

# AUROVILLE TODAY

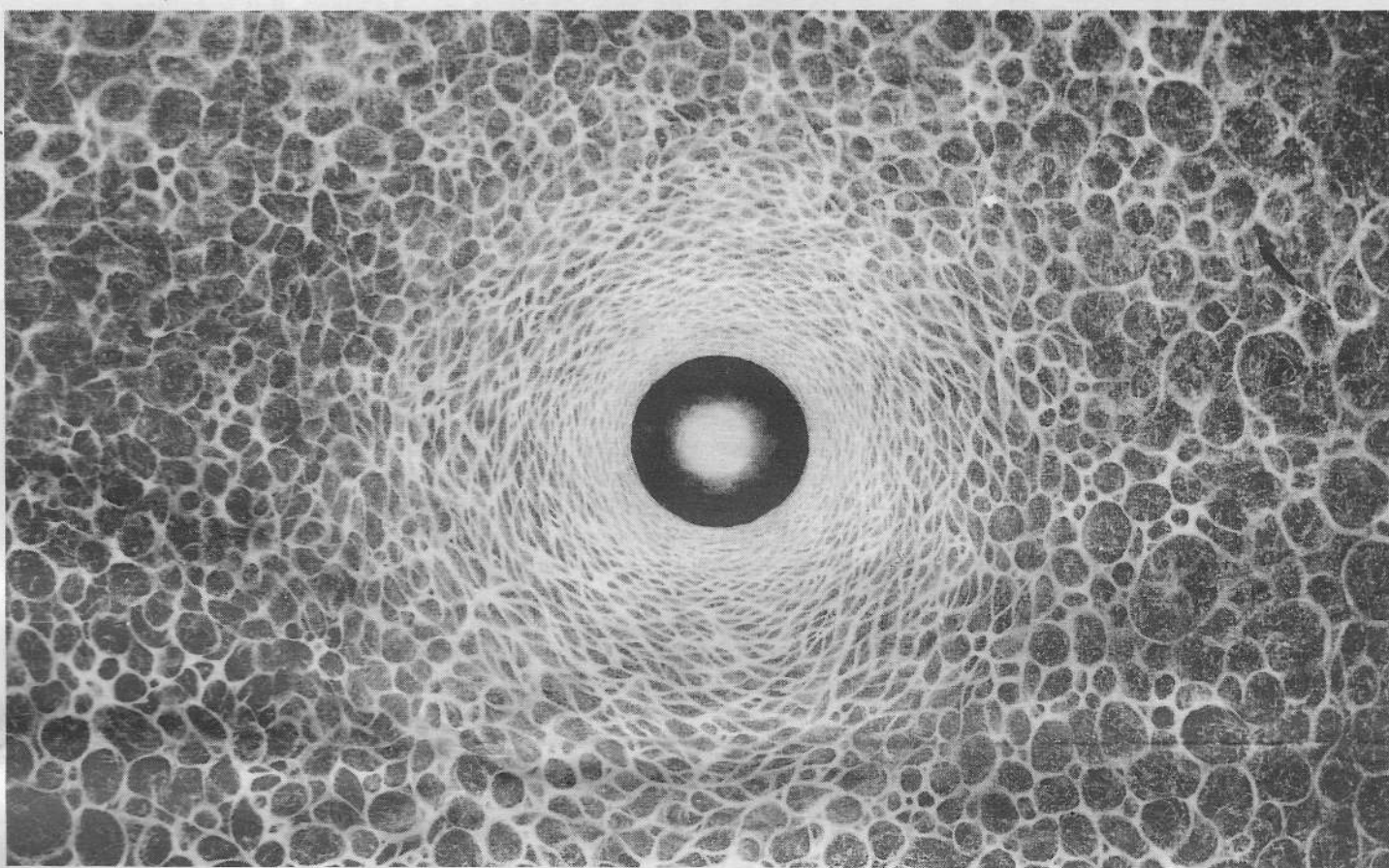
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**“Cellular consciousness”, “the transformation of the cells”. While The Mother spoke a great deal in her later years about the work that was being done in the cells of her body, such phrases are not part of our every day language in Auroville probably because, for those of us who are still stumbling around scraping our knees in the spiritual kindergarten, that stage of the yoga seems scarcely credible. And yet, in the past fifteen years more and more people around the world have started talking about working at the cellular level, most notably in the realm of healing. How far these pioneers are dealing with the same phenomenon and with the same objective as The Mother—for whom the awakening of the cells was the prelude to physical transformation—is open to question, but it does serve to show that something relating to a whole new level of consciousness is in the air.**

**In this issue we introduce this topic through The Mother's experiences, through an Aurovillian's description of her personal awakening to the cellular consciousness, and through an interview with a Brazilian healer who perceives and works upon the cellular organisation of individuals' bodies.**

**We also feature an interview with a new member of the Governing Board, Dr. M.S. Swaminathan, and profile W.E.L., the Auroville cartoonists workshop which is livening up the 'Auroville News' with its graphic comments upon current issues. From cellular transformation to cartoonists... as one English newspaper used to put it, "All life is here"!**

## The cells become conscious



Painting by Rolf (untitled)

In 1967, the school children of the Sri Aurobindo International Centre for Education at the Sri Aurobindo Ashram asked the Mother for a prayer of the body. Relating this incident to a disciple, the Mother spoke at length of the aspiration of the body and described how, in 1962 when the doctors thought she was ill, the cells of Her body started to open to the influence of the Divine Consciousness. Here we publish some excerpts of this conversation:

*Disciple: ... One can see very well how in the mind the aspiration maintains itself, how it lives by itself. In the heart also, one sees very well how the aspiration lives. But in the body? How to awaken this aspiration in the body?*

But it is already fully awake for months in me! So it must be [the school children] have just now felt it and they feel it.

How is it done? It is in the process of being done.

*But how in oneself...*

No, no, no. If it has been done in one single body, it can be done in all bodies.

*Yes, but I ask how...yes, how?*

Well, that is what I have been trying to explain for months.

First of all, to awaken the consciousness in the cells...

*Well, yes!*

Yes, of course, but once it is done, it is done: the consciousness wakes up more and more, the cells live consciously, aspire consciously. I have been trying to explain it for months; for months and months I have been trying to explain it. And so it is just that which has pleased

me, that they [the school children] have understood at least the possibility.

The same consciousness which was the monopoly of the vital and the mind has become that of the body: the consciousness is working in the cells of the body.

The cells of the body are becoming something conscious, wholly conscious.

A consciousness that is independent, not depending at all upon the vital or the mental consciousness: it is a bodily consciousness.

*(silence)*

And this physical mind of which Sri Aurobindo said that it was an impossibility, that it was something that turns round and round and will always turn round and round, precisely without consciousness, like a kind of machine, that mind has been converted, has become silent, and in the silence it has received the inspiration of the Consciousness. And it has begun again to pray: the same prayers that were there before in the mind.

*I quite understand what can happen in you, but...*

But since it is happening in one body,

it can happen in all bodies! I am not made of something different from the others. The difference is in consciousness, that is all. It is made exactly of the same thing, with the same things, I eat the same things, and it was made in the same way, absolutely.

And it was as stupid, as obscure, as unconscious, as obstinate as all the bodies of the world.

And this began when the doctors declared that I was very ill, that was the beginning. Because the entire body was emptied of its habits and its forces, and then slowly, slowly, slowly the cells woke up to a new receptivity and opened themselves to the Divine Influence directly.

Otherwise, there would be no hope. If this matter that started by being... Even a pebble is already an organisation – certainly it was worse than a pebble: unconscious, inert, absolute; and then, little by little, little by little that woke up. It sees, yes, it sees, it has only to open its eyes to see. Well, it is the same thing which happens: for the animal to become a man, it

*(continued on page 2)*



(continued from page 1)

did not require anything other than the infusion of a consciousness, a mental consciousness; and now it is the awakening of this consciousness which was altogether at the bottom, the very bottom. The mind is withdrawn, the vital is withdrawn, all is withdrawn. At the time when I was said to be ill, the mind was gone, the vital was gone, the body was left to itself – purposely. Yes, it is that, it is just because the vital and the mental were gone that it gave the impression of a very serious illness. And then, in the body left to itself, little by little the cells began to wake up to the consciousness (gesture of aspiration rising up); this consciousness that was infused into the body by the vital (from the mental into the vital, from the vital into the body), when both had disappeared, the consciousness emerged slowly, slowly. That started with a burst of the Love from the highest summit, the last supreme altitude, and then little by little, little by little, it came down into the body. And then this physical mind, that is to say, something altogether, altogether stupid, which used to turn round and round, repeating always the same thing, a hundred times the same thing, little by little it was illumined, became conscious, was organised, and then it entered into the silence; then in the silence the aspiration expressed itself in prayers.

