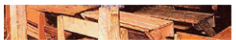




## SECTION 1.4



## THE MONTESSORI METHOD

"Culture and education have no bounds or limits; now man is in a phase in which he must decide for himself how far he can proceed in the culture that belongs to the whole of humanity."<sup>1</sup>

Some philosophers and psychologists in Europe and North America in the beginning of the 20th Century tried to tackle the problem of the school as 'the institution' and started exploring alternative theories and environments for education. Italian doctor, anthropologist, psychologist and educator Maria Montessori was one of the main researchers of the time in the field of education. Her theories came from her belief that children naturally wanted to learn and that given the right learning environment could for the most part guide their own learning process through their own desire and willingness. Montessori divided her system into three parts: psychological, intellectual and moral and placed a large emphasis on movement and flexibility within the classroom.

"The child is the spiritual builder of mankind, and obstacles to his free development are the stones in the wall by which the soul of man has become imprisoned."<sup>2</sup>

Maria Montessori started developing her educational theories when she was working as a doctor in an insane asylum in Rome. She visited the children's ward frequently and believed that they could be taught. In a short time she had taught them to read and write so well that she was able to present them for entrance exams at a normal public school. They passed. Montessori wrote of that experience: "While everyone was admiring the progress of my idiots, I was searching for the reasons which could keep the happy healthy children of the common schools on so low a plane that they could be equaled in tests of intelligence by my unfortunate pupils!"<sup>3</sup>

This quickly sparked a curiosity about what could be done with healthy children. Montessori wrote, "I became convinced that similar methods applied to normal children would develop or set free their personality in a marvelous and surprising way."<sup>4</sup>

1. Four Planes of Education: AMI, 1971 p.11

2. The Absorbent Mind: Clio Montessori Press, 1994: p. 201

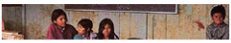
3. The Secret of Childhood p249

4. Ibid. p233-34

In 1907, she was asked to run a day care in a housing project in the slum section of San Lorenzo, Italy. Here she worked with normal children and developed her philosophy in more detail. It started in a bare room with a few pieces of office furniture. The only educational equipment was a sensorial learning apparatus that Montessori had developed to teach the children from the asylum.

The results surprised her immensely. She noticed that the children maintained a high level of concentration when they were left to explore what interested them. Through their guidance, she continued to offer them a flexible, respectful and innovative learning environment. The class eventually became so successful that it sparked interest and in the next year, she opened three more schools to test the new approach. By 1909, all of Italian Switzerland integrated Montessori's method in their orphan asylums and children's homes.

Maria Montessori went on to research the condition of children throughout the world and discovered universal principles underlying the development of all children while stressing the need to change our attitudes towards them.



## SECTION 1.5



## THE MONTESSORI CLASSROOM

Some unique features of a Montessori classroom are:

### Architectural

1. Large open plan classrooms (usually around 55-65m<sup>2</sup>) where desks are removed from the centre of the room to promote flexibility and movement within the space.
2. The classroom is designed specifically for the children. The teacher has a small area appropriate for her/him but the rest of the space is at the scale of the child.
3. The classroom is elegant, clean and taken care of by the children. It has calming colours and a mature atmosphere that respects the intelligence and sensibility of the child.
4. If possible, there should be an outdoor area directly linked to the classroom so the children are connected with nature and can move indoors and outdoors safely and at will.

### Teaching Methods

1. Carefully prepared learning materials are displayed on shelves so that children can choose which one they wish to work with and then take it to a desk or mats on the floor.
2. Teachers are there to guide the students and carefully and intelligently prepare the learning environment for them by selecting certain materials to be displayed. The teachers are active in the class, moving from child to child to guide them as needed through their chosen activity.
3. There are three age groups per class to encourage positive dynamics between older and younger children. The older ones are expected to set good examples and to help the younger ones if they are able to do so. This provides more support for the younger children and gives the older children an important leadership role and confidence.

