

AMI Journal

2021
archival treasure publication

SOME OBSERVATIONS ON THE MONTESSORI ENVIRONMENT
Maria Montessori

Observations from one of Montessori's Indian lectures



published by Association Montessori Internationale

‘Some thoughts on the importance of the Montessori environment and fundamental ideas on its organization’

A Treasure article from the Maria Montessori Archives

The title of this Treasure Article may sound somewhat unsurprising to many in our Montessori community. Do we not cover all the fundamental aspects in our teacher training courses? Are Maria Montessori’s thoughts on the organization of our learning environments not ingrained in our thinking? And are they not part and parcel of our everyday work in the environment, and our encounters with the children?

Most of our readership will probably respond with a clear “of course!” And yet do feel invited to reconnect to Maria Montessori’s own voice on how she sees education and the psychology of learning.

In this lecture given to students on one of the courses Montessori delivered in India, she brings together both theoretical and practical aspects of education; these, she argues, reinforce each other, complement each other and demonstrate the importance of both to reach a perfect “collaboration” in enabling inspired learning. Montessori claims that the interest of the individual is a fundamental urge, which stands equal in importance to the materials—creating a perfect balance.

This article contains many such nuggets of concise and insightful observations.

She elaborates on how she found a large mixed age group to be most beneficial. What nowadays we call vertical grouping she states must include at least three ages.

Furthermore, Montessori describes how the physical arrangement of the learning spaces had brought new knowledge on the attraction and learning potential the Montessori materials could engender. The “open door” layout of the classrooms means that different age groups can engage with each other, and learn from each other in the most beneficial and natural of ways. The best teacher is another child, and the best way of learning is when a child feels invited to “teach” a younger child, Montessori has found.

Let’s continue learning from each other as Montessori adults as well. Covid19 has necessitated re-arranging some of the ways we engage with the children and reinventing some of our environments. Still, in this digital age her words, while deepening our understanding, can strengthen our resolve to bring our very best to the world of education.

Lynne Lawrence
Executive Director

A caveat regarding the editorial policy to not change some of Montessori's gender language.

Maria Montessori studied and pioneered her revolutionary approach to education in a male dominated world, a world in which recognition of female achievement did not come easily. Being trained in the traditions of academia, Montessori naturally adopted the language that was customary in her fields of research. In her time gender-fair language was not on the agenda: male words were often used to denote the universal concept; Montessori would use the Italian *il bambino*—the male child to refer to all children. The same observation can be made for her use of man (*l'Uomo*), men and humankind, by which words she of course refers to all human beings: the human individual as representing the species, the human race without reference to gender.

In our times we have become much more sensitive to gender-fair language to help reduce gender stereotyping and discrimination. Neutralization is essential, but where Montessori's language could perhaps not yet reflect this deeply felt necessity, her work and offerings, both approach and educational tools, offer equality in all dimensions.

The editors of this article have decided not to change Montessori's language to better reflect today's positions because we considered it a forced exercise to substitute every instance of these words for today's terminology. By providing this brief background, we are convinced that whatever "sensitive" language Montessori uses, the reader will understand it must be placed in the context of her time.

Some thoughts on the importance of the Montessori environment and fundamental ideas on its organization

Maria Montessori talks to her students on a teacher training course delivered in India. 30 January 1942

Interest and Materials in Perfect Balance

You know what we mean by intuitive reading: children who have certain objects in front of them will read the words that connect to these objects, even if these words are difficult (such as you would find in non-phonetic languages). The child will also read words written in capital letters—which is not due to any magical power the child possesses; rather, it is because we base ourselves on the plan of using the movable alphabet. This has solved the fundamental problems of dictation. This is not a miraculous power, but interest that has been aroused in the child. It is the interest of the individual who has understood that there is something, a thought, attached to those signs; this interest is a fundamental urge, which stands equal in importance to the apparatus; if you were to weigh both the alphabet and the interest, the scale would be perfectly balanced.

