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Architecture and Technology: Architect's Expression Language in Design Process

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Abstract

The main problem area of this study is to discuss the expression language of architect in the relationship between architecture and technology. In problematization of the determined problem area, it has been attached importance that the relationship between creativity, language and technology established with architecture should present a theoretic framework. For the very reason, the objective of this study has been initially specified to emphasize on the architect's expression language subject as the act of foregrounding the creativity on design and designation in architecture.

In this context, the paper consists of five sections called as "Introduction", "Architecture and Creativity", Architecture and Language", "Architecture and Technology", "Discussion for Results in the Context of Creativity, Language and Technology". In this first section, an introduction has been made on the expression language from historical process to the present day as referring to the architecture and production styles belonging to the architecture. In the second section, comments of various authors on to what extent this process reflects the language of architect has been included as referring to the subject of creativity in architecture and what the creativity is. In the third section, it has been assumed that there are two types of language depending on the concept of "expression language" in the establishment of architecture and language relationship, these language types are representation language and thought/form language. The fourth section consists of considerations over the dimension that the relationship between architecture and technology acquires by being used of both the conservative and modern expression mediums. The said considerations have been described through references to the architects and miscellaneous structures. And the fifth section consists of various recommendations of all these relationships established with architecture that

may open a different window on what type of a stance an architect is required to maintain or whether he/she requires such a stance, or not.

Consequently, this study aims to discuss the effect of technology by presenting the expression language of architect through sampling over the change of expression and representation language used in the production manner in the direction of theoretically objectives specified above.

Key Words: Architecture, Creativity, Design, Language, Technology.

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Introduction

The comprehension of evaluating the architecture according to miscellaneous categories is an old tradition. Since the book of Vitruvius called as *De Architectura,* architecture has been talking about the basic categories determining architecture. "Solidity (Firmitas), Usefulness (Utilitas) and Beauty (Venustas)" categories of Vitruvius were repeated by Alberti in a different order as "Usefulness, Solidity and Beauty" during Renaissance period. These concepts that were revealed not only by Vitruvius but also by Alberti, are appearing as an architectural model individually when they are handled together with supervision of specific subjects. These architectural models adopted can be evaluated as original languages and approaches, in short, as expression language. This expression language has the equal meaning with the manner and creativity of architect. In that case, the manner of architect is connected with the situation and expression of exposing his/her creative side; because, to be able to understand the fact of creativity and creation intervenes from being able to understand and analyze the design fact in depth. Such a situation refers us to be re-examined and contemplated of the association of architecture and the language of architect.

When the historical process of architecture is taken into consideration; the known architectural forms have been acquired by using basic geometrical forms in thought/form production. According to the approaches of the present day, the trial-and-error methods are being used by utilizing from all possibilities of technology anymore; the acquired forms and the forms that are derivatives of these become theoretically discussable by going beyond being known. All these designing and production processes can be explained with the connection established between architecture and language. This connection in question can be evaluated as being used of the most appropriate expression language by the architect that will allow architect to reveal his/her creativity.

The concept of "architect's language" mentioned within the scope of this study specifies how the relationship between architecture and technology has been established in the historical process and in our present day. Moreover it specifies that technology comes up both as a tool and as a media in the expression language. Various representation techniques used by the architecture world has undergone a change in time. In the rapidly developing technological era, it is obvious that using all representation-expression techniques required by design and that can reveal the creativity of architect is required, instead of being in opposition to the possibilities presented. From now on, the significance of the said creativity in the relationship of architecture and design may be addressed.

Architecture and Creativity

In architecture, the place of creativity in the design process is inevitable. To be able to understand the fact of creativity and creating comes from being

able to understand and analyze the fact of design in depth. Within the context of the processes preparing the creation, the significance of design philosophy and interdisciplinary relations is great. The concept of "creativity" expresses a new solution offered to a problem or the situation acting in being revealed of a new method[1]. The creativity is considered to be the ability of revealing both new and striking one and functional one; also it is a result of intense and continuous studies[2].

Some idealist philosophers have suggested different approaches with respect to creativity. For example; as creativity study is a divine/spiritual data according to Plato, it is a mysterious intuition according to Bergson; besides it is a work of instinct according to Freud[3].

