THE ROLE OF SKETCHING IN DECONSTRUCTIVISM

A THESIS SUBMITTED TO THE GRADUATE SCHOOL OF APPLIED SCIENCES OF NEAR EAST UNIVERSITY

By
IŞIL CANSU AKSOY

In Partial Fulfillment of the Requirements for the Degree of Master of Science in Architecture

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Approval of Director of Graduate School of
Applied Sciences

Prof. Dr. Nadire ÇAVUŞ

We certify this thesisis satisfactory for the award of the degree of Master of Science in Architecture

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declared that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last Name:

Signature:

Date:

To my family…

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ABSTRACT

THE ROLE OF SKETCHING IN DECONSTRUCTIVISM

Deconstructivism was occured firstly in literary to discover different possible meanings in writing. The dismantlement of sentence structures has been applied to architecture in the way of fragmentation. Also, it is prominent and creative tendency in architecture recently. Due to having technological basement, the deconstructivism is mostly related with digital environment. The thesis questioned the place of the sketching in the process of deconstructivist designs.

After introduction in second chapter, conceptually deconstructivism was exposed by the philosophers views and also prior deconstructivist architect's principles. In the following chapter (3), related to thesis problem perception, mind, intuition, creativity, sensation, and imagination were examined as essential terms. The different qualities of these elements each other and their place of the design process are crucial parts of the thesis. Sketching has the most significant role in the design process. The relations between the terms were handled and observed the process by the architectural projects.

In the fourth chapter, after the findings, to determine of the roles of sketching in the original design in deconstructivism, the process of deconstructivist works by sketching were examined. Deconstructivism is an approach that is based on technological interfaces. Although having technical aspects, sketching has an important position in the design way. Deconstructivism as a multidisciplinary area is a fluid process that includes many participants from architect to the chemist.

In result, the thesis investigates the role of sketching in the design process in deconstructivism. It is founded that it is a significant component phase of the design process in this approach together with the individual searches, interdisciplinary works, awareness, etc.

Keywords: Sketching; design process; deconstruction; perception; philosophy; intuition

ÖZ

YAPISÖKÜM (DEKONSTRÜKTİVİZM) MİMARİSİNDE ESKİZLERİN ROLÜ

Yapısöküm mimarisi ilk olarak edebiyattaki farklı muhtemel anlamları keşfetmek için ortaya çıktı. Yapı cümlelerinin ayrılması mimaride formların parçalanması olarak uygulandı. Yapısöküm son zamanların önde gelen yaratıcı mimari eğilimlerindendir. Teknolojik tabana sahip olmasında dolayı, dekonstrüktivizm çoğunlukla dijital ortamla ilişkilendirilir. Bu tez dekonstrüktivist tasarımda eskizlerin yerini sorgular.

Girişten sonraki ikinci bölümde, yapısöküm kavramsal olarak felsefecilerin görüşleriyle ve önde gelen dekonstrüktivist mimarların ilkeleriyle açığa çıkarıldı. Sonraki bölümde (3), tez problemiyle bağlantılı olarak algı, zihin, sezgi, yaratıcılık, duyu ve hayalgücü başlıca kavramlar olarak incelendi. Bu etkenlerin birbirlerinden farklı özellikleri ve tasarım sürecindeki yeri tezin önemli kısmını oluşturuyor. Eskiz süreçteki en önemli role sahiptir. Etkenler arasındaki ilişki ele alındı ve süreç mimari projeler üzerinden gözlemlendi.

Dördüncü bölümde, bulgulardan sonra, dekonstrüktivist mimarideki orjinal tasarımda eskizin rolünü belirlemek için, dekonstrüktivist çalışmaların süreci eskizler üzerinden ele alındı. Yapısöküm mimarisi teknolojik arayüzlere sahip bir eğilimdir. Teknik özelliklere sahip olmasına rağmen, eskizin tasarım sürecinde önemli bir rolü vardır. Disiplinlerarası bir alan olan yapısöküm mimarisi mimardan kimyagere bir çok katılımcıyı içeren akışkan bir süreçtir.

Son olarak, bu tez yapısökümde tasarım sürecinde eskizin rolünü irdeler. Eskizin bireysel araştırmalar, disiplinlerarası çalışmalar, farkındalık gibi kavramlarla beraber tasarım sürecinin önemli bir parçası olduğu bulunmuştur.

Anahtar Kelimeler: Eskiz; tasarım süreci; yapısöküm; algı; felsefe; sezgi

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CHAPTER 1

INTRODUCTION

Deconstructivism is a tendency based on the multidisciplinary design flow. The design approaches requires the flexibility of materials or construction techniques. This thesis handled the features of the philosophy of deconstruction and its appliance to the architecture. The central concepts of deconstructivism and its theory are discussed on the approaches of deconstructivist architects. This thesis includes the place of the individual paths of deconstructivist architects to the design process. In this regard, the elements are some investigated parts. The critical approaches what the terms are and where their place in a creative design way. The original deconstructivist design has many factors in the process. Sketching is significant element profoundly affected the finding central concept. The structure of the design process and the qualities of sketches are solved by supporting obtained researches before examining the place of sketching in deconstructivism. It is considered whether the sketch phenomenon has changed in the historical process. The technological improvement affected the sketch acting in some ways. The place of sketching whether it is altered concerning contribution to design process through the history. The thesis comprehends the continuum of physical and spiritual aspects of the human being in a design works and analysis the factors which affect the design process such as culture, age or habits. The terms contain the mental processes. It was observed the position of mentality in a design. The awareness also has an essential role in the continuum. Therefore, it is interrogated the place of mentality and awareness in the design. In the last chapter, the appliance of all the terms to deconstructivist architecture is observed, and lastly, evolution process in deconstructivism is discussed via sketching regarding contribution to design process.

1.1 Problem Statement, Questions and Limitations

This thesis interrogated the role of the sketching in the context of the design process in deconstructivism which is a tendency mostly related with technological basement. In the ‘Deconstructivism in Architecture’ arcticle by Mumcu, the general qualities of

deconstruction philosophy, the relation between the post modernism amd deconstructivism, and deconstruction approaches of some architects were examined. In the 'Reflections on Deconstructive Architecture' article by Germizaj, language of deconstructivism, deconstructive thinking, and displacement of established architectural theories were handled. In the ' Between Deconstructivist Architecture and Hyper-Historicism: Daniel Libeskind and Turkish Architects' master thesis by Maden, the history and philosophy of deconstruction, the architectural approaches of Daniel Libeskind's and Turkish architecture and its relations between deconstruction were investigated. By the way of such researches, it was pointed out the factors in the deconstructive design process and especially the role of sketching was not examined. The problem has been composed. The observation includes the examination of the connected terms such as perception, awareness etc. The place of such terms in the design process in deconstructivist architecture are questioned by the way of investigating architectural projetcs. The general known by the people, deconstructivism is related with computer design. Whether the role of the sketching in the creative design problem was defined and limitated between the sketching in this tendency with the design process.

1.2 Aim and Objectives

This study aims to expose critical points of the philosophy of deconstructivism and important factors for design process. The thesis presents new definition models of related terms. Architecture is a creative field. Therefore, it is essential to know the qualities of the effects and the differences between them. Also, the thesis contains the historical knowledges and demonstrates the flow in the architectural area. To have understandings about the past provides to see more clearly the future. Accordingly, the designer is inclusive of the creative flow. Furthermore, the thesis aims to increase the awareness of the design process. It inquiries the place of sketch works in the innovative design on observing accomplished projects. It is targeted to point the significance of sketching with strong points in the discussion.

1.3 Methodology

The thesis has came actualised by literature researching such as books, articles, encyclopedia, internet sources, magazines widely. The method is consisting of reading, comparison, interpreting, discussion with academicians of all sources. As a first step, the problem was detemined after the wide searching phase. Via the scanning of the litarary knowledge, conceptual data was composed. It was investigated from architect's books and articles how they constructed their conceptual ideas. To expose the design process of deconstructivist architecture, there has been reached to the visual informations in the meaning of the sketches and the constructed phases, and it has been used as a tool to assigned the problem. Lastly, it has been shown the comparison of the situations of the design processes observing the place of deconstructivism.

1.4 Expected Contribution to Knowledge

The examination of deconstructivist philosophy and related terms of deconstructivist design process such as sketching, perception, imagination, human aspects, fractures, entity, sketch works, architectural movements are the targets to make the literature contribution to the researchers.

CHAPTER 2

PHILOSOPHY OF DECONSTRUCTION

Deconstructivist movement in architecture appeared firstly with an organised exhibition in New York in 1998. The known architectural patterns were observed by some of architects. The architects presented the ideas more complex, multi-dimensional and free according to traditional architectural principles. The concept of Derrida's disintegration of the text applied to architecture as fractal geometry (Kurt, 2017). As a result of this, pure forms explode, hidden faces of structure expose, and at the end construct all of them. This related to fractal geometry (Figure 2.1).

Fractal is mostly the complex geometrical shapes shown resemblance to self in mathematics. In this way, it can be said, it is one of the features of deconstructivism. Furthermore, it is possible to relate to various concepts with deconstructivism as well as the fractal. It is also assertive which means construct that seem unbuildable and innovative. Deconstructivist architecture is free to use different forms that seem incompatible and benefit from diverse architectural characters so we may term it variety. The style exposes an idea by surprise rising, falling, bounding of some part of the building or unexpected relations between unpredictable building parts. It may seem like a challenge against to monotonous. Speciality is another quality of it. It can be seen to interested in every part of form provide the integrity from large to small. Exploding is its essence which means to change the pure form, make their fragments together. Deconstructivist architecture is irregular.

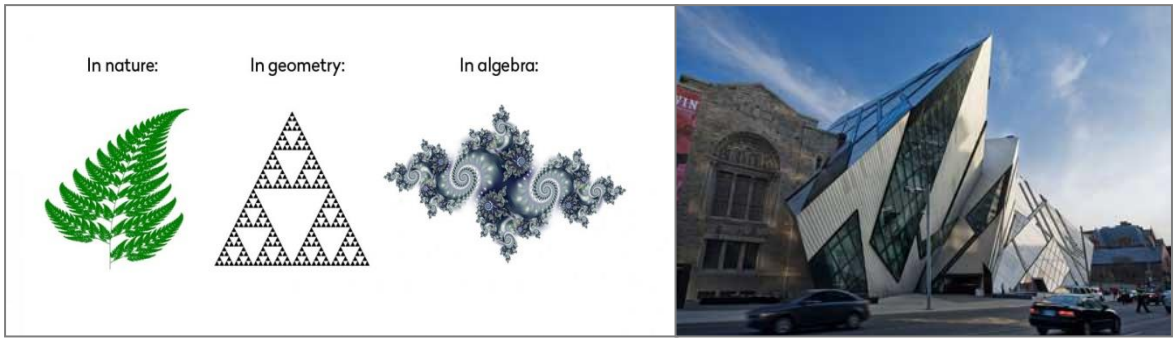


Figure 2.1: Fractal Geometry and Architecture (Jasser, 2017; Arcspace, 2012)

It encoureages to bring together unusual forms. It can be named with symbolism that aimed to add an impression. It is ambiguity. Solid-void are not known. Shadow games are used. Surprise confrontations, unpredictable structures are characters of deconstructivism so it is unexpected (Kırcı, 2005). It makes us feel being in unreal world because it has fantastic forms. It is dreamy. Deconstructivist buildings give a fluid impression to the observer. Because they have generally smooth and repetitive each other deformed surfaces. These surfaces have a harmony in itself. Fluid experience composes speed perception. Therefore deconstructivist architecture has a futuristic aspect. 3D computer programs have a significant place in the design of deconstructivist buildings and it is given a special importance at works. Besides, innovative architectural materials and construction techniques are contemplated by architects. It may be include using new elements or robotic technology in construction stage. Hereby, there is a structure always seek for innovative steps. In buildings, there have a mere design solutions that do not create disturbing and also complex design attitudes that give to observer non-boring perception and satisfaction. Using technological building materials to go beyond traditional techniques. It creates an environment that provides harmony between the buildings and lifestyle that gives importance speed and visual aesthetic (Elmoghazy, 2014). Deconstructivist works inspired from nature. Hereby, sometimes it may take a form from nature as a concept idea. Buildings have asymmetrical curvelinear and non-regular components like a stone or a bole. Ideas based on flexible and practical creative methods. It may realize by playing relation between spaces, choosing appropriate building material or using different construction techniques. Design solutions providing to integrate green areas and apply the

buildings as related with conceptual idea. Concept idea mostly comprises with repetitive fractures. Elements may be on facade as a window row or as mass fractures intertwined each other. The relation between these elements are significant. Namely, meetings were in unusual connections. The design perceived as a whole despite of composing many fractures. As combining leaves to compose a flower, the design creates an entity in itself through coming together that is called ‘A’ building. The elegant textures are generally a part of the plan in a repetitive way of geometrical shapes on a facade. Therefore design includes continuity perception and unique aesthetic aspects. There is no respect about the place of forms. The fractures intertwined each other and move away from their purity. Hence, there are no restriction concepts and space phenomenon identified with form. Shell structures are one of most using design solutions in deconstructivism. Generally, it provides flexibility of the desired appearance of building. Central skeleton system is in the shell.

These notions are essential to understand the nature of deconstructivism. It is a kind of unusual world of usual things, close to organic design, iterative cues, cognitive association, distorted, angled and awkward forms.

Due to having these features, deconstructivism may be related some movements occurred in the past. It would not be wrong to say having common qualities between deconstructivism and expressionism. Expressionist architecture seems as a movement in the 1910s. Carrying strong emotional traces in works make it close with deconstructivism. In spite of emerging in the second half of the 1900s, deconstructivism also seems neo expressionists by some communities (Serafin, 2015). Because of the limit of economical sources, some architectural projects stayed on paper but they became inspiring sources for the following generation. Herman Finsterlin was one of the expressionist architect whose projects did not apply in life. Having powerful lines in sketches and unusual organic approaches make him a famous character in the history of architecture (Figure 2.2-2.3). Some of the deconstructivist buildings seem to carry the inspiration of Finsterlin’s approach.

Figure 2.2: Herman Finsterlin Sketches I, 1920-1924 (50Watts, 2009)

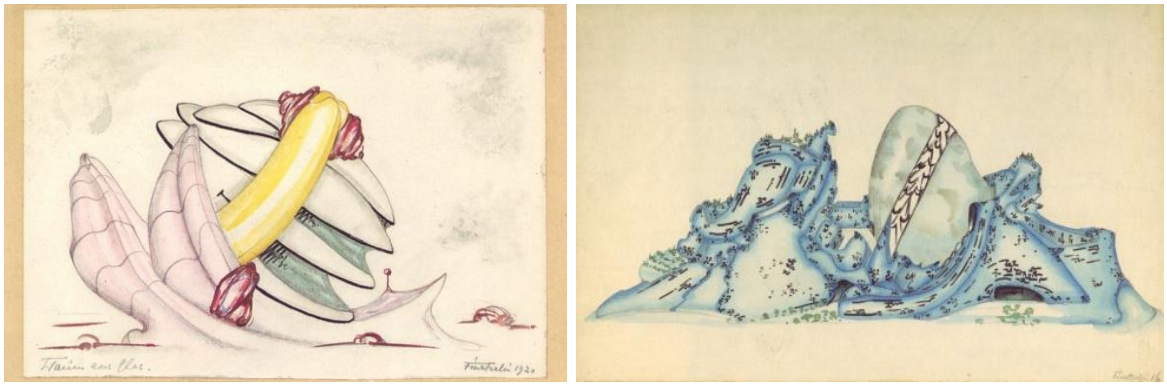


Figure 2.3: Herman Finsterlin Sketches II, 1920-1924 (50Watts, 2009)

Deconstructivist architecture has futuristic qualities, as well. Futuristic works have the innovative and another feature which are beyond several steps from present times. They give also having a relationship with speed. Therefore, there are meeting points with deconstructivism despite standing on the different philosophy. Straight and fluid surfaces, seeming as unbuildable projects, practical construction techniques are common inclinations of deconstructivism and futurism (Saylor, 2011) (Figure 2.4).

Figure 2.4: Futuristic Architecture (themost10, 2015)

2.1 Deconstruction of Philosophers

Deconstruction firstly has emerged as a term by the linguist philosopher Jacques Derrida. The usage of deconstruction method after his criticism, there has appeared similar approaches in the different areas. Because of the being as a term initially in the literary, it will be examined the tendency of deconstructivist linguists such as Jacques Derrida and Noam Chomsky.

2.1.1 Jacques Derrida

Jacques Derrida is a French philosopher who was known as a critic towards literary. His editorial considerations became very popular (Aydınalp, 2017). One of them is deconstructivism that was founded by him has been applied many areas such as philosophy, sociology, aesthetics, and architecture. It has been aimed to expose hidden alternative meanings in a text. He discussed philosophical aspects from Platon to Heidegger, and he was effected from Nietzsche, Saussure, Levi Strauss and Freud. The important point for him was ‘the metaphysics of presence.’ There are dualistic situations in transcendental way. Althought the situations have almost the same authorisation, one is more privileges according to another such as presence before absence speech before writing and so on (Raynolds, 2017). ‘Différance’ was the appropriate term to explain it. Difference means distinction. The verb ‘Differer’ is used as distinction and postponement. However, the difference expresses one of them. Therefore, by the way of changing the letter ‘e’ to ‘a’, Derrida aims to reach the success which means including two meaning of

them. (Kurt, 2017). According to him, ‘‘Différance’’ is the formation of form. In another word, it means to hit the Marks. He pointed the presence of antinomies to exist perceived fullness, so the sign is a translation. Eventually, deconstructivism is a method to unmask unvisible possible realities.

Language and literary were separate sign system; second one exists to represent the first one according to Ferdinand De Saussure. Derrida questioned that literary reflects writing within the reality of its tongue. It was discussed that the word is a costume for the idea, but it was not the same for literary and word. Was it possible to hide the identity? Literary may be used to conceal the reality like a mask prom. Manifestly, it is a deceiving organ (Derrida, 2011). Human being has multidirectional qualities which combination of spiritual and physical aspects. Covering one of them means wandering from the reality. Though, the inscription is an image or figuration, this representation is not innocent. Derrida has named it ‘arbitraries of signatum’. The fact that imposed on us likely one direction of the truth in the multidimensional network. After that, it is needed to display the unquestioned truth. Derrida aimed to perceive other dimensions of possible presence with deconstruction, therefore it exploits the entity then again it combines the fragments. What does it mean? It means; the places of words have been changed each other, the letters in words have been distributed so we can comprehend alternative realities of existence.

The writing that has single direction character had been abused by political powers, religious classes, monetary classes in history. In this respect, Derrida has not disdained the literary; he said that it is predominant. It should be considered that the possibility of the first function of writing is facilitating having the power. Furthermore, in this context, the science world has been criticised. How do the scientists approach genuine from books?

At this point, there is an inadequate feature of science nearby philosophy or knowledge. There is no need to examine the sub-qualities of them. Actually, there is no a same approach despite basing on the same root. The intended unequal situation may be called as trace, postponement or translation (Derrida, 2011).

