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The expression of identity: Country pavilions for expo in architectural design studio

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Abstract

This study discusses design in architecture education by generating notions and concepts and examines this issue through a design studio. The study, through the studio which handles "Expo pavilion design" that is considered to reflect the issue of identity in the most solid way possible, aims to present how notions representing identity turn into architectural products, by observing dynamics that constitute design process, how different choices and methods reflected on the final product and student tendencies. The methods employed in the study are presentation of theoretical framework in line with the literature review, qualitative methods including participant observation and interviews with students concerning studio process. In the study, the architectural design studio that aimed to create an interactive and participatory environment which enabled students to learn from each other was discussed. Finally, the study underlines the relationship between the method employed in studio and outcomes of the process and students' inclination to prefer concrete data with regard to conceptualisation.

Keywords
Architecture education, Concept, Design studio, Identity, Metaphor.

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1. Introduction

Identity and its expression is a research area of everyone who is concerned with architectural design. Processes of generating ideas and notions and conversion of these into concrete forms and spaces proceed in a different way for each designer. This study, through a design studio experience, aims to present how notions representing identity turn into architectural products, by observing dynamics that constitute design process, how different choices and methods reflected on the final product and student tendencies. In this respect, several methods were employed including a theoretical framework based on the literature review, participant observation and interviews with students concerning studio process that are qualitative methods. In this paper, selection of subject in accordance with the studio goals, the method employed, the studio environment and the tools used were discussed and both the studio itself and the products created within the studio were evaluated.

After the literature review, which was completed with the key words "design studio", "identity", "notion" and "concept", particularly studies on design studios, their setups and pedagogy (Oh, Isozaki, Gross, Do, 2013; Kuhn, 2001; Salama, Wilkinson, 2007), studies investigating design processes (Lawson 1994, 2000; Rowe, 1991; Goldschmidt, 1994) and thesis concerning generation of concepts and design and studies emphasizing cultural identity in particular (Tomic at al., 2013; Mahgaub, 2007) were came across and examined. The distinctive feature of this study is the attempt that it demonstrates properties of a studio environment, which was set up to teach design approaches to students, student tendencies to generate notions that express identity and suggestions concerning accurate guidance of these tendencies. The case of this study, 3rd-year undergraduate architectural design studio, handled "Expo pavilion design", which is considered to reflect the issue of identity in the most solid way possible. Expo structures not only reflect socio-cultural identities of countries but sometimes their economic power, technological development and political stance. Therefore in this sense the issue includes an extensive definition of identity.

Identity literally refers to all features that are necessary to identify an object. According to Gür and Cordan, the notion of identity is defined with distinctive attributes. Accordingly, identity is a vital and existential notion containing multiform variety of human life; it should not turn into a dogma (Gür and Cordan, 1999).

According to Yücel (1989, p: 31), who evaluated the notion in the architectural context, identity is an architectural expression of a nation's values. These values might consist of lifestyles, traditions and customs, construction techniques or technology. Architectural interpretations that are based on cultural identity, tradition and approaches that reflect universal tendencies are the issue of aesthetic-intellectual-philosophical background of design, in other words history-art-society and world views' relations with the architecture.

2. Designing by generating notions and concepts

In studio, it is aimed to make students to gain the ability to transform identity phenomena that are expected to be represented in architecture as architectural products. In line with this purpose, the first stem of making the identity concrete has been considered as generation of notions that reflect the components of the identity. Generation of notions is a learning method that includes direct questioning through notions. In this context, in order to achieve a lucrative design process, the first idea that is proposed, or a notion that can be considered primitive, needs to develop into a certain level and presented.

A notion is an abstract and general design of an object in mind. Notions combine general ideas concerning an object's features in an abstract way. For this reason a notion is regarded a starting point and main idea of any field that requires creativity. Notion, which is a starting point that is associated with the designer and the idea contributing the creation of a design, is the first step of this creativity pro-

cess (Goldschmidt, 1994). In this step, learning and development by questioning through notions occur; the important thing is that the necessity to apply a language which converts goals that are abstract and conceptual to design concepts (Gencosmanoglu, 2001).

