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Paradoxical relationships between Less and Morein architectural Form

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Abstract

Nowadays, almost all forms that surround us, in our buildings' environment and even on papers, have become similar to each other. The problems with the form are related to the inability of creating form from scratch because the process of creating a form is a process of 'finding forms' and not creating them, which is a displacement of a previous formal perception towards a new formal one, or by the help of computers, and that leads to creating the monotony in forms due to their similarities.

What is predominantly accepted as logical may not necessarily be true. The idea that is generally accepted by all architects is that the role of the architect is to build by adding. It sounds illogical to expect architects to focus on the question of buildings depending on subtraction strategies.

Our initial hypothesis assumes that the paradoxical essence of "less and more" in architectural form is revealed in the rhetorical figures, where the subtraction, and absence strategies are alternative of the addition and presence strategies respectively. For that, the concept of form in architecture in this research has been deconstructed to its primary elements: Type 'deep structure' and style 'surface structure'. In addition, the research clarified and set up the primary variable represented by the subtraction, and secondary variables (Fragmentation and segmentation, Transparency, Geometrical rigor, Identical repetition) which help of creating rhetorical forms, in another word, it makes us get 'More' from 'Less'.

In conclusion, the distinctive thing that the research revealed about the strategies of creating the architectural form, besides the subtraction strategy and the concept of rhetorical numbers, is the concept of the conceptual golden subtraction, where the research detected the concept in Islamic architectural design, interpreted, and connected it with each of the 'disconnected letters' of the holy Quran, Al-Jarjani's theory of subtraction, and the design language of the architect Sinan.

1. Introduction

It is a mistake to claim that the history of architecture can be reduced into a single model, for example, the classical one. The architectural theorists realized that the history of architecture consists_of different styles. They looked at the history and saw that every culture had its own fixed architectural archetype, where the Egyptians, Greeks, Romans, Muslims, Chinese, Japanese, etc., had succeeded in producing a characteristical architectural archetype (Researcher).

Currently, forms have become consumed, and the need to understand the mechanisms by which we can create forms and not find them are a priority and the objective of this research. The problem with which architects are supposed to be occupied nowadays should be the problem of form because, as approved, the architectural form has a direct effect on the psyche of a person who lives in, between, and around it (Bachelard, 2004).

The research postulates that classical architecture created forms by depending on the concept 'More' (addition strategies) and thus focusing on the style of form more than the type of form. For that, forms and compositions obtained an aesthetic character more than a rhetorical one (Researcher). Contrary to that, modern and partly post-modern architecture depend on the concept 'Less' (subtraction strategies) for creating forms and compositions, that is why it has a rhetorical character more than aesthetic (Researcher).

The power of subtraction as concluded in this research does not mean 'zero degrees of meaning' or 'total absence' or 'no design', but it is a significant absence that creates meaning from nothing, therefore it functions inside and outside the structure, which means between structure and its outside (Researcher). The concept of subtraction and imperfection is a paradox in itself, especially in architecture, even though a building is visibly imperfect, it can yet achieve its function and thus be understood as perfect (Bergdoll & Oechslin, 2006, p.323- 340).

Furthermore, 'less' has two states: More and Less together, while more only have one state which is 'More' and that remains as with motto of Mies van der Rohe "less is more", though, it is a succinct summary of his evolving idea of rhetoric (Gauldie, 1969, p.159), it does not answer the three main questions which are, first, what exactly should be 'less'? For example, functional program, form, texture, dimension of spaces, etc. Secondly, how much 'less' is yet understood as 'more'? Finally, and most importantly, how will we get that 'less'? (Researcher).

2. Literature review

2.1. General studies

The beginning of abandon imitative art, especially paintings, started at the turn of the nineteenth century, the result was the appearance of Impressionism, and later, Expressionism art, (Tatarkiewicz, 1962). The new prospects originated with Cezanne and culminated in Cubism (Tatarkiewicz, 1962). In 1907 Cezanne sent a letter to Emile Bernard, in this was the famous sentence: "You must see in nature the cylinder, the sphere, the cone." (Barr, 1936, p.30). Although it gave us new forms of art, it did not create a new principle of art. That is why Cubism, together with all the work of Picasso, belongs to imitative art (Tatarkiewicz, 1962). However, this led artists to geometrizing and reducing the complexity and disorder of nature to its fundamental geometric forms (Barr, 1936).

Abstract art, under the various names such as Suprematism, Tachisme, etc., was the beginning of the metamorphosis from imitated art, the evolutions went beyond the bounds of imitating nature, and real things, the art broke away from its tradition (Tatarkiewicz, 1962). Abstract art looks at the forms from various facets. One school of the abstract art, the formalistic model of abstractionism, considered forms as both a means and an end, there is nothing beyond form. The expressionistic abstraction is the core concept for the second school. The forms, in the third type of abstractionism, are not an end in themselves, nor a means of expressing and arousing emotion, it is an attitude toward the express understanding of the universe (Tatarkiewicz, 1962).

The complex system according to Simon means a system made of a large number of parts that interact in a non-simple way. Simon's hypothesis was that the complex system was predominant by hierarchy, and that hierarchy system, according to him, means a system composed of many subsystems each related to another until we reach the elementary subsystem (Simon, 1962).

Lissa states that silence is responsible for provoking a response in every art that comprises

the elements of temporal development like music, poetry, cinema drama, opera, etc., thus it confirms the action and climacteric moment of the event (Lissa, 1964). According to Lissa, silence can be more rhetorical than sound. in poetry "silence means forbearance from speaking, is an indisputable part of speech" (Lissa, 1964). Bach and Beethoven were predominantly using rests as a suspense medium, and intensifying the feeling of expectancy for the musical flow to come (Lissa, 1964).

The impulse of stripping art of everything but essential truths has been extraordinarily passionate and productive, and that was what made searching for the building blocks of form the intention of LeWitt. Therefore, he always searches for basic alphabet, vocabulary, and grammar of all structures (Lippard et al.,1978, p.16). In his project *Variations of Incomplete Open Cubes,* the hidden elements or subtracted elements, as Le Witt states, were actually in place even if they were not verifiable visually, the viewer is able to mentally reconstruct the complete form of the cube from the remaining parts (Lippard et al.,1978, p.81).

Intervals, gaps, and pauses are the main elements of a dimension, which is created when the focus is shifted from what is perceptible in the work of art to what is implied, that exists between the visible elements of a work of art (Eenoo, 2018). These in-between segments are generally unseen, but a closer exploration of their assimilation in the entire composition expose significant mechanisms that operate on exquisite levels of perception, thus, it can influence the work in its meaning, as utilizing omission rather than addition enables the viewer to recompose the segment and be involved through personal emotions (Eenoo, 2018).

There is a common ground between the architecture, sculpture, painting, music, text, and film in producing the work and generating the meaning. When we divert our focus from what is perceptible in the artwork to what is implied, emerges a rhetorical dimension and psychological depth in the artwork, and it is diverting the artwork from the state of stability and rigidity to the state of growing and living, in other words, it makes the artwork alive. By using 'subtraction' strategies rather than 'addition', we can create the suggested messages instead of a direct one (Researcher).

2.2 Architectural studies

In his *Critique of Judgement,* Kant states that the 'beautiful' is the unity of faculties of thinking (concept) and perception (representation), and as Lyotard explains the unity of "faculties to 'conceive' of something and the faculty to 'present' something". The sublime, on the other hand, is the conflict of those faculties (Lyotard,1984, p.77). Therefore, when there will be a mismatch between the idea and all our attempts to represent it, this is what Kant calls the sublime. The sublime gives us both pain and pleasure (Lyotard,1984, p.77), pleasure in the concept and pain in our inability to sufficiently represent it, in other words, the pleasure derives from the pain itself. It is clear that modern art and architecture make every effort for the sublime, as Malevich's abstract paintings and Mies van der Rohe's less-is-more architecture, while postmodern art seeks after the beauty (Lyotard,1984, p.77-82), (see figure 1 and 2).

Eisenman in his *Architecture and the Problem of the Rhetorical Figure* equated the presence with the act of representation, naming the aesthetic of the object as the dominant form of presence. To counter the dominance of representation in architecture, Eisenman has argued for an alternative strategy of presence, which is strategy of absence, contraposition to presence, and in doing so attempts to set up an opposition between the aesthetic of the object (representation) and the rhetorical, saying that, "a representational figure represents a thing in its absence, a "Rhetorical figure" contains its absence, that is, it contains its open-endedness (Eisenman, 2004).

For Architecture, to maintain its own metaphysics and its being, it must resist what it must, in fact, do, in order to be it must always resist being. It must dislocate without destroying its own being,

and this what Eisenman called the paradox of architecture (Eisenman, 2004, p. 203).

Broadbent states, in order to understand and deconstruct architecture, "we should explore the 'deconstruction' of writings on architecture". In his *Deconstruction: A student guide,* Broadbent tried to deconstruct the basic Le Corbusier's motto "A house is a machine for living in" and Mies van der Rohe's motto "less is more". Moreover, he takes dictionary as a referential source for deconstructing these architectural writings (Broadbent, 1991, p. 63), (see table 1).

Although Broadbent explains the strategies for deconstructing architectural writing, it is generic of its proposition because he depending on the dictionary. Since the dictionary is not helpful as it is obliged to define the word in terms of other words, which is almost but not quite equivalent (Researcher).

Ching in his *Architecture: form, space, and order,* describes the strategies that are responsible for the variation of forms. The variation of form, as he states, is generated by manipulating one dimension or more, and by subtracting or adding of the masses (volume) and elements (Ching, 2007, p.50). The transformational strategies of form according to him are classified into three type:

1. Dimensional Transformation.
2. Subtractive Transformation.
3. Additive Transformation.

Ching provided us with an applied and practical basis for creating 'forms'. He spoke about it as rigid processes and practical steps. Yet, he didn't answer the most important questions which are how and why we choose between one of these transformational strategies? It may be due to reasons related to the aims of the book, but still, he did not answer the main questions, (Researcher).

2.3. Problem statement

The problem lies in the difficulty of finding a mechanism to interpret and translate the concept of 'less' and 'more' with its paradoxical problematic relationships in architecture, especially when it comes to creating the forms.

2.4. The objective of the research

The main objective of this research is to understand the mechanisms by which we can 'create forms', not 'find forms', and thus create an architectural design strategy by which we intentionally create rhetorical forms.

3. Theoretical framework:

3.1. Discovering less and more through analyzing the dualisms.

Due to the very limited studies that discussed the research subject, we had to explore 'the concept less and more' through studying the dualities, (Researcher).

Dualisms are considered among the main characteristics of architecture, many of them have emerged in architecture such as structure-decoration, inside-outside, form-function, representation- abstraction, form-ground and others (Researcher).

In the Western traditional philosophy, and also the Islamic one in specific, the metaphysical thought revolves within a hierarchically distributed systemic structure, in which one term of each pair is always original or dominant, while the other has less influence and is subordinate (Derrida, 1997). This privilege of one dominant side of the opposition has been widely adopted in many architectural ideas, like, "form follows function", "ornamentation is added to the structure", and "form is added to the ground". For that we see in order to discover the pair less and more, it is important to analyze the dualisms that connote these concepts, that is why we chose: simplicity-complexity, minimalism – maximalism, absence-presence, perfection – imperfection (Researcher).

a. Complexity and Simplicity

Simplicity is complex, this paradoxical relationship between both sides had been declared

by many philosophers, architects and artists. Frank Lloyd Wright, one of the forerunners of Modern architecture, wrote: "Visions of simplicity so broad ... far-reaching..." (Wright,1955, p.207). In his *Towards a New Architecture*, Le Corbusier, co-founder of Purism, states that "our eyes are designed to see the form in light... and the great primary forms as cubes, cones, spheres, cylinders, and pyramids are distinct ...and without ambiguity" (Corbusire,1923, p.29).

