

Each year from September to June
the Association Montessori Internationale
and the International Centre for Montessori
Studies Foundation conduct the

International course for Montessori education in the elementary school

On the one hand there is the psychological reality of a child of this age, that is to say his particular needs and characteristics. On the other hand there is the answer, that of sowing the seeds of culture, which means the exploration of all subjects through appropriate materials and activities. Then there is the way, that of correlating the subjects with one another by means of the central and inspiring idea of the cosmic plan. This threefold approach constitutes the structure of the course.

For the ages 6 to 12 "subjects of instruction can become a real help to development... They are absorbed with extraordinary intensity. Thus culture becomes identifiable with the construction of the personality itself; we might say culture incarnates itself within the being and lives."

Maria Montessori
Trinity College Cambridge, 1935



THE MONTESSORI APPROACH AND THE ELEMENTARY COURSE

The course elucidates Dr. Montessori's concept of education, the experimental psychology to which her approach gave rise, and the teaching methodology which she found suitable for children from age six to twelve.

Dr. Montessori's initial success in working with learning disabled children led her to apply the basic principles of therapeutic education to a class of normal children. She had provided the abnormal children whom she was helping and observing, with a prepared environment of sensorial materials which rendered abstract knowledge comprehensible to the child's mind through his hands. The resulting voluntary intellectual occupation and emotional balance which Dr. Montessori discovered in these children, convinced her that the educational principles of freedom of choice and movement, and individual active learning answered the needs of all children.

The result of Dr. Montessori's experiment of making the normal child the centre of education, and of devising and adapting a curriculum according to his observed interests and needs, was that children who had formerly been forced to study began to concentrate with enthusiasm and to achieve within the scope of their studies real and profound understanding. Moreover their intellectual achievements were always accompanied by emotional growth and the enlargement of their consciousness seemed to lead directly to the growth of moral awareness. The children became harmonious in their movements, self-sufficient in their work, and honest and helpful with one another.

Dr. Montessori discovered successive phases of growth, each with characteristic sensitivities which guide the child's physical and psychological development. These guides she called sensitive periods. They are outwardly recognizable by the intense interest which the child shows for certain sensorial or abstract experiences. Dr. Montessori inferred that these guiding sensitivities constitute needs in the child which demand fulfillment.

From birth to six years of age, the child seeks to exercise himself on a plane essentially sensorial and concrete; from age six through twelve, on the basis of the development already achieved, new needs evolve in the child, needs which guide the child to a wider and more abstract plane of activity. Having established a physical familiarity with his environment, the child grows curious about its structure. Dr. Montessori found that she could satisfy the child's intellectual curiosity by introducing him to scientific and cultural subjects which were normally reserved for the secondary school: physics, chemistry, biology, geography, history, literature and music.

Observing the unity of the child's interests, Dr. Montessori understood that the subjects must not be taught separately and that the teacher himself must be aware of the interrelationships between the subjects. Only then can the teacher organize the subjects around the child's vital interests at this age, around the child's desire to understand the nature of the physical and biological environment (geology, geography, physics, chemistry, etc.), and the workings of the human environment (economic geography, government and the humanities).

Thus, the Montessori course for elementary school consists of the study of psychological changes in children from 6 to 12 years of age, and the study of the attitudes and procedures through which the teacher may assist the child in the second period of his development.

THE INTERNATIONAL CENTRE FOR MONTESSORI STUDIES FOUNDATION

In 1960, the late Dr. Mario M. Montessori, General Director of A.M.I., decided to establish a Centre for the preparation of Montessori elementary teachers, in Bergamo.

Considered from a point of view which is worldwide rather than limited to a single country, the history of the Montessori Movement reveals how Maria Montessori refused to be "in the service of any political or social creed" because she looked for the man beyond this kind of context and wanted to see created a man who would be a 'citizen of the world', that is, a "complete human being, able to exercise in freedom a self-disciplined will and judgement unperverted by prejudice and undistorted by fear". Thus the Montessori idea has found itself in different cultures, different times and places whilst always remaining loyal to itself. Our age is characterized by the need for such a man, tolerant because free, and able to appreciate the most diverse of cultures.

Besides the annual Course for Elementary Education, the main aim of the Centre is to keep in contact with other Montessori Centres in order to share those ideas and experiences which are conducive to the Montessori goal of creating this 'citizen of the world'.

We emphasize the need for unity, because this common goal will only be realized as a result of sharing the extensive work and experience in the different levels of education, in the different subject areas, with children from different environments and with different cultural backgrounds.

Working on the basis of the prodigious efforts made and documented during the last fifteen years of Dr. Montessori's life, the Centre collaborates with experts in various fields in order to research and develop new materials.