Each designer approaches the issue of design from a different perspective and forms his or her own ideas. The designer, in line with his or her main idea, develops a specific method and strategy and completes the design process accordingly (Inceoglu, 2004). Each designer's distinctive features are about to what extend the main idea is reflected on final product, how far the problems create a distance from the notion during the process or how well the notion is developed, how accurately the image of a notion is reflected on design, from general to details are distinctive features of each designer (Uraz, 1993).

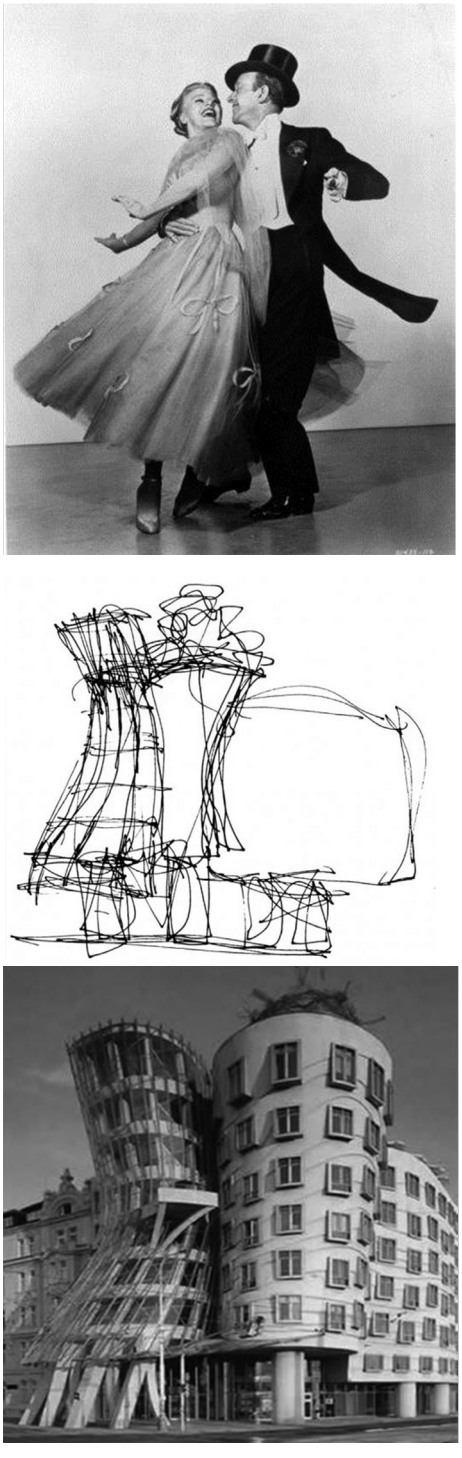


Figure 1. *Notion- Concept- Product (www.pinterest.com).*

During designing, designers usually have a preliminary image or a notion, in other words, a message to deliver in their minds (Bayazıt, 2008). Next, they begin to think how this is delivered and what type of an indicant will be used. The place of the concept is just in between, the area indicating passage from one stage to another. The concept also reveals information about how content transforms into form. This stage at the same time is the process when designer's design language begins to form (Bilir, 2013). Gehry and Milunic's work, known as the Dancing House, is a fine example to this (Figure 1). The work, which is dedicated to the well-known dancers Fred and Ginger, is a formal transfer of a metaphor of a dancing couple to architecture.

In designing process, each notion that is reached in the end of abstraction phase leads to steps to final product, which includes concretisation. However, the essential concretisation process during designing begins when designer starts to carry his or her concept to final product. In this stage, a complicated process of designing in mind gradually slows down and ends (Turan, 2002). Delage (1995) indicates that a concept is not an isolated, changeless formation. Instead it is an active part of the intellectual process constantly engaged in serving communication, understanding and problem solving (Delage et al, 1995). The designer's steps are more reasonable, outcome-oriented and concerned with problem solving. The designer, before reaching up this stage, should use his or her creativity on the upmost level and consider the alternatives as much as possible.