In his *Note on the Synthesis of Form*, Alexander states nowadays the challenge is bigger than before, the society's problem increased in quantity and became more complex, at the same time the changing happens faster than before. New materials are developed, even the culture itself and social patterns are changing faster than ever before (Alexander,1973, p.4).

The richness of meaning of Venturi's architecture admits such relationships as: Ambiguity, implicit-explicit function, double coding rather than single code, distortions, either-or, and both and double functioning elements (Venturi,1977, p.16). Venturi has clearly stated that rationalizations for simplification are still current, and they are an expansion of Mies's paradox, "less is more" and he describes that paradox by magnificent paradox, (Venturi,1977, p.16).

Venturi explains the relationship between simplicity and complexity. He states that the Doric temple's simplicity succeeded through complexity. He explains that by saying, through the prominent subtleties and precision of Doric order and its distorted geometry with the paradoxes and tensions characteristic, the simplicity appears to us through actual complexity. He finally acknowledged type of simplicity that works as subordinate to complexity, he called it "the valid simplification" which is a method of achieving complex architecture itself (Venturi,1977, p.18).

b. Minimalism and Maximalism

The extreme reductive displayed on visual arts makes object pronounce their self-sufficiency and literal presence in the space. Reduction strategies shift the object's presence from physical (real presence in the space) to nonphysical (absence, conceptual). Here the languages, which used to describe objects and meanings, are no longer serve as sufficient description. In this case, art objects became an intellectual or conceptual experience by itself (Eisenman,2004, p.14).

In pure Minimalism the conception, through imagination mechanism, attempts to fill and complete the void, space, subtracted portion, and even silence with extra meanings. These meanings result from the floating signs or pure imagination in that void, since there is no longer relation between "signified and signifier", "subject and object" or the relationship are weak in that void which produces a form of pleasure and sublime. And what makes all that happens is the radical subtraction, omission, and extreme reduction (Weiskel,1986, p. 39). In this case, the relationship between clarity and content no longer works, as by definition, the term clarity describes a sign's ability to efficiently signify. The aspiring toward the essence, sublime, and silence was the central theme of minimalism spirit which calls for meditation.

Maximalism, on the other hand, represents the irreducibility, it is a critical degree of complexity. The musician David Jaffe described Maximalism's complexity as an aesthetic that indicates heterogeneity and allows for complex systems of juxtaposition and collision (Delville,2005, p.13). Maximalism described as the reaction to minimalism, where 'more is more'. In her *Minimalism Maximalism*, Aurora Cuito states under the title, "*More is never enough*", we live with the expectancy of the arrival of a new aesthetic that embraces variety and pluralism which we ventured to call Maximalism. Maximalism according to Aurora, aspires toward constructing new, complex, and eclectic modernity (Cuito& Asensio, 2002, p.10).

c. Perfection and Imperfection

In Greece, the term perfection means supreme commendation: "that which is perfect [complete] is good in every respect" (Tatarkiewicz, 1979, p.6). Aristotle, in his *Delta* of the *Metaphysics*, defined perfection and distinguished three different concepts of it: "completeness: that which is complete and contains all the requisite parts, goodness or flawless "that nothing of the kind could be better", and fitness: which has accomplished its purpose," (Tatarkiewicz, 1979, p.7). The perfection is not about real things only but, as Tatarkiewicz states, it is also about abstract constructions, like a perfect triangle, fluid, and perfect numbers (Tatarkiewicz, 1979, p.6).

In architecture, the classical order: Doric, Ionic, and Corinthian represented perfection and are considered the most perfect standards in architecture. Perfection in this case means the state of stability and completion where nothing can be added, or in the same way, nothing can be subtracted (Tatarkiewicz, 1979, p.8).

The imperfection, the unfinished, and non-finito, can be comprehended as an expression for the difficult or impossible transference between the 'conceptual form', 'unknown', 'abstraction' and 'physical form', 'known', 'materialistic'. The conceptual form (idea) itself reflected a complete, complex, and perfect entity, existed only in a designer's mind. Giving form to the concept required physical representation, which is an expression that can only be incomplete, simple, imperfect and unfinished, as we are not able to recreate the complexity and perfectionism that the conceptual idea represents (Bergdoll & Oechslin, 2006, p.324; Gjermstad, 2015, p.29).

The term non-finito appeared in the Renaissance to describe works of art that were purposely not brought to completion. The figure which most often attached to this term is Michelangelo who is known to have more than a few points in his career where he faced difficulties bringing his works to the finishing point (Gjermstad,2015, p.33).

"The sculptor tool of God", that is what Michelangelo believes, the tools are not only to shape and create but to reveal the figures already hidden in the marble, in other words 'adding through subtracting'. Among Michelangelo's artwork that most commonly involved with the term non-finito, are series of Slaves and Captives sculptures(Summers,1981).

Auguste Rodin's sculptures were often considered incomplete or fragmented because of the intentional subtracted parts (Bartram, 2016). In his artwork, the Large hand of a pianist, Rodin demonstrated one of the characteristics of modern art and sculpture, which is giving conceptual things sensational entity, such as energy, sound, and rhythm, and that is only with parts and fragments. It is the non-finito strategies, adding through subtracting (Bartram, 2016).

d. Absences and Presence

The absence and the presence together generate a unity, an inseparable reality. They refer to essential states of being. 'Presence' forms 'absence' and 'absence' tells us of 'presence'. The form contains the space and space sustains form's existence. In architecture, we get from present - solid and form, and we gain void and space from absence (Sirithanawat, 1990).

Derrida's idea of trace and différance are both integral to his approach of deconstruction. Derrida derives his understanding of absence as fundamental to the function of the linguistic sign from Ferdinand de Saussure's theory of semiotics. According to Derrida, what makes meaning is the differences between signs, rather than a binary relationship between signifier and signified, as Saussure claimed (Wallace, 2015, p 41).

Derrida states that the word "différance" is not just one verb, but rather an integration of verbs, meaning difference and deferral (Nesbitt, 1996, p.185), and that's because of the infinite play of differences between signs. That is why différance means undecidable, destabilizing the original and deferral of any full presence. In this case, meaning can never be fixed and completely present, it is always absent, changes, and shifts due to context, it is deferred (Wallace, 2015, p 41).

Chang in *The Tao of Architecture* tries to link between the philosophy of Lao-tzu and the discipline of architecture. He writes, "Through non-formal contemplation, I am inclined to believe that it is the existence of intangible elements, the negative, in architectonic forms which make them come alive, become human, naturally harmonize with one another, and enable us to experience them with human sensibility" (Chang, 2017, p. 9).

Furthermore, Chang reveals the complex dynamic of 'absence- presence' and the inseparability of the two in the understanding of each, he wrote: "The meaning as well as the vitality of 'things' in biological, physical, and psychological aspects exists in the combining of a pair of obvious opposite beings, each not having the attributes of the other and each needing the other" (Chang, 2017, p. 7).

In this aspect, we can notice the similarity between Daoism which Chang depended on, and Derrida's terms of différance, "where each 'thing' is indefinitely differing from and deferring to the other, and trace where each 'thing' carries a trace of what it is not" (Wallace, 2015, p 43).

Richard Shusterman states, "Yet absence has also been regarded as something at the core of all being, as the crucial ground for whatever exists or is present." (Shusterman, 1997, p.742).

It is concluded that the power of absence does not mean 'zero degrees of meaning' or 'total absence' or 'no design', but it is a significant absence that creates meaning from nothing. In the same manner, 'less' has both states of 'more' and 'less' together, while more only has one state which is 'more', and this reminds us with the motto of Mies van der Rohe "less is more", (Researcher). Accordingly, we have concluded the variables which make us getting 'More' from 'Less', (Researcher), (see table 2).

3.2. Subtraction phenomenon between syntax and rhetoric

For Jurjani, in his *Dalail Al Ijaz,* the subtracted, deleted, omitted, parts of the text, or what Iser termed as 'blanks' in his *Act of Reading*,' allow for the participation of the reader to create the meaning, where the un-subtracted part of the text is quite sufficient for re-initiating communication between the speaker and the listener or between text and the reader (Al-Jurjani, 2017; Iser,1978). According to them, the allusion in the text is more rhetorical than explicit statements (Al-Jurjani, 2017; Iser,1978). When the reader recognizes what is missing between the various textual perspectives and strives to fill it in, the blanks disappear and the process of meaning production occurs (Al-Jurjani, 2017; Iser,1978). Al-Jurjani considered subtraction as a wider scope for multiple possibilities at the level of hermeneutic practice (Al-Jurjani, 2017). It can also, according to him, achieve rhetorical excitement and exert an effect upon the reader. About subtraction(الحذف), Al-Jurjani wrote in his *Dalail Al Ijaz*:

"هو باب دقيق المسلك، لطيف المأخذ، عجيب الأمر، شبيه بالسحر، فانك ترى به ترك الذكر أفصح من الذكر، والصمت عن الإفادة أزيد للإفادة، وتجدك أنطق ما تكون بيانًا إذا لم تبن"

"... it is a door with a precise route and delicate socket, something wondrous in nature and looks like magic. You could find in it that abandoning speech is more rhetorical than speaking and mentioning no statement is better than declaration, and you find yourself more fluent if you are fully silent and absolutely eloquent if you do not elucidate..." (Al-Harithy,1987, p. 9; Al-Jurjani, 2017,111).

Like Al-Jurjani, and Iser, Hemingway as Savi mentioned, adopted the theoretical law of omission formulated in *A Moveable Feast* 1946: "It is possible to omit as long as one is conscious of the omission and provided the thing omitted reinforces the narrative so that it makes the reader feel beyond what is on the printed page" (Savi, 2001). Alfadly and Moawad stated that Al Jurjani, Al Zamakhshari and other Arab rhetoricians and grammarians introduced the idea of transformation to Arabic grammar and they mentioned many kinds of transformational rules like subtraction (deletion) and increment (addition), etc., these rules are part of the rules used and developed by Chomsky (2018, p.23).

In *Dalail Al Ijaz*, Al Jurjani mentioned some issues just to clarify and explain the meaning of construction "(Al-Nazim)" rhetoric and how the meaning effects on the construction of a certain context, for example, he mentioned: **1**- Preposing and Postposing "Attaqdim wa tta'khir" **2**- Definiteness and Indefiniteness "atta'rif wa ttankir"-**3**- Ellipsis, Deletion, Subtraction "Hadef", and other topics (Alfadly &Moawad, 2018, p.25).

Subtraction (deletion) transformation, according to Chomsky, is a syntactic rule in which a piece of a syntactic structure, from deep structure, is removed under specified conditions. In other words, subtraction is the elimination of certain constituents from the deep structure in order to create a surface structure. The method presented by the transformative syntax theory in the interpretation of the phenomenon of subtractions is similar to that presented by the Arabic syntax (Hamouda, 1998, P.14).

And as Charles Fillmore states that transformational concepts except deletion have no drastic adjustment for transformational grammar, where constituents remain constant; only their order changes (Nilsen, 1987, p.246).

3.2.1. The Rhetoric of Quranic disconnected letters

Probably the most tantalizing question in the Quranic studies is the one put up by the disconnected letters or (fragmented letters), which stand at the beginning of 29 of the 114 verses of the Quran. They are called in Arabic Fawatih al-Suwar (the opening of the verses) or al-hurof al-muqatta'ah "the disconnected letters" (Bellamy, 1973).