According to Broadbent, the creativity fulfills at least three characteristic situations[4]:

- It covers a new or at least a rare idea or reply.
- It serves to solve a problem or a perceptible target.
- The real creativity consists of continuity by performing a universal duty in evaluating and detailing the original information.

Since creativity appears as a communicative and scientifically examinable concept; creativity in architecture is a custom that is believed to be available intrinsic in the studies producing better replies to the problem situation by evaluating the developments in the basic concepts, location organizing principles and structure components, also offering very different unusual solutions to the problems[5].

The creativity may also be handled in the perceptional and lexical level beyond assessability as a tangible product. Most of the designers or philosophers have preferred to assess these levels under specific categories. For example; Jencks and Kropf have collected building samples belonging to various designers under five titles[6]. These are postmodern, postmodern ecology, traditional, late modern and new modern. According to Jencks and Kropf[7], who have classified a period of time of approximately 40 years (1954–

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[1]Hançerlioğlu, O. (1993). *Felsefe Ansiklopedisi Kavramlar ve Akımlar*. İstanbul: Remzi Kitabevi.

[2]Durmuş, S. (2009). 'Dini Mekânlarda Yapıbozumcu Bir Okuma: Kral Faysal Cami (A Deconstructionist Reading in Religious Spaces: Shah Faisal Mosque)', Master's Thesis. Karadeniz Technical University, Turkey.

[3]Vexliard, A. (1966). 'Yaratıcılık Teorileri ve Eğitim', *Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Felsefe Bölümü Dergisi*, (4) 1, 107-153.

[4]Broadbent, G. (1975). *Design in Architecture*. New York: John Wiley and Sons, p:2.

[5]Gür, Ş. Ö. (2008). 'What Is Creative? Creativity In Architectural Theory, Practice And Education, Designing Design Education', *Proceedings Book Part-1 of the Design Train Congress Trailer 2*, The Netherlands, 9–25.

[6]Jencks, C., Kropf, K. (1997). *Theories and Manifestos of Contemporary Architecture*, Academy Editions.

[7]Jencks, C., Kropf, K. (1997).

1994) framing it theoretically, Frank Gehry is being evaluated under the title of postmodern. But today, the forms of Gehry may be evaluated as an example of a post-structuralist period and digital age. It is understood that the architectural discourses and applications may show comprehension difference due to its frame that it was relatively settled down and also together with change and development of the expression forms.

In other words, the architect himself changes and evolves on his own merits as the designing approaches and designation of the architectural process. These discoursive preferences and creative designs that can be seen as a milestone can symbolize the beginning and end of an era. As you see, with its most dominant meaning, the creativity refers to a change, beginning, end, evolving and development. It can be said that architecture keeps itself alive thanks to this instinct of being creative and searches new horizons all the time.

With reference to all these definitions and relations, the creativity plays a basic role for processual development in the stages of understanding-interpreting-applying the design. Saying that the creativity gains acceleration through this processual development and more exceptional, more original and less known architecture products are produced is not wrong. The reason of this is the increase of ambient triggering the creativity of the architect individuals and expanding rapidly in the globalizing world. As intellectual process and expression process is significant for the creativity searches in architecture and within the aforementioned media; the self-expression ways of architect should be given wide coverage.

Architecture and Means of Language

If we analyze the relation of architecture and language, we encounter with two different expressions. The first of these is the drawings and models that an architect used to transfer its thought to the counter side. The other one is the buildings that he reflects his design thought. In this sense, the language of architect can be handled in two ways. If we call the first of them as "representation language", calling the other one as "formal expression/formal language" is not wrong.

