

Vision Evaluation of the Students in Architecture about Sustainable Architecture in a Local Context in Konya / Turkey

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ABSTRACT: In this research it was tried to explore at which point the students in architecture have a sustainable vision in a local context in Turkey. The intermediate position of the young students between the school and the professional life that they will discover was used for establishing interrogations concerning with the education of architecture and the current practices. The results obtained from an investigation carried out within the school showed us that the students have a rather passive intention in the adoption of the sustainable values, whether that is at the school or for the future professional life. That is due in majority to the appreciations towards the exemplary shown architectural applications, with the existing dominant thoughts, the lacks of local example sustainable projects and with the program of architectural education which is still traditionally modernistic.

Keywords: Sustainable architecture, ecological architecture, architectural education, vision, future

1. INTRODUCTION

Architecture is a discipline which is in relation with various fields like the human-social sciences, techniques and creative arts. The architectural formation ensures a qualification which makes it possible to the architects to be confronted directly with the problems of social natures, economic, cultural, and aesthetic and techniques which are related to "the creation of spaces of life": this very simple but effective definition of architecture determines the fields of the occupations of the architects. From this point of view, they have great important role for a contribution to sustainable development.

The objective of this research is to analyze the vision of the young futures architects in the local context of the Selçuk University in Konya in Turkey about their sensitivities on the topic of sustainable architecture. The intermediate position of the young students between the school and the professional life that they will discover, will be used for establishing multiple interrogations. In the context of this research, it is accepted that the sensitivity is a goodwill which an architect should have to take part himself from the sustainable perspective in generally unfavorable situations. To determine the sensitivity of the young futures architects in an objective and realistic way under different aspect, is important in a local context in Turkey. Because, the majority of constructions in Turkey are carried out with a traditional modernistic approach. Although the notion of sustainable architecture is discussed in the intellectual milieu, expectations and the preferences concerning architectural quality are not defined yet by a sustainable and ecological sensitivity. Contradictions exist between the theory and the current practice.

Various causes of a political nature, economic and social can be said to describe the hollow which exists between intellectual discourses and the current practices in the sector of construction. It is certainly difficult to await immediate changes and miraculous solutions in a short period. Changes of long-term mentalities can be expected especially by younger generation.

The young futures architects have a great important potential of future news constructions in the country. A great occasion exists to insert sustainable conceptual approaches. In this context, the role of the architectural education is important for the development of a sustainable alternative architecture, different from dominant mentalities.

2. TO INSERT SUSTAINABLE ECOLOGICAL CRITERIONS TO ARCHITECTURAL PRACTICE: DIFFICULTIES AND POTENTIALS

Among the ecological thoughts, the sustainable development is undoubtedly most practicable in the human activities, when socio-economic realities of planet are taken into account. It takes part in the liberal ecological ideology, if it is compared with other more radical ecological thoughts [1]. Because it does not deny progress and the development with the proviso of respecting the environment and of not compromising the future generations needs. It means that this approach is pragmatic and no dogmatic. To seek a balance between the development and environmental measures is an important point especially for the developing countries.

Nowadays the sustainable approach in architecture seems new, but by its signification, it was always universal in the various cultures. Everywhere in the world, before the industrial era, there was more

or less an obligation to build according to local data's of the place like the climate, the culture or the techniques of local construction. Today, the construction sector is under the influence of the consumer society and the dominant social paradigms. The high costs in such construction, the very low request of the consumers, the lack of interest of the governors, the lack of regulation and the limited knowledge on the subject are obstacles for the insertion of the principles of the sustainable development in the majority of the architectural practices [2].

2.1 Difficulties in practice

In this chapter, we will try to process the subject on the principal concepts which were used to develop the modern thought in architecture by referring them to us. Because today, the current architectural activities are still under the influence of modernism. Our goal is not to evaluate the virtues or the missing points of modern movement.