Developing an architectural concept

can be seen as thinking with an architectural language. According to Onat (2010), while we are designing, we think exploratory and creatively; we transform our decisions to objective forms and in a way convert our emotions and ideas, which lead to these decisions, into design language, presentation and narration. According to him, the quality of a designed product that is obtained through formative decisions depends on conceptual framework over design, the ability to transform a conceptual being into an objective formation, consciousness, consistency and sensitivity of design language that is used in narration (Onat, 2010).

The concept is the stage when conceptual thinking phase in an individual's mind gradually becomes externalised. In this stage, goal-oriented first idea can be easily delivered to the individual himself or spectator. With this feature, concept development helps to apply ideas to any problem occurring throughout designing process in a repetitive and consistent way.

A concept includes significant analogies and metaphors, if any, directives that are associated with designer and user in determination of notions, relations between notions and maps that are formed by this conceptual integrity (Hey et al. 2008). Lakoff and Johnson (2003) also indicated that thinking system generally works with analogies and metaphors. The use of tools to demonstrate relationship between these two different notions in fact constitutes the basis of development system of a concept.

In summary, the problems that the designer has to solve, although they reach the last stage through formal language, in fact all problems demonstrate the content of the design. During the step of appropriate forming, which is realised through content or accurate definition of the essence, the first step to be made is the development of the notion or definition of the essence. In design process and design studios which are simulations of the design process, this point is called "concept development".

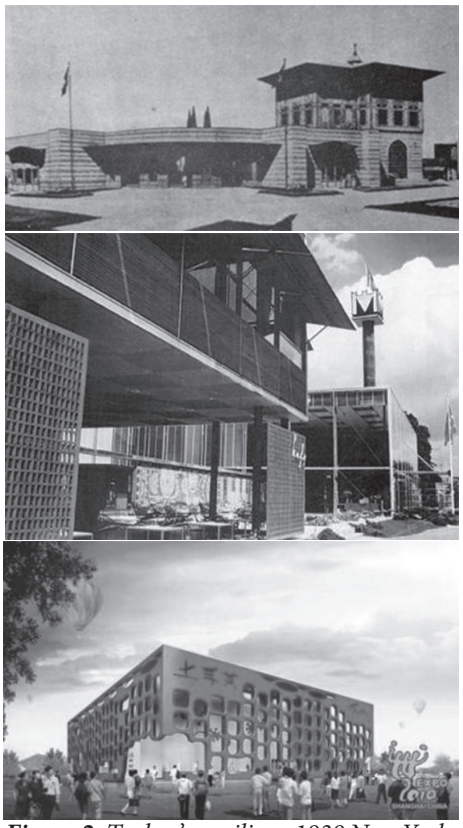
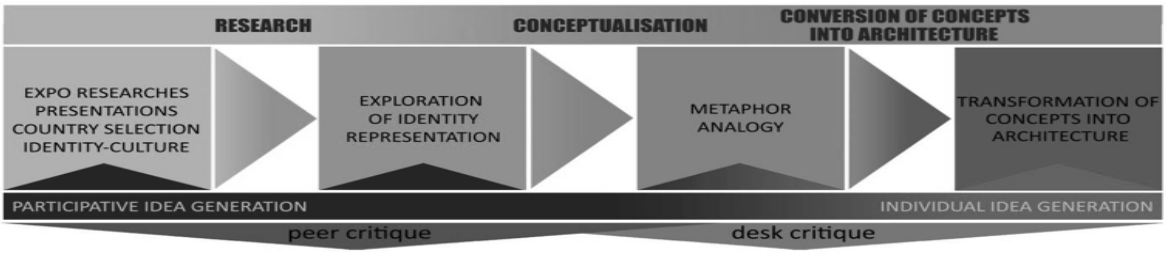


Figure 2. *Turkey's pavilions 1939 New York- 1958 Bruxelles- 2010 Shangai (www.arkiv.com.tr).*

3. Methods, environment and tools in the studio

In this studio, first of all it was considered that how the studio setup should be formed as a design process (Table 1). In fact this was a designing process as Asraf Salama (1995) stated as "designing the design studio". In the 10 hours per week studio (15 weeks in total) where 12 students participated, it was aimed to create an interactive and participatory environment which enabled students to learn from each

