it is next to impossible.

One of the handicaps the village children face is their lack of exposure to a lot that is going around in the world. The introduction of channel T.V. has made some difference yet what they see on the screen is not part of their life in a living way. Their mindsets tend to be narrow, their concerns very limited and their aspirations if any determined by the films – wanting to be a doctor and help the poor – which wear off quite soon. We have used the morning assembly to introduce many types of ideas and people in their lives. Interesting personalities from the Ashram, Auroville and Pondicherry have addressed the students. People from different cultures have presented special features of their culture. We have told serialized versions of the Mahabharat, Ramayan, Bible and Krishna's story. We have discussed issues as they come up either in the village, the country or the world. And students have presented their work to other students and answered their questions. We have practiced making our minds quiet for a progressively longer time. In this way the Morning Assembly of about twenty minutes has been used to stretch their sensibilities beyond what they are able to do in their class rooms.

We observed that the children were not eating properly. The lunch that they brought from home was, in most cases, very meagre and was not a properly balanced diet. Since a year and a half we have decided to provide lunch to the school children. They also receive a morning snack and an evening snack. We find this a basic necessity in the context of a poor village like Edayanchavady.



In conclusion I would like to say that the effort to bring the light of the principles enunciated by Sri Aurobindo and Mother, to the education of the village children has been rewarding and fruitful at one level but frustrating at others. For the first ten years in the school the children begin to flower in many directions and with proper observation and guidance they are nurtured in the direction of their 'swabhava'. But so long as we are linked to the matriculation system of a state board exam, there are obvious limitations to the proper application of these principles of education. Towards the end of their career in the school, the students are restricted to learning only a few areas or 'subjects' as they are called and the curriculum that is set for the subjects is at a very narrow but high level. This precludes the possibility of experiencing and understanding this knowledge for the young minds. They are forced to learn by rote all this information to be reproduced at the examination. It is unfortunate that we have to subject our students to this exercise. But our hands are tied as any effort to de-link

ourselves from the board examination will make the school and its programme quite useless in the minds of the parents and there is a certainty that they will remove their children from our school and put them in some other school offering certificates of the recognized boards. The gains of the first ten years still justify the problem of the "exam years" at the school. It has been observed by many who visit the school that the children exhibit an openness in their personality, a capacity to think for themselves, are able to express themselves in English quite well and are capable of taking up responsibilities. All these are considered quite unique for a village school.

We can only hope that possibilities of a free progress system of education will be available to students in India in the near future and that a united plea is made to the government to do away with standardized tests and make the syllabus flexible to suit the needs of different students.

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*For about a century mankind has been suffering from a disease which seems to be spreading more and more, and in our days, it has become most acute, it is what we may call "utilitarianism". Things and persons, circumstances and activities seem to be viewed and appreciated exclusively from this angle alone. Nothing has any value unless it is useful. It goes, of course, without saying that what is useful is better than what is not so. But one must first of all understand what one calls useful — useful to whom, to what, for what?*

*Indeed, more and more, the races which considered themselves civilised have been naming as useful that which serves to bring, to acquire or to produce money. Everything is judged from this monetary angle. That is what I call utilitarianism. And this disease is very contagious, for even children do not escape from it. At an age when one should have dreams of beauty and greatness and perfection, perhaps too sublime for ordinary common sense, but certainly higher than this dull good sense, they dream of money and worry how to earn it.*

*So when they think of their studies they think above all of what can be useful to them, so that later on when they grow up, they can earn a great deal of money.*

*And the thing that becomes most important for them is to prepare to pass examinations with success; for it is with diplomas and certificates and titles that they will be able to get good positions and earn much.*

*For them study has no other purpose, no other interest.*

*To learn in order to know, to study in order to have the knowledge of the secrets of Nature and of life, to educate oneself in order to increase one's consciousness, to discipline oneself in order to be master of oneself, to overcome one's weakness, one's incapacity and ignorance, to prepare oneself in order to progress in life towards a goal that is nobler and vaster, more generous and more true ... they hardly think of that and consider all that as mere utopia, the only important thing is to be practical, to prepare and to learn how to earn money.*

*Children who are affected with this disease are not in their place in the Centre of Education of the Ashram. And it is to demonstrate this to them that we do not prepare them for any official examination and competition and do not give them diplomas or titles which may serve them in the outside world.*

*We want to have here only those who aspire for a higher and better life, who are eager for knowledge and perfection, who look ardently towards a more wholly true future.*

The Mother  
From the Bulletin of Sri Aurobindo International Centre of Education  
(Sri Aurobindo Ashram, Pondicherry), August 1960.

# Meditation and Painting – a Research Project

Claire Le Touze



**Question :** *Mother, would you please define in a few words what you mean essentially by "FREE PROGRESS"?*

**Answer:** *A progress guided by the soul and not subjected to habits, conventions or preconceived ideas.*

## **The Mother on Education - P 171**

Arno Stern, a Swiss-German living in Paris and having a painting atelier for children since 50 years, has developed the concept of the "Formulation". The "Formulation" is a universal language manifesting itself as a set of signs which appears in the paintings of children and adults alike when they are given the opportunity of expressing themselves freely in certain conditions, which are:

- a "Closlieu" or safe, quiet enclosed space which protects the participants from outer influences and outside pressure
- a group dynamic(s) : "the activity in the Closlieu allow the individual to realize himself among others rather than against them" (Arno Stern)
- high quality of the materials and learning of a good technique: right position of the wrist and the hand which holds correctly the brush, and good body posture.
- The presence of a practitioner whose role is to be the servant of the participants.
- The absence of judgement and comment about

the paintings which are not meant to be shown but are kept by the practitioner.

Those "tracés de la mémoire" (Arno Stern) or drawings of collective memory include prenatal sensations: the children draw the evolution of the organism's formation and go symbolically through those different phases again.

To paint in the "Closlieu" is a joyful and deep event which cannot be explained in words. The children paint standing in front of big sheets of paper (about 50 x 70 cm) which can be extended on all sides by adding new sheets of paper. A good posture and the control of the technique are essential for the child to express himself fully. If he does not hold correctly the paint brush, he will stain himself, his hand will get tired quickly and his joy of painting will be less intense. On the contrary, a good technique will allow his whole body to participate. His hand not touching the paper and his free wrist let him paint with big movements: children of 5 or 6 years can paint easily precise big circles, rainbows, etc.