Representation Language

The representation word is defined in the philosophy dictionary with the concept of "assimilation, design, analogy, form, comparison"[1]. According to Yucel, the representation means "being made visible" of a thing with its similar or its example[2]. The representation in design has been also defined as a language used to reveal thought generally or as a transmission medium in order

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[1]Hançerlioğlu, O. (1993). *Felsefe Ansiklopedisi Kavramlar ve Akımlar*. İstanbul: Remzi Kitabevi, p: 290.
[2]Yücel, A. (2004). 'Mimarlık ve Temsil'. *TOL Mimarlık Kültürü Dergisi (Journal),* 77–82.

to transfer the thought of design[1]. The representation language of an architect is the tool of expressing himself. This process performs in the form of conversion of thought into design and expression of designed thing in the way that can be understood by others. The relation between thought and representation is required to be comprehended in order to be understood of this process. In the representation of thought, various tools such as words, forms, pictures, drawings, graphical expressions, models, computerized drawings and animations can be used. Everything designed are performed thanks to these tools.
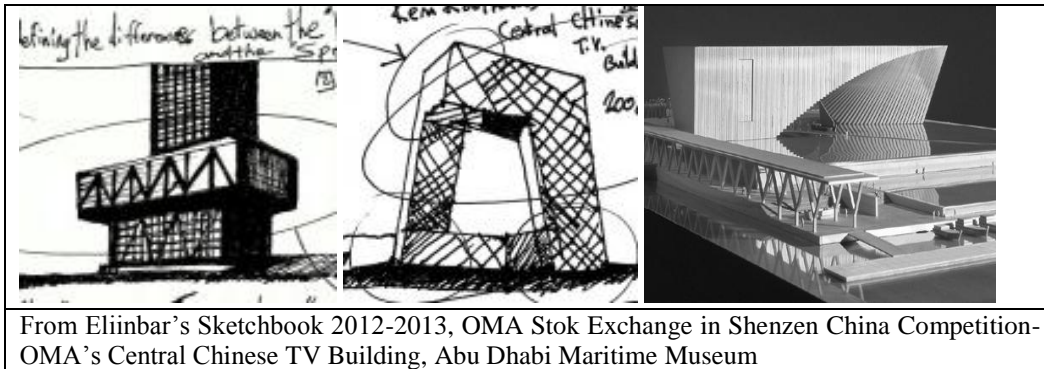
If we analyze the relation between thought and representation in consideration of the comments above, it can be seen that the representation, in short, language reveals itself in different forms. The tools of representation have changed during the process of architecture action and have reached to our present day.

The representation language handled under the title of the 'Language of Architect' realizes thanks to two types of tools. The first one of them can be considered as the traditional representation tools and the other one can be considered as the technological representation tools.

The traditional tools used for the representation of thought within the design environment are line, expressions acquired by the help of line and models made by using traditional methods. Conceptual expressions, graphical expressions, plans, sections, aspects, perspectives, etc. can be formed with line. Models, one of the traditional tools, are acquired by the help of tangible objects.

The drawings and model seen in the table may be shown as an example of being revealed of the representation language of architect through the traditional tools (Table-1).

Table 1. *Designs with Traditional Representation Tools*

From Eliinbar's Sketchbook 2012-2013, OMA Stok Exchange in Shenzen China Competition-OMA's Central Chinese TV Building, Abu Dhabi Maritime Museum

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[1]Paker, N. (2004). 'Tasarımın Temsil Ortamındaki Algısı Üzerine'. *TOL Mimarlık ve Kültür Dergisi (Journal)*, 69–72.

Another tool of the representation language is the technological representation tools. Conceptual expressions, graphical expressions, plans, sections, aspects, perspectives, etc. can also be formed on the computer. In addition, images close to real with respect to the thing designed may be acquired by lying beyond these. For example, the expressions of the similar structures may be given with the technological representation tools. (Table-2)

Table 2. *Designs with Technological Traditional Representation Tools*

From Eliinbar's Sketchbook 2012-2013, OMA Stok Exchange in Shenzen China Competition-OMA Central Chinese TV Building, Abu Dhabi Maritime Museum
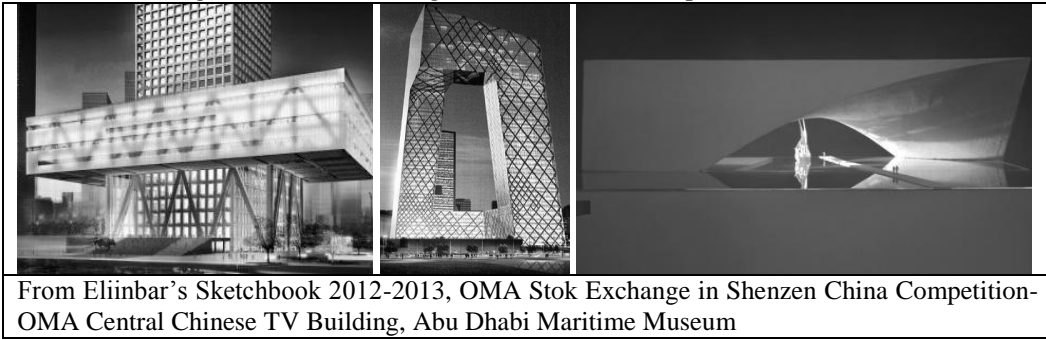
Formal Expression/Formal Language