The modern thought which is determinist on nature, hadn't considered the environmental and cultural aspect in the architectural applications. The aspect of the modern movement which was criticized the most is the fact that its principles want to be valid in any area of the world [3]. A building which integrates high technology could be practicable everywhere. For example, the effects of the climate can be controllable by technical solutions; the energy consumptions of the buildings had not take part in the architectural constraints. It is possible to observe the lack of energy and environmental responsibility in the buildings with the constructive systems in beam-column giving the possibility of establishing free plans. The thickness of the walls external forming the envelope of the building decreased, the glazed parts increased and went until the creation of total spaces. These space concepts caused to high thermal losses and the inappropriate uses of fossil energy in the sector of building.

The modernism structures took force from the notion of progress. The economic and social developments are the principal ideas which constitute the bases of the Western thought [4]. The sources of this thought are mainly based on the thought of mechanic world: According to Bacon and Descartes which are the representatives of this thought, scientific knowledge concerning nature can be tools to control and to dominate it [1]. The human being can control and use nature for its profits and to improve its living conditions. Progress, it is the basic idea of the modernism: each thing receives its significance only by other thing which is in front of him, of a Utopia of the future or a norm which is ahead [5]. Progressist futuristic vision provokes human ambitions. The creativity releases and aims a world quite different from the current one. It is also the idea "to be different" which impels in the human creativity to seek technical solutions and innovating space organizations. The architectural Utopias of the 19th and the 20th centuries certainly gave place to architectural examples often partial, discussed which still references are for the architects and the town planners of today.

The environmental aspect of sustainable architecture, i.e. the ecological conscience appeared in the Seventies. With the oil crisis of 1973, an obligation took place in the architectural practices: the aspect of the environment of the buildings which is forgotten a long time with the practices of the modernism, started to take place in the architectural design of the Western countries. But nowadays, a contemporary architecture which integrates ecological priorities is still particularly marginal in the emergent countries. There is an important far from the point view of concept between the universal values concerning the principles of the sustainable development and the architectural current practices. It will not be wrong to say that the ecological conscience and sustainability in architecture are only at the beginning of their propagations in the world. It did not make yet an effect of breaking in the society of today like had carried out it the modern movement at the beginning of the 20th century.

Today, especially in the developing countries, the modernistic practice in architecture symbolizes the social and economic progress. With a large variety of interpretation, the modernism was deeply took part in contemporary architectural practices. Architecture can symbolize the social status of a person, a family and a society. The architectural tendency of the high social class in the consumer societies under development, is not forcing not in favor of a sustainable architecture. The architectural tendencies of the high social class represent examples of model for the lower social classes which would like to change their life conditions. Thus all society is focused on the idea of an architecture which symbolizes progress. This situation in the developing countries seems to be one of the psychos - social obstacles against sustainability.

So that it can have a significant change in the customs inherited from modern life, it is necessary that the society feels obliged to change its behaviors, and ways of life. It was quite normal at the beginning of the industrial era to not expect measures on the environment, because these problems did not exist yet. And it was also impossible to stop the advanced techniques which facilitated the life. But today the environmental problems take parts in the common problems which relate to all planets. Namely, there are signals which must force the society to criticize and consequently to modify or to reform its acts which compromise environment.

Another problem is the topic of esteeming. For example in Turkey, there was always important distance between the general architectural practice and the values which were supported by the institutions or the intellectual architectural milieus. The projects which take part in the architectural reviews and in the research articles criticized and debated are like marginalized examples. They are generally far from current architectural practices [6]. Sustainable- ecological architecture is located under such a condition. Sometimes it appears as a something difficult to reach, and remains insulated from the discussion milieus. It should be accepted that the architectural practice remains dependent on social - economic realities: architecture is a

consumption product and the architects are producers with the service of the consumers. Architecture is with the service of the dominant thought and of what holds the capacity. In the current situation of the world, do the architects get to the point of making decisive choice in their architectural behavior rivalry or solidarity and collaboration for common healthy future?

