An Interpretation of Simplicity in the Frame of Minimalist Approach on Traditional, Modern and Contemporary Housing

Fırat Sözmener

Submitted to the
Institute of Graduate Studies and Research
in partial fulfillment of the requirements for the Degree of

Master of Science
in
Interior Architecture

Eastern Mediterranean University
August, 2012
Gazimağusa, North Cyprus

Approval of the Institute of Graduate Studies and Research

Dr. Elvan Yılmaz
Director

I certify that this thesis satisfies the requirements as a thesis for the degree of Master of Science in Interior Architecture.

Assoc. Prof. Dr. Uğur Ulaş Dağlı
Chair, Department of Interior Architecture

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Master of Science in Interior Architecture.

Assist. Prof. Dr. Kağan Günçe
Supervisor

Examining Committee

1. Prof. Dr. Kutsal Öztürk

2. Assoc. Prof. Dr. Özlem Olgaç Türker

3. Assist. Prof. Dr. Kağan Günçe

ABSTRACT

Before the industrial revolution deprivation of materials and technical flaws made traditional architecture simple. One of the best known architecture which emphasizes simplicity is Japanese Traditional architecture, after 1900s simplicity appeared again as a movement in Modernism style which is called Minimalism in the 1950s and continued through the Sixties and Seventies (Roth, 2000). Minimalism is a term to describe arts that thrive on simplicity in both content and form, and sign of personal expressivity. Simplicity can be seen in every field of art and design. Minimalist attitude on dwelling takes specific features of Traditional Japanese housing; space organization, multipurpose spaces, flexible indoor environment, openings and form of internal space. It is also possible to meet with similar approaches in different cultures' traditional dwellings examples.

The aim of Simplicity is to allow the viewer to experience the work more intensely. Simplicity includes simplification, purity and elegant organization in life. Simplicity conception in housing can be define as removing inessential elements to achieve clean and fine finishes, subtraction and purity with geometric forms, intense perception of the spaces and eliminating all superfluous elements and result in clear. Simplicity design using necessary component of architecture; light, color, material, form and function to achieve simplicity, most important principle is removing minor elements to emphasize the major elements.

Main idea of this study is to analysis the effect of simplicity attitude in traditional, modern and contemporary period's 'Interior Architecture'. According to period of

prescription, simplification attitude in space organization and indoor environment pointed out with comparison method by mentioned periods (traditional, modern & contemporary simplicity housing). Simplification of Traditional architecture shows and emphasizes the bereavement way of simplification, on the other hand in Modern period's simplicity reflect the fashionable way and reaction against abstract expressionism. Nowadays simplicity emphasizes the blending results of existing conditions, technological advantages and 'minimalist' conception.

From this reason simplicity acumen has been researched from traditional architecture till today, which encompasses mentioned periods (traditional, modern & contemporary simplicity housing.) Depending on this, evolution of simplicity attitude has been researched with retrospective study, oppositions and similarities of mentioned periods have been criticized by Indoor environment. This study mainly focuses on the housing buildings. In this context, minimalist attitude explored and presented as a concept which is standing as a phenomenon not a style and which is not a temporary conception from traditional to contemporary.

Keywords: Simplicity, Minimalism, design principle, space organization, dwelling

ÖZ

Endüstri devrimi öncesinde malzeme çeşitliliğinin az olması ve teknik anlamda yoksunluklar Geleneksel mimariyi yalın kılmıştır. Bilindiği üzere, en yalın tavra sahip mimari Japon geleneksel konut mimarisidir. 1900'lü yıllardan sonar ise mimaride yalınlık etkisi bir mimari akım olarak yeniden karşımıza çıkmıştır. Minimalizm, 1950'lerde sadelik ve nesnelliği ön plana çıkaran bir akım olarak kendini göstermiş ve etkisini yetmişler ve seksenlere kadar sürdürmüştür (Roth, 2000). Aynı zamanda Minimalizm sanatta içerik ve form üzerinde yalınlığı ve kişisel dışa vurumculuğun bir parçası olmuş; yalınlık, tasarım ve sanatın her dalında gözlemlenebilmektedir. Konutta Minimalist tavır, belirgin özelliklerini Geleneksel Japon konutlarından almış; mekân düzenlemesi, çoklu kullanıma sahip mekân, esnek kullanıma sahip mobilya ve donatı, yalın mekân formu ile karşımıza çıkmaktadır. Ayrıca bu yalınlık diğer kültürlerin geleneksel konut mimarisinde de gözlemlenmektedir.

Yalınlığın amacı izleyicinin nesneyi daha derinden algılamasını, yani vurgulanmak isteneni öne çıkarmaktır. Yalınlık yaşama biçiminde sadeleşme, saflık ve zerafet olarak kendini göstermektedir. Konut tasarımında yalınlık ise gereksiz olanı kaldırarak detaydaki kusursuzluğu öne çıkarmak, geometrik ve yalın form kullanımı, mekânın yoğun biçimde algılanmasını ve kullanımını sağlamak olarak tanımlanabilir. Yalınlık tavrı mimarinin önemli öğelerini ihtiyacı kadar kullanmayı savunur bunlar; ışık, renk, malzeme, form, fonksiyon olarak sıralanabilir, en önemli özelliği ise gereksizi olanları kaldırarak gerekli olanı öne çıkarmaktır.

Yapılan bu araştırmada temel amaç yalınlık tavrının 'İç Mimari'deki etkisini, geleneksel, modern ve günümüz konutlarında icelemektir. Belirtilen dönemlere göre (geleneksel, modern ve günümüz konutlarında yalınlık) mekân organizasyonunda ve iç mekân elemanlarında yalınlık tavrı karşılaştırmalı olarak ortaya konmaktadır. Geleneksel mimarideki yalınlık, yalınlığın yoksunluk boyutu ile vurgulanırken; Modern mimarideki yalınlık, biçime verilen aşırı öneme karşı tepkiyi ve modayı simgelemekte; günümüz mimarisindeki boyutu ise, 'minimalist' kavram ile mevcut koşullar ve teknoloji avantajları harmanalanarak ön plana çıkarılmıştır.

Söz konusu yaklaşımlar, Geleneksel, modern ve günümüz mimari konutları üzerinde örneklemelerle incelenmiştir. Buna bağlı olarak yalınlık tutumunun evrimi, retrospektif olarak ortaya konmakta, belirtilen dönemlerdeki (geleneksel, modern ve günümüz konutlarında yalınlık) farklılık ve benzerlikler, iç mekan boyut ile incelenmiştir. Bu çalışma esas olarak konut mimarisi odaklıdır. Bu çerçevede minimalist yaklaşım gelenekselden günümüze uzanan ve gelip geçici olmayan bir olgu olarak karşımızda durduğu belirtilen dönemlerle ortaya konarak araştırılmıştır.

Anahtar Kelimeler: Yalınlık, Minimalizm, tasarım, iç mekân, konut

ACKNOWLEDGEMENTS

Appreciation is expressed to:

...my parents and my sister Ferda for their supports...

...my friend Şeniz that has kept encouraging me during the whole process...

Lastly greatest appreciation is expressed to my supervisor Asst. Prof. Dr. Kağan Günçe for his trust, encouragement and supports in this research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

INTRODUCTION

1.1 Aim of Research

Nowadays effect of simplicity can be seen in every field of design as Minimalism. Conception of minimalism includes simplicity, plurality and elegant organization in life. Today's minimalism get in evolution by combining with new facilities.

After modern period and evolution of industry, simplicity starts to evolve in the 1950s and continued through the Sixties and Seventies; it is rooted in the reductive aspects of Modernism, and a bridge to postmodern art practices. In addition, the work of De Stijl artists is a major source of reference for this kind of work. De Stijl expanded the ideas that could be expressed by using basic geometric elements (Vidler, 2008).

Simplification is belief and philosophy, which is a life style. Simplification is a way to remove the clutter, comprehending "doing more with less" as a philosophy to achieve the less clutter in our lives. Minimalist residence understanding can be defined as simple, livable, and functional space organization with minimalist philosophy.

Today, Minimalist attitude has been applied in many countries in the world, consequently we can see effect of minimalism in architecture; housing, office and

commercial buildings. Housing space/scheme is the best indicator of human being's culture and lifestyle. Application and understanding of simplicity and minimalism shows differences in traditional, modern and contemporary periods. Minimalist attitude is highly influenced from Far east culture, after a time period it gets in evolved and exposed modern minimalism, nowadays contemporary minimalist acumen show differences with effect of richness, facilities and new viewpoints (Islakoğlu, 2006).

Depending on these, the aim of the research is analyzing and understanding of simplicity attitude by considering the mentioned periods (traditional, modern & contemporary minimalist housing). Space organization, interior space elements, furniture, form, color, texture and openings are the main factors that will be analyzed. This analysis will emphasize the similarities and differences in housing design under the influence of the changing social, economic, cultural, political and technological conditions of the mentioned periods.

1.2 Research Problem

In this research, firstly simplicity is defined by literal meanings then, simplification conception is discussed and finally minimalist attitude has been defined in fields of architecture and design areas.

In the scope of research, simplicity attitude has been researched from the beginning of industrial evolution and continued through the Seventies till today, which are denominate as Traditional, Modern and Contemporary minimalist acumen. Depending on this, evolution of simplicity attitude and minimalism has been researched with retrospective study, opposition and similarities of mentioned periods

has been criticized, by interior space organization, form, material usage and furniture elements to emphasize the evolution, similarities and opposition of simplicity attitude on indoor environment. More over nowadays Residence conception started to be sighted with Minimalism as a 'Minimalist Residence' conception. This residence conception emphasizes the luxury, however minimalism refers to being far away from luxury this opposition and relationship of this conception is another point that has been analyzed in this study.

1.3 Methodology & Limitations

In this research, definition of simplicity and minimalist attitude has been researched through the mentioned periods (traditional, modern, contemporary), by literature sources and retrospective study. Depending on this, definitions, visions, examples and states have been organized according to mentioned periods which are denominated as traditional, modern and contemporary minimalist acumen. Then today's Minimalist dwellings have been researched to criticize the similarities and oppositions between 1950's till today.

This study has a qualitative methodology, using retrospective analysis to provide the theoretical framework. It mainly focuses on the dwellings, in the frame of Simplicity acumen according to mentioned periods (traditional, modern & contemporary minimalist housing).

Generally styles are clearer in public buildings however in Minimalist conception, human and relationship between human and space is really important from this reason the case study's examples are selected from the housing buildings, examples

that chosen for this study are representatives of the architectural characteristics of each period.

Traditional, Modern and Contemporary periods have been limited according to historical roots. Traditional period has been limited and proffered with prominent building examples from traditional architectures in the frame of simplicity. In Modern period building examples has been chosen regarding the duration between Modern and New Modern period in the frame of Minimalism. Contemporary building minimalist examples have been chosen according to the period which involves the building examples from New Age (Millennium).

This study is theory, analysis and synthesis type of research with simplicity housing of selected architectural periods. The data is collected through literature survey, site survey, analysis and synthesis.

1.4 Structure of Thesis

In this section basic structure of thesis has been represented through reader under 5 Chapters which are; introduction (1), simplicity in architecture (2), simplicity concept in indoor space (3), housing characteristics of simplicity (4) and findings and conclusions (5).