Shortly, the apprehension of Derrida's philosophy can be explained as carrying changeable meanings for a story. They do not have holistic meaningful. A work is consist of separate elements that is not clear (Mumcu, 1995).

Additionally, it will be indicated to say about 'Supplement' regarding Derrida's philosophy. It will be helpful to examine it to comprehend Deconstruction method. When words explode, supplements come in view. It should be observed that 'supplemént' always had a danger of degenerate.

The supplement means to provide power on other's labour. The real core behind, and it is lived a decline to reach the actual essence. It causes of occurring degenerate, artificial and dishonest proxy items. The event actualises with writing as signatum, representations or image. The reflection becomes power focus and makes reality far away. It is a scandal (Derrida,2011).

Here, Derrida has pointed out the relation between utterance and mind. This two unit has joined each other strictly. In our daily life, we identify ourselves with words like beautiful, playful, hospitable, fragile and so on, namely, the features of the language can shape our behaviours is possible. That is to say if the constituting reality on someone else power, even in writing, it should be thought to ease to a colonial tendency in our behaviours, in our social life, in human relationships so this is the deterioration of essence of nature. A supplement is dangerous. Thoughts direct to create our life reality, and we think via words, their essential traits affect our behavioural patterns, even we do not know them. Here, Derrida has attracted to attention the nature of supplements. In this context, the connection between consciousness and words should be researched deeply by linguists.

At lastly, Derrida as one of the great philosophers aroused interest with its critical arguments on doing Jean-Jacques Rousseau's the assay of the origin of languages. Although, his deconstruction method first has come in to view in literature; it has spread in most fields. This method which enables us to discover that there are other realities intervals the multi-dimensional forms.

There is relation between architecture and the words. Architecture is a field that should constantly develop and explore its established perceptions and principles of working to

behave inventive and exciting designs. An architect should interrogate the nature of word design because there is place of thoughts that refers the words in the creative design. The word design means a process which moves away from a sign and it is not a consistent path. The effect constitute icons that designer consciously created (Germizaj, 2009).

‘’The holy book is at the top of all books… After all, it is also a book. The law of God, must be sought not in a few scattered pages, but in the heart of the man whose hand is devoted to writing.(*letter to Vernes*)’’ (Derrida, 2011: p.28).

2.1.2 Noam Chomsky

Avram Noam Chomsky is an American linguist, politician and historian. His researches about linguist based on standard rules for all languages that he called as ‘universal language.’ According to him, grammar is mental processes, so it works under the basic root. Therefore it has been called universal. He has studied on the child’s language learning process and pointed that there is an ability that comes from our birth about learning speed for language. Also, he has examined the meaning texts such as words and sentences and addressed that they have deep abstract meaningful. Because of this, Chomsky classified as a post-structuralist.

Communication has two information-processing devices. One device changes the physical environment of the other. Consequently, the second one builds representations similar to representations already exist in the first. Oral communications is a modification for the hearer’acoustic environment. So the hearer entertains thoughts similar to the speaker. The question is how can a physical stimulus bring about the required similarity between them and brings into correspondence on the other? From Aristotle through the modern semiotics all theories of communication were based on model which is name code model. A code is system which pairs internal messages with external signals thus two information-processing devices enable to communicate (Sperber; Wilson, 1987).

Chomsky has set apart the language in two groups: deep structure and surface structure. The scientific approach is not about the improvement of expression ways. The target is to expose the shared basement with psychology and literary. The perceived and accepted reality are related with surface structure, and abstract features of linguistic forms are

concerned with deep structure. All of the processes are based on mental performs (Chomsky, 2001). Chomsky has connected the surface structure with human physical aspects and the deep structure with mental elements which has abstract quality in language. It should be perceived what mental is for understanding Chomsky's philosophy. Mostly, the mentality is seen as a physical function that the brain generates via nerve cells. But it is located outside of the body as much as it is inside. Therefore, the mind can exist separately from body and brain because it is a type of energy which provides various functions such as perception, imagine or thought. The brain as a physical function offers to mediate between the mind and body by the actualising life functions such as convey the thoughts or sensational reactions (Manaf, 2011) We can say that mentality is an energy space that performs with the body.

Chomsky pointed out the mental and physical features of languages when it is analysed. According to him, the surface structure is elusive and far from the real knowledge. Therefore, he investigated the sentences which he has called deep structure that related to the mentality. It will be observed two examples from his Language and Mind book.

1. John kept the car in the garage.
2. Mary saw the man walking toward the railway station.

Here, Chomsky tells the meaning of two sentences is vague. The first sentence, it is possible to say that the car in the garage may be kept by John and the car may be kept by John in the garage. In the first case, the underlined name group is a part of a named group which is 'the car in the garage', but in the second case, it is not. For the second sentence, it is also possible to tell that the man walking toward the railway station was seen by Mary and the man was seen while walking toward the railway station by Mary. In the first case, the underlined name group is a part of a named group which is 'the man walking toward the railway station', but in the second case it is not (Chomsky, 2001).

The method is called as 'cognitive code learning.' Chomsky's philosophy includes interpretation of meanings. For example:

1. John washed the car; I was afraid someone ELSE would do it.
2. John washed the car; I was AFRAID someone else would do it.

Chomsky tells the emphasis of the word is vital in these examples. Namely, in the first sentence cues us that I hoped that John was going to wash the car, I was happy he did it. In the second sentence cues us I thought that John was not going to wash the car (Chomsky, 2001). It can be seen the effect of the role of surface structure to deep structure.

Thus, the language is beyond the reaction, and it does not just consist of habit chains. Speech let us comprehend the real meaning though stimuli that come from the external world. So, language is related to psychology.

Chomsky has brought a different approach to literary works. There were induction and classification method in previous works in linguistics (Maclay, 1971; Külehi, 1997). Chomsky tried to apply the deductive method to reach the nature of language. Also, the way is valid all over the world for possible emerging new languages in the future (Külehi, 1997).

Eventually, Chomsky has studied on nature of language through forming his terms. The universe is human's home which composes with mental, life and motion. The conscious is evolving than the past. It is asked: will the central mystery of the cosmos as well as man's awareness of and participation in it, be unveiled, althought forever receding, asymptotically? Shall has it perhaps been able to see all things, great and small, glittering with new light and reborn meaning, ancient but now again relevant in an iconic image which is related to present time and experience? (Chomsky, 1986).

His examining the internal structure of sentences subsumed him beyond the structuralists, and he was associated with deconstructivism.

2.2 Deconstructivism of Architects

Some of the architects such as Zaha Hadid, Frank Gehry don't accept that they are deconstructivist but such known of them has discussed the philosophy of deconstruction like Peter Eisenman, Daniel Libeskind, Bernard Tschumi, Rem Koolhaas.

2.2.1 Bernard Tschumi

Bernard Tschumi was known as an architect, writer and academician identified with deconstructivism. About deconstructive thinking Tschumi claims: ‘’…deconstructivism was born –immediately called a ‘style’ – precisely what these architects had been trying to avoid. Any interest in poststructuralist thought and deconstruction stemmed from the fact that they challenged the idea of a single unified set of images, the idea of certainty, and of course, the idea of an identifiable language’’ (Germijaz, 2009: p.4).

Tschumi defined the new tendencies as manifestos in his writing in 1979. There were three manifestos. First one is based on the pleasure of architecture. Manifesto 2 describes the concepts and experience of space which means the movements of performer slowly mark ‘conceptual architectural space’. Manifesto 3 suggests that the drawings and representations of architecture should have unique purpose of triggering desire for architecture (Tschumi, 1979).

Swiss-French architect Tschumi has interested in not merely space and form but, also events and actions. The experimentation within the walls were substantial parametres for Tschumi when he designed projects. Motions, flowings, reference points were vital for him to compose unregular, dynamic solid-void forms.

Architecture is not just a physical place, but, it is named with three elements which are

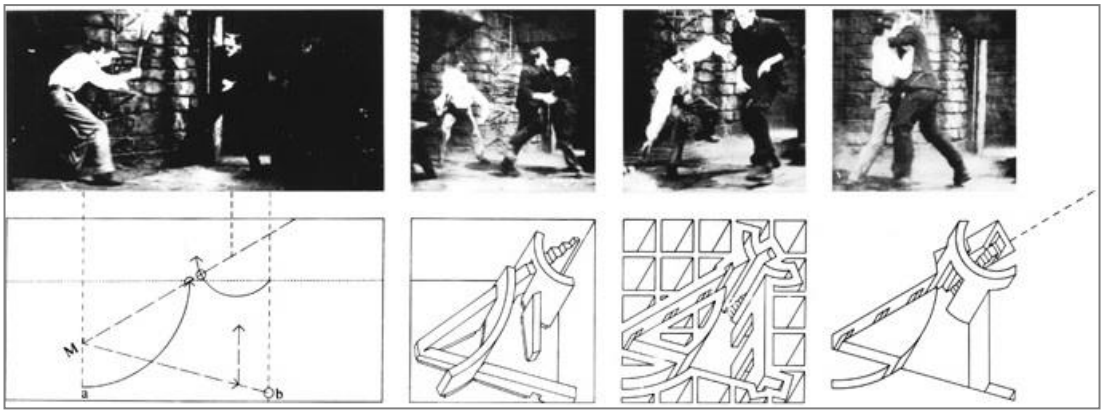


Figure 2.5: Drawing from Bernard Tschumi’s screenplay no.2 (1978) (Bmiaa, 2015)

action, precession and place. He defined it as ‘’event’’ (Figure 2.5).

‘’The event is a special moment suddenly formed by a combination of some other conditions, including the spatial conditions of the program. It creates ‘event’. Now, it is fascinating in architecture; because event architecture is the collision of the architectural structure with the activities that surround it. Of course, what is interesting is not the event, but creation. You can not create ‘event’. It is not under your control, but you can determine the conditions for what will happen as an architect. And, this is a significant part of my product evolution’’ (Tschumi, 2000: p.14).

Here, according to Tschumi, the division was a key point for the first step then again has been combined all of them in undetermined forms. Figures should combine astonishingly. Later on, spatial decisions have been assigned that what type of it: linear or circular central? After that works going on more complex. One part of the program defined spatial and some parts of it activated place. These strategies can be named as ‘pragmatism’.

Tschumi mentioned in ‘Architecture and Disjunction’ that there is a split which is not about economical or govermental issues in architecture. It is about the nature of architecture and its inevitable element: space. When it was looked closely, it was realized a paradox between the space and at the same time experiencing a spatial praxis. He addressed how it is possible to go beyond to these paradox. First, he handled the architecture as a thing of the mind as a dematerialized or conceptual discipline with its linguistics and morphological variations like pyramids and secondly, empirical searches that concentrates on the senses and communication between space and praxis like labyrinths. Thirdly, the contradictory of these terms were examined by him (Tschumi, 1994). According to him, in the contrary of the story of the architectural history, he seized an idea that bring together the experience and experienced. Therefore, he integrated the elements: the structures and events.

His first major project is Parc de la Villette in Paris. It was formed grids composed of points and lines (Figure 2.6). There are striking red pavilions (Figure 2.8). Parc de la Villette is considered important architectural deconstructivist work.

Figure 2.6: Parc de la Villette and Follies, Bernard Tschumi (Arkitektüel, 2011)

Bernard Tschumi was interested in how it could be designed adequate forms for heterogenous usage plans and unpredictable events. Le Frosney is an example of Tschumi's this approach (Figure 2.7).

When bringing together various items such as poetic roofs, walkways or laboratory provide a spatial richness at the same time creating chance events (Ntella, 2016) (Figure 2.8).

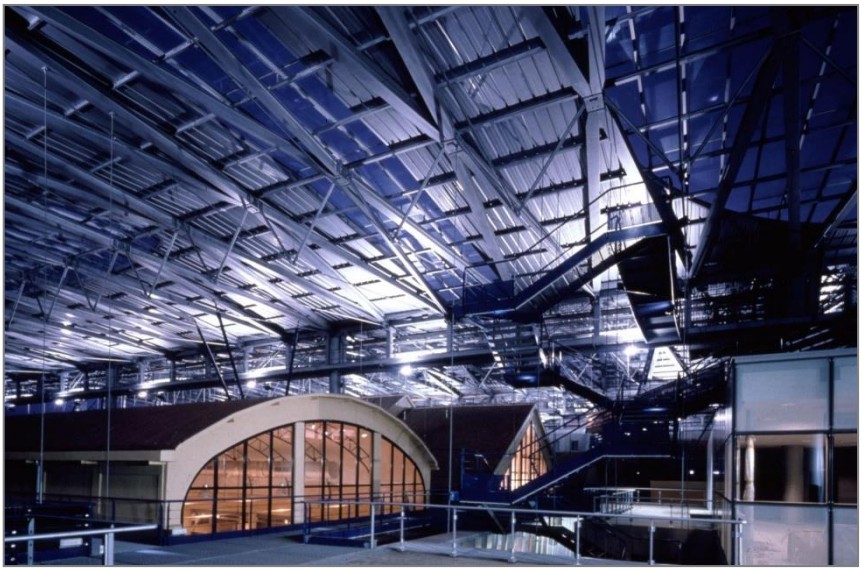


Figure 2.7: Le Frosney Platforms, Hallroofs (Bmiaa, 2015)

Figure 2.8: Le Frosney, Stairs, Walkways (Flickr, 2010)

The style of Tschumi's architecture includes linear and curve elements. Generally, linear elements accompanied with the curve or organic forms (Figure 2.9).

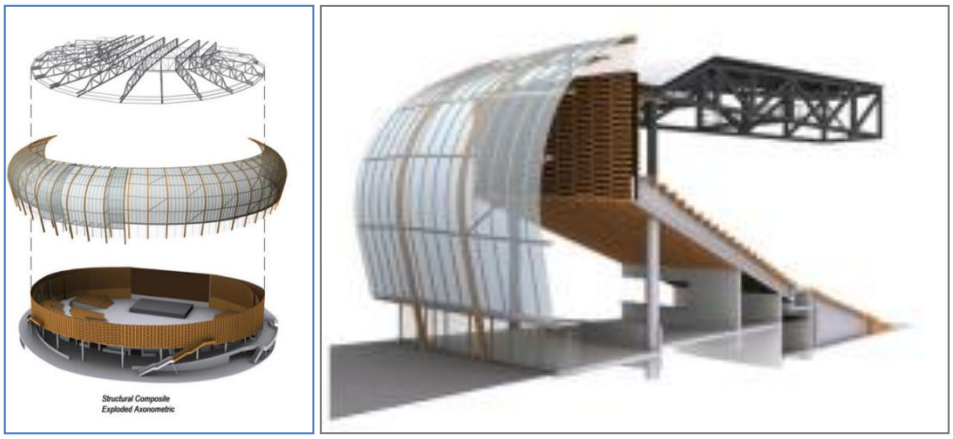


Figure 2.9: Limoges Concert Hall, Exploided Axonometric and Hall Facade. Bernard Tschumi (Aedesign, 2015)

Concept, context and form are three elements that complete each other to compose Tschumi's architectural style instead of focusing one of them. Surroundings of the building accomplished with other reference components. It likes an autonomous system that functions interplay together. For instance, Glass Video Gallery (Figure 2.10).

Figure 2.10: Glass Video Gallery, Groningen, 1990, Bernard Tschumi (Bmiaa, 2015)

Movement notation generally emerged from the desire of map to actual movement of bodies in space. It aims to catch a sign by the purpose of composing conceptual idea in architecture. The language of the movement of bodies and the language of the movement of walls are ultimately complementary. Movement notation is a new breath for the architecture to harmonize the stereotype and inventive approaches with its features such as layerings, juxtapositions, plan, and graphic convention (Tschumi, 1994).

Bernard Tschumi hasn't thought that buildings are separate things from humans. Therefore it should be a harmony between them in living level, so it was not necessary for one to accomplish with the other. The buildings should be an integral part of human being with taking their motions. It is a distinctive approach to design. It predicts limitless forms conversely putting boundaries because of programmatic reasons. There are infinite scenarios to make reference points, lines and surfaces. For instance, it can be taken sound wave contour, or it may be assumed that the vertical lines are dominant for a concert hall. When we jump, we don't want to feel horizontality. It may be preferred nested forms for a hospital. When our friend holds us to reach the doctor, we want to be close to responsible units as much as our friends. It is crucial to provide celerity in a hospital.

As a conclusion, it is a way of composing concept idea. It is a reflection of our behaviours to our living areas, quit feeling limited, break to the enclosure of walls and provide expansion. So we can say that it is expressionist, vagueness, fictional, unexpected.

''Form follows fiction.''

''Architecture is not about creating a static envelope. In other words, the building is always about movement in space.'' (Slideshare, 2014)

Bernard Tschumi

2.2.2 Daniel Libeskind

Daniel Libeskind is a Polish-American architect, artist, professor and set-designer. His works that mostly related with Jewish culture and history are either in Europe or USA.

Daniel Libeskind's philosophy based on that architecture is a way of communication which wants to tell a story beyond the material reality. His approach includes breaking the regularity, stereotype thoughts, uniformity. The expression is a key word for architecture according to him. The cities we lived in may be full of excitement, enthusiasm and wisdom or a feeling of fear and anger. Architecture is not making the same things over and over again, but it is a creation that has never been existing before. It is a creation that has never seen formerly. It is the fundamental point that architecture based on.

Thus, Libeskind's philosophy includes the metamorphosis. We are used to seeing the spiritless buildings every day, so it is not easy to change it, but architecture may be hope, an enthusiasm and a healing power in pessimist days. It is a connection between buildings and us and a helpful key believing that the external world is more enjoyable and luminous.

In this way, acute angles go on different ways, deformation of forms, unexpected combinations some of its characteristics. We can say that it makes a sensation for experiencer. It transfers emotions and urges a question to themselves. Well, does it try to say something to us? So architecture and curiosity are intertwined. According to his philosophy, architecture is not based on reinforced concrete, steel or soil materials, but curiosity. The meaningful communication that we make us beyond the walls. Its characteristic is not objective, but it is a part of life. Libeskind is out of the neutral world.

Architecture is an expression, but not with words. It is not silent but a dialogue with something arouse us. His philophy discover the special one we felt, we lived or we wanted to tell but we couldn't. In this direction, it encourages the multiplicity. This manner shows us the life is not about routine things however it includes the importance of feelings, events and an awareness.

Libeskind expresses how he approaches to design in his book Breaking Ground. He says that listens the Stones and try to connect with the past and the future. According to him the buildings should not be nostalgic, they should be actual. He said that inspired from the light, sound, spirits and history. The existence shaped with the reality and the abstract power. If a building has a spiritual vibration, it should reflect it. This is the what Libeskind try to do (Libeskind, 2001).

The significant feature of Libeskind design can explain one sentence: History is a living experience. What could be more interesting than the history of a place! As a distinctive quality of Libeskind, he interrogated the history of human not only history of architecture (Libeskind, 1991; Maden, 2008).

Otherwise, Libeskind philosophy tells us there is always a risk. The life is about taking risks. In his opinion, architecture is an area where it should be considered ventures even there is a possibility of failure. It is the path of the discover the poetic idea of a building, of space, of people, of the reality of the future. ‘’The magic of architecture can not be appropriated by any singular operation because it is always already floating, progressing, rising, flying, breathing’’ (Libeskind, 2000: p.17).

