

## Recommendations for Increasing Aesthetic Sensibilities of Pre-University Students Vis-a-vis Architectural Education

### Mimarlık Eğitimi Bakışıyla Üniversite Öncesi Öğrencilerin Estetik Duyarlılığının Arttırılmasına Yönelik Öneriler

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#### *Abstract*

“Architectural education” starts long before people engage in university programs simply because they develop values and images generated by perception of the world around. This acquired background affects a person’s future endeavors, particularly those involving visual issues. The authors, as “beginning design” educators, observe that students lacking visual experience and aesthetic awareness are less successful in courses requiring creativity. The aim of this paper is to explore means of raising aesthetic sensibilities for all members of the society in general; and to improve the creative potential of pre-university age group in particular. Organizational and/or institutional measures are proposed for the support of pre-university education to a given extent through a model.

*Keywords:* Aesthetic sensibility, visual experience, pre-university student, architectural education, model.

#### *Öz*

“Mimari eğitim” üniversite eğitiminden çok uzun zaman önce başlar. İnsanoğlu farkında olmadan bir yandan yaşadığı çevre içinde kendi görsel ve estetik değerlerini geliştirirken, geri planda elde edilen bu değerler, yaşamı boyunca görsel duyarlılıkla ilişkili tüm algılarını etkilemektedir. “Tasarıma Giriş” eğitmenleri olan bu makalenin yazarları, görsel deneyim eksikliği içinde olan ve estetik farkındalıktan yoksun öğrencilerin, yaratıcılık isteyen derslerde daha az başarılı olduklarını uzun süredir gözlemlemektedirler. Bu makalenin ana hedefi, genelde toplumun bütün üyelerinin estetik duyarlılıklarını yükseltecek, özelde ise üniversite öncesi öğrenci grubunun yaratıcı potansiyelinin geliştirilmesine yönelik çözüm yolları önermektir. Bunun yanı sıra, öğrencilerin bu yönde gelişimine katkıda bulunacak ve üniversite öncesi eğitim kurumlarına bu anlamda destek verecek örgütlenmeye yönelik ve / veya kurumsal ölçütler içeren bir model de önerilmektedir.

*Anahtar Sözcükler:* Estetik duyarlılık, görsel deneyim, üniversite öncesi öğrenci, mimarlık eğitimi, model.

#### Introduction

Science is a human design, and design is an art. So, even science is an art, a human creation... Design is not a part of science, but science is a part of design. (Jong, 2010: 23-44) In that sense, design forms an umbrella covering architectural knowledge, and hence architectural education. Creativity is considered to be the core of design ability, and training of the eye, problem solving

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and creative activities are points of departure of architectural education, along with cognitive development and technical competence, plus urban issues, business and marketing techniques: a difficult combination of skills (Aydinli, 1998: 219). These skills are partly gained through formal education. Starting with the very first lessons, flow of new knowledge begins and being a source of inspiration, or criterion for evaluation, knowledge will be transformed in the "would- be" designer's imagination into design ideas and architectural images through personal interpretations and creative abilities.

But, architectural education starts long before students face formal university programs on the subject. In fact one may say that it begins the moment a person starts perceiving his environment, nature as well as the built environment such as home, school, work place, social or public buildings (of any sort) where there is any kind of human activity. It starts before we learn about architecture as a profession. Experience is the life force of a community in the way that values, beliefs, and customs shape the community's relationships with the environment. (Perkes, 2009: 64-71) People develop value judgments generated by experience or intuitive perception of the world around them, such as "ugly", "beautiful", "good", "bad", "useful", "useless" etc. In other words, no student starts his education with a totally blank mind (*tabula rasa*), but with images or concepts as the accumulation of perceived phenomena involving tangible experiences within the scope of a public educational process. (Kuban, 1995: 2)

A person's perception of the world leads him/her to generate empirical concepts, representing the world around within a mental framework relating new concepts to pre-existing ones... In architecture it can be said that the architect's beliefs (background) are translated into his design philosophy. (Macial et.al., 2007: 3765) Consequently, response to the immediate environment and past experiences will be a strong determinant for the student to gain the most out of schooling. "... Formal architectural education rarely gives students opportunities to use their lived experiences (and memories) in the classroom, a shortcoming that Thomas Fisher attributes to the Socratic method of teaching architecture. Yet, by critically examining how past experiences become the springboard for creative acts, Hurst, Lawrence and Thomson are able to produce higher orders of learning in their studios. Their students find their own voices, transfer everyday knowledge into design solutions, and become better learners. They propose employing the idea of "memory palaces", exploring everyday environments and interrogating familiar practices as ways to impart architectural knowledge..." This quotation from a book review by Sen (2006: 71) emphasizes the importance of lived experiences for students of architecture with which the Authors fully agree.