Savas says in his study, which he has performed on representation at design, that "there are many commentaries regarding the reflection of selections made by architect with the representation media to the design process". And he also says that "Mark Hewitt deals with drawing not only just as an expression medium, but also as a thought language[1].

The relation between thought and representation is the design action itself in a sense as referred by Hewitt. The action of designing should be seen as a result of the thinking action. As a result of thinking, designing and production/performance actions, the buildings that are the products of thought reveal as a representation object. In other words, the original language of architects is their buildings. This language varies in time because of various reasons and several ages experienced by humanity affect the change of this language.

In the historical process, the searches of acquiring architectural form were performed thanks to master/apprentice relation and mostly through experimental methods. As of the beginning of the historical process, the widely-known forms such as square, circle and triangular were being used and again widely-known architectural forms were being obtained from them such as arch, dome and vault. The search of pure architectural form performed with basic geometrical forms has led the designer to the similar designs for a long time. (Table-3)
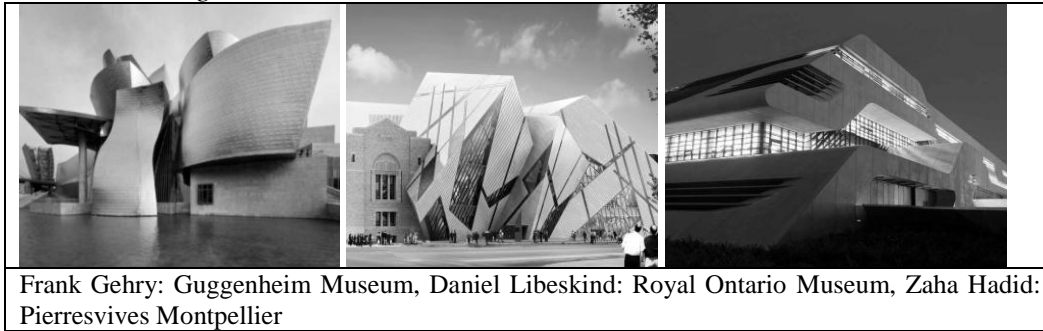
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[1]Savaş, A. (2004). 'Mimarlık ve Onun İmgesi: Temsil ve Mimarinin Özerkliği Üzerine Notlar III'. *TOL Mimarlık Kültürü Dergisi (Journal),* 64–68, p: 64.

Table 3. *Designs with Basic Geometrical Forms*

Pyramids of Giza/Egypt, Parthenon/Greek, Colosseum/Rome
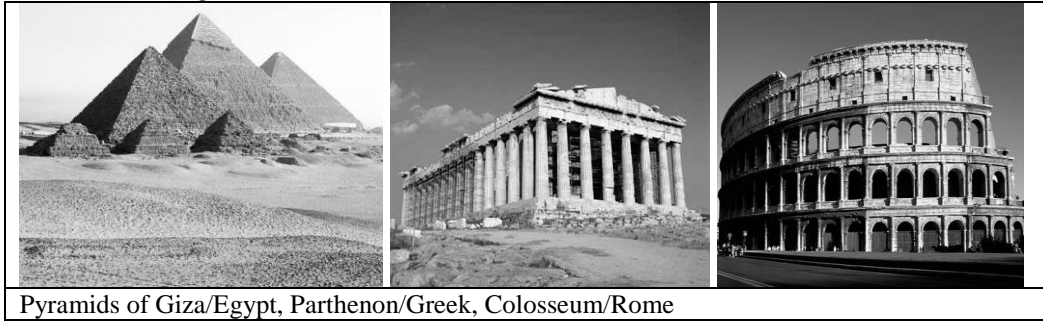
In our day's approaches, trial-and-error methods have been used by utilizing from all possibilities of technology anymore; the acquired forms and the forms that are derivatives of these have become discussable geometries as going outside of being known. Thus, forms and formats acquired partly through random trials without any search of basic geometrical form go beyond the accustomed one. (Table-4)