(silence)

It is the contradiction of all the spiritual assertions of the past: "If you want to live fully conscious of the divine life, give up your body – the body cannot follow"; well, Sri Aurobindo came and said: the body, not only can it follow, it can even be the base for manifesting the Divine.

The work remains to be done.

But now a certitude is there. The result remains still far off, very far; much has to be done before the crust, the experience of the most external surface as it is, manifests what is happening within (not "within" in the spiritual depths: within the body). To enable that to manifest what is within... This will come last, and it is good it is so, for if it came before time, one would neglect the work, one would be so satisfied as to forget to finish his work; everything should be done within, should be well and good, should be thoroughly changed, then the outside will speak it out.

But it is all one single substance, all similar everywhere, and everywhere it was unconscious; and then what is remarkable is that automatically things are happening (gesture showing points scattered everywhere in the world) altogether unexpected, here and there, in people who do not even know anything.

(silence)

The material cells have to obtain the capacity to receive and to manifest consciousness. And then what makes for a radical transformation is that in place of, so to say, an eternal and indefinite ascent, there is the appearance of a new type – it is a descent from above. The previous descent was a mental descent, and this one, Sri Aurobindo calls it a Supramental descent; the impression is that of a descent of the supreme Consciousness which infuses itself into something that is capable of receiving it and manifesting it. And then, out of this, when it has been thoroughly churned (how long it will take, one does not know) a new form will take birth, which will be what Sri Aurobindo calls the supramental form – which will be... it does not matter what, I do not know how these beings will be called.

How will they express themselves,

how will they make themselves understood, and all that?... In man it has developed very slowly. Only the mind has laboured much and basically has made things move quicker.

How is one going to reach there?... There will surely be stages in the manifestation, with perhaps a specimen, that will come and say: this is how it is. (Mother looks in front) One sees that... It is contagious, this I know. And it is the only hope, because if everyone had to go again through the same experience... Well, now I am ninety – at ninety people are tired, they have had enough of life. To do that one must feel young like a little child.

And it takes long, I see quite well that it has taken a long time.

And then, it is not done, it is being done, but it is not done – far from it – we are far from it... What is the percentage of conscious cells? One does not know.

And from time to time there are some that scold the others. It is very amusing! They scold, they catch hold of them, tell them stupidities (in their way) – to those that want (Mother draws a small circle) to continue the old habits: digestion must be done in a certain way, absorption in a certain way, circulation in a certain way, respiration in a certain way... All the functions must be done according to the matter of Nature; and when it is not like that, they become anxious. And then those that know catch hold of them and put them under heavy bombardment in the name of the Lord. It is very amusing!

Something is translated in words (it is without words, but there something is translated in words) and then there are conversations among the cells (Mother laughs): "Imbecile, that you are! Why do you have fear? Don't you see it is the Lord himself who is doing this to trans-

form you?" And the other: "Ah!..." Then it remains quiet, and then opens itself and waits, and then... the pain goes away, the disorder goes away, and everything is put in order.

It is wonderful.

But if by mischance the mind comes in, starts to help or judge, then the whole thing stops and all fall back into the old habit.

(long silence)

In reality, it is the ego, vital, mental, etc., all that has been, pouf! taken away.

It was a radical operation.

And so now, there is a kind of suppleness, plasticity. And all this is learning – it is very much in relation with the whole (horizontal gesture), but it is learning to look for all its support, all its force, all its knowledge, all its light, all its will, all, all, like that (vertical gesture, turned to the Supreme), solely like that, in an extraordinary plasticity.

And then, the splendour of the Presence.

(From: Collected Works of The Mother, Vol. 11, Notes on the Way, p. 92-101)

#### In 1966, a future Aurovillian sent a note to the Mother asking:

*Can the very physical cells of one's body have more aspiration than the rest of the being?*

*On several occasions, in the meditation room, I have felt Sri Aurobindo's presence. I feel the same gust of flame within as when seeing you; but also what feels like the cells aspiring, moving forward to meet Him, and "I" follow behind.*

#### The Mother wrote the following answer:

*It is quite possible as the "sadhana" is done now in the body itself.*

## The adventure of evolution

From fear to bliss in the cells of my body - by Bhaga

"If mankind could but see, though in a glimpse of fleeting experience, what infinite enjoyments, what perfect forces, what luminous reaches of spontaneous knowledge, what wide calms of our being lie waiting for us in the tracts which our animal evolution has not yet conquered, they would leave all and never rest till they had gained these treasures. But the way is narrow, the doors are hard to force, and fear, distrust and scepticism are there, sentinels of Nature, to forbid the turning away of our feet from her ordinary pastures." (Sri Aurobindo, 1913)

After reading these lines in 1973, I stood transfixed. Somewhere deep in me something said: "This is what I want to live". I was practising Sri Aurobindo's Integral Yoga as well as I could. But I had no idea that one day I would find myself exploring the secret consciousness of my body cells.

The first time I became aware of the consciousness of the cells somewhere in my body, it was in quite an unexpected and rather amusing manner. It was around 1976. At that time I used to cycle every Sunday to another Auroville settlement, far from the one I lived in. On my way, I had to cross a local village where the dogs had the bad habit of running after you and barking in the most menacing manner. Every time, I was dying with fear. Until the day when I angrily told myself, "Come on now,

you're doing a yoga of Transformation, you're quite often immersed in states of consciousness most people never experience in a lifetime, and here you are, dying with fear because of these dogs! It has to change!"

During the next week I trained myself non-stop to remain absolutely calm: breathing deeply, remaining centred within. Sunday finally came again. I passed again in front of the dogs. In complete peace. They started to bark and came running after me, all teeth out, I ignored them, my concentration riveted to the word I kept repeating to myself inwardly: 'Peace... peace...' It was working! I felt no fear! I was almost past the village, and I was about to rejoice wildly about that victory, when suddenly, in the almost total silence and "peace" of my being, I 'heard' some tiny angry voices, coming from... my right ankle! Yes, from the spot under direct threat from the last dog still running after me. There tiny voices were saying, "To Hell with her peace! Of course, it is easy to remain calm when it's not she who is going to be bitten, but us!"

At the same time I became aware that down there, in that ankle, it felt as if a whole crowd of microscopic people were trying to get away from the spot in a panic. I realised at once that these were my cells, the poor cells in my

ankle, experiencing still all the fear which I had conquered in myself. I was stunned. I could feel that I was for them a tyrant, not having even a thought for them, or a movement of tenderness or gratitude towards them, who were actually doing all the work in my life. I never in fact had acknowledged them as alive and conscious in their own way.

As can be seen in the instance of "yoga on the road" that I have described, my body used to be, and still is to a certain extent, a helpless prey to numberless fears. It happens to be very acutely aware, on the one hand of its own extreme sensitivity and vulnerability and, on the other hand, of the infinite range of possibilities of getting hurt, which it is constantly and inevitably exposed to, even at night when asleep. Anyway the result was that most of the time my poor body was a living knot of fear, and that my life was becoming, even at home, a constant nightmare of apprehension and foreboding. Why did life have to be so dangerous? Then one day, my cells discovered something truly interesting: when they were in a state of total self-abandon to the Divine, not only did an indescribable sense of relief



Bhaga: "On peut!"

and well-being come into them, but often it deepened into pure and tranquil bliss; and what was more, that way of being seemed to actually ward off, automatically as it were, any unpleasant physical event that might have threatened to befall them at the time. Gradually my cells realised that to keep themselves as permanently as possible 'in the Divine' was the only way they could be really secure. It was as if, beyond the normal, physical law of the accident and the pain, there was a higher and more powerful Law one could trust and seek refuge under or, rather, into, for it felt almost like a different space within the normal space: a 'magic' space! Something like a world where all goes well, right within this disharmonious and dangerous world.



