The Role and Structure of Environmental Graphic of the Iranian Schools in the Education and Culture-Building

Susan Khataei

Assistant Professor, Department of Graphic Design, Faculty of Architecture and Urban Design, Shahid Rajaee Teacher Training University, Tehran, Iran.

ABSTRACT

Besides conveying knowledge, art, and skill to the students, schools have other direct and indirect tasks. One of these tasks is to facilitate learning of social and cultural values. The environmental graphic in the educational spaces seek methods to create calmness, exhilaration, and growth and reinforce mental and physical strength of children. According to the research hypothesis, structure and function of the school environmental graphic influence education and training as per models applied by managers and social-cultural planners. The effect of environmental graphic is based on love in beauty and effort of students and teachers for creating beauty and a fun space. By explaining features of a proper environmental graphic in the school space, one can present proper principles and solutions for training and so influence the education. This research was carried out by using a descriptive – analytic method and applied filed observations and interviews for analyzing the research hypothesis.

INTRODUCTION

Schools are regarded as the first social environments outside the house. In the other words, besides the home environment, conveying and promoting moral and cultural values are influenced by the school environment. By creating empathy and consistency in the school environment and applying the environmental graphic properly, one can provide the stage for training, culture-building, and growth of individual and social talents of students. In the school space, a successful environmental graphic method is based on love in beauty and effort of students and teachers for creating beauty and a fun space. These beauties deserve perception and taste of children and are developed by growth of artistic taste and perception of children. To achieve education and culture-building, it is necessary to observe two points.

First: organizing the physical space situation and school instruments

Second: implementing practical methods with cooperation of all students and teachers for creating a beautiful, fun, and efficient space.

It is in this favorable condition that education and culture-building is possible. The physical space includes all or some of the following items: classes, school yard, sport field, and hall. In these spaces, it is possible to foster the aesthetic taste and sense by the environmental graphic. For example, in one of schools of the Netherlands, such points are seen in the training spaces. In the interior decorations of the class or the interior environmental graphic, some windows are installed in the roofs so that the sky is seen in the window framework. Like a moving picture, the clouds and color and luminance changes in different hours of the day are seen from inside the class. There are clean and beautiful tablecloths on the tables that have been embroidered by the students. Some paintings of the children life during a day are seen on the walls. There is a garden in the school made by the students. Irrigation, plant care and harvesting of the garden are done by the students under the supervision of teachers. Attention to the plants, light, water, and some natural phenomenon including rain and snow is interesting for the children and that is why "creating landscape of the natural environment is
effective on the growth of creativity" [1]; even "existence of plants in the interior space is effective on the mood and creativity." [2]

"Difference in the apparent form of natural elements (water, light, plant, etc.) and possibility of using them in different ways that is called "diversity of natural elements" provide the stage for curiosity which is one of the stages of creativity process." [3].

The garden built in the school, plants placed inside the class and grown by the students and teachers are effective on the creativity process in the children. Because plants have different forms, properties, and colors that may provide the stage for different questions. Answering these questions is a kind of problem solving by proper combination of information received by the children and making a new conclusion. This process is regarded as a creative task. Usually schools in the big industrial cities of Iran do not consider a wide space for yard and garden in terms of physical structure. In the elementary schools, the roofed space of the school, i.e. classes and corridors are decorated by plants with the cooperation of students and teachers, and teachers agree with fostering small plants and grains inside the class by the students.

The spaces in which students gather create social interactions and relations among them. These group communications have a positive effect on the creativity process. Thus, designing collective spaces and making them meaningful is a kind of function design too. As we increase the rate of communications and quality of these interactions, we will positively influence the growth of creativity in the students. Increase in the creativity of students will affect the process of training positively because creative persons enjoy better learning.

It is worth mentioning that implementing such methods and changing land use or optimizing it, we can develop visual beauty of the physical space through environmental graphic and reinforce the aesthetic sense in the students. The advantages of considering aesthetic dimensions in the environmental graphic of the school spaces have three important features.

a) The first and foremost, reinforcing self-confidence in the children whose effects will even be evident in the adolescence.

b) Departure from this stage of children life will be associated with success and happiness in the school space. People who have spent their childhood well will damage from mental pressures and stresses less in the adolescence. Establishment of schools in the world is due to development of knowledge and familiarity with the life skills.

c) By the environmental graphic in the training spaces of the schools, socialization of children according to the local, national, and religious culture becomes possible and this seems necessary for the cultural authorities and rulers.