Table 4. *Designs with Free Forms*

Frank Gehry: Guggenheim Museum, Daniel Libeskind: Royal Ontario Museum, Zaha Hadid: Pierresvives Montpellier

According to Tanyeli, reading formal language and structure over the idealized models is invalid today[1], because, the building is a dynamic fact as required by its structure and thinking/interpreting the building as a frame is a result of the modern thought[2]. Therefore, differentiations occur in the understanding of form production and intervention to itself of design process has become possible thanks to the help of technology and digital tools.

It can be said that the technology used in order to reach buildings, which are the formal expression/formal language of architect sources from the requirement of new thought environment to the new critical language. This is because, both designing techniques and techniques of examining the designed products/buildings has been changing form[3].

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[1]Tanyeli, U. (2010). Çağdaş Dünya Mimarlığının Sorunları, Postgraduate Course Notes, Spring Term, Yıldız Technical University, İstanbul.
[2]Durmus, S., Kuloglu, N. (2011). 'The Process from Design to Product: Expression Language as a Tool' (Poster Presentation), *Proceedings Book of 23th International Building and Life Congress*, March 24-26 Bursa-Turkey, 385-391.
[3]Sassen, S. (2007). *A Sociology of Globalization*. W. W. Norton & Company.

According to Pérez-Gómez[1], the building, as an architectural representation and as a product planned by it, has undergone an effective transformation for ages. Gómez sees the role of architectural drawing before the period that he called as "modern technology age", as less dominant in the evolution during the process from the architectural idea to the product. In this age that he called as computer-aided design age, he mentions that seeing technology as an obligation is not required. As in each discipline, the representation techniques are changing and transforming in architecture. From time to time, as traditional representation techniques are based on, technology is required to be allowed to adopt the entire architecture process instead of exhibiting a counter stance against technology.

As is seen, the formal expression/formal language of architect has gained another dimension in the changing and developing world. It can be said that such a gain has an interest with the evolution in the design thought as well as the tools used by architect.

The technological developments experienced in the field of architecture and any environment have changed the thought and production form of architect. This situation has reflected to the action of designing, so that unusual, amazing and challenging architectural products have appeared and the language used for the expression of these products have gained a difference as parallel to all these change and developments. Nowadays, architect is an individual beyond being a professionalist using just paper and pencil. His technological assistants have carried him to another level. These assistants have also changed his thinking phase visibly in the design process.

This study aims at discussing how this change and development happen instead of being a party in the aforementioned situation. We are required to comprehend the technological developments in the design, expression and production environment in order to be able to understand this environment some more because, the expression tools are changing and taking shape with a range of limitations, possibilities, developments and the existence of technology. For the very reason, we need to examine the title of architecture and technology affecting the expression language of architect.

Architecture and Technology

As language has been handled in architecture under two titles as representation and thought, it refers to a changing fact. This change mentioned requires an explanation precisely requiring the centralization of technology.

While the changes experienced by the humanity can be classified under 3 general topics as Sedentism, Industrial Revolution (the 18th century) and the Information Community (the 20th Century); the most effective phase of

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[1]Pérez-Gómez, A., Pelletier, L. (1997). *Architectural Representation and the Perspective Hinge*, MIT Press.

architecture, in which it changes and varies, may be dated as the 20th century that is called as the information community era.

The 21st century that we are currently living in is a period integrated with the technological revolutions. Technology, which takes place in the center of change and transformation, covers the communication and information techniques. Because technology affects our daily life as a basic parameter; it forms merely the impulse of future and new searches thanks to the free movement of information.

The accessible situation of information is an indicator of that concepts and processual functions transferred from different disciplines can be easily integrated with architecture. The materials and methods of many disciplines such as philosophy, art, engineering, history, and linguistics can be included in architecture. The adaptation of various program and processes can be seen a part of the period currently called as digital age in architecture.

