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The Correlation of Deconstruction Architecture to Arab Architectural Identity

Framework for Application of Deconstruction in Arab Architectural Projects-Exploratory and Practical Study

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Abstract

The Arab architectural identity is characterized by the originality of the various Arab cultures. Islamic culture is what makes Arab societies unique and it is what inspired Arab architecture. Consequently, the Arab architecture encounters contemporary challenges. If modern architectural trends influenced Arab civilization, it could then obliterate its identity over the years. Moreover, positively interacting with modern architectural trends must take place rather than negative interactions. The aforementioned reasons leave this phenomenon the subject of discussion and research and thus the lack of update and development of the vocabulary of Arab architecture.

The proposed study discusses the problem of the correlation of deconstructive architecture with the architectural and Arabic identity through the end of the 20th century until 2017. In order to arrive at the definition of the philosophy of deconstruction architecture and the appropriate relationship between it and the Arab architectural identity, the study utilizes a qualitative descriptive methodology that tries to give a generic image of philosophy and characteristics. Deconstruction architecture attempts to link the positive aspects of architecture and Arab identity through the analysis of the frameworks of this philosophy of particular architectural works of various architects who adopt this philosophy of architecture. Responding to the above, the current study shows that it is better to strip the modern trends and take what suits the Arab culture.

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Keywords

Deconstruction architecture; Arab architectural identity; Jacques Derrida

1. Introduction

The deconstruction movement emerged in the end of the last century. Deconstruction was presented as a part of architecture theory. Obviously, the deconstruction is not merely an architectural movement or trend. The deconstruction is a philosophy of thought that has cast its shadow on art, culture and architecture. Initially, it was conceived by the French-Algerian philosopher Jacques Derrida. Deconstruction architecture expressed a bidirectional eradication state; the first is the complete separation from the classical Euclidean geometry, secondly, is the complete estrangement of interior and exterior elements of buildings. Generally, undermine the mutual

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correlations between the parties of the architectural work. In addition, this trend undermines the harmony between the external and internal environment. In view of this trend and its relation to civilization and Arab identity, Samuel Huntington stated in his book Clash of Civilizations: (civilizations are comprehensive, meaning that every part of its components cannot be fully understood without reference to the civilization it contains.

Based on the aforementioned concept, the research adopts the analytical approach. Arab culture and civilization must be studied in their parts and vocabulary, consequently, examines the relationship of Arab identity is studied with deconstruction thought and philosophy. This paper aims at reaching the above by understanding this philosophy and deconstruction architecture and exploring its relationship with Arab civilization.

2. Methodology

The deductive methodology will be used in the current paper, through direct observations and analysis of the architectural trends used in the deconstruction architecture. Therefore, the results and trends suitable for Arab architecture will be reached through the analytical overall perspective of this trend. The research sample used in the current paper is a study of various noted projects of the architects of this trend. A general framework will be developed for the deconstruction, thereby, dismantling and fragmenting these frameworks for the original elements. Which entails reading the language between these original elements, And the choice of the appropriate for them to identify with Arab architecture, which represents a methodology for work in projects for Arab architects who are going to adopt the Deconstruction in their projects. Eventually, presented models and discussion of what was reached, likewise, final recommendations of the paper.

3. Background

3.1. Arabic Cultural Identity

"Arab cultural identity" as a language and culture existed before the existence of the Islamic call, was confined to Arab tribes and specific geographical locations. While Arabism as a cultural identity of cultural affiliation began with the emergence of Islam, with the link of the Arabic language to the Holy Quran call by Arab pioneers.

Thus, Arab civilization became the Arab culture with a cultural content that brought the Arab culture out of the two ethnic and geographical circles to the broad cultural horizon that was co-sponsored by Arab Christians and non-Arab Muslims. Consequently, the Arab cultural identity emerged from the tribal or ethnic component. The limitation of the geographical area (the Arabian Peninsula) to a circle that expands in its definition of «Arab», to include everyone who integrates into Arab culture regardless of ethnic origins.

Most Arabs are now included in this definition, even if they do not come from Arab origins in terms of blood or race. This confirms the history of the ancient Arabs in terms of the religious minorities in the Arab region itself as part of the Islamic civilization, and in terms of the interaction of ethnic minorities (Islamic and Christian) with the Arab culture as an incubator culture of multi-religious and ethnic.

Arab culture is now the only remaining Arab collective. The danger is not only the result of what is happening now in various Arab countries, and this danger did not start only with the European occupation of the region at the end of the nineteenth century and the beginning of the twentieth century, it began with the fall of Arab leadership of the Islamic world.

