# The Kodaikanal Experience: Chapter II

## Kahn-Montessori Interview

DAVID KAHN: You once alluded to Kodaikanal as a community in the hills. Can you begin by describing what kind of conditions you had there?

MARIO MONTESSORI: We were supposed to be interned in Madras. And then we did stay there. But people realized that my mother's health would be damaged and they allowed us to move to a higher place where there was a better climate. The road to safety and salvation was Kodaikanal. We found a house which met our needs, with a minimum of stairs, a fireplace, a garden in the front, and a garden in the back. The garden in the front was on the same level as the house. The garden in the back was my escape route which was on a downhill plane.

KAHN: Escape from what?

MONTESSORI: Night and day I was with the community of people who were preparing for the course lectures and working with the materials. I did the usual observation of practicals. But after, I was able to go into the woods out the back way to meditate and be alone a little bit. You must remember that during that time there was much destruction going on in Europe. The only time I could think about my children who were back in Europe was in this time alone away from the people.

KAHN: You were separated from your children then?

MONTESSORI: Yes, they stayed here in Holland. I knew my son was involved in a dangerous situation. He was with the underground; he was taking the RAFers through enemy territory to a place near Belgium where they could cross to go back home. And my two other children were under the care of Ada who was later on to become my second wife. They were safe—but the place was full of bombing and so on. And I was really worried.

But that is the personal aspect. Now I will tell you another point of view. There were people who came to stay and share our solitude at Kodaikanal. There was one young lady who came there and took a house just a few steps up on the hill. She started a Montessori class which I could observe every day. That was Miss Lena Wikramaratne. We had an excellent communication.

KAHN: So at least in your grief there was one consoling fact that you had a Montessori class there. In that first session you had only four children—then your number mushroomed overnight. What did you do with these children?

MONTESSORI: I did a bit of everything. I went outside to visit them, to interest them in nature. How did the trees grow? We had a little garden that was worked by the children. They took care of the flowers. They cultivated the plants. We had every variety of species to enhance classification. We went to the garden to observe—many times just to see.

KAHN: Any particular activities?

MONTESSORI: In particular, they observed and detected different aspects of the plants.

KAHN: How did you work it? Would they see a model plant?

MONTESSORI: That's right. Each species has its respective parts that conform to the composite. They could see the plants were really different yet still belonged to a universal plan. That was really a surprise to the children.

KAHN: You made terrariums. What inspired terrariums?

MONTESSORI: Biology includes not only plants; it includes animals. It involves relationships. I

wanted to show the children the possibilities of survival within a reconstructed environment. So we created these terrariums to show the collaboration between plants and animals. We would catch one animal at a time, observe them in our constructed surroundings and then return them to nature after a while. When the curiosity of the children seemed satisfied, we would move on to a different animal and a different concept.

KAHN: How did you illustrate the principles of survival?

MONTESSORI: You had to construct the environment in order for the animal to live. For each animal, there was a special environment suitable for its survival. I would do much of the preparation. I had to. The work would involve a great deal of thought and application. In order to make the animals eat, I used to catch by the neck and they opened their mouth. (AHHHH) And then I would put meat inside the mouth. That was the funny part; these animals don't eat while imprisoned in conditions that are not natural. They would starve to death. We tried everything to get the animals to eat by themselves. Finally we realized that we had to feed them forcibly.

KAHN: Did your mother have a direct role in these activities?

MONTESSORI: No. She was a great scientist; she actually took a degree in biology after she finished her study of medicine. She was very interested. She would think the profound thoughts working by herself in the house. I was busy with the animals. Why didn't they eat? I was still pre-occupied. One frog simply wouldn't touch her food. She was becoming thinner and thinner—just a skeleton. Then one day, I got so mad I threw a pebble at her and she pounced on it, and took the pebble in her mouth. I realized that some animals were possessed with the instinct of eating only animals that move. This was a great cosmic mechanism, because their eating would consume the living surplus. Eating only that which moved meant that the consumers would eliminate the living over-population.