Undoubtedly that in the history of Arabic poetry and literature, from the beginning till now, there is no single poet and writer who had used this type of pure abstract strategy in his works. In his concept of AL Nazim(construction), Al Jurjani made the distinction between two types of meaning, literal and metaphorical. He called the first type the meaning, and the second one the meaning of meaning (Al-Jurjani, 2017, p.181).

Accordingly, the disconnected letters in the Holy Qur'an represent the deep structure of the meaning and the meaning of meaning and the abstraction of an abstraction. Detailing on that, there are two types of 'disconnected letters' in Holy Quran: A type works as verses in themselves which means it has its own meaning (rhetorical meaning), (see figure 3), and a second type works with other words to make verses, (see figure 4.).

The importance of these letters is providing a logical structure to generate rhetorical texts reflecting the idea 'Less is more', by evoking the absence through presence. The disconnected letter's strategy can be considered as absences strategy to create the rhetorical form which makes our thinking shifted from what is present to what is absent. Using the process of subtraction that existed and used already by Arabic text in the Holy Quran considered as a reliable intellectual reference for creating rhetorical compositions and artworks (Researcher).

3.3. The absence strategy of Peter Eisenman

In his *Architecture and the problem of the rhetorical figure,* Eisenman called for the creation of floating signs by the strategies of fragmentation, segmentation, and subtraction, and rearranging the subject in question in order to reinforce the idea of absenteeism, which according to him will make, the 'text' in the case of languages and 'form' in the case of architecture, more rhetoric (Eisenman, 2004), (see table 3).

Eisenman also attempts to make floating signs through making some holes as subtracted cubes, in his and Derrida's book *Chora L Works*, where some part of texts and diagrams were subtracted through the book, (see figure 5).

As for the Eisenman's intriguing article *Notes on Conceptual Architecture: Towards a Definition,*1978. Eisenman tried to explore the concept 'presence of an absence'. The text is missing from the page, the only existed texts to read are some footnote indications dots and text of footnotes which is consisted of some

bibliography and notes (Jarzombek, 2009). In this architectural discourses, the white surface of the sheet is the stage of the theater and the footnotes are its actors, the play is open up to infinite speculation, the meaning is postponed (Jarzombek, 2009). The footnotes represent the presence of non-text, this 'non-text' is not about the act of writing but the act of making conceptual architecture by deletion (omission, subtraction) strategy.

Eisenman, in this conceptual article, deletes the surface structure almost completely, keeping the deep structure only. 'What you see' represented the presence, and it reflected the classical notion of utility, firmness, and beauty in architecture, which associated with aesthetics. While 'what you can't see' represented the absence. It is non-representative qualities, timeless associated with rhetoric (Fisher, 2016), and Kant's sublime.

3.4. Subtraction in architecture

Throughout history, the architects used the strategies of subtraction, digging, carving and sculpting instead of strategies of the addition. For example, strategies of subtraction in Petra in Jordan, Matmata houses (underground houses) in Tunisia and Mada'in Saleh in Saudi Arabia, (see figure 6, and 7).

Chang states in his *The Tao of Architecture,* because the growth is the primary function of any living thing, anything that is complete and cannot grow is considered dead according to the definition (Chang, 2017, p.4). This statement summarizes the paradox relation between less and more, moreover, it emphasizes the philosophy of subtraction as a rhetorical method.

Eisenman states that "the concept of additive as opposed to a cutaway building can be used in a dialectical situation to produce a purposeful ambiguity and resultant tension in the external form" (Eisenman, 2006, p.81).

Accordingly, we concluded three types of subtraction in architecture:

1. Literal subtraction.
2. Conceptual subtraction.
3. Subtraction in number.

Literal subtraction is a type of subtraction that is applied to the physical form. And as Le Witt states the hidden elements were actually in place even if they were not visually verifiable, the viewer is able to mentally reconstruct the complete form of the cube from the remaining parts (Lippard et al.,1978, p.81).

While conceptual subtraction is related to the concept of figure-ground, where psychological and philosophical analysis has the main role of interpreting this type of subtraction. According to Wong, subtraction is the effect of placing opaque white shapes which function as a negative shape in front of a filled shape" (Wong, 1993, p.25). Furthermore, he mentioned "when a ground overlaps a figure, space appears to have been subtracted from the figure (Wong, 1993, p.163).

What's more, in conceptual subtraction, sometimes a designer creates a composition by addition strategies, however, it looks like as if he used subtraction strategies (Fisher, 2016). This intelligent and interesting game that the designer is playing reinforces the concept of absence and rhetoric at the expense of presence, and aesthetic, and it emphasizes on what's behind the object and composition, for example, see the painting of the conceptual artist Dennis Oppenheim (figure 8).

As for the subtraction in numbers, because the architectural form is not only about quantities, but it is about elements in which the numbers represent the main role. Leon Batista Alberti states that the beauty of all architecture arises fundamentally from three Things: Number, Figure, and Collocation of its elements (Alberti,1755, p.22).

The odd numbers are more rhetorical than even numbers, which reflects the concept less. The eye, mind, and subconscious tend to pair up objects instinctively, and make numbers speak louder than words. 'Even numbers' create symmetry, and we tend to ignore them as they become a part of the ecosystem, but odd numbers on the other hand create asymmetry, and we lose the ability to group them automatically and thereby gaze at it for a while (March, 1998). That is why odd numbers create tension, attraction, and interest. The odd

number composition, contrary to even number, cannot be subconsciously divided into equal halves, thus causing the composition to be interpreted as more naturalistic and overall unified (March, 1998).

The dictionary defines the word 'odd' as an irregular, peculiar, strange, bizarre, eccentric, and incomplete, whereas 'even' is synonymous with balanced, stable, placid, and calm. Odd numbers impose eyes to move around, and through the composition in order to discover and inquire, this tension is the heart of visual interest, and it is often known as the 'Rule of Odds.' It's for that reason a set of odd numbers is more appealing and memorable than something even. See the table 16. No. 1 prepared for the Subtraction variable.

3.5. Explanation of secondary variables

The fragmentation contradicts the directness, completeness, linearity, perception, and coherence in favor of indirectness, incompletion, disruption, conception, and gaps (Drąg & Guignery, 2019, p.xi). Fragmentation is a strategy to create compositions, forms, and objects in the state of in-between. It makes the meaning in the frozen state, or rather to abolish it before it takes articulated form (Researcher). Fragmentation is a transformational process through which the designer converts an object or 'whole' into a group of parts, and if this process was accomplished on prior awareness of the psychological effects that result from it, it can be called, in this case, 'Segmentation' (Mitchell, 1990). See the table 16. No. 2 prepared for the Fragmentation variable.

As for transparency, Rowe and Slutzky distinguished between two types of transparency; inherent transparency of a substance, and inherent transparency of the organization (order). The first one is called literal transparency, and the second is called phenomenal transparency" (Rowe &Slutzky, 1997, p. 23). See the table 16. no. 3 prepared for the Transparency variable.

In his *Towards a New Architecture*, Le Corbusier, co-founder of Purism, wrote: "…our eyes are designed to see the form in light… and the great primary forms as cubes, cones, spheres, cylinders, and pyramids are distinct …and without ambiguity" (Corbusire,1923, p.29). Cezanne wrote, that "You must see in nature the cylinder, the sphere, the cone" (Barr, 1936, p.30). Tony Smith, Donald Judd, Richard Serra, and Sol LeWitt are creating artworks based on geometrical forms, patterns, and layout. They call for express maximum formal tension with the minimum of means, avoiding any allusion or illusion (Savi, 2001).

While, Repetition is a principle applied in architecture, art, and music likewise, the application of repetition is not limited to the composition only but on the use of all six dimensions, shape, size, value, hue, chroma, and texture (Graves, 1951, p.18). The rejection of narrative and illusion led many architects and artists of the twentieth century to apply the repetitive module, and the grid system in their work, like Malevich, Mondrian, Peter Eisenman, Sol LeWitt. Although the grid used by them is not always identical, it still represents purity and is considered as a "Ground Zero". Moreover, the grid represents the essence, origin "beyond which there is no further model, or referent, or text" as Rosalind Krauss wrote, it resists our desire for center, hierarchy, emphasis, nature, or language (Krauss, 1986). See the table 16 no.5 prepared for the Identical repetition variable.

3.6. Deep structure and Surface structure in architectural form

The English term of form derives originally from the Latin word forma, which replaced Greek words, morphē, and eidos. Morphē refers to visible forms, and eidos applied to conceptual forms, this double meaning contributed to the ambiguity and misunderstanding of the term 'form' (Madrazo, 1995).

In his *Metaphysics,* Aristotle defined 'form' as following "By form I mean the essence of each thing" (Madrazo, 1995, p.20). Christopher Alexander in his *Notes On the Synthesis of Form* states,

"form is the ultimate object of design," (Alexander, 1973, p.15). William John Mitchell in his *The Logic of Architecture* defines the form as a building's internal physical structure (Mitchell, 1990).

The form is a highly philosophical question, as well as the type and style. The investigation of form, in the architectural theory of the eighteenth century, has been dominant especially in France, but this interest soon changed in the nineteenth century and shifted towards style (Madrazo, 1995). The fundamental and crucial distinction between type and style, that many theorists mentioned, is that: type is or (refers) to the deep structure of the form, and it is characterized as it penetrates the temporal and spatial boundaries (Madrazo, 1995). It is an 'Architype' according to Platonic idea, and 'Prototype' according to Vitruvius and Quatremere (Madrazo, 1995). In contrary, style refers to the surface structure of form, and in biologic terminology we could call style 'the skin' of structure, and the type 'bone of structure'. Style is more related to a particular place and moment or even author. Another comparison could be made between both terms depending on biologic terminology: type refers to genotypes and style refers to phenotypes, see table (4, 5).

4. Hypothesis:

a. General hypothesis

Our initial hypothesis assumed that the paradoxical essence of "Less and more" in architectural form is revealed in the rhetorical figures, where the subtraction strategy is alternative to the addition strategy and sublime instead of aesthetic. Moreover, the researcher assumes that the Islamic, and renaissance architecture focus on the style of form more than the type of form, for that, we assume that architectural forms and compositions of these periods have an aesthetic character more than rhetorical one, unlike the modern and post-modern architecture which we assumed their forms and compositions have rhetorical character more than aesthetic.

b. Specific hypothesis

The researcher postulates that there is another type of rhetoric in Islamic architecture, which is neither a 'formal typological rhetoric' nor 'formal stylistic rhetoric', but rather it is more rhetorical of both because it plays in space, not form. Although the researcher postulates that Islamic architecture produces forms through addition strategy, not subtraction, forms and compositions look like as if they were designed using the subtraction strategy.

5. Method of analysis and tools

In our practical study, in order to analyze the selected models, we relied on two methods: Durand's graphical analysis, as the main method, and statistical analysis as a secondary method, and as shown below:

5.a. Durand's graphical analysis

We relied on Durand's graphical method, as the main method, to test the research hypothesis, which can be described as a step-by-step graphical process for investigating the nature of the architectural design process of creating form-type (Madrazo,1994). It will help us to get to our goals logically by decomposing architectural compositions to their primary elements, and then analyzing them. It will also help to determine the transformational rules, processes, or strategies in which architectural form is created. The only difference between our method and Durand's one is that our graphical method (transformational process) will focus on three- dimensional not only two-dimensional graphical analysis. As for tools for this method, we will depend on the Auto CAD and 3ds Max for analyzing the selected projects. See figure 9.

5.b. Statistical analysis

The graphical results converted to numbers within the same tables that were used in the

graphic analysis in order to be analyzed, explained, and discussed based on the quantitative method (statistical analysis).