Designs by an Egyptian or Japanese architects/designers often illustrate completely different sensibilities stemming from the elements of the visual and cultural environment that had influenced his "acquired background" even if his education may have been received at a western school of architecture. In other words, despite the effects of globalization we can still observe a certain amount of diversity in products of architecture all over the world today.

One must then ask whether or not the unspoiled imagination and creative potential of a child have a chance to improve during the pre-university period. Unfortunately in many cultures including the one we share, the type of formal educational programs based on learning by rote, (Dagli et.al., 1998: 393) filling children's minds with meaningless signifiers, may even have a negative effect on the matter. "Perceptions" may turn to "preconceptions" which stifle creativity of design students as well as the rest of the members of the society. (Varnelis, 1998: 212) Since expectations of the public from architects are also within the limitations of each person's cultural values, architectural sensibilities or visual experiences, the effect is multiplied in the give-and-take process of design, between the client and the designer.

Therefore, "educating the public" may become an objective; raising aesthetic sensibilities and architectural consciousness of the non-architect members of a society (Gunduz, 1995: 257) by developing an awareness for perceiving what is seen for training of the eye, and for seeing with the mind's eye (Zevi, 1990: 7) long before engaging in higher education activities. It will not only help the student benefit fully from formal education but will also reflect upon the

quality of the built environment, regardless of the area of education since creative approaches have always produced pioneers in the arts or sciences. Actually, aesthetic sensibility has even been highlighted in the area of teacher training as a high level of consciousness about what one sees... a fine attention to detail and form; the perception of relations (tensions and harmonies); the perception of nuance (colors and meaning) and the perception of change (shifts and subtle motions). (Rodgers, 2002: 221-222) (Buonincontro, 2011: 2-3)

The aim of this paper is to explore the ways and means of raising the aesthetic sensibilities of all members of the society in general; and improving the creative potential of the pre-university age group in particular, with a view that it will affect the visual quality of the built environment positively. Organizational and/or institutional measures are proposed to this extent through a model.

This study is undertaken with specific reference to the educational institutions<sup>1</sup> of a rather small-scale community – Gazimagusa<sup>2</sup> in Turkish Republic of Northern Cyprus. Despite the scale and the somewhat isolated location of the town, the authors believe that their observations and proposals that follow are not limited to the local conditions. They may be relevant to quite a few institutions of architectural education sharing similar concerns vis-à-vis the background of their students. In fact, Gazimagusa bears the characteristics of being an important “historical town with a major sea port” - turned “modern University town”, (Dorathl et.al., 2001: 42) the University having an International student body of 15000 - from 68 countries, and faculty members - from 35 countries in 2012.<sup>3</sup>

### Method

The study is carried out in three main stages. The *first stage* is the exploration of the existing state of the “visual vocabulary” for the pre-university age group in question, and the environment that is influential in the formation of aesthetic values in the society at large. To collect the data, questionnaire, interviews, and personal observations were the main tools employed.<sup>4</sup>

This part of the study is also expected to provide clues as to whether or not the creative potential of the child has a chance to improve during the education process of the pre-university period.

The *second stage* constitutes assessment of the results and identification of the problem areas. A simple SWOT analysis has been used for the realization of this stage: Evaluating the strengths, weaknesses, opportunities and threats concerning the visual vocabulary in question.

The *third stage* involves the statement of objectives and proposals for ways and means by which to contribute to the visual vocabulary of candidates of architectural education in order to increase the efficiency and relevancy of their education. Although the groups, which were subjects of this study, consisted of pre-university students only, as the main beneficiary of the proposed set of measures, the proposal to be put forth will include programs for all members of the society.