The social experience and the group dynamics (which includes ideally between 12 and 15 people of mixed ages) are essential as well. Children of the same age have a tendency to compare each other. However in the Closlieu, there is no reason to compare each other: the Formulation is a universal phenomena present in each one of us and does not belong to anybody in particular. It happens that the same signs appear simultaneously within a same session, but each person will express them in his unique style. This activity stimulates an harmonious bond among the participants: they are "compagnons de jeu" (A.S.: game partners).

This concept of Arno Stern seems particularly appropriate to Auroville where we aim at unity



*Photos by Nathalie Nuber*

within diversity. This way of painting, the Formulation, is neither art nor art-therapy but, as Arno Stern explains it, it can be a preventive to therapy because it stimulates creativity, autonomy and the ability to deeper concentration. The result is not the painting in itself, (the external manifestation), but is within the child internal manifestation that Arno Stern calls the "Plusêtre". When I started to work at the Kindergarten in 1999, I did not know the work of Arno Stern. However, I had offered many classes since 1987 where adults and children could paint freely and I had noticed that some signs repeat themselves and appear universally. But it is here in Auroville that I realized how much very young children need to "trace" those signs. In 2000, I began to take regularly some photographs of the paintings. In between free painting sessions, I inserted some classes in which the children had to produce some technical exercises like the "chromatic circle". Then I noticed that even very young children are able, if well prepared, to achieve elaborated exercises. But I felt it was more essential for them to express this organic language. I felt also it would be interesting to connect this work to the spiritual dimension of Auroville by trying to follow Sri Aurobindo and the Mother's teachings. In 2001, with Fabrice from Savitri Bhavan, we organized a drawing session for 5 years old (blue group of Kindergarten). The children began with a short meditation then could come and sit each in the center of one circle of Flowers made of "psychological perfection". from Matrimandir Nursery, where they would find round pieces of paper and pastels. The children could then draw with Sunil's music of Savitri in the background. It was a wonderful and very inspiring moment for both children and adults. Now, how could I carry out in the regular sessions such a peaceful and concentrated atmosphere? I introduced a short meditation before starting to paint. I noticed a depth, a calm and a radiance from the depth of the being that did not appear previously. From August to November 2001, I offered a painting session for adults within a program named "one afternoon with Savitri", again in Savitri Bhavan. After meditating, the participants were painting while listening to Savitri's music by Sunil.

I was using a book "Children art through meditation – A book of peace" by Marguerite Smithwhite, an English lady disciple of Sri Aurobindo and the Mother who lived in Auroville in the early seventies. She was then teaching biology to children and she conceived an original educative material. She then travelled around the world, for more than 20 years and she created the "Children Peace Council". Peace remains at the center of Marguerite Smithwhite's work and she explains how to transmit to children that in order to establish peace on earth, one has to start to establish peace within oneself. While meditating one can call peace to come within and make it radiate towards others.

By chance in 2002 Marguerite Smithwhite settle in Pondicherry and offered every Saturday from March 2003 till March 2004, a training for the teachers of Auroville in which I took part among teachers from Udavi, Kindergarten, Deepanam and Transition Schools and the Pyramid (Auroville Art School). The method she taught us "A new education with a soul" is based on "The Life Divine" by Sri Aurobindo and uses educational materials that she designed. The children are led to discover that everything is alive, that the Divine is everywhere, that there is consciousness even in stones ("Thy joy is there in every leaf and stone" Sri Aurobindo) and that a human being has different parts: physical, subtle physical, vital, mental and psychic being and Jivatman.

One exercise is to meditate holding a stone in one's hands and to charge it with peace. The children will see the increase of light in the stone during meditation on "Kirlian Photographs". Some others "Kirlian Photographs" show that the aura of the fingers changes: one can see an increase of light after a meditation on peace. Beauty and colours appear after chanting mantras and prayers. However, the aura becomes ugly and damaged after being angry or taking drugs. These discoveries have an impact on the children.

Doris and Namah, teachers in Deepanam School and myself experimented Marguerite Smithwhite's method in the school - years 2003-2004 and 2004-

2005. Doris brought her group of children (7-8 years) to the painting room. Namah, an experienced yoga teacher, directed the meditations and "OM" chanting and I organized the painting. This year, this activity is offered as free choice for the students of Deepanam school between 7 to 10 years, unfortunately without Namah. Since two years, Nathalie an experienced children photographer is taking regularly beautiful photos of the children and the paintings. Some of the paintings, photos taken before I started to practice the concept of Arno Stern (where paintings are not shown) were used by Cecilia to do beautiful postcards and raise money for educational projects in Auroville.

In December 2003, I had met a Swiss lady called Petrouchka (Patricia Rosset) who has been working with the concept of Arno Stern since 12 years. She was interested in my research and explained to me the work concept of Arno Stern. In response to my enthusiasm she accepted to come to Auroville for 6 months in 2004-05 in order to teach me. In return, I taught her the method of Marguerite Smithwhite which I had learned the previous year. During her stay in Auroville, Petrouchka offered painting sessions according to Arno Stern to many children from Kindergarten and Transition schools as well as to a group of adults. Two closlieu were installed in Auroville, one in my classroom in Kindergarten and the other in Transition School. The walls were covered by big pin-boards type panels covered with cloth where the sheets of paper can easily be fixed. The participants paint standing. Two "Table Palettes" were built, one for each school. Each table has 18 colours and for each colour there is a pot of paint and one of water, 2 paint brushes (one big and one small) placed horizontally on 2 holders in such a way that the child can easily grab the center of the handle where the paintbrush should be held. When a child wishes to mix colours, he or she must dip the tip of 2 of his fingers, dry and clean, in 2 pots of colours of his / her choice and mix them. If he / she likes the colour on the tip of his / her fingers, the educator will prepare the blend in a small pot, which someone else can use after the child. It is not rare that in one session 10 colours or more are mixed and that as a result around 30 colours are available for painting.