## Working with "mitra" cells

Porto Alegre is a bustling town of over a million people in the South of Brazil, close to Argentina. In a quiet suburb lives JUSSARA, known to some Aurovilians for a long time. She is a healer who has an awareness of cells that enables her to sense and direct the cells in another person's body. Those who are familiar with the Mother's work on the cells might find parallels. Carel who was visiting Brazil had the opportunity to interview Jussara on a chilly winter day in June. It was not easy for Jussara to describe her method of healing as she works solely by the vibrations that she feels and not through the mind. Some excerpts from the interview:

*AVToday: You claim to have an awareness of cells. Could you explain what that means?*

Jussara: I think it all started when I was a child. I was able to see how the cells function, regenerate and evolve. In high school when I described the structure of the cell, my teacher was amazed for it went far beyond his explanation. At that time I did not think much of it, for I thought that everybody had the same kind of experience as to me it was so obvious and simple. Later I became aware that this was not the case, and then of course people wanted to 'test' me. Once a cousin put some cells scraped from the inside of someone's mouth in my hand and asked me what I knew about this person. From this group of cells I could "feel" and explain the mental, vital and physical levels of the person concerned as well as predict illnesses that might occur in the future. An uncle who had a chicken farm asked me to predict which eggs would successfully fertilise into chicks, and which would not. That worked. Then I experimented with an egg. I kept an open egg in a bowl, and tried to keep it fresh. You know that an egg is essentially a macro cell. So I concentrated on that egg, and saw that it made a new membrane which prevented it from turning bad. That egg stayed well for weeks on end, and gradually the understanding dawned that I could "influence" cells. When these experiences were followed by many others, I realised I could heal.

*Could you explain this "influencing" of cells and elaborate on your process of*

*healing?*

It is difficult for me to describe it, for it is a completely non-mental process. A cell or a group of cells emanates vibrations that I can "sense" and that give me information about a person. This "sensing" is of course not a physical sensation but a very subtle one, and it is due to this that I do not need to have a physical contact with that person and distance is irrelevant. When I "sense" a person's body, I can "see" the area where the cells have a tendency to get defeated or destroyed, and I can warn the person that something is going to happen. I have observed that if a person understands or accepts what I "see", it has a direct influence on the cells. For example, the person may become aware that what I "sense" is caused by inner conflicts or an imbalance between the inner and outer behaviour, and change that attitude. But my sensing by itself does not have the capacity to prevent something from happening. For that, I have to "influence".

How? Each body contains a certain amount of receptive cells that I have called mitra cells. (I do not know why this word came to me when I looked for a name.) In my understanding, these cells have a perfect vibration and are in contact with the divine consciousness.

When I "sense" a person, I search in that person's body for this group of cells and then stimulate them to deal with the resistance of the other cells that need help. This process happens just as a vibration, like a quick flash. I concentrate and sort of "tell" the mitra cells that "at that spot in the body there is a black



Jussara: "I believe that in the future the human body will be fully lit up."

area". In my experience, the mitra cells then respond and their vibration influences those areas.

You can make the analogy with a Christmas tree. I imagine, or rather visualise the body to be akin to a Christmas tree with little lamps distributed all over it, some of which are lit. When I perceive an illness, or some difficulty in the body, it is as though in those areas of the body the little lamps are out. Healing is the process of lighting up more and more lamps. Indeed, if one just thinks of one's body as radiating with all these little lights, then one gives support to the mitra cells and stimulates them to heal other cells by contagion. It is important to approach the cells with love and warmth in order to achieve the healing.

*Could you elaborate on your perception of mitra cells?*

I believe that mitra cells start forming at the moment of conception, when the ovum gets fertilised by the sperm. When the foetus starts forming, then the distribution of these mitra cells start to be made. But the entire fertilised egg or foetus does not consist of mitra cells. A large quantity of cells are just normal ones.

All people possess a certain quantity of these special mitra cells (though there

are people where I don't see any lights at all). These cells have an infinite vibration. They are free from the memory or residue of the past, they are always on a higher level of vibration. They are immortal in the sense that their vibration continues...

It appears that the commitment of these cells does not end when the body dies. There seems to be a commitment to a base of energy beyond this present existence.

I try to understand this by making the comparison with a reservoir. All the best things that we have received, all the higher vibrations that we have felt are stored as it were in a reservoir for the future. Anybody who is ready to get in contact with it can profit from it, and help to bring it down. It is as though there were a storage place which will make it possible for a new being to manifest. And it is in this reservoir where the vibrations of the mitra cells are being stored.

*The Mother discovered that the programming of the cells was negative, that the cells were pre-conditioned to death. It is said that with the help of a mantra, She changed the programming of the cells. Did you too use a mantra in your work? And how do you see the future?*

I do not know about the Mother's work. But I too had strongly felt that the cells had this commitment to death. I used the psalms of the Bible to help me in my work. But nowadays, there is a change: the cells are stronger. It is as if they themselves say: "I no longer need to suffer. There is no need to die." Nowadays, I find that more and more people, especially children, have lots of light, lots of those little lamps, more so than grown-ups. I believe that in the future, the human body will be fully lit up. But for that, there is a lot of work still to be done.

I firmly believe that the healing capacity that I have today, the level at which I am working today will soon be the property of all. A time will come when everybody will be able to work at this level of cellular awareness.

*Interview by Carel. Translation from the Portuguese by Ila.*

According to Sri Aurobindo, the word "mitra" comes from a Sanskrit root which meant originally "to contain with compassion" and so "to embrace". In the Vedic mythology, Mitra is essentially the Lord of Love, a Divine Friend, a kindly helper of men and immortals... "the most beloved of the gods." (SABCL. Vol. 10, p. 457)

(continued from previous page)

So, little by little, my cells learnt to relax and rejoice. In fact, they were discovering a different way of living, which was so utterly wonderful that they could hardly believe it was really true, truly real. It was as if the subconscious dire memory of so many lives and aeons of hardship and misery was slowly being erased and replaced by a stronger and stronger certitude that, this time, things were really changing, life was really becoming something worth living, where the cells could make their own choices for their own happiness. Only, the new way of living had to be learnt; it was not yet spontaneous, and, as we all know if we have tried to change, old habits die hard, and old reactions keep springing out of their Pandora's Box in a seemingly endless repetition. In the case of my cells the old reaction was fear first and then, lurking in the background, a stark and mute subconscious despair. Two or three times, still half-awake in the morning or after a nap, the very first fugitive 'thought' I caught being expressed by a tired and poignantly sad

'voice' from some unknown abyss in my being was, "What is the use of waking up?" So it's not all healed up yet, far from it; one has to be really and unflinchingly patient. But at least, in spite of the drawbacks and fluctuations which cells experience in their state of consciousness just as we do, a slow reversal of all that sadness and fear was undeniably taking place now, because my cells were in love with the Divine, just as I was, and even more eager than me, it seemed, to keep a permanent contact with It!

For I could feel their *bhakti* at times when I myself was in a quite ordinary state of consciousness, with my own *bhakti* rather asleep, or entirely forgotten: my body cells had a spiritual life of their own now, independent of mine! It even happened twice that I woke up at night because of the intensity of their *bhakti*, which was expressing itself in the form of a... song! A song of their invention, complete with words and melody! It was in French (my mother tongue) on both occasions. I'll translate one of them; it went like this:

"One says 'yes' to thy Light of Love,

One says 'yes' to Thee, oh Lord..."