### Results

#### *The First Stage - Analysis and Evaluation of the Existing State of Affairs*

Students of architecture differ from one another in a wide variety of ways because they have different backgrounds, different levels of motivation, different attitudes about teaching and learning, and different responses to specific classroom environments and instructional practices (Potur, 2009: 44-57), may acquire similar skills and new knowledge during their formal education process. It may be considered analogous to providing them with the “grammar” of a new language; but, to be able to make use of this grammar and transform it into a variety of design

ideas and diverse architectural images, the would-be-designer must possess the necessary “visual vocabulary” based on personal interpretations and value judgments. The individual’s past visual experiences comprise the background of aesthetic values needed for this transformation. If this vocabulary is to be enriched or developed, some measures that were referred to earlier may be appropriate

A two-part questionnaire was prepared in order to understand the way members of each age group perceive their environment, addressing personal value judgments of individuals in the area of aesthetic considerations. The questions were grouped to include a variety of visual materials in graphical, architectural or urban contexts such as “the best looking *composition*”, “the most beautiful *building*”, the “ugliest” *street* etc. Other questions comprising the second part of the questionnaire were on more neutral grounds such as “the most beautiful *thing* in the photograph”. The visual materials were selected partly from their immediate environment, the familiar one, and partly from universal examples to give them the chance to compare the well known with the foreign. The major criterion for the selection was that they should best reflect the characteristics of their built environment

The experimental groups chosen for the testing procedure are students of 7-17 years of age, at four different levels of education:

- *Gr.1* students in the first year of primary school: No prior education<sup>5</sup>
- *Gr.2* students in the final year (5th) of primary school: 4 years of primary education completed<sup>6</sup>
- *Gr.3* students in the final year (8th) of secondary school: 5 years of primary education + 2 years of secondary education completed<sup>7</sup>
- *Gr.4* students at the final year (12th) of high school: Last level before the University<sup>8</sup>

The scale of the environment considered influential for each group is investigated at four levels: The family, the school, the neighborhood/town (immediate environment) and the society at large. (See Table1 for the students’ perception of the environment)

Table 1.  
Perception of the Environment

		Description by Student categorized)	Group 1	Group 2	Group 3	Group 4	
Built Environment	Positive Value Judgment (PVJ)	Landmark	High-rise Building	♦	♦	♦	
			University Campus				
			Commercial Center		♦	♦	
		Districts	Own Street				
			Street of Own School				
			Corniche				♦
			Street in Old Town				♦
			Street in Prestigious District				♦
			Neighborhood Commercial Center				
			Recently Developed Area				
	Major Transportation Artery						
	Building	Own House					
		Own School					
		Buildings from 1950-60					
		Contemporary Villas					
		Contemporary Apartment Buildings					
	Negative Value Judgment (NVJ)	Landmark	High-rise Building				
			University Campus				
Contemporary Mosque							
Districts		Visual Pollution (wires, signage...)					
		Buildings in Closed Area			♦	♦	
Building		Own School				♦	
		Buildings from 1950-60				♦	
	Vernacular Architecture (50s)						
	Commercial Buildings			♦			
	Contemporary Apartment Buildings				♦		
Natural Environment	PVJ	Unfinished Constructions					
		Trees			♦	♦	
		Sky					
	NVJ	Sea		♦		♦	
		Visual Pollution (refuse)					
	Visual Pollution (Dead Trees)			♦	♦		
	Historical Environment	PVJ	Vernacular Architecture (50s)		♦		
			Historical Buildings (monumental)			♦	♦
		NVJ	Unkempt Old Houses	♦	♦	♦	♦
			Historical Buildings (monumental)				

Family as influential environment

Family / school as influential environment

Partly Family / school / partly society as influential environment

School / Town / Society as influential environment

We conclude that the “family environment” should be considered as the strongest influence on the *first group* since it is their first year in school. These students perceive their immediate environment within a tighter circle of “own house”, “own street”, “own school”, “own neighborhood” concepts in all their choices of beautiful, ugly etc.; family and the school are influential on the *second group*; “partly” family, school, the town and “partly” the whole society are influential on the *third group*, and the last three are influential on the *fourth group* who are in the year before university level, with the influence of family dropped completely. The members of this group (*Gr.4*) are socially more active outside the home environment and have a wider perspective for their choices such as “commercial center”, the “busiest street in town” etc.