The painting room is a quiet space with no other paintings or pictures on the walls. The less exterior influences, the more the children will become autonomous and creative. Creativity will be useful in any work the child will do later. With the help of Petrouchka the painting sessions at Kindergarten improved a lot and I decided to start these sessions with a short class following the method of Marguerite Smithwhite on a particular theme, i.e. stones, trees, human beings, water etc. For example, each child gets a piece of granite. The teacher explains that granite is the most common stone on earth. Then each child can also get a bit of sand on the hand. Afterwards the children can look at those "tiny stones" (the sand) through a magnifying glass. We explain to them that, if we have a bigger magnifying glass on a camera we can take a photo of a tiny piece of granite (size of one sand grain) x 150. We show them this microphotography of granite, which is particularly beautiful and colourful. All this appears in this grey stone! Then, we show a tiny piece of that photo, again x 150: beautiful flower-shapes appear "in the stone is the aspiration for the next stage of evolution" (Marguerite Smithwhite).

These classes raise a lot of questions from the children i.e.

- Are stones really living?
- Is the baby doll alive? (we use a baby doll as educational material).
- Will we all die?
- Can we know when we will die?
- How many lives do we have? etc.

In order to answer the questions, I always refer to Sri Aurobindo and the Mother. To the question "is the baby doll living?" the answer was, "Not like you and me; it is not a real human being, but there is life and consciousness in matter. Therefore you should handle it with care." After that, little children often kiss the baby doll with such a tenderness!

Not only do the children ask questions, they also tell about their own experiences. Dreams, dramatic or joyful events, feelings... After this exchange, the children close their eyes and meditate for a few minutes. The quietest child may stand up first and start to paint, and so on.

Why this combination of the concepts of Marguerite Smithwhite and of Arno Stern? For me, those two concepts, reveal treasures which were hiding in the child.

*"True education must reveal what is already present in the developing being and makes it blossom. Just as flowers blossom in the sun, children blossom in joy".*

### **The Mother**

In Arno Stern's concept, there is no meditation before painting. However, meditation makes children more receptive and quiet, they go deeply inward and after are more concentrated while painting. In Marguerite Smithwhite's method, after the meditations, which are often beautiful and deep, people sit at tables and paint, but they get no training on the painting technique itself. Each concept reveals things that are not there in other types of painting.

In my work, I used meditation and painting before and those two trainings came at the right time to help me to go towards a type of education which could be typically Aurovilian. The research is still going on...

In order to make it possible for more children to benefit from this project, I started to train more teachers: the first person is Sandrine, a trained and experienced teacher in different areas including painting and she works in Transition school since years. She has followed the classes offered by Marguerite Smithwhite and showed a great interest in the concept of Arno Stern during the visit of Petrouchka. Since July 2005, Sandrine and I are offering a painting atelier for teachers from Auroville schools every Saturday morning in Transition School. Sandrine comes also one day weekly to my painting classes in Kindergarten to learn. Now (December 2005) she is fully trained

and is starting her own painting atelier for children of different ages as a free choice activity after their normal classes in Transition.

I will now start to train Mita who teaches in Udavi School and has learned the system of integral education based on Sri Aurobindo and the Mother at Mirambika in New Delhi. She was in charge of the art-room there.

The research project "Painting with children" is supported by SAIER and the Government of India. This project would not have been possible without the loving support of the Kindergarten team. Several exhibitions have been organised in Auroville, the last one was held in Pitanga in October / November 2005 with photos of children taken by Nathalie and explanations about the research.

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- L'expression - *Arno Stern*
- Une grammaire de l'art enfantin - *Arno Stern*
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- Website: [www.arnostern.com](http://www.arnostern.com)

### **Vocabulary of Arno Stern**

- Formulation
- Closlieu
- Plusêtre
- Les enfants du closlieu
- Table - Palette

## *Redemption through Art?*

### **Some comments on the life and work of Alexander Scriabin and its echo in Auroville**

*Heinrich K. Weihrauch*

*(Heinrich K. Weihrauch, retired doctor for Allopathy, Homeopathy and Nature Cure, has now become a musician (piano) and music teacher as his main occupation, working mainly in Salle Auropax, the environment he has created at his home in Auromodele. Fascinated by discoveries in the boundless empire of Music, he experiences with great joy the growth of the arts in Auroville, and is grateful to destiny that, thanks to the limitless horizon of the Mother, so many talents are meeting here, each in its own way dedicated to the ideal of a township based on spirituality).*

The activities of the "Salle Auropax" in Auromodele have so far been concentrated mainly on live performances of European classical music, "classical" being understood to include the contemporary, as well as occasional performances of jazz or world music. Although the seating capacity of "Salle Auropax" is limited, its collection of instruments is extremely attractive. An important aim of its program is the presentation of works that are only little known to this country, as well as focussing on composers whose life was shaped by transcendence and religion.

Amongst these composers the Russian Alexander Scriabin (1872-1915) is very prominent. When I consider the vision of Auroville and its spiritual center, the Matrimandir, I especially want to dwell on these connections.

First we notice that the years of birth of Sri Aurobindo, Mirra Alfassa and Scriabin fall in the same decade. The years around the turn of the 19th to 20th century were marked by new ideas of a better world, the possibility of change for mankind. Let us recall the visions of Karl Marx, Friedrich Nietzsche, Saint-Simon and many others. This is not the place to anticipate Auroville's spiritual history; but the vision of an ideal city and of a new

human being are deeply rooted in the tradition of western longings and confusions.

Alexander Scriabin was the son of a very active Russian diplomat and a pianist-mother, who died when Alexander was not yet two years old. So the boy grew up in the care of aunts, for his father was only rarely in Moscow as a result of his occupation. Alexander Scriabin studied at the Moscow conservatory, a classmate of the later so famous Sergei Rachmaninov. Scriabin's outstanding aptitude as a pianist was obvious; already as a young man he became a traveller, touring European and American music centers. He lived for many years in various western cities, before returning to Russia, where at the age of 43 he died suddenly and totally unexpectedly from septicemia. At that time he was preparing the première of his "Mysterium" which was intended to be conducted in a temple to be specially constructed in India for the occasion.

His comet-like career as pianist and teacher was supplemented by activity as a composer, which gradually became more and more important. Essentially he wrote for his instrument, the piano; but there are in addition five symphonies; which sometimes integrate the human voice, reminding us somewhat of the older Gustav Mahler, but also of Beethoven's ninth symphony. The piano works, at least from the 5th Sonata onwards, are full of such extraordinary technical difficulties that at first only the composer himself was able to play them. Starting with an affinity to the works of Chopin, these compositions were later influenced by the chromatic of Wagner; but this too remained only a transition. Harmony and melody lines soon became unmistakably Scriabin, a voice never heard before or ever continued by others.