There are six main philosophical principals in the Montessori classroom:

Liberty  
Structure and order  
Reality and nature  
Beauty and atmosphere  
Montessori materials  
Development of community life

## Flexibility of the spatial layout

FIGURE A

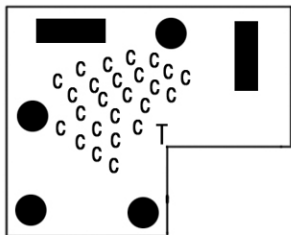


FIGURE B

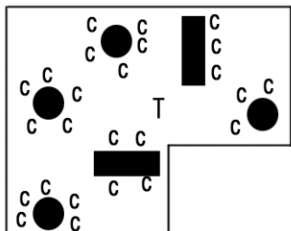
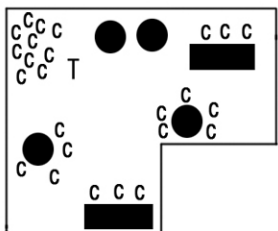
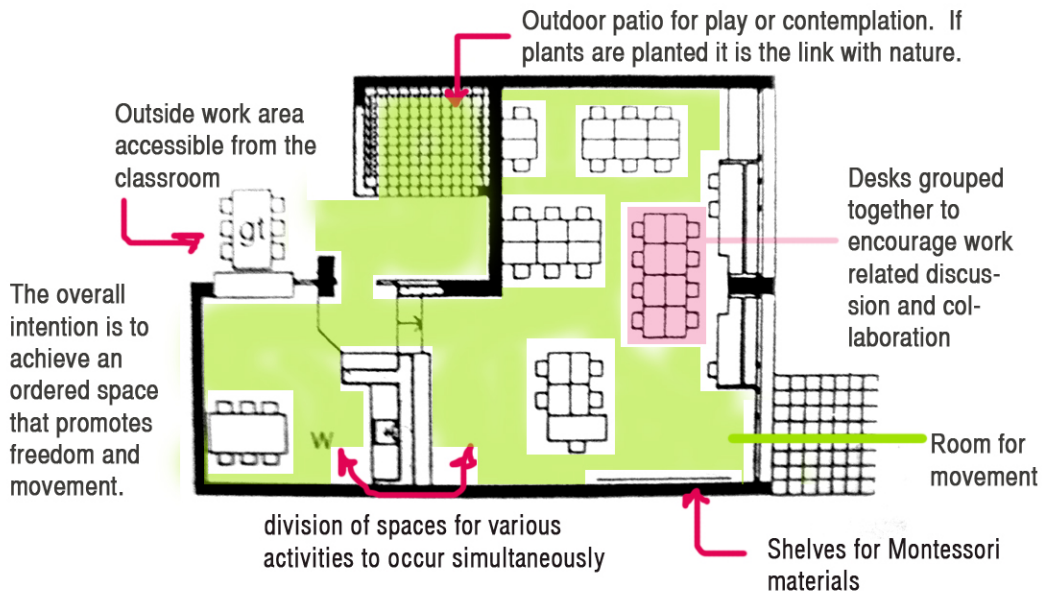


FIGURE C



Montessori's ideal environment was 'a room in which all the children are moving from one side of the class to the other voluntarily, preferably through an outdoor area if the weather permitted (Thesis: Niños de la calle).'

Montessori Primary School, Delft, designed by Herman Hertzberger. A classroom layout which incorporates a sophisticated L-shape form with floor-height variations and an operable "hatch" to the communal corridor or street which accommodates a group table and a wet area extending the classroom zone (Dudek p57).



SOURCE: Plans from Dudek, Mark p57



## SECTION 1.6



## A PUBLIC MONTESSORI SCHOOL

It is often misunderstood that Montessori schools can only be private institutions. This belief hinders its integration into the public school system when in fact public use is closer to what Montessori had intended. The American Montessori Society (AMS) supports this idea and explains how the Montessori approach is suited to public schools.

'Because of its global approach, Montessori is uniquely suited to public schools, where children of many backgrounds are grouped together. It is also appropriate for classes in which the student-teacher ratio is high because children learn at an early age to work independently. Montessori students learn to develop critical thinking, conflict resolution, cultural sensitivity and collaborative problem-solving skills that are ideal for modern workplace environments. Parental involvement has always been an integral element of Montessori education. In fact, many parents have played leadership roles in establishing new Montessori programs in their communities. They work closely with teachers to support learning while building trust, confidence and self-esteem (AMS website).'