A similar comparison between *Gr.1* and *Gr.4* is relevant for their answers to the specific question: *What color* best describes your town? The younger group’s perception is limited to the color of the old stone from historical buildings-familiarity of immediate environment-, whereas the high scholars go beyond the town limits to the coastal areas - the blue is their overwhelming choice. Therefore the most influential medium on the older groups involves an extended physical and social environment.

For *all groups*, perception of the “ugliest” in the context of their built environment was *again* mostly houses of some historical value, but those that are in the closed Maras (Varosha)<sup>9</sup> area, abandoned or ruined. Students did not show any awareness for architectural details, proportional or other aesthetic values of the buildings. (Possible reason: psychological effect of facing daily the buildings of Maras closed to habitation and deteriorated in time.)

Results at the neighborhood scale show evened-out concentration of choices for the perception of their immediate environment. All four *groups* made their preference both for the historical environment *and* for the recently developed urban areas with several high-rise and new prestigious buildings. (Possible reason: familiarity of historically rich visual environments versus newer images, being impressed by high-rises and high tech, shiny new materials.)

In terms of perception of the “most beautiful” in the context of their built environment, choices of *Gr.1* concentrated on vernacular houses from 1950s, but those that were still in good shape. (Possible reason: familiarity and more “human” scale character of the buildings.) But for *Gr.2, 3 and 4* concentration was on trees or patches of greenery among the built environment (possible reason: influence of school - starting to gain environmental consciousness-environmental protection is perceived as synonymous with protecting the green).

The variety of influences (family, school, neighborhood/town or society) on different groups in the study causes differences in the students’ perception of their environments leading to the formation of positive or negative value judgments.

The second part of the questionnaire involved more abstract visual materials in terms of their aesthetic awareness of students. In this case there were no significant differences among the groups. Students having completed the first two levels of the pre-university education period (*Gr.3* and *Gr.4*) showed some improvement in color or compositional consciousness, The same groups demonstrated a slightly stronger tendency towards identifying and stating as positive design principles (Ching, 1996) like visual balance, order against disorder and asymmetry against symmetry. First two levels (*Gr.1 and Gr.2*) on the other hand identified among their choices symmetry and rhythm as positive. (See table 2 for the results of questions testing aesthetic awareness of students)

Table 2.  
Aesthetic Awareness Tested by Abstract Visual Material

	Design Principles identified (as positive value judgment)				Color Schemes chosen (as positive value judgment)			
	Order	Visual Balance	Symmetry	Rhythm	Complementary	Mono-chromatic	Analogous	Others-color discord
Group 1	***		***	*				***
Group 2	***		***	*				***
Group 3	***	**	***			**		***
Group 4	***	**	**		*	**	*	***

***	Concentration of choices	**	Evened-out distribution	*	Insignificant number
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#### *The Second Stage - Identifying Problem Areas*

In this part of the study, the SWOT analysis<sup>10</sup> has been used for evaluating the results from the existing state; in terms of its strengths, weaknesses, opportunities and threats concerning the visual vocabulary in question.

#### *Strengths*

- Primary, secondary, and high school education do not have negative effect on the students' developing a visual vocabulary, a slightly positive effect on high school level.
- Students are positively influenced by seeing better examples of architecture within their physical environment.
- Students develop some awareness for historical and natural environments during all phases of their education process, since these concepts are emphasized in school.

#### *Weaknesses*

- Students are not capable of evaluating abstract compositions.
- Students' visual perception of compositional material is rather superficial in terms of fine details.
- Multi color compositions are preferred without conscious selectiveness
- Students demonstrate a stronger tendency for rigid understanding of order in geometric compositions
- Living in a small island limits their opportunities for experiencing a variety of physical and socio-cultural environments

#### *Opportunities*

- Abundance of non-governmental organizations in the field of arts and culture in the society
- Presence of several institutions in the same areas under the local and central governments
- Presence of a close relationship between the Faculty of Architecture of the University and the City

*Threats*

- Aesthetic sensibilities or visual experiences of family members or the teachers are also limited, and so is their contribution to students.
- Rapid and unplanned urban development creates an undesirable physical environment with negative influence on students for developing their visual vocabulary:
  - Inadequate care and maintenance of majority of historical buildings
  - Several high rises being built in a manner inharmonious with the urban fabric
  - Careless positioning of commercial signage, telephone or electricity posts and wiring, garbage bins etc. contributing to visual pollution
  - The abandoned area closed for habitation -Varosha Region- being adjacent to the densely populated residential part of town, creating an atmosphere of urban decay, and causing negative psychological effect

Priorities of action should be determined in consideration with the points identified as weaknesses and threats.