Table 1. *Studio setup.*



other. This environment was tried to be achieved by a peer critique process which includes the studio tutor. As Oh, Isozaki, Gross and Do (2013) indicated in their study, peer critique is important in terms of providing opportunity to observe students in solving similar design problems and in comparison to larger review groups, encouraging students who find it difficult to speak in public and express their opinions. Students learn to formulate a critique and to take responsibility for what they learn. In addition, peer critiquing supports collaborative learning and encourages students to value peers opinions (Oh et al., 2013).

On the other hand students were encouraged to freely select their tools that they used to represent their opinions in the most comfortable way possible. Therefore, the physical environment was set accordingly. The studio has a peer critique order that has been obtained through putting tables side by side. It is also used for individual studies. According to Kuhn (2001) physical space in an architectural studio should be ordered in a way that designer is able to handle open-ended problems, design rapidly; the environment should be appropriate for media use, formal and informal critics and creative use.

In the studio, presentations were made in the following order. First the studio tutor made a general presentation about expo and gave examples concerning Turkey's forms of representation on exhibitions and their differentiation in time (Figure 2). Then students were given a pre-schedule, which was expected to be reinterpreted by them in accordance with the country that they chose. In the following, students were asked to reply these questions that might affect design processes:

How do the forms of country representations of expo structures differentiate today?

How can the values that vary from country to county (social, cultural, technological, economic values etc) be expressed in architecture?

The research process, which aimed to create necessary conceptual infrastructure, began with individual presentations of participant students. Their presentations included definitions and aims of expo and sample buildings.

Next, students selected counties that they would work on. They chose Italy, Denmark, USA, England, France, Holland, United Arab Emirates, Egypt, Switzerland, Germany and Japan to design expo buildings. In these selections, in terms of being familiar to a particular country's culture, previous visits to that country, even for short-term, was decisive.

According to Gür (2007) identity concern for an architect depends on understanding-enhancement of a society's values, benefiting from doctrines of national and general architectural history masterly, evaluation of geography and urban data as design opportunities and filtering style, format and language of tectonic studies. In this context, each student made a presentation that reflected social, cultural, economic and political identities of the country that he or she had chosen. The next subject of research and presentation was expo, other structure types and architectural attitudes, which express transformation of notions into architecture well. Architectural identity and its representation was attempted to be understood with the help of notions such as inspiration of phenomena, analogy and metaphors. Particularly designing with metaphors and its effective role in supporting creation was underlined. Metaphors seem to be quite beneficial instruments compared to several other methods and approaches applied by architects in order to achieve the purpose of architecture which is to reveal a unique situation which has never been experienced before and broaden the feelings, thoughts and imagination of human beings (Ayıran, 2012). On the other hand, student were asked to examine Lakoff and Johnson's(2003) book "Metaphors We Live By", Bayazit's (2008) work "Understanding Design" and Karatani's (2005) book "Architecture as Metaphor".

Following the searches, each student began to develop first notions, which constitute intellectual background of the county pavilion that he or she would design. According to Dorst (2006), the most important targets in design is to

use the most dominant notion and idea as a guide, assemble all different pieces and form a concept which creates a solid relation. In doing so, it is possible to determine limits of design. This stage can be regarded as the most significant stage of studio process. A study by Lawson (1994) supports this notion. In order to investigate how design process developed, observation and methods for obtaining data within the process were employed. Drafts of eleven successful designers, whom were interviewed by the researcher, were selected. As a result, it was observed that first productive ideas and design decisions made during the initial stage of design played an important role in the development of the works of designers (Lawson, 1994).

The designer, since he or she begins to develop notions through abstraction of data that belong to various fields, needs some tools in order to transfer knowledge that is in his or her mind to outer sources. It can be claimed that the faster externalised these ideas in mind, the faster the development stage happens.