For this purpose, two tables were prepared based on the tables that were used in the graphic analysis which where extracted from the theoretical framework (see table 16). Each table includes two buildings within a specific time period (B, C,). The numerical values that were given to each variable ranged from 0 to 4. These values represent the strength of the variables applied in the selected models, where number four denotes a very strong application of the variable, while zero means no variables were applied. And we depended on the graphical analysis and the feature of measuring spaces and volumes in the Auto CAD program in giving these values. Finally, each table was statistically analyzed separately, then the results of analyzing both tables was compared together for the purpose of discovering the frequency percentage, and the possibility of the existence of certain patterns of relationships among the different variables for the same time period as well as for different time periods.

6. Projects selection criteria

We examined four buildings, which fall within two time periods (B 'Renaissance', C 'Modern'), in order to test our hypothesis, (see table 6). These particular buildings have been chosen for both generic and specific reasons. In general, these buildings were designed by the so-called masters of architecture who influenced architecture by their empirical and theoretical works. Moreover, these buildings represented the reflection of the conceptual ideas of their architects, for example, Villa Rotonda considered the ideal villa designed by Palladio and represented the Pantheon of its era, furthermore it became a model that represents a standard for designing villas, as well as for villa Savoy for Le Corbusier and Casa del Fascio (Palazzo Terragni) for Giuseppe Terragni.

As for architect Sinan, who is considered a well-known Islamic architect specializing in the design of mosques, and he lived in the same period of Andrea Palladio. And the selection of the Selimiye mosque was made because Sinan described Selimiye his "work of mastery" (Aytuğ &Akbulut, 2001, p.62).

7. Results: interpretation and discussion: Graphical results

The Subtraction strategy was applied unevenly, as the analysis clarified, between selected periods. In the period of modernism (C), subtraction strategies are strongly present compared to the Renaissance period(B), as shown by graphical analysis. We did not find the subtraction strategy at all in Palladio's project(B2), where his projects, on the contrary, reflected the strategy of addition (see the figure in table 10 and result in table10. a.). Moreover, we did not find the mechanism of literal subtraction applied in the Selimiye mosque (B1). However, the researcher discovered the existence of another type of subtraction in the Selimiye mosque which we named 'conceptual golden subtraction' (see the figure in table 7 and result in table 7.a.). Unlike Renaissance architects, modernist architects, as the graphical analysis shows, used the literal subtraction strategy at the type level for plan and form (see the figure in table11,13 and result in table 11a,13. a).

Islamic art and architecture unlike Modern architecture, go beyond the "I" of the individual and the "I" of the architect. The Muslims reside Allah as a point in the middle of the circle of the universe and the unseen (Al Sayegh,1988). The search for origin and essence is settled, God is the one who represents these concepts. That is why we did not find the application of literal subtraction at the type level. Instead, we found the application of addition strategy, since the type represents the original, and essence as we concluded earlier.

The graphical analysis demonstrated the use of the subtraction in number by Le Corbusier, where he used the odd number '5' of columns (see table 11), while the architect Giuseppe Terragni, used the rhetoric of odd number '5' in the pattern of

the façade (see table 13). As for architect Sinan in his design of Selimiye mosque, he used the odd number '3' in the 'part level' of the minaret, and he used odd numbers '5' and '7' in repeating domes (see table 7).

Statistical results

The statistical analysis showed that the subtraction strategy that was applied in period B, at the level of form- type, was 71.43%, 57% for 'subtraction in number type' and 14.29% for 'literal subtraction type', and 28.57% at space level, while at form- style, and plan level it was 0.00%. And it is worth mentioning that the application of literal(formal) subtraction strategy, in this period and at the form-type level, was only for making the opening of windows and doors (see figure 14, and table 7,7. a.,10,10. a.).

While the subtraction strategy that was applied in period C at the level of form- type was 68.18%, 31.82% for 'subtraction in number type' and 36.36% for 'literal subtraction type', and at space, and the form-style level was 0.00%, while at the plan level it was 31.82% and goes for 'literal subtraction type'. The purpose behind using literal subtraction in this period, unlike in period B, was not only to create the opening of the windows and doors but also for creating the forms themselves (see figure 16, and table 11, 11.a., 13,13. a.).

The statistical analyses of the transparency variable showed the response of its sub-variable: literal transparency by 100% in period B versus 46.67% in period C, which does not reflect a special significance in this research. While the statistical analyses revealed that the only building in both periods B and C that used phenomenal transparency strategy was Casa Del Fascio by 53.33% in period C by Giuseppe Terragni and at the facade's level, where the architect used the triple and dual layers (see table 14, 14.a. and figure17).

As for geometrical rigors, the primary geometrical solid was used in both periods, modernism and renaissance, but it is more clear in the modern period, as shown by the analysis illustrated by the researcher (see figure 10, 11,12,13).

In the Selimiye mosque, the architect Sinan used the identical grid at the level of the plan, in addition to the use of repetition in the domes (see figure 15, and table 9 and 9.a.). Architect Andrea Palladio also used the grid system in his villa but only at the level of the plan, (see the plans in table 10).

As for the architects of modernism, the architect Giuseppe Terragni, in his building Casa del Fascio, used the grid system at the two levels; plans and façade (see figure 18 and table 15), while Corbusier applied it only at the plan level (see figure 18 and table 12).

Statistically, for period B, the Identical repetitions analysis showed the response of both sub-variables: Grid system by 27.27%, compared to 72.73%. for Identical repetitions, see figure15. While in period C the response of both sub-variables: Grid system, and Identical repetition were similar and equal with 50% each, see figure18.

In period B, the statistical analysis showed the response of the segmentation variable by 100.00% versus 0.00% for fragmentation and it was applied only in the Selimiye mosque, (see table 8, 8.a.)). While the response of this variable (fragmentation and segmentation) in period C was 0.00%.

8. Conclusions:

- The research concludes a theory that the paradoxical essence of "Less and More" in architectural form is revealed in the rhetorical figures, where the subtraction (absence) strategy is alternative to the addition (present) strategy. Moreover, imperfection, minimalism, less, absence and simplicity in architecture, design, art, etc., does not meant the absence of design, on the contrary, it means a high level of rhetoric in design.
- Less' has both states of 'more' and 'less' together, while more only have one state, which is 'more'. For that reason, the strategies of subtraction, fragmentation,

transparency, geometrical rigor, and identical repetition, make us get 'More' from 'Less'. Moreover, subtraction is considered as a syntactical strategy, which does not completely eliminate the subtracted part, but it makes it absent in the virtual construction (surface structure) and makes the recipient participate in the process of interpretation to complete the meaning, which increases the rhetorical and artistic value of the form. And in order to get the rhetorical context, figure, form, composition, etc., we should first set up syntactical conditions then start with implementing rhetorical strategies.

- When we divert our focus from what is perceptible in the form to what is implied, emerges a rhetorical dimension and psychological depth in that form, and it is diverting the form from the state of stability and rigidity to the state of growing and living, in other words, it makes the form alive.
- The architectural forms and compositions of Islamic and renaissance have an aesthetic character more than rhetorical one, unlike the modern architecture which its forms and compositions have a rhetorical character more than aesthetic character, and the reason is that Modernity designers used the subtraction strategy instead of addition strategy.
- The disconnected letters represented the concept 'addition through subtraction', and represented the modernity concept 'less is more'. The ultimate abstraction and reduction that the 'disconnected letters' reflected, can be relied upon to make a strategy to create a local Islamic architecture, which is characterized by its possession of originality and rhetoric.
- The research concludes that the golden subtraction reflects the concept ' perfection of imperfection'. It represents two states; the perfection of western philosophy (the number, golden ratio, the proportion, and order), and the imperfection of Eastern (Japanese) philosophy (life cycle of nature). Therefore, golden subtraction can be adopted to create rhetorical Islamic forms, since Islamic philosophy reflects both concepts at the same time, the perfection that is embodied in God (the perfection is only for God), and the imperfection of the life cycle, in nature.
- Rhetorical form, as concluded in this research, is a form that represents the concept 'presence of an absence' (what you can't see) that is associated with the concept less, and sublime of Immanuel Kant. It is opposite to the concept of presence which is associated with the concept more, and the aesthetic quality of what you can see, which in turn is associated with Vitruvius's classic architectural values of firmitas, utilitas, and venustas.
- In order to create the rhetorical form, the form should pass through three stages. The first one is the zero phase, which sets up the meaning or deep structure (it happens in the architect mind). The second stage is the syntactical stage of applying the syntactical mechanism, and the final stage is the rhetorical stage of applying rhetorical mechanism.

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العلاقات التناقضية بين الأقل والأكثر في الشكل المعماري

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المستخلص

في الوقت الحاضر ، أصبح اغلب الأشكال المحيطة بنا تقريبًا ، سواءاً في محيط مبانينا او على الورق ، تتشابه فيما بينها. و تكمن المشكلة المتعلقة بالشكل المعماري في وقتنا الحالي بعدم القدرة على خلقه من الصفر, لأن عملية خلق الشكل اليوم هي عملية "ايجاد الشكل" وليس 'خلق الشكل',حيث يتم الاستعانة بمرجع شكلي سابق و تحويله الى شكل جديد، أوينتج بالصدفة بمساعدة أجهزة الكمبيوتر ، وهذا بدوره يؤدي إلى خلق رتابة في الأشكال نظرا للتشابه الحاصل بينها.

إن ما هو مقبول في الغالب الاعم على أنه منطقي قد لا يكون بالضرورة صحيحا، فالفكرة المتفق عليها من قبل جميع المعماريين هي أن دور المعماري هو البناء والتصميم بالاعتماد على فكرة الاضافة ، و يبدو من غير المنطقي توقع ان يركز المعماريون على مسألة البناء والتصميم من منطلق فكرة الطرح.

تفترض فرضيتنا الأولية أن جوهر المفارقة بين فكرة "الأقل والأكثر" في الشكل المعماري تكمن في الأشكال البلاغية ، حيث تكون استراتيجية الطرح بديلاً عن استراتيجية الإضافة.

وعليه، تم تفكيك مفهوم الشكل المعماري في هذا البحث إلى عناصره الأساسية: النوع "بنية عميقة" , وألاسلوب "بنية سطحية". اضافة لذلك ، أوضح البحث وأعد المتغير الأساسي الوحيد والمتمثل بالطرح ، والمتغيرات الثانوية (التجزئة والتقسيم ، والشفافية ، والدقة الهندسية ، وتشويه المقياس ، والتكرار المتطابق ، والتآكل) التي تساعد في خلق الأشكال البلاغية ، بكلمات أخرى ، تجعلنا نحصل على "الاكثر" من "الاقل."

أما بالنسبة للاستنتاجات، فإن المفهوم المميز الذي كشف عنه البحث حول استراتيجيات خلق الاشكال المعمارية ، إلى جانب كشف استراتيجية الطرح ومفهوم الأعداد البلاغية ، مفهوم الطرح الذهبي المفاهيمي ، حيث اكتشفه البحث في التصميم المعماري الإسلامي وتم تفسيرها وربطها بكل من: الحروف المقطعة في القران الكريم، نظرية الحذف للجرجاني ، ولغة التصميم المعماري للمعمار سنان.

الكلمات المفتاحية : الأقل والأكثر ، الطرح ، الشكل البلاغي ، النمط والاسلوب ، البنية العميقة والبنية السطحية.

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Table 1: Deconstructing the architectural motto of Mies Van der Rohe by Broadbent, who depends on the Oxford English dictionary definition (Broadbent, 1991)

Less	More
Of not so great size, extent or degree (as something mentioned or implied).	Greater in size, larger, taller, bigger.
Of inferior dimensions, bulk, duration, etc.	Greater in number, quantity or amount.
Smaller.	Greater in degree or extent.
Of a smaller quantity or amount.	Greater or superior.
Not so much.	Of two things.
Of lower station, condition or rank.	Greater in power or importance.
Inferior.	Also having a fuller title to the designation.
Of action: not so great, worthy.	Having a greater supply of.
Or excellent or (after Latin use) younger.	A greater number of elder.
Used spec to characterize the smaller, inferior.	Existing in greater quantity, amount or degree.