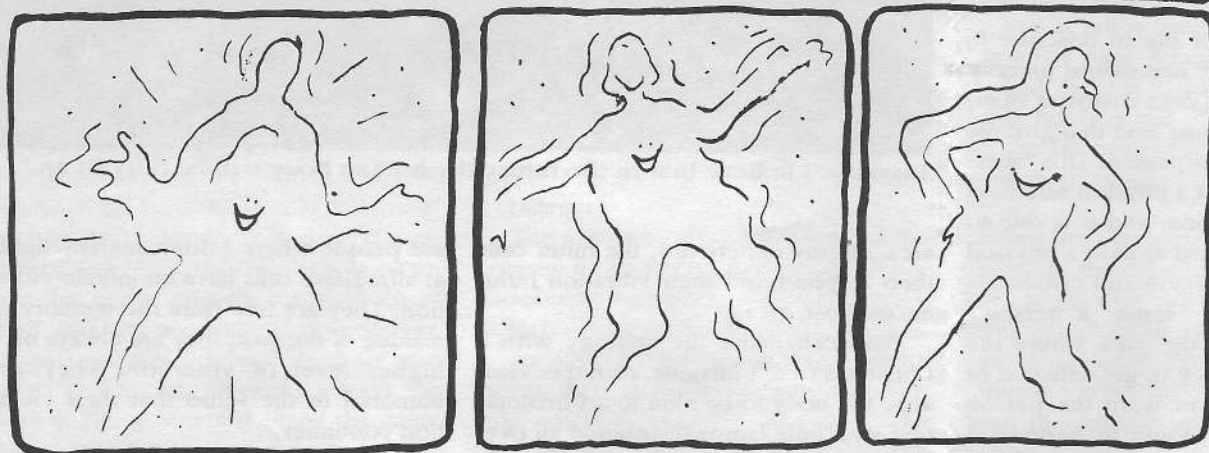
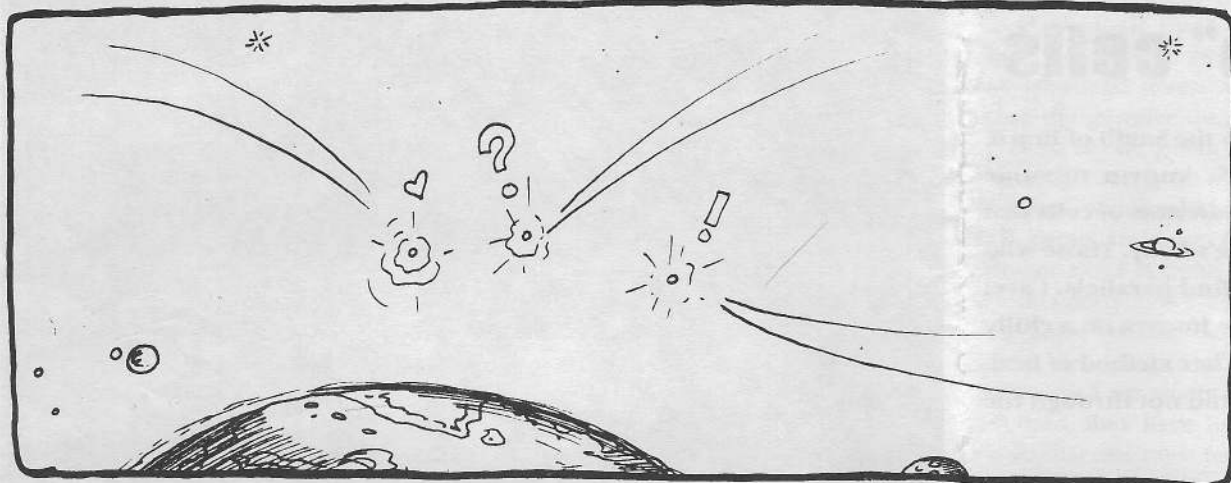
Not at all like a solemn canticle, but just like a happy little love-song for their beloved Lord!

My cells – as also Mother's cells before – started to outgrow their sense of littleness and incapacity. They have discovered in themselves, oh wonderful irony, the joy of challenge and of adventure which was so foreign to them before. More and more often now, in from of a difficulty, they galvanise themselves joyfully with a war-cry-like formula of their own: "On peut!" (We/One can!)

*Bhaga, a former teacher from France, has been living in Auroville since 1972. Currently she is creating educational material on evolution in the light of Sri Aurobindo and the Mother's work, and providing an information service for this. She is the author of The Magic Child or How it all started. Below are extracts from an article she wrote for the English magazine Caduceus.*

*The full text is available with her at the Laboratory of Evolution, Bharat Nivas, Auroville 605101*





**W**.E.L.: Wazo. Emmanuele. Laura. You can find their newsletter, the Auroville News. The three of them are the Cartoons of Auroville, W.E.L."

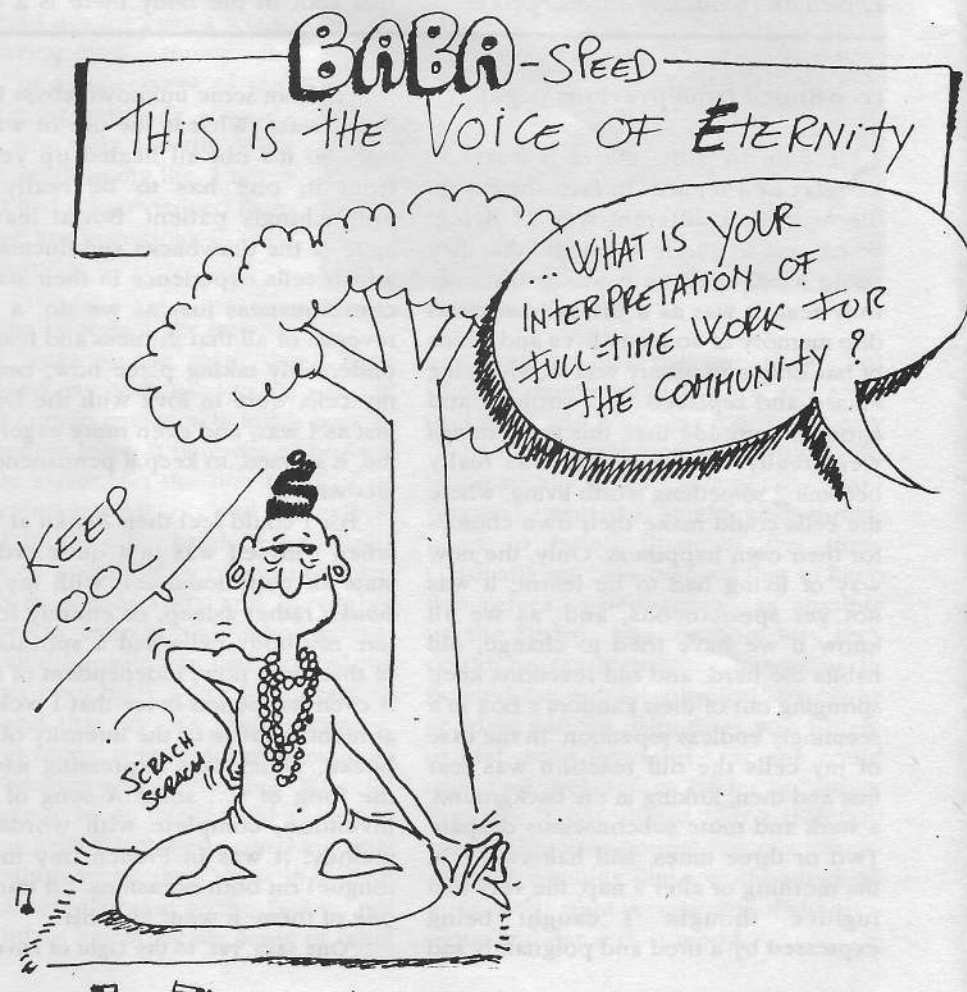
For the past five months they've been delighting us with a bit of humour, a keen eye and a quick hand through their collective cartoon skills, pinpointing feelings and issues.

It all began in March, when Santo, one of the members of the Auroville News, asked Emmanuele if he wanted to do the cover for an April issue. Emmanuele agreed and began to draw down at the Aurodam kitchen table and began to draw upon various issues such as the scarcity of water, the collective economy and Matrimandir. Sometimes they find the theme individually. And sometimes they give them an idea.

They have found it quite a challenge to find the right humour because we don't want to be hard and critical.