The Centre also has the aim of helping schools directed by former students, by means of both periodic visits for consultation and the organization of seminars, workshops and refresher courses to help the further education and inner growth of the teachers. The idea is to bring the teachers together for the sharing of their experiences and the creation of a strong unity of ideas. At the same time, experimental classes in various countries can be designated for the purpose of applying newly prepared contributions.

THE PROGRAMME OF THE COURSE

The Course first emphasizes the psychological reality of **language** in the child's mind and reviews the typical phases of learning through which the child constructs his linguistic intelligence. According to Dr. Montessori, the evolution of language begins with the infant's unique capacity for absorbing intact fragments of language, fragments which will serve as a basis for development. The conquest of language then continues by means of an orderly, unconscious process of assimilation and abstraction. The child first discovers that sounds have meaning, and then he isolates nouns, articles, adjectives, and verbs; and, finally, at 2 years of age he grasps the use of sentences. The constant and orderly assimilation of language is manifested in the sudden expansion of vocabulary at the age of 22 months and, after 2 years of age, in the appearance of the ability to speak syntactically and to express thoughts. The significance of this psychological study is to make evident the child's natural, albeit unconscious, will to learn and to show that the child engages in an unconscious analysis of language, learning first the simplest parts and then passing by definite stages to an understanding of syntax.

Always in relation to the natural evolution of language, the course then takes up the methodology for written language. The child learns the written language through the same general pattern of analytic development. The child begins with the materials which prepare him for writing (through his sense of touch he learns to make the movements of writing and to recognize the letters of the alphabet) and with the development of vocabulary through story telling, conversation and classified pictures. At about four years of age he discovers that he knows how to write and spontaneously makes use of his knowledge.

The experience of writing shows the child that thought can be conveyed by the use of symbols, and this understanding opens the way to the full development of language skills - "total reading". Techniques of conscious analysis serve to order and clarify the child's task of learning the written language. He perceives the functions of the parts of speech and perfects his reading ability through exercises in interpretive reading; the writing of compositions and the logical and structural analysis of grammatical units leads the child to recognize and appreciate style in works of literature. This part of the language course is identified by Maria Montessori as "psycho-grammar".

In examining the practical means given to the child to become conscious of the structure of his own language, the student must be aware of the universal value of the relevant sensitive period, which is the reason why the Montessori principles and approach apply to any language. The student must combine the principles and the approach with a feeling for and knowledge of his own language, in order to prepare what is suitable for his own country. In other words, the guides given in language methodology are keys, which must be used creatively by the student himself. The actual language course given deals with the structure of the English language.

Maria Montessori writes in "The Absorbent Mind" that as "occasions are lacking for the spontaneous development of the 'mathematical mind' in early childhood (since mathematical objects are not spread out in the environment like trees, flowers, and animals)", it becomes necessary to outline a plan for the development of this 'mathematical mind'. According to Dr. Montessori, this 'esprit de géométrie' - to use Pascal's expression - constitutes one of the attributes of the human mind and an undeniable right of the human being.

And thus the Montessori approach to **mathematics** is based on the needs of the child. Montessori's psycho-mathematics is a plan or method for a comprehensive mathematical education by means of psychological keys, and, to take a specific area, includes the relationship between the understanding of the structure of arithmetic and the psychology of the child.

The materials for teaching mathematics must serve first to establish the basic mathematical concepts in the child's mind and then to illuminate and elaborate those concepts.

Concrete materials, which consist for the most part of representations of the geometrical aspect of number structure, permit the child to obtain a clear understanding of abstract mathematical concepts (in themselves - as sensorial representations - the materials have no value). Having in mind a clear conceptual understanding, the child may proceed rationally and easily to the particular processes of calculation, and these very processes become interesting when the child can understand their full significance. Dr. Montessori transformed the customary series of routine operations into a "rational arithmetic".

The child proceeds from an understanding of the structure of the decimal system to calculation with whole and decimal numbers, and from the concept of division to fractions, ratios, proportion, and square and cube roots.

Much of the methodology which today forms the basis of "new math" was first expressed in the volume *L'Autoeducazione nelle scuole elementari* published in 1916 (The Advanced Montessori Method:

Spontaneous Activity in Education & The Montessori Elementary Material).

We can say that, generally speaking, the Montessori approach to mathematics anticipates the developments of "new math". During the course we will examine several of the main elements of "new math", such as the structure of the different number systems and the consideration of numeration in terms of powers.

The increasingly abstract work with numbers leads to **algebra** and its methodology: from the concept of negative numbers to algebraic notation and the powers of polynomials, and from linear to quadratic equations.