The transition from notion to concept is generally achieved by these tools. Design development tools can be considered as a guide, which takes a person from something to another while he or she is thinking by guiding his or her mind (Köknar and Erdem, 2010, p .57). In this process, students were not aware of the physical structure of the space where expo would take place and building would be built. The process consisted of focusing notions with many alternatives and design ideas. These were refined and the ones with potentials to transform into architectural products were selected. Students began to proceed at this stage already, with many variations, while they were expressing their opinions. For example, Caner Üretmen, who considered futurism as a starting point and aimed to build Italy's pavilion by setting up analogical relations with the Pantheon, began his work with a painting that was dominated by futurist features. This way reminds Zaha Hadid's path when she just began architecture. Onur Tekin, who conceptualised dominant geographical element and the use of bicycles for Denmark, chose to express these ideas rapidly on digital environment. Ece Alan, who wanted to combine global power metaphor and notion of downtown as a physical image, preferred to externalise her ideas through free hand drafts (Table 2).

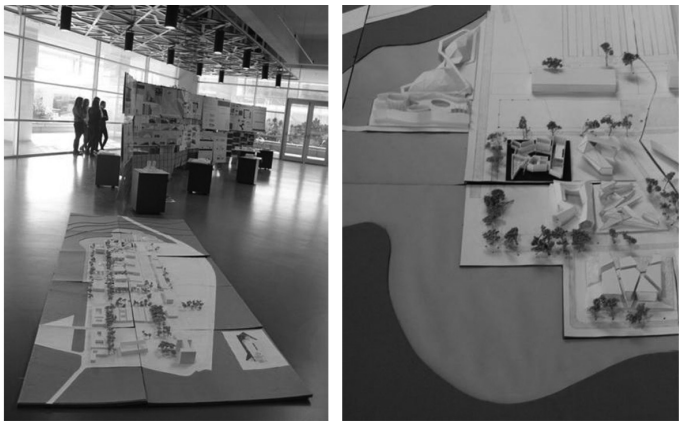


Figure 3. *Expo site model.*

The students, afterwards, made a model of a layout plan which had been transformed from a current expo area (Hannover) by the studio tutor (Figure 3). In the later stages of the study, draft studies were applied to digital environment alongside with the trial of solid models on this general model. As Oxman (2006) indicated, such hybrid methods (the use of different design tools together) and variety play an important role in design world and interaction of the physical and the digital in different environments address to the designer's different perception, feelings and emotions.

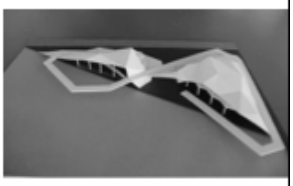
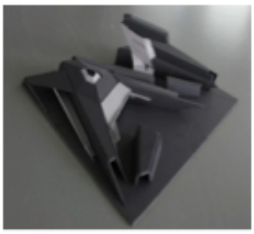
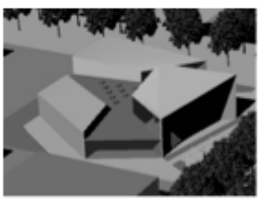
Design process proceeded in an environment where students were able to turn into active participants and to comment on each other's ideas. While discussing design, an enriched studio environment concerning recent topics of architecture beside the project oriented issues was formed in order to make students to feel free in developing their own opinions. It is thought that recognition of students throughout design process and exploration of appropriate learning methods with them is an important factor in developing his or her own perspective and emphasizing individual features. As Paker (2007) stated, an architectural design studio should be more than a place of knowledge transfer and acquisition for students as active participants, and for