1.1 Socialization:

Over time, governments and societies found out properly that fostering people of any society according to the needs and values of the society is a necessary task which is possible through training. "Training seeks to facilitate learning for the learners." [4]

Different conditions of learning create different types of learning like learning by direct method and learning by indirect method. "Usually (particularly in our society), formal education is conducted by direct method. Formal and traditional education is mostly based on direct method." [5]

Since improvement of economic, social, and cultural conditions of any country depends upon creative education of children of that country, attention to creating conditions of comprehensive growth for them is a matter of great magnitude. According to Torrance, "children are born creative but creativity of many of them drops considerably at 10 years old (in the early age of direct training in the schools)." [6]

According to Gutek, "due to restrictions existing in the formal education institutes, today many theorists have focused on the non-formal (indirect) education." [7]

The environmental graphic in the school space has a great importance as a means of socialization; because it is able to create slogans and stereotypes according to the taste of social powers by growing visual memory and aesthetic sense of students even in their leisure time in the schools (when they are not in the class and under direct training).

1.2 Leisure times and education:

Education in the leisure times is not regarded as a new phenomenon for the present era. "Such philosophers as Aristotle, Plato, and Socrates have regarded it as the integral part of individual training and education." [8]

Foundation of human happiness anywhere in the world relies upon their education. However it is clear that children are influenced more than other age groups as soft branches of trees are bent and formed more easily than hard branches. Children learn and change more rapidly than adolescents. Aristotle (388 AH) has stated about education that is the most important task of the government that "indifference to education damages the society organization. As people become more competent, the organization that they create will be more competent." [9]
In chapter four of Naseri Ethics, Khajeh Nasireddin Tusi writes about children education and recalls that talking about children education does not mean that they need education more than adolescents; rather children are more ready for education [10].

Since children are the most delicate and vulnerable class of the society, building their accurate intellectual foundations in the most important part of the city, i.e. schools, will bring about many benefits in long term. The most important benefit is to foster healthy persons with noble and altruistic thoughts in the most important part of the city, i.e. schools.

2. Definition of environmental graphic:

Environmental graphic design represents visual view or graphic attitude towards the environment or "environmental graphic and graphical environment". The term "urban design" is very close to the environmental graphic and is even used instead of that. Sometimes urban design and environmental graphic have an identical concept. Even such terms as urban environmental design and environmental design and environmental graphic have such a concept [11].

The environmental graphic is an interdisciplinary art that is now applied as a public art in all cities of the world and its borders is expanding in the urban and industrial life moment by moment. The terms urban landscape and environmental graphic are very close to each other and they are even used sometimes instead of each other. There is no clear border between these words and what specify the distinctions are the limitations of these two fields.

The environmental graphic art is presented in different forms and methods of visual expression in the city. In the scene of urban spaces such as buildings, streets, and pass ways, it includes portfolios, public places like libraries, museums, schools, graffiti in the city and different places like schools and educational spaces, posters, warning signs, traffic signs, environmental design of parks and public service places including bus stations, telephone booths and post, design of statues in the squares, parks, and schools and many other items that have a clear impact on the urban landscape.

Three general branches of the environmental graphic include:
a) Urban advertisement: it is divided into two groups: 1) educational and cultural advertisement, 2) product advertisement that may be presented in the scene of demand and supply market of products and urban services. However such an advertisement is usually prohibited in the schools of Iran. The environmental graphic in schools uses the educational approach for socio-cultural promotion. 3) The third branch of environmental graphic introduces places and gives information about the place of mosque or sports hall in the schools. The environmental graphic has many branches but in general, it uses the following branches for promotion in the schools.

1- Proper use of pictograms related to the environmental graphic in the educational spaces.

"Pictograms are a group of visual signs. Pictogram pictures are rarely abstract and they are often figurative that are sometimes associated with writing and letters. A pictogram may represent an object or place or a purpose. From a psychological perspective, the effect of a pictogram on the viewer may be very faster than the effect of writings." [12] Application of pictograms appropriate to the children perception in the educational environments is one of the necessities. It can be stated that pictograms are a kind of pictorial writing such as exit and toilet pictograms or the array sign on the school wall to show Qibla direction.

"The environmental graphic with the aid of beautiful and expressive signs enables rapid and easy communication of people with places and events." [13]

The visual signs may represent specific places such as laboratory or sports hall, they even may introduce classes specifically. For example, if the name red rose is chosen for the first grade class, the picture of red rose is seen on the gate of that class. Some environmental graphic signs play a more limited role in the schools like use of traffic signs in the space linking school to the street or the vehicle traffic spaces in the schools that have a broad area. However since the city image and space is changing continuously, the children are required to know such changes to have a proper reaction at the required times. For example, they must know traffic environmental graphic signs. Such a requirement did not exist in the past, but now the life is endangered without learning them. The environmental graphic has created a matter for learning of children in the schools by developing signs.