Table 2: Primary and secondary variables that make us getting 'More' from 'Less' (Source: researcher).

1.	Subtraction	**Primary variable (Main)**
2.	Fragmentations	**Secondary variables**
3.	Transparence	
4.	Geometrical rigor	
5.	Identical repetition	

Table 3: Analyzing Eisenman's transformational rules in the text for displaced it from representational form to rhetorical form (Source: researcher)

Form no.1 Representational Form	Cat Act
Transformational rule	Adding a third term, the verb is
Form No. 2 Representational Form	Cat is Act is
Transformational rule	fragmentation superposition subtraction
Form No.3 Rhetorical Form	Cactis
Interpretation of form No.3	It similar to Cactus but it did not mean or suggest the planet or the desert. This new form contains the loss of the previous forms as well as it loss of its own meanings, thus there is an absence (Eisenman, 2004).

Table 4: Type and Style According to the interpretations of some theorists (Madrazo, 1995)

No.	Names of theorists	His Theory of form
1.	Quatremere de Quincy	"Type represents the idea of an element which should itself serve as a rule for the model."
2.	Jacques-Fran Blondel according to Collins, states that:	"Style is, in a figurative sense, the poetry of architecture; a colouring which contributes towards rendering all an architect's compositions really interesting. Hence it is the style suitable to different subjects which leads to infinite variety in different buildings of the same type or in buildings of different types. In a word, style, in this sense, is like that of eloquence" (Collins,1998, p.181).
3.	Jean-Nicolas-Louis Durand	"The concept of type is lying behind Durand's interpretation of architectural history, according to him, Type means a simple abstract geometric form which conceded the fundamental element of architecture, and a generator of different and more forms".
4.	Gottfried Semper	"There are dissimilar meanings that both terms, Type and Style, carried. Semper pursued the integration of both terms as (idea, concept) in a unified theory of artistic form."
5.	Viollet-le-Duc	"The notion of style, which contradicts the concept of historical styles, bears similarities with the notion of Type".
6.	Giulio Carlo Argan	"Type has to be understood as the interior structure of a form."
7.	Aldo Rossi	"Type is the very idea of architecture."
8.	José Rafael Moneo Vallés	"Type is a concept which describes a group of objects characterized by the same formal structure."
9.	Heinrich Hübsch	"Both of Type and Style have to do with the concept of a basic form or Grundgestalt". "Grundgestalt according to Hübsch means the objective form, determined by the laws of construction".

Table 5: Levels of architectural form (Source: researcher)

Form	Level of form			The result of applying any process
	Deep structure (meaning of meaning)	Genotype	Type	Typological Rhetoric
	Surface structure (meaning)	Phenotype	Style	Stylistic Rhetoric

Table 6: Names of the selected projects arranged in chronological order (Source: researcher)

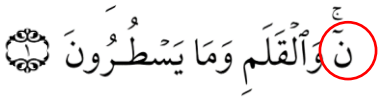
Period	Code	Architect	Project name	Year	Project functional type
Period B	B1	Mimar Sinan	Selimiye mosque	1569-1575	Mosque
	B2	Andrea Palladio	Villa Rotonda	1567 -1605	Villa
Period C	C1	Le Corbusier	villa Savoye	1929-1931	Villa
	C2	Giuseppe Terragni	Casa del Fascio (Palazzo Terragni)	1932, 1936	Head office

Fig.1: The postmodern beauty and complexity. Vanna Venturi House plan[1] and elevation[2], 1962-64, by Robert Venturi © UPenn/arch daily, and The Thematic House[3] by Charles Jencks 1979-1984, the painting if Not. No[4]. 1975-1976 by Ron kitaj, Marilyn Diptych[5] (1962) by Andy Warhol, (organized by the researcher).

Fig.2: The modern sublime and simplicity. Country Brick house plan[1],1923, and Barcelona Pavilon[2],1929 Aerial view by Mies van der Rohe, Schröder House[3] built-in 1924, by Rietveld, Black Square[4],1915, by Malevich, and Composition with Large Red Plane, Yellow, Black, Gray, and Blue[5], 1921, by Piet Mondrian, (organized by the researcher).

ALM (Alif, Lam, Meem)

Fig. 3: The letters (A, L, M) is an example of some disconnected letters in holy Quran, which work as verses in themselves, reference of verse (Quran 2:1).



N (Noon) by the pen, and by what they inscribe.

Fig.4: The letter (N) is an example of some disconnected letters in holy Quran, which work with another words to making verses, reference of verse (Quran 68:1).

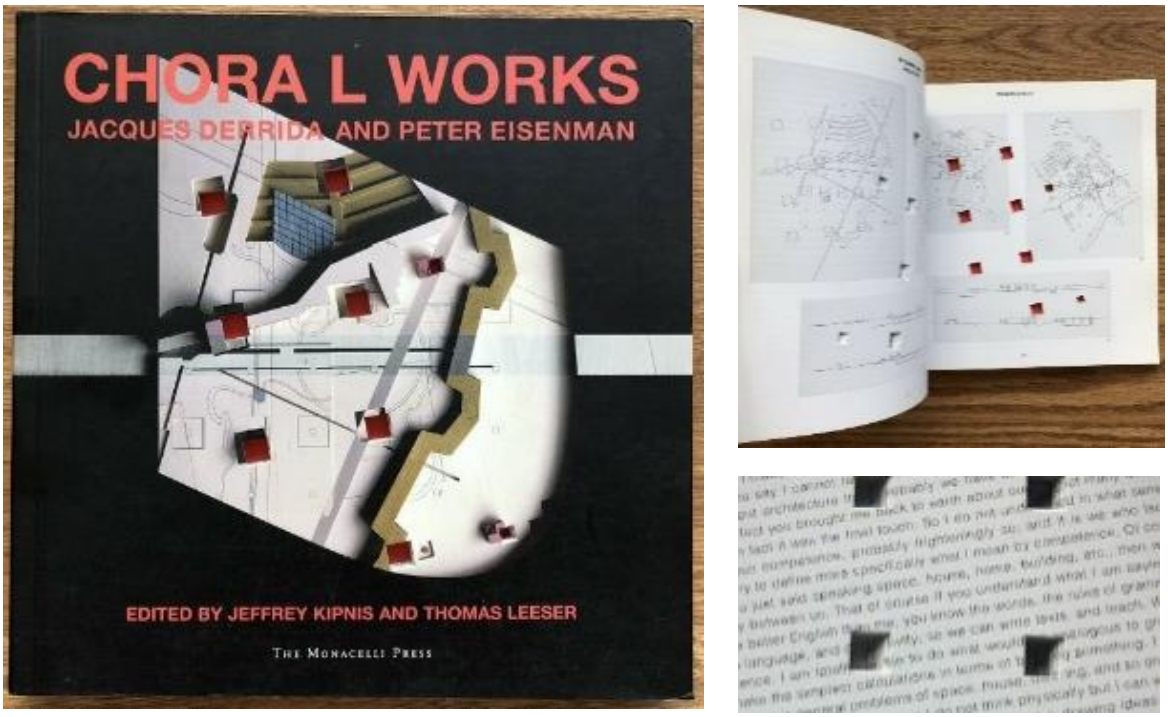


Fig. 5: The cover page and inside papers of ChoraL Works book by Eisnman and Derrida, (images source, Pinterest.). "The place where the subject is both generated and negated" (Taylor & Winquist, 1998, p.701)

Fig. 6: Royal Tomb, Mada'in Saleh or (Al-Hijr or "Hegra", Saudi Arabia, 1st Century AD. (GAB SCANU photographer)

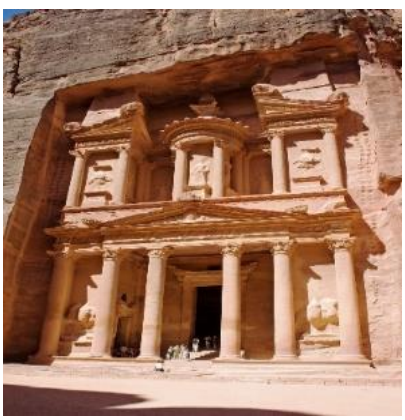


Fig. 7: Petra, 1st century A.D.
https://upload.wikimedia.org/wikipedia/commons/b/b9/Petra_Treasury.jpg

Fig. 8: Reading Position for a Second Degree Burn, 1970, Dennis Oppenheim.
(https://academicmuseum.lafayette.edu/art234/Images/19-02-04.jpg)

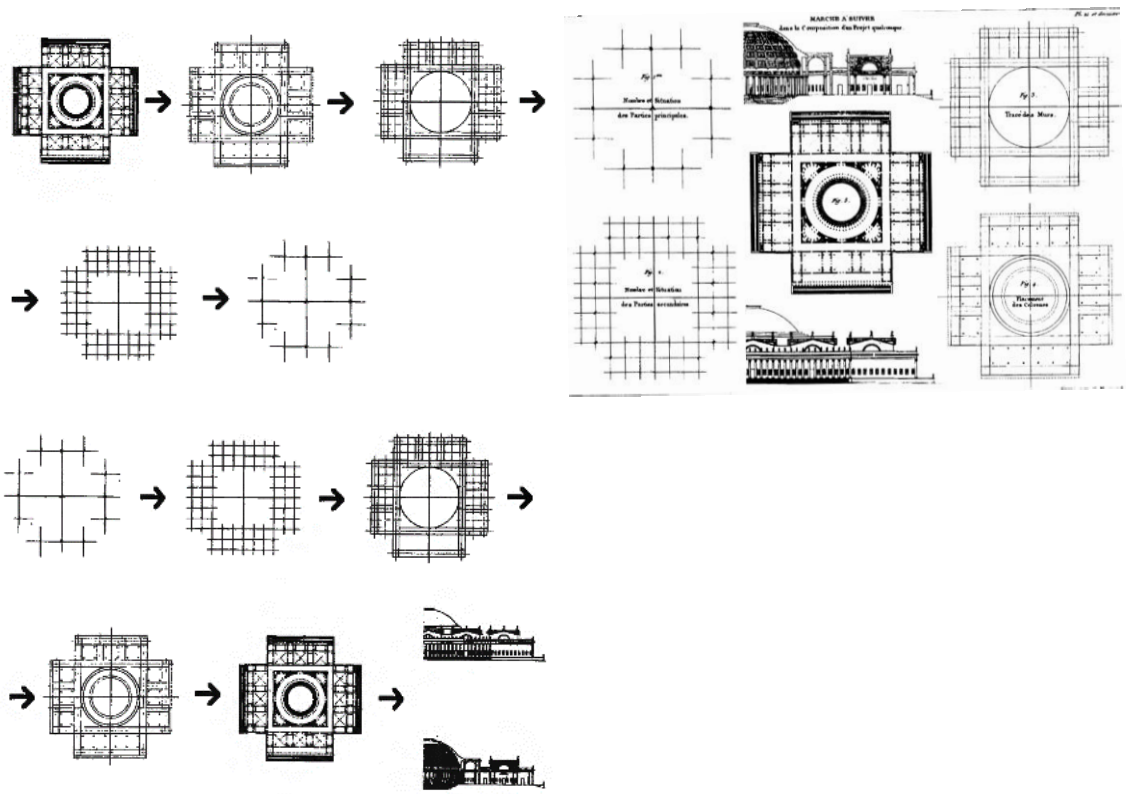
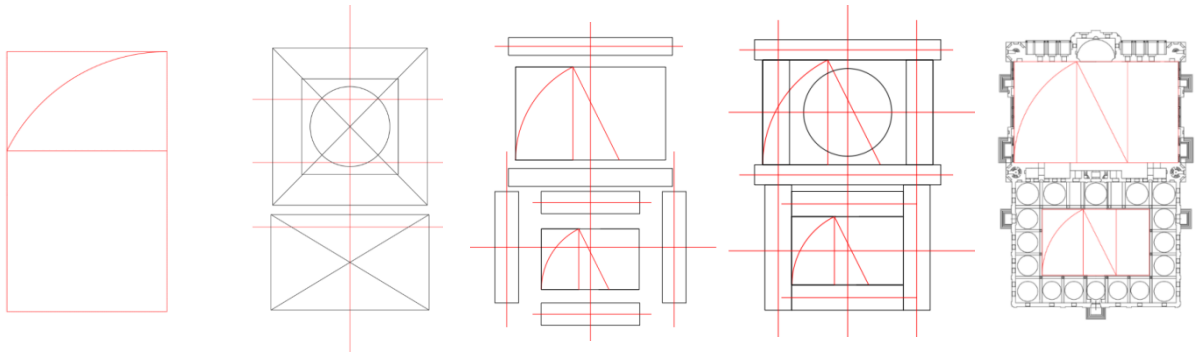