More and more an interest in philosophy and mysticism grew in Scriabin. In his posthumously

published "Promethean Phantasies", which sketches his outlook to the world, he appears to be a solipsist. Solipsism (*solus ipse*) is a world-view in which nothing is considered real except the contents of one's own individual consciousness - the extreme form of subjective idealism. Scriabin's ideas are easily misinterpreted, and have repeatedly been quoted as evidence that the composer in the course of his life had gone beyond the boundaries of sanity, or had at least been a megalomaniac. Certainly some knowledge of occultism is necessary to understand Scriabin's philosophy, in addition to the historic background mentioned above. Scriabin, although becoming increasingly famous as a composer and pianist, came in the end to consider being a musician only as a sideline. His thought and action was directed more and more by a vision of the possibility for a human being of redemption from ignorance and dissolution in a cosmic consciousness which he named "Ecstasis". Naturally an adequate description of such a transcendence is difficult, if not impossible. It is well known that one who speaks about it, knows nothing, whereas the one that knows can only keep silent. So Scriabin was able to express himself only in analogies, again and again misunderstood in what he actually knew and aspired for.

Human redemption was in Scriabin's vision not just a possibility, but rather a certainty, to be brought about through a collaboration of all the arts in a total and integrated work of art, directed by the savior, the creator-composer. The arts to be included were music, architecture, colour, dance, language, and song, as well as aromas and fragrances. The première of this paramount and total work of art was supposed to take place in a gigantic temple yet to be built in India. This temple was conceived in the form of a huge hemisphere, erected above an artificial lake, which would complete the sphere in its reflection. 2000 outstanding people were to be chosen to participate for 7 days in a ritual, whose apotheosis would be the metamorphosis of the mortal into the God-being – a late recourse to the principle of the ancient Greek occult Mysteries.

Already In his Fifth Symphony, named "Prometheus", Scriabin integrated a color piano (Luce), as well as an organ, choir and solo piano.

However, the "Mysterium" was intended to hugely enlarge all this already impressive ensemble. The Luce was intended to bathe the concert hall in colors, synchronously to the music, – at that time, the beginning of the 20th Century, still technically an impossibility. The Luce-instrument had the following colors assigned to the notes of the chromatic scale:

<i>c</i>	<i>red</i>
<i>g</i>	<i>orange-pink</i>
<i>d</i>	<i>yellow</i>
<i>a</i>	<i>green</i>
<i>e</i>	<i>pale blue</i>
<i>b</i>	<i>similar to e</i>
<i>f sharp</i>	<i>bright blue</i>
<i>d flat</i>	<i>violet</i>
<i>a flat</i>	<i>magenta-violet</i>
<i>e flat and b flat</i>	<i>steel-like, with a metallic sparkle</i>
<i>f</i>	<i>dark red</i>

From the color piano fixed high up in the rafters of the temple the colors were supposed to stream down into an area of conversion and ecstasy, and immerse the participants in floods of colours and lead this synaesthesia of all the arts to redemption. (In music history this phenomenon of synaesthesia is well-known not only with Scriabin but also with Rimsky-Korsakov and Messiaen). "Unity in Diversity" are the very words Scriabin uses in "Prometheus".

The execution of this "Mysterium", a tremendous multi-media-show, remained only a dream. In the last years of his life Scriabin was occupied exclusively with the planning of this work of transformation; numerous letters were exchanged with the Theosophical Society, the fundraising had started. The master prepared for India, among other things with pranayama training. But sudden death destroyed everything.

Unfortunately the music was also lost. The composer had been playing long excerpts of the work to friends, but since, like Mozart, he did not consider it necessary, to write down music prematurely – because he composed everything in his head and stored it there until he thought the work finished – this composition was almost completely lost. In all other respects Scriabin



considered himself rather as a translator of music, for he considered that all music was already pre-existent, outside of himself. This phenomenon he had for the first time fully exploited in his 5th Piano-sonata, by just writing down, what already was sounding in another sphere.

Boris Pasternak in his early years was dream-lost to his God Scriabin. In the countryside the two families Scriabin and Pasternak had neighboring holiday houses (Boris' father was a well-known painter). The ecstatic descriptions of Scriabin by the young Pasternak make interesting reading and are still moving today. Pasternak retained a fascination for his idol throughout his life.

In his young years Pasternak appears to have been unable to separate literature and music. He was a talented musician, some of his compositions, amongst others a piano-sonata, have survived; they were respectable attempts. Since Scriabin seems to have avoided commenting on the compositorial exertions of the young admirer, a skeptical Pasternak took this as a sign to drop music as an occupation and calling once and for all. So indirectly Scriabin has a share in Pasternak's career as an author. Would there be no "Doctor Zhivago" without Scriabin? This might well be.

To what extent one may see parallels in Scriabin's ideas to the Matrimandir in Auroville as place of exercise and concentration, or to the twelve colored chambers as places of the transformation, everyone may judge for himself. What however is puzzling for the author since years is the non-appearance of this outstanding artist in the life of young Mirra Alfassa. Also later she has, to my knowledge, never spoken about him. It is true that in his Paris time, at the beginning of the century, Scriabin mostly moved in Russian circles; it is astonishing as well that he met neither Debussy nor Ravel.

I come back to the Salle Auropax in Auroville, where we can work only with notes and, at the most, some introductory words. Scriabin's highly important late piano piece 'Vers la Flamme' will probably be heard there again and again, as well as other late, nearly atonal works, and perhaps occasionally a Sonata.

There are other composers on our wish-list: Messiaen, Liszt and the Catalan F. Mompou. The life and work of all of these has been directed by mysticism and religion. This of course also applies especially to J. S. Bach. Although so far as we know he has no inclination towards transcendence and mysticism, N. Kapustin, the great living Russian composer, will also shortly have his first introduction in Auroville.