Table 1: Basic structure of thesis

INTRODUCTION		
AIM OF RESEARCH	**RESEARCH PROBLEM**	**METHODOLOGY**

THEORETICAL BACKGROUND		
SIMPLICITY IN ARCHITECTURE	**UNDERSTANDING AND EVOLUTION OF SIMPLICITY IN ARCHITECTURE**	**SIMPLICITY CONCEPT IN INDOOR SPACE**
• **DEFINITION OF SIMPLICITY** • **BEGINNING OF SIMPLICITY IN DESIGN AND ARCHITECTURE** • **GENERAL UNDERSTANDING OF SIMPLICITY**	• **TRADITIONAL UNDERSTANDING** • **MODERN UNDERSTANDING** • **CONTEMPORARY UNDERSTANDING**	• **DEFINITION OF SPACE** • **CLASICIFICATION OF SPACE** • **INTERIOR SPACE ELEMENTS** • **FUNCTIONAL REQUIREMENTS**

ANALYSIS OF CASE STUDIES		
HOUSING CHARACTHERISTICS OF SIMPLICITY		
• **SIMPLICITY IN TARDITIONAL HOUSING**	• **SIMPLICITY IN MODERN HOUSING**	• **SIMPLICITY IN CONTEMPORARY HOUSING**

FINDINGS AND CONCLUSIONS

Chapter 2

SIMPLICITY IN ARCHITECTURE

2.1 Definition of the Simplicity

In this section, the term simplicity and related words have been explored in the Oxford dictionary (2011) and simplicity theory has been researched.

- Simplicity: (1) The quality or condition of being easy to understand or do.
  (2) The quality or condition of being plain or uncomplicated in form or design.
- Simple : (1) Easily understood or done; presenting no difficulty.
  (2) Composed of a single element; not compound.
- Simplify : Make (something) simpler or easier to do or understand
- Purity : Freedom from adulteration or contamination.
- Plain : Easy to perceive or understand; clear.
- Plainness : (1) Without a pattern; in only one color.
  (2) Bearing no indication as to contents or affiliation.
- Less : (1) A smaller amount of; not as much.
  (2) Fewer in number.
- Minimum : (1) The least or smallest amount or quantity possible.
  (2) Smallest or lowest.
- Minimal : Of a minimum amount, quantity, or degree; negligible.

Simplicity can be defined as clarity in every field of design. As a theory, simplicity brings simple rhythm with geometric forms. Simplification attitude brings understandable results in to the art, in addition to visual clearness, simplicity theory stimulate thinking in art.

Simplicity theory was born in Far East culture, traditions and Buddhism philosophy is a life style comprehending "doing more with less" as a way to remove clutter in our lives. It is a way of simplifying life style with staying away from chaos, disorder and complication. On the other hand, while talking about simplicity, complexity has to be mentioned.

Maeda (2006) implies that:

> There is a harmony between complex and simple that is achieved through human nature. Everyone's instinct is different, and thus a single answer is not readily available to achieve the optimal balance between simplicity and complexity. (pp.86-87)

The process of reaching an ideal state of simplicity can be truly complex. The simplest way to achieve simplicity is through thoughtful reduction. The basic question is, where's the balance between simplicity and complexity? Balance is in between the relationship of them, how simple you want to make it has to be complex that much (Maeda, 2006).

In order to explain simplicity conception in theoretical frame, John Maeda define and explain the laws of simplicity in his book "The Laws of Simplicity" with 10 principles,

- The simplest way to achieve simplicity is through thoughtful reduction.
- Organization makes a system of many appear fewer.
- Savings in time feel like simplicity.
- Knowledge makes everything simpler.
- Simplicity and complexity need each other.
- What lies in the periphery of simplicity is definitely not peripheral.
- More emotions are better than less.
- In simplicity we trust.
- Some things can never be made simple.
- Simplicity is about subtracting the obvious, and adding the meaningful

In addition to simplicity theory with respect to the subject, some of the views of scholars,

- Simplicity, Leonardo da Vinci described it as “the ultimate sophistication” (1452-1519)
- "Simplicity is nature’s first step, and the last of art." - Philip James Bailey (1816- 1912)
- "The art of art, the glory of expression and the sunshine of the light of letters, is simplicity." - Walt Whitman (1819-1892)
- "To simplify complications is the first essential of success." - George Earle Buckle (1854- 1935)
- "Order and simplification are the first steps towards the mastery of a subject." - Thomas Mann (1875- 1955)

- Albert Einstein said “everything should be made as simple as possible, but no simpler”

- "God always takes the simplest way." - Albert Einstein (1879- 1955)

- "The ability to simplify means to eliminate the unnecessary so that the necessary may speak." - Hans Hofmann (1880-1966)

- "Simplicity is the seal of truth." – Proverb

- "Simplicity is the peak of civilization." - Jessie Sampter (1883- 1938)

2.2 Beginning of Simplicity in Design and Architecture

In early periods, each civilization had specific features in terms of architecture, which are related with region, geographical positions and national features of a country, these specific architectural features of countries denominate as Traditional Architecture.

Prehistoric Dwellings, shelter ranks with food and clothing as one of the three basic necessities of life, but our knowledge of primitive dwellings is still quite limited (Nishi and Hozumi, 1985).

In Traditional architecture period, deprivation of materials and technical flaws makes Traditional as simple. As is known, one of the best known architecture which emphasizes simplicity is Japanese Traditional architecture.

Nishi and Hozumi (1985) defined Japanese Traditional simplicity as:

> The distant ancestors of the modern Japanese appear to have sought protection from the wind and rain in natural shelters such as rocky overhangs or caves, or in simple huts built of the wood from nearby trees. (pp.54-55)

After the industrial development, it was a forward-looking period during which modernity, as defined more by the speed, simplicity, and functionality that helped to win the war and less by the socially conscious modernist theory of the European designers, was accepted as the way of the future (Prudon, 2008).

In 1900's Modernism period, Artist Kasimir Malevich's paintings and architect Mies van Der Rohe's works were reflected the first signals of simplicity acumen (Islakoğlu, 2006).

Contemporary simplicity which is also denominated as Minimalism, generally has similar features as traditional and modern period instead of functional and structural simplicity, minimalism come out with removing all inessential elements in the dwelling.

Simplicity brings plurality and functionality to Design. One of the basic principles of simplicity is removing inessential elements, bringing usability and servable purpose to objects and products. In addition to usability, simplicity brings plural beauty, with simple geometric shapes and demonstrates that simple can be beautiful.

Aim of the research is analyzing and understanding of simplicity attitude on dwelling, for this reason in this section definition of simplicity and minimalism in design has been summarized regarding the illustration of pioneers.

“Less is more” Ludwig Mies van der Rohe

A movement which cannot be explained by visual features (Malhan, 1997).

“Being sensitive to environment, ecological thinking, usage of less material and giving respect to nature.” (Erda, 2001).

“We call minimalist as achieving the maximum degree of simple bounded forms.” (Pawson, 1998).

“Minimalism is not a style; it is an attitude, a way of being. It’s a fundamental reaction against noise, visual noise, disorder, vulgarity. Minimalism is the pursuit of the essence of things, not the appearance.” Claudio Silvestrin (Bertoni, 1999).

John Pawson (2002) states: "The minimum could be defined as the perfection that an artifact achieves when it is no longer possible to improve it by subtraction. This is the quality that an object has when every component, every detail, and every junction has been reduced or condensed to the essentials. It is the result of the omission of the inessentials." (Pawson, 2002).

Adnan Kazmaoğlu (1997) defines Minimalism in design and architecture as: “maximum plainness with minimum material, to achieve maximum economy and functional result” (Kazmaoğlu, 1997).

Minimalism is not denying, diminishing, or chasing simplicity. It can be qualify as decreasing the basic concepts of architecture such as space, light, materials and detail. Minimalism uses minimum number of colors, textures, shapes, forms and materials, to achieve simplification.

2.3 General Understanding of Simplicity

According to general understanding of simplicity, simplicity has been researched by considering social, economic, cultural, political and technological conditions of the mentioned periods.

2.3.1 Traditional Understanding of Simplicity

Cultural values and traditions preserve communities. These values are creating societies histories moreover provides cultural continuity to future generations. Traditional structures, made by local craftsmen and by the owners with typical and local materials. For this reason, traditional buildings in different areas show similarities according to their geologic and climatic conditions (Günçe, 2006b).

In the nomadic life transition of primitive mankind from the hut and shelters to settled life and agricultural civilization is regarded as the beginning of the architecture in history. With the transition to the settled life and conception of belonging to where you live, developed the civilization and formed the villages, towns and cities.

In this period, Egyptian architecture was mentioned at first. Egyptian buildings are one of the first building types in the beginning of settled life. In this period deprivation of experience and technical flaws brings simplicity to these buildings. Furthermore simplicity can be seen on general view of classical Greek architecture

even it shows differences in each cities and period, but the main features of Greek buildings are the straight lines, symmetry, and repetition (Roth, 2000).

Moreover buildings in Roman architecture period, clearly understandable in visual manner, proportional relationships and linkages between the parts of structure have been clearly recognized. Romans take the advantage of concrete's flexible usage by giving form to building and in interior space they discovered the way of light and shadow formatting. The easy and powerful effect on the whole perception, spatial organization, and basic geometric shaped structures in Roman architecture and exaggeration from decoration indicates that Romans were under the influence of pure esthetic beauty (Roth, 2000).

However simplicity is a philosophy that involves doing less to live. To live in a simple space is redound minimizing everything, it must be adopted as a philosophy of life. Therefore, when examining Simplicity in history, appearance of Japanese minimalism and Far East culture which have significant effects needs to be researched.

Far Eastern culture and the Japanese dwelling architecture are examined detail in section 2.4.1.1, Japanese culture and philosophies of life in the Far East, the traditional residential architecture and the architecture has been an important outlet for today's comments of Simplicity and Minimalism. Far Eastern culture is one of the main sources of the simplicity idea. Countries that have a minimal life in the Far East such as Japan, played an important role in simplicity. Geographic and climatic

conditions in Japan, the Japanese people's religions, life philosophies and traditions are major factors in adoption of a simple life.

Japan's geographical conditions, such as being surrounded by water, having a small surface area together with the Japanese people's religions and cultures, carry the qualities of Japanese traditions and adopt the lifestyle in a simple way. In addition, due to such reasons, the Japanese have been capable of expressing them with anything less. The most important characteristic of Japanese culture is knowing the human and nature relationship and being satisfied with less (Nishi and Hozumi, 1985).

The Japanese philosophy of minimal life has brought simplicity in their dwelling interiors. The effect of simplicity on Traditional Japanese housing space; feeling of spatial emptiness, relationship with nature, fluidity and flexibility in interior provided by sliding dividers, the usage of natural materials and peaceful colors, light and shade, given importance to properties such as multi-purpose features, significantly reflected to interior of housing. Japanese ideas of expanding the limited space are known by the worldwide. In Japan, especially Tokyo, in cities like Osaka people spent their times in work and away from home, thus house became a place of silence and tranquility. As it’s understood from here, Simplicity received a large portion of Japan's calmness and has been translated according to their own purposes (Vice, 1994).

Japanese world view and type of dwelling architecture, significantly affected to the Western architects. Some values, especially the industrial revolution in the West

have been detected in Japanese cultural environment much earlier. Needs of human, relationship with nature, rationality, natural, simple, calm, elegant aesthetic pleasure, are some of the values which stands out (Sentürer, 2000).

2.3.2 Modern Understanding of Simplicity

Modern Architecture appeared in 19th century by the results of improvements in the industrial revolution. Scientific, technical and industrial developments, orientation to simplicity and functionality, and such new issues have become important factors in the emergence of Modern Architecture (Hasol, 1998).

Especially in the 20th century, after the beginning of modern architecture movement in the West, West has gained a great experience and speed. De Stijl (1917), Purism (1918), Brutalism (1954) and similar theories and ideologies formed the basis for Modern Architecture (Kortan, 1998).