It is this interest that the teacher must be able to inspire in the child, and then know how to continue working with what has been kindled. This forms the psychological part of our study. If the child were not to possess this intelligence, not this vital force of the interest, then the teacher's task would be difficult. But

I repeat that the child has a natural interest and therefore you have in your hands two forces: interest and developmental material. This interest, being an individual sentiment, will vary with each child and be at a different degree of maturity. Now that might appear as one of the difficulties for the teacher who will ask: How am I to know what is the interest of this individual and what material is suitable to their stage of development or when would it be the right time to start him on something new? You can well understand that, if (as many people seem to think) the question rested with the teacher and her understanding, she would find herself in an inextricable maze. For how could she cope with so many individuals at the same time?

Modern Pedagogical Methods

Many of the modern methods reason that the teacher must not have more than six or seven pupils at a time if she is to give her individual attention to each one of them. This arrangement in the educational method is known as the "individual method", as it recommends that there should be few pupils in each class. Many people confuse our method with this. Indeed this "individual method" came after ours, as though an improvement upon ours and something more scientific. We, however, are not of the same opinion as it is not our fundamental principle to give individual education as such. There is individual education in our *environment*, but it is not the teacher who gives the product of our deductions; our individual education is based on the free choice of the child.

The Environment: One Set of Each Material

The materials in our schools have been selected based on what the children chose to work with themselves from the wide offerings we initially put at their disposal. This selection brought us to the conception that there must be just enough, sufficient for cultural development. This expression which we use, "just sufficient", "just as much as is necessary", refers to certain areas of materials that represent a selection that the children themselves demonstrated to be their preferred choice.

The fundamental fact in the preparation of the environment is to have only one set of each type of material. In many schools the teachers that came from our courses thought it would be better and give greater scope if they had two full sets in the school and sometimes three or four sets of certain parts of the material. It became evident, however, that the discipline of the school is hereby slackened; and if one reduces the number of sets, the discipline returns.

Size of Group and Mixed Ages

Our method is not a thought out method, but an *experience* which has come about and proved itself, in different countries and cultures, following the straight line without wavering to left or right, following faithfully in the path of the child and what he has given us. The whole of our school is based upon the manifestations given by the children, who also gave us clear indications on how to organize and construct our school. We consider that in its best condition the class should have between thirty to forty children, but there may be even more in number;

that depends on the capacity of the teacher. When there are fewer than twenty-five, the standards become lower, and in a class of eight children it is difficult to obtain good results. The really profitable results come when the number grows; twenty-five is a sufficient number, and forty we have found to be the best number.

One of the things that distinguishes our schools from others is the following: Most of the traditional schools, or rather *all*, have children of the same age in the different classes. In fact, their entire curriculum is based on grouping by age. Our experience has separated us from this general rule. For in our school, what we seek is just this difference in the ages. And if we were to give an indication in this regard, then we shall say that there must be at least a difference of three years. Suppose you have ninety children at your disposal, all nicely classified, thirty of four years old, thirty of five years old and thirty of six years, then everybody would put the four-year-olds, the five-year-olds and the six-year-olds in three different classes. We, however, advocate with emphasis and loud voice that we should mix the ages together, and if the room is to contain thirty children, we should not put all the ones of the same age together, but *mix the children* from three to six. This fact makes such a difference that if one were to put all the children of the same age together, there would be no success, and it would be impossible to apply our method. We do not conceive grouping children of the same age all together. The logic of this is seen in nature; a family of three children, born at different times, naturally presents the difference in

age.

Wherever our method has been developed, there was always a relation between pre-elementary, and elementary education.

The Environment: Open Doors

One of the secrets is the open doors. In our schools there is no such thing as a closed door which stands like a policeman barring the way. The open doors to the other rooms give a freedom of circulation between the different grades and this circulation is of the utmost importance for the development of culture.

One of the great advantages of our method is this *living* together of the three ages, and it is one of the best ways for individual development. Such an approach would bring terrible disorder in ordinary schools, and it would be impossible for the curriculum to be delivered. Because how could there be any order? It is evident that here it is not the teacher who keeps the order, but that it is a psychological organization of the children which bring them to these results. You can easily understand how impossible it would be in traditional methods if the doors were all open, with four or five teachers shouting at the top of their voices to the children; how disturbing this would be and how impossible for the children to hear what any particular teacher was trying to say.