In Turkey, a research carried out in 2005, tried to demonstrate the view of the architects in the architectural education. The most important criteria in the architectural education according to architects' who are exerting their trade in the private sector in the first three large cities of Turkey (Istanbul, Ankara, Izmir) were determined [7]. According to these architects, "the ecological design criteria" are placed at the fifth rank of importance among eight criteria in the architectural education. In the first rank "the functional architecture", in the second rank "aesthetics", in the third rank "the harmonious relation of the building with its environment" and at the fourth rank is the "professional responsibility" are situated. Last three criterions are: "artistic creation", "to respect time in the completion of work" and "economic design". If the criterion of the harmonious relation represents a visual and formal approach, it can be said that an ecological conscience exists but it is insufficient in general.

Either in Turkey or in the whole world, today it is not yet really possible to envisage if in the near future an integration of the ecological - sustainable values can be possible in the architectural idea. Architecture changed and evolved always in parallel with the historical facts. Modernistic architecture had been born by revolutions made by the man; it was an obligation against the changes of the ways of life related to advanced techniques. In the current world context that must undoubtedly be the nature which must oblige to change our architectural approaches.

2.2 Difficulties in architectural education

The fundamental problem which is unfavorable in the insertion of the sustainable policies in architectural education is directly relation with the history of the contemporary architecture. Almost everywhere in the world, out of some architecture schools, the training of the architects is carried out by the ethics of the modernism [8].

Bauhaus which remains still synonymous with the modernization of architecture and art was one of the most revolutionary events without precedent in the historical context of the contemporary architecture. As in many schools of the whole world, the principles of the modernism were mainly taught in Turkey also, especially with the reception of the German and Austrians architecture teachers during Second World War.

Today, the architectural practice is between two principal poles of tendency [9]: "high-tech" architecture and facade architecture exerted against the hard pressure of the globalization (post-modernistic approach). The first one reflects the use of technology on a very high level, namely progress, the knowledge to make and also a demonstration which the architectural product is not out of time. The

second one is opposition neutrality to satisfy partially or fully the cultural identity. Among in these tendencies, also the themes of architectural education take part in the majority of the architecture schools in Turkey. The presentation of the architectural tendencies as good examples plays an important role in the orientation which determines the preferences of the young futures architects. The level of knowledge of the teachers, the contents of the courses, and also the publications and the results of the architectural competitions affect the conceptual choices. The comprehension of a value opposed to the dominant currents is not also an easy thing. It can be reduced to an exotic or utopian approach by the younger generation. The greatest danger will appear if the validation of the dominant architectural practice is institutionalized. The well defined mission of the architecture school will undoubtedly avoid such errors.

In the vision of the young people; will the architectural values be dominated like today by the negative effects of the globalization? Will they be the pioneers of the changes of the values? or overall will they have a vision in favor of a sustainable-ecological architecture? In this context the idea of horizon becomes important. Hans Georg Gadamer explains: "the horizon" in the following way: a person who does not have a horizon cannot see the far sufficiently, and consequently he will give value not deserved to the thing nearest to him [10]. To have a horizon is not to be limited with the things which are near, it is to be able to see what is further from this thing." According to Heidegger, creating a horizon is one of the principles which make the man. The horizon is not a wall, but on the contrary it is semi transparency [10]. It is thanks to the horizon that the human being can see the far and the future. "not to be limited with the things which are close with us"; in our context, meanly, to be able to be beyond what forms part of the things of the every day, to be able to exceed the existing values for a world better. In the other direction, it is a challenge against the dominant idea in architecture.

3. ANALYZE

3.1 Methodology and context of research

A survey including 14 questions was realized within the department of architecture of the Selçuk University in Konya in Turkey. 93 students of third and fourth years on the level of study of license in architecture participated in the survey. The students were questioned by a questionnaire including four principal topics:

1- Personal sensitivity of the future architects on the notion of the sustainable development:

- Visions of the future problems which architects will have to confront themselves.

- Description of the dominant criteria in their projects during their education

2-Their opinions on the current practices:

- Contemporary architecture and the sustainable development:

- Could putting the sustainable- ecological criteria in the widespread practice be an aim for young architectures?

3-Interrogation of the contents of the courses for a sustainable contribution:

4-The glance to traditional architecture and the evaluation of this cultural source in a sustainable objective:

The analysis was related to the ecological, socio-cultural aspect of the notion of sustainable architecture. The notion of "time" defined the context of the evaluation in an important way: Opinions of the young architects on the current practices, the visions on the future and the evaluation of the past. That gives the opportunity to be placed in the continuity of the architectural applications and to establish a bond between the past, present and the future.