In the beginning of modernism artists were interested with reductionism. After 20th century after the war human being start to judging art and cultural values where upon the capitalist fight of marketing. Expression of abstract art came to top point as a reaction to political system and the results of expediency sense on relationship of capitalism and technology. In this way art started to represent itself as a concept which can stand alone. In that period art had to be far from individuality and cheerful.

In the beginning of 20th century rising of Modern architecture and relationship between the Minimalism in terms of characteristic features is an important issue to be addressed. Minimalism was shaped by a reaction against Abstract Expressionism as Pop art. At the end of 1950's a group of young people emerged Pop Art movement,

in order to stay away from daily monotone life and as a reaction through abstract expressionism, Pop Art started to use as an art of consumption and used in marketing as advertisement. Accordingly, Minimal Art emerged as a reaction against abstract expressionism but which is not based on consumption. Minimal Art bring new perspective through art, instead of giving importance to visual beauty, minimalism give importance to object and relationship with object and environment (Arıcı, 2012)

According to Nancy Azarbad (2012) minimalism is birth of simplicity and functionality with minimum material… Sometimes minimalism show similarities with cubism and functionalism however minimalism is a style which maintain traditional values thus it will not become a temporary style (Azarbad, 2012)

Minimalism is also known as ABC art. In America the style showed its strength in the 1960s and reflected the pure simplicity of art as an idea (Eroğlu, 1998). Minimalists wanted to remove suggestions of self-expressionism from the art work, as well as evocations of illusion or transcendence or, indeed, metaphors of any kind, though as some critics have pointed out, that proved difficult (URL1, 2011). In the general view of Minimalist Architecture conception, it can be clearly observed that it carries the effects of Modern Architecture on the foundation of Minimalism.

First of all Modernism is not a static movement, contrarily the moving-should be understood as a dynamic phenomenon. Modernism evolves and changes as required by new materials and technologies, new functionality and new economic conditions (Kortan, 1998).

The most important feature of Modernism is forming its foundation with rationalist, pure, geometric forms and function. Modernism denied useless elements; non-functionality especially denied ornamentation. In the beginning of 20th the beauty of the modern architecture without ornamentation has been written in all manifests. The pioneers of modernism have made plainness and simplicity as a part of their styles. Modern Architecture based on originality and genuine design conception, rather than to copies historical and old forms. A good structure must have the appropriate qualifications and aesthetic appeal in terms of usage. Thus, the arrangement of interior spaces and the plan has gained at least as important as the exterior appearance (Hasol, 1998).

Le Corbusier and Amadee Ozenfant have demonstrated an ideology in 1918, the principle of their theory is simplicity "Formal Purity" (Purism). The famous philosopher Plato, who has developed Euclidean the basic forms of geometry cubes, spheres, cylinders, cones has accepted as beautiful forms from Le Corbusier (Kortan, 1999).

Minimalist approach in Architecture and design became parallel concept of functionalism. While De Stijl movement became an important step in integrating the concepts of art and design, Piet Mondrian, Theo van Doesburg and Gerrit Rietvield became pioneers which are looking for excellence with pure colors, simple geometric forms that reduces to a combination of simplicity and integrity in art, design and architecture. Even if the product seems simple, having most with less is most powerful feeling (Kazmaoglu, 1997).

"Less is more" principle shows the main idea of Minimalist movement. This principle of Mies Van Der Rohe became basic guiding for all the minimalist works. Donald Judd's furniture, Wim Wenders's cinema, John Cage's music, the architecture of Mies Van Der Rohe, Samuel Beckett's theater, to Ernest Hemingway's literature, "Less is more" is dedicated to the theme of minimalism (Sarıyer, 2002).

Mies Van Der Rohe removes local identities, universalizing moreover generalize functional fictions, bring attitude of "multipurpose". This approach matches up with the concept of minimalist art. Mies maximizes the fluid flow sense in interior space even between architecture and nature in his designs.

Simplicity in Modern architecture, attitude that against to ornamentation, getting rid of all kinds of elements that prevents the emergence the essence of architecture, continuity, minimized details, universality, giving respect to the nature and such a lot of things shows the similarities between Minimalism and Modern Architecture. As a result of Modern Architectural movements can be ordered that felt the effects of Simplicity; Minimalism, De Stijl, Purism, Functionalism, Rationalism and Brutalism.

2.3.3 Contemporary Understanding of Simplicity

Today minimalism still have the effect of validity and charm on arts such as painting, sculpture, music, architecture, which also affects areas such as literature, cinema, industrial design, web design, moreover it is called as a conception in a "fashion" it become a trend.

Contemporary way of simplicity also shows it's self as Postminimalism. Postminimalism is a term that is used for several types of art which has been affected from minimalism and set out from minimalism. This conception generally shows its strength on visual arts and music. Unlike the minimalist products post minimalist products can be defined as conceptual. However in architecture post minimalism couldn't become effective as Minimalism (Sarı, 2012).

Minimalist attitude resurged and shaped the space and relationships between user and space in architecture. Minimum number of colors, texture, shape and form had been used in designs, the desire to achieve what is simple and minimal began to look like a success in design. It can be said that in this period minimalist design developed in rationalist axis.

This approach later especially show it effects on dwelling architecture, recalling the traditions of Modernism, the design of formal restrictions and limitations, the basic geometric forms, with dominance of white, perfectly shaped Minimalist houses started to design. Years later, Mies's and Philip Johnson's plain, ideal and simple approaches interpreted and applied to the new designs by such as architects Tadao Ando, John Pawson, Claudio Silvestri, Luis Barragan, Michael Gabellini (Islakoğlu, 2006).

Contemporary Minimalism strongly shows its effects on Japanese Houses, as mentioned before simplification attitude and minimalism highly influenced from Traditional Japanese architecture. In order to better understand and see the effects of Minimalism and simplicity attitude, Contemporary Minimalist Japanese dwellings

has been researched in section 2.4.3.1 where Minimalism and simplicity attitude was born.

In the development of Minimalist attitude, contemporary minimalist design and architecture successfully accepted by the community area, as is evident by the increasing number of buildings that use contemporary minimalist approach which are called “Residence”. One of the most important reasons is being free of life responsibility. User needs are the major factors; “Residence Concept” examined detail in section 2.4.3.2. Minimalism itself strongly associated with patterns of thinking and way of life. A new perspective in viewing design reflects the urban way of life as very practical, lightweight, efficient, and management simplicity (URL2, 2011).

In addition to subject another examples of simplicity can be seen on Loft buildings. Literary meaning of “loft” in Oxford English Dictionary is: a room or space directly under the roof of a house or other building, used for accommodation or storage, attic storey. Generally Loft buildings are renovated projects which are renovated from industrial building to dwellings. In Loft dwellings usually old face of building and structure are protected, designers try to protect the nature of building as much as possible. Characteristic features of these buildings are; open plan organization, simplicity and fluidity in space and big emptiness feeling in that attic storey. The word ‘Loft’ is also used for marketing purposes (Yazıcı, 2011).

Contemporary simplicity and Minimalism especially shows its effects on dwelling architecture and ‘Residence conception’, it can be said that simplicity attitude in

design and minimizing life is part of contemporary design which is become a nowadays trend.

2.3.4 Evaluation of Simplicity

In this chapter according to mentioned periods (Traditional, Modern and Contemporary) movements and architectural periods under the influence of the simplicity concept, has been ordered and determined. In this study Traditional Japanese Architecture, Minimalism and Contemporary Minimalism conception are chosen for examine and analysis in detail.

In addition to this, the research presents a layered approach to task Traditional North Cyprus Housing in 2.4.1.2 related to Simplicity, in this section, strain of simplicity acumen and similarities of Indoor environment have been analyzed.

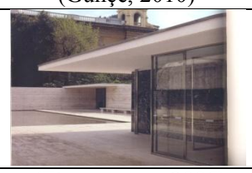
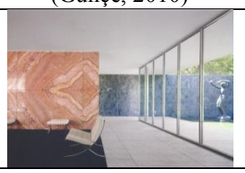
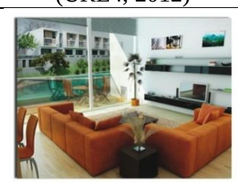
Table 2:Architectural periods under the influence of simplicity and selected periods

Architectural periods under the influence of simplicity		Selected section
TRADITIONAL	• Egyptian Architecture • Greek Architecture • Roman Architecture • Traditional Japanese Architecture	Traditional Japanese Architecture
MODERN	• Minimalism • De Stijl • Purism • Functionalism • Rationalism • Brutalism	Minimalism
CONTEMPORARY	• Postminimalism • Contemporary Minimalism	Contemporary Minimalism
Architectural periods and movements in each period has been explored and sections under the influence of simplicity has been chosen and ordered regarding the literature survey and studies that have done on simplicity and minimalism in architecture.		

2.4 Evolution of Simplicity in Architecture

In this section, simplicity attitude has been researched by considering the mentioned periods (traditional, modern & contemporary minimalist architecture). Characteristic features and basic principles of mentioned periods have been analyzed. This section emphasized the social, economic, cultural and technological conditions of the mentioned periods. In addition to the subject, in this section North Cyprus Architecture has been researched and analyzed in terms of simplicity by mentioned periods.

Table 3: Examples of simplicity in mentioned periods

Examples of Simplicity in selected periods			
Periods	**Selected Sections**	**Exterior view**	**Interior view**
Traditional Understanding of Simplicity in Architecture	• Traditional Japanese Architecture		
		(URL3, 2012)	(Mehta, Tada, and Murata, 2005)
	• Traditional North Cyprus Architecture		
		(Günçe, 2010)	(Günçe, 2010)
Modern Understanding of Simplicity in Architecture	• Minimalist Architecture		
		(Zimmerman, 2006)	(Zimmerman, 2006)
	• Minimalist Dwelling		
		(Zimmerman, 2006)	(Zimmerman, 2006)
	• Modern North Cyprus Architecture		
		(Uluçay, Uraz and Pulhan, 2010)	(Uluçay, Uraz and Pulhan, 2010)
Contemporary Understanding of Simplicity in Architecture	• Contemporary Minimalist Dwelling (From Europe & Japan)		
		(URL4, 2012)	(URL4, 2012)
	• Dwelling in the Frame of ‘Minimalist Residence Concept’		
		(URL5, 2012)	(URL5, 2012)

2.4.1 Traditional Understanding of Simplicity in Architecture

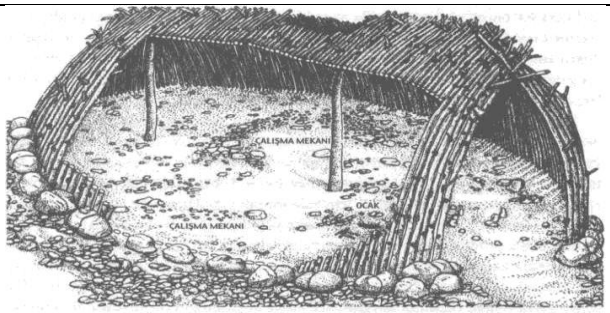
One of the main expression of the culture is traditional residential architecture, traditional building is one of the important data that showing the relationship of the cultural region. The oldest product of architecture and remains of a shelter was found on the ancient Mediterranean coast on an old pile of sand. Oval shaped, length between 26 and 49 feet, width with 13 and 20 feet in each huts, compressed to sand, 3 inch diameter and lateral walls of the fence was made of branch (Figure 1); on the edges of some shelters surrounded with the rocks which are 1 foot in diameter. Under the center it had one foot in diameter struts which should have carried roof, but there was no evidence of the roof (Roth, 2000).