One sees the importance of keeping the doors closed in ordinary education, for if given freedom, the children who are bored would disappear; they would either go out into the street or wander into the garden, and the teacher might find herself quite alone.

If you look at the old type school that is organized on the basis of closed doors and compare it to the organization of our schools with the open door approach, then the difference seems almost inconceivable. It requires an entirely different attitude and organization. You might ask: How can the children of one group freely communicate with another group? Through the open doors. In one of our schools in Holland the walls and doors are made of glass, and the children of one class are able to enter into the life of the other classes. The doors are quite an attraction. I remember one child who wanted to borrow the numerical rods from another room, and as he could not carry more than one at a time, he went in and out several times, each time opening the door and closing the door carefully after him without making a noise. The children who were at work (unconscious of a person going back and forth) paid no attention to these comings and goings. One of the fortunate advantages of modern architecture which received great application in our schools was the separations between the classes made by low walls, at a level of the heads of the children.

Low enough for the teacher to see in all the classes. Sometimes, in order to have a bit of colour, there were curtains instead of doors. These low walls serve as stands for flower vases and plants, and are extremely useful for all sorts of purposes and ornamentation.

In Rome we had a school shaped like a semi-circle. We had a very spacious building, accommodating 150 children all aged between three and six years. The floor of

this amphitheatre was divided into different apartments by these low walls, and there were no doors at all.



St Bridget's School, Colombo, Sri Lanka. This building was designed by Sir Geoffrey Bawa (1963-64). The low walls and no doors enable communication and freedom of movement across age groups.

As to height: the room was very lofty, allowing us to build a balcony all around. One had access to this balcony without needing to pass by the children. It was useful for the students of the course and for visitors. In many of our schools, for instance in Rome, and Vienna, where we held courses, the schools had such balconies so students and visitors would not disturb the children while watching them at work. The only thing we asked was that people should observe silence. It was a very beautiful sight to see the 150 children at work, between each group a long line of plants and flowers, and aquariums with gold-fish. (See

pp 8 and 9 for photographs that illustrate this concept. ed.)

What was the consequence of this freedom, where the children had not only free choice, but also free circulation? In many schools this experiment was repeated, and we discovered that each child would voluntarily attach himself to one place and would not easily move from the place. This tendency has given us much food for thought, for in spite of all the freedom it is in the nature of humankind to find a place where they may remain fixed. This reveals so much the psychology of humanity, which the child shows us by his tendencies.

Indeed, in today's world where communications have become so free and unlimited, and ways of travel have become faster and faster, each individual will still say, 'I want a little place I can call my own'. Each person will feel the need of a place which is his home, a fixed point.

For this reason we put little cupboards with drawers in our schools. Each child has his own little drawer in which he may keep his belongings, and where he can find his possessions. This drawer helps him to attach to the place. It is a curious thing, this constant love of order. The children want the same things in the same place; they may move furniture and work in the garden, but they will return it to exactly the same spot. Once I saw two children moving a table and continuing to adjust it for some time. I wondered at their action and asked what they were doing and they replied that the table had stood underneath the lamp and they were now trying to return it to its exact position. It is surprising



The Santa Croce Montessori School in Perugia, used for observation by the students on the 1950 course Maria Montessori delivered in that city. It was created following the instructions of Montessori herself and from the observation balcony students and visitors will have a perfect view of the children at work on the ground floor. This classroom is called "Aula Sperimentale Maria Montessori". The environment was recently renovated by architect Matteo Ferroni. Photo courtesy of Santa Croce Perugia Archive.

how this freedom of circulation develops in the individual the hunger for the fixed place. Now, the child who goes out of the class does not run away into the street but circulates among the other groups. This contact with the other classes gives them the impression that there are things of interest going on there. This latter possibility has been of great importance in the quality of the work and the success of the schools. In Holland it became an interesting experiment, where we watched the younger children go among the older ones; we saw them become interested in things which we had thought previously too remote from their understanding. It was then that we realized that the young child was capable of learning much more than we had imagined. There was another thing of extreme interest: We observed that the old-

er children would sometimes go back to the rooms of the smaller children in search of a former activity and take up the old exercises. We saw this for instance in a place where the school had two stories. The older children of the upper floor would come down to the lower floor and work with the numerical rods, because evidently in their advanced exercises they lacked some clarity. This is actually quite common; when they are confronted in the more advanced stages with some difficulty, many children will go back to the earlier stages. This never happens in the older methods of education because it would be looked upon as such a disgrace to go back! We can say then that in our schools there is not only a freedom of circulation among the groups, but also a freedom of education between the different levels and degrees of culture.