*The Third Stage – Proposals*

*Objectives.* Based on the analysis of the existing state of the vocabulary in terms of its strengths, weaknesses, opportunities and threats, a set of *four general objectives* are recommended:

- 1) Consciousness raising efforts for aesthetic sensibilities directed to the public at large, with the family-teacher-student triangle in focus (high priority);
- 2) Contribution to curriculum development efforts in educational institutions with the idea that art and culture oriented subjects are increased in number and revised for content (long-term and low priority since school as influential environment supplies certain basic concepts);
- 3) Exploring ways and means of improving the visual quality of physical environment and emphasizing its positive influence; Encouraging exposure to desirable visual stimuli(High priority);
- 4) Encouraging all institutions, private or governmental that are concerned with art or culture, to take a more active stand in participating in consciousness raising efforts.

To aid in the achievement of these objectives, a scenario is prepared to pave the way for a proposal: *Establishment of an institution that would organize and implement programs and activities directed at raising aesthetic sensibilities of the society at large.*

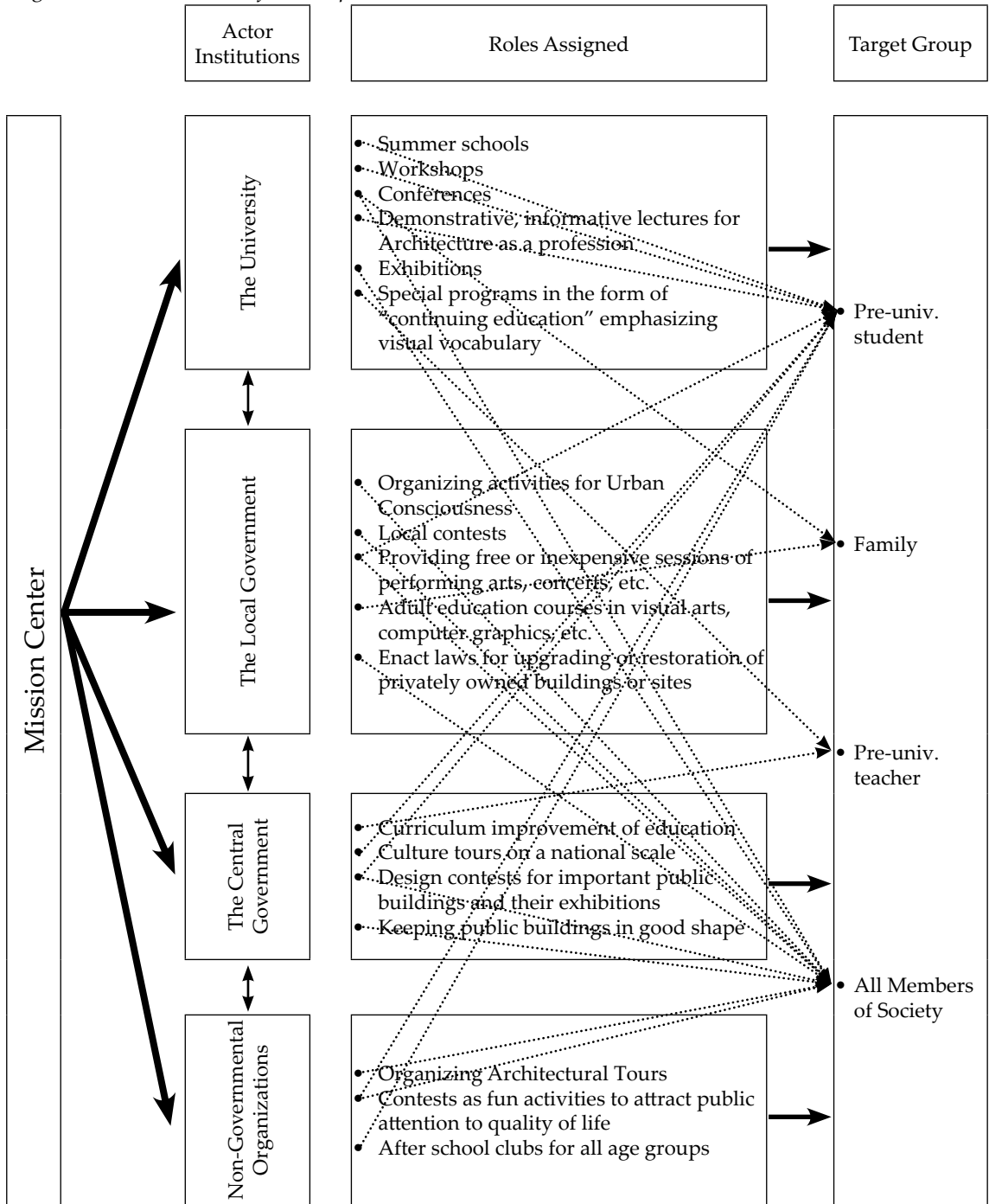
*The Scenario.* The scenario makes use of the following “Actors” to assume certain roles in the proposal:

- The University (with a Faculty of Architecture)
- The Local Government
- The Central Government (all Departments)
- Non-Governmental Organizations

A “Mission Center” comprising the representatives of each actor institution will be set up under the Deanship of the Faculty of Architecture to carry out organizational responsibilities. The Center will work as a “think-tank” to formulate specific programs, considering the *priorities* in view of the findings of stage 2 for each of the actors involved. It will discharge its responsibilities as deemed necessary within the framework of its by-laws and through periodical meetings. It will have the authority for decision making, controlling and coordinating activities assigned to actors. (See table 3 for the organizational structure of the proposal.) Below is a detailed list of the roles assigned to the actor institutions:



Table 3.  
Organizational Structure of the Proposal



• *The University (with a Faculty of Architecture)*

Summer schools for pre university age groups- in areas such as design, music, freehand sketching, and visual arts in general: Academic staff from the Faculty of Architecture will be responsible for planning, teaching or coordinating the courses with other units of the University.

Workshops: Architecture students join younger student or adult groups from the local community to produce real-life projects that include actual building activities under the leadership of faculty members.

Conferences: Open to public or student oriented, by academic staff or by guest lecturers, all aiming at raising consciousness on areas such fighting visual pollution (with local government), art appreciation, or protection of natural or historical environments (with central government agencies) etc.

Demonstrative, informative lectures for Architecture as a profession: May be held within the campus facilities or as visiting missions to schools.

*Accommodating Studio visits during the course activity.*

Exhibitions: Multi-media presentation of student work, important visual material from international sources, innovative examples of design work or building materials, etc.

Organizational assistance or providing guidance to other actors for activities such as local, national or international trips.

Special programs in form of "continuing education" for teachers of pre-university level, emphasizing visual vocabulary. Short courses, multi-media lectures, guided trips etc. are some possibilities.

- *The Local Government*

Organizing activities for Urban Consciousness: Guided tours of interesting parts of town, visual aesthetics in urban scale, drawing attention to visual quality of the built environment, awareness for detail etc.

Local contests for best landscaping of private gardens, best architecture, best commercial signage, best photograph showing different aspects of cityscape, etc.

Design contests of small scale: for logos, street furniture, etc.

Providing free or inexpensive sessions of performing arts, concerts, etc.

Adult education courses in visual arts, computer graphics, art history etc. targeting family members of pre-university groups to increase channels of communication between generations.

Enact laws for upgrading (cleaning, painting...) or restoration of privately owned buildings or sites. Keeping municipally owned ones in perfect shape to set a good example.

- *The Central Government (all Departments- Especially Dept. of Culture, Dept. of Education)*

Curriculum improvement for pre university institutes of education, art and culture oriented approach, review and revision of course content for existing courses.

Culture tours on a national scale.

Design contests for important public buildings and their exhibitions (with the University).