2- Proper use of the environmental graphic signs for rapid and easy communication of children with national, religious, and social events.

By using the environmental graphic signs, we can inform about the events. Ashura event in Iran is understood by familiar signs like installing black flags with mourning scripts. Such changes as formation of mourning groups in the school yard and distributing date, drinks, or food among the students, etc. in the schools represent an event. Another example is Haft Sin decoration in the schools that is associated with the happy gathering of students around that spring event and Norouz Holiday.

3- Visual guidance system. The environmental graphic tries to direct the viewers to receive the visual message by different methods.

4- Graphic design of letters and writings on the school building that may include the school name.
5. Graphic designs and graffiti in large scales and different types in terms of the method of implementation and application.

3. **Culture-building and cultural conveyance:**
   Development of technology and mass media facilitates cultural evolution in the contemporary world and so culture-building is regarded as one of the important issues of the present century.
   "Culture-building is conducted through cultural mediators in three stages of production, distribution, and consumption of cultural products related to the human creativities in the art and science scene that changes mentalities, beliefs, ideologies, information interchange, and life styles in the process of people adaptation to the surrounding environment." [14] The environmental graphic is a means by which cultural exchange and developments occur in different societies. According to Carlsson et al., culture-building through mass communication means conveyance of cultural contents including beliefs, pictures, interpretations, thoughts, concepts, and values that affect behavior, cloths, traditions, and life style of people in the society". [15]

   Besides conveyance of knowledge and skill to the students, authorities of the educational spaces have other tasks directly and indirectly. These tasks include facilitation of learning of social values, or in the other words, creating empathy between teachers and flourishing their individual and social capabilities to transfer and promote moral, scientific, and cultural values further better. Importance of the educational functions is to the extent that "Rousseau has regarded it as the ship saving the social human". [16]

4. **Building school space by the environmental graphic:**
   Considerable points in building the school physical space include:
   1. The age of users must be considered when creating the educational space.
   2. Materials of construction must be appropriate to the region climate.
   3. The beauty must be studied through the lens of users.
   4. The design must invite the viewers to that environment and match their needs, culture and nationality [17].

   Some types of the environmental graphic in the school environment include:
   1. Inscriptions: these introduce the space, time of establishment, or some information about the biography of the person who devoted the school.
   2. Graffiti: graffiti on the internal and external walls of the school has been prevalent from long ago. Decorative writings were mostly used in the past but now writings have been replaced by pictures and symbols in the environments that children have better visual memory.
   3. Decorations: classes, corridors and other spaces are decorated by using posters, pictures, statues made by the students.
   4. Religious, cultural, national and even regional events: these events are demonstrated by the students. These events are recorded and stored in the collective memories of the students. In another definition of the environmental graphic, one can say that these events are carved in the memory of the students. Recording and remembering these events is a kind of institutionalizing the dominant culture. Recording a culture that originates from knowledge in the mind of the students is one of the goals of education in the educational spaces.
   5. Exhibitions: presenting artworks, achievements, and creative works of the students in the exhibitions, celebrations and different ceremonies in the educational spaces. In the educational spaces of the schools like classes or library, different types of environmental graphic are applicable depending upon the space and subject. There are many considerable factors, places, and materials in the graphic design of the educational centers in the urban life and they have a great importance in the physical and mental health and growth of the children. In the environments designed properly, healthy children are able to receive visual meanings and their visual memory is developed. Visual calmness and quality is increased and so a better space is created for education and culture-building in the schools.

   Design, presentation or demonstration of the environmental graphic work in the schools requires knowledge and awareness of visual arts foundations. This awareness may be created in the art lessons through direct training or obtained via conversation with teachers and receiving their opinions. First of all, it may be created through different types of visual observations associated with creativity in the students. So, the student visual memory may receive new meanings and relations from the world of pictures. For example, how to make wall papers prominent to attract more viewers need problem solving. Graphic attitude towards accurate decoration of points, lines, and visual surfaces in a balanced form in the physical space of the school is a kind of problem solving and is considered by knowledgeable and caring teachers. For example, very small pictures are seemed as point from far distances in the school yard and slightly larger images are seen as larger points. The student that receives this visual sense may have different responses. The creative student does not consider small and very small pictures appropriate for the broad yard of the school and request for installing them in the more closed physical spaces and corridors. This response is a kind of visual problem solving through the lens of student.
5. **Features and application of environmental graphic in the schools:**