Hence, the beginning of the deterioration of the state of Arab culture, regardless of what this culture (after the end of the state of the caliphs) of the concepts of some contrary to the inherent content of Islamic values.

The identity of man, culture or civilization is its essence and truth. In addition, in everything - humanism, culture or civilization - the constants and variables. The identity of the object is its constancy, which is renewed and never amended, manifest itself and reveal itself, without giving up its place for its opposite as long as the self remains alive. The identity of any nation is a characteristic that distinguishes it from other nations to express its civilized

personality.

Identity always has three components: a faith that provides a vision of existence, the tongue in which it is expressed, and long-term cultural heritage.

Religion is the key issue characteristic of the cultures of peoples, afterward, language is the one that follows religion, as a distinct factor of the people of a culture from the people of another culture. Then come the history and elements of diverse culture in the forming of identity. In recent continental philosophy of religion there has been significant attention paid to the Abrahamic doctrines of creation ex nihilo and divine omnipotence, especially by deconstructive thinkers such as Derrida, Caputo, and Keller.

The identity is extremely essential, including the interests where people cannot reason or act rationally in the pursuit of their own interests unless they know themselves, the politics of interests assume the existence of identity.

If this is the identity and this importance to each one, the identity of Muslims is further significant, and Islam in its religion, religion, history, civilization and language is a common identity of each Muslim, and the language that speaks is not only a tool of expression and means of communication, but is: thought and self and address, Holy Holiness, which became the language after the revelation of the Islamic religion. The faith is not just an ideology, but is: the right balance, the infallible right, the system of values that represent our reference to behavior, it is not relative or transitional.

3.2. Deconstruction Architecture: Origin and Philosophy

There has always been a significant interaction between architecture and the human sciences, such as sociology, psychology, and philosophy. Deconstruction is a method of critical analysis of philosophical and literary language which emphasizes the internal workings of language and conceptual systems, the relational quality of meaning, and the assumptions implicit in forms of expression. The term Deconstruction was one of the flash points in critical and cultural debates of the last quarter of the twentieth century. The star of the deconstruction movement rose at the end of the twentieth century. The deconstruction trend in architecture is largely based on the principle of the destruction of conventional Euclidean geometry. The vision of the building leads to a visual surprise, repeatedly shocking the viewer from the initial moment of the building.

This philosophical school began at the end of the sixties of the last century in France by the French philosopher Jacques Derrida (1930-2004). Derrida is the most widely translated French philosopher in the world. His philosophical treatises and ideas represented the beginning of deconstructionism. The philosophy of Jacques Derrida is to end the Western metaphysical tradition, a branch of philosophy that examines the nature of reality and the relationship between mind and post-structural material. Deconstruction represents a complex response to a variety of theoretical and philosophical movements of the 20th century, notably French structuralism, Freud and psychoanalysis. Derrida's theory of deconstruction must be brought into the discussion at this point. Deconstruction, which can be considered a method to seek the new and question the existing (the current), includes a functioning logic similar to the concept of creativity. The strategy of deconstruction that can be applied to the problems of meaning and the possibility of meaning can be expressed via Derrida's concepts. The dates of Derrida's work notwithstanding, deconstruction—in other words, the questioning of conventional ideas and meanings—is an old model of behavior within the evolution of architecture, having arisen throughout history.

The key arguments of today's major architectural philosophers and gurus was discussed. Architecture and philosophy cannot be separated and their influences can never be separated. The interaction between philosophy and architecture is evident not only in Derrida's writings, but also in collaboration with architects Bernard Chomé and Peter Eisenmann at Parc de la Villette in Paris. Jacques Derrida's deconstructing ideas can effortlessly be applied to architecture and have been accomplished by many contemporary architects.

Deconstruction Architecture a contemporary architectural style, in addition to, a modern school of thought in architecture, philosophical bases were built from literary deconstructionism. This philosophical movement derives its name from the Russian construction movement (1920 AD), which is fundamentally incompatible with the

order of rationality in modern architecture. Deconstructionist thought raises traditional questions concerning the recognition of form and space. The architecture that appears to be fragmentary, nonlinear, disjointed, uneven lines and incomplete forms indicates this theory.

The final appearance of the buildings in this pattern is characterized by unpredictability, and chaotic-controlled. Deconstruction buildings are unimaginable without the influence of contemporary architecture as well as the art of Russian constructivism.