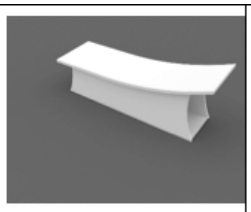
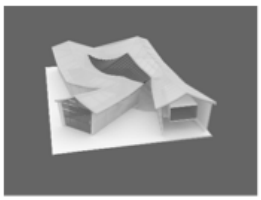
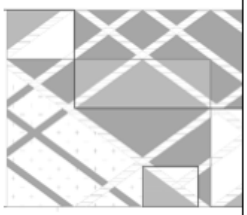
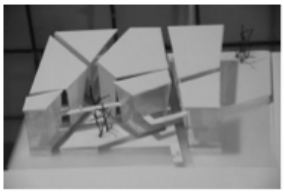
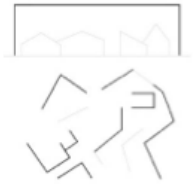
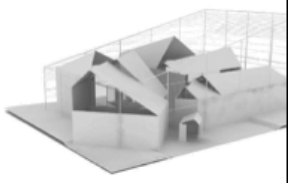
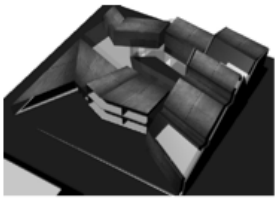
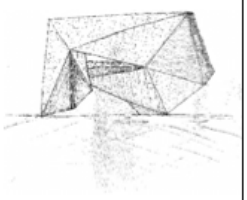
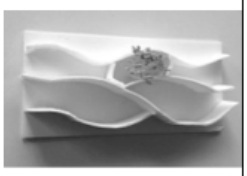
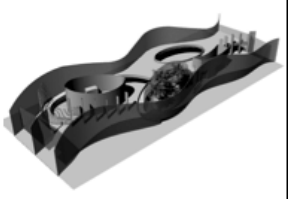
the studio tutor as a moderator, and should become a medium for improvisation. In this approach, the studio tutor is more of a 'mediator' or 'moderator' than a director or manager. In other words, a "coach for a creative climate".

The significant stages of the project process were intermediate jury and intermediate submission. The intermediate jury contributed students' works with opinions of the jury members. Breaking points such as preliminary jury and intermediate submission certainly influenced students in their development. The aim in juries was not to direct students but to enlighten them in finding their own paths.

After juries, collected talks and studio tutor-student interviews were made on transformation of focused ideas into architecture. As Koch (2002) stated the significant of desk critique in design studio, this enables the most appropriate environment in order to watch each student's individual development. Here, the executor sometimes acted as a user. Although it is impossible to eliminate the studio tutor's role as an expert, the user- designer approach provides a less intimidating, more constructive learning environment (Oh, et al, 2013). In this stage, students' ways of representations for expressing their designs were mostly on digital media. Building forms were tasted through

Table 2. *Studio works.*

Country	Notions Produced	Concept	Conceptual Product	Final Product
Denmark (by Onur Tekin)	Sustainability, geography, energy consumption, bicycle use	Abstraction of an iceberg, bicycle platform encircling the form, renewable energy use		
Italy (by Caner Üretmen)	Ideological approach, futurism, innovation, technology	Ideological references, deconstructive architecture, historical references (Panteon)		
USA (by Ece Alan)	Globalisation, global power and influence, "downtown", national identity	Urban tissue, the sphere representing the world, geometrical silhouette		
France (by Derin Karaca)	Hexagonal formed limits, large roads, squares, streets	Use of green space and gardens, urban way of life on streets, disintegration of the hexagonal shape ,		
Egypt (by Melissa Çetin)	The Nile river, desert climate, ancient Egypt, a deep-rooted history, Moses parts Red Sea into two, a mysterious and self-enclosed culture	A wave form that is divided into two ,		

Japan (by Mustafa Gökoğlu)	Design ideology, Zen philosophy, contrast, chaos within simplicity	Spaces gathered under a simple shell		
Holland (by Ege Şimşekalp)	Topography, water channels, bridges	Division of the mass by channels, bridges connecting different units		
Switzerland (by Gizem Değirmenci)	Multiculturalism, urban tissue, intertwinement, unity, contrasts	Division of a whole into units, unifying under one roof, creation of a closed shell		
England (by Simay Er)	History of the country, traditional architectural feature, gothic style, Victorian architecture	Self-enclosed and noble attitude of history and culture, gothic representation on planning level		
Germany (by Turgut Sert)	Industry, economic power, technology,	A compact and heavy mass, a broken and holistic structure, reflection of technology and production		
U.A.E (by Dilara Yaşar)	Petroleum and gold, sea and deserts, tourism, Arabic-Islamic culture	Wave form, Arabic-Islamic patterns, use of courts		

solid models and on common model. In this point, it is essential to state that designing a building on Expo exhibition area lead students to seek for interesting and different mass and shell formation instead of conventional construction solution. This situation pushed students to analyse interior space and increase their capacities in this while they effectively use computer-aided design as a designing tool.