The question with the multiple closed answers forced to select the only one answer, the most important one for them: an obligation to understand the first of interests.

3.2 Results and discussion

3.2.1 Sensitivity and the personal architectural tendency of the students

The sensitivity and the personal architectural tendency were determined by the following subjects of questioning:

1-Criteria which orients the students projects mostly (figure 1):

On the whole of 27.9 % of the students selected ecology and sustainability with technological criteria. What puts at the second rank is the ecological sensitivity in the projects of students. The criterion of technology remains dominate in the choice of the students. The concept "attracting and play of form" and "traditional interpretation" take together value with technology.

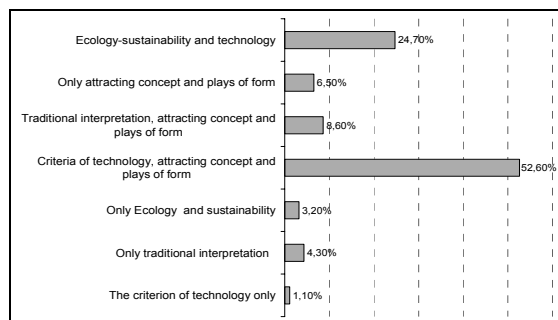


Figure 1: Criteria which orients the students projects mostly

2- Preferences and appreciations in the recent architectural realizations (figure 2):

Among 5 principal criteria, the criterion "ecology - sustainability" is placed only at the fourth rank. The creativity related to the forms is in the first rank. That shows the students have a particular interest to the visual and formal aspect of architecture.

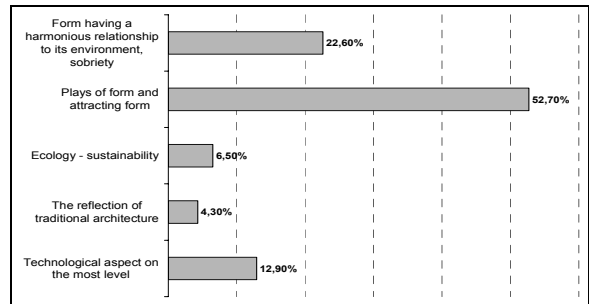


Figure 2: Preferences and appreciations

3-The most important occupation of the architects in the future according to students (figure 3).

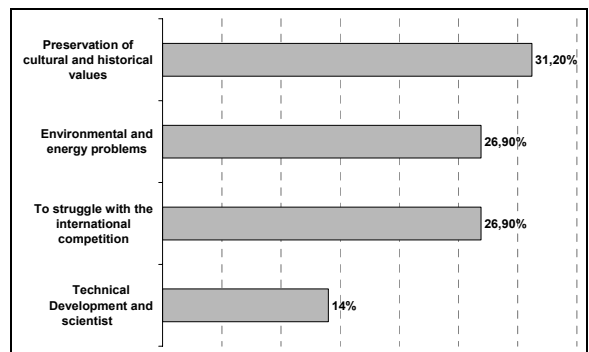


Figure 3: Vision of the future according to students.

4- Role of the architects in the reduction of the environmental impacts (figure 4):

The great majority (87.1 %) finds important the role of the architects on the reductions in environmental impacts.

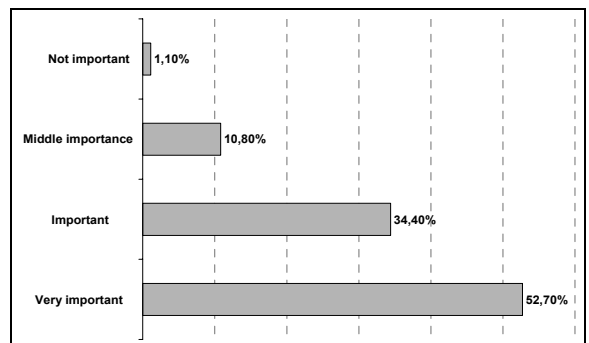


Figure 4: Role of the architects in the reduction of the environmental impact.