A group of people every year turned back to this area, usage of fire, handmade artificial shelters shows that human ancestors shaping and controlled their environment according to their interests. In this way conscious shaping of architecture and living environment has been taken correctly.

Across Europe early Homo sapiens sapiens's dwelling sites have been uncovered. Those of Eastern Europe show a type of Cro-Magnon house that was apparently typical. These domed or conical shapes (Figure 2) probably rounded with frames of wood covered presumably with hides; they were prepared at the bottom with mammoth bones and skulls (Roth, 2000).

In early dwelling and shelter examples such as Terra Amata, Cro-Magnon dwelling, and Neolithic age dwelling examples has been set up as single unit spaces. Humans

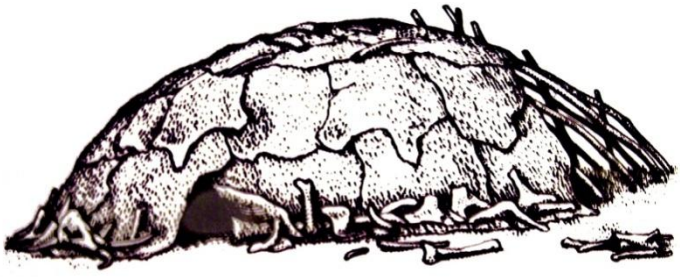
take the advantage of nature and used nature as a construction material furthermore deprivation of technical flaws bring simplicity to Traditional buildings.



Terra Amata (Roth, 2000)

Figure 1. Early dwelling example

Going back up approximately 44,000 years ago, and the nearest settlement is about 12,000 years ago appeared as superimposed over each other. In theses dwellings large groups of families should have been camouflaged and unrecognizable, because some houses about 30 feet in diameter. In both Moravyen sites approximately 29,000 or 24,000 years ago, two successive generations located. The houses were nearly identical with those found in Ukraine, and about 20 feet diameter and surrounded with massive bones (Roth, 2000).



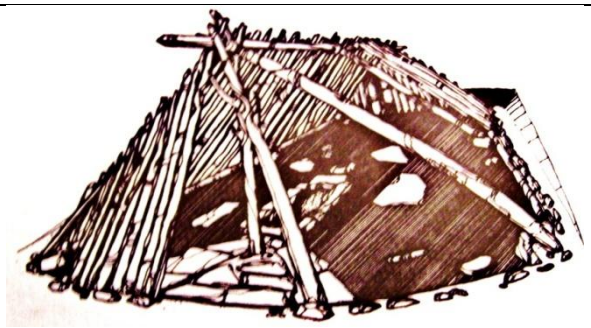
Cro-Magnon dwelling (Roth, 2000)

Figure 2. Shelter

With the Neolithic or New Stone Age, a new age had begun and humans increasingly settled in one permanent settlement places. Opposite the river, a series of huts of

trapezoidal plan were built in a technique which was less difference from that used by Homo erectus at Terra Amata, central ridge pole supported by a palisade of branches on either side of the house. Here the floors of the huts were of packed earth plastered hard around a central stone-lined hearth (Roth, 2000).

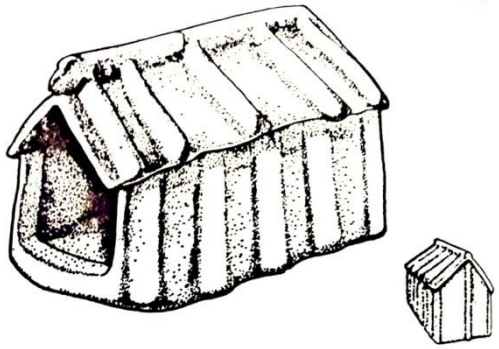
In Czechoslovakia, a clay model of a rectangular house was found as the remains of a Neolithic settlement (Figure 4). It had a double-pitched, or gable, roof and straight vertical walls. The walls of the model shows that original houses had walls which have made of woven wood mats covered with mud plaster, perhaps with a roof of thatch.



Neolithic age dwelling (Roth, 2000)

Figure 3. Simple dwelling

Occurrence of architecture, first city, and born of human culture is difficult to find out exactly when. With the tools making and using these tools in order to create an environment or artificial environments shows that they achieved some important and fundamental success. The technological improvement in the construction of a shelter was an important step for the development of human settlements and the agricultural field. Near the Tigris-Euphrates valley The Shelters were clustered together to make the first villages, then towns, and finally cities. In this period Egyptian Architecture is mentioned (Roth, 2000).



Clay model of a house (Roth, 2000)

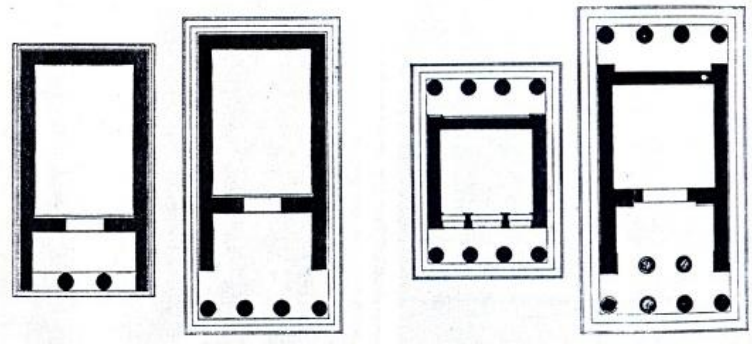
Figure 4. Model of early dwelling

The Giza pyramids known as the special character by historians of the ancient world, they were foremost among the Seven Wonders of the World. Maybe there is no other monument has been subjected to such probing analysis. The Giza trio pyramid structure represents the last point was never exceeded by the Egyptians. The large masses are aligned towards perfectly the sun's vertical axes and the North Star. (Roth, 2000). Regarding the size of the Pyramids; simplicity, symmetric forms, massiveness and geometries of space is the formal reminder of minimalism.

Such as Greek Traditional Architecture, Greek Architecture shows differences according to place and periods. However linear shapes, simple organization in space symmetry are specific features of Greek Architecture. In Greek architecture, the temples are the most important building type which called Megaron Temples, in these temples symmetry, linear forms and simple space organization shows the simplicity of Classical Architecture (Islakoğlu, 2006).

The first places of human settlement “megaron” denote the birth of architecture and the regions of the first settlements were in Mesopotamia and Anatolia. Megaron

consisted of four walls and a door, which symbolizes the simplest way of architecture (Figure 5). Megaron shaped in purest form with the clarity, symmetry and simplicity of architecture as a description of the minimal space (Roth, 2000).



Megaron (Islakoğlu, 2006)

Figure 5. Greek's Megaron building

On the other hand, as Heinz Kahler's said Roman architecture is formed as a single space, a closed interior and exterior architecture. Unlike Egyptian and Greek architecture, in Rome, space and spatial usage are beginning to take shape according to a human needs and human centered understanding.

Immediately after the Romanesque period the architecture developed in the management of monasteries. In monastery architecture, doors, windows, arches and semicircular arcs overlooking the courtyard, thick walls, was dominated by massive bodies. This massiveness and solid-void ratios, emphasizes the effect of monastic life and faith, serenity, silence, and the desire for purification, moreover shows the effect of monastic life of architecture (Islakoğlu, 2006).

More over during the Renaissance period, in contrast to Gothic architecture clearly corresponds to the complex designs of classical architecture and classical

architecture norms used in a balanced way. In this period 'golden ratio' re-researched; in the buildings architecture these numerical and geometric elements such as symmetry and repetition re used again. Renaissance architecture formed by squares, circles, cubes, cylinders such as pure geometrical forms and considered as a whole structures with perfect in itself (Irmak, 2002).

In history according to Traditional Understanding of Simplicity in Architecture most important architecture under the influence of simplicity is Japanese. Far Eastern culture is one of the main sources of the idea of minimalism. Far East countries of Japan strongly accept the minimal life. Geographic and climatic conditions in Japan, and Japanese religions, life philosophies such as Buddhism, Zen and kind of factors have played an important role in the adoption of a minimalism into Japanese life.

Religion, philosophies and traditions are the main factors which constitute culture of nations. Japanese culture have been influenced by other Far Eastern countries cultures during the history, but as a result of this interaction, they have formed it according to own needs and purposes, thus they preserved their natural and cultural values (Sentürer, 2000). According to main subject, Traditional Japanese Architecture has been examined in detail in section 2.4.1.1, this section will provide the understanding of minimalist conception clearly.

2.4.1.1 Traditional Japanese Architecture

Simplification attitude appear in all Japanese design and art, especially the architectural design, materials and technology. In particular, the traditional Japanese way of life and architecture it is possible to find out the important concepts of Modern Architecture‘s "less is more" (Sentürer, 2000).

As stated previously, industrialization and enlightenment in the West architecture have reached some of qualities long time ago. For this reason, the architecture of Japan does not fall into the opposite with the West even they integrate the modern movement by lifestyle.

According to Japanese culture being a part of nature is give a sense of greatness to themselves (Ayverdi, 1972). In nature, combination of natural elements and geometry to make a building is the most beautiful example that shows Japanese philosophy of joining to nature (Şener, 1991).

One of the important concepts of Japanese architecture is the concept of impermanence which comes from their own religions. The Japanese attitude is towards using all things temporarily. Ayşe Şentürer (2000) relate this attitude on social changes in Japan. In Japan social facts can be changed quickly therefore flexible plans binds better results (Şentürer, 2000).

In Japanese residential architecture, fluidity, permeability, non clear border between interior and exterior of the building describes the concept of "uncertainty". Interior and exterior space is taken as a whole, nothing is left to coincidence. Instead of visual form furniture and art objects are treated as indispensable parts of the whole. In other words, as nothing cannot be removed from the whole, anything cannot be added (Ayverdi, 1972).

Another factor that provides interior and exterior integrity is "openness". Humidity and climate conditions are the reasons for openings and permeability. An empty

space in a simple form gives much cooler feeling in terms climate contrary to a space decorated and furnished space (Ayverdi, 1972).

In Japanese house the space could be sub-divided or divided into rooms by using removable sliding doors such as shoji (light doors made of translucent rice paper) and fusuma (opaque doors). These doors are not only used to create larger rooms, they are used to create smaller rooms as necessary, they could also be used to adjust the lighting, heat and changing the atmosphere of a room according to season and occasion.

Traditional Japanese Dwelling (URL3, 2012)

Figure 6. Exterior of Traditional Japanese house

Moreover sliding doors providing the continuity between indoor-outdoor and relationship with nature. The efficient use of the field maximized by preferences of small and light furniture, as well as making it easier to carried from one room to the other room. People sat and slept on the floor, beds or mattresses are used for this purpose enclosures were preserved (Maxwell, 2011).

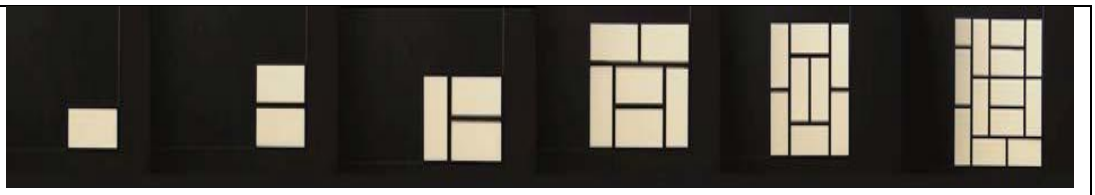
In traditional Japanese houses aesthetics were important consideration. Natural textures, colors even shapes of the wood (Figure 7) were often conserved; in other cultures they might use plastering or papering and painting for providing natural decoration (Maxwell, 2011).