Consequently, Libeskind’s approach aimed to expose speciality. Maybe, it is the most significant matter that cannot be simulated to future generations. It may be an inheritance to catch an impression about past times.

As an example, examining ‘Royal Ontario Museum Michael Lee-Chin Crystal’ could be appropriate to comprehend Libeskind’s approach (Figure 2.11). ‘The Crystal’ stand out with its unusual and dynamic form. The target is to bring together the new and old ones, the tradition and innovation. Libeskind wanted to change the identity which is earnest and gloomy. The Crystal was designed as an interaction centre according to today’s conditions.

There are lots of windows on the facade. It provides a connection between the outside and inside. The used materials make us feel light, fresh, functional, aesthetic, protective against to natural conditions places. Bulky atmosphere relocates itself with high-pressure spaces.

Its natural form is like a precious stone that springs from underground. It represents purity that has never been deformed by external factors via sharp angles that we understand. We perceive clear and robust stance. The exhibited items want to say ‘’ hello, we are still here‘’ So they deserve to be in more energetic and communicative space. It is a way to make it live and part of our beings. The history has not remained somewhere else that we sense out from our apprehension, but it is also a reality that we have. The fusing between the past and present, passive and active, heavy and light were a need. The main idea of this project was based on it. Angular lines on facades tell us a strong desire that wants to live.

We see Libeskind's philosophy on it. The project tells us a story about the abstraction of nature, existence, stirring, and compliance that seems incompatible.

Figure 2.11: Libeskind, D. Royal Ontario Museum Michael Lee-Chin Crystal, 2007 (Mimdap, 2009)

Architecture has always a philosophy based on it. It does not include just form and function, but behind it, there is still a philosophical approach. That is the natural one (Uluoğlu, 1989).

''…Because, there is something that can not be imitated, which is a human heart, a human soul'' (Voicetube, 2018).

Daniel Libeskind

2.2.3 Peter Eisenman

Peter Eisenman is an American architect and architecture theorist. He was affected by the ideas of the philosophers Friedrich Nietzsche, Jacques Derrida and, Noam Chomsky. In this context, he fragmented existing architectural models in his designs. Therefore, he was seen as a postmodernist, deconstructivist and, poststructuralist.

Eisenman had been affected by Chomsky's approach in a way of constructing a relation between architecture and literal explication. For Eisenman, language and architecture have three categories: pragmatics, semantics, and syntactics. Pragmatics refers to form to

function, semantics refers form to iconography, and syntactics distinguishes between the physical forms and the conceptual spaces of a structure (Patin, 1993). Eisenman took two ideas from Chomsky on the deep and surface structure. He distinct surface level as a physical aspect of architecture and deep level as a syntactic aspect which means conceptual approach (Patin, 1993).

Eisenman says in his book that architecture is not limited between the place and space, here and there. Architecture should face with the event. For example: rock concerts are not just for listen but be a part of environment in a sense of form of architectural event (Eisenman, 2007).

Eisenman is interested in central concepts of deconstructivism. The idea of the presence of absence and absence of presence are interpreted as solid and void forms in architecture. Beyond the absence and presence, there is located 'presentness' which means neither presence nor absence. Presentness is a third living situation between the existence of sign and Heideggerian notion of being (Hoteit, 2015).

In Eisenman's philosophy, it can be seen nihilistic and sceptical approaches. There is no specific lines and obvious realities. The reality can be changed according to personal situations in infinite events. Secondly, the language of architecture is important more than a story for him. The sensation is a right word to understand it. The story is about past events that want to tell about others, but the language is to say to oneself. It reflects the own feelings and aims to recall same sensations.

Trace is also a keyword for his design approaches. It is an essential factor to design a building. Most of Eisenman's projects have begun from the trace. In fact, he paid close attention to the development process of physical traces that remain at a site. According to Eisenman, even the site has not residential areas; there are indeed witnessed many events before. The carrying of residues of amusement, fear or disappointment such as a toy, hole walls and dried plants may be some traces of the site (Hoteit, 2015).

In summary, Eisenman explores what architecture should be any questions that it is just for function. We can see 'the soul of architecture' in his designs.

Holocaust Memorial is one of the critical projects of Eisenman's. It is a memorial in Berlin to the Jewish victims of the Holocaust designed by Peter Eisenman (Figure 2.12). Holocaust Memorial creates a disturbing, confusing and mute atmosphere. It makes feel isolated from the world and, loneliness in crowded. It communicates a language that includes emptiness and meaningless because of this; it likes a cemetery. It aims to perceive the emotions. In a so-called regular system, it represents the extinction of existence. Solid and void concepts change place each other. It is impressive because a language was created by the architecture.

When we think regarding the philosophy of Eisenman, the design is successful. Even we don't live in concentration camps; we have an idea what people feel. It doesn't tell something, but we live it. It can be said that it is the primary essence of the philosophy of design.

Figure 2.12: Holocaust Memorial (Dezeen, 2016)

2.2.4 Rem Koolhaas

Rem Koolhaas is a Dutch architect, architectural theorist, urbanist and professor at Harvard University. He is one of the most critical architectural thinkers. The core of his philosophy is ''conscious inspiration'' which means that have three principles: (archidialog, 2013)

1. Identifing the origin of the concept
2. The expression of planning tools
3. The architect's invention

These are the steps of the summary of his philosophy to practice it in real life.

Conscious inspiration is taking inspiration from existing building as a method. To avoid copy- paste design according to this method, we should chase some rules.

Firstly, equipped with competence knowledge is essential. Past and present architecture, material and construction techniques and, design methods are some of them.

Secondly, it should be used personal tools. It means objects such as pencil or paper, the visual or verbal media and computer programs. Visual design tools include gesture, sketch, drawing, scale model, perspective drawing, photograph, film. Sketching as a visual design tool in architecture will be analysed next chapter extensively. Verbal design tools are, for example, metaphor, description, discussion, critique or theory.

As a third step for rules, the inspiration source should be found (Archidialog, 2012). It should not be scared to get inspired buildings in the environment. We can say that it is a friendly approach because the trace of beautiful something which being perceived by someone provides another notable creation. It is an effect that comes from external world stimulates our internal world to force ourselves do something. It can be named a communication between architecture on intuitive ways. It should be blended original design idea or invention with the design process. The original conception emerges from the consisting of the richness of five-sense member experiment in life. Five-sense member connects each other. When we see a portion of food, our sense of taste starts to work. Similarly, a motion or a colour can evoke an idea for us. The sixth-sense member for design is our mental and spiritual directions. It is a creation that introduces a newness. The outcomes are harmonious, proceed and, well-communicating environment areas.

There are two examples of Koolhaas's conscious inspiration method in below (Figure 2.13-2.14):

Figure 2.13: Rem Koolhaas Architect and Umicore-Laurent Ney (Archidialog, 2010)

In upper project, wide glass facades and curve turnings continuous each other are the common sense of the projects. Random perceptions are dominant so it is far away from regularity and systematic approach. Two different material –steel and glass- have good communication because of the peaceful connections. Concious inspiration let designer creative way of thinking.

Figure 2.14: Rem Koolhaas Architect and MVRDV Architects (Archidialog, 2010)

In the second example, cubic forms provide new approaches in a different systematic way. Dominant cubic forms consists of the concept of the projects. There are the traces of inspiration existing building. It is an conceptual idea that a creation from the existing one.

In conclusion, Koolhaas's philosophy let us an extension of design methods. Asymmetry, unexpected design solutions, unique facade experience and so on, in his designs enable him classify as a deconstructivist architect.

''A building at least two lives - the one imagined by its maker and the life it lives afterwards- and they are never the same'' (Archeyes, 2016).

''There are essentially two possibilities. One is to be, shall we say, an average architect and do the same thing everywhere. The other is to let yourself be inspired and even changed by the unique qualities of the place where you're building. We always try to take the second approach.'' (Quotefancy)

Rem Koolhaas

2.2.5 Wolf D. Prix

Wolf-Dieter Prix is a Dutch architect who is one of the founders of Coophimmelb(l)au architect company. Wolf D. Prix philosophy based on speediness and innovation in architecture. Therefore, he interested in robotic technology and 3d printing applications (Figure 2.15). According to him, technological steps are necessary for future. Its utility mostly includes time and money. The levels of architectural technology also can be a solution for some global problems such as immigration, aesthetical aspects.

Figure 2.15: Robotic technology in architecture (Dezeen, 2015)

We will survey two of Coophimmelb(l)au projects to understand the approach.

Pavilion 21 Mini Opera Space is one of the prominent among Coophimmelb(l)au projects (Figure 2.16). It is located in Munich, Germany. The main aim is to make it practical and analytical. Therefore, The Pavilion has constructed dismountable, transportable and re-mountable. Distinctive shape has preferred for existing area.

Dis- and re-assembled and lightweight construction techniques foreseed by design group, but the design would meet acoustical requirements by absorbing soundwaves besides them. For this reason, pyramid-like shape has been used in the process of the project and, it was named as a ‘Soundscaping’ (coop-himmelb(l)au, 2010).

Figure 2.16: Pavilion 21 Mini Opera Space (Aasarchitecture, 2013)

Paneum (House of Bread II) is the second project that we will examine (Figure 2.17). Paneum is a forum located in Asten, Austria where it has been come for exhibitions and workshops. The panel consists of a foyer, event rooms and exhibition area located on top. The used materials are cast-in-place concrete, rounded wood and stainless steel. The structure is based on self-supporting wood shell and constructed with cross-laminated timber. The 3D prefabricated construction techniques have been used so it has taken short building time (coop-himmelb(l)au, 2017). It has also provided supply costs, less waste and simplified to create green areas. Sustainability architecture was endorsed by 3D technology construction.

Figure 2.17: Paneum Customer Information Centre and Event Forum (e-architect, 2017)

Panem's fluent visual design which resembles bread – that's why it is also called bread house- makes spectator feel fly. It seems the concept has coincided with the program. The places are spacious, connected and functional.

CHAPTER 3

THE PLACE OF SKETCHES IN THE ARCHITECTURAL DESIGN PROCESS

Architecture requires either systematic thinking ability or aesthetic viewpoints in a level of art and craft. Hence, it is neither a branch of science nor a branch of art. Architecture is a mixture of science and art. This feature makes it having the multidimensional database for the architect. Beyond it, architecture does not compose on just data because it is based on creativity that constructed building makes people is happy, satisfied, comfort, surprised and, having an idea. Spaces affect people psychologically. The interaction between areas, circulation, accessibility, aesthetic satisfaction, innovative and, original solutions are some of features of the architectural design.

The architectural design includes many terms such as period, activity, source, and so on. Their qualities may change time to time.

Moreover, the design process in architecture contains many factors such as age, habits or perception (Table 1). All the elements have an attitude through the restrictions on design. Values, beliefs, roles in society and so on make the person hold some patterns.

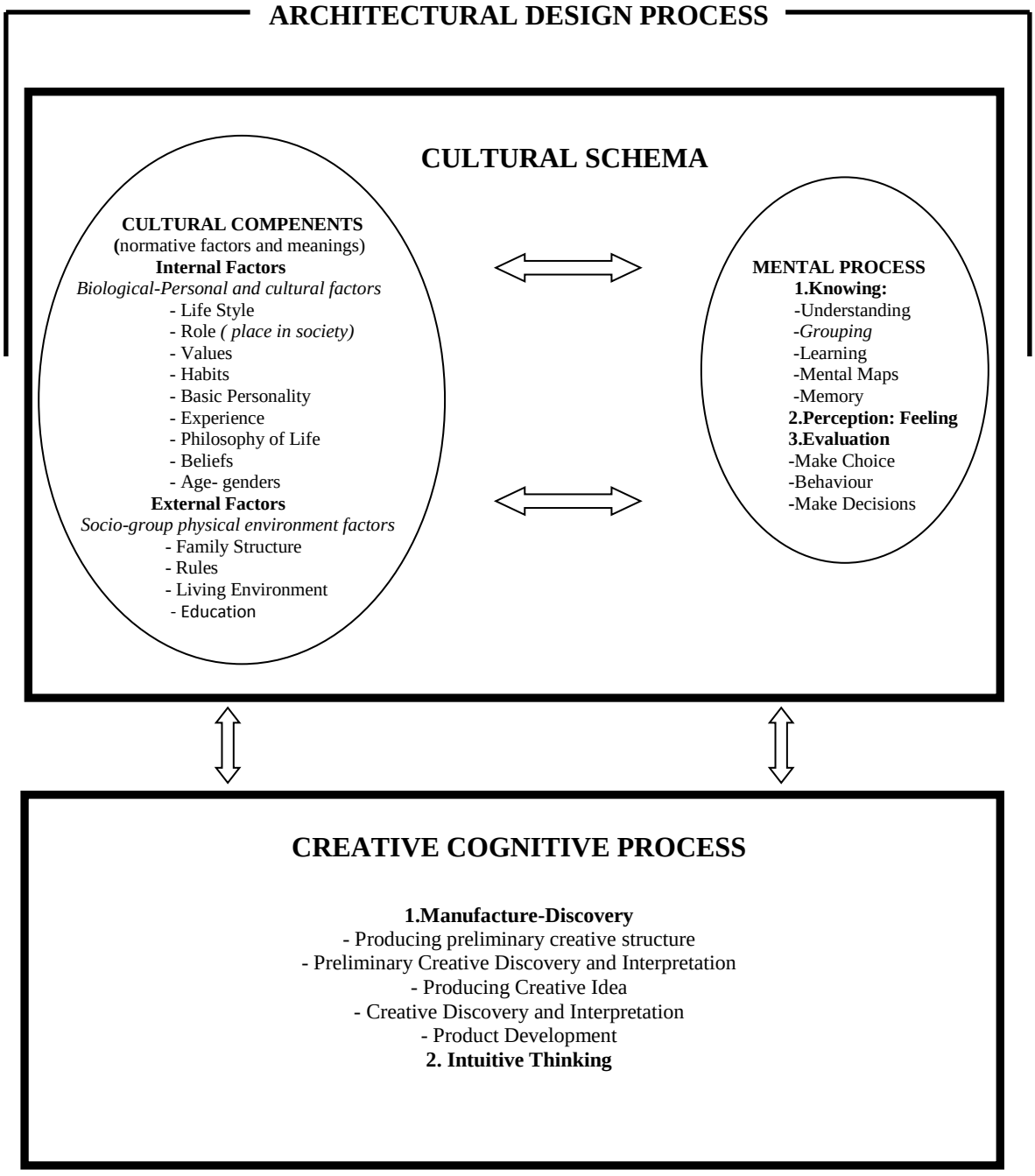


Table 1: Creativity Cultural Schema, Architectural Design Interaction System (Önal, 2011)

Architecture is interactive, unstable and living organisations. Therefore, being intertwined transformation and society means a part of creativity in architecture.

3.1 Architectural Design Process

The relation between sketching and architecture have strong communication in a level of thinking and intuitive way. A sketch is a tool for transporting concepts in architecture. This transportation realises from inside to outside. So ideas on paper are not the formations at first location that it comes out. Therefore, they are representations. This quality of sketching in architecture refers a vital position. There are various reasons why architects work with representations like sketching, models, graphic design, etc. Firstly, representations provide a safety area that architect can do experiments, measurements or changing. Secondly, the occurring of an environment where is open to discussion, idea storm, social-cultural discourses and communication with colleagues or society positively affect the process (Gürer, 2010).

Furthermore, initial sketches in the design process in architecture are seeds for creative action. Hence, it does not require great drawings. Most times, they may seem incomprehensible to others, but it conceals bright steps on the design process. It likes plant seed. How in first seed seems meaningless, it carries the knowledge of trees. Similarly, architectural sketches cover potential effects.

On the other hand, the sketching as an active participant is semantically open therefore it encourages the research and triggers architectural design (Zelef, Bursa, Çakıcı,2011).

The architectural design is a process. Arcan, describes it in five phases that includes collecting data, analysis, synthesis, evaluation and implementation.

Collecting data: the first phase is gathering data for functions. The recognizing and characterizing them are important for second step. Architectural sources are useful such as books, films, projects, experiences or elelctronic informations. The sources are classified, collected, recorded and summarized by architect.

Analysis: functions are analyzed by the determining the aims and requirements. Environmental conditions and equipment features are assigned with place, form and dimensions of the action fields, circulation areas and equipment areas.

Synthesis: it is combining of collected all data procedure. This phase includes the most creative actions. Preliminary works are improved by the project sketches. It is clear that the architecture is a different working area which distincts from engineering, also has aesthetical features that connected with art and requires individual talents in spite of having technical problems.

Evaluation: it is a decision phase. Three principles are important. They are the appropriate purpose, reliability, and economical of the targets. Environmental issues are also effective when the designing such as physical environment (place, topography, climate etc.), cultural environment (social, economic, historical and aesthetical etc.), and technological environment (science and technological issues that requires for architectural system).

Implementation: the project applied by the experts (Arcan; Evci, 1999).

Table 2: The Place of Sketching in the Design Phase (Arcan, Evci;1999)

Sketching is located in the third phase of the design which is synthesis. It works with imaginations, experiences and design program. Sketches are helpful to pass the other step through the the way of application of the project (Table 2).

In summary, it may realise various technological inventions in architecture in time. Concrete may take the place of stone, and paper drawings change with graphical programs, one style may change position with another style. However, sketching is seemed that is a

constant fact in the design process. It will be observed the situation of sketching in the design process by the completed projects through the history.

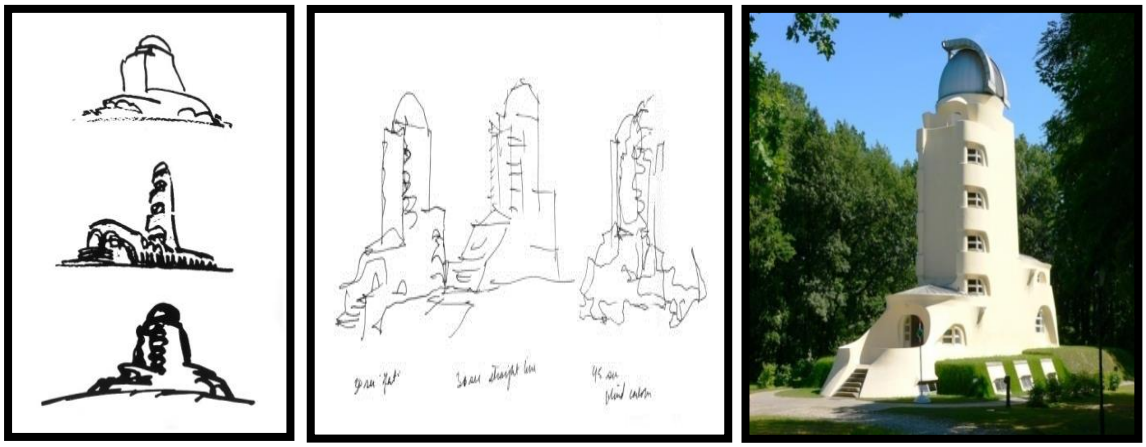


Figure 3.1: Erich Mendelsohn's Einstein Tower and Its Sketches (imgarcade, 2018)

It was worked on the general form of the building when it is analysed the sketch of Einstein Tower of Mendelsohn. Despite not having pure forms, it was a different style according to its period. Therefore, the style was seen, expressionist. Windows were changed place, and it is understood they were thought of them. There are some entrance lines different each other so it is seen a process of thinking. The sketch process has gone to complexity from simplicity. In the last drawing, the details are dominant. The work has advanced from perception to design process. The building refers to Albert Einstein's theory of relativity. It has built-in Potsdam, Germany in 1921 (Figure 3.1).