5- Effective architectural approaches of the future according to students (figure 5):

The sensitivity towards the notion of sustainability is shown with the second rank.

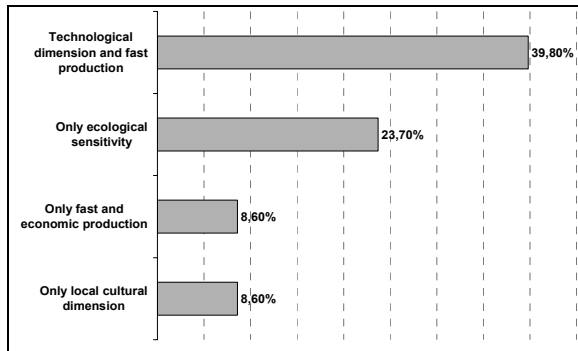


Figure 5: Effective architectural approaches of the future according to students.

6- The situation of giving priority to the ecological criteria the young futures architects will give when they are in practice (figure 6):

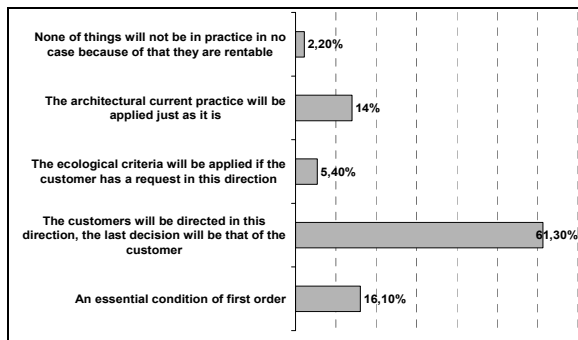


Figure 6: Priority to the ecological criteria.

The young futures architects have goodwill in general. There is obviously economic fear. 14 % of the young futures architects prefer even if they are with the current of the subject not to be apart from the widespread architectural practice. Everyone is not ready to take risks. 16.1 % have idealistic truths.

3.2.2 Opinions on the current practices:

1-Ecological sensitivity in the architectural practices at the country level and at the local level of Konya (Figure 7):

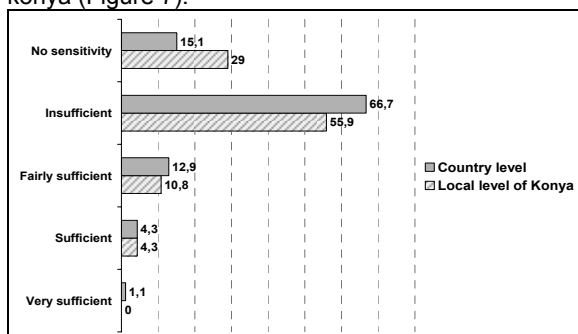


Figure 7: Ecological sensitivity in the architectural practices.

The ecological sensitivity in the architectural practices to the level of the country is bad according to young's.

Results are also bad at the local level. Almost one the third of the students does not see any ecological

sensitivity (29 %) in the contemporary architecture of Konya.

2-The most important cause which does not facilitate the ecological sensitivity (figure 8):

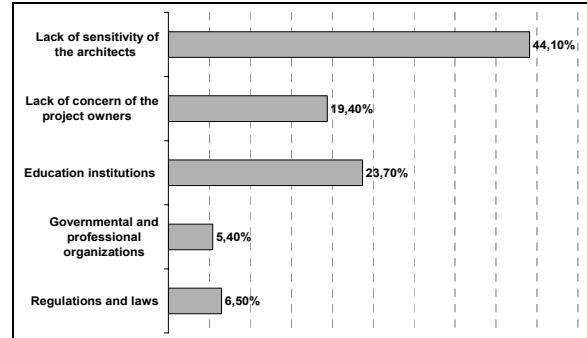


Figure 8: The most important cause which does not facilitate the ecological sensitivity

According to students the lack of personal sensitivity of the architects is the first important obstacle which does not facilitate an ecological sensitivity in architecture.