W.E.L.  
COMMON CARTOONS OF AUROVILLE

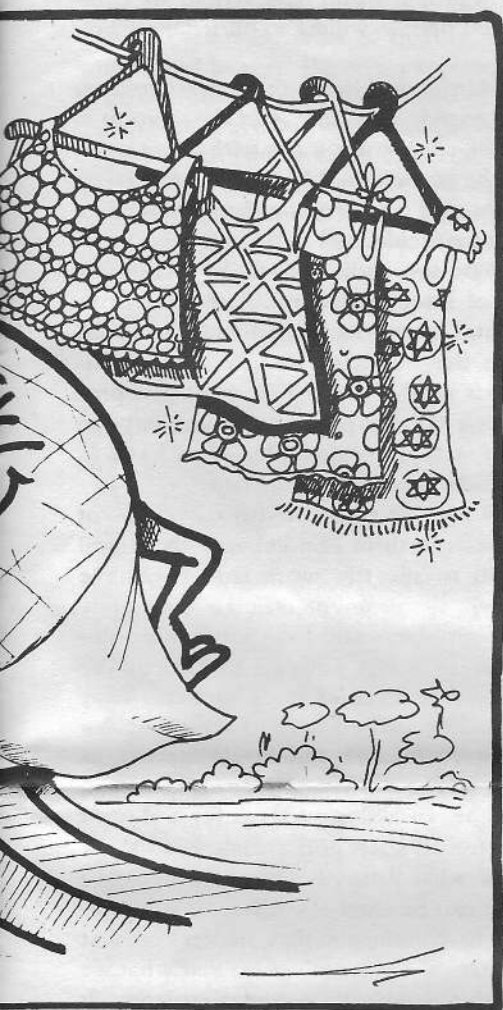




and their cartoons in the weekly community  
 cartoonists sign their work, "Common  
 with their sprightly "takes" on Auroville life.  
 they go straight to the heart of things by using  
 and concerns that exist in the community.  
 members of the Auroville News team, asked  
 Tools issue. Emmanuele, Wazo and Laura sat  
 w. Since then, their drawings have touched  
 influx of tourists, the drive towards a more  
 speak together and come up with a common  
 and then there are times when people come to

right type of humour. "We use a gentle  
 L."

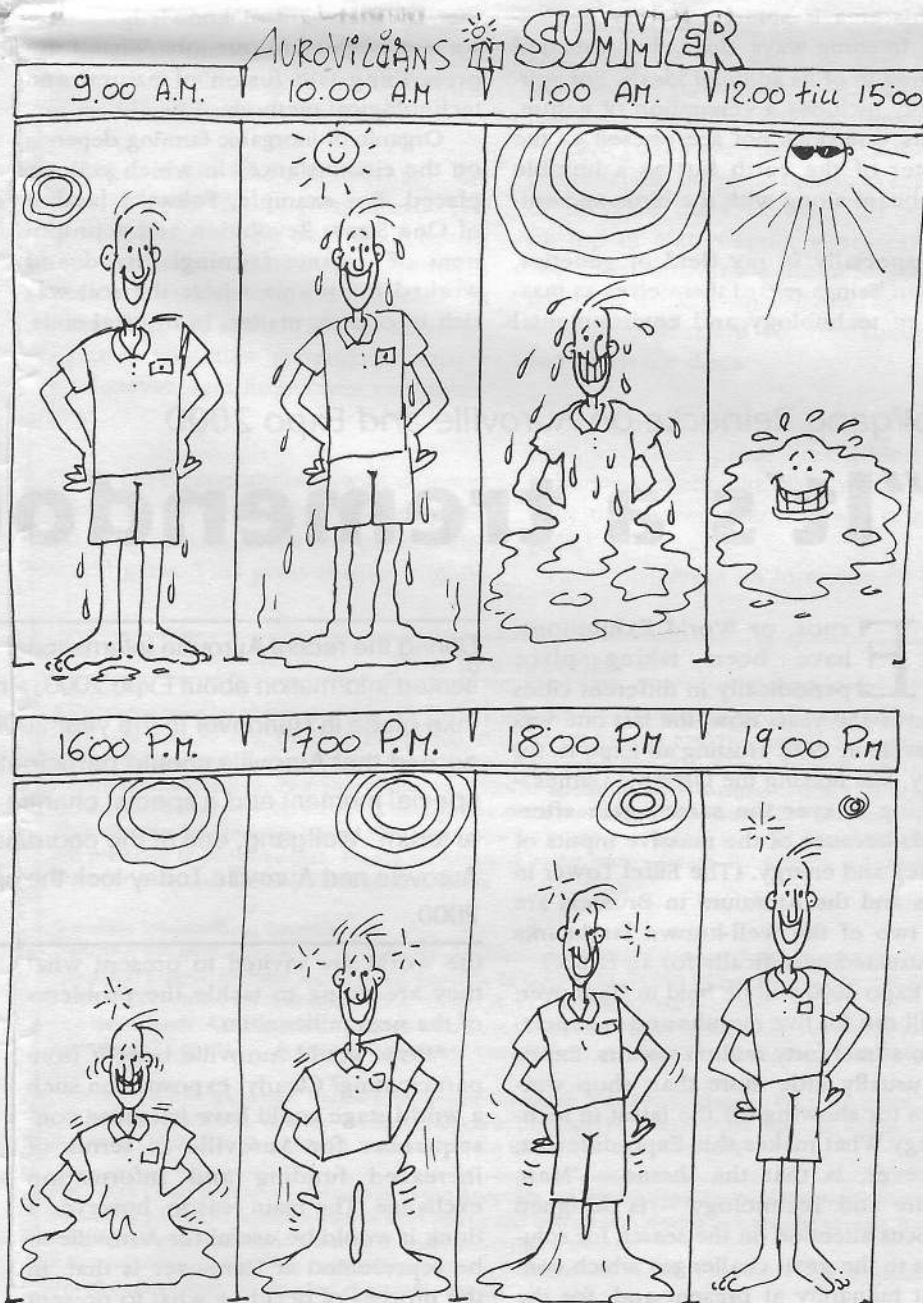
Jill



COMMON CARTOONS OF AUROVILLE  
 W. E. L.



W. E. L.  
 COMMON CARTOONS OF AUROVILLE



COMMON CARTOONS OF AUROVILLE - W. E. L.



AUROVILLE DINING ROOM 1999



## Interview with Dr.M.S. Swaminathan

**"Knowledge is a continuum"**

Dr. M. S. Swaminathan recently became a member of the Auroville Foundation's Governing Board. Founder and chairman of the M S Swaminathan Research Foundation (MSSRF), a non-profit environmental organization, he currently holds the UNESCO Chair in Ecotechnology, and his many honours include being awarded the first World Food Prize, the Tyler Prize for Environmental Achievement and the UNEP Sasakawa Environment Prize. Recently, MSSRF received the 1996 Blue Planet Prize in recognition of its environmental work. Dr. Swaminathan's main work has been to help India to become self-sufficient in food. Auroville Today spoke to him during his recent visit to Auroville for the annual Governing Board Meeting.

*AVToday: What role do you personally see yourself playing in the development of Auroville?*

Personally, as a human being, I wish to help Auroville because I am inspired by its ideals. The spiritual dimension of Auroville attracts me strongly – it was one of the reasons why I accepted my nomination to the Governing Board. I believe strongly in the vision of Sri Aurobindo and the Mother.

Apart from the usual Governing Board functions, I can be of assistance to the Auroville community in my own area of expertise or interest.

I have always been closely connected with this area. Our Foundation (MSSRF) has deep roots in this area – e.g. we are executing a bio-village project in Pondicherry. And in the past, I, along with my family, have visited Auroville and seen its efforts at environmental regeneration.

*How do you rate Auroville's success in regenerating the environment?*

It is most remarkable. The greening of this area is something very impressive. In some ways, this is but a natural outgrowth of its spiritual ideals. For spirituality includes a veneration of nature, where one does not see oneself as the master of the earth but as a humble inhabitant along with the birds and animals.

Especially in my field of genetics, human beings regard themselves as masters of technology and environmental

management. I remember the late Dr. T. S. Venkatraman who started the sugarcane revolution in India, visiting my plot of experimental mutant varieties of sugarcane and remarking that "Man is becoming Brahma (God, the creator)." Today, man has the scientific knowledge and power to alter the processes of nature. But it is extremely important that man uses his power ethically and with humility. In this context, Auroville's harmonious relationship with nature is very much to be respected.

*But don't you find a conflict between Auroville's vision and commitment to organic farming and your own belief in the need for genetic engineering and inorganic inputs?*

Personally I don't subscribe fully to technological methods, nor do I worship the knowledge and the achievements of the past. Knowledge is a continuum. What was done two centuries ago might have been excellent at that time, but if we, as 20th century human beings, have not added anything at all to that advancement of knowledge, I feel we are neglecting our job. What I am prescribing is a fusion of natural and technological methods.

Organic or inorganic farming depends on the circumstances in which you are placed. For example, Fukuoka [author of One Straw Revolution and a proponent of organic farming] lived and worked in an area where the soil was rich in organic matter. In tropical soils,



PHOTO: CAREL

**Dr. Swaminathan: "The spiritual dimension of Auroville attracts me strongly."**

we lose a lot of humus through oxidation. Secondly we grow crops throughout the year – so it is difficult to dictate to the poor Indian farmer the organic farming dictum, "Don't plough." Thirdly, many small farmers do not have enough cattle to provide them with organic manure. Thus while I agree that in excess it is bad, I see the need for giving the soil, the plants, some inorganic inputs.