Traditional Japanese style interiors (Mehta and et. al. 2005)

Figure 7. Simple space organization of Traditional Japanese dwelling

In Traditional Japanese dwellings houses are formed from exterior and connected to nature. This connection is not provided by corridors connection provided by movable screens. When all spaces are opened together, it forms one big space. Spaces are only given a function when objects are placed in it. Like a cushion and a table. These rooms were usually the size and amount of tatami mats (Figure 8) which placed inside (Vreeswijk, 2009).

These tatami mats have the size of one person lying down. In Japan this was 200cmx100cm and about 5 cm thick made out of rice straws (Nishi and Hozumi, 1985). Rooms were made up by multiple tatamis. This determined the size of the room. These rooms covered with thin walls because of the mild climate.



Tatami mats positioning (Vreeswijk, 2009)

Figure 8. Interior elements of Japanese dwelling

In traditional Japanese houses users achieved spatial emptiness and simplicity with the concept of making do with less and choices of multi functional interior elements. Theses multi functional interior elements can be removed and stored in the cabinets in each room this situation reflect simplicity effect in spaces.

These elements give chance to change the function of spaces, multifunctional and portable interior elements create multifunctional spaces. These features of Japanese houses help to create simple and plain architecture. Moreover usage of less space and volume help to create functional interior spaces. (Nishi and Hozumi, 1985)

Traditional Japanese Architecture reflects the simplicity of Japanese life style. Japanese housing architecture shows similarities with Traditional Cypriot Architecture in terms of space organization and interior elements. In next chapter Traditional Cypriot Architecture has been analyzed.

2.4.1.2 Traditional Cypriot Architecture

Cyprus is a Mediterranean island which has managed to save its rich cultural heritage even the changes in socio-cultural, economic and political conditions. Throughout history, the island of Cyprus constantly influenced by human actions and wars because of strategic, geopolitical position, and rich copper mines in the Eastern Mediterranean. Despite this destructive movement, architecture of Housing

continued to affect traditions. However, it also reflects and developed the cultural values by those who manage and settled (Aşıcıoğlu, 2006).

Housing is the structures which protect the lives of smallest social unit of family from natural factors. Human is a social, biological and psychological living being so they need closed spaces to survive. Because of these reasons the housing is the first type of structure which encountered since humanity exists. Therefore, in the past housing starts with hollow trees and rock, today continues to evolve (Salihoğlu, 2006).

When looking at the process of world residential areas formation, it's begun with the immigration of people by the sea to the island as well as Cyprus. In this case settling has continued from Pre-Neolithic period to the other periods. This chapter has been dealt with the Traditional Cypriot Architecture regarding the period between 1570 and 1878 which best represents the Traditional Cypriot housing.

Social structure which has been changing in island is incompatible with the physical environment of the island; traces of traditional architecture can be seen in the settlements especially in rural areas and has been abandoned to the low-income segment of society (Günçe, 2006b)

The Traditional North Cyprus architecture in rural areas was developed as an expedient answer to the environmental factors such as; natural, social and economical factors. In other words, Traditional North Cyprus architecture in rural areas represents the identity of Cypriot Architecture (Dinçyürek and Türker, 2007).

When we examined housing, especially Housing in Rural Areas, due to geographical and climatic conditions housing have evolved in its own housing function schemes. A building system has been developed based on material to stand this scheme (plan) and transformed to traditional building system.

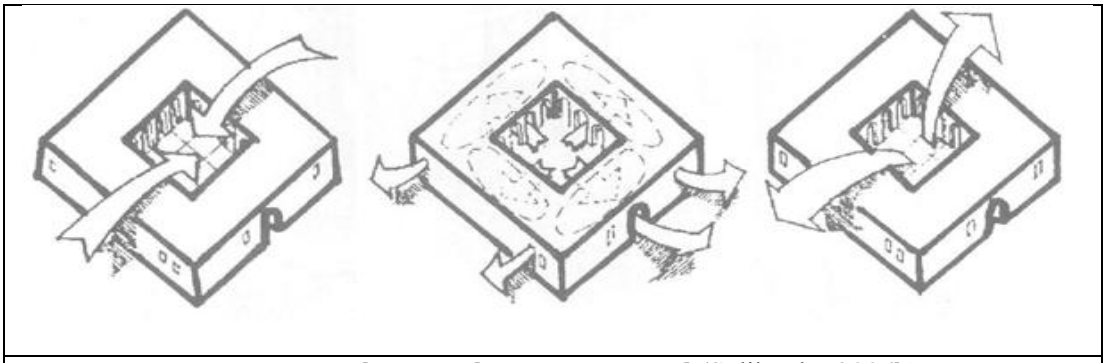
This construction system in rural areas, usually have mud-brick construction system in lowland areas, on coastal and mountainous areas usually have a natural stone construction system (Figure 9). This system can be called as ‘traditional construction system’. However, today this system breaks down and have transformed to 'advanced conventional construction system'. Usage of a few types of construction materials brings simplicity in traditional housing structure.

	
Mud brick type construction	Natural stone type construction

Figure 9. Examples of constructional types

The results of many studies on traditional Cypriot residences show that, the "courtyard" (Figure 10) where many activities are done, and a large part of everyday life is spent, has an important role in this typology. Thus, the courtyard as a large open area was the result of smaller residential units in a closed area. There were two main big rooms which were creating the closed residential area. One of the rooms is have a broad spectrum of functions as a living room that constructed with great care, also this room give protection from short but hard winter and summer’s heat and use

as a ‘accommodation’. Second room, beside of being accommodation used as a storage room where seasonal food can be stored. There is a semi-open space between the open and closed spaces, where give function as solar controller. In other words, the traditional residence of Cyprus, consist of three main parts which are open, semi-open and closed areas. (Günçe, 2010)



Importance and air circulation in courtyard (Salihoğlu, 2006b)

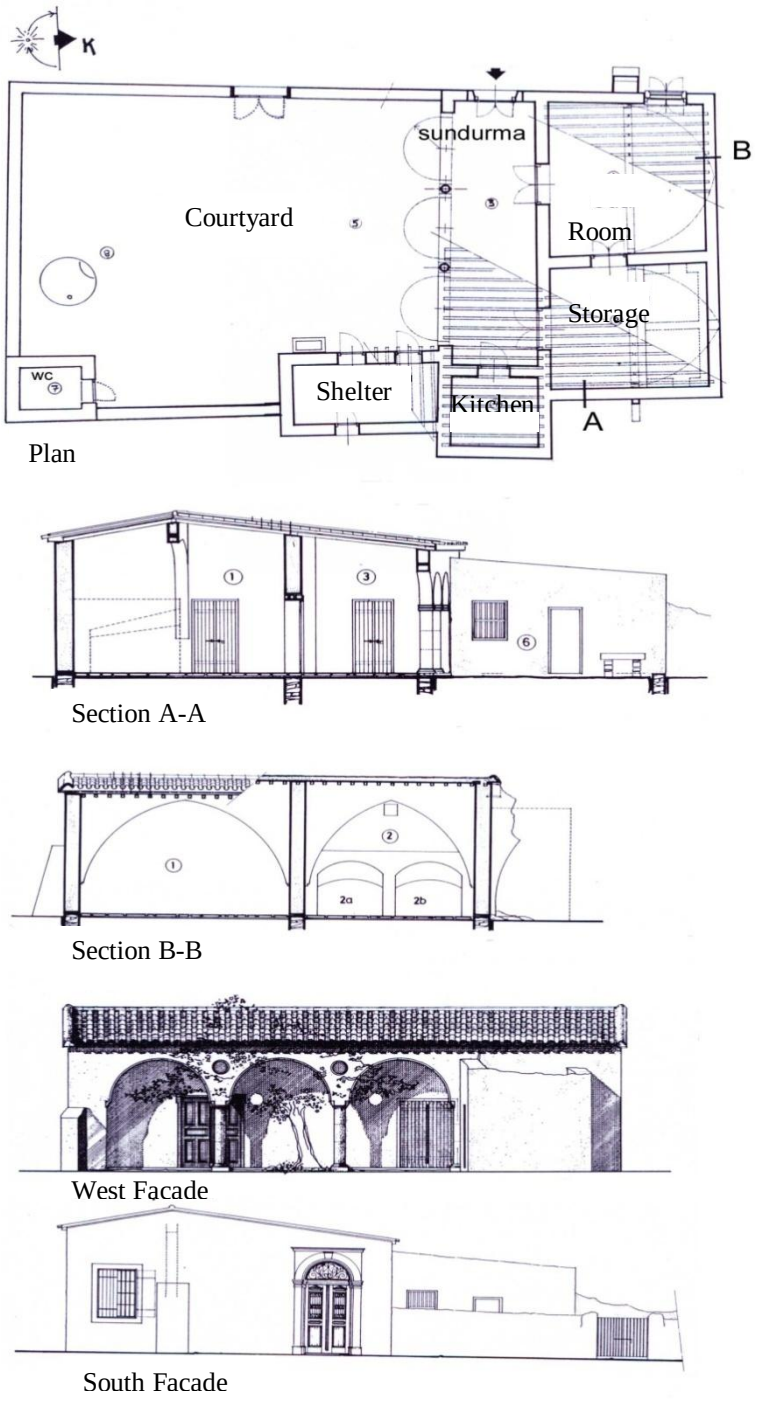
Figure 10. Courtyard

According to Figure 11 of the research by the UNHCR, The main schema of the traditional Cypriot houses located from south to north and consisting of open, semi-open and closed spaces as a whole. "Porch" is referred to as semi-open space consisting of ordered arches; it is located between the open space which is defined as "yard" and indoors as described as "multi-purpose room", "Warehouse" and "kitchen”. Multi-purpose designs, that thought of should be serve more than one purpose in the same place, it’s applied very successful on traditional Cypriot residence (Günçe, 2006b).

Housing planning, life and service volumes reflects the family's economic and social life. Due to climatic conditions in the Mesaoria, usually houses build with courtyard system and courtyard system can be seen in the coastal and mountainous areas housing. In the Process of building production, it’s produced with the required forms

regarding the functional relationships and needs. Housing developed in typological way also climatic conditions have major role in the development housing. (Salihoğlu, 2006)

Traditional North Cyprus housing reflects the simplicity in terms of construction material and space organization these are specific feature of simplicity on these houses. In terms of conservation and sustaining heritage, rural areas have more opportune than urban areas. Constant and unchanging population structure with constant production system in rural areas has been protecting the physical environment.



Plan, section and elevation of traditional Cypriot house (UNHCR, 1995)

Figure 11. An example of the traditional Cypriot houses

2.4.2 Modern Understanding of Simplicity in Architecture

In Europe, with the beginning of Industrial Revolution around 1750, evolution and changes in life style, relationships in whole society especially in production has lead the appearance of the modernism in art and architecture.

In the beginning of the nineteenth century the architects were confronted with many problems which needed to be answered immediately. They had to prepare the buildings which were never existed before such as public markets, railroad stations, hospitals, insane asylums, public and institutions. In addition, these buildings had to be larger than ever that done in early periods. At the same time the architects presented the new type of building materials which are iron and glass, with development of series production presented more materials (Roth, 2000).

At the beginning of 20th century, one of the architect who was the pioneer Modernism and simplicity was Walter Gropius. In 1919 Gropiues established a design school which is called BAUHAUS (Figure 12), he express the basic design principles of school; the ultimate aim of all visual arts is the complete building (Roth, 2000).

Exterior view of Bauhaus building, Germany (URL6, 2011)

Figure 12. Bauhaus building

According to the teachings of Bauhaus, objects in space couldn't design independently from another, whether fixed or portable, moreover relationship between in each other should be forefront. Elements that setup the structure (walls, floors, columns, beams, etc.) have to be parts that complete each other, not parts that coupled each other. The continuity of these elements from the interior to exterior and exterior to interior, expanding the detection limit of space and create integrity between interior and exterior. Thus, the integrity and continuity of a space has been created.