3-Problems to which will have to face the conscious architects about ecological architecture under the conditions of Turkey (figure 9):

The principal obstacles for the architects who are conscious of the subject are: lack of qualification and knowledge in the fields, the regulation without alternative and the problems due to the high cost of construction.

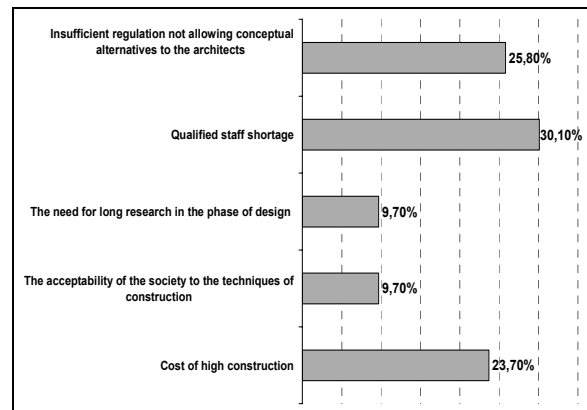


Figure 9: Obstacles for conscious architects

3.2.3 Interrogation of the contents of the courses for sustainable contribution

1- Lessons in which the subject of ecological and sustainable architecture takes part in the school (figure 10):

Ecological architecture is not taught completely in a specific course to Konya. But it takes part in the contents of course like subjects of discussion, especially in the workshops of projects. The subject is dispersed in the various courses. 25,8 % of the students think that the topic of the ecological design does not take any place in courses.

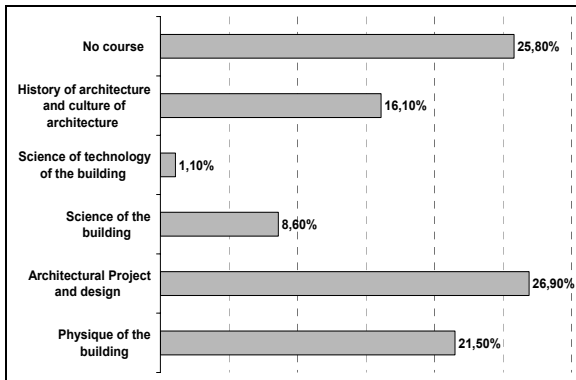


Figure 10: Subjects of ecological and sustainable architecture in curriculum of the school.

2-The level of the teaching of ecological and sustainable architecture in the school (figure 11):

The results show that the subject is not taught sufficiently in the school. There is a great dissatisfaction (65.6 %).

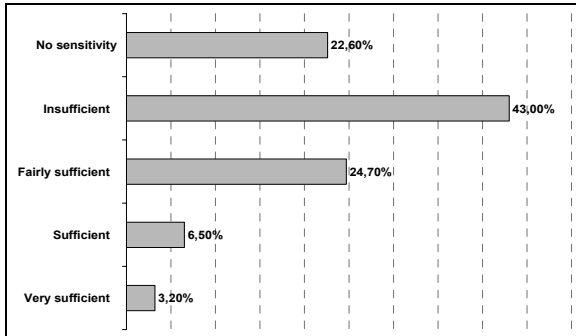


Figure 11: The level of the teaching of ecological and sustainable architecture in the school.

3.2.4- The glance to traditional architecture and the evaluation of this cultural source in a sustainable objective:

1-If the traditional architecture represents a reference to a contemporary architectural realization, which priority belonging to traditional architecture can be evaluated? (figure 12).

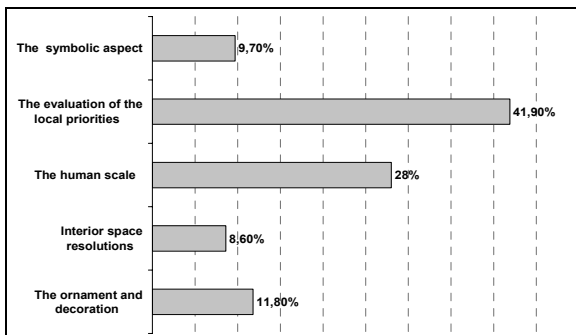


Figure 12

The results show that the respectful aspect of the environment rather than with decorative and formal aspect of traditional architecture seems more viable in the new architectural applications. It is seen that an existing conscience in the students with regard to the

glance related to the ecological aspect of traditional architecture. Whereas in Konya and in many cities in Turkey, the visual elements of traditional architecture are rather imitated to give a certain cultural identity to the new buildings.