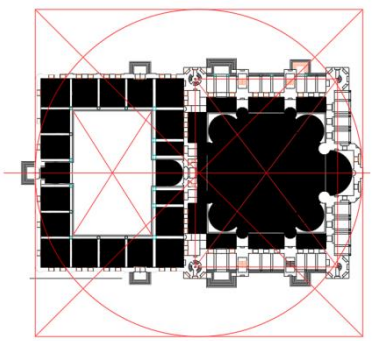
Fig. 9: Middle: Durand's method for analyzing architectural compositions, 1813. Right: Method of composition in the order. Left: Method of composition reversed (Madrazo,1994)

Table 7: Graphical subtraction analysis for Selimiye mosque (B1) (Source: researcher).

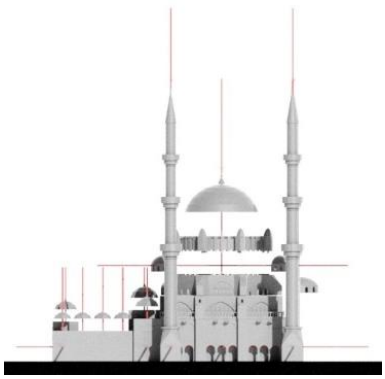
Project functional type: Mosque. Project name: Selimiye mosque. Architect: Mimar Sinan. Year: 1569-1575. Location: Edirne, Turkey



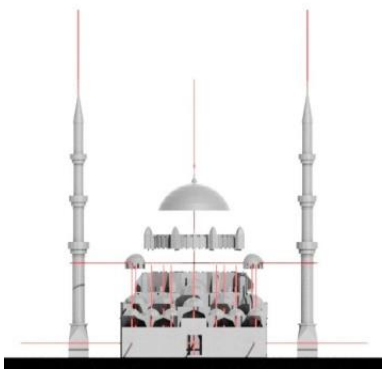
Syntax of Selimiye mosque plan



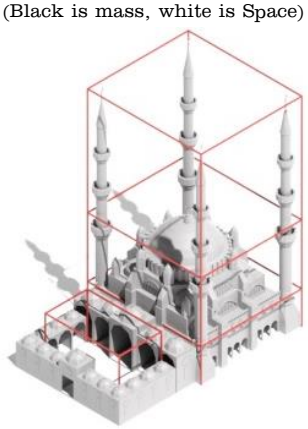
Subtraction and addition in plans
(Black is Mass, white is Space)



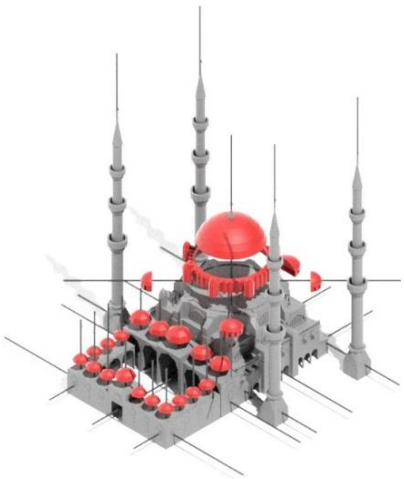
Addative strategies in Elevations,
(Black is mass, white is Space)



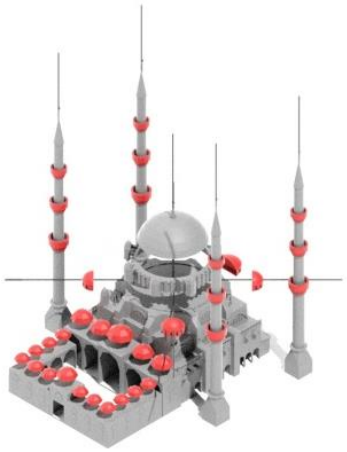
Addative strategies in Elevations,
(Black is mass, white is Space)



Golden Subtractive model



Additive model



Subtraction in numbers (Using the odd number 3 in minaret balcony, 5, and 7 in domes pattern Subtraction in number.

Table 7.a : Results of Graphical subtraction analysis (Source: researcher).

	Level of Subtraction		Type of Subtraction	Result of Subtraction
space			- Conceptual Subtraction	Neither a type nor a style
Form	Type	Part	- Literal Subtractions - Subtractions in Number	Typological Rhetoric
		Whole		
	Style	Part	- Literal Subtractions - Subtractions in Number	Stylistic Rhetoric
		Whole		
Plan			- Literal Subtractions - Subtractions in Number	Typological Rhetoric

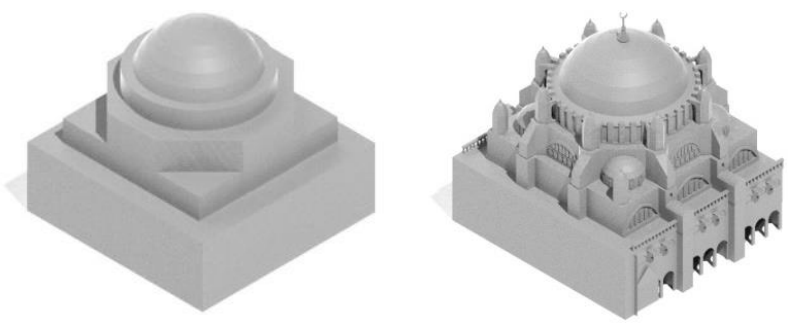
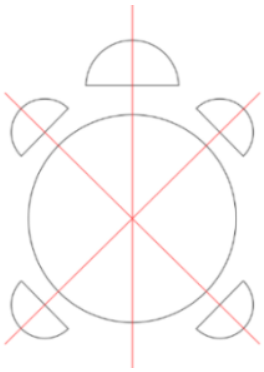


Fig.10: Geometrical rigor analysis (Source: researcher)

Table 8: The fragmentation analysises of the central dome, (Source: researcher)



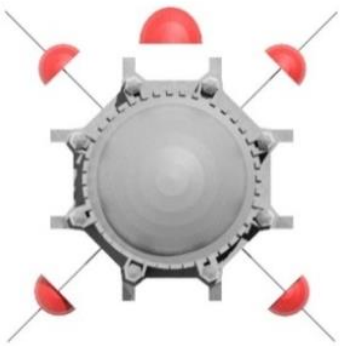
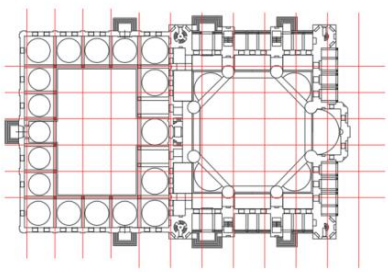


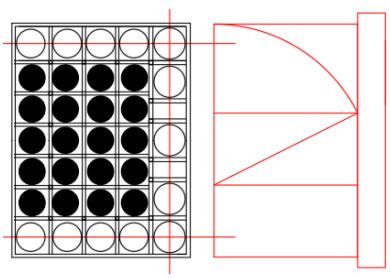
Table 8.a : Result of fragmentation analysises (Source: researcher).

		Level of fragmentation		
Fragmentation	Form	Type	Part whole	Deconstructing (explode) the form or plan
		style	Part whole	
	Plan	Type	Part whole	
Segmentation	Form	Type	Part whole	Applying Gestalt Principles when deconstructing the form or plan
		Style	Part whole	
	Plan	Type	Part whole	

Table 9: Identical repetitions analyses (Source: researcher).



Use the repetitive module, and the grid system



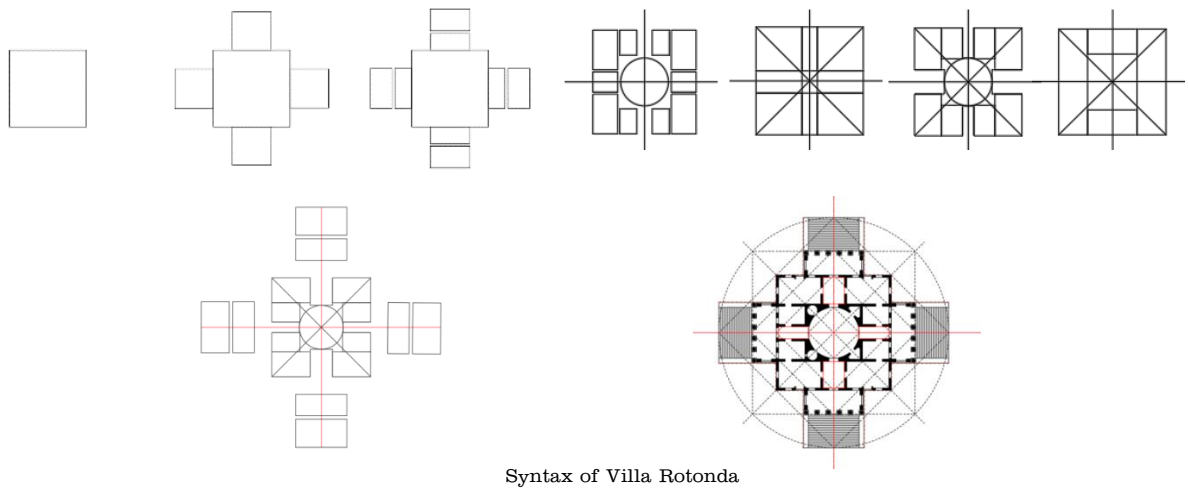
Identical repetitions size and shape of dome

Table 9.a : The result of Identical repetitions analyses (Source: researcher)

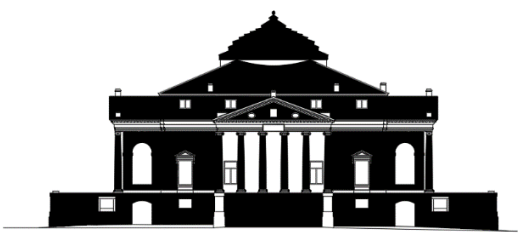
Repetitions	Dimensions of repetition		
Identical repetitions in architecture	1- Line 2- Size 3- Shape		Conceptual element
	4- Color	Hue value Chroma	Visual elements
	5- Texture		
	6- Direction 7- Position 8- Space 9- Gravity		Relational elements
	Use the repetitive module, and the grid system.		Plan level Elevation level Section level

Table 10: Graphical subtraction analysis, for Villa Rotonda (B2) (Source: researcher).