Walter Gropius, express his functional, simple and distant approach to ornamentation in his book The New Architecture and the Bauhaus, 1935 as "We have had enough and to spare of the arbitrary reproduction of historic styles. In the progress of our advance from the vagaries of mere architectural caprice to the dictates of structural logic, we have learned to seek concrete expression of the life of our epoch in clear and absolute simplified forms" (Roth, 2000 p.459).

In this period, Architect Ludwig Mies van der Rohe minimize the attitude of Modern architecture and adopted the motto "Less is more" to describe his aesthetic tactic of arranging the numerous necessary components of a building to create an impression of extreme simplicity, by enlisting every element and detail to serve multiple visual and functional purposes.

Definitely the most important person who has been effective on the development of a minimalism in modernist architecture is Ludwig Mies van der Rohe. (1886–1969) In his earlier works in Europe, he represents the influence of Minimalism with

Germany's masterpiece in Barcelona Pavilion (1929). Building (Figure 13) represents the influence of Minimalism and his famous statement, "Less is more". The simplicity of construction, purity and clarity of material and tectonic expression, the expression of this absence creates a quiet impressive feeling. During the same years in his other works simplicity and the minimalist attitude take attraction. The simplicity of construction, purity of material and spatial emptiness is quiet exciting.

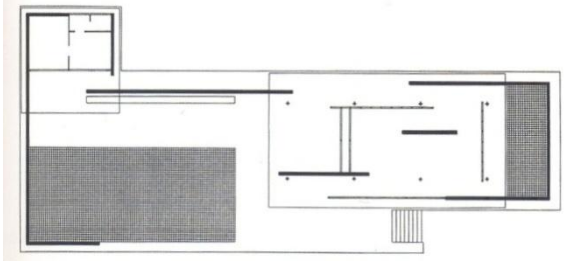
	
Exterior view (Zimmerman, 2006)	Plan (Zimmerman, 2006)

Figure 13. Barcelona Pavilion, Spain

The idea of the economy in the material and device usage in the formation of modern architecture, financial and functional difficulties mostly on factories and industrial buildings is resolved by choosing minimal forms. Minimal language of industrial buildings, applied by the pioneers of modern architecture, was attempted to be formulated. The simplicity and minimalist features of products in mass production have been appreciated (Islakoğlu, 2006).

Economically, the main idea of the modern design was to carry out the basic functions and what is necessary. Mies van der Rohe's selective "treatment" concept has been effective on form and materials construction which he set in the 1930s. In this period these changes were about the form of space, but more importantly subtle changes can be seen on simplicity of materials and construction system (Roth, 2000).

Characteristic features of modern architectural movement which has been emergence in the 20th century and relationship between Minimalism regarding the similar attitudes is an important subject to take a matte in hand. In general, the concept of minimalism in architecture, on the basis of the Minimalism effects of modern architecture can be clearly observed.

2.4.2.1 Minimalist Architecture

According to Pople (2003):

> "The small houses entered architectural history, in the form of a consciously designed artifact, as a kind of eccentricity. It later evolved into an extension of the aesthetics of power statements by the rich. An increasing sense of individualism brought a corresponding sense of moral responsibility, and patronage began to be concerned with the social dimension of architecture. Modernism, the Rubicon of the First World War and the expansion of the individual artistic impulse into all realms of life finally allowed the small houses to embody all aspects of architecture's role in human evolution". (pp.24-25).

After 1900s Minimalism appeared as a movement, 1950s and continued through the Sixties and Seventies (Roth, 2000) Minimalism is a term to describe arts that thrive on simplicity in both content and form, and sign of personal expressivity. A twentieth century art movement and style stressing the idea of reducing a work of art to the minimum number of colors, values, shapes, lines and textures.

Nicolas Pople defined (2003) "economic and technological developments that transformed the cultural implications of the term 'small' only really took hold after the Second World War, and the past fifty years have seen a steady trend towards miniaturization". (Pople, 2003)

Minimalism is the term which has popularized in the late 1980s with collaboration of fashion designers and architect's designs in London and New York. Such as Calvin

Klein, Armani, Issey Miyake, Jill Sander, Donna Karan NY and Bottega Veneta stores' has created their own sense of aesthetics. The common characteristic of these designs has usage of White color to emphasize the product with simplicity and purity of space (Islakoğlu, 2006).

Afterwards this attitude show effects on housing designs, also provide the re usage of traditional Modernism with restrictions and limitations. Minimalist dwellings have characteristic features such as basic geometric forms which perfectly shaped and dominated by white. In a few years later, Tadao Ando, John Pawson, Claudio Silvestrin, Luis Barragan, Michael Gabellini re interpret the minimalist approach.

The minimalist attitude gives shape to the space and support the relationship with human and space. In minimal designs, minimum color, texture, shape and form has been used to achieve simplicity. As such, the minimalist designs have developed in a rationalist axis (Irmak, 2002).

John Pawson's exhibition in Design Museum, London (URL7, 2011)

Figure 14. Minimalist building example

Pawson says that achieving spatial emptiness needs certain elimination. This provides the space to appear as it is. Empty space is not a lack, or incompleteness. Usage of less object allows the perceptions of emptiness, the walls which surround

the spaces should be perceived as an surfaces which are provider of lighting (Irmak, 2002).

John Pawson born in England in 1949, his commitment to modern architecture and re-interpretation of modern architecture attract attention in the international arena. In his Designs he refrain from personal manner and style. He interested with the basic element of spaces such as light and material usage .

Minimalist attitude, refer to clear excess in the space with the way of 'reduction'. Removing the clutter and unnecessary elements to emphasize spatial emptiness. The main purpose in Pawsons designs is bringing out the features of material and its details with pure surfaces by spatial emptiness.

Another important name who called as Minimalist is Claudio Silvestrin. The most important feature of his architecture is the idea of creating neutral and impartial venue. The designs without detailed and ornamentation give a sense of perfection. Silvestrin's basic architectural principles is creating a timeless and anonymous perception of spatial emptiness. Designing and creating both simple and free spaces, and usage of natural light have an important role in his design.

	
Interior view (URL8, 2011)	Exterior view (URL8, 2011)

Figure 15. The Museum of Contemporary Art, Italy

Simplicity is the foundation of the Claudio Silvestrin concept for architecture. He serves visual simplicity as an end point to be reached in architecture. If the visual effects can feel in space, it shows the success of the design. In his designs, he does not want to give a sign from his design style. He created an architectural style without ego, time and signature (Irmak, 2002).

Japanese architect Tadao Ando, is one of the important name who have give shape to contemporary minimalist architecture. He accepted his self with his pureness and minimalist designs in 1980s and 1990s and became a pioneer of Eastern cultures and traditional Japanese architecture.

Simple geometric forms, the bare concrete walls, the effective solid-void ratio, and absence of light and shadow contrast with the feeling of a space designed by Tadao Ando and mystical places, uncontaminated by the effect of consumer culture that gives a quiet modern forms. In his designs, he removes the elements which can distract the attention from the main features of space (Islakoğlu, 2006).

	
Exterior façade of Giorgio Armani Store (URL9, 2011)	Interior view from Giorgio Armani Store (URL9, 2011)

Figure 16. Minimalist commercial building in Chicago

2.4.2.2 Minimalist Dwelling

Minimalism in Architecture, show its signs with the modern movement in the 1920s, Minimalism became popular again in the 1960s and 1980s. Afterwards Minimalist attitude show effects on housing designs, also provide the re usage of traditional Modernism with restrictions and limitations. Minimalist dwellings have characteristic features such as usages of basic geometric forms which are perfectly shaped and dominated by white. In a few years later , Tadao Ando, John Pawson, Claudio Silvestrin, Michael Gabellini, Alberto Campo Baeze re interpret the minimalist approach. At the end of the 20th century, human being begun to live in depth, tightly packed and the crowded houses. As Baudrillard (1996) says with his ironic language; "Peoples don't want to live in crowded 'U.S. House' models. A group of people who want to rest their soul and eyes, they prefer to live in minimalist interior spaces which match with the independent and notional worldview. This reaction can be defined as a response to posts capitalism or re interpretation to a Modernism" (Gür, 1999).

Before 19th century the objects and furniture designed and manufactured according to home life. With the industrial revolution most of the houses filled with industrial products without considering the usefulness or useless and originality or artificiality. Creating luxury appearance in housing was main aim. Furniture, jewelry and decoration is begun to transfer from generation to generation. With the modern movement these objects began to deceive and wear out their functions (Islakoğlu, 2006).

Modern movement bring the idea of "worker's housing" which forefront with the functionality. The 'worker's housing' which designed by Le Corbusier in 1927 was purged from ornamentation and unnecessary elements with the rigid Modernism. Pure and white walls, flat roofs, the prohibited accessories and windows without the windows frame or jamb was some of the features of these houses. These houses was purified the with degree of coarseness and tried to impose an purify aesthetic but this attitude has become unsuccessful (Irmak, 2002).

Most famous building in Modern architecture which reflect the Minimalist attitude in this period is the Le Corbusier's masterpiece the Villa Savoye which has pure structure and design. Villa located in a region near the suburbs of Paris Savoye as a result of his research on the human rates about mathematics, architecture and human ratio. Building dominated by the white color, the building generated as a abstract sculptural with basic geometric forms on the other hand building far from ornamentation and any historical reference.

	
Villa Savoye exterior view (Sullivan, 2006)	Villa Savoye interior view (Sullivan, 2006)

Figure 17. Modern and Minimalist building example in Paris

Another Modernist architect Gerrit Rietveld's Schröder House, this house example reflect the idea of simplicity and represent a radical break with his predecessor both interior and exterior in terms of space. Design principles and ideas of De Stijl movement's observed on this house, this attitude created a complete revolution in terms of form. Three sides of the building are open, the sharp lines which are created by the contrast of large and small planes are emphasized facade. This De Stijl movement’s building has common points and similar characteristics with Minimalism such as; simple usage of color and material, form conception and functional organization.

Exterior view of the building can be define as a collage of horizontal and vertical surfaces which have different sizes. Design of building based on the composition of basic geometric shapes main colors also provided with minimalist design approaches. The materials, chosen colors, refined aesthetics and forms shows the common point between Minimalism and De Stijl movement (Ching, 2004)

As well as Minimalist and Modernist German architect Ludwig Mies van der Rohe, take attraction on Minimalist movement with his 'Farnsworth house' buildings project which has steel structure. Le Corbusier's concrete skeleton formed building idea transform in to the steel structure in Mies’s design and this circumstance come to a head in Minimalism.

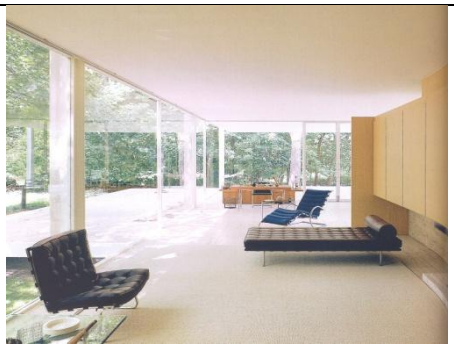
	
Exterior view of Farnsworth House (Zimmerman, 2006)	Interior view of Farnsworth House (Zimmerman, 2006)

Figure 18. Minimalist housing example

Villa Tugendhat designed by the same period with Mies's Barcelona Pavilion project. In the ground floor dining and living areas, on the upper floor bedrooms are located in this two-storey housing design. What distinguishes the architectural design of this villa is very thin and simple shaped steel columns with proportionally usage of glass. Both the form and materials usage of interior design organization shows similarity to Barcelona Pavilion (Islakoğlu, 2006).