The Montessori approach to **geometry** is based on the education of the visual sense, and the study of geometry starts indirectly with the exploration and recognition of shapes through sight and movement. We then pass to the classified nomenclature which, through sensorial experiences, gives the proper terms of geometry as keys for further conscious exploration of the environment. From the concept of congruency as the intersection of similarity and equivalence, we emphasize how equivalence is essential for calculating the surface area of each plane figure. From the concept of space we pass to the exploration of geometric solids and the calculation of their volume, finishing with basic ideas on topology.

This comprehensive programme, in which the subjects of arithmetic, algebra and geometry are integrated so as to be mutually illuminating, Dr. Montessori called "psycho-mathematics". She developed and adjusted the methodology with respect to the changing interests and capacities of the child's growing mind. By introducing the child to a larger view of mathematics, the Montessori Method enables the child to appreciate mathematics as a pure science.

As new psychological characteristics appear in the child and enlarge the scope of his interests, he passes from the methodology which illustrates the origin and formation of the Earth (laboratory experiments in **chemistry** and physics) to the study of geology and physical **geography**. Geological evolution provides the basis for the exploration of physical, biological and political geography, which are then followed by the investigation of the related economic facts. All of the geography is regularly linked up with Man's spiritual and material needs. The study of Man's work of modification and transformation of his environment leads to a consideration of the multiple economic problems which that work continually creates. In Dr. Montessori view, the science of economics provides an important key with which to understand Man's history.

The goal is always that of enlarging the scope of the child's ideas and of synthesizing his understanding. The subject matter of **physics** - including the properties of matter; mechanics; the nature of heat, sound and light; electricity and magnetism - is presented to the child so that he may extend his understanding beyond the world of his senses and form an estimate of the vast phenomena of the universe by means of his imagination.

To satisfy the natural interests of children we introduce them to the environment of plants and that of animals, emphasizing their interdependence. The child who is aware of the system of interdependence (ecology) and who actually explores and observes Nature will find the techniques of classification valuable aids to his understanding. The **biological sciences**, however, are not taught simply for their own sake but with the intention of giving the child a sense of respect for the life around him, so that he may be capable of assuming a collaborative rather than a destructive ecological role.

From the study of the Earth in its inorganic aspects, the child, very often unaided, recognizes the plausibility of the appearance and evolution of life. This recognition gives him a basis for understanding the analogous evolution of human society, from pre-history to the present atomic age. In the **history** programme then the

child studies the evolution of civilizations.

Just as mankind has aspired spiritually to discover a supreme being, the child who conceives of the idea of a divine order will be attracted towards God. **Spiritual education** can also help to form the child's conscience. Especially during this period of his development the child will take an interest in ethical values, for he is suddenly growing aware of social relationships and beginning to concern himself with the moral significance of his actions.

Exercises in coordinated movement indirectly prepare the child for **musical education**, which extends from the study of the diatonic and chromatic scales to interpretive marching and the analysis of melody. The knowledge of the length of the notes - taught first through physical movements, and then with illustrative materials - leads to musical notation. From the knowledge of the various tonalities and their progression the child learns transposition and modulation. The course in "psycho-music" concludes with the analytic study of rhythm.

The exercises in **practical life** continue from the pre-school and are now extended in accordance with the broadening experience and new interests of the child. In his work with science experiments, art, scouting, handicraft, building, etc., he is growing nearer to adult work.

As a conclusion, we can say that the starting point to be provided is a general vision of the world and showing that from this is derived any science or subject as well as any detail thereof. The exploration of any detail, identified by Montessori as "a fragment of nature", must be nothing other than a link for connection with the whole.

So, to discuss culture in terms of a **cosmic vision** means to illustrate the intimate relationship between things, living nature and Man with all of his exploration of the environment, as well as to understand the **cosmic task** of each of the forces working in this game, including human society.

Therefore, in order to achieve a **cosmic education**, it is important to understand that any distinction between subject matter must be brought back to a vision of unity, in the same way that all the different forces acting in the world in which we live, constitute a unity.

A.M.I. REQUIREMENTS FOR THE DIPLOMA

- A minimum of 90% attendance for each of the following: lectures; seminars/meetings (consisting mainly of presentation sessions and meetings for the reading and discussion of Montessori's written works); and supervised practice sessions with the Montessori materials. A minimum of 90 hours attendance for observation in Montessori classes.
- Satisfactory written reports of observations and satisfactory compilation of albums illustrating Montessori methodology, written in English. These albums constitute the student's basic teaching manual.
- Satisfactory preparation of specified material (charts, time lines, etc.).
- Successful completion of the written and oral examinations in June, in order to show comprehension of Montessori psychology and the related theory of education, and comprehension of how to help the child in his exploration of the cultural environment through the methodology.
- All A.M.I. diplomas state only that the holder "has studied the principles and practice of the Montessori method for children"- of the ages specified on the diploma, and has "passed the written and oral examinations". Thus, by itself, the diploma "does not automatically qualify the holder to teach", and "the country in which the holder wishes to work may have other teaching requirements which must be fulfilled".