Project functional type: Villa. Project name: Villa Rotonda. Architect: Andrea Palladio. Year: 1567 – 1605. Location: Vicenza, Veneto, Italy

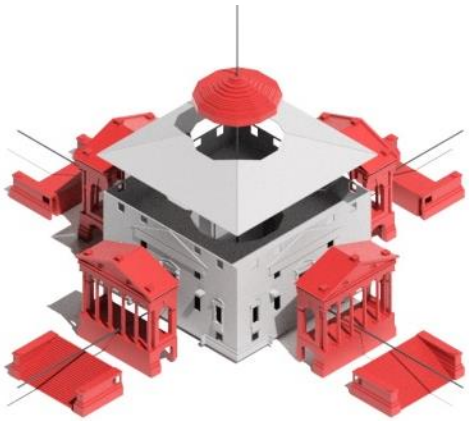


Syntax of Villa Rotonda



Subtractive and addative in Elevation, (Black is mass, white is Space)

Model of Villa



Additive model

Table 10.a : The result of subtraction analysis (Source: researcher).

Level of Subtraction			**Type of Subtraction**	**Result of Subtraction**
space	----	----	Conceptual Subtraction	Neither a type nor a style
Form	Type	Part Whole	Literal Subtractions Subtractions in Number	Typological Rhetoric
	style	Part Whole	Literal SubtractionSubtractions in Number	Stylistic Rhetoric
plan	----	----	Literal Subtractions Subtractions in Number	Typological Rhetoric

This model was composed based on the addition strategies only

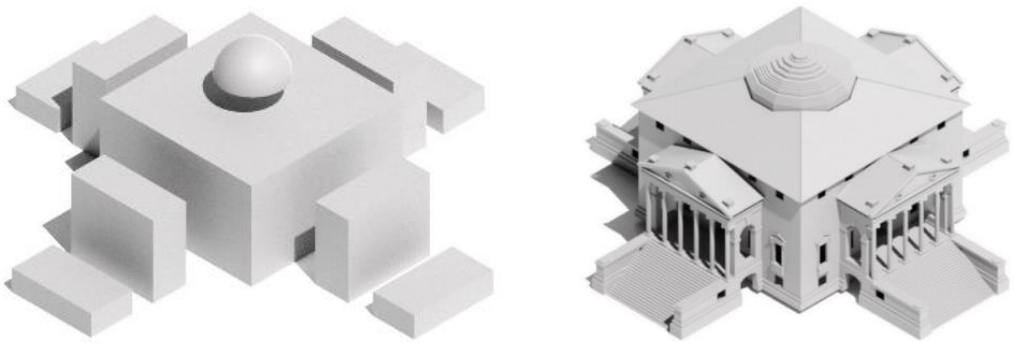
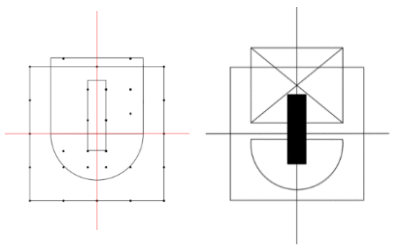


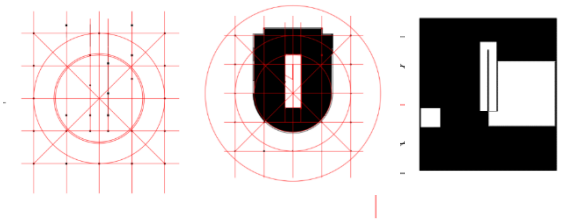
Fig. 11: Geometrical Rigor analyses (Source: researcher)

Table 11: Graphical subtraction analysis, for villa Savoye (C1) (Source: researcher).

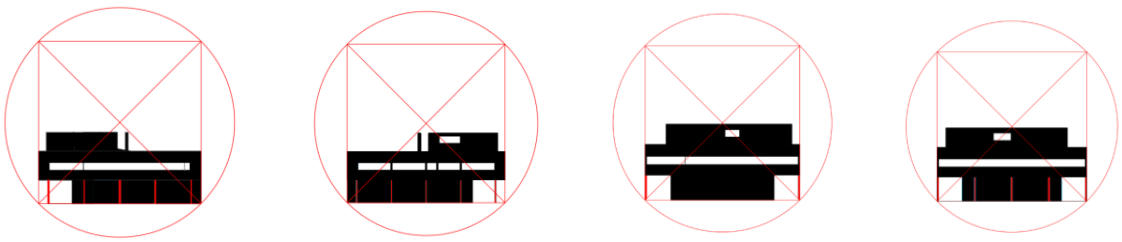
Project functional type: Villa. Project name: villa Savoye. Architect: Le Corbusier. Year: 1929-1931. Location: Poissy, Paris, France.



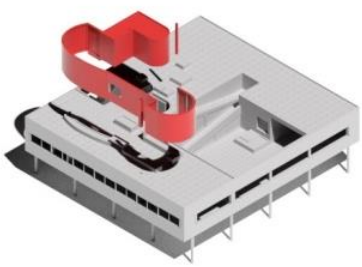
Syntax of Villa Savoye



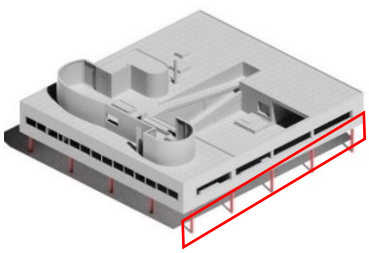
Subtraction and addition in plans
(Black is Mass, white is Space)



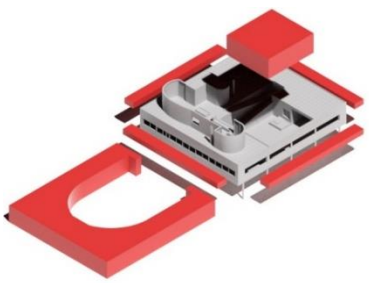
Subtractive and addative in Elevation, (Black is mass, white is space)



Additive model



Subtraction in number. Using the odd number 5 in the column

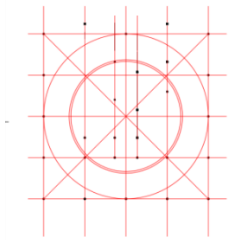


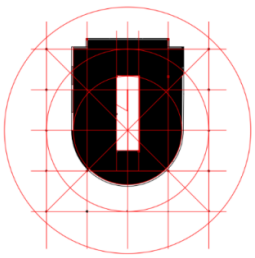
Literal sabtractive model

Table 11.a : The result of subtraction analysis (Source: researcher).

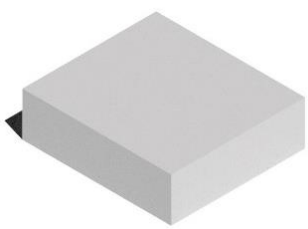
Level of Subtraction space	----	----	Type of Subtraction Conceptual Subtraction	Result of Subtraction Neither a type nor a style
Form	Type	Part Whole	- Literal Subtractions - Subtractions in Number	Typological Rhetoric
	Style	Part Whole	- Literal Subtractions - Subtractions in Number	Stylistic Rhetoric
Plan	----	----	- Literal Subtractions - Subtractions in Number	Typological Rhetoric

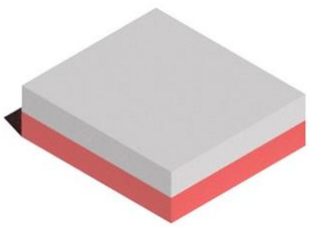
Table 12: Identical repetitions analysis (Source: researcher).





Repetitions	Dimensions of repetition		
Identical repetitions in architecture	1- Line		Conceptual element
	2- Size		Visual elements
	3- Shape		
	4- Color	Hue value Chroma	Visual elements
	5- Texture		Visual elements
	6- Direction		Relational elements
	7- Position		
	8- Space		
	9- Gravity		
Use the repetitive module, and the grid system.	On the Plan level		
	On the Elevation Level		
	On the section level		





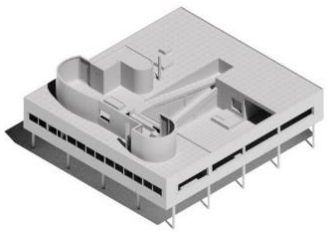
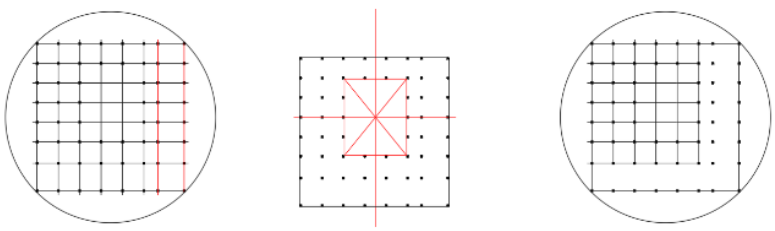


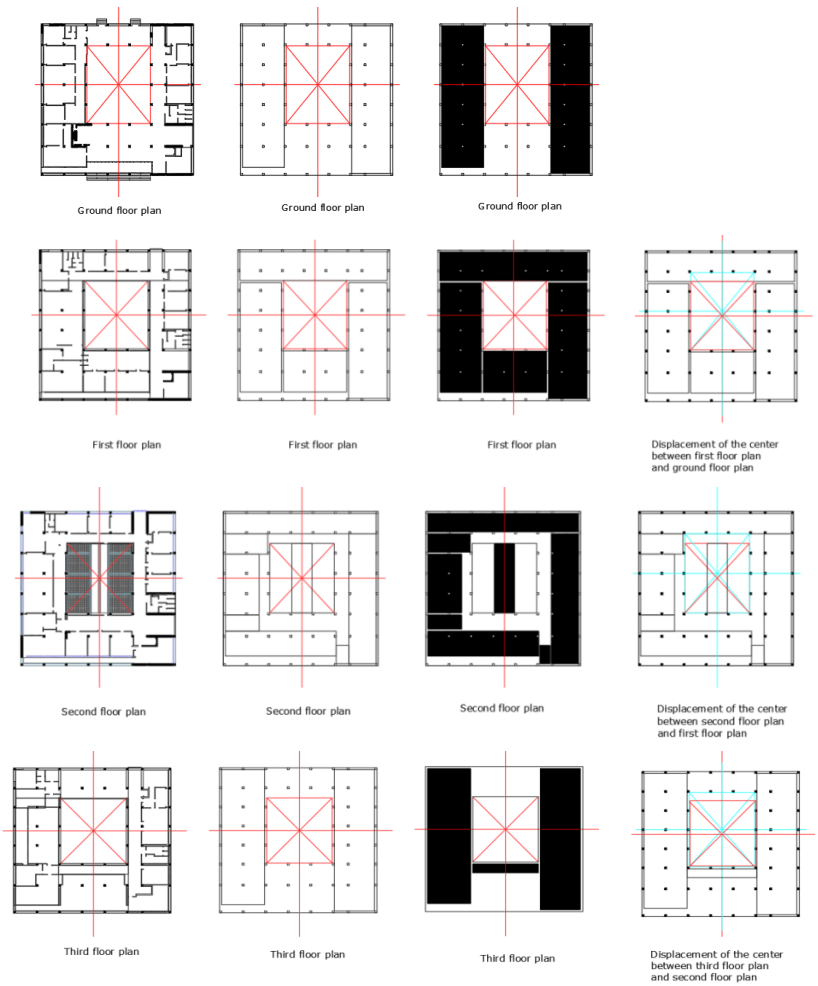
Fig. 12: Geometrical Rigor analyses (Source: researcher).