The traditional and technological representations that are the tools of the representation language of architect confront us as a tool when they are considered both together and separately. For example, computer used as a drawing tool and three dimensioned expression language in early applications together with being used of developments experienced in computer technologies also in architecture discipline; is currently far beyond being a model or drawing tool in the process of architecture design. Similarly, use of paper and pencil as traditional representation tool is regarded by some architects together with the traditional representations through not being considered quite independent from computer. For example, Norman Foster emphasizes on the significance of technology in the relation of design-technology and mentions that they cannot be considered independent from each other[1]. As Greg Lynn claims that use of computer eliminates the difference made between engineer-architect; Zaha Hadid states that she uses computer and sketch notebook together in her designs[2].

In addition to using representation techniques as together and separately; technology as the medium of the creative design ideas in the 21st century brings up the interdisciplinary quality of architecture once more through the development and reinforcement in the fields of information and communication[3]. It can be said that technology, merely from this aspect, situates in an important place in the expression of changing methods and design comprehensions. Now, a few words can be said over how the relation of architecture and technology is effective in the design process.

Two and three dimensioned representations used in the design process in architecture change direction by the existence of technology. Especially the developments in the computer technologies have accompanied by mathematical based analysis techniques and formation searches in the design

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[1]Rauterberg, H. (2008). *Talking Architecture*, New York: Prestel.
[2]Rauterberg, H. (2008).
[3]Çağdaş, G. (2010). 'Mimarlık Eğitiminde Bilgi Teknolojileri', Mimarlık Eğitiminin Dünü Bugünü Yarını Sempozyumu, 25-27 Kasım, Konya, 501-507.

process; the processual changes such as computer based algorithms, the forms based on these parametrical algorithms and programming can hardly be possible by being used of computer technology. Most of the studies performed in this field reveal that designers and design trainers have still seen the computer medium and tool as an auxiliary representation[123]. In fact, the relation between architecture and technology requires a more comprehensive interpretation, because, computer-aided architectural design uses computer first as a toll, then as a media.

The software called as "New Generation" has brought the new design methods, intangible relational patterns and mathematical thinking logic[4]. As the numerical thinking is seen as a thinking method that may shed light on design; the daily increasing requirement of total thinking is as clear as day during the torminous process from design to the product. Therefore, all sorts of development with respect to technology should be evaluated as a tool and medium in the fields of architecture and creativity. It means, saying that a new thinking and performance practice is revealed as different from the traditional design methods through currently being effectively used of technology is not inaccurate.

Contrary to the expectation of the birth of undetectable architecture, such an attitude has been adopted by modern architects and constituted an example to the creative studies. Thus, the use of computer media an important tool of technology has started to take active role in the design process. In addition to this, the media of computer provides designer not only in terms of designing process and methods, but also the designing process has been configured through being effective in the fields such as use-repair-planning[5]. Computer can bring mental and practical solution suggestions to the forms that have been considering as close to the impossible as well as being a tool facilitating the much more applicability of forms. For example; the transfer of CATIA software by F. Gehry to the architectural design process was performed in the museum of Guggenheim Bilbao as an indicator of very different formal variability[6]. The architectural design process of Gehry is a processual search allowing digitization and applicability of the studies on the computer that are formed as beginning from the embodiment of form and that are innumerable and have not a formal order. Because, the architectural form requires three dimensioned expression tools and technologies that can perform these by

[1]Çağdaş, G., Sökmenoğlu, A. (2007). 'Transformations Created by ICKT on the Architectural Design and Its Education', *ITU AZ Journal*, (3) 1/2, 37-52.
[2]Çağdaş, G. (2010).
[3]Çolakoğlu, B. (2010). 'Mimarlık Eğitiminde Sayısal Mantık', Mimarlık Eğitiminin Dünü Bugünü Yarını Sempozyumu, 25-27 Kasım, Konya, 515-524.
[4]Çolakoğlu, B. (2010).
[5]Altun, D. (2007). 'Geleceğin Mimarlığı: Bilimsel-Teknolojik Değişimlerin Mimarlığa Etkileri', *DEÜ Fen ve Mühendislik Dergisi*, (9) 1, 77-91.
[6]Durmus, S., Kuloglu, N. (2011). 'The Process from Design to Product: Expression Language as a Tool' (Poster Presentation), *Proceedings Book of 23th International Building and Life Congress*, March 24-26 Bursa-Turkey, 385-391.

showing such a formation that two dimensioned expression tools cannot respond.