SCHEDULE

- Lectures are held at the Centre Monday through Friday, in the afternoon and on some mornings.
- The other mornings are reserved for supervised practice and seminars/meetings.
- Examinations may be scheduled on Saturdays/Sundays.
- The Centre is open to students from 9:00 a.m. to 12:30 p.m., and from 2:00 to 5:30 p.m.
- The schedule permitting, students may organize research seminars.
- The Course Director reserves the right to modify the schedule if necessary.

Course languages: Lectures are either given directly in English or in Italian with translation into English. However, some knowledge of Italian would be extremely useful for a good adaptation to the environment. In Perugia from July to September each year, the **Italian University for Foreigners** gives Italian language courses.

REQUIREMENTS FOR ADMISSION

Diploma students: College graduates, qualified elementary school teachers, and students with a diploma from an A.M.I. Children's House course, have priority of admission. In order to apply, a student must reach the age of 18 years by the first day of the course. The Course Director reserves the right of admission.

Please forward the following documents:

1. Birth Certificate
2. **Official** transcripts or records from the applicant's high school, college, and graduate school (with a **notarized** translation into English, if requested).
3. Photocopy of diplomas or certificates obtained from previous Montessori Courses.

These documents are not returnable.

It must be emphasized that students from all countries other than those of the European Union need a **student visa** and should apply for this to the Italian Consulate for their area of residence, on the basis of the official letter of acceptance from the Centre. If, for whatever reason, a student comes without the required student visa or without the other required papers, the Centre cannot accept any responsibility for the length of that student's sojourn in Italy.

Auditors: Any persons wishing to acquaint themselves with Dr. Montessori's work may be admitted as auditors. The same non-returnable documents are required. Auditors are subject to payment of all fees. A certificate of attendance (specifying the percentage of attendance for a) Lectures; b) Observation in Montessori Classes; c) Seminars/Meetings; and d) Practice with the Montessori material) will be issued at the end of the Course. **This certificate, however, does not entitle the holder to conduct classes with the Montessori Method.** The Course Director reserves the right of admission.

Textbooks: The study of the following books by Dr. Maria Montessori is obligatory (and reading them prior to arrival is recommended):

- 1) The Advanced Montessori Method, Vol. 1 (Spontaneous Activity in Education) and Vol. 2 (The Montessori Elementary Material)
- 2) To Educate the Human Potential
- 3) From Childhood to Adolescence
- 4) Education and Peace

- 5) The Child, Society and the World (unpublished speeches and writings)
 - 6) The Absorbent Mind
 - 7) The Formation of Man
- * Human Tendencies and Montessori Education by Mario M. Montessori Sr.
(pamphlet in the English language only and available in Bergamo).

All other books by Dr. Maria Montessori are also recommended:

- 1) What You Should Know about Your Child
 - 2) The Secret of Childhood
 - 3) The Discovery of the Child
 - 4) The Child in the Family
 - 5) Education for a New World
 - 6) Creative Development in the Child (2 volumes)
- * Education for Human Development: Understanding Montessori by Mario Montessori Jr.

Please note that, in Italy, it is difficult to find Montessori books in any language other than Italian. Therefore students should bring their books with them to Bergamo.

- Students are advised to bring a dictionary that gives etymologies. It is also recommended that **textbooks** be brought as a source of reference for **each subject. A careful reading of the Course Programme given in this brochure should point out why these textbook-references are important.**
- To derive the fullest benefit from the Elementary School Course, it is desirable that the prospective students have an idea of the Montessori Method at the level of Children's House.

Also, we believe that the Advanced Course must be offered, not only to those who desire to teach at the Elementary level, but also to those who wish to continue teaching at the Children's House level. Knowledge of the psychology of the older child, together with an understanding of the educational approach appropriate to that age, will give the teacher of the Children's House a new consciousness of the importance of his role in the future development of the child.

Scholarships and grants: In general, financial assistance can be obtained through Montessori schools which sponsor students as future teachers for their school. Also prospective students could try contacting any of the various foundations or government organizations, which grant scholarships for cultural purposes, for example a Ministry of Education or of Foreign Affairs.

Note:

- 1) **The information and requirements in this brochure constitute an integral part of registration.**
- 2) This issue (January 2011) renders all previous ones null and void.
- 3) In any controversy involving this Centre and its Courses, the courts of Bergamo will have sole jurisdiction of the matter.

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