Auroville of course, being a place for experiments, is free to carry out organic agriculture, especially as the Mother wanted it thus.

*Farming, because of the lack of funds and other reasons, has not been a very successful venture in Auroville. Do you think Auroville could become an example of successful dryland farming? Can your organization actively participate in helping to manifest this?*

Most certainly. There used to be so many dryland crops in this area that provided food. Today because of policies started by the British or other policies like the noon-meal plan which provides

only rice, our food consists of only half a dozen crops. Auroville with its knowledge and with its substantial genetic bank of indigenous crops can definitely bring about a revival of interest in indigenous food crops. Auroville represents the future. I think it should chart out new paths in the conservation and management of natural resources. Especially when Auroville grows to its population of 50,000, then there will be a critical mass of people to show that this experiment is a viable one and not just an alternative scheme undertaken by a few "crazy" people.

There are funds available for experimental farming projects if we can define them properly and have five to six committed people willing to undertake them.

*As you well know, our biggest problem is a scarcity of water. And the solution to water-conservation lies with the farmers in the bio-region who grow water-needy crops and over-irrigate their fields. How can we tackle this?*

You see, India is beset by a complex set of inter-related problems. Environmental concerns have to be balanced with the need for securing the livelihoods of the poor. You can't just promote a "Don't" philosophy, you have to have a "Do" philosophy. You have to provide alternative solutions.

Why don't you invite Government officials both in Pondicherry and Tamil Nadu to see the work that you have done? Government officials constantly face problems and look for viable solutions. It is not enough that Auroville sends reports of its work to them. They should be invited here to see things for themselves, for ultimately seeing is believing. For instance, Auroville could host an annual workshop for a day or two for all such policy makers to show them what Auroville has achieved and what can be used elsewhere. It is important to convince policy makers so that we have a greater effect, so that what we call the extrapolation domain is larger. It is important that we spread, with humility, the message of Auroville.

*Interview by Bindu and Carel*

## Wolfgang Reinecke on Auroville and Expo 2000

**"It's a tremendous opportunity"**

**"E**xpos, or World Exhibitions, have been taking place periodically in different cities for over 150 years now; the last one was in Seville in 1992. Hosting an Expo is, for a city, like hosting the Olympic Games – nothing is ever the same again afterwards because of the massive inputs of money and energy. (The Eiffel Tower in Paris and the Atomium in Brussels are just two of the well-known landmarks constructed specifically for an Expo.)

"Expo 2000 will be held in Hannover; it will run for five months and is expected to attract forty million visitors. Expos are usually little more than shop windows for showing off the latest in technology. What makes this Expo different, however, is that the theme – 'Man, Nature and Technology' – is designed to focus attention on the search for solutions to the great challenges which confront humanity at present and, for the first time, small projects from all over

During the recent Auroville International meeting in Sweden, AVI Germany presented information about Expo 2000, a major international exhibition which will take place in Hannover in the year 2000. After some discussion, the Centres agreed that Auroville should participate in such an event because "this is a special moment and a special chance to bring Auroville into the international forum". Wolfgang, one of the coordinators of AVI Germany, recently visited Auroville and Auroville Today took the opportunity to ask him more about Expo 2000.

the world are invited to present what they are doing to tackle the problems of the next millennium.

"How would Auroville benefit from participating? Clearly, exposure on such a world stage could have immense consequences for Auroville in terms of increased funding and information exchange. The main reason, however, I think it would be useful for Auroville to be represented at Hannover is that, in the process of deciding what to present there, the Aurovilians would have to

look deeply into what Auroville really represents – to discover, or rediscover, its uniqueness.

"I don't pretend to fully understand what this uniqueness is, but I think it has to do with integrality; with the fact that Auroville is working on all fronts, on all levels – environmental, social, technological, spiritual – at once. This is very rare as most projects or communities have one specific focus. And it is this integrality which would make Auroville's presence at Hannover so appropriate,

so relevant, because there's a tremendous thirst in the West now for solutions which are more complete, holistic, and which don't focus exclusively on political, technological or social 'fixes' which have solved nothing.

"If Auroville is to participate in Expo 2000, it will require a huge effort. The organising committee of Expo have money available to help communities like Auroville participate. They also give tremendous freedom regarding how projects or communities present themselves, but the presentation has to be at a very high level. This means that the best talents both within the community and in the AVI organisation (who are keen to collaborate) need to be mobilised and we all need to learn how to work effectively together if we are to carry this off.

"It's a tremendous opportunity. I hope that Auroville will take it."

*From an interview by Alan*



When Gine of the German firm Mayerhofer came to Auroville in August 1995 to initiate a few Aurovilians into the techniques of applying gold leaf to fibreglass reinforced polyester (see AVToday #81, October 1995), it was thought that this phase of manufacturing gold discs for Matrimandir would go smoothly and quickly. And so it would have, had it not been for the birds and the bees. For the birds damaged the gold foil with their excrement and claws, and rock bees did the same by hanging huge nests onto the discs.

Back to square one, therefore. Michael Bonke, a German entrepreneur who has been connected to Auroville for over twenty years, discovered a way out. After extensive research he was able to offer Matrimandir the most perfect solution in terms of quality, durability and beauty. He now proposes the "gold sandwich glass tile", a leaf of gold enclosed between two thin layers of glass which can be fixed onto the discs. The result is stunningly beautiful, and has now been officially approved. Michael describes the process of discovering this technique in more detail.

"I travel a lot and saw gold sandwich glass mosaic tiles being used in temples in Asia. The technique to put leaf gold under glass so

# Sealing in the Gold

## A new design for the Matrimandir discs

that it is completely protected has a long tradition. It had been used in the Byzantine era about 2000 years ago, and traces can still be seen in Istanbul where it was used for interiors. Asia too possessed the technique at some point in time, probably between AD 1000-1500, but it has been lost. The technique has been preserved in Italy, which exported it 120 years ago to cover the temple of the Emerald Buddha in Bangkok.

When the problems with the bees and the birds came up at Matrimandir, I started to enquire and got into contact with specialists in the glass line in Germany. In consultation with them I bought two ovens and started experimenting with a small team of people, one of whom is Agni, an Aurovillian who has been in charge of the gilding work so far.

The Italian system, however, has its drawbacks and is actually unsuitable for our purpose. The Italians use a very thin glass, only 0.3 mm thick, for the top glass, which is also too soft. Soft not in terms of hardness, but in terms of the melting temperature. With a low melting temperature the glass has a different hydrolytic strength. The disadvantage is that this top layer of glass contains a lot of sodium which eventually gets washed out by the rain, thus affecting the lifetime of the sandwich. And this is not acceptable for Matrimandir.

We have adopted a different method. We use a harder glass

The new prototype gold disc covered with glass tiles

with a higher melting temperature. In this system it is very difficult to obtain an adhesion between the glass and the gold leaf, so we are fusing the glass on the edges; we let the glass overlap the gold leaf squares of 42 x 42 mm by about 1 cm on all sides, and then grind it down to the desired size. This has a design disadvantage: there is always a small frame of 1.0 or 0.8 mm around each gold leaf, and as a consequence a clearly distinct mosaic pattern is visible on the disc.

For a period of 6 months we have been testing this solution, and have developed a very stable product with an extremely long lifetime. The top layer of our sandwich consists of 1 mm thick glass, which will get a bit 'milky' after 30 or 40 years. Polishing with xeroxide will make it absolutely clean again, and as this thickness allows for polishing 30 to 40 times, the estimated lifetime can be calculated to be between 900 to 1600 years. The discs themselves have an estimated lifetime of about 100 years (we use vinylester resin, the 'Mercedes' of the resins!) and the glass tiles can be re-used after the discs are discarded. In order to remove them from the old disc one could just heat up the disc to the point where it disintegrates and collect the tiles.

The manufacturing process is a labour intensive one. In fact, it is so labour intensive that you couldn't pay for it if you had to do it in Europe. I calculated that we would need 200 workers to finish all the discs in 1 year. In all, there are 2 million gold sandwiches to be made and fixed to the discs.