These features include:

1. It is interesting and attracts the viewers.
2. It uses the power of message and know the viewers.
3. It enjoys internal order and integrity to express the subject.
4. It reinforces visual power of the viewer.
5. It may invite the viewer to the conceptual thought.
6. It uses design and visualization elements.
7. It increases general knowledge and awareness.
8. It may assist cultural and political managers because it can narrate and illustrate revolutionary and socio-cultural slogans and concepts. For example, it narrates religious and political contents properly like the importance of prayers and position of martyrdom. Also it can express abstract concepts (like freedom) and metaphysical concepts (like revelation to prophets) artistically.
9. It can induce a specific type of culture by repeating its visual messages.
10. The environmental graphic can give identity to the educational spaces.
11. If a written text is used, there is an artistic, attractive, and rational relation between the visual and written forms and the work concept, and the age of the viewers is considered. This matter is effective on the apparent form of the work.
12. Use of colors in the environmental graphic must be beautiful, proper, and rational. Designer of the environmental graphic uses knowledge of color to determine color of elements in the educational environment in order to control the viewers’ behavior or response to the environmental element. For example, in designing benches in the open space of the educational environment, color, texture, materials, and the surrounding buildings must be considered and there must be a harmony or color contrast among the components. If the objective is to attract people to a place for sitting in a crowded space, contrast has a better function and if the objective is mental convenience of the children for interactions with their peers in a clam environment, it is better to use harmony of attractive colors for children and create decorative details in the painting because these details can be seen by the viewers. Training the meaning of some colors by using environmental graphic is the school is required because “colors act as sign and use of specific colors has become a kind of standard. Traffic signs, urban furniture, guidance boards have usually color codes that changing them may distort visual messages received from the environment” [18].

   It is worth mentioning that by training the required concepts of some colors may play an important role in protecting life and health of children. This training may be direct or indirect. The concepts of some colors like red may be trained in the school yard and inside an artificial environment using graffiti and maquette.
13. Designer of the environmental graphic may consider design of open spaces because the closed spaces have a negative effect on the children in long term and reduce the sense of joy and play in them. Releasing the full-of-imagination mind of children in the open spaces may affect their learning from the environment.
14. In such forms as graffiti, statue, or inscription, it can consider historical narrations like fighting against oppression and even introduce mythical, religious, national and regional characters.
15. The environmental graphic may be interactive. Designer of the environmental graphic may apply some means used in the environmental graphic of the educational spaces in an interactive manner and so the user has the opportunity to manipulate and test some parts of the environmental graphic work. For example when the children pass through the environmental work, they breathe a scent appropriate to the subject of the work or hear a sound related to the work in the environment. In the other words, approach of the user to the environmental subject is synonymous with receiving reaction from the environment. The receipt of reaction is a kind of problem solving and better understanding of the message in a pleasant manner.
16. Application of regular and simple forms that fit children perception in the educational environments is necessary. High sophistication that is beyond the perception and understanding of children makes them bored of visual pictures and symbols in the environmental graphic. The harmonic forms that have warm and transparent colors with natural lighting are more pleasant for children. Dark rooms with artificial lighting are very frightening for many children and are not proper for presenting the environmental graphic work.
17. To create the environmental works like benches in the yard, boards, and stands, physical dimensions of children must be considered so that children feel that this space has specifically been built for them and a sense of belonging to the space and sense of security are created in them.
18. Creating exhibition is among environmental graphic methods. An exhibition of children artistic and scientific achievements can be held. This exhibition includes paintings, very simple scientific examinations, etc. Cooperation of children is effective on their creativity.

6. **Conclusions:**

   The environmental graphic has a big role in the personality, mental, physical, and social growth and culture-building in the children. The environmental graphic is effective on institutionalizing concepts that are
required for the social life particularly moral and educational concepts. The environmental graphic of the educational spaces may be effective on creation, identification, and decoration of public spaces. The environmental graphic in the educational spaces seeks methods for creating calmness, joy, and growth are reinforcing mental and physical power of the children in an environment enjoying proper quality and visual beauty. The environmental graphic in the educational spaces may convey the message in a proper environment.

The environmental graphic in the educational spaces may reflect like a mirror needs and socio-cultural levels of the users as well as inclination and orientation of cultural managers.

REFERENCES