*"That which we are seeking through beauty is in the end that which we are seeking through religion, the Absolute, the Divine. The search for beauty is only in its beginning a satisfaction in the beauty of form, the beauty which appeals to the physical senses and the vital impressions, impulsions, desires. It is only in the middle a satisfaction in the beauty of the ideas seized, the emotions aroused, the perception of perfect process and harmonious combination. Behind them the soul of beauty in us desires the contact, the revelation, the uplifting delight of an absolute beauty in all things which it feels to be present, but which neither the senses and instincts by themselves can give, though they may be its channels, – for it is suprasensuous, – nor the reason and intelligence, though they too are a channel, – for it is suprarational, supra-intellectual, – but to which through all these veils the soul itself seeks to arrive. When it can get the touch of this universal, absolute beauty, this soul of beauty, this sense of its revelation in any slightest or greatest thing, the beauty of a flower, a form, the beauty and power of a character, an action, an event, a human life, an idea, a stroke of the brush or the chisel or a scintillation of the mind, the colours of a sunset or the grandeur of the tempest, it is then that the sense of beauty in us is really, powerfully, entirely satisfied. It is in truth seeking, as in religion, for the Divine, the All-Beautiful in man, in nature, in life, in thought, in art; for God is Beauty and Delight hidden in the variation of his masks and forms. When, fulfilled in our growing sense and knowledge of beauty and delight in beauty and our power for beauty, we are able to identify ourselves in soul with this Absolute and Divine in all the forms and activities of the world and shape an image of our inner and our outer life in the highest image we can perceive and embody of the All-Beautiful, then the aesthetic being in us who was born for this end, has fulfilled himself and risen to his divine consummation. To find highest beauty is to find God; to reveal, to embody, to create, as we say, highest beauty is to bring out of our souls the living image and power of God."*

Sri Aurobindo, The Human Cycle,  
CWSA Volume: 25, pp. 144-45

# Can Architecture lend itself to a change in Consciousness?

Mona Doctor-Pingel

*The following article is only a glimpse into this vast question in the context of Auroville. It poses certain questions and indicates some directions which may be used for further research. Special thanks to the Dreamcatchers Forum.*

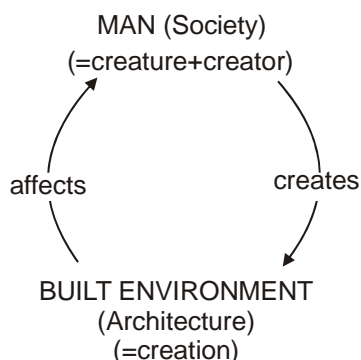
"Does modern architecture lead to "Civilisation sicknesses"? – this provocative question was the title my of master's thesis 10 years ago in Germany for a postgraduate course on Appropriate Technology and Extension Skills (ARTES).

Ten years down the line I can only say that the concerns raised in this work have deepened and become more visible and tenacious in the context of a fast growing "urban and developed" India.

But more interestingly, having lived and worked in Auroville, I am tempted to ask the same question from a different angle, as many architects here must do: "Are architects agents of change in a society?"

Mother has said somewhere : " *A new house, a new consciousness.*"

What does this mean and how does it manifest?



*The cycle of creator and creation – each one influences the other.*

Architecture has always represented the society and the consciousness of its people. Whether it is in the sacred architecture of the Great Pyramid, the ancient Indian temples, the Pantheon, or the profane as in the hamlets of the Iberian peninsula, the pols and

chawls of Indian cities, it has always reflected the ethos and the values inherent in the society that made them.

Inversely, it is often seen that those who had the vision and the means to manifest something of a higher quality, were able then to consciously or subconsciously affect the society towards a change. In Pondicherry and Auroville too we have 2 such examples - Golconde, the "Ashram dormitory" built and designed in 1930's and the Inner Chamber of the Matrimandir, which we all know too well. Those who have spent some time in these spaces will know what is meant. The consciousness one puts into the building process is bound to show in the end product. Even the work with the people who actually build it brick by brick, if it can be infused with a certain spirit by creating an atmosphere on the building site of a higher dimension, of discipline, quiet and concentrated work, it can tremendously influence the end result. The fact that the Matrimandir in those early years was built not by a large professional construction company but by individuals having a faith in what they were doing makes all the difference.

*"Architecture, sculpture and painting, because they are the three great arts which appeal to the spirit through the eye, are therefore those too in which the sensible and the invisible meet with the strongest emphasis on themselves and yet the greatest necessity of each other."*

**Sri Aurobindo,**  
**Foundations of Indian Culture, Pg 211**

*An integral approach to Architecture.*

Architecture more so than sculpture and painting carries with it a great social responsibility, since its manifestation in physical matter is generally the most visible, more imposing and lasting in its impact.

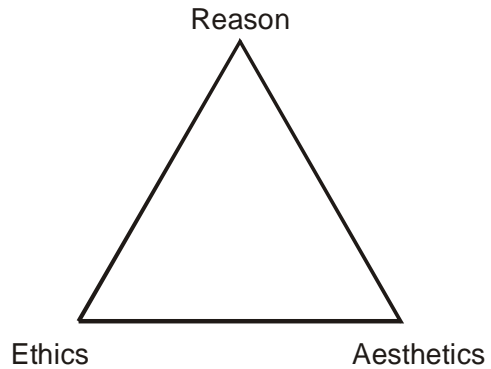
Today the term modern architecture has been expanded to include terms like appropriate, sustainable, ecological, green, building biology. The search for ecological consciousness and living in harmony with nature can be felt as worldwide movement today.

Whereas healthy foods and natural health cures are now well established, consumer power has yet to take make itself felt in the concept of a healthy home / built environment. At the most, it limits itself to energy saving building technologies, rainwater harvesting, wastewater recycling, traditional construction techniques. These are of course necessary components of a good design but are insufficient to address our aim of a change in the society and consciousness in an integral sense.

More and more sciences and scientists are now recognizing what the vedic sciences always knew: that the body is not so much an object but a process – a dynamic flowing process, which is in constant interchange with innumerable influences from the surroundings. The human body is a complex mechanism – each one of us a sensitive antenna and reacts definitively and differently to the external stimuli.

One needs therefore to view buildings as our third skin (after our own skin and our clothes) that fulfills essential living functions, and so affects our physical, mental and psychological health directly.

Sri Aurobindo in "The Human Cycle" mentions the 3 aspects – Reason-Ethics-Aesthetics – which have defined and formed different societies at different times in history. All these 3 aspects also reside in each one of us to a greater or lesser extent, since society is only an enlargement of the individual. Architecture too is only a reflection of the individual who creates it. It therefore follows that in our approach to Building Culture in Auroville we can take these 3 aspects as equal-aspects – each being as important as the other – when one of them is neglected or overrides, the end result is also lacking an integral approach.