Beyond the digital architecture comprehension expressed with two dimensioned drawings in the early periods, the digital media in our present day is an interface providing significant contributions to the designing and producing processes. This is because the development and change experiencing in technology allows the expression language of architect to benefit from these chances. The easily applicability of the complex forms is the positive property of this processual change. The formation of complex forms and their solution within process clearly reveals that at which levels the creativity is discussed nowadays. The expression and unraveling form of the aforementioned creativity forms the original expression language of architect.

Discussion for Results in the Context of Creativity, Language and Technology

It may be considered that the concept of creativity mentioned within the scope of this paper, the self-expression form, in other words, language of architect and technology are indissociable facts. The process from the first moment of design to the acquisition of product features sometimes creativity, sometimes expression form, in other words language and sometimes technology. All of these facts differentiate; vary according to the handling from of one another. So, the perpetuation of discussions according to this situation of being one within the other is approved. A few words that can be said instead of result can be arranged within the scope of three topics below.

• *On Architecture and Creativity*

If the fact of creativity is considered as revealing new and original one in a brief way, it can be seen that the experience of each architect during this process is different. The expression language that architect utilizes within this period may have been acquired traditional or technological representation tools. This selection depends on the free-will of architect, the quality of the product designed by architect and the tools he applied in order to be able to reveal his thought. Architect reveals his representation languages sometimes thanks only to the traditional tools, sometimes thanks to technological tools and sometimes through using both of them together. The formal expression/formal language of architect may vary according to his cultural background, thinking form, design decisions, meaning that he attributes to the building and contributions he makes to the designing phase of technology. For example, the buildings such as Sydney Opera House cannot be calculated by means of the methods that we called traditionally. In the traditional thought, a form is required to look like the idealized forms in order to be able to be calculated as scale/shell. Or, a certainly original structure use should be anticipated for the frontal pattern and fluid locations that can be almost wall-less, which is seen at the Sendai Mediatheque building of Toyo Ito. In addition to this, Balmond,

who participated in the studies of many architects such as James Stirling, Rem Koolhaas, Daniel Libeskind and Toyo Ito means that he is not a structure engineer. But he makes his contribution to the projects just with a few pieces of paper and pencil, not by spending time on the computer; he refers to the significance of the intrinsic feeling and intuitions[1]. As is seen, the urge of creativity passes from different processes for any architect and causes that they use different representation and thought/formal language. The concept of technology affects and changes the creativity process and expression language of architect through creating a cycle with other two concepts.

- *On Architecture and Language*

The expression form, in other words, the language he uses cannot be considered as independent from the creativity process and technology as explained before in terms of not only transfer (representation language), but also intellectual (formal expression/formal language). If the building product of architect is desired to be performed with a design comprehension except for the unusual geometry, the effects of technology not only to the design and but also to the representation language will be inevitable. On the other hand, there may be no reason for an architect, who is anticipating working with the known forms for that moment, to compel formal expression/formal language, in turn, technological possibilities. For example, the sketch is an indispensable representation tool for an architect perpetuating his/her designing action by using traditional methods. The researchers specifying that sketch studies are promoting the research say that sketches have an open-ended and substantial quality triggering creativity instead of clarity/sensitivity on the computer[2]. Some researches emphasize that sketch feeding the creative processes as a thinking tool, at the same time contributing to the formation of the memory of artist and designer is valid and significant within the current environment[3]. Saying that the formal expression/formal language of architect has been passing from a process through centuries and perceptions have gained very different dimensions in the 21st century is not incorrect. It is impossible not to grant to the view that "technologies and changes in techniques create change in apprehension of location or formal comprehension"[4]. It is obvious that the changes and developments in technology affecting not only representation but also thought/formal language have also the characteristics of a revolution. This revolution can be accepted as threshold age in terms of its effect that it creates on the language of architect such as the discovery of perspective and the discoveries of descriptive geometry and actinometry[5]. The language of

