

## **I - INTRODUCTION**

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It is only in the last one hundred and fifty years that western societies have undertaken to build special gardens for children - so called KINDERGARTEN. Friedrich Froebel, (1782- 1852) coined the word " Kindergarten " directly translated to English meaning Children's garden. There is no history of gardens for children yet. History of kindergartens is recorded under the heading of early childhood education not under garden design. The Kindergarten was the first organised attempt to create gardens for children. Froebel saw play as the essential element in development and emphasised free activity and independence of the children, his idea about childhood were very forward thinking for his time, with a focus on children's play ( Hendricks, 1996 ).

Maria Montessori (1870- 1952) was one of the first educators to recognize that children are experiential learners. Montessori came to believe that teaching children to work in gardens would lead them to contemplate nature intelligently, and to moral education. She wrote of English educators, also who believed that children's participation in gardens fostered the ' first nation of household life ' ( Montessori, 1912, ).

Kindergarten garden is considered the essential unit attachment with the activities rooms. In fact the garden is not completely separated from the activities rooms. Kindergartens lack appropriate garden, that is in harmony with the kindergarten children from the functional, environmental, and aesthetic aspects.

Play is more than physiological or psychological... reflex, it is instructive, spontaneous and natural... through play a child learns to live. Play promotes cognitive development in its many aspects - discovery, verbal judgment, divergent production, manipulative skills, creativity, problem solving, reasoning, and thought processes. Four categories of play ( physical, social, creative, and quiet ) that may be considered in the design

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of playgrounds. Both physical and social play are likely to be random, noisy, and often involve the use of the child's whole body. By contrast, (creative / cognitive) play lacks more vigorous locomotor activity and often involves detached constructions. In order not to interrupt children's concentration on projects, separating and buffering this play area must be considered, (Hill, 1978).

Preschool children are interested in the immediate environment, those things that they can see, smell, taste, touch, and hear around them (Karntz, 1994). They learn most readily from first-hand experiences with high interest. An ideal environment gives the child the freedom to move in such a way to explore that environment and overcome its hurdles. The child runs, jumps, climbs, chases and pulls and on the whole interacts with nature's elements. This way his facilities of memory, his awareness, his will, analytical skills and imagination are induced to growth (Chi & Ceri, 1987).

Why is it so important that children learn to garden? Anyone involved with children - raising, teaching, or simply watching them - can not help noticing their attraction to nature. Yet, contact with natural areas has diminished for most children. Gardens are often the most accessible places for children to learn about nature's beauty, interconnections, power, fragility and solace. Through regular activity in natural areas, children come to grasp two vital concepts about nature. One is that plants, animals, soil, water, rocks, and rainbows are very different from things that are manufactured. The second is that nature is a totality, a cycle of changes into which we are born, with natural laws, that, if interrupted or abandoned, will lead to destructive consequences. Learning these concepts at a young age may not only fire the imagination, but influence future decisions. Today's youth will face very difficult environmental issues. They need our help to develop the knowledge, attitudes, and technical skills to cope with these issues. We need to raise the standard of teaching children about nature and gardening. Gardening shows children they can bring beauty into the world with their own action (Heffernan, 1994).

Playground are essential for children , architects, landscape designers and educationsts, have to work together in order to create good playgrounds. Playground must be designed and equipped from the point of view of its function and display. The playground should not serve passive entertainment, but ought to stimulate active , independent and creative play. The playground equipment must be arranged that children at play not distrub kindergarten activities (Palmes and Priefert, 1959 ) .

Precaution must be considered in the playground equipment . Playground and playground equipment present an unsuspected hazard to children , resulting in a growing number of accidents . It is estimated that more than 500,000 children each year in EC need medical treatment due to playground related injuries ( ECPSA, 1987 ) . The use of shock absorbent surfaces beneath play equipment is an essential feature of play provision and paving design . It is essential that all playground equipment is robust manufacture with secure joints, hidden , or otherwise unobtrusive , fastening and secure ground mountiongs . Play equipment should always be associated with underlying carpet of impact - absorbent material ( Lisney & Fieldhouse, 1990 ) .

As for plants , in most every site design situation , the perception of place is tempered greatly by the community of plants. Plants provide privacy and protection against climatic factors such as storng winds , noise, and dust , and against a hot sun . Any local climate is mainly affected by plants, in which human beings find physical comfort . In most cases , plant material is the environmental variable that most strongly evokes images in the observer's mind . On even the most cases , plant material determines the visual character of a site more so than any other material of the site designer's palette . The character of line form , color and texture that is exhibited by plants material , is instrumental in determining sense of place (Motloch , 1990 ) .

Choosing the plants for Kindergarten garden must receive deep attention. Plants in this espect might be main catogories , trees , shrubs, lawn , and herbaceous plants . Also the design has to avoid selecting any harmful plant .

Color is very important in all our lives . It is particularly important for children since it does influence attitudes and behavior . The use of color should be a very important consideration for all educators , architects and designers and any one involved in the creation of children's environments. Children have a natural love of color and respond spontaneously to it. They are more responsive to color than to form . Color is necessary in children's environments , for the optimal learning and development of children , it is vital that environment provide a variety of stimulation. In landscape schemes it is important to be aware of the natural colors of the landscape to ensure that new broad-scale or frame work planting is in harmony with its surroundings. This can be achieved by confining the palette of trees and shrubs to those which thrive in the area. Planting schemes should be designed to provide interest throughout the year (Birren ,1966) .

Color is effective in evoking feeling , that is mental response from the viewer. It has a singularly intense ability to excite, forbode, or soothe, by its presence , it can create suspense, anxiety or frivolity . The ability to manipulate color so as to evoke appropriate feeling and behavior from the viewer is critical to the effective development of exterior space . Color can be effective in displaying, modifying, and concealing spaces and the elements they contain and their meaning . Color in plant material is supplied by flowers, fruits, foliage , bark, twigs and branches ( Crowe, 1981 ) .

Therefore this work is an attempt to design appropriate garden for kindergarten from the functional, environmental, and aesthetic aspects as well as to study the role of plants represented by their colors in the display of the kindergarten garden .