Keeping publicly owned buildings in perfect shape to set a good example. Aesthetic consideration particularly for school buildings should be given at least as much emphasis as economic considerations. It costs just as much to build "ugly" buildings with no respect for aesthetic needs, as an economical but "beautiful" building; but the latter will have an unexpected degree of impact on the development of the visual vocabulary of young people who receive messages from "good" stimuli, much faster.

- *Non-Governmental Organizations: Chambers of Architects, Graphic Artists, Urban Designers, City Planners; alumni associations (especially graduates of architecture schools), women's groups, associations for urban beautification, art and culture, and the like:*

Organizing Architectural Tours: Historical buildings, successful restoration examples, new buildings of exciting architectural design, landmarks etc. to increase urban consciousness and aesthetic sensibilities.

Contests offered as fun activities to attract public attention to quality of life: Dinner Table decoration, 'kitch' versus quality design from clothing to home decoration, photography, reuse of

scrap materials in creating home accessories etc.

After school clubs for all age groups.

The primary challenge facing the Center is to determine the *priorities* in problem areas and assign appropriate roles to actors. Follow up and assessment activities are also important to determine those areas where joint work must be carried out by different actors with due emphasis on effective coordination by the Center.

### Conclusion

Architectural education starts before students engage in the formal university programs. Keeping in mind that aesthetics is part of the social processes that associate knowledge, reflexivity, and communication (Blanc, 2012), we can say that the moment people start perceiving their environment; with some kind of human activity, they start developing aesthetic values generated by visual experiences or intuitive perception of the world around. The architecture student reverts to these images or concepts when he/she is challenged with a design problem since they are the accumulation of perceived phenomena involving tangible experiences of years. Thus, images or concepts gained through response to immediate environment and past experiences that we call visual vocabulary will be an important determinant of how much the student will gain out of schooling. Because the richer the experience the stronger the vocabulary will be for creativity and aesthetic awareness necessary for the formation of an architect. It will also reflect the architectural consciousness of the public in their expectations from designers and will influence the students' design attitude in the process.

Based on this general observation, the study conducted attempted to find out *initially* the existing state of visual vocabulary of students in pre-university education levels in a specific community -Magusa of North Cyprus- where there is a University with a Faculty of Architecture. The stage that follows is about identification of problem areas with a focus on the kind of environment that is influential in the development of the vocabulary with all the shortcomings observed. The family, the school, the town and the society-at-large were determined to be the environments influencing various levels of pre-university education groups. The final stage of the study involved the statement of the objectives and proposals for ways and means by which to contribute to the visual vocabulary of candidates of architectural education in order to increase the efficiency and relevancy of their education. The proposed institutions under the coordination of an academic unit) and the programs to be implemented by them, cover not only the students of the previously mentioned groups but the influential environments as well because of the obvious *chain reaction* nature of interaction between members of the society.

This study is undertaken with specific reference to the educational institutions of a rather small-scale community. But despite the scale and the somewhat isolated location of the town, we believe that this approach can be a model to be adapted to other cases since our observations and proposals that follow are not limited to the local conditions. They may be relevant for quite a few institutions of architectural education sharing similar concerns vis-à-vis the background or the *visual vocabulary* of their students.

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#### Notes

##### (Endnotes)

- 1 Five years of primary school, three years of secondary school and four years of high school.
- 2 Famagusta in English, Gazimağusa in Turkish. Turkish version will be used within the text.
- 3 [Online] Retrieved on 28-November-2012, at URL: <http://www.emu.edu.tr> (Web site of Eastern Mediterranean University).
- 4 Primary Data is collected in 2003 and re-collected in 2005
- 5 50 students from Polatpasa Primary School
- 6 50 students from Polatpasa Primary School
- 7 50 students from Eastern Mediterranean College (secondary school)

- 8 50 students from Eastern Mediterranean College (secondary school)
- 9 Varosha in English, Maras in Turkish. Turkish version will be used within the text. Varosha is a ghost settlement at the outskirts of Gazimagusa that was closed to habitation after the 1974 war due to United Nations decisions. (Onal, Dagli et.al., 1999: 341)
- 10 Swot analysis technique has been used as an evaluation method by the authors of this manuscript, based on the data collected over the students.