The last stage of the studio process was the final jury. Table 2 summarizes the works of all participant students. The students were expected to demonstrate their ideas that were matured in phases. The attitude of the jury members, which were rather directive during the intermediate jury, turned to be more questioning, teaching and assessing. The jury's assessment on designs, whether consisting of concrete data and physical features or abstract notions of semantic transformations, was concerned with the quality of the architectural product. In this point the

decisive thing was students' consistency of expressing the initial identity that they had created in the beginning of the process, transforming the notions that reflect the identity to architectural products and sensitivity in expressing these transformations.

On the other hand, an interview about the studio process was conducted with the students at the end of the course. Open-ended questions were asked to the students in order to understand to what extent they have been satisfied with this process. Among the 12 students who participated to the studio all have expressed that they found the subject (expo design) interesting while the majority found the methodology (peer critique-desk critique) helpful on gaining ability of designing by generating notions and concepts. Two of the students stated that peer critique process could not have enough contribution due to the levels of criticism and interpretation of the students.

4. Conclusion

This study discusses design in architecture education by generating notions and examines this issue through a design studio. The studio aimed to think over identity-oriented topics such as culture, technology, social structure and physical structure and to represent ideas developed in these fields on EXPO structures. Students were introduced with interdisciplinary research which includes transformation of theoretical studies and developed notions on country identities into architecture. It was observed that common discussions in the studio environment helped to develop students' abilities of analytical and critical thinking.

When assessing interviews with students, it can be argued that the most important benefits of the above-mentioned flexible approach in studio education are formation of a participative environment where different ideas come together, comfortable expression of ideas through individuality and gaining self-confidence. In this way, it was observed that students were better motivated in design process as they freely selected their media and tools of representation in externalising their design ideas. This situation allowed students to express their designs in the best way possible.

It was observed that reflection of a country identity included many ways including historical references, transfer of ideologically based art movements to architecture, interpretation of a solid physical features of a country that make it distinctive from others and expression of technology through stunning spectacles of architectural forms. However, it can be claimed that students are inclined to conceptualisation of solid physical data, which have potentials to represent the identity. This might stem from the fact that transformation of physical features into forms is less indirect.

To sum up, in design education, the candidate designers should be gained the ability of notion development; then they can develop their point of views and most importantly become designers, who not only focus on problem solving but also on generating meanings through establishing accurate relations. Certainly all students in a design studio do not have same level of consciousness, capacity to perceive, background and architectural knowledge. Therefore, it is the studio tutor's duty to reflect the differences to the studio considering these as diversity and richness and create an environment in which students can express their own features and points of views. As a further study, the same method will be employed in the following semesters and more data will be collected to reflect the experiences and perceptions of the new students.

References

Ayıran, N. (2012). The role of metaphors in the formation of architectural identity, *A|Z ITU Journal of the Faculty of Architecture, 9*(2),1-21.

Bayazıt, N. (2008). *Tasarımı Anlamak*. Istanbul: İdeal Kültür & Yayıncılık.

Bilir, S. (2013). Mekan Tasarımında Kavram Geliştirme Sürecine Analitik Bir Yaklaşım (unpublished master's thesis). Hacettepe University/ Institute of Fine Arts, Ankara.

Delage, C., & Marda, N. (1995). Concept Formation in a Studio Project. In M. Pearce, & M. Toy (Eds), *Educat-*

ing Architects. (pp. 65–67), New York: Academy Editions.

Dorst, K. (2006). Design Problems and Design Paradoxes. *Design Issues, 22*(3), 4-17.

Hey, J., Linsey, J., Agogino, A. M., & Wood, K. L. (2008). Analogies and Metaphors in Creative Design. *International Journal of Engineering Education, 24*(2), 283-294.