Roger Anger (the architect) saw the prototype and liked it very much. The mosaic pattern on the disc which results from the frames around each sandwich was not considered to be disturbing at all. Instead, the mosaic allows for many design possibilities: rectangular, square or whatever, and Roger was very interested.

We have experimented with different types of glass: ordinary window glass, and also as an alternative pure white optical glass. This glass shrinks slightly

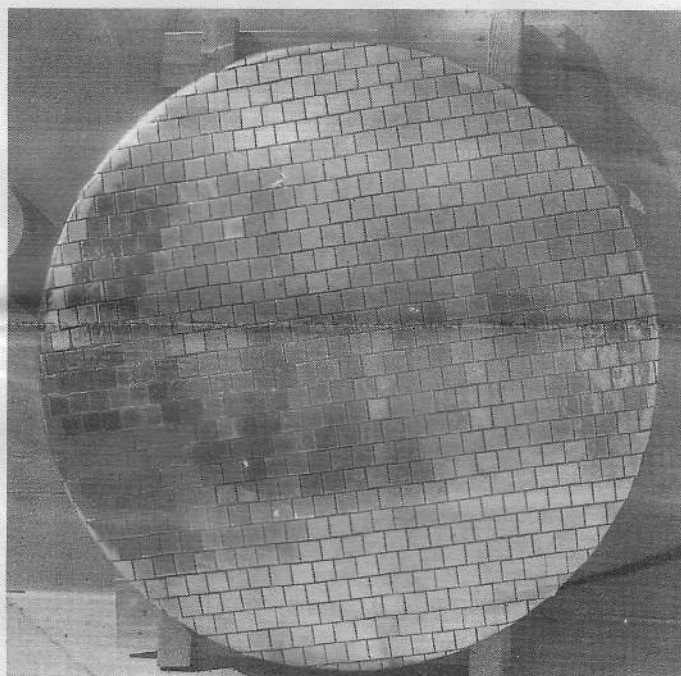
during the melting process, causing the gold leaf to wrinkle. If you use ordinary glass the gold becomes very smooth and then the disc becomes like a mirror with the disadvantage that if you look at it sideways you do not see much of the gold colour. If the gold is wrinkled, the disc appears golden from whatever angle you look at it. Roger expressed his preference for the optical glass though it is much more expensive than the normal glass. I am now researching what qualities of glass are available in India, and also the best way of bonding the sandwich to the disc.

The reception of this proposal in Auroville has been very positive. The gold leaf protection, the long life, the beauty, the easy handling and the perfect interchangeability in case of repairs make it the ideal solution for Matrimandir. It is known that the traditional gold leaf method has a lifetime of 30 to 40 years; the entire covering would have to be replaced if you did not want a patchwork pattern of old and new discs. Here, in case of a repair, any small element like a single tile or even a whole disc can be replaced, and it would look exactly the same as the old disc. A stock of spare tiles should be kept for emergencies. But it would be better if Auroville would start a unit which, after the discs are finished, could carry the knowledge of this technique into the future. There should be a great market for this in India and abroad.

If Auroville decides on this option, then it will also have to decide what to do with the 200 discs which have already been manufactured using the traditional gold-leaf method. In case the old discs would not be used at all, the loss would be very small. Around 70,000 gold-leaves have been used, which is less than 10% of the total requirement of 750,000 gold-leaves. In terms of the cost of the whole project it comes to only 3% of the value. But these discs can be used on top of Matrimandir where one can see them only from the side and not from the front. Eventually in the course of time one could convert them into sandwich tile discs.

Let's put all the ungilded discs up now, and then sprinkle the gilded ones in between them, like stars, so that gradually the Matrimandir skin will turn into gold."

From an interview by Carel



## Brief News

### The new Auroville Calendar

The Auroville calendar for 1997, featuring 14 beautiful photographs taken in and around Auroville, is now available. For further information contact your Auroville International centre or AGRC, Auroville 605101.

### Opera on CD

Beyond Asleep and Awake, the children's opera performed by the Auroville children's choir, has just been released on a double CD with an attractive accompanying booklet. All profits will be used to promote cultural development in Auroville. The boxed CD set costs Rs 1,000 in Auroville, and DM 50 or US \$ 35 abroad (including postage by registered airmail). The set can be ordered by sending a cheque for this amount made out to Auroville Fund, specified "Opera"

### Auroville on Internet

Computer geeks with access to Internet can now virtually visit Auroville through its home pages on the WorldWideWeb. With an easy-to-use menu and hypertext facilities, viewers can browse through over two-hundred pages of information on Auroville on various topics such as Matrimandir, Greenwork, Education, Arts and Culture, and Research Institutes.

The home pages are by no means complete. Like Auroville itself, the "site" as the viewer is repeatedly reminded "is under construction."

But given the diverse range of activities in Auroville and the lack of a full-time professional crew, it has been an herculean task to write, edit and format these initial home pages on Auroville. All in all, the continuing efforts of Nilouro, Lynne, Theo and others to provide complete and up-to-date information on Auroville is highly commendable. Visit Auroville at: <http://www.auroville-india.org/>

### How to subscribe

Subscription rates for 12 issues of Auroville Today are the following: for India Rs 250; for other countries Rs 1250, Can \$ 51, FF 195, DM 56, It. Lira 61,000, D.Gl. 63, US \$ 38, UK £25. This includes the postage by airmail. Please send your contribution (or your supporting contribution of double the amount) either to the Auroville International centre in your country (add 10% for admin. and bank charges) or directly to Auroville Today, CSR Office, Auroville 605101. Cheques should be made payable to Auroville Fund, specifying: 'Contribution for Auroville Today'. You will receive the issues directly from Auroville. Personal cheques are preferred to bank cheques. Please do not send postal money orders. Subscribers will receive a reminder when their subscription is about to expire.

#### Auroville International Centres:

Germany: AVI Deutschland, c/o W. Reinecke, Mainstrasse 75, 28199 Bremen. Tel: 421 594220  
Spain: AVI España, c/o Kitxu and Yolanda, Apartado de Correos 36, 31.610 Villava, Navarra. Tel. 048 50720  
France: AVI France, 6, rue du Cail, 75010 Paris. Tel. 33 1 40364367, fax 44729467.  
The Netherlands: AVI Nederland, c/o M. Berden, Lobelialaan 51, 2555 PC Den Haag. Tel. 070 3251160  
Canada: AVI Canada, c/o Antoinette Gagné, 847 Chemin Perry, Aylmer J9H 5C9 (Quebec). Tel. 0819 648 0328.  
Sweden: AVI Sverige, c/o Ulf Carlberg, Borgholm, Brøddebø, S-59700 Atvidaberg. Tel. 0120 22026  
U.K.: AVI U.K., c/o M. Littlewood, Canigou, Cot Lane, Chidham, W. Sussex PO18 8SP. Tel. 02435 74099  
U.S.A.: AVI USA, P.O. Box 162489, Sacramento, CA 95816. Tel. 0916 452 4013