The geometry of the house which positioned on a hill in nature highlighted the contrast moreover simplicity of glass surfaces let day light in to interior and rendered interior spaces more impressive. To emphasize de transparency of the building.As in Fanrsworth House Mies find a minimal solution to wet area without outraging the purity of facade as in the interior space also.

Another important building is The glass house, building is designed by Philip Johnson. Building known as most beautiful and functional home in the world. Mies's simplicity and transparency concept which based on steel structure and glass surfaces, reached to the climax by Philip Johnson's design "The Glass House". The

house is often cited as a model example of the International Style and Minimalism (Nergiz, 2005).

Perhaps most effective Minimalist designer and Architecture is Tadao Ando. Azuma House is most important building that reflect the designers main expression. Building built in 1975 and received award from Japanese Association of Architecture in 1976. Until that year, there were no more small building example that won this award (Furuyama, 2006).

Tadao Ando express his attitude as; solid composition and architecture of silence which has been shaped by simplicity. Architecture of silence consist of geometric forms and few materials. Tadao Ando's simplification attitude integrating the relationship between human and nature furthermore his attitude integrating Japanese traditions with Modernism of West.

	
Exterior view of Azuma House (Furuyama, 2006)	Interior view of Azuma House (Furuyama, 2006)

Figure 19. Example of Minimalist dwelling

Another important Minimalist architect is Shigeru Ban, his most remarkable dwelling project with minimalist conception is The Walls-Less house. Most

important feature of the Walls-Less house is, all fixed walls have been removed and wall replaced with nature. This conception create continuously connection with nature and spatial emptiness in interior. Building's interior and exterior walls designed as movable screens which are the most important element of Traditional Japanese dwellings, and this movable walls only used when they necessary.

Building designed with special structure which emphasize and support the simplicity of complex building. Floor curved and elevated to create connection between ceiling, and ceiling fixed to the curved floor. By this way on front face of building, designer use minimum amount of load bearing element and structure (Ban, 1994; c.f. Nergiz, 2005).

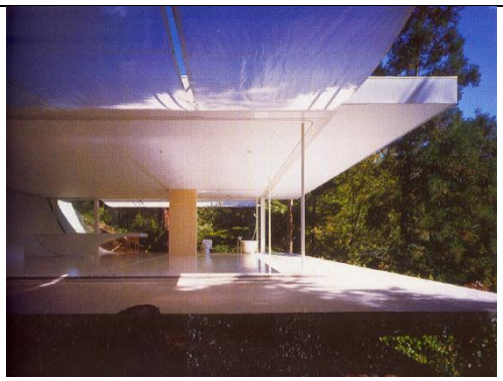
	
Exterior view of Wall Less House, Nagano (URL10, 2012)	Interior view of Wall Less House, Nagano (URL10, 2012)

Figure 20. Simple and minimalist building

In this period dwelling examples reflect the idea which emphasize creating maximum with less material and esthetic. Usage of simple and geometric forms in building organization and transparency attract attention. Minimalist dwelling examples has been examined in detail in Chapter four, to emphasize and evaluate the characteristic feature of interior environment.

2.4.2.2 Modern Cypriot Architecture in the frame of Minimalism

In this section Modern Cypriot architecture has been researched briefly to explore and understand the strength of Minimalism and simplicity attitude in Modern period. After the Industrial Revolution realized in social, cultural, technological and economic developments, deeply influenced design of architecture as well as in many areas. Developments in architecture has been opened a new layer traditional to universal. With this new layer they started to produce new structures above the ordinary. In new architectural products, new spaces and occurred new form of understanding and new architectural styles was born. In other words, the changing in traditional life also directed to the appropriate in new styles in that current time (Aşıcıoğlu, 2006).

When Housing production is analyzed in terms of organization, its starting from the 'do your houses by yourself' system, than 'craftsman of the village' organization and ‘contracting’ organization samples can be seen in a row. In the process of housing production, urbanization of rural areas can be seen (Salihoğlu, 2006).

In the Island, especially after the second half of Colonial Period began to be observed the reflections of ‘Architecture in the Early Twentieth Century '. To better understand the Modern architecture in the island and the interaction between architecture need to look at all aspects of this period in the world (Kurt, 2006). Thus, the overall architecture profile of this period can be understood more accurate.

In the first half of the twentieth century, Modern Architecture approaches and characteristics directly reflected of the architecture in the island. Later on, the

division of the island, especially in the north of the island architectural styles could not be developed because of the political, economic, social and cultural factors (Balkan, 1998).

While Island 'in the British Colonial Period, the new materials, new movements in architecture and trials are ongoing in the world. Some of the major architects in that century who marked their name and their architectural designs are described in this study. The Island architectural designs and the examples of striking architectural designs show important similarities.

The beginning of the twentieth century the important Architects of this period have used the potentials of reinforced concrete actively. In the British period introduced of concrete and steel opened a new epoch in the island (Ulaş, 1990). By the traditional ones this material may be deemed 'luxury', previously its favored by the government and people who had better economic conditions. Local craftsmen and architects adopt and used the new era's material and style in the island. (Günçe, 2006a)

These materials are also used with traditional materials. This development had continued in traditional architectural production. Changing in economic, technological, political, social and cultural situation in a time period have been effected in every sector of society. Both public and private structures have experienced changes and transformations.

While researching Modern Turkish Cypriot architecture, Ahmet Vural Behaeddin should be emphasized, in that period. Ahmet Vural Baheaddin's works attract

attention. Türkan Aziz house is one of the most important building which reflect his attitude on dwelling design.

Ahmet Vural Behaeddin's attitude on that building can be define as simple geometric and right angled forms composition with Modernist acumen. Architect prefer to use and put forward local elements in space organization. Behadaeddin developed a new expression on Architecture, despite his universal architecture he give importance to local architecture. Building suited to his Architectural style. At fist view rectangle shaped mass, in interior white painted and coated surfaces, grey stone textures create perfect balance in that building design (Uluçay, Uraz and Pulhan, 2010)

	
Exterior view of Türkan Aziz House (Uluçay, Uraz and Pulhan, 2010)	Interior view of Türkan Aziz House (Uluçay, Uraz and Pulhan, 2010)

Figure 21. Modern building example in Cyprus

Baheaddin's another building example is Dr.Ali Fikret House. This building also reflecting th effect of modernism on architect. Spaces connected to each other with walls that located in different angles, different floor coats and levels support the fludity between spaces and present the characthersitc of house (Uraz and et. al. 2010). With a strong spatial organization almost all rooms percepted as single space. These are some of the futures that specialise the house.Different level organization on landscape design, create connection to the interior spaces and support the fluidity.

	
Exterior view of Dr. Ali Fikret House (Uraz, Pulhan and Uluçay, 2010)	Interior view of Dr. Ali Fikret House (Uraz,Pulhan and Uluçay, 2010)

Figure 22. Modern house example of Cyprus

During this period in the island, another the important architects who had come to mind are; Neoptolemos Michaelides, Polyvios Michaelides, Abdullah Onar.

As mentioned earlier, in the nineteenth century, the developments of the Industrial Revolution became turning point in the world of architecture. During this period, strengthening of the designer's unique and artistic creativity and reflections of universal architecture had conducted on the subject in our island. In the 1960s, the island of architectural design has not been reflected by 'postmodern architecture'. Especially during those years architectural design without changing direction, until the mid-1970s Modern style continued to be given the exclusive products. (Günçe, 2006a)

In this period, building examples shows that Cyprus has been effected from Modernism in terms of architecture, however in this period there isn't any Minimalist example to analyze which have done in Modern Cyprus architecture. In addition to subject, in recent years dwelling architecture that have done doesn't comfort to Cypriot way of social life, climatic conditions and physical environment.

2.4.3 Contemporary Understanding of Simplicity in Architecture

In this section, in addition to simplicity attitude and Minimalist Architecture new appearance of simplicity and minimalism on architecture has been researched briefly with building examples. Advantages and new opportunities in industry bring new vista to simplicity attitude in terms of form, space and material.

Contemporary simplicity in Architecture is the evolution of Modern Minimalist movement .Contemporary understanding of simplicity in architecture can be called as maximum comfort with minimum effort. Today's simplicity attitude became plain and simple as much as possible in terms of form and function, which serve purpose and served plainness beauty without ornamentation.

Intelligent system of the architectural buildings and plazas are the best examples of contemporary simplicity. Contemporary simplicity attitude is a result of mixing modern minimalism with intelligent building system. These buildings, minimize the needs of owner and user with the hardware that built in (Yılmaz, 2006).

The Leonardo Glass Cube is the one of the best representative of today's simplicity in architecture. The open floor plan organization, clearly designed and multi-functional Leonardo building enables an integrative linkage of product presentation zones. Transparency on exterior of the building takes benefits of glass façade, building serve a connection to the nature between interior with heightened aesthetic appeal. A transparent print slides into the insight or outlook as a subtly visible image plane. Fluidity in the interior supported with spherical organic forms with white colors, transparency of façade create contrast and connection with exterior. The

undulating, curved white wall encases an introverted exhibition space and its other side circumscribes the extroverted hallway along the glass façade (URL10, 2012)

	
Exterior view of Leonardo Glass Cube (URL10, 2012)	Interior view of Leonardo Glass Cube (URL10, 2012)

Figure 23. Contemporary minimalist building

Another important building is Otto Block building which is designed for healthcare building, from exterior to the interior of building simplicity and minimalist design attract attention. All spaces in the building from entrance to the lobby every part of the building reflect the contemporary simplicity. The furniture of Otto Bock building has been designed in minimalist principle and simple too. Especially electronic and intelligent interior elements simplify user needs (Nokki, 2012).

	
Interior and exterior view of Otto Block building (Nokki, 2012)	

Figure 24. Contemporary building example

Another good examples of contemporary simplicity on building design is Kamyk Heritage Park. The aim of the park idea was to create a small living area with a few different buildings types and functions which mix village with contemporary style at the same time. The building consists in three separate solids, restaurant areas joined by the main entrance area and the kitchen. Usage of natural materials and fluidity between interior and exterior show the strain of traditional minimalism (Kobus, 2012).

Exterior and interior views from Kamyk Heritage Park (Kobus, 2012)

Figure 20. Contemporary simple and minimalist building

In summary, contemporary simplicity on architecture beside of formal and functional simplicity also have important role on simplifying life and economical way for human being. Contemporary architecture taking the benefits of technology and minimize user needs.

2.4.3.1 Contemporary Minimalist Dwelling

Today's Minimalism show its effect on different art and branches , especially it can be said that minimalism strongly be effective on decoration and product designing. Moreover, Minimalism used as a word which help to marketing and sell on market.

Minimalism shows its effects much more effective on contemporary architecture in contrast with modern period. Designers and architects try to reflect and present their product as simple as possible in bare form. Today's Minimalist dwelling examples can be defined as much effective and strong in terms of simplification and minimalism.

Exterior view of Leiria House (URL11, 2012)

Figure 25. Contemporary minimalist dwelling

Contemporary minimalism shows its effects especially in Japanese dwelling Architecture, request for simplification and creating functional spaces in small areas are become a part of Japanese life style (Yagi,1998). Nevertheless in Europe there are strong and effective Minimalist dwelling examples. In addition to subject Minimalism begin to cited with 'Residence Conception', particularly in Turkey, residence conception become an important element in architectural marketing. Contemporary Minimalist Japanese dwellings and dwellings in the frame of 'Minimalist Residence Conception' has been researched in next sections.