İnceoğlu, M., & İnceoğlu. (2004). Mimarlıkta Söylem, Kuram ve Uygulama. İstanbul: Tasarım.

Gençosmanoğlu, A. (2001). Estetik ve Mimarlıkta Kavram, Kavramsal Analiz, Karşılaştırma / 1980 Sonrası Üzerine Örneklemeler (Unpublished doctoral dissertation). Karadeniz Technical University / Institute of Sciences,Trabzon.

Goldschmidt, G. (1994). On visual design thinking: The vis kids of architecture. *Design Studies, 15*(2), 158-174.

Gür, Ş. Ö. (2007). Mimarlıkta Taklit: Eski Türkü-Yeni Aranjman, *Mimarlık, January-February,* 333, 38.

Gür, Ş. Ö., & Cordan, Ö. (1999). Kimlik ve Farklılık Arasındaki Paradoksal İlişkiler, Mimar- Anlam-Beğeni Kavramları, In G. Güvenç (Ed), Mimar-Anlam-Beğeni, (pp. 162-185). İstanbul: YEM Yayınları.

Karatani, K. (2005). *Metafor Olarak Mimari. İstanbul: Metis.*

Koch, A., Schwennsen, K., Dutton, T. A., & Smith, D. (2002). *The redesign of studio culture: A report of the AIAS studio culture task force*. Washington D.C: The American Institute of Architecture Students, Inc.

Köknar, S. A., & Erdem, A. (2010). Tasarlama Eyleminin Tasarım Araçları Modeli Üzerinden Bir Okuması. *ITU Dergisi/a, 9*(2), 51-62.

Kuhn, S. (2001). Learning from the Architecture Studio: Implications for Project-Based Pedagogy. *International Journal of Engineering Education, 17*(4), 349-352.

Lawson, B. (1994). *Design in Mind*. Oxford: Butterworth.

Lawson, B. (2000). *How designers think: The design process demystified*. Oxford: Architectural Press. (First published 1980).

Lakoff, George & Mark Johnson (2003). *Metaphors We Live By*. Chicago: University of Chicago Press.

Mahgoub, Y. (2007). Architecture and the expression of cultural identity in Kuwait, *The Journal of Architecture, 12*(2), 165-182.

Oh, Y., Ishizaki, S., Gross, M. D., & Yi-Luen Do, E. (2013). *Design Studies, 34*(3), 302-325.

Onat, E. (2010). Mimarlığa *Yolculuk. İstanbul: Yapı Endüstri Merkezi.*

Oxman, R. (2006). Theory and design in the first digital age. *Design Studies*, *27*(3), 229-265

Paker-Kahvecioğlu, N. (2007). "Architectural Design Studio Organization and Creativity", *A|Z ITU Journal of the Faculty of Architecture, 4*(2), 6-26.

Rowe, P. G. (1991). *Design thinking*. MIT Press, Cambridge, MA (1987).

Salama, A. (1995). *New trends in architectural education: Designing the design studio*. Tailored Text & Unlimited Potential Publishing.

Salama, A., & Wilkinson, N. (Eds) (2007). *Design Studio Pedagogy: Horizons for the Future*. Gateshead, United Kingdom.

Tomić, D.V., Nikezić, Ana., & Ćirić, D., (2013). Negotiating Cultural Identity Through The Architectural Representation Case Study: Foreign Embassy In Belgrade, Facta Universitatis *Series: Architecture and Civil Engineering, 11*(2), 113–124.

Turan, N. K. (2002). Tasarım Sürecinde Bilişsel Yeti Olarak İmgelem ve Kavram. İstanbul (Unpublished doctoral dissertation) İstanbul Technical University / Institute of Sciences, İstanbul.

Turan, N., & Altaş, E. (2003). Tasarım Sürecine Kavram. *ITU Dergisi /a, 2*(1), 15-26.

Yücel, A., (1981). Mimarlıkta Biçim ve Mekanın Dilsel Yorumu Üzerine, Unpublished associate professorship thesis, İstanbul Technical University/ Institute of Sciences, İstanbul.