In 1985 the architect Bernard Tschumi Called Jacques Derrida with an invitation. Architecture call on philosophy. For what? Philosophy? Not Simply. The philosopher was asked if he would be interested in collaboration with an architect on the design of a section of the *Parc de la villette* in Paris. The philosopher accepted the invitation and soon wrote an essay about the project. Deconstruction architecture received its first international recognition through the exhibition "Deconstruction Architecture". This exhibition was organized at the Museum of Modern Art in 1988 and has been organized by Philip Johnson and Mark Wigley. The works of Frank Gehry, in addition to, the buildings and projects of Peter Eisenman, furthermore, Coop Himmelblau, and Bernard Chomi were shown. In this exhibition, the beginning of the movement of deconstruction architecture was launched all over the world.

Philosophical treatises on deconstruction are concerned in critique of metaphors, as well as metaphor for all forms of contemporary European consciousness. According to the views of the French philosopher, the consciousness was limited to glorifying the saying that "being or existence in the presence" is the maxim that the European philosophical approaches brought to the forefront, moreover reached it up to absolute and perfection. According to Derrida, the emergence of this metaphysical problem, which found itself philosophical thought and specifically European, is in an attempt to reveal its historical references by analyzing the texts of different literary culture. In other words, "disjointed" in order to uncover the basic meanings and layers of metaphor, which was the consolidation of the works of later eras. In this sense he uses his own style to read literary product, when consciously a clash or disagreement arises between the "meaning" of the text and the possibility of "interpreting" that text.

Derrida employs his theory in many other fields such as plastic arts and architecture. The term "deconstructionism" was dedicated at the end of the 1980s, as both a symbolic and a theoretical expression, illustrating the totality of design experiments that were entrenched in global architectural practice at the time. Based on the descriptive approach for deconstruction theorist the latter is not an architectural "style", but rather a "means" for the designers, in which the elements of the building can be built, approaching architecture as a kind of art. Derrida adds that deconstruction does not necessarily undermine the built-up buildings but rather creates a "conflict" between what is normal and familiar to one in understanding the language and meaning, and between what he sees.

The Deconstruction movement, which fathered many of the proponents of this new school was grounded firmly in what Greg Lynn refers to as the "contradictory logic" of Jacques Derrida. The topological, or Deform movement represents a deliberate shift from Derrida's discourse to that of Deleuze. Its intention is to incorporate, rather than exaggerate difference. This involves a policy of "gratification" rather than conflict and seeks to develop systems to incorporate various elements in an architecture intended to be inclusive and organic. The requirement is thus for a geometry which is elastic in its ability to contort and deform in a process of continual transformation.

3.3. Characteristics of Deconstruction Architecture

One of the major developments in architecture in the past twenty years is the liberation of formal expression and organization in architecture to reflect the heterogeneous nature of our current cultures and contexts. The significant characteristics of this trend is to breakdown the differences between sketching and sculpture, consequently, re-mix them in an architectural crucible, thereby, it can touch the direction of the functionalism, nonetheless limited to the expressive value of construction. The architectural value of the building was limited by the formal relations of the sizes, forms and spaces as indicated by the structural elements. New raw materials such as metal, glass and plastics were utilized to follow the idea of life as the body of science. Worth mentioning that some pieces were taken from cubism.

The Characteristics of Deconstruction Architecture are as Follows:

- 1. Refuse the ornamentation.
- 2. Calls for the demolition of all Euclidean engineering foundations.
- 3. The aesthetic value of the building was limited by the illustrated correlation of the volumes, masses and spaces.
- 4. The deconstruction is the architecture of Breaking, non-symmetry and non-consistency.
- 5. Structural masses highlighted by the utilization of new raw materials such as metal, glass and plastics to follow the idea of expressing life in the body formed by science.
- 6. Calls for the deconstructing of buildings into parts.
- 7. Calls for a reconsideration of relations, whether human or urban.
- 8. Architecture of deconstruction can be understood from the basic instincts of joy to man.
- 9. The deconstruction is architecture full of unpredicted surprises.
- 10. The vocabulary of classical architecture is utilized in reverse or distorted form.
- 11. Deconstruction and postmodernism, despite the obvious differences between them, they agreed on something intrinsic: difference, dimension, criticism of all that is traditional and familiar.