That began to give us an idea. Dr. Montessori and I would talk. For everything that exists, there must be some force to calibrate the surplus. This seems to be the underlying characteristic: to render service without being conscious of doing so. The carnivores which feed on other animals help to keep fit the kind of animals upon which they feed. They eliminate the weak and the unhealthy and keep the rest alert, so that the ones which survive are the best of the race. The service they render is shown by what happens when they, as eliminating agents, have limited the species. Dr. Montessori used to say—God knows if the fish eggs all hatched and survived, the sea would become crowded. It is very simple. If every fish survived, there would be no water and we would all drink the fishes.

KAHN: So the realization of the Cosmic Education ideal worked something like this. You and Miss Lena would work in nature and with the children. And then you would come back each day and talk to your mother and she would make comment.

MONTESSORI: Yes, the idea would grow. Animals and plants were attached to nature in all sorts of ways. The animals depend on water, on plants and also nowadays, they depend on man, who creates possibilities for certain types of animals to develop and evolve. Plants depend on sunshine, water, earth, men, and animals. This is a real aspect of the world's functioning. We saw purpose in everything that existed; nature's equilibrium would be maintained. The mountains, the rain, why didn't it rain here, and why did it rain there—the atmosphere, the sun—each had its role to play.

KAHN: The interdependency of life and the network of ecology is hardly a new insight. What was really special was its relevancy to the education of children. What kind of developmental effects did it have on children? How did you make the connection that cosmic history would be an aid to the development of elementary children?

MONTESSORI: We wanted to give reality to the children—and to show the principles of reality.

KAHN: Some would argue that purpose in nature is strictly hypothetical.

MONTESSORI: Exactly, everybody has their way of seeing things. I merely wanted to show them the facts so the children themselves would realize what exists and draw their own conclusions.

KAHN: But Dr. Montessori and yourself have derived from this experience not only a factual picture of nature, but a vision of appreciation and love.

MONTESSORI: Yes, we had many occasions to make moral lessons with the children regarding facts in nature. In Madras, for example, the local people are afraid of crows—they view them as a horror. It is a part of the local culture to fear these crows. There was a hill for all to view where the people used outhouses—and the crows very often would immediately descend to get at the feces while these people were using the toilets. It was quite an inconvenience.

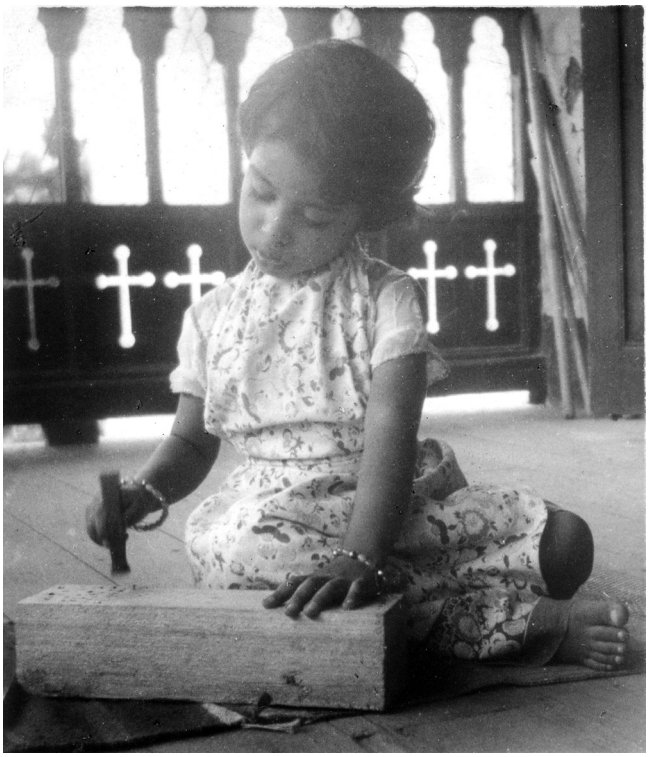
These people were near a village of fishermen, and they had no facilities. We saw this type of thing. Over the years, these birds were considered unclean. But we tried to communicate that every creature has its cosmic task. And some of these tasks were not pleasant to human beings. The children might consider the task horrible. We changed their impression to think how marvelous that everything has its task. We should be happy that crows clean up this mess. And then the children would give other examples coming from their experiences. Dr. Montessori meant for us to bring God into the life of the children. The reality and wonder of creation should be dealt with in such a fashion that the children cannot only see it but absorb it into their sentiment. They will feel that our world is a good place to live in, and a place where generosity is expressed with the very breath of life.