This drawing was made by Friedl Dicker for the design of the interior of the Montessori Casa in Vienna's Goethehof, Schüttaustraße, built together with architect Franz Singer. The staircase leading up to the observation space is clearly visible. The school also catered to children from lower income families. Nothing of this school's interior has survived following the complete destruction so ordered by the Nazi regime in 1938.



View from above: Rudolfsplatz, the first Montessori school of Vienna (1930). The interior connects almost organically with the terrace and outer space, which offered many opportunities for gardening, caring for animals, and outdoor play. In this project, the educational ideas of Montessori were realized through the collaboration of Lili Peller-Roubiczek and the architect Franz Schuster, whose children also attended a Montessori school.

It is not the class to which one belongs that is important, whether it is the first, second, or third group, but the fact that the children learn from one another and thereby grow and develop. It is the idea that 'I go and study where I find things which are useful to me and which I find interesting.'

The main thing is that the groups should contain different ages, because it has a great influence on the cultural development of the child. This is obtained by the relationships of the children among themselves. You cannot imagine to what extent a young child learns from an older child; how patient the older child is with the difficulties of the younger. It almost seems as if the younger child is a material for the older child to work upon. I have often stopped to watch them and thought: Is it not a waste of time for the

older child? But then it became clear to me that when you teach something the subject becomes more clarified for you. There is nothing which makes you learn more than by teaching someone else, specially when you don't know the subject very well. Because the struggles of the other act like a control of error for yourself and urge you to acquire more knowledge in order to give him what he needs.

In our schools it was clearly visible which child was the special pupil of an older child who taught him. This possibility in the work of our school is of such importance that the development of the children would be of a much lower standard if not for this contribution. We went on experimenting, and brought older children of twelve and fourteen into the classes of the younger ones and

asked them to instruct the small ones. It was so interesting to see how much more rapidly they learned in this way. It made us think that there is a gradation of mental development, and that the difference between the adult and the child is so great that the adult cannot give the same help to the small child as the one who is closer in age to that child. That is why it is said that: One must be as a child to understand a child. It is the great help to the teacher to have these different ages in the school; and you must understand that to have success you must have these different ages.

These are the things you should remember; primarily the interest of the child, which brings the child to fix himself on the study. Secondly, the co-operation of the children, and this is immensely aided by the fact

that the ages of the children are not alike; the older children are interested in the younger, and the younger ones in the older. This leads us to conclude that not only the older ones can help the younger ones but they themselves will also benefit. Thirdly, there are the human tendencies that bring us to attach ourselves to one place, which results in order and discipline. It is curious that the remark most frequently made by visitors is that they are struck by the silence that reigns over the school. The most fervent activities of these children are carried out in a silence that had never been imposed on them.

This will give you an idea of the fundamental organization of a school along our lines.

Maria Montessori, 1942

© Montessori-Pierson Publishing Company

Want to read more on
Montessori Architecture?

Visit montessori-architecture.org

References used for information with the illustrations of the Vienna schools (p. 9) and suggested further reading on this topic

In German:

<http://www.eichelberger.at/12-reformpaedagogik/montessori-paedagogik/18-die-geschichte-der-wiener-montessori-bewegung-von-1921-22-bis-jetzt>

<http://www.eichelberger.at/dokumente/84-haus-der-kinder-wien-1-rudolfsplatz>

https://www.edugroup.at/fileadmin/DAM/eduhi/data_dl/Haberl_Hammerer_Montessori-Paedagogik_in_Oesterreich.pdf

In English

<https://www.bauhauskooperation.com/knowledge/the-bauhaus/people/students/friedl-dicker/>

<https://www.metalocus.es/en/news/friedl-dicker-brandeis-exemplary-bauhaus-student-and-architect>

Mid-Century Modern – Visionary Furniture Design from Vienna, Caroline Wohlgemuthe