Table 13: Graphical subtraction analysis for Casa del Fascio (C2) (Source: researcher)

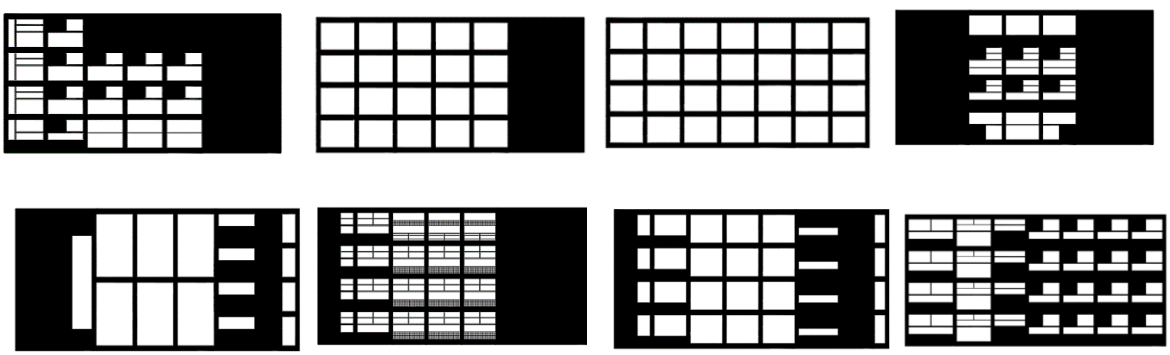
Project functional type: Head office of the provincial command of Guardia di Finanza. Project name: Casa del Fascio (Palazzo Terragni). Architect: Giuseppe Terragni. Year: 1932, 1936. Location: Como, Italy.



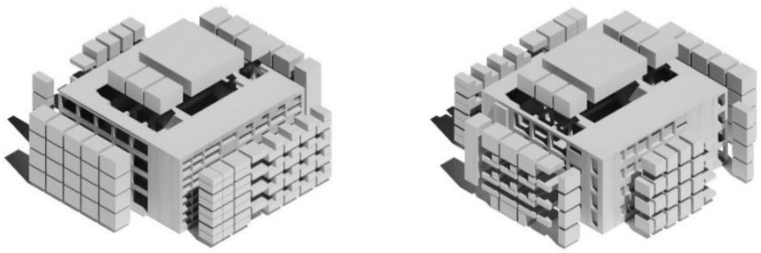
Syntax of Palazzo Terragni



Subtraction and addition in plans (Black is mass, white is Space)



Subtractive and addative in Elevation, (Black is mass, white is Space)

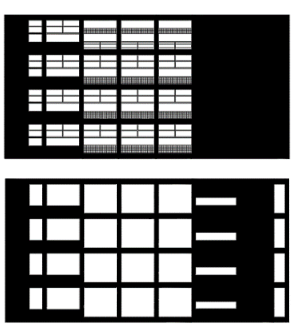


Subtractive model

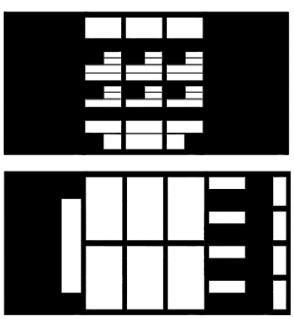
Table 13.a: The result of Graphical subtraction analysis (Source: researcher).

	Level of Subtraction		Type of Subtraction	Result of Subtraction
space	----	----	Conceptual Subtraction	Neither a type nor a style
Form	Type	Part Whole	Literal Subtractions Subtractions in Number	Typological Rhetoric
	style	Part Whole	Literal Subtractions Subtractions in Number	Stylistic Rhetoric
Plan	----	----	Literal Subtractions Subtractions in Number	Typological Rhetoric

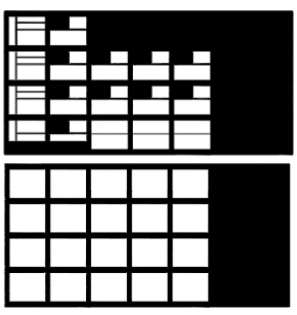
Table 14: Transparency analyses in elevations (Source: researcher).



Layering strategy in Side elevation



Layering strategy in Side elevation



Layering strategy in frontal elevation

Table 14.a: The result of transparency analyses in elevation (Source: researcher).

Type of Transparency	Source of transparency	Order
Phenomenal transparency	Inherent transparency of the organization (order)	1. Layering 2. Overlapping 3. Contouring 4. Fragmenting 5. Superimpose
Literal transparency	Inherent transparency of substance	Type of material (physical quality of substance)

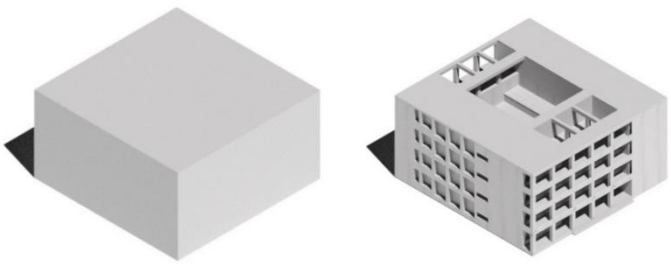
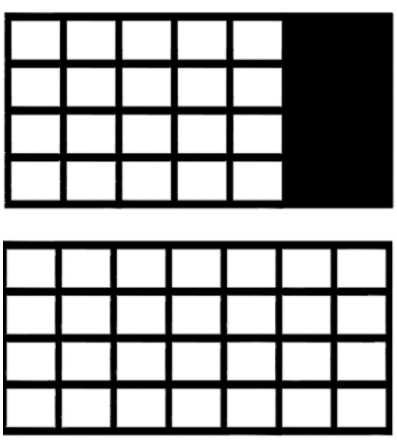


Fig.13: Geometrical Rigor analyses (Source: researcher).

Table 15: Identical repetitions analyses (Source: researcher).



Repetitions	Dimensions of repetition		
Identical repetitions in architecture	1- Line		Conceptual element
	2- Size 3- Shape		Visual elements
	4- Color	Hue value Chroma	
	5- Texture		
	6- Direction 7- Position 8- Space 9- Gravity		Relational elements
Use the repetitive module, and the grid system.	On the Plan level On the Elevation Level On the Section Level		

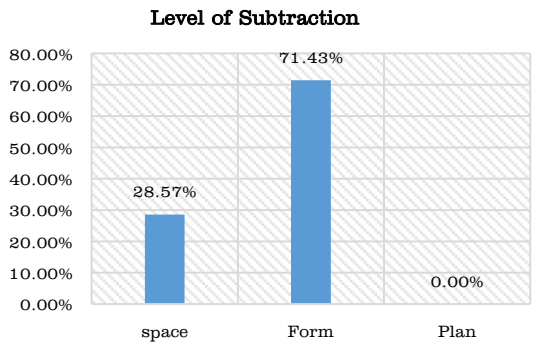


Fig.14: Level of subtraction of period B. (Source: researcher).

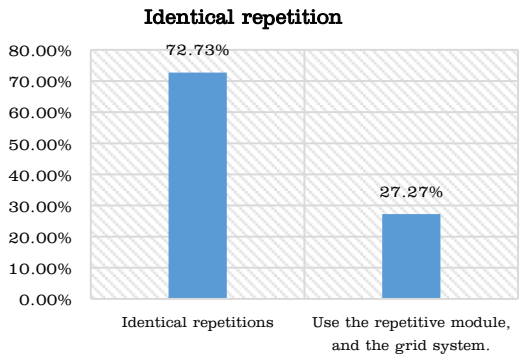


Fig.15: Identical repetition of period B. (Source: researcher).

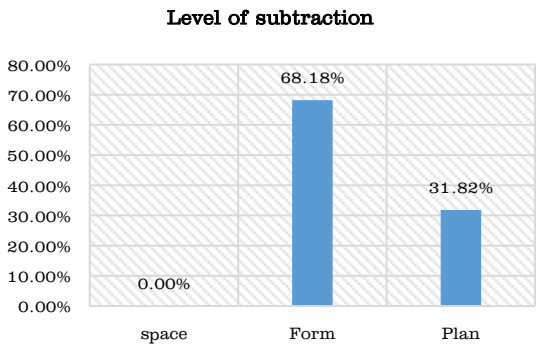


Fig.16: Type of subtraction of period C. (Source: researcher).

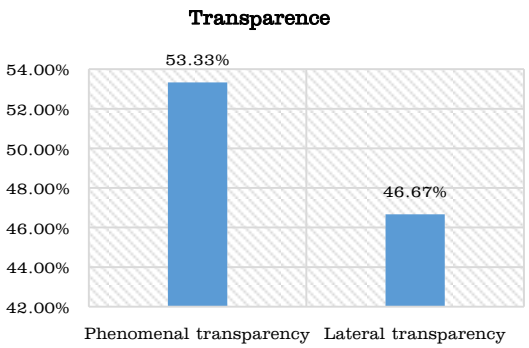


Fig.17: Type of Transparence of period C. (Source: researcher).

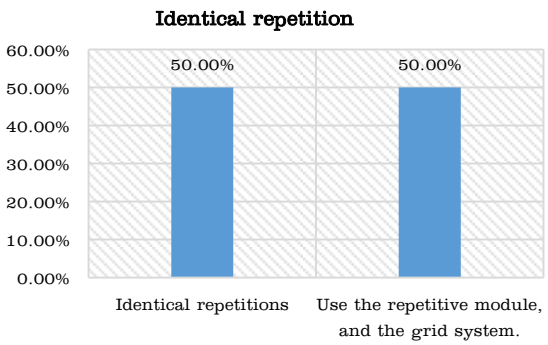


Fig.18: Type of identical repetition of period C. (Source: researcher).

Table 16: The tables that was used in the statistical analysis (Source: researcher)

No.	Variables					Evaluation of selected Period BB1	BB2
1-	Subtraction	**Level of Subtraction**			**Type of Subtraction**	**Result of Subtraction**	
		space	----	-----	Conceptual Subtraction	Neither a type nor a style	
		Form	Type	Part	Literal Subtractions	Typological Rhetoric	
					Subtractions in Number	Typological Rhetoric	
				Whole	-Literal Subtractions	Typological Rhetoric	
					Subtractions in Number	Typological Rhetoric	
			style	Part	Literal Subtractions	Stylistic Rhetoric	
					Subtractions in Number	Stylistic Rhetoric	
				Whole	Literal Subtractions	Stylistic Rhetoric	
					Subtractions in Number	Stylistic Rhetoric	
		Plan	Type	Part	Literal Subtractions	Typological Rhetoric	
					Subtractions in Number	Typological Rhetoric	
				Whole	Literal Subtractions	Typological Rhetoric	
					Subtractions in Number	Typological Rhetoric	
2-	Fragmentations				**Level of Fragmentation**		
		Fragmentation	Form	Type	Part		
					Whole		
				style	Part		
					Whole		
			plan	Type	Part		
					Whole		
		Segmentation	Form	Type	Part		
					Whole		
				Style	Part		
					Whole		
			plan	Type	Part		
					Whole		
3-	Transparency	**Type of Transparency**			**Order**		
		Phenomenal transparency			Layering Overlapping Contouring Fragmenting Superimpose		
		Lateral transparency			Type of material (physical quality of substance)		
4-	**Geometrical rigor**						
5-	Type of Identical repetition				**level of repetition**		
		Identical repetitions			1- Line 2- Size 3- Shape 4- Color 5- Texture 6- Direction 7- Position 8- Space 9- Gravity		
		Use the repetitive module, and the grid system.			On the Plan level On the Elevation level On the Section level		

Evaluation 0 none 1 poor 2 Average 3 Strong 4 Very strong