It is beneficial to have three grades in a class in public schools as the older ones are expected to help with the younger ones they aid in taking some pressure off of the head teacher in monitoring and assisting everyone at all times. In addition, because the children are free to learn as much as they can, no child is kept behind their natural capability by having to adhere to the average level of the class.

Opening up a public Montessori school in Mexico City could offer quality education and learning facilities to children who would normally never have access to an environment such as this. It would be a re-evaluation of how a school could operate publicly and if successful, it could inspire similar movements in other neighborhoods.

'Many Montessori schools were started by parents who were concerned that their own children have a good educational experience. Schools also begin through innovative school administrators and teachers, as charter or magnet schools. For many years there were only private schools but because of the success of the Montessori method, there are almost 3,000 Montessori teachers teaching in public schools today (<http://www.montessori.edu/refs.html>).'

As Montessori explains, children from ages 0-6 are extremely open to learning and should start attending school regularly at age 3. Because these children are so young when they begin is also extremely important that the environments in which they are placed are stimulating and nourishing. In Mexico many children do not attend preschool and then enter Grade 1 with no previous school experience. Often preschools are separate entities altogether from primary schools. By joining the preschool and primary school in one environment, the primary school is seen more as a continuation of kindergarten, which puts a greater emphasis on the importance of the preschool.

"There are many who hold, as I do, that the most important part of life is not the age of university studies, but the first one, the period from birth to the age of six. For that is the time when a man's intelligence itself, his greatest implement, is being formed. But not only his intelligence; the full totality of his psychic powers (The Absorbent Mind: Dell Publishing, 1984: p. 33)

Some potential concerns for the introduction of the Montessori approach in third world and developing countries are as follows:

#### Cost of Montessori Materials

Montessori Materials are essentially tactile objects used to teach children. For example, a child learning how to count would use the bead cabinet which holds lines of beads organized in groups of 1, 2, 5, 10, 20, etc. These beads can later be used for rudimentary math problems. There are a variety of materials for every subject that are displayed on shelves at different intervals depending on the lessons planned by the teacher.

Cost is an important concern in public education and setting up a Montessori classroom with the proper materials can be quite expensive and potentially overwhelming for a developing country. There are, however, ways to lower costs. Part of the Montessori teachers training includes how to make appropriate materials. As demonstrated by a Montessori school in East Africa, with proper guidance from a well-educated teacher, parents and other teachers can build materials themselves, thus making it a community effort. All the materials in the East African Montessori school were parent-made from scrounged objects ([www.montessori.edu/refs.html](http://www.montessori.edu/refs.html)).



Montessori school in East Africa. All the materials were made by the parents.

## Finding Trained Teachers

In a country where it is hard to find teachers with sufficient training to teach in a normal public school, it may seem impossible to find teachers for a specialized program. There are many kinds of Montessori teacher certification courses in the world today, some of which provide training sessions during two consecutive summers with the year in between spent working as an assistant in an active Montessori classroom.

In this project, the school will have a portion of the building dedicated to training teachers who during the year will act as assistants in the classrooms. Because they are still in the process of learning, they would not be paid as high a salary, but a cycle would begin of training and working right inside the school.

## Costs of Attending School

Many children in Mexico City do not attend school because of the cost of materials, uniforms and lunch. As a way to help make the school slightly more sustainable, this project will also explore gardening in the city and how the children, as part of their curriculum, can learn basic food cultivation skills to either be used for lunches or as part of an open weekly market run by the children. This idea is supported by the Montessori method as children are encouraged to apply their learned knowledge to real life circumstances.

## Conclusion

The Montessori Method is a universal teaching philosophy that encourages creativity, freedom of thought, independence and joy in learning. In Mexico City, where many public schools do not emphasize the importance of these principals and struggle to provide quality education, perhaps a different model for an educational facility is needed; one that is based on a philosophy that incorporates such ideals into the method of teaching and into the architecture of the space that supports it.