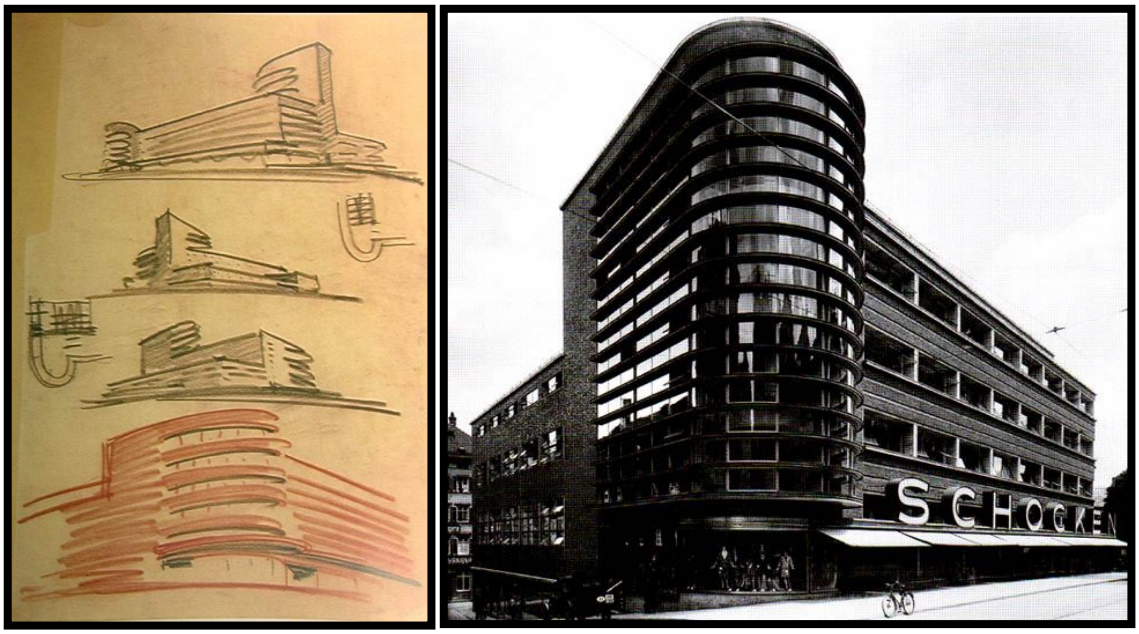


Figure 3.2: Erich Mendelsohn's Commercial Stuttgart Schoken Department Store Sketches (all-art)

It was worked on the place of forms of the building. The long lines represent the windows. It is understood from the sketch; the design includes windows along the building. Therefore, the building has a modern style. The work has handled the balance of the horizontal and vertical lines. The horizontal lines are dominant. To not to break the horizontal lines, there were rotations in the shape of ribbon windows. There seems a perception-awareness-design process. The building was constructed in Germany, in 1928 by Erich Mendelsohn (Figure 3.2).

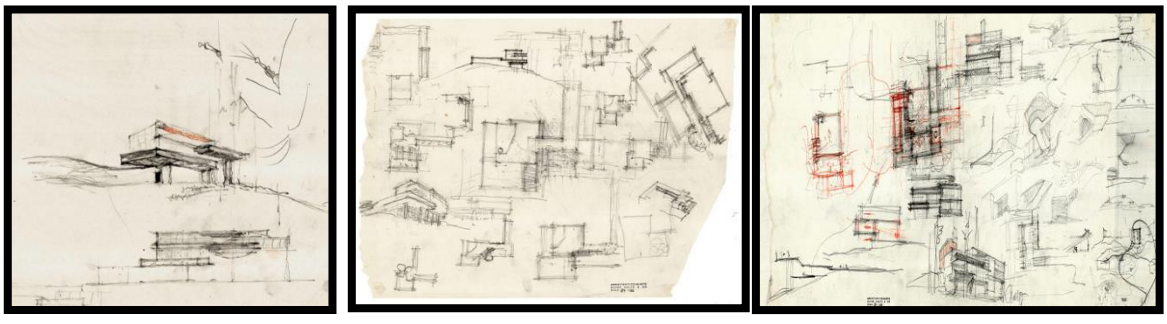


Figure 3.3: Alvar Aalto's Villa Mairea Sketches II (Mairea, 2009)

Villa Mairea is a work that is adaptive to the environment by Alvar Aalto who is known as an organic architect. The sketches are carrying integral qualities with surroundings. The work has dominant horizontality. Notably, in cantilevers, it has used the wooden material to catch harmony with the environment. There is a fluid perception as a feature of Aalto. It was worked on the spaces of the house. It was seen light lines for entrance and rooms in the second sketch. (Figure 3.4) The red lines represent the material difference which is wooden. There are fluid cubic forms (Figure 3.3). The Project was designed in Finland, in 1939 (Figure 3.4).

Figure 3.4: Villa Mairea, Alvar Aalto (alvaraltosarchitecture, 2016)

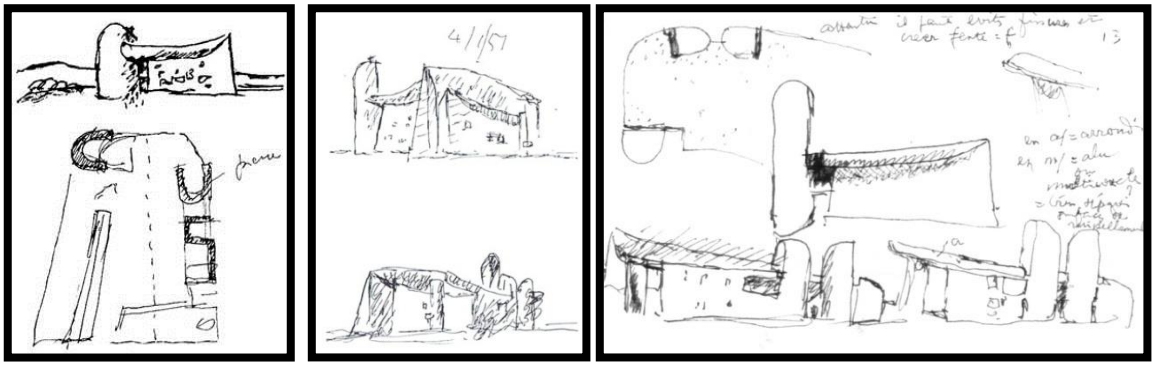


Figure 3.5: Le Corbusier's Notre Dame Du Haut Sketches (Pinterest; inexhibit, 2017)

The thick walls stand out on the sketch. The shape of the roof has the original characteristic. The windows were drawn asymmetric. The opens were detected in drawings. It is a massive building. The facade has occurred by the motion of enormous

building. There is detail- entity work. The windows have worked in particular by the architect (Figure 3.5). Notre Dame Du Haut is Le Corbusier's one of the exciting and major Projects built in France, in 1955 (Figure 3.6).

Figure 3.6: Notre Dame Du Haut. Le Corbusier (Archdaily, 2010)

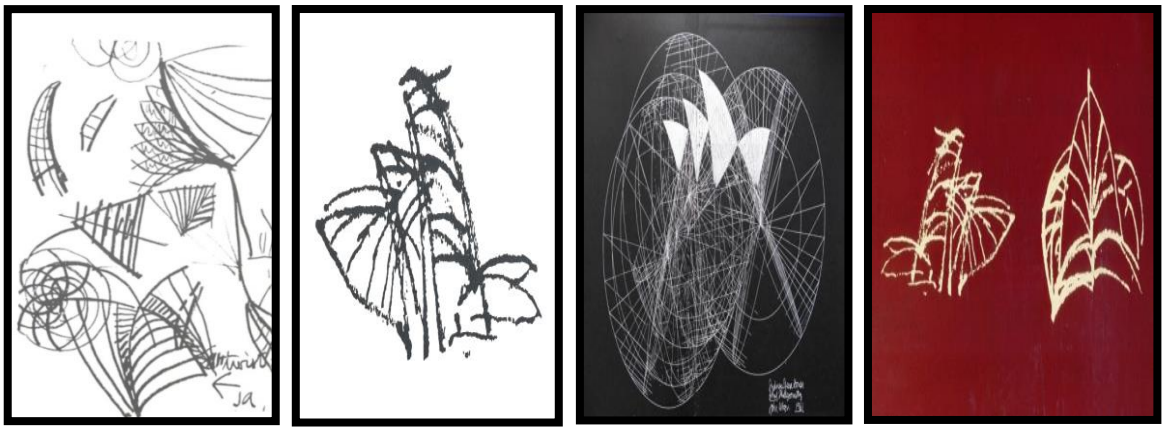


Figure 3.7: Jorn Utzon's Sydney Opera House Sketches (Utzonphotos)

It is seen triangle shapes repetition each other in a systematical way. The design principle repetation and shell forms were envisaged on sketches. At the same time, there is a rhythm emotion. The motion of sounds may form the concept idea (Figure 3.7).

There are works on proportions in detail. The forms are like leaves at right. Therefore it may seem like a morphic approach. It is one of the distinctive expressionist works. Sydney Opera House was built by Jorn Utzon in Australia, in 1973 (Figure 3.8).

Figure 3.8: Sydney Opera House, Jorn Utzon (Arkitera, 2008)

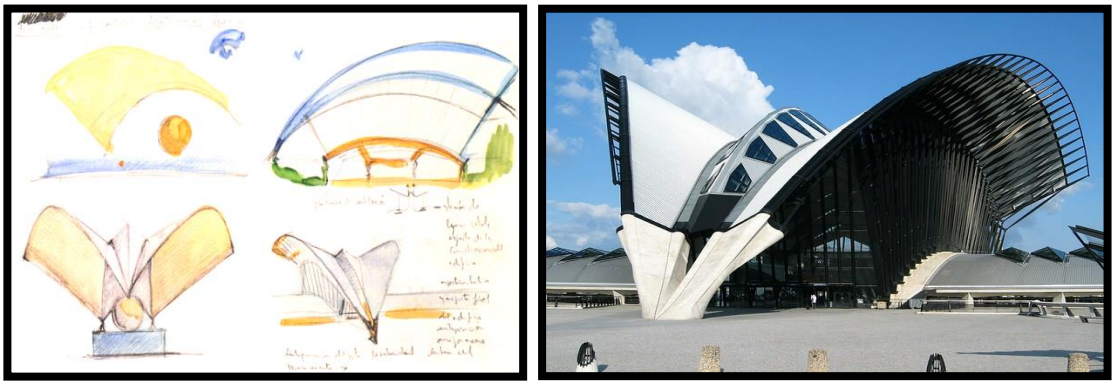


Figure 3.9: Santiago Calatrava's The Satolas Airport Sketches and Building (Researchgate, 2018; Visuallexicon, 2017)

At first, it is perceived that envisioned a bird form, so it was designed as two wings. The architect has worked on the flying phases of a bird by using scientific methods and applied it on the project. The glass and concrete parts can be distinct each other. For a sketch of the

airport, the birds form represents a temporary place. The Satolas Airport is Calatrava's one of famous dynamic expressionist work built in France, in 1994 (Figure 3.9).

Figure 3.10: Renzo Piano's The Shard Sketch and Building (Archiscapes, 2015; Dezeen, 2009)

The design thinking is seen as an actualisation in the simplistic form which is the cone. Horizontal lines tell us architect imagined measures. The Shard is Renzo Piano's modernist skyscraper project, in London, United Kingdom, in 2012 (Figure 3.10).

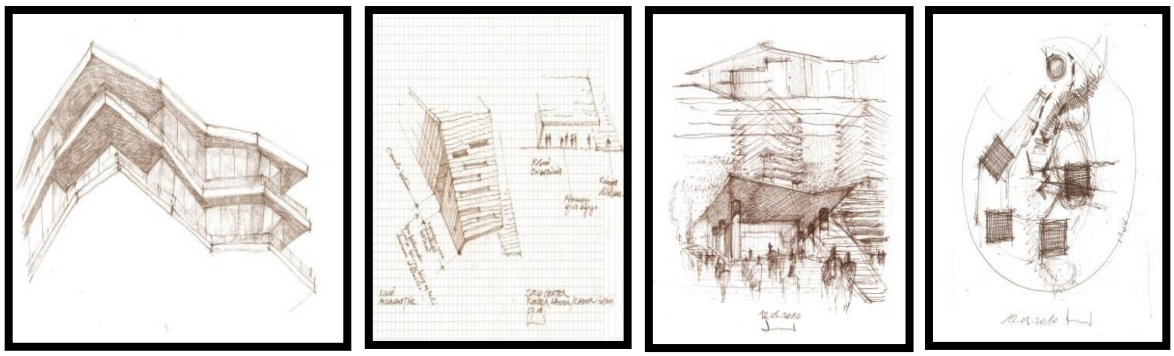


Figure 3.11: Emre Arolat's Zorlu Center Mixed-Used Complex's Sketches (Archdaily, 2014)

It was seen facade and modal works on sketches. The horizontal lines are dominant. The work is on the harmony of the environment. It is understood from sketches circulation areas were imagined by the architect. High buildings and their place were clear at the fourth sketch (Figure 3.11). The mass standing on the high building may seem like a deconstructivist work because of freedom of using curvilinear shapes. Zorlu Center Mixed-Used Complex was designed by Arolat Architects in İstanbul (Figure 3.12).

Figure 3.12: Zorlu Center Mixed-Used Complex, Arolat Architects (Archdaily, 2014)

The process in the occurring the architectural project, the role of sketches were analysed on constructed buildings. In the next chapter, it will be observed the qualities of sketches and its relations with other terms.

3.2 The Significance of Sketches

Sketching is a design tool to create an expression. It is the way of tranferring impressions that have been affected by stimulus from the internal and external world. Even though sketching seems to include a pen purely, a sketchbook and thoughts, it is performance beyond it. Sketching actualises in two ways. First one is to draw objects in the environment by copying, so it doesn't support creativity. It is about sketching techniques, presentation and, the ability of observation. The interpretations of data via five senses organs transpose

to the paper. The existing 3D objects convert into 2D drawings. The second type of sketching aims creation of the original design. Lines let us go to the inspiration that we want to find. It is creativity because internal and external views work together. Therefore, sketching is an integral of the design process. ‘’Sketching is an act of creation towards the artist itself. Like singing alone, reading poetry or dancing. Understanding by someones is not a primary goal. Accordingly, it does not expect to comply a common language or sign system’’ (İnceoğlu, 1995).

In the design process, sketching is a discovery, the journey to the unknown. Sketching is the enthusiasm itself. Old ideas put aside and call newness that is never existing before. It is the freedom because its world does not have restrictions or rules. Artist feels comfortable because any expectations or tensions are barriers to the creativity. The important one is on the road, not to reach the result because it does not know what will be faced on the way (Manaf, 2013). The opportunities are observed in this process.

Sketches may be seen as a recording place what to think in the design process, but it is not a function just for it. Sketching is a place where gives chances to the designer to re-interpret and re-interfere on design approaches. The real improvements and transformations are provided by sketching (Doğan,2009).

However, sketching as a door to the originality in architecture is a significant part of architect’s. Imagination power is the root of it. Imagination and sketching are not separate parts. Because designing in mental means to survey applicability to the real life.

Besides, the act is the self-respect. Namely, it is the hearing the internal voice in the silence. It can be said that it is beyond the mental data. Intuition and intelligence work together. Sketching is individuality because it is the awareness of own core in spite of holding external unnatural items. So it is courage.

Creating the real art means to be ownself in a sense. The action requires courage because many masks hide the identity in life. However, the design as an expression of passion can cope with all barriers. The design provides the person to live the freedom and satisfaction a spiritual (Batırbaygil, 1996).

Sketching is an act that comes from human existence. There is a process from caves to computers, but the desire is same which transfering or sharing somethings. It is the nature of human because of being communication way. Another aspect, it is desire to known.

On the other hands, sketchtools are essential as much as acting itself. It is clear that any pen or paper complicates design process. Special design tools such as drawing pencil sets which have harder and softer, sketchbook which has a high quality of paper and, various erasers and sharpeners facilitate drawings. Artwork case also beneficial to bring all these tools together. It makes the action a specialized field.

Sketching is a process which works with the all dimensions of a human. Physical aspects refer to the coordination of body and perception through the sensory nerves. Taken knowledge created some imaginations and commentaries in mental area. After that, artist approached the spirituality which means awareness. The action will be original as long as intuition or awareness is strong.

In summary, the nature of sketching has many concepts such as creativity, intuition, imagination, intelligence, unrestraint, irregularity, freedom, awareness, individuality, flexibility and, exploration. Creative sketching is not about improvement but expansion. It is the expansion of internal and external vision.

Sketching is one of most critical words in architecture. A sketch is a guide and a path through the architectural production like other areas. Furthermore, which features make a sketch a significant factor in the process?

Firstly, sketching is an expression tool for the owner and the others. It makes phenomenon in existence clear. Therefore, it is a communication with ownself for an architect. Architect hears, observes and estimates on sketching. Besides, current ideas were understood by authorised people. Sharing easily and transferring ideas truely are essential steps for architectural process.

Secondly, sketching helps architect to make modifications and innovations on his/her design way. Accordingly, sketching does not refer the beginning and the final. It represents

a process, in other words, a path. The process is a path where is full of explorations. Design is not a fait accompli but a way that the end is not substantial.

Otherwise, sketching is registered area for the architect. All data about the subject such as technical or environmental information, site analysis, first impressions, main idea sketching or just sketching for findings are recordings for following steps. Architect consults their sketches and notes to combine fragments.