2-Which degrees of accumulations of knowledge on traditional architecture can assist in a sustainable architecture? (figure 13).

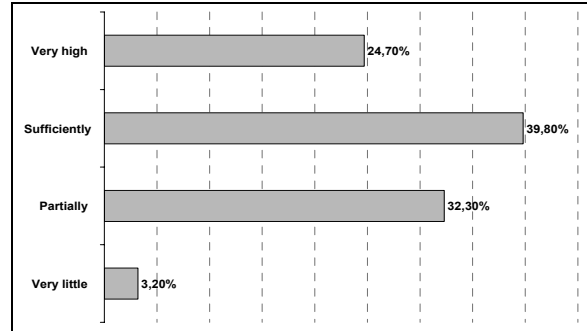


Figure 13

According to these results, the existing ecological sensitivity in the traditional architect can serve as an example model for a sustainable architecture of our times according to students.

4 CONCLUSIONS

The results of the investigation show that the young people are conscious about sustainable architecture. But when it is discussed of integrating it in their projects, the situation is quite different. In the case of the projects of students where no external pressure of the professional life has there, in where there is really a freedom, the dominant preferences of the architectural approaches are parallel with widespread architecture, they are not detached from the currency of the reviews, architectural competition projects: daring forms and spectacular forms are the design approaches which are wondered. The desire for making integrate technological dimension in the project is explicitly prevalent. Technology and the concretized progressionism in architecture make the personal pride of the student. In addition, formal searching and attractive space design are very widespread: The morphological aspect rather than the meaning. The criterion "ecology - sustainability" took direction with the criterion of technology.

Ecology taking part in intellectual milieu can't be reached to the students sufficiently. In the future, the ecological problems are seemed prevalent in the architectural discipline. In spite of this vision, the young architects are in favor of architecture still "high-tech", formal, modernistic and sometimes even post-modernistic. The mediatization of such architecture cannot really support the adoption of an ecological and sustainable architecture. By knowing that in practice current on the level of the country and the local level, the ecological sensitivity is insufficient, in their personal life of the future, only 16,1 % of the future architects are really ready to take responsibilities.

The contents of the courses for a sustainable architecture are insufficient according to students, in the department of architecture of the Selçuk University. A deeply formation will be needed to put the concept into practice. Courses and topics of project covering the subject directly, could accentuate the valorization of the subject at the young futures architects.

In conclusion, the students must be encouraged so that they appreciate the sustainable and ecological design in an evolutionary spirit. The teaching members should have a personal liability in this objective. With interdisciplinary relations, the sustainable development and architecture must take part in the curricula of the courses. Traditional architecture constitutes a beneficial reference for the contemporary applications, provided that its ecological aspect is analyzed and taught. That will make it possible to also be able to integrate the local values with a universal thought. The reformist education policies rather than revolutionary policies will facilitate the admissibility of sustainable values.

The horizon of the tomorrow architecture is not obliged to be the continuity of today's application, or the worst repetition of the made errors. The appreciations on the contemporary applications allowed like specimen carried out without too much thinking on the point of their meaning. It is fallen too often into the formal trap of the architectural expression. These architectural approaches are surely not intangible concepts. The obligations which must carry out us to change our architectural behaviors are quite apparent. The mission of the architectural education does not have inclined in front of the dominant currents. The lack of national policy, the economic conditions, the absence of interest of the society or the lack of regulation cannot be in any case of the pretexts. Because we think that a sustainable approach in the current world can integrate all the field of the architecture and all the sector of the practice. Even if only one part of its aspect takes part in a practice, that is a step for broader objectives. Because it is not current or an architectural fashion, but rather it is a mentality and a way of seeing art to build.

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