In addition to subject instead of dwelling architecture, minimalism also manifests itself in Lofts designing, loft is upper storey of building generally located under the

roof or called an attic in a building . These Lofts become a nowadays popular living habitats, these storey generally renovated and designed with minimalist principles.

According to Canizares (2003):

> Minimalism might still be considered the prevailing style, there is a growing diversity of loft interiors and interpretive treatments of the characteristic whitewashed walls, exposed metal, glass screens, and expansive hard floors. The lofts has also become more accessible to general public. Its original definition has been stretched and pulled to include a mass of open plan living spaces, both old and new (pp.10-11).

2.4.3.2 Contemporary Minimalist Japanese Dwelling

In this section contemporary Minimalist Japanese dwellings has been researched to understand clearly and see the effect of traditional simplicity on contemporary Minimalism. where it was born. Another reason for choosing Japanese dwellings is to compare with these housing examples with 'Minimalist Residence' conception to support this research.

Formation of Japanese housing architecture consist of two main title which are natural and socio cultural factors. Natural factors consists of geographic, geologic, and climatic conditions. Socio cultural factors consists of life style, traditions, regions and that kind of factors (Nishi and Hozumi, 1985). These factors has been effected on housing architecture in terms of simplification and minimalism on dwelling.

Reason for simplification attitude and designing small houses in Japanese architecture can be define as; after World War II housing corporation of Japan used to give and provide loan to build dwellings which are not larger then 50m2 and

continuously increasing population (URL12, 2012). To keep up with it Japanese architects used to design small but functional dwellings.

According to tradition of Japanese, house accepted as living organism as human being by this way building and space designed as temporary. In the construction of traditional Japanese houses they designed with easily installable and removable constructional system, these system formed with engagement system. Because of this temporary constructing system, most of the contemporary dwelling examples are renovated or re built in to area where old and simple building was constructed. Thus contemporary Japanese dwelling still designed small and simple (Demirarslan, 2005).

In Japan contemporary dwellings has been organized with rational plan conception in contrast with today's attractive plan organization. Contemporary Japanese dwellings has been formed with simplification attitude, there nothing that ornamented even on outdoor facade. Structure of building and structure of indoor environment designed as simple as possible and lefted with their pure form (Demirarslan, 2005).

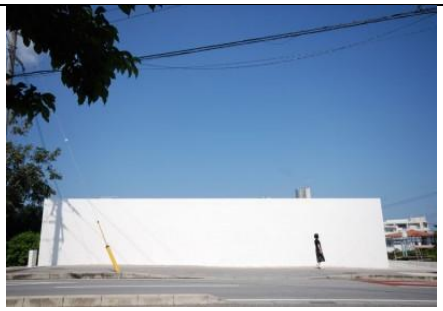
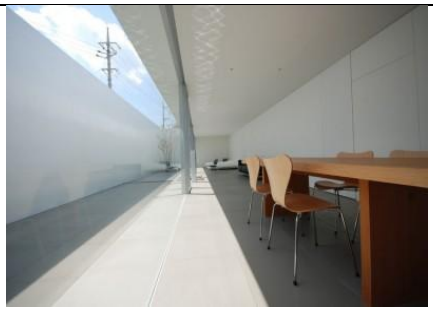
	
Exterior view of Minimalist House (Cheng, 2012)	Exterior view of Minimalist House (Cheng, 2012)

Figure 26. Contemporary minimalist Japanese house example

In contemporary Japanese dwellings indoor environment formed according to the habits of daily living, life style and religion furthermore used and designed less, light

and multifunctional. Sleeping activity was carried out with mattress element not with bed and this element was stored in fixed furniture. Sitting activity carry out with movable and flexible indoor environment as in traditional, most of these indoor environment storable easily removable (Nishi and Hozumi, 1985).

	
Exterior view of Komae House (Kaiser, 2012)	Interior view of Komae House (Kaiser, 2012)

Figure 27. Example of Japanese Minimalist dwelling

In contrast to architecture of West, simplification and minimizing desire is part of Japanese life style, religion and tradition. Architecture of West used simplification and minimalism as a part of fashion and trend, however in Japan simplification is solution and become a need.

2.4.3.3 Dwelling in the Frame of 'Minimalist Residence Concept'

'Residence' homes have recently entered our lives with the little difference sense of decoration. With the concept of residence, new generation living areas has been shaping in different way. In community some of the people like and interiorize residential style, however there are people that don't interiorize residential style as much as people who like (Güler, 2011). The vital units are appropriate the needs of our contemporary life, highlighting the practical life, minimal and consist of useful apartment solutions, more functional projects has been start to accepted by community (Çekici, 2011).

According to Dovey (2012) meaning of house is indescribable with a conception, house consists of intangible conceptions. House is an indivisible entity between person and life (Dovey, 2012). In the conception of Residence, unlike a house it serves facilities as a Hotel. Therefore, instead of taking responsibility, residence conception becomes an element which minimizes house needs and a space which simplify life (Çekici, 2011).

The Oxford English dictionary described (2011) the term residence as; a person's home, especially a large and impressive one. In TDK dictionary meaning of residence described as; Dwelling which allocated to high government officials and ambassadors etc. to live in. However nowadays flats of high-rise buildings which contain restaurant, parking, pool, shopping centers as hotels called residence also luxury homes which equipped with technologic environment called residence.

Residence is a structure of high quality. More over heavy foliage gardens surrounded by green spaces will prevent the concrete building conception. With all these features add value and quality to architectural environment. Moreover, residence conception is a description of 'house' which is a life style of high income people. In contrast with a 'house' with middle-low income people, it is possible to say that 'Residence' became a word which described its own social class. (Güler, 2011).

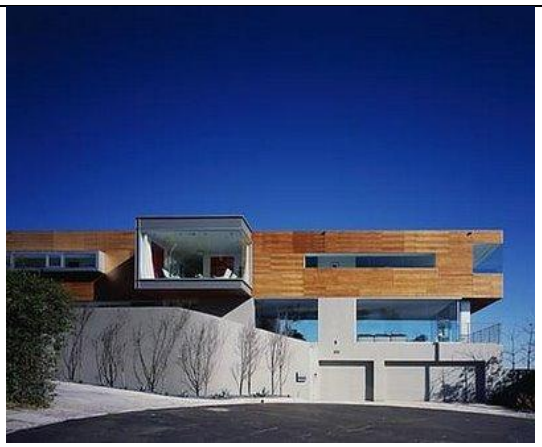
	
Exterior render of a residence (Akriti, 2012)	Interior ender of a residence (Akriti, 2012)

Figure 28. Residence building example

People who leave their mansion and move to apartments are now moving to the residences which is a symbol of luxury life. Residence fashion, just like the transition from apartment life style brings changes between values and generations. The most important reason of residence choice is the safety and comfortable lifestyle that the residences serve. Everything has been followed and controlled by computer, these intelligent buildings promises a life free of responsibility, which minimize daily tasks and challenges of daily life. In addition to subject, these residences which are called Minimal generally designed as 1 +1, studios, and 2 +1 and so on.

Nowadays theses dwellings represented as minimal, unite of these words create a new conception in to Architecture ‘Minimalist Residence’. Minimalism symbolize the state of being far from luxury on the other hand today’s Residence reflect the luxury. In order to better understand this circumstance, Residences has been analyzed in the frame of ‘Minimalist Conception’ in Chapter 4.

Vagg Residence (URL3, 2012)

Figure 29. Interior view of building

Actually these buildings became minimalist because of current circumstance, being free of life responsibility; home needs are the major factors. In this manner we can see effect of minimalism on residences.

Minimalist Residence examples has been examined detailed in section 4.5.3 Analysis of Residences in the frame of 'Minimalist Conception' , to emphasize and evaluate the characteristic features of residence's interior environment and understand the relationship of residences between minimalist attitude.

As an evaluation of chapter, contemporary minimalist dwellings from Europe, contemporary minimalist Japanese dwellings and dwelling in the frame of "Minimalist Residence Concept" has been chosen to analyze in detail to understand the effect of Minimalism on contemporary minimalist building examples.

Chapter 3

SIMPLICITY CONCEPT IN SPACE

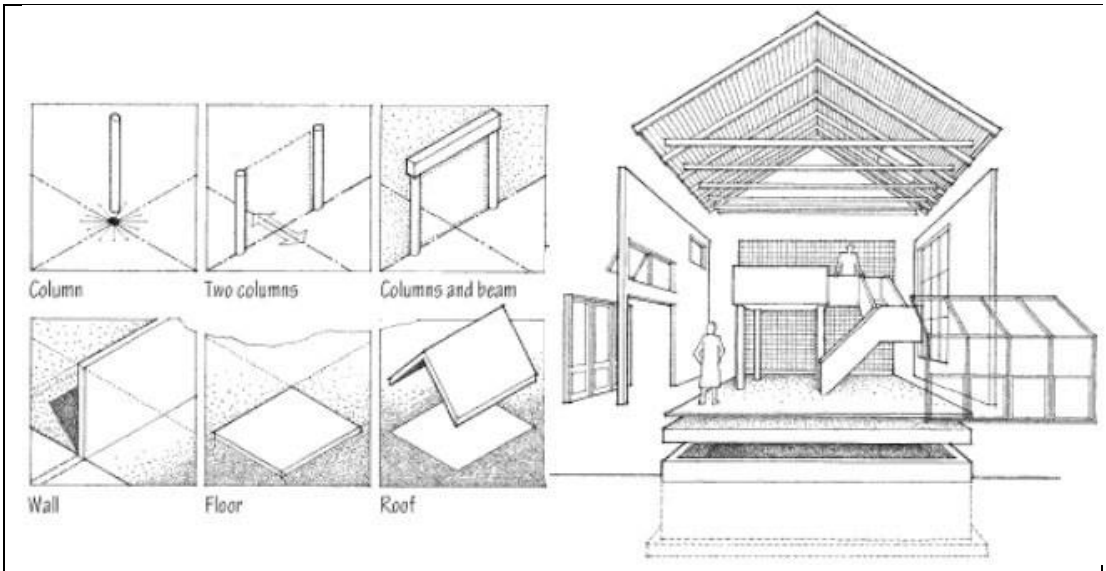
3.1 Definition of Space in Simplicity

In this thesis, the concept of minimalist and simplicity space organization in housing has been defined and discussed in detail in Retrospective Analysis section. This section is included short and basic definitions of terms in literature.

Ching (2004) define space as:

> Space is a prime ingredient in the designer's palette and the quintessential elements in interior design. Through the volume of space we not only move, we see forms, hear sounds ,feel gentle breezes and the warmth of sun and smell the fragrances of flowers in bloom. Space inherits the sensual and aesthetic characteristic of the elements in its field. (pp.2)

Space has a broadly meaning in the general description. Starting form infinity of space to goes down the current smallest cell that we in (Sensoy, 1977; c.f. Nergiz, 2005). Basic principle of space is where all the actions happened like a tool, equipment and a stage. Space, a set of relationships formed with the locations of assets and relative to each other. Space is a view of the environment and perceived a multi-dimensional. Behaviors and actions shape the spaces. Space covers life and not be separated from life (Demirkaya, 1999)



Space defining elements (Ching, 2004)

Figure 30. Formation of space

According to Ching (2004):

> Space is not a material substance like stone or wood. It is an inherently formless and diffuse vapor. Universal space has no definition .ones an element is place in its field, however a visual relationship is establish as other elements are introduced into the field. Multiple relationships are established between the space and the elements as well as among the elements themselves. Space is thus formed by our perception of these relationships." (pp.2)

The concept of space is one of