KAHN: Another part of Cosmic Education is the charts and the timelines. Doesn't your original work in Kodaikanal run the risk of banalization of Cosmic Education in the packaging of these charts and timelines? What do you think?

MONTESSORI: We tried then to work with the child in nature, to show the erosion of land, the sedimentary formation—we would try to help the imagination of the child with real experiences. If you take all the charts and timelines and call it Cosmic Education, that is ridiculous. It goes much further than that.

KAHN: How do we deal with teachers in training who do not have the knowledge and appreciation of nature that you have? Where do they get the feeling for nature?

MONTESSORI: Well, they do get an illustration of the facts, and if they don't have this kind of sentiment, they should develop them with the children and through the children, using real natural



Montessori child, Sophia College, Bombay, around 1942

materials. People always say that nature education is too expensive or that it would frighten the children. But when we worked with the children, we simply showed them what's there. You could always demonstrate and give proof to the children as to what's happening. For instance, I would build a sandbox. If you wet sand, it stands up. If it is contained by a cylinder, it pushes together. When you take the sides of the cylinder off, it pushes together. Then you sprinkle the sand with water, and the sand crumbles. All that took place on the earth, in the oceans. There are certain things that stay up for a long time—those are the mountains. Their material is hardened. Even then some mountains were washed away. I used to build extensive models outdoors, using natural materials.

KAHN: One of the ingenious aspects of Cosmic Education is the Story of the Universe in that it introduces an overview that initiates the first principles of all the sciences. When did you conceive of telling children the story of creation as a means of introducing scientific principles?

MONTESSORI: I would discuss these things with my mother. Of course, we were in a country

where the Christian belief was not in the majority. I would argue with my mother that every religion has its version of creation—that it was not fact. But as we studied we saw that there was a connection between the evolution of life and the Book of Genesis. We saw reconciliation. We saw that everything had its cosmic past. Who does it. And everyone says, "God does it." And we used to say, well, God has no hands; we haven't seen God do anything. So that is why we believe that the hands of God were put in this world in the creation, in each substance, in each being. There is a sentiment, or perhaps a thought that keeps all things working together through cohesion of some sort, through existence, through accommodation. The child can experience in nature that there is something eternal, present everywhere and always which seems to have organized the whole universe in such a way that everything in it merely by existing, is of service to the whole.

KAHN: So the beginning of the elementary education that we know today really came from Kodaikanal. Although you had elementary classes before, this was the first exploration of the sciences that was uniquely a Montessori development.

MONTESSORI: Yes. In the olden times, Dr. Montessori had the children up to six, and then from time to time we would keep children whose parents were enthusiastic and who would request more. We had included some advance technique in previous courses. But it was at Kodaikanal where Dr. Montessori developed certain visions and through these visions applied and planned classes for children.

When we came back from India, we came to Holland, and the big surprise was that they said they knew everything already about elementary school, and we had a tremendous difference of opinion.

We had made a new discovery which was special and long-lasting—and it all came about in the hills at Kodaikanal where practice and ideals met—and a better vision emerged.

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*Dr. Mario Montessori (1898-1982), son of Dr. Maria Montessori, dedicated his life to the preservation, dissemination and application of Montessori's works. Reprinted from* The NAMTA Quarterly 5,*1 (1979, Fall): 56-59.*