Architects are often accused of being concerned only with the aesthetics – creating forms in the landscape, or there are those who succumb to the rationality of numbers and costs, and still others who as idealists with a puritanistic approach fail to bring any project to fruition. The challenge lies in finding a balance of all these aspects in each and every project.

In today's global thinking and communications age, team work is gaining a more important role. This encourages a multi-task and multi-disciplinary thinking. However in the context of Auroville it is to be remembered that a fruitful and meaningful teamwork can only emerge when the individual consciousness has been properly moulded.

Moreover, it is the process followed to achieve a certain result that is as important as the end product. If the process is flawed, egoistic or undermining, then the end product is bound to manifest it – if not in the visible then in the intangible and invisible realm.

If we see architecture as transfer of consciousness from one realm to another (spiritual to the physical), then it is an act of extreme responsibility. The process of creation is a bringing forth of our inner truth and that of all those involved in the project, if it is synergetic relationship.

True architecture is not the product of universities, institutions or international seminars. True architecture is the architecture of the soul.

The notion of "Building as a machine to live in" (which is what was propounded in the last century after the industrial revolution and which has influenced so many of us ) has to be replaced by the notion of "Building as a temple to live and work in". But to manifest this one has to discover the temple within in order to build the temple without.

# *Auroville Earth Institute*

*Satprem Maini*



The Auroville Earth Institute has been researching, developing, promoting earth-based technologies, since its inception in 1989. These technologies are disseminated through training courses, seminars, workshops, manuals and documents. The research conducted with the earth as a building material is focussed upon discovering the consciousness hidden within the material. The contact with this consciousness helps the latter to evolve, as well as our own consciousness.

## **Management Of Resources**

The Institute lays emphasis on the management of resources as a precondition to building with earth. Building with earth can be synonymous of appropriate and sustainable development if resources are managed properly. Several types of quarries may be developed and a proper plan should be drawn up beforehand to avoid ecological imbalance later on. We teach in our training course how to use nature's resources with a lot of respect for our Mother Earth, so as to develop our environment in the most harmonious and sustainable way.



*Biological wastewater treatment*



*Basement floor*



*Percolation pit and landscaping*

## **Auram equipment for Earth Construction**

A wide range of equipment for building with earth has been researched and developed from the very outset. It ranges from presses for Compressed Stabilised Earth Blocks (CSEB), quality control devices for block making, handling equipment, hand tools, scaffolding, and rammed earth equipment. Today this equipment proposes 16 moulds which can produce about 70 different types of blocks. This equipment is mostly sold in South Asia and Africa but also on all continents: Europe, Americas, Central Asia and Middle East.



*Press 240*



*Press 3000*



*Rammed earth forms*

### **Vaulted Structures**

The research with this kind of roofing aims to revive and integrate in the 21<sup>st</sup> century the techniques used in past centuries and millennia, such as those developed in ancient Egypt or during the period of gothic architecture in Europe. This R&D seeks to optimize the structures by increasing the span of the roof, decreasing its thickness, and creating new shapes. Note that all vaults and domes are built with compressed stabilised earth blocks, which are laid in “free spanning” mode (without formwork), which has been developed by the Auroville Earth Institute. This technique is a development of the Nubian technique. People are coming from all over the world to learn our method of stability study and construction techniques.



*22 Domes of the Visitor's Centre*



*Deepanam School - 10.35m*



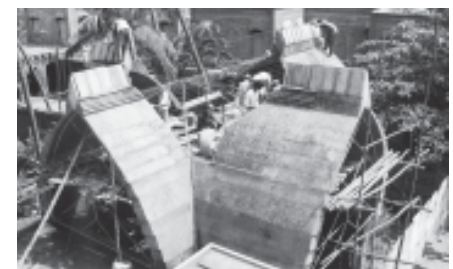
*Vaults of AVEI training centre*



*Dhyanalinga temple Near Coimbatore*



*House at the Auroville Earth Institute*



*Equilateral groined vault*

## Appropriate Building Technologies Based on Soil

This research aims to make extensive use of raw earth as the main building material. The idea is to use a local resource which can help developing technologies that are saving energy and are eco-friendly and sustainable. The main research and development tries to minimise the use of steel and cement. To date the main synthesis of this research is achieved with the Training Centre of the Auroville Earth Institute. This building is constructed entirely with stabilised earth, from the foundations to the waterproofing:

- *Stabilised rammed earth foundations (with 5 % cement)*
- *Stabilised rammed earth walls (with 5 % cement and a “homeopathic” milk of lime and alum)*
- *Composite columns (round and hollow CSEB with reinforced concrete)*
- *Composite beams (U shape CSEB with reinforced concrete)*
- *Stabilized earth mortars and plasters*
- *Wide variety of compressed stabilised earth blocks (16 moulds are presently available for producing about 75 different types of blocks)*
- *Various vaults with compressed stabilised earth blocks*
- *Alternative stabilizers to cement (“homeopathic” milk of lime and alum)*
- *Alternative waterproofing with stabilized earth (various mixes of soil, sand, cement, lime, alum and juice of a local seed)*



*Stabilised rammed earth foundations*



*Stabilised rammed earth walls*



*Composite plinth beam*



*Composite column 240*



*Composite column 290*



*Composite lintels and beams*



*Testing a composite beam*



*Stabilised earth waterproofing*



*Stabilised earth waterproofing*

### **Disaster Resistant Constructions**

Since 1995, research has been oriented towards the development of a system which is based on reinforced masonry with compressed stabilised earth blocks that are hollow interlocking. Two types of blocks have been developed: the square hollow interlocking block 245, which allows building up to 2–3 floors high, and the rectangular hollow interlocking block 295, which is used only for ground floors. The masonry with these blocks is reinforced at critical points with reinforced cement concrete.



*MINE House - Istanbul, Turkey  
Built in 8 days in 1996,  
during the city Summit Habitat*



*Prototype of the AUM House - New Delhi  
Built in 66 hours by an 18 man team*



*Improved AUM House - Khavda, Gujarat  
Built in 62 hours by an 20 man team*



*3rd building: 13 apartments on 4 floors  
(3 floors above a basement floor)*

This technology has been used extensively in Gujarat for the rehabilitation after the 2001 earthquake. With a six-month technical assistance from the Auroville Earth Institute, the Catholic Relief Services built 2698 houses and community centres in 39 villages. This technology was also transferred to Kutch Nav Nirman Abhiyan. This technology is presently being used in Iran at a smaller extent for the reconstruction of Bam, which was severely hit by the 2003 earthquake.