4. The Analytical Study

4.1. Trends in Deconstruction Architecture

Currently, specific architecture designers are now Applying the concept of deconstruction architecture, creating a new architecture that is not approximating the usual architecture and does not rely on its familiar references. It is a special architectural product that enriches the global architectural discourse with new frameworks and different concepts. Peter Eisenman (1932), P. Bernard Eisenberg (1944), Bernard de Tschumi (1944), C. de Portzamparc, Zaha Hadid (1950), Rem Koolhaas (1944), Hiromi Fujii (1935). Furthermore, Architects in different geographical areas are now among the greatest important architects working within the approach of deconstruction architecture.

4.1.1. The Fragmentation & Discontinuity

This trend is based on the idea of independence in the building and its elements. The building, so that it indications how creative and progressive it must be independent, is not limited by other buildings that spoil its aesthetics, besides this is influenced by the idea of estates and palaces in the middle Ages. This trend is based on the separation of elements of the building each element itself with the interdependence and attraction between them in ease and skill as shown in figure (1, 2, 3, 4). Frank Gehry is the guru of the fragmentation & discontinuity. Frank Owen Gehry is one of the most inventive and pioneering architects working today. Frank Gehry is that rare kind of architect who has garnered both critical acclaim and popular fame. His designs dramatically blur the line between art and architecture, yet the strong appeal of his sculptural designs does not obscure the role of function.



Figure 1. The Guggenheim Museum. Architect: Gehry Parteners.



Figure 2. Peter B. Lewis building. Architect: Gehry Parteners.



Figure 3. WaltDisney concert Hall. Architect: Gehry Partners.



Figure 4. Vitra museum. Architect: Gehry Partners.

4.1.2. Neo Constructivism

One of the most important pioneers of this trend is Rem Koolhass Zaha Hadid. This trend is based on the use of engineering vocabulary such as square, rectangle, triangle, circle, etc., In addition to the use of bold colors with the

obvious artistic abstraction in the works are the elements of the building (elements of the formation of crustacean structure, communication elements, nets, cortical tiles). This trend is the most attractive trend because it moves man from the real world to the world of aerospace buildings or space as shown in (figure 5, 6, 7). Zaha's Hadid techniques discussed investigating the underlying cause for her works distinctiveness from her other colleagues in architecture.



Figure 5. Seattle Central Library. Architect: OMA, LMN.



Figure 6. Beko building. Architect: Zaha Hadid



Figure 7. Chaoyangmen SOHO building. Architect: Zaha Hadid.

4.1.3. The Follies

Bernard Tschumi is one of the pioneers of this trend. Michele Costanzo interviews Bernard Tschumi about his work and his vision of the changing field of contemporary design research. While, this trend is a combination of

two schools: Deconstruction and Late Construction. This trend strongly influenced by the projects of Kandinsky, Chemi, one of the pioneers of the Construction Late School, as well as the projects of Derrida From the Deconstruction school, and thought this trend, accordingly to one of its pioneers (Coop Himmelblau) is a study of the future and a serious look at what will be the buildings of the future, consequently, the elements of sculpture that are the focus of work for us is the basis of future projects, the most important elements of this the trend is the sculptural materials are also entirely dependent on iron and glass as shown in (figure 8).



Figure 8. ANIMA Cultural Center. Architect: Bernard Tschumi.

4.1.4. Positive-Nihilism

The prime guru of this school is Peter Eisenman, this trend advocates of complete intellectual liberation and does not connect itself to specific school/trend, or specific particular term under which the building is located as shown in (figure 9). Therefore, liberalism in design and methods of construction and buildings of this trend does not adhere to the form or the intellectual trend or the element itself, it calls for independence and separation from reality.

Peter Eisenmann believes that "the show" is the key object of architecture; its architecture is characterized by extreme abstraction, despite the introduction of some traditional elements. One of his most famous works was the Visual Arts Center, which was characterized by:

- 1. Required a catalog to understand architecture ideas.
- 2. The spontaneous understanding of the public.
- 3. His project required to be read about before watching.

5. Discussion and Analysis

Obviously, from the analysis of trends and frameworks of deconstruction and analysis to the main elements of these different trends and contrast, while the first trend (**The fragmentation & Discontinuity**) represents the direction of total separation between the inside and outside. This trend does not fit the Arab architectural identity resulting from the analysis of Arab and Islamic identity. The second trend (**Neo Constructivism**) is the use of explicit geometric shapes. It is possible to analyze some of its vocabulary and use it to suit Arab architecture.