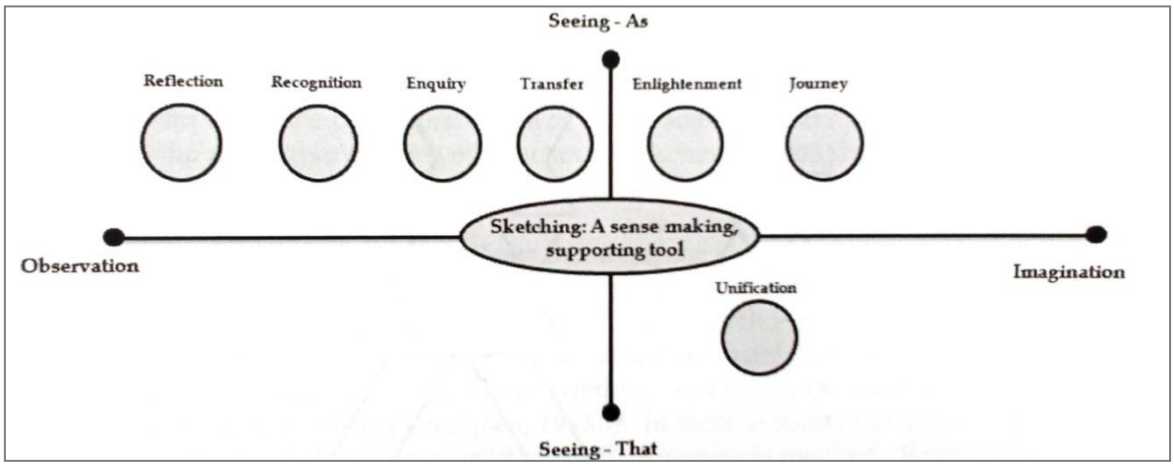


Table 3: Proposed paradigm for promoting mental synthesis through freehand sketching (Goldschmidt, 1991; Lane, Seery, Gordon, 2010)

‘’The paradigm aims to promote sketching as a sense making tool which supports the synthesis of mental imagery through activities that progress within an “observation-imagination” continuum (Fish, 1990; Lane, Seery, Gordon, 2010) and “seeing-as” and “seeing-that” modalities ‘’(Goldschmidt, 1991; Lane, Seery, Gordon, 2010) (Table 3).

For catching integrity, originality, functionality and innovation on a design process, intelligent and intuition aspects work with papers. Every line have a meaning and evoke something. Connotation is like a domino (Table 4). In the end, original design appears.

On the other hand, sketching is not a tool just for transferring ideas to the paper. It is also a revealing action. Sketching is constant discovery source rather than recording area. If we

approach the subject concentrated, we may meet luminous world that we do not realise before (İnceoğlu, 1995).

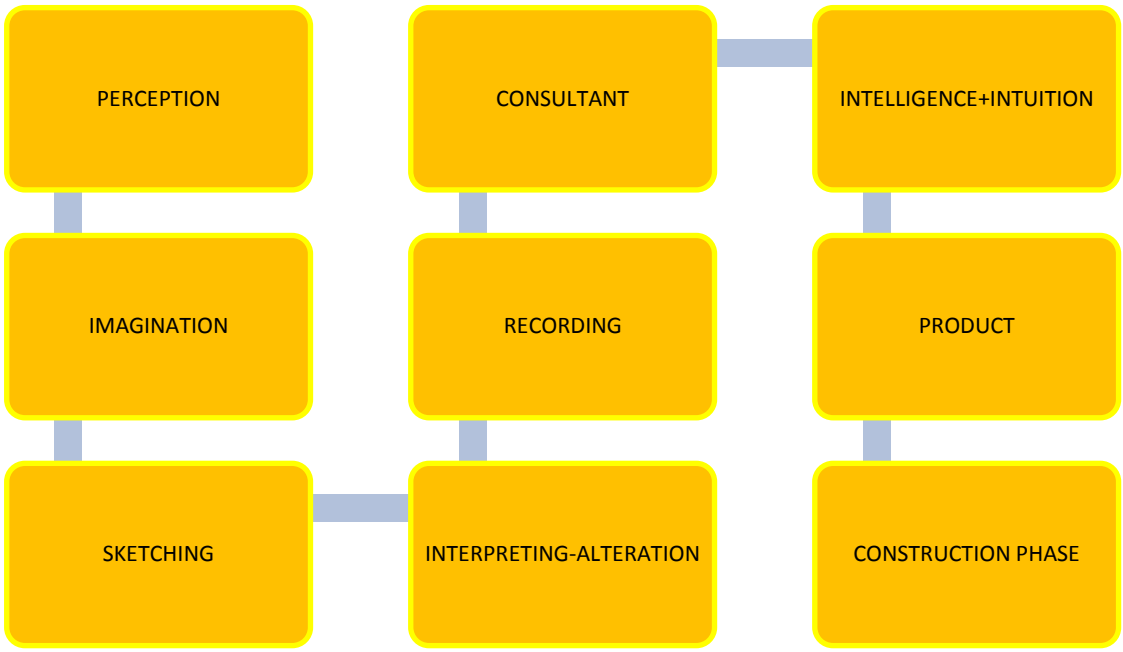


Table 4: Sketching Process

Sketching provides to approach from different perspectives to the problem. Divergent thinking ability and offering different alternatives are some of the features of sketching. Therefore, sketching and design have a strong relationship (Ayıran, 2008) (Table 5).

SKETCH ⇨ AWARENESS ⇨ CREATIVE DESIGN

Table 5: The Design Process

Sketching was practiced in all of the areas such as painting, industrial design, fashion or automotive besides architecture through history (Figure 3.13-3.14).

Figure 3.13: Fashion Design Sketches and Fruit Juicer by Phippe Starch (Template, 2018)

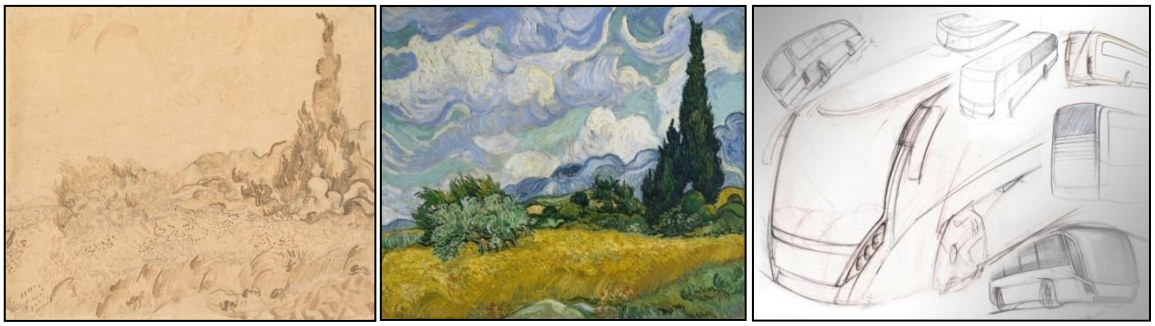


Figure 3.14: Wheat Fields and Cypresses by Vincent Van Gogh and Automobile Sketches by Otokar Company (vincentvangogh, 2009; Otokar)

3.2.1 The Terms in the Process of Sketching

Sketching is a process that includes various terms as it was remarked in the previous chapter. It is related to perception and awareness besides other concepts remarkably. Although, perception and consciousness have characteristic qualities; they are different each other. Perception is related to mental functions. Therefore, it belongings to the physical level. Perceptions are based on data. They explicate data in itself via mental services and usually do not reflect realities. They generate personal facts.

Awareness is related with consciousness, for this reason it is mostly about spirituality and means knowledge. Awareness takes data by intuition and has also objective observation. Awareness is based on universal realities.

It will be observed the internal features of perceptions and awareness more closely in the next chapter.

3.2.1.1 The Interpretations of Perceptions on Sketches

Perception can be defined as generating information in the mental area via biological senses. So perception and sensation have close relationship each other. If impression is a process that stimulated nerve cells to travel to the brain, perception is the interpretation the datas with previous knowledge due to sensations. It can be said that perception contains the existing data in mental area and works together with senses.

Perception is also defined as learning, understanding, grouping, forming in the environment by the senses and a function that provides making choices and being in behaviours (Turgut, 1992).

For example, when two people see a tree, they may think different imaginations. The sensations may be same or may not because it depends on physical conditions on human if it is thought that the composing general tree figure on these people, it is possible to say that the feelings are different because one may remember the falling from the tree when he/she is infant so the perception that trees's being dangerous are created. Another one may remember the eating apples on the tree when he/she is infant, so the perception that trees being producer are created. Namely, perceptions work with former informations registered on the mental area. So it can be said that the perception is nominative.

There are types of perceptions and connected with sketching. Selective attention is one of them. The term refers to more pay attention to some objects or events than others. It means that the world is not perceived as it is. It is perceived by subjective viewpoints. Factors are emotions, current conditions, mental records and, prejudgements. For example, a person who bought a BMW more pay attention the BMWs in the environment. So it is possible to say that the reality of perception is constituted according to ourselves.

Besides, the stability of perception principle exists in life. It means to perceive still the same situation for elements which were changed their color, shapes or size. For example, it is continued to perceive red colour for an apple in the dark by people.

Moreover, there is a significant perception that is related to sketches or art is visual perception. It includes physical seeing processes. ‘’Seeing means grasping some outstanding features of objects –the blueness of the sky, the curve of the swan’s neck, the rectangularity of the book, the shin of a piece of metal, the straightness of the cigarette ‘’(Arnheim, 1974). Gestalt theory is helpful to understand visual perception. Gestalt is psychology term which developed by German psychologists in 1920s. The word gestalt, the typical German noun for shape or form, has been applied since the beginning of our century to a body of scientific principles that were derived mainly from experiments in sensory perception (Arnheim, 1974). Its laws show how people tend to perceive visual elements. The terms are similarity, continuation, closure, proximity and, figure-ground (Table 6).

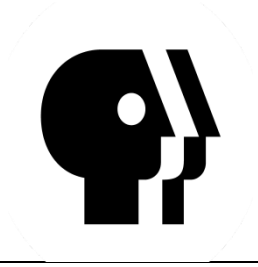
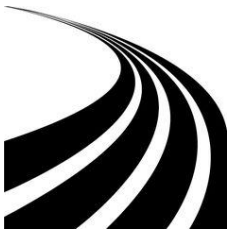
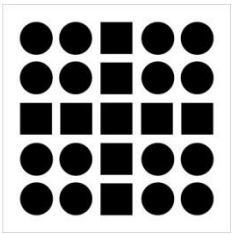
TERM	SAMPLE	EXPLANATION
SIMILARITY		Similarity occurs when objects look similar to one another. It is generally perceived as a whole.
CONTINUATION		Continuation occurs when the eye is compelled to move through one to another object.
CLOSURE		Closure occurs when an object is incomplete, or space is not entirely closed. It is generally perceived the whole by filling missing information.
PROXIMITY		Proximity occurs when elements are placed close together. It is the perceived as a group.
FIGURE-GROUND		Figure-ground occurs according to perceived object. If it is perceived the tree prominently, it is figure and animals are ground if it is not figured and ground change each other.

Table 6: Table shows the Gestalt Principles (graphicdesign)

The relation between sketching and perceptions are significant. There are internal and external perceptions, and they work together. But their points are different. External perception stands with the ability of observation. And it means to blend it with former information. Internal perception comprises the inspiration which is related to consciousness. It is highly probable that the latter is connected to original design.

Observation can be defined as try to understand events and people around him/her. To have a useful observation skill is inevitable for a designer because it includes sketching, analysis, determination the advantages and disadvantages, comparison and, finding solutions unpredictable.

The connection between sketching and perception comprises many terms such as observation, recording, inspiration or staying at the moment. The multitude of content refers to the richness of the design.

The designer has visual images by perception in his/her mind. The imaginary object exists by sketching, but important point is to make it allow the designer to stop and think what the design process is going on and what he/she is doing even it is a moment (Arnheim, a.g.e; Doğan, 2009).

It was examined the mental aspect of the perception also named as an external perception on sketches until now. The inspiration aspect is related with the internal perception which is also referred to intuition. Original design comes from intuition. How to reach it?

Living centralisation which means hear the intuition makes the person close it. Furthermore, it is needed to go beyond the mind and not identified with it to reach the creativity. Mind produces thoughts, prejudgements and norms. All of them are barriers to creative action (Manaf, 2015).

Here, it is pointed to go beyond from mind which means accumulated information because the mind has prejudgements and is believed to be limits. It needs to approach the freedom of ourselves that comes from beyond the materiality.

As a conclusion, it is possible to say that to comprehend the core of the perception is valuable for designers. Because of experiencing perception in the continuum of sketching,

it is meaningful to understand how to work its physical, mental and spiritual features with design as a human being.

3.2.1.2 Awareness on Sketches

Awareness is a significant phase for designer and has a great impact on design process. As sensation and perception, awareness is also so important for design, but they have some differences. Sensation works with nerve cells by transporting electrical impulses to the brain in resulting of occurring data. Perception works with data via senses and registered knowledge in mental areas. So far, it was surveyed the nature of sensation and perception. Awareness is strong point as well.

Awareness can define as the ability to know, perceive and feel the events that develop around surroundings. It is about consciousness. In this respect, it can be said that it is beyond the physical materiality because the person can raises his/her consciousness level as long as providing integration. Here, integration means identification with all presences. Therefore, awareness is more mystic and unknown. It also works with intelligence. ‘’Basic function of intelligence is to distinguish. Intelligence can distinguish the truth from the illusion ‘’(Manaf, 2014).

Moreover, thoughts, prejudgements, fears and, desires etc. cover the awareness. It is possible to expand it. To be quiet and impartial observer are ways to increase awareness because of closing the own core of the person (Manaf, 2014).

Furthermore, sketching is related to all these terms. Namely, senses compose data belonging to the external world. Perceptions interpret the data according to experiments. Awareness helps to separate the subjective and objective information.

Shapes, forms, distances, lights, continuity, contrasty or harmony some of the interpretations of sketching approach concerning working together with sensation and perception. The explanation is based on the wealth of experiences and the power of consciousness because sensual experiences mean variety of imagination. Awareness means original design.

Lastly, there is a healthy relationship between design process and awareness. Original design and awareness have continuous interaction with each other. The one who is aware creates and the one who creates is aware.

Architecture is a field where related terms are strong. Therefore, they have continuous interaction each other. In the next chapter, it will be discussed the evolution in deconstructivism by sketching on the deconstructivist architect's projects.

CHAPTER 4

EVOLUTION IN DECONSTRUCTIVIST WORKS BY SKETCHING

Deconstructivist works have a design process which includes sketching, awareness affected by other disciplines such as computer programs, chemistry, physic or landscape design. The design process is comprehensive and requires demanding flow. Many people work with the architect in the design. Therefore, the process is interdisciplinary. At the end of the evolution, original design appears with the multidisciplinary works.

Due to the deconstructivist movement was being related to computer programs, it would probably be thought that there was no sketching stage in the design process. However, lots of designers have sketch works. It can be observed the process of sketching-awareness-design process by handling the completed projects shown the evolution in deconstructivism from past to present.

4.1 Sketching in Deconstructivist Design Process

Deconstructivist architecture is seen as a technological space of architects, but sketching is still fundamental point as both tablet-computer and paper sketching for the architect because, original design as an individual fact seeks for a method to transfer the design approaches. Sketching is a primary representational tool besides models or 3d graphics due

to having a basement of speed, simple and practical. Thus, the observation of the place of sketching in design process is possible on the famous architect's projects.

4.1.1 Eisenman Philosophy and Design Process

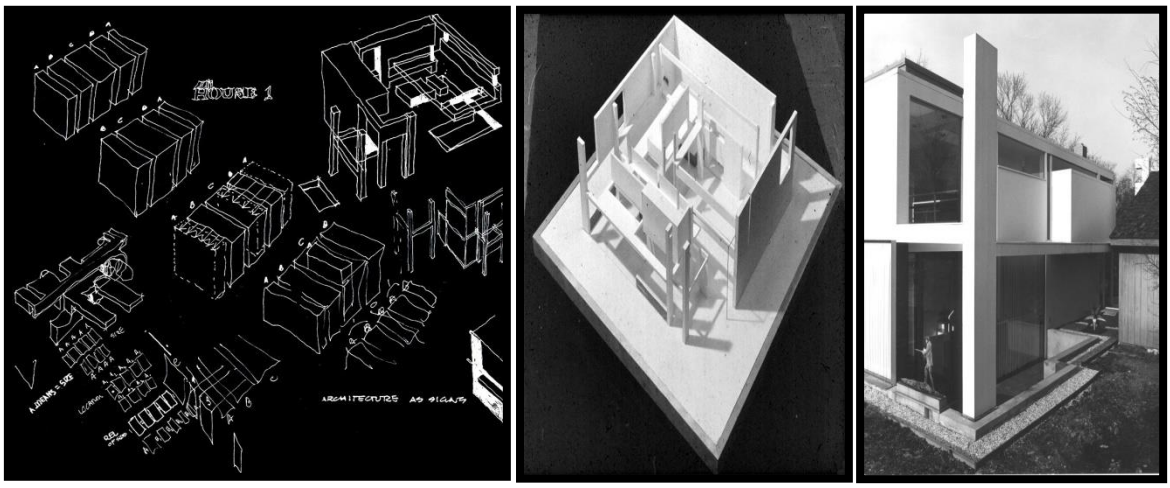


Figure 4.1: The Process of House I by Peter Eisenman (Eisenmanarchitects, 2015)

House I is Eisenman's first work. It is an enlargement project of an house. In this project, he breaks the cube apart and associating it with a scheme. Columns and windows are dominant elements and they placed over ideal scheme. Columns have a mission that is the result of the intersection of two planes or a simple void that ensures the continued validity of the grid more than structural mission. It is possible to catch 'notion of absence and a notion ever present' concepts in this project. There are formal strategy and overlapping which means the intersection of abstract elements- planes, columns, floors, ceilings etc.- that the architect manipulates. Architect gives importance the movements that help constituting places. The project is based on the games of grids (Moneo, 2004). The project includes phases which includes sketch-awareness-design process (Figure 4.1).

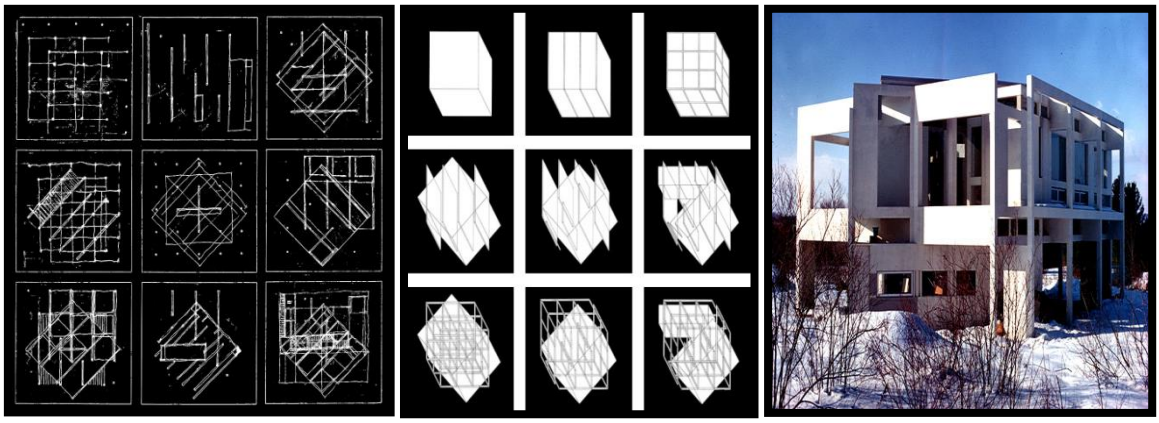


Figure 4.2: The Evolution of House III by Peter Eisenman (Eisenmanarchitects, 2015)

House III which was built in 1971 has rotations. The interlocking of rotations are the concept of the project. It is noteworthy because in the beginning of 70s, it was an innovative approach. This rotative and interlocking idea are usual today but for that time it was surprising (Moneo, 2004). Gridal experiments on sketch provide the process of the project. Architect wants to dialogue more than materialized approach. There are reflections of his philosophy in terms of composing sensations via architectural design (Figure 4.2).

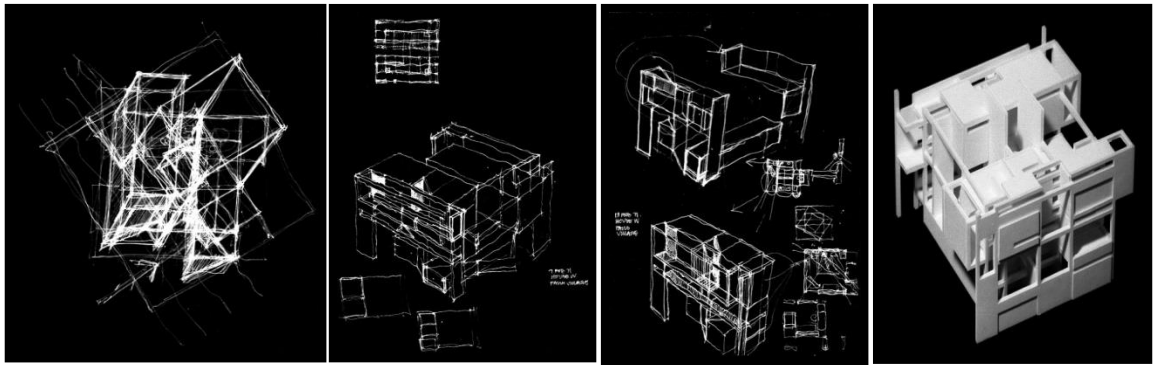


Figure 4.3: The Reflections of Philosophy of House IV by Peter Eisenman (Eisenmanarchitects, 2015)

House IV, Eisenman shows an interest in the possibilities of cubic figures centrality. The central explodes and the elements combined more intricate and complex (Moneo, 2004). It is premonitioned to make together the unusual cluster of cubic forms in a communicative way by architect. The perception and thinking aspects have worked with together and they consist of the design stages with sketches and awareness (Figure 4.3).

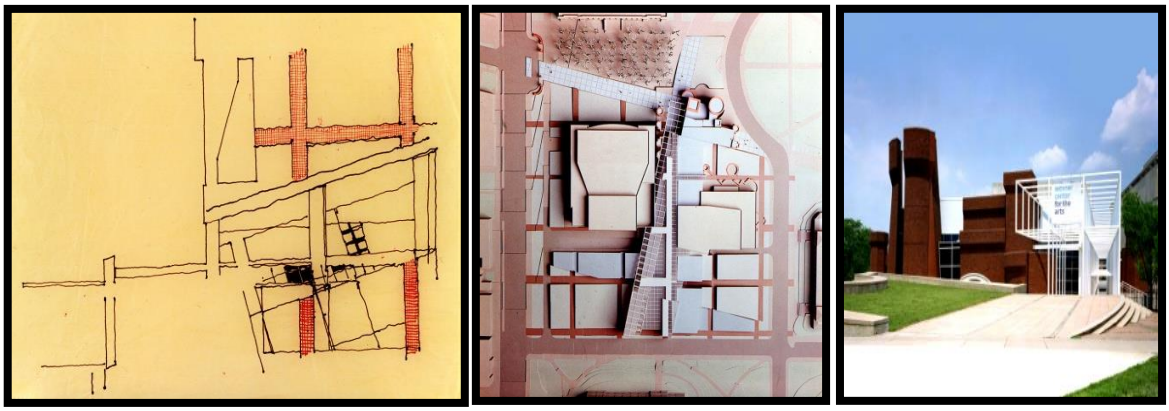


Figure 4.4: The Conceptual Approaches of Wexner Center by Peter Eisenman (Eisenmanarchitects, 2015)

In this project, Eisenman took the axis of the oval as reference. There are works of axis that helps architect to constitute a scheme. The buildings have became key components of the urban fabric. They have a harmony with the environment. It was presented a new approach that wrapping the past remains in a new context. Towers were highlighted as an ideological reference by the architect. Gridal thoughts on sketch reflects directly to the project (Moneo, 2004) (Figure 4.4).

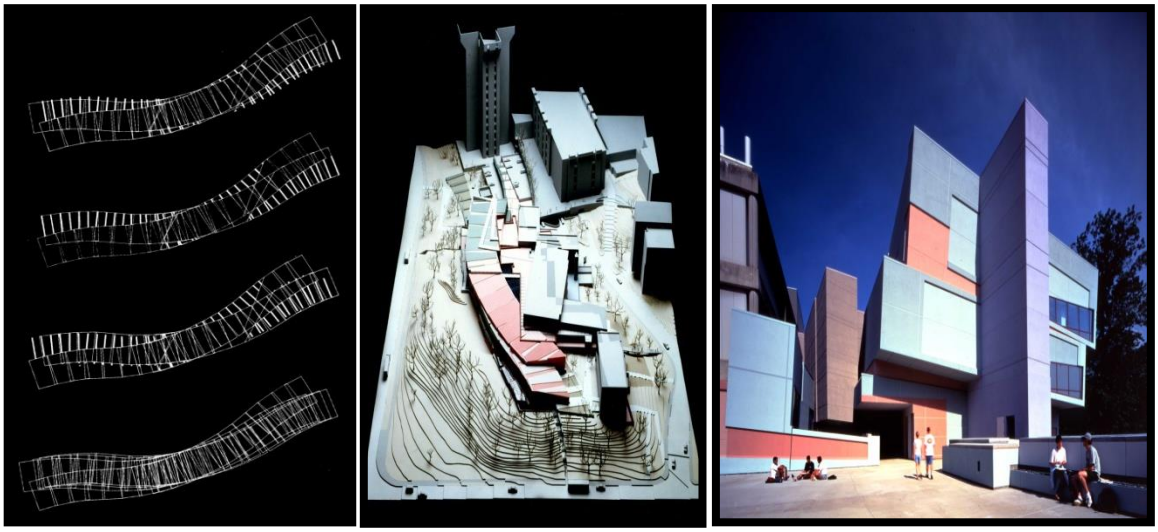


Figure 4.5: The Computer Sketches of Aronoff Center by Peter Eisenman (Eisenmanarchitects, 2015)

The Aronoff Center is based on embracing, grouping, clothing and transforming the existing buildings like the Wexner Center. The new building reflects the architectural process. The superposition of the flexible bands are computer-generated. In this project, manipulation and transformation of schemes and grids are not hand-made drawings but it is the output of a computer (Moneo, 2004) (Figure 4.5).

4.1.2 Koolhaas Philosophy and Design Process

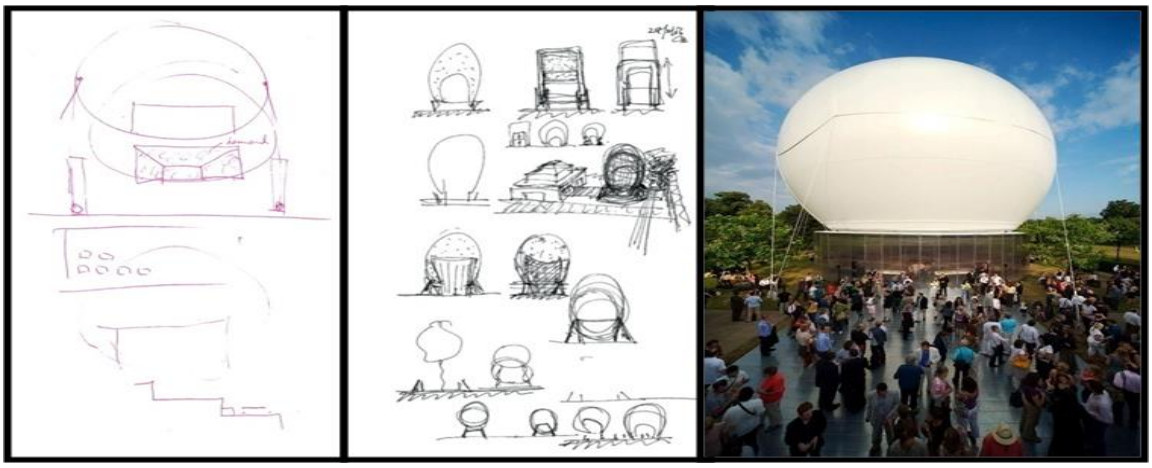


Figure 4.6: Evolution of Rem Koolhaas's Serpentine Gallery Pavilion (Oma, 2006)

Serpentine Gallery Pavilion was designed by Koolhaas Architect London, The United Kingdom in 2006. The concept idea started with a circle. Circle transformed to serpentine shape. The concept of serpentine was perceived to reach the design by the sketching. It is possible to be conscious inspiration to compose conceptual idea (Figure 4.6).

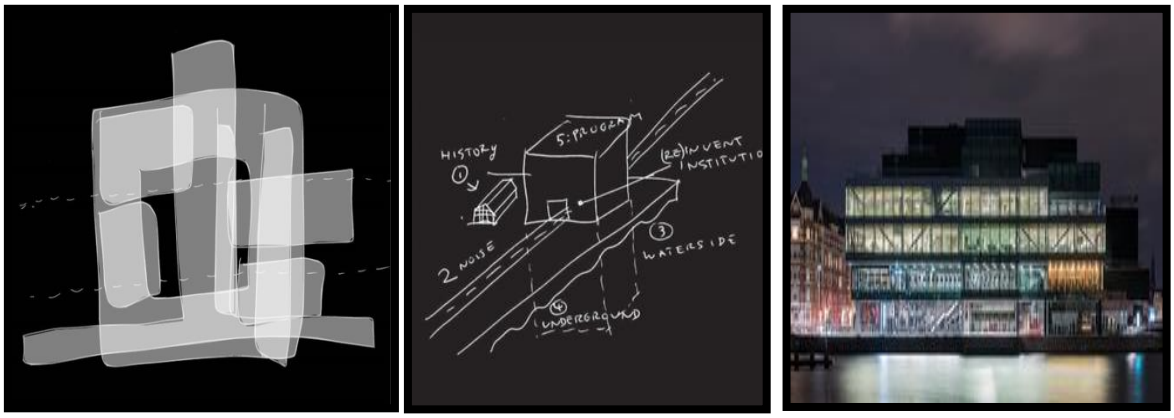


Figure 4.7: The Design flow of the Blox Project by Oma (Oma, 2006)

The communication between rectangular parts are the conceptual ideas in Blox Project by Oma. The wide glass facades tells that want to make interaction with surroundings. It may possible that there is a a conscious inspiration for the project (Figure 4.7).

4.1.3 Libeskind Philosophy and Design Process

Figure 4.8: Fractal approaches of sketching in Daniel Libeskind's Imperial War Museum North (architizer)

Imperial war museum is Daniel Libeskind's project constructed in Manchester, United Kingdom. Sketching includes connected meaningless geometrical figures which is based on the concept of fractal forms. There is one colossal part where is middle. Trials are based on the fractures that will connect severely to this huge part. The figures are sharp in the

reason of concept of war. Arbitrary connections may be carry the ambiguous of war atmosphere (Figure 4.8). Therefore the museum is expressive and communicative. The phases of sketch-awareness-design process can be observed by the researchers.

4.1.4 Himmelb(l)au Philosophy and Design Process

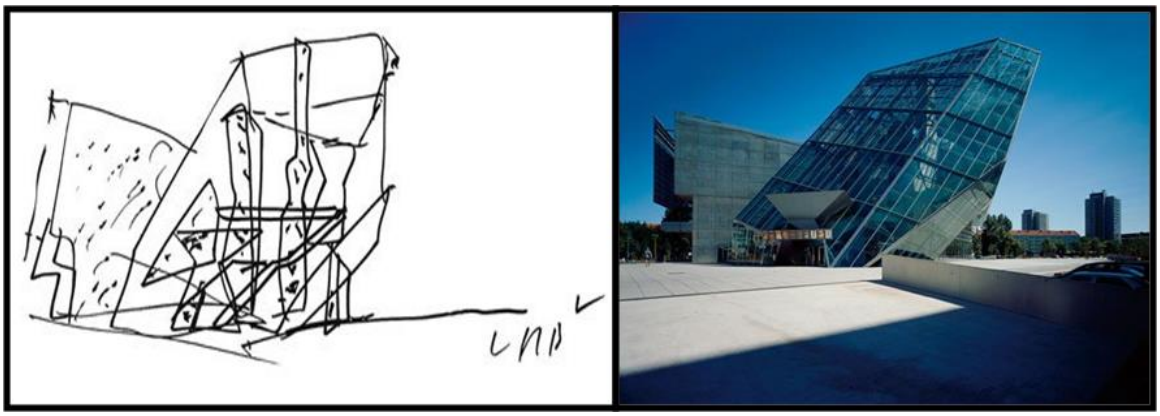


Figure 4.9: Dynamic movement concept of the sketch work of Himmelb(l)au's UFA Cinema Center (Arcspace, 2012)

UFA Cinema Center which reflects dynamic movement through the sky was designed by Himmelb(l)au Office in Germany. Sketching is consisting of two parts, and each one has different facade material. There seem inner structural thinking at right part of the building. There is an effect of sketching in the design process (Figure 4.9).

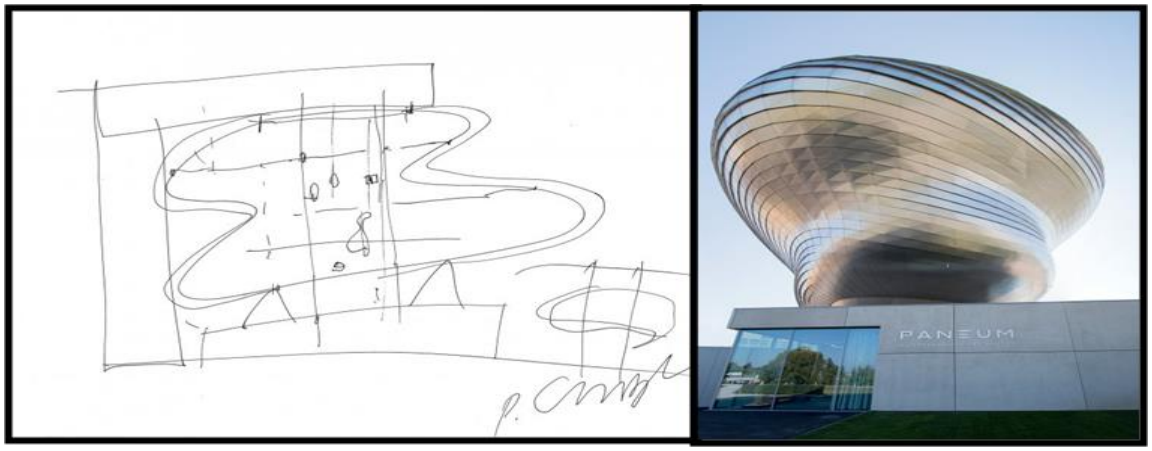


Figure 4.10: The initial step of Paneum project by Himmelb(l)au (coop-himmelb(l)au, 2017)

The house of bread or Paneum Forum was designed by one of the known deconstructivist Office Himmelb(l)au. There seems a fractal approach to reach the organic form. The wish of catching the softening design may affect the conceptual idea. The architects probably have worked on the integration with the environment. Curvilinear form of the Paneum supports the idea. The project is based on 3d technology. Perception-awareness–design process flow come actualised in the project (Figure 4.10).

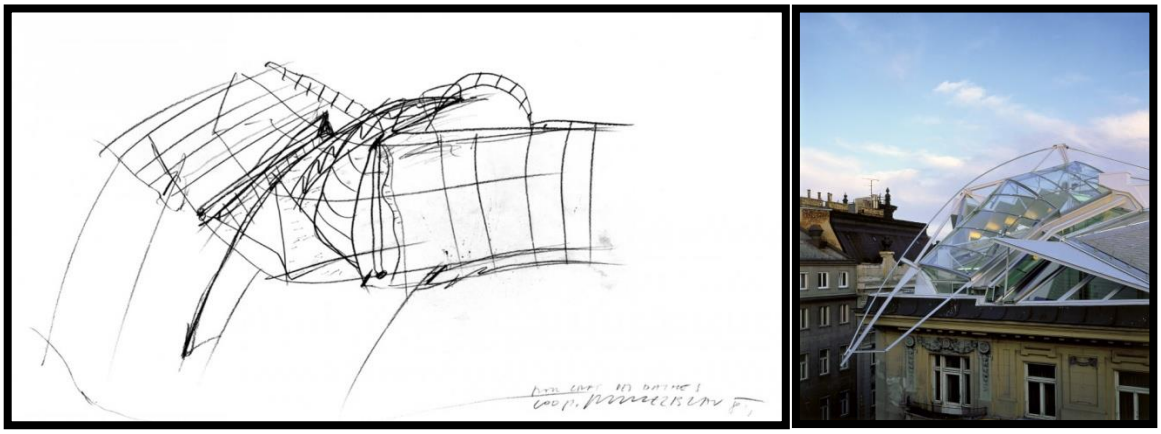


Figure 4.11: The Conceptual Ideas of Rooftop by Himmelb(l)au (Coop-himmelblau)

The conceptual idea of Rooftop is consist of dynamic central part where uses glass material. It is communication between the traditional and technological architecture. The inclinations on sketch cover the communicative tendency and courage approach. The

project includes prefabricated construction techniques of Himmelblau. The concept idea of the sketch reflect to the project (Figure 4.11).

Figure 4.12: Design Process of Busan Cinema Center by Himmelb(l)au (Pinterest)

The interaction of geometrical shapes via breaking are conceptual steps for design. It is a project that wants to catch a harmony with surroundings. Therefore, there are embracing approach of the building. Sea was the important factor for the design. The wave form of front part may want to communicate with sea. It is possible to observe the phases of sketch-awareness-design processes (Figure 4.12).

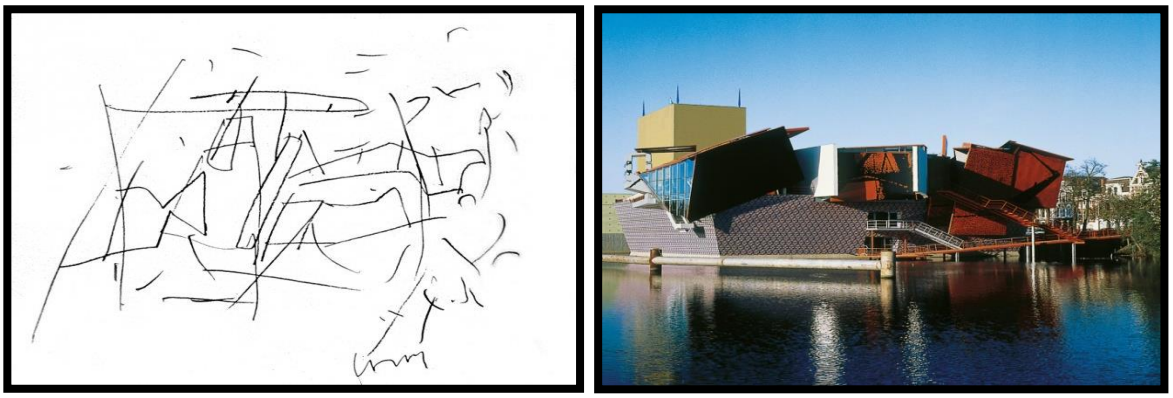


Figure 4.13: Groningen Museum by Himmelb(l)au (Coop-himmelblau)

There are flighty tendencies on sketch as a conceptual idea. It is premonitioned unusual connections between fractures. It is possible to ease the construction phase with 3d printing technology as a Himmelb(l)au philosophy (Figure 4.13).

4.1.5 Tschumi Philosophy and Design Process

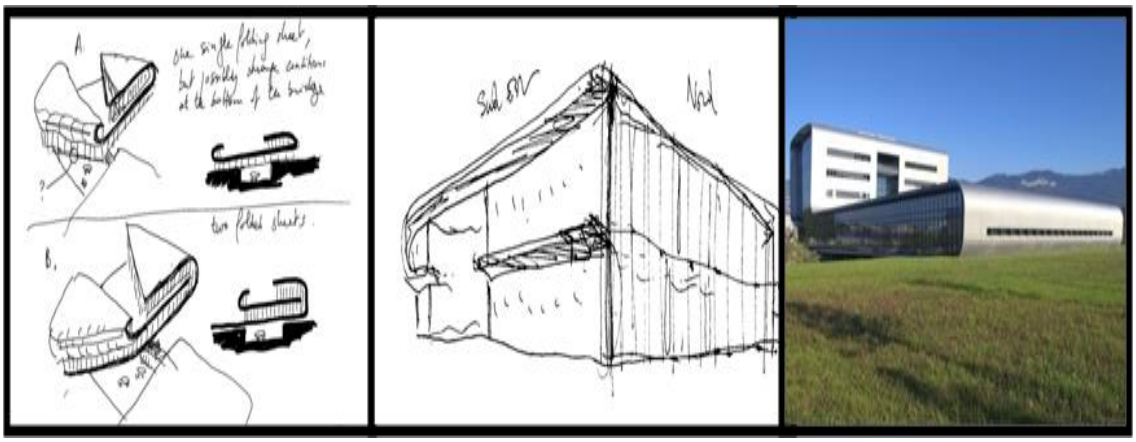


Figure 4.14: The flow of perception to design in Vacheron Constantin Headquarters (archdaily, 2016)

Vacheron Constantin headquarters was designed by Bernard Tschumi one of prominent designers of deconstructivism in Geneva, Switzerland. The concept is consisting of softening of rectangular shape form, and a shell is wrapping it. Types of rectangular shapes were tried, and dominantly shell structure was wanted to apply in design by the architect. The resulting space is smooth and precise on the outside, warm and inviting on the inside. There is a flow from perception to design which includes sketching process (Figure 4.14).

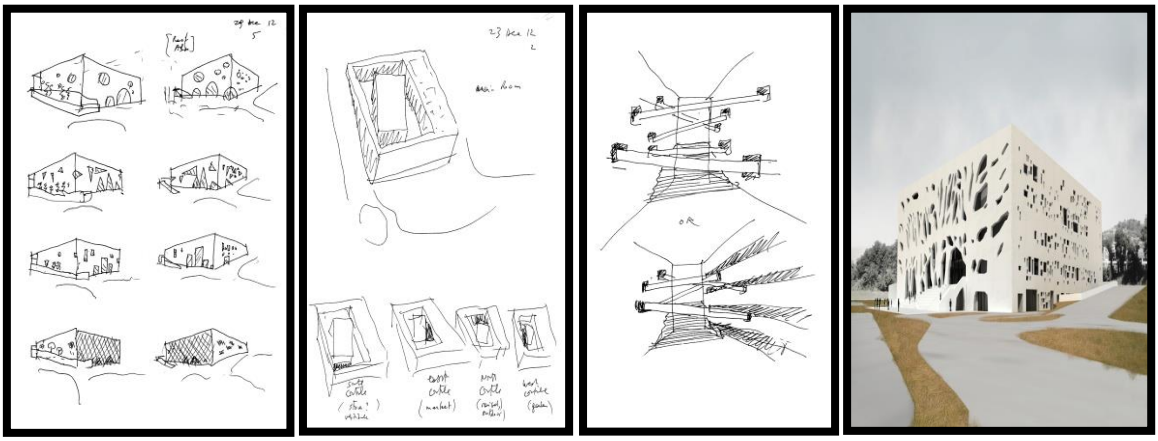


Figure 4.15: Anima Cultural Center by Tschumi (Tschumi)

The fragmentations on facade s are dominant in this project. There seems simplistic solutions for design. The motions as reference points were used by architect. The sketcth covers the all conceptual ideas. The project has reflected all of them. Event-motion philosophy of Tschumi is the part of the project. There is an original design flow (Figure 4.15).

4.1.6 Other Architects's Projects

Figure 4.16: The Evolution of Opus Hong Kong (Wanderlister, 2011; inhabitat, 2012)

As a first example of Opus Hong Kong was designed in Hong Kong by Frank Gehry as a Asian Residential Project. The concept idea is standing on a thick basement and seem to has four components stick each other. The lines are curved, so there is strongly curve facade concepts. The architect may take the inspiration concept from nature. The harmony with the environment and the fluidity are conceptual approaches in the project. The fluidity of sketch has reflected creativity to the project. There has a probable prediction about being an apartment project because of regular lines. The basement gets over above and seem to has squares models. The sketch has main concepts of the Project. It is possible to observe the process of sketch-awareness-design (Figure 4.16).

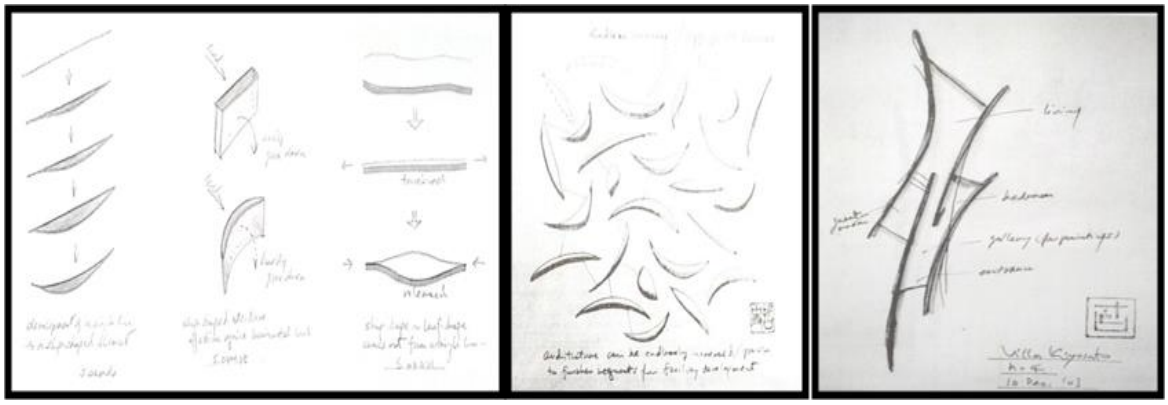


Figure 4.17: The Fluidity of Gallery in Kiyasoto Sketches I (Bahamon, 2006)

In another building, the concept idea of Gallery in Kiyasota which was designed by Satoshi Okada architects is being tried to find by one single line. It is being sized to the line and get a surface. The surface is like a half leaf. Half leaf shape is getting volume. There are modal testings in the middle. The outer side of the leaves is being seen to composed the walls of the building at right (Figure 4.17).

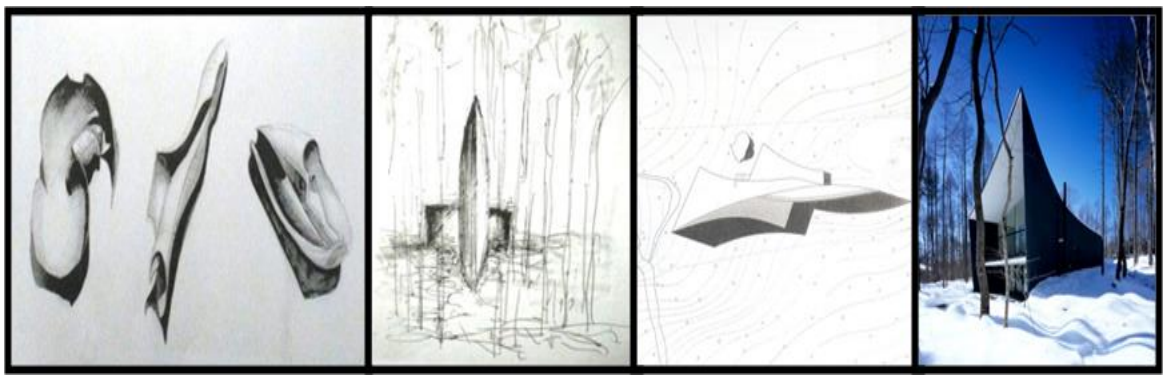


Figure 4.18: Satoshi Okada's Gallery in Kiyosato Sketches II (Bahamon, 2006)

There seem volumetric works at left. At last, leaf concept was kept by architectural Office. ''Within the frame of such observation, the design is conceived to stimulate tactile perception: physical interaction and experiences between visitors and building thus overcome cultural and geographical barriers, triggering intuition above rational comprehension'' (A'design) (Figure 4.18).

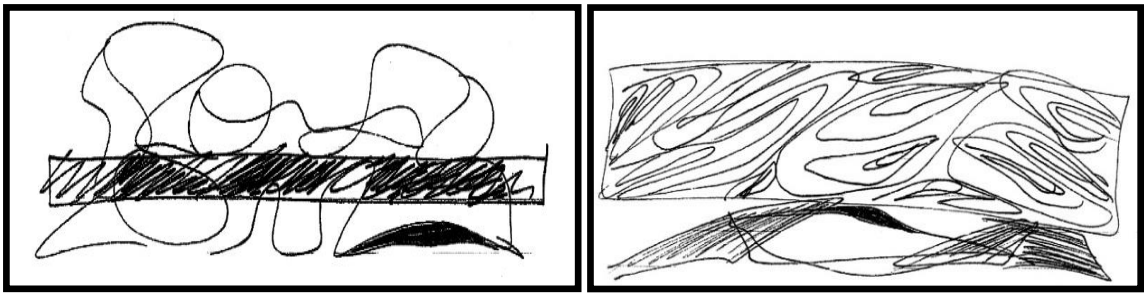


Figure 4.19: Perception-awareness-design continuum of Zaha Hadid's Phaeno Science Center (Archdaily, 2017)

Phaeno science centre was designed by Zaha Hadid in Wolfsburg, Germany. There is a mirror of zigzags to the facade. The curvilinear lines may reflect the spatial thoughts. It is known that Zaha Hadid has the sketch works (Figure 4.19). There are sketch studies on not only conceptual but also spatial, composition and structural system (Figure 4.20). It can be observed all of them on the Rosenthal Center which constructed in Cincinnati, United States. The spatial and structural approaches can be seen on two of them (Figure 4.21).

Figure 4.20: Phaeno Science Center, Zaha Hadid (Arcspace, 2012)

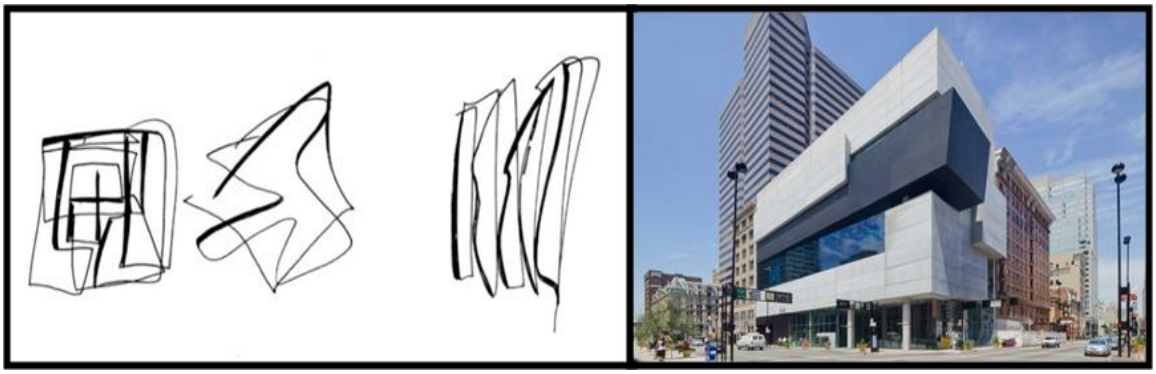


Figure 4.21: Design processes of Zaha Hadid's Rosenthal Center for Contemporary Art (Cnn, 2012)

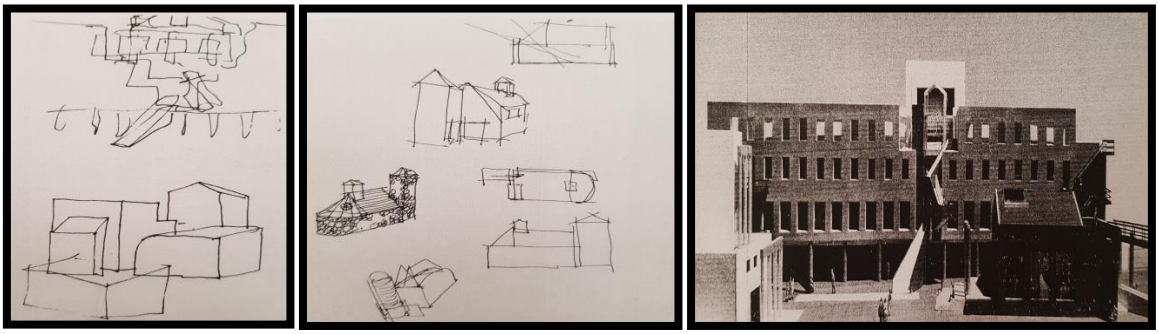


Figure 4.22: Loyola Law School by Frank Gehry (Celant, Andrews; 1985)

The conceptual drawings conserves the main ideas to apply to the project. The projects includes cost-control strategy and lively environment. The placement of buildings seemingly casual. This composition of casulness such as columns, stairs, landscape elements is part learned from oriental compositions like the Zen garden of Ryoanji by Gehry. The smaller buildings face the court and at the same time they are adjacent primary street. The interlocking of geometrical shapes on sketches give possibility to change the scales and modulation of open spaces (Figure 4.22).

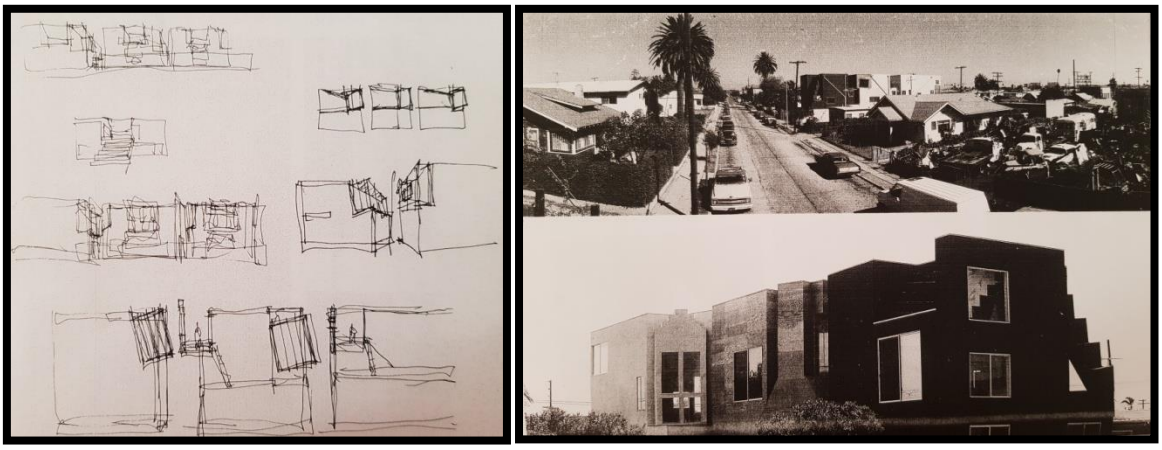


Figure 4.23: Indiana Avenue by Frank Gehry (Celant, Andrews; 1985)

In Indiana Avenue, three boxes were designed. Project sketches explores in excising and twisting the boxes. There are collaborative works that provides shell. Dominant box concept on sketches reflect to the real application (Figure 4.23).

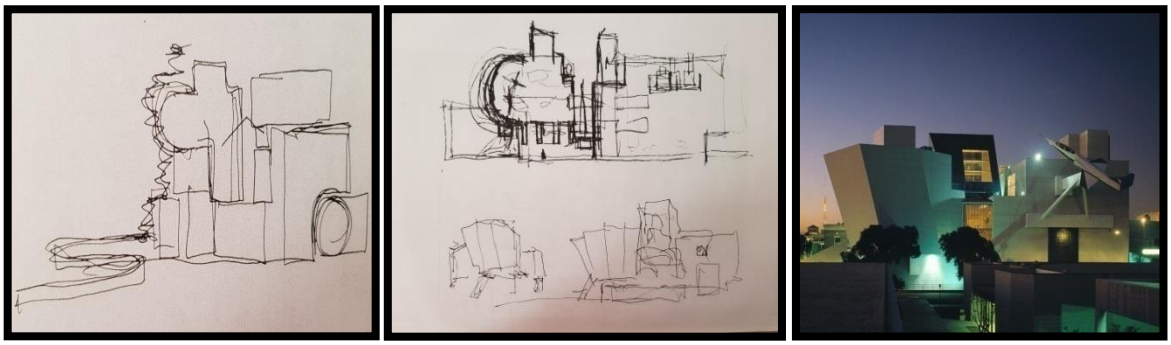


Figure 4.24: California Aerospace Museum by Frank Gehry (Celant, Andrews; 1985)

For aeromuseum, Gehry describes it as a fantasy and a baroque space shuttle. The dark sketch are a section of attractive part of the building. The relations between the transitions were wanted to be clear. The inclined surfaces have a communication with the environment and a role that embracing the other surrounding elements. Sketch works consisting of the creative steps to the reach the last phase (Figure 4.24).

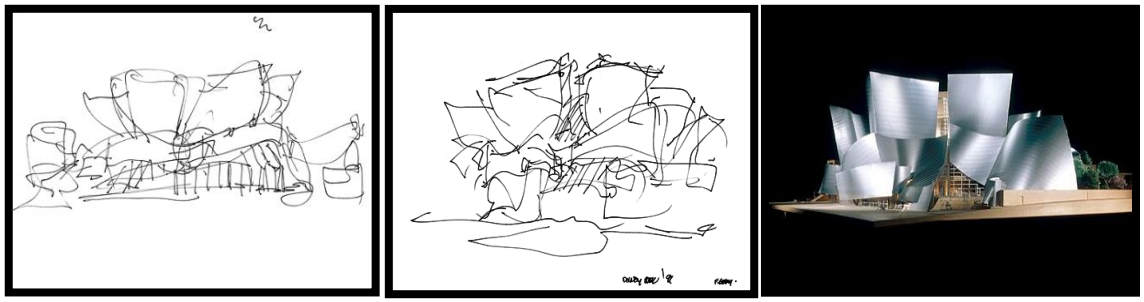


Figure 4.25: Walt Disney Concert Hall by Frank Gehry (Pinterest)

The sketch reflects the layers of the building that interacts each other. The project is based on unusual communication between fractures. It is one the famous projects of Gehry (Figure 4.25).