This technology has Government approval:

- The Government of Gujarat, India, (GSDMA) as a suitable construction method for the rehabilitation of the zones affected by the 2001 earthquake in Kutch district. It is allowed to build up to 2 floors.
- The Government of Iran (Housing Research Centre) as a suitable construction method for the rehabilitation of the zones affected by the 2003 earthquake of Bam. It is allowed to build up to 3 floors (8 m high).
- The Government of Tamil Nadu, India, (Relief and Rehabilitation) as a suitable construction method for the rehabilitation of the zones affected by the 2004 tsunami of Indonesia.

### **Holistic Approach towards Architecture and Construction**

The attempt is to integrate various alternative technologies and renewable energies, so as to promote eco-friendly and sustainable development. In this field the earth, as a building material, plays a major role, but other appropriate technologies like ferrocement, biological wastewater treatment, solar lighting, wind and solar pumping are also extensively used. The main achievement in this field is Vikas community, near the centre of Auroville, which has been created, designed, and built by the former Auroville Building Centre/Earth Unit. It presents the following features:

- Environmentally sound materials
  - Compressed earth blocks (CSEB).
- Appropriate building technologies
  - Stabilised earth from foundations to roof.
  - Ferrocement pieces in various parts of the building.
  - Sparing use of concrete, glass, steel, etc.
- Renewable energy sources
  - Solar energy (water heater, solar panels, surface pumps and submersible pump) and a wind pump.
- Water management
  - Rain water harvesting with a particular landscaping.
  - Water harvesting from the overflow of the windmill and solar pump.
  - Biological wastewater treatment (lagooning system).
- Earth management
  - The earth was taken from the wastewater treatment pond, garden tank, and the basement floor of the 3<sup>rd</sup> building.
- Appropriate architecture design
  - Natural cross ventilation and a solar chimney.
  - Sun protection with sunshades and a proper orientation of the building.



## *On Thought - II*

### *The Mother*

You probably remember that, last month, we made two observations.

The first is that thought is a living, active, autonomous entity.

The second is that in order to contend victoriously with the injurious effects of the polluted mental atmosphere in which we live, we must build up within ourselves a pure, luminous and powerful intellectual synthesis.

For this purpose we must bring down into ourselves the highest thoughts within our reach, that is, within the field of our mental activity, and make them our own.

But since thoughts are living beings, they have, as we do, their likes and dislikes, their attractions and repulsions.

We must therefore adopt a special attitude towards them, treat them as people, make advances and concessions to them and show them the same attentions as we would to someone we would wish to be our friend.

On this matter, a modern philosopher writes:

"Sometimes thinkers in their meditations, explorers and prospectors of the intellectual world in their discoveries, and poets – the diviners of thought – in their dreams, feel and vaguely sense that the idea is not something abstract and bodiless. It appears to them to be winged, something which soars, comes close and flees, denies and gives itself, something which must be called, pursued and won.

"To the most clairvoyant, the idea seems to be an aloof person with her whims and desires, her preferences, her queenly disdain, her virgin modesty. They know that it takes much care to

win her and but a little thing to lose her, that there is a love of the mind for the idea, a love made of consecration and sacrifice, and without this the idea cannot belong to it.

"But these are pretty symbols, and few indeed can perceive the very precise reality which lies beneath them.

"It needed a Plato to identify this thing which lives and vibrates, which moves and shines, travels and is propagated through time and space, which acts and wills and freely chooses its own time and place – in short, to know the Idea as a being."

Let us take especially one phrase from this beautiful page:

"There is a love of the mind for the idea, a love made of consecration and sacrifice, and without this the idea cannot belong to it."

This is not an image. To enter into an intimate and conscious relation with the idea, we must consecrate ourselves to it, love it with a disinterested love, in itself, for itself.

Today we shall try to find out what this love consists of and, at the same time, what we must do for it to blossom within us.

The first attitude to be taken, the most indispensable, is the most perfect mental sincerity it is within our power to acquire.

Of all sincerities, this is perhaps the most difficult. Not to deceive oneself mentally is not an easy thing to achieve. First of all we have, as I explained to you last December, a certain habit of thought which comes from the education we have received, from the influence of the environment, and which is most often made up of social conventions and collective

suggestions. This habit naturally makes us give a far better reception to all the thoughts which are similar, if not comfortable, to those which already fill our minds, than to those which could, to however small an extent, unsettle this mental structure.

For the same reason, as you probably remember, it is sometimes so difficult for us to learn to think for ourselves: we hesitate to change anything whatsoever in our customary way of thinking, which is most often made up of social conventions and collective suggestions. For our whole existence is based upon this habit. It takes a great courage and a great love of progress to consent to examine one's existence in the light of thoughts that are deeper, and consequently more independent of the customs and usages of the environment.

You can judge from this the great, the very great love of the idea that is needed to achieve such a revolution in one's habits, for the sole purpose of gaining the power to enter into a more intimate, more conscious relationship with it!

And even when our mental synthesis is made up of thoughts that we have received and made our own in the course of a constant and persevering effort of meditation, we must love the idea with a very powerful love, perhaps even more powerful still, so that we may always be in quest of a new idea, ready to give it the most eager reception if it is willing to come to us. For we are well aware that each new idea will constrain us to modify our synthesis, relegate to the background ideas which had seemed to us master-ideas, bring to the light other ideas too long disregarded, rearrange them all so that they do not clash, to the great detriment of our brain, in brief, a long and sometimes painful task. Indeed we are very seldom disinterested with regard to ideas; there are some which we prefer to others and which, consequently, occupy a place in our mental activity which they do not always deserve.

And if we must replace them with others that are more precise, more true, we often hesitate long before doing so, we cling to them as indispensable friends, and we love their defects as well as their qualities, – which is the worst way to love people, as well as the laziest and most selfish, – for we are always more

highly esteemed by those we flatter than by those from whom we demand a constant effort of progress. But our difficulties do not stop there.

As a consequence of the intellectual education we have received or of some personal preference, we are also prejudiced about the way, or ways, in which ideas should be introduced to us.

These preconceptions are so many veritable superstitions that we must overcome.

They are different for each person.