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[1]Rauterberg, H. (2008). *Talking Architecture*, New York: Prestel.
[2]Guidera, S. G. (2004). 'Assessing the use of digital sketching and conceptual design software in first-year architectural design studio', *Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition.*
[3]Zelef, M. H., Bursa N., Çakıcı F. Z. 'Düşüncenin İzi: Mimarlık ve Sanat Eğitiminde Eskiz Geleneği', *Başkent Üniversitesi1. Sanat ve Tasarım Eğitimi Sempozyumu, Nisan 2011, Ankara*, 533–538.
[4]Turan, B. O. (2011). 'Relationship between Process, form and Representaion in the Design Environment of 21st Century', Megaron *(Journal), Vol. 6–3,* 162–170, p:165.
[5]Turan, B. O. (2011).

architect has affected from change within the technological environment in all aspects and with respect to this, also the fact of creativity has diversified with the participation of new concepts to the architecture environment within the century we are living in.

• *On Architecture and Technology*

While either the creativity or the language issues are being discussed, it has been stated that they cannot be handled as independent from technology. In this triple dialog, it may be considered that technology affects especially the representation and formal expression/formal language of architect in depth. The existence of researches specifying that the most significant difference of technological representation tools from the traditional representation tools is to gain time to the architect proves this effect[1]. In addition to this, technology must utilize from the knowledge of traditional production[2]. Of course, the exposure form of architect his/her thought within complex designing process by means of building has also gained new dimensions. In our present day, it is being discussed that new design and production possibilities were born upon the integration of computer to the designing process and a new threshold point has been reached in terms of design-form production in consideration of these possibilities[3]. There is no impossible form anymore. To produce option over the thing thought by architect within the design process has been possible thanks to technology. The effect of technology over the language of architecture in terms of either transfer or intellectual must be accepted. However, it is also inevitable for architect to evaluate any design process with his/her distinctive attribution. Therefore, saying that one of the creation processes mentioned here has gotten ahead of others is incorrect.

Architecture is a meta-language that will reserve different and multi-dimensioned inputs. It's because each design process and products of these processes create their own environment. A range of concept, possibility, authority, responsibility and interdisciplinary communication have an effect upon the creative process advancing to the finished product from the design problem. In the designing process within the axle of Creativity, Language, Technology, it is obvious that the relation among these facts cannot be formalized. As a result, the discussions made within the context of this study show that, architecture is always open to the innovations and developments in terms of the facts mentioned. The innovative steps will affect the deign process and form, but the traditional methods of architecture will be passed over under no circumstances. In all these relations established in architecture, what type of

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[1]Yıldırım, T., Yavuz A.Ö., Inan N. (2010). Mimari Tasarım Eğitiminde Geleneksel ve Dijital Görselleştirme Teknolojilerinin Karşılaştırılması, Bilişim Teknolojileri Dergisi, Cilt: 3, Vol. 3, 17–26.
[2]Yılmaz, E. (2001). 'Mimarlık ve Teknoloji İlişkisi Üzerine', *Ege Mimarlık (Journal)*, *Vol. 37*, 12–14.
[3]Turan, B. O. (2011).

an attribution architect requires to exhibit or whether he/she requires such an attribution, or not, should be discussed.

Illustration List

Table-1: http://archidialog.com/tag/oma/, http://www.designboom.com/contemporary/tadao_ando.html
Table-2: http://archidialog.com/tag/oma/, http://www.dezeen.com/2007/01/31/gehry-nouvel-ando-and-hadid-build-in-abu-dhabi/
Table-3: http://merakediyorum.blogcu.com/giza-piramitleri/307978, http://tlc.howstuffworks.com/family/parthenon-and-the-acropolis-landmark.htm, http://www.telegraph.co.uk/news/worldnews/europe/italy/9708647/Colosseum-fence-to-be-erected-to-protect-tourists-from-falling-masonry.html
Table-4: http://thebesttraveldestinations.com/guggenheim-museum-bilbao-spain/, http://www.theoccidentalobserver.net/authors/Connelly-JonesShamir.htmlaha, http://www.e-architect.co.uk/images/jpgs/france/pierresvives_montpellier_b130912_i10.jpg