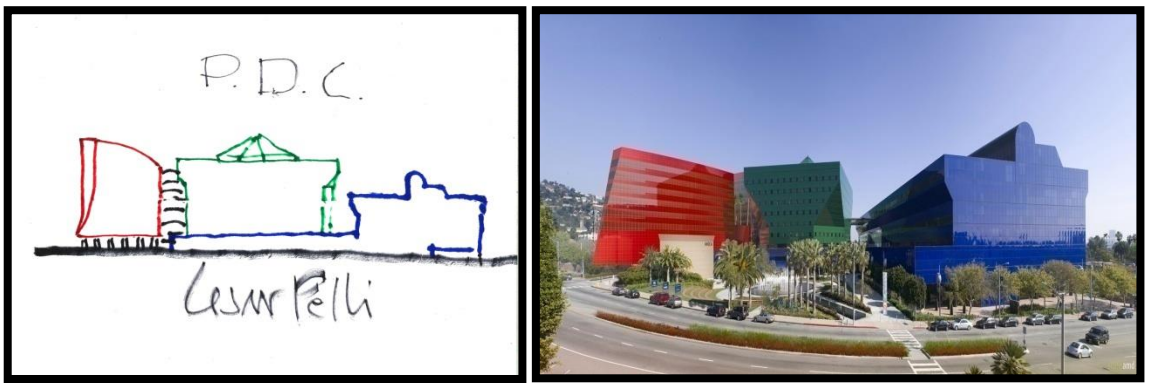


Figure 4.26: Red Building by Pelli Clarke Pelli (Archdaily)

there is a simplistic solution for the design. The horizontal lines are dominant. The project gives importance the effect of colors. The geometrical games on sketch were actualised in application phase (Figure 4.26).

Figure 4.27: Civic Center Public Resource Library by Zac Architects (Arch2o)

Curvilinear facade concepts were perceived by architects. There is an approach that embraces the environment via the rising corners and inclined facades. The sketch covers the main idea. There is a flow from sketch to design process (Figure 4.27).

4.2 Outcomes and Discussions

Deconstructivist works have many processes to reach the creative concepts by sketching. At this point, sketching provides perception, awareness and so on. The design problem is identified and analysed by architect, architects, and experts. There are individual searches and premonitions. After that, the stages of awareness is distinctive. In the design process, interdisciplinary works provide idea storms. Design approaches may have some problems regarding appropriate material, construction technique, formal works, mechanic and electrical systems and etc. The expert people advice solutions according to architect's design approach. Namely, design process works with a group of people who often communicate each other in order (Table 8).

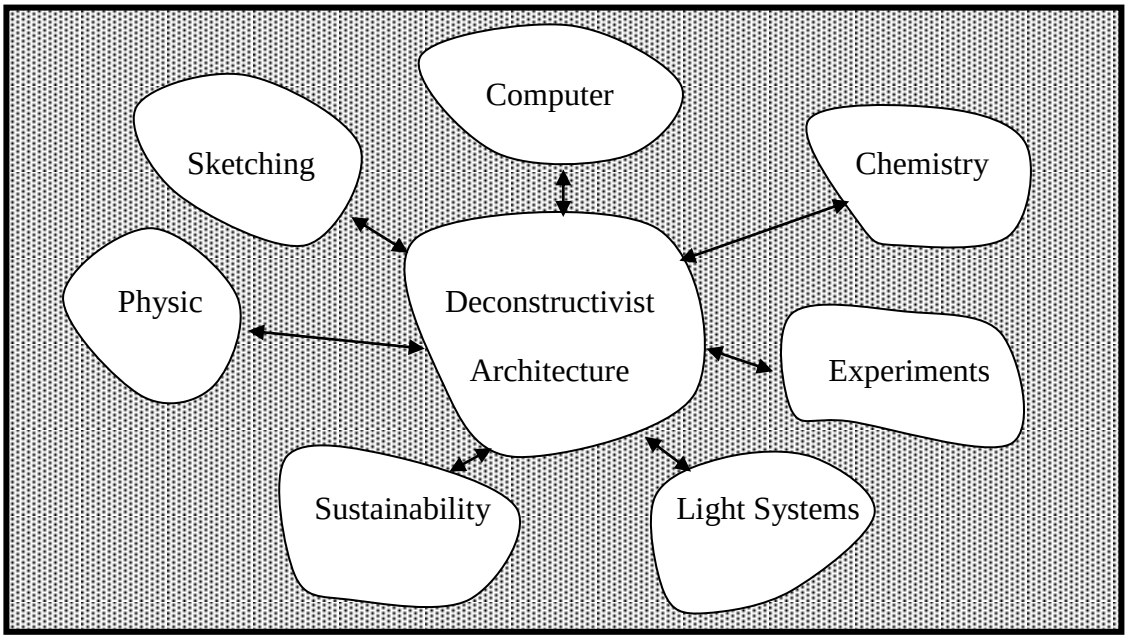


Table 7: Deconstructivist Architecture works with fields

Additionally, deconstructivist philosophy gives importance to innovative steps and to go over the non-existing designs. Therefore, the process is exciting. For discovery of new material, the experiments may actualised in laboratories by chemists. A civil engineer may advise a new solution for construction. Landscape designer may put forward an approach to sustainability. In this regard, the design process requires patience, excellent communication skills, giving harmony to different ideas, focused on the process, not the result, endearing and coherent approaches. Interdisciplinary works are significant at this point (Table 7).

Deconstructivism uses bending, deforming materials, so it is flexible in modal meaning. ‘’The indefinite shapes of any building are due to the indefinite non-geometrical shapes of the elements of nature. Clouds are not circles, and seashores are not straight lines, trees are not spheres, and its leaves are not triangles. It is a symphony of twists and waves in complete harmony in which the curve is superior over the line’’ (Elmoghazy, 2014).

For all that, deconstructivism has a healthy relationship with computer systems. Because of having assertive, dynamic, flexible and limitless of its structure, it is mostly related to

speed computer programs. Even having futuristic feature, in preliminary stages in the design process, sketching as paper or cad drawing is the base of the design continuum. Therefore, sketching has an important position in deconstructivism as a preliminary stage in improvement of Project. There are two types of sketching as it was said before. They are freehand paper sketching and computer-tablet sketch programs. First one is a traditional technique which comes from early history. The second one is a possibility that occurred in late 20th. Sketching is trying to find the main idea of design. ‘’Sketching may start merely from a vague image or some leading idea. The design program defined at the beginning of the task may only serve as a *catalyst* for sketching process is then set aside and used only as a 'sounding board' for potential solutions acquired during the process’’ (Rauhala, 1992). For example, as it is shown in the previous chapter like Gallery in Kiyasota. Due to having deformed, awkward and unusual relations between fragments, working on 3d visual graphics requires powerful program interfaces. Hence, deconstructivist works have good computer program data. At this point, design presentations benefit from technological tools. The tools may be visual or verbal. Deconstructivism is mostly based on 3d visual representations. Because, in computer programs, the fluid, speed, texture work, light effects can be given easily and affects design positively.

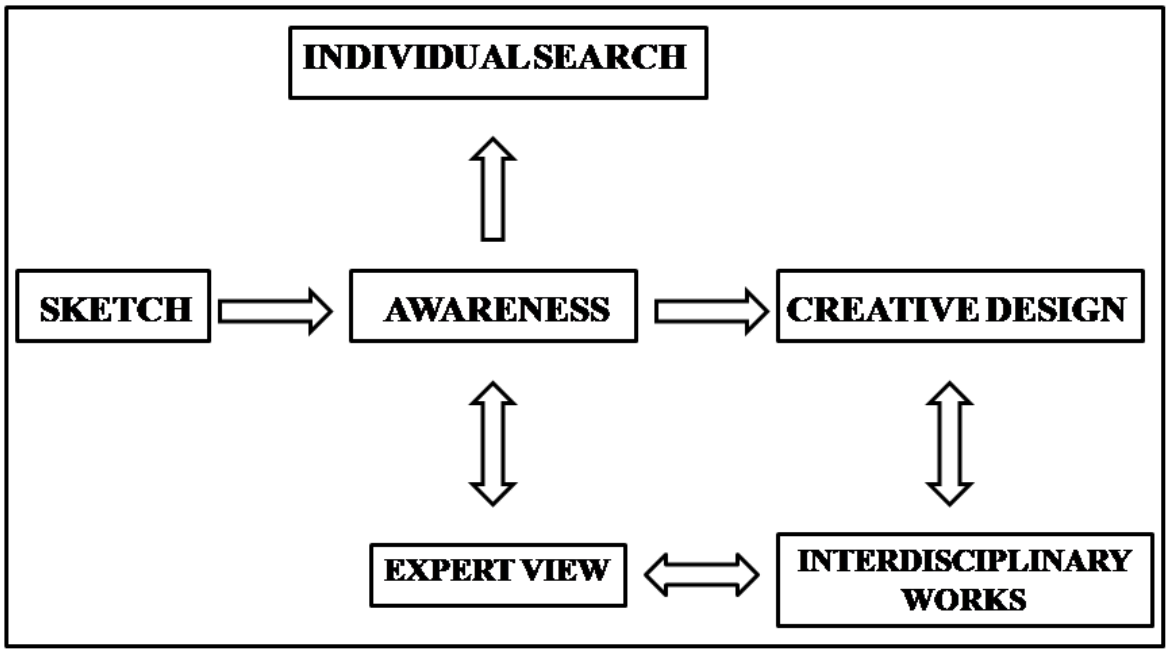


Table 8: Evolution of Deconstructivist Works

Deconstructivism is mostly related with technological developments due to having a futuristic base. Hence, deconstructivism has either digital or paper sketching techniques and contributions to the design process. It may be expressly observed the creative process in Hadid's Phaeno Science Centre.

In summary, computer-digital environment and sketching have an essential step contribution in the design besides the interdisciplinary works in deconstructivism. Digital environment gains to design process quickness, practical, useful presentations and marketing occasion. The harmony of together means richness in the sense of ideas, knowledge, approaches or promotions. The achievement gained by the team works may be effective permanent, enjoyable, and satisfaction. It is like the building of ant or producing honey of bees. All of them is like a solar system. An original idea is a sun, and other disciplines like planets turn around them. The interaction of all facts sends to the conclusion, design (Table 8).

CHAPTER 5

CONCLUSION

The concept of deconstructivism came out by the vision of the hidden factors. The principle of fragmentation of deconstruction on sentence structures has been transformed the dismantlement of the forms in achitecture. There were some aspects of deconstruction philosophy. The knowledge that perceived as a reality changed dimension. It exposed the existence living with rough aspects. When exceeding the mental and perception, it was observed different conditions. It is the integrity of the human. The deconstructivism philosophy based on that the mental do not reflect the reality. It is the awareness beyond the mentality. Therefore, Jacques Derrida's deconstructivist method was discussed, applied, critised and talked too much by academicians and specialists.

Because of presenting the holistic reality of deconstructivist philosophy, it was used many areas and applied professionals. When deconstructivist philosophy first appears in architecture in the 1980s, it becomes to represent a new tendency. The architects who interested in deconstructivism creates own styles. The main feature of the action is to break the stereotypes. In this respect, there were two choices: either 'stay' or 'exceed'. Stay means to accept the rules in modernity and design on existing conceptual ideas. Exceed means not to accept any rules and integrate the freedom with architecture. Freedom plays an important role in individual design.

In terms of the contribution design process, 'sketching' term was examined in this thesis. The relation between sketching and some notions such as creativity, perception, and awareness are researched and supposed with sources. The findings demonstrate original design as a process of reaching the conscious rather than a process of thinking. Despite being many arguments that presents design as a thinking process, the thesis pointed out the design as an action outer the thinking process. The vision of internal features of design that strongly related to freedom, individuality, non-expectation, and imagination power was supported under researchings. Furthermore, there were no genetic restrictions. The structure of society, education system and cultural moulds affect creative process, but it

has not coincided any findings of the degree of creativity that could not be changed. Silence, holistic view, concentration power, imagination power, secure communication and being relaxing are strongly related to creativity. The design lives with the society together. There is an interaction. Architecture carries the thoughts, emotions, force, and the history of the society. If the buildings constructed consciously, they carry meanings. As a processes of the sketching and the design interaction each other have major role in the architectural area. The two of them accompanied with the way going to the complexity from the simplicity. The sketching helps to observe the beauty in simplicity. The sketching is a flow changing to the phase of continuum from the internal to the external or the opposite situation. In the flow, some factors are accompanied by it such as perception and awareness. Perception takes over the flow from the external to internal. Awareness takes over the flow, from the internal to external. In this internal-external flow it observed the sketchings is a station mission. The sketching is a station that collects all the knowledge. At last, the place of importance of sketching is supposed by many models in the architectural design process. The approaches to original design in architecure may change to periods. The architecture lives with society so it affects their beliefs, culture, or govermental issues. In this respect, there are dominant tendencies according to present condition. It affects the design.

Deconstructivism is a language that reflects the individual or society's visions dominantly. It is a movement through the fractures from whole then, combination again. The philosophy refers the variety of one and the one of variety. The unusual relations of fractures are limitless, but creation is one as a building. The building seems like one but when exploding, it has many components and if coming together differently, the one-building- is changing. Finding is the deconstructivism has brought a vision about the limitless of design.

Deconstructivist architecture often uses digital environment and it has a technological basement. Therefore, it is not mostly associated with sketching but the examples showed that the architects use sketching in preliminary stages in deconstructivism. Deconstructivism as a interdisciplinary area is multidimentional.

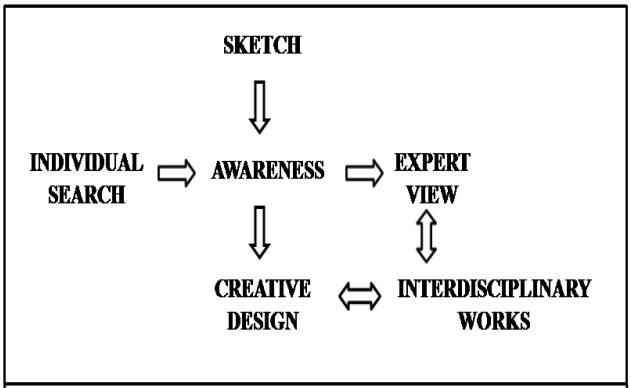
ARCHITECT	PHILOSOPHY	DESIGN PROCESS
EISENMAN	SOLID-VOID ABSENCE- PRESENCE	 THE EVOLUTION OF DECONSTRUCTIVIST DESIGN (B)
KOOLHAAS	CONSCIOUS INSPIRATION	
LIBESKIND	EXPRESSION COMMUNICATION	
PRIX	3D PRINTING TECHNOLOGY	
TSCHUMI	MOTIONS EVENTS	

Table 9: The Philosophies and Design Process

The designers reflect their philosophies to their design and in this stage, sketch has an important role to actualise conceptual ideas. Sketch has a key role to experience and design their philosophical approaches. (Table 9) Individual tendencies on philosophy strongly associated with design process. For example, Eisenman has reflected the conceptual approaches of solid-void and absence-presence to their sketches to reach the solution. Therefore sensation is key word for his design. Koolhaas has strong observation skill for conscious inspiration and he has used it. Libeskind has given importance expressive drawings on his sketches. Thus, communication is essential point for him. Tschumi has chased motions for theoritical design and work it on sketches. Experiment is significant concept for his design. Prix's speed philosophy has been reflected to their sketches. For instance, it is possible to see joint marks. Architecture is based on philosophy and sketch is a helpful tool for carrying conceptual ideas theoritical basement.

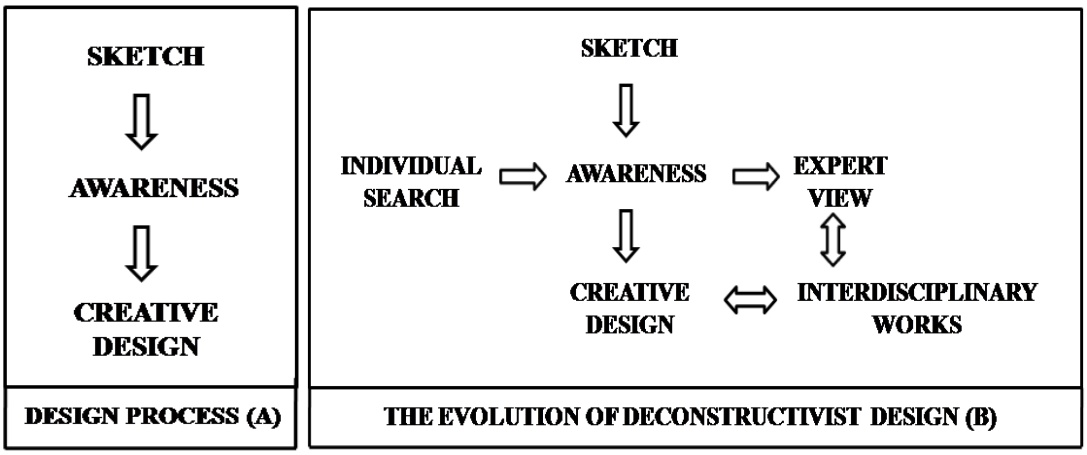


Table 10: The Comparison of the Design Process

In design, the creative action has process beginning from perception that includes sketching in initial phase to comprehend awareness and design process as a last step. (Table 10A) In deconstructivist design has strongly interdisciplinary area unlike the other design approaches. The comparison shows that the distinct features of the creative process for deconstructivism are the multidisciplinary approaches rather than single professional working area. The original actions flow to mixed results from nominative issues. Among of the technological digital environment or engineering calculations, the sketch works have a role as the pathfinder. The research shows that even the deconstructivist architecture is not mentioned with the sketching much, it has a noteworthy place in the fair and flexible process to the reach the design. Besides the digital environment is dominant in deconstructivism, the sketching has an important act for the carrying creative ideas. (Table 10B)

As a result, it is determined that there is the considerable place of sketching in the contribution to design in deconstructivism as answering of the research question. Having significant role of sketches to original works in preliminary stages in deconstructivism are endorsed by the examined samples. The handled projects has shown the changing and evolution of the design process from the initial sketching to the way of awareness. Individual approaches, observations or experiments are also crucial in the continuum. Lastly, they have all interactions each other and are the ways that lead to design. The

romantic communication between the sketching and deconstructivist architecture seems to keep continuity because they have shared energetic individual tendency. Sketching is a key and individual is a door. The architect will open the door due to the support of sketching. As one said: ‘The key lies in the deconstruction of knowledge.’ (Anonymous)

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