The third trend (**The Follies**) that takes the sculptural forms is the basis of his designs with twisting these forms and this architectural principle can be taken and adapted to suit the Arab architecture

The last trend (**Positive-Nihilism**), which is completely liberated and does not link itself to any school, is not suitable for Arab architecture.



Figure 9. The City of Culture. Architect: Peter Eisenman

Table 1. A	A summary of the proposed methodology for classifying deconstruction trends in terms of their relevance to Arab						
architecture							

Ser.	The trend	The properties	The gurus architects	The noted projects	Rating
1	The fragmentation & Discontinuity	 This trend is based on the idea of indepen- dence in the building and its elements. The building of this trend indicates how creative and progressive it must be independent, is not limited by other buildings that spoil its aesthetics. 	- Frank Gehry	 Project: The Guggenheim Museum. Architect: Gehry Parteners. Location: Bilbo, Bizkaia, Spain. 	*
2	Neo Construc- tivism	 This trend is based on the use of engineer- ing vocabulary (square, rectangle, triangle, and circle). Using of bold colors with the obvious artis- tic abstraction in the works are the elements of the building. 	- Rem Koolhass. - Zaha Hadid.	 Project: Seattle Central Library. Architect: OMA, LMN. Location: Seattle, WA, United States. 	***

architecture

Continued on next page

Ser.	The trend	The properties	The gurus	The noted projects	Rating
			architects		
3	The Follies-Follies.	- A study of the future	- Bernard	- Project: ANIMA	***
		and a serious look at	Tschumi	Cultural Center.	
		what will be the build-		- Location: Grot-	
		ings of the future.		tammare, Italy.	
		- The most important		- Architect:	
		elements of this the		BernardTachum	
		trend is the sculptural		Architects	
		materials and entirely			
		dependent on iron and			
		glass.			
4	Positive-Nihilism.	- Advocates of com-	- Peter Eisenman	- Project: The City	**
		plete intellectual		of Culture	
		liberation.		- Location: Spain.	
		- Does not connect		- Architect: Eisen-	
		itself to specific		manArchitects	
		school/trend			

Table 1 summarizes the methodology of the research, which shows the trends of deconstruction, as well as the characteristics of this trend, then the most noticeable projects of trend and well-known architects, The research proposed a scale based on the proposed approach, consisting of a quadratic scale, (*) Completely inappropriate (***) Not inappropriate, (***) appropriate (****) appropriate. Distinctly, from this table the proposed approach to applying the deconstruction architecture in particular projects, whether for the adoption by the architect in certain projects, furthermore, for the projects in which the client requests to adopt this trend, likewise, projects that require the of the site conditions or the appropriate architectural approach to adopt and utilizing this trend.

Based on the above, the research indicates that one of the best architects who adopted and succeeded in applying this trend, while respecting the Arab identity and architecture is Dr. Abdal-haleem Ibrahim. Plainly, from his project that he has respected the Arab and Islamic architectural identity through his using a noticed Arab architectural elements (arches, domes, vaults), Not only used as they are used in historical times, but also utilized in the context of modernity and deconstruction by stripping the abstracts of its architectural assets and then the utilizing of modern architectural lines, on the level of floor plans and internal and external facades. In addition, the use of modern architectural materials, the Children's Garden and, the Palace of Arts project Opera house Cairo, Egypt, the American University in New Cairo.

6. Conclusions and Recommendations

- The most prominent architects of this school are Zaha Hadid, Frank Gehry, Peter Eisenman, Bernard Tschumi, and Rem Koolhass.
- The strong criticism directed to the fragmentation & discontinuity trend, because of its extreme disregard for heritage.
- A few of trends of deconstruction architecture can be adapted to Arab heritage architecture.
- Arab culture must contain the architectural vocabulary, which reflect the culture of Arab countries, without which does not distinguish this architecture of each country.

 It is possible to analyze some frameworks related to the second trend (Neo Constructivism) and adopting it with elements of Arab Islamic architecture.

The principles of the third trend (The Follies) can be adapted to fit the Arab architecture through the utilizing of Arab architectural elements and abstract it. This is evidenced via the utilizing of the principle of abstract sculpting for modern construction materials, which gives a modern conception of Islamic and Arabic architecture without loss of Islamic heritage and Arab rich vocabulary and Islamic and Arabic culture.