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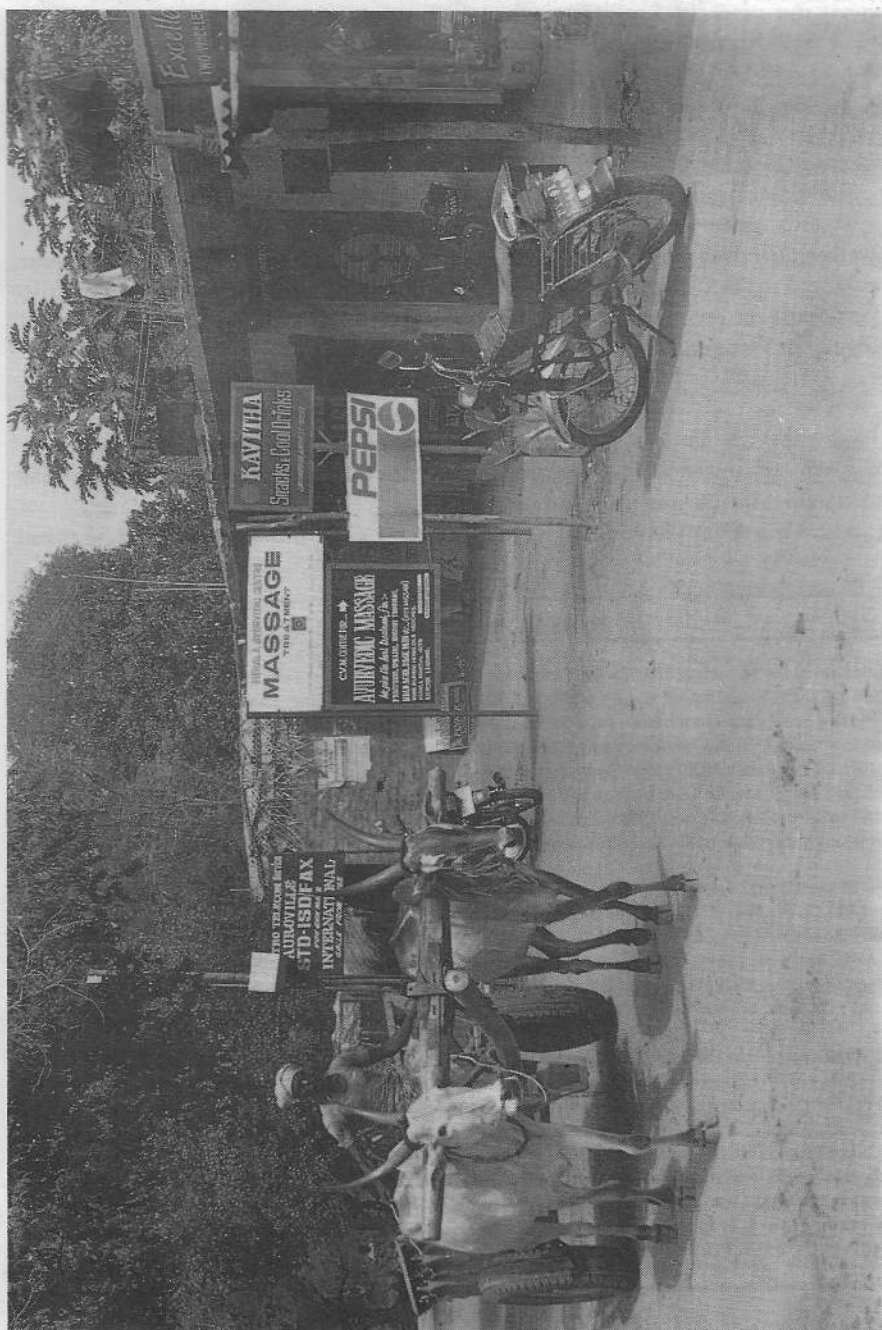
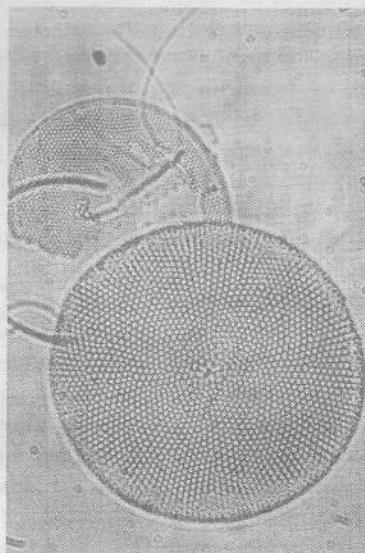
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IN THIS ISSUE: THE CELLS BECOME CONSCIOUS; COLLECTIVE  
CARTOONING; INTERVIEW WITH DR. M.S.SWAMINATHAN;  
NEW DESIGN FOR THE MATRIMANDIR DISCS; AUROVILLE NEWS



The times they are a'changin': New enterprises on the Kuilapalayam road to Auroville

PHOTO: JOHN MANDEEN

## That was the month that was...

Extracts from Auroville News in August

"TARIFF No. 9: There is much anxiety about the possibility that this new tariff will be effected and about the retroactive billing which would follow. Farms like Auro-Orchard will be most hit. Gerard pointed out that pumping would cost around Rs 25 per hour, and field cultivation would stop, while only fruits could be continued." (From the AV Farm Group report of 30.7. regarding a proposal by the Tamil Nadu Electricity Board to charge AV farms much higher tariffs for electricity.)

"THE ENTRY Group is being re-constituted. Don't forget to give the list of names of the people you want to see on the new Entry Group to Santo. Take into account representation of nationalities and gender balance." (From AV Council report, 1.8.)

"WE NEED to find ways of involving the major unit holders of AV back in the community. At the moment, it's like they are disconnected from the community behind walls. We need to reiterate our common goals and the reasons why we are here in AV. For this we need to nurture confidence rather than confrontation." (From AV Council report of 29.7)

"WE REQUEST all users of AuroNET! to contribute on a monthly/yearly basis to help us cover maintenance of the systems and manpower and pay for the telephone charges of the public access systems. ... Please note that we have probably one of the best e-mail systems in Indian today and we are trying to improve it further." (The AuroNET! team, 3.8)

"THE NEW shuttle bus service began some weeks ago on a tentative schedule, with the idea of serving people going to work and back plus 2 trips to Pour Tous every day, one in the morning and one in the evening. ... The free service is supported by the Auroville Fund. One new trip to Pondy has been scheduled for Wednesdays, leaving Matrimandir at 9.00 am, returning at 12 noon. This first trip got off to a bad start as it left earlier than scheduled. Many apologies to those who happily waited for the bus to Pondy that never came." (The Shuttle Service 3.8)

"OTHER problems were evoked, rather strange: people lying down or doing asanas in the Chamber, playing with crystal pendulums, putting photographs under the crystal, coming with a dog into MM etc. It was noticed also that some people had come with a camera and were selling their photos. All that shows the necessity of guarding the Matrimandir." (From Matrimandir Forum notes of 31.7)

"THE WATER Service, with Palmyra, AGRC and VAG is embarking on an adventure. How to get zero run-off of rainwater in a region of 766 square kilometres? It looks very much like if we solve this problem we might give some sustainable future to the region and to Auroville at the same time. We have been working on this programme for a few months and are now approaching the fundraising part of it." (From the Auroville Water Service report of 10.8)

"THE FOOTBALL game at Certitude will now be played every Wednesday at 5:15 pm and not on Thursdays any more. Therefore, if you want to play football come on Wednesday and not on Thursday as you would otherwise be all alone and probably bored. But if you come on Wednesday there will be twenty-two or more people there and you might have a good chance of playing. Also if you don't play but just like to watch a sort of mediocre game of soccer, then Wednesday's your day. If you come on Thursday though, there won't be much to watch, except maybe volleyball or basketball, but football? No sir. So come on Wednesday." (Auroson on 10.8)

"HELLO FROM Peace Trees Low Lands. Hi, Aurovilians! We are glad to thank every one who helped all of us (financially and with presents) for our trip to Holland to participate in the lowlands peace trees program and the Mother who offered this opportunity to us! Hope to see you all soon!" (From Shankar, Partha, Sarasu and Auroshee in Holland on 10.8)

"THERE IS a process newly underway to look at Pour Tous, to see how well it is serving the needs of the AV community. ... How do we feel about Pour Tous? How do we behave there? Are we generally satisfied with our current 'food trip' here in Auroville? Could we envision something better? ... There will be a forum to see if we can come up with a New Vision for Pour Tous on Thursday, September 5th. ... Please come share your ideas, concerns and vision." (24.8)

"OPENING the meeting Roger presented to the group his CIRHU (Centre for International Research in Human Unity) model and concept. This he was very careful to explain was only a concept of volume and space and was not a concrete architectural plan - it could change. Thanking Roger for presenting us with a glimpse of a future CIRHU, Aster said Roger had taken Auroville into the 21st century, that it was a project of the level of UNESCO - but how to present it?" (From CIRHU meeting notes of 29.8)

"LET'S congratulate all thirteen students of After School for passing the May 1996 Open School Examination. This is the first time everyone has passed the course successfully. We would like to thank all the teachers of After School ... and all the other people who have been encouraging us all along. Love, D.Selvaraj" (From AVNews of 31.8)

"DISCLAIMER. The opinions expressed in the AVNews are those of the Author only. Except for Meeting Reports which are generally, but NOT ALWAYS the approved minutes, nothing printed in this newsletter is to be construed as the official view or opinion of the community of Auroville or its Residents Assembly." (First published in AVNews on 31.8)

"A CUCUMBER should be well sliced, dressed with vinegar and pepper and then thrown out." Dr. Johnson (End piece to the AVNews of 31.8)