Some people have the superstition of the book. For an idea to merit consideration in their eyes, it must have been expressed in some famous book, in one of the bibles of humanity, and any thought coming in any other way will appear suspect to them.

There are some who accept an idea only from the official sciences, and those who recognise one only in the established religions, old or new. For others, the idea must come from the mouth of a man of renown with enough honorary titles so that none can question his value.

Still others, more sentimental, in order to come into contact with thought, need a master who should be the perfect incarnation of the ideal human standard constructed by their imagination. But they are bound to be sorely disappointed, for they forget that they alone are capable of realising their own ideal, that the one in whom they have placed their confidence has a duty to realise his own ideal which, consequently, however great it may be, may very well differ considerably from their own. So, most often, when they become aware of these divergences, since they had attached themselves to the ideas only for the sake of the man, they will reject both man and ideas together.

This is absurd, for ideas are worth what they are worth regardless of the individuals who have expressed them.

Finally, there is a whole category of people enamoured of the miraculous, who will recognise a truth only if it has come to them clothed in the mystery of a supramundane revelation, in dream or trance.

For them the master must be their God, an angel or a Mahatma, and give them his precious teachings during their contemplation or their sleep.

Needless to say, this method is still more unreliable than the others. That a thought should reach us by extraordinary means is no guarantee of its correctness or its truth.<sup>1</sup>

You see, the true lover of the idea knows that by seeking it ardently he will find it everywhere, and even more so in the subterranean and secret fountainheads than in those which have lost their pristine purity by turning into rivers that are majestic and renowned but also polluted by the waste of all kinds which they carry with them.

The lover of the idea knows that it can come to him from the mouth of a child as from the mouth of a learned man.

And it is even in this unexpected way that it can reach him most often.

That is why it is said: "Out of the mouths of babes and sucklings come forth truth."

For if the thought of a child cannot have the precision of the thought of a man, neither does it have the fixity which results from laziness of habit and which in the adult prevents the thought from expressing itself whenever it does not belong to the categories which are familiar to him.

Moreover, it was to escape the distortion of an environment made up of habit and fixity that the schools of ancient times where the young prophets were educated were established far from the cities.

That is also why the great instructors of men began their apprenticeship in solitude. For if too many things are absent for the thought to be able to express itself in the minds of unrefined men, too many things are also absent from the mind of the cultivated man shaped by the artificial life of human societies.

How much silence is needed – not the outer, illusory and momentary silence, but on the contrary the true, profound, integral, permanent silence – to be able to hear the far-off voices of thought!

That is why the sincere lover of knowledge also knows that the greatest sages are always the most modest and the most unknown. For one who has the knowledge and the capacity prefers silence and retirement where he is free to accomplish his work without being disturbed by anything, to the fanfares of glory which would throw him as fodder to men.

The lover of thought knows that he will find thought everywhere around him, in the little flower as in the radiant sun; nothing and no one appears to him too humble or too obscure to be for him an intermediary of the idea he is ever seeking.

But above all he knows that the best, the most reliable contact with the idea is certainly a direct contact.

Since we are made out of the universal substance, we are this universe in miniature.

Since no phenomenon can exist without a corresponding medium, the existence of ideas implies the existence of a corresponding domain, the realm of free intelligence always in form but not subject to form, and this realm is within us as within the great universe.

If then we concentrate sufficiently, if we become conscious of our inmost being, we shall come into contact, within it and through it, with the free universal intelligence, the world of ideas.

Then, if we have taken care to polish our mirror well and to clear it of all the dust of preconception and habit, all ideas will be able to reflect themselves there with a minimum of distortion, and we shall have acquired bodhi (knowledge), we shall have acquired the power of reflecting the rays of the Sun of Truth<sup>2</sup> – such was the hope which Siddhartha Gautama held out to us. When he was asked, "How shall we obtain bodhi?", he would reply:

"Bodhi has no distinctive signs or marks: what can be known in respect of it is of no use whatsoever; but the care we take in practising its spirit is of great importance. It is like a cleansed and polished mirror that has become clear and bright, so that images are reflected in it sharply and vividly."

And again:

"One who is without darkness, free from blemish, of blameless conduct, perfectly pure, that one, even though he does not know and has never heard and in short has no knowledge, however little, of any of the things that are in the world of the ten regions since time without beginning until today, none the less, he possesses the highest knowledge of the one who knows all. He is the one of whom it is said: Clarity." You see here a panegyric of the direct relationship with the idea as opposed to the wholly external and superficial method of erudition.

The advantages of this direct relationship are incalculable.

It enables us to recover and love the idea behind all appearances, all veils, all forms, even the most barbarous, the most crude, the most superstitious.

Thus we can put into living practice the state of mind of the sage, of which I spoke to you in my first talk and which a master defines in this way:

"One who advances in Truth is not troubled by any error, for he knows that error is the first effort of life towards truth."

Consequently, not a single fragment of an idea can ever be lost for us; wherever it is concealed, we know how to discover and cherish it .

Moreover, when we have become familiar with an idea, when we know it in itself, for itself, we recognise it behind the most diverse appearances, the most varied forms.

This faculty can even serve as a criterion to discover whether someone is in contact with the idea itself, that is to say, whether he has understood it well and made it his own or whether he is part of the mass of those who have assimilated as best they could a doctrine, a special language, and who can think only in the words of that language – outside this formula, they no longer understand anything.

This attachment to form, which consists entirely of intellectual impotence, is one of the most powerful causes of dissension among men.

But one who penetrates deeply enough to see the thought, the naked truth, soon realises that it is the same behind its varied and more or less opaque veils.

This is the surest way to achieve true tolerance.

Indeed, how can we have an exclusive passion for one particular doctrine or school or religion when we have had the experience that each of them contains treasures of light and truth, however varied the caskets which enclose them?

*'Words of Long Ago'*  
16 February 1912

#### **References:**

1. Paragraph added when this talk was presented to a different group:

"I do not mean that it is impossible to come into contact with an idea by these means, but they are far from being the only ones or even perhaps the best."

2. In a version presented to another group the paragraph ends here and is followed by these two paragraphs:

"Then will our mental actions take on their full power and effectivity. Our thought-formations will become useful and luminous messengers going forth to do their work of goodness and harmony whatever material circumstances prevent us from doing it physically.

And by a little effort of concentration we shall rapidly succeed in becoming conscious of these actions while at the same time remaining in touch with the emanated thought."