7. References

- 1. Abdullah, A., Said, I., & Ossen, D. (2013). Zaha Hadid's techniques of architectural form-making. *Open Journal of Architectural Design*, 1(1), 1-9.
- 2. Cauchi, M. (2009). Deconstruction and creation: an Augustinian deconstruction of Derrida. *International journal for philosophy of religion*, 66(1), 15-32.
- 3. Costanzo, M. (2009). Twenty years after (Deconstructivism): an interview with Bernard Tschumi. *Architectural Design*, 79(1), 24-29.
- 4. Danielle Rago (2004) Deconstructive Architecture and Daniel Libeskind:"A discourse on deconstruction, its relation to architecture, and its influence on Daniel Libeskind's architecture".
- 5. Deconstruction. (2013). In *Oxford Dictionaries*. Retrieved August 24, 2017, from https://en.oxforddictiona ries.com/definition/deconstruction
- 6. Di Cristina, G. (2002). Architecture and science. Nexus Network Journal, 4(2), 133.
- 7. Durmus, S., & Gur, S. O. (2011). Methodology of deconstruction in architectural education. *Procedia-Social* and Behavioral Sciences, 15, 1586-1594.
- 8. Hoteit, A. (2015). Deconstructivism: Translation from philosophy to architecture. *Canadian Social Science*, *11*(7), 117-129.
- 9. Huntington, S. P. (1997). The clash of civilizations and the remaking of world order. Penguin Books India.
- 10. Jencks, C., & Kropf, K. (1997). Theories and manifestoes of contemporary architecture. Wiley.
- 11. Khalil H. "Determinants of Confirming Arab Cultural Identity in Architectural Design through the Modern Structuralism Method", an analytical study of the style of Zaha Hadid. (Faculty of Fine Engineering, University of Damascus), 1-15.
- Mallgrave, H. F., & Goodman, D. J. (2011). An Introduction to Architectural Theory: 1968 to the Present. John Wiley & Sons.
- 13. Parvin (Ed.). (2012, Feburary 25). Vitra Design Museum and Factory Frank Gehry. Retrieved August 24, 2017, from http://www.arch2o.com/vitra-design-museum-factory-frank-gehry/
- 14. Peeters, B. (2013). Derrida: A biography. John Wiley & Sons.
- 15. Pollack, S. (2006). Sketches of Frank Gehry. Sony Pictures Home.
- 16. Salingaros, N. A. (2004). Anti-Architecture and Deconstruction. Umbau-Verlag Harald Püschel.
- 17. Wigley, M. (1995). The Architecture of Deconstruction: Derrida's Haunt. Mit Press.
- 18. Wong, J. F. (2010). The text of free-form architecture: qualitative study of the discourse of four architects. *Design Studies*, *31*(3), 237-267.

- 19. Sullivan, M. A. (2005, October 12). Peter B. Lewis Building. Retrieved from https://www.bluffton.edu/ho mepages/facstaff/sullivanm/ohio/cleveland/gehry/lewis.html
- 20. Ghandour, S. (2007, November 1). Ł Ł Ł . Retrieved August 24, 2017, from http://www.voltairenet.org/article152659.html
- 21. Seattle Central Library / OMA LMN. (2009, February 10). Retrieved August 24, 2017, from https://www.a rchdaily.com/11651/seattle-central-library-oma-lmn
- 22. Frearson, A. (2012, November 15). Galaxy Soho by Zaha Hadid Architects photographed by Hufton Crow. Retrieved August 24, 2017, from https://www.dezeen.com/2012/11/15/galaxy-soho-by-zaha-hadid-architec ts-photographed-by-hufton-crow/
- Furuto, A. (2013, March 16). ANIMA Cultural Center Proposal / Bernard Tschumi Architects. Retrieved August 24, 2017, from http://www.archdaily.com/341890/anima-cultural-center-proposal-bernard-tschumiarchitects
- 24. Pagnotta, B. (2013, September 1). AD Classics: The Guggenheim Museum Bilbao / Gehry Partners. Retrieved August 24, 2017, from https://www.archdaily.com/422470/ad-classics-the-guggenheim-museum-bil bao-frank-gehry
- 25. Jones, R. (2013, October 14). AD Classics: Walt Disney Concert Hall / Frank Gehry. Retrieved August 24, 2017, from https://www.archdaily.com/441358/ad-classics-walt-disney-concert-hall-frank-gehry
- 26. Beko Masterplan. (2012, December 1). Retrieved August 24, 2017, from http://www.zaha-hadid.com/mast erplans/beko-masterplan/
- 27. City of Culture. (n.d.). Retrieved August 24, 2017, from http://www.eisenmanarchitects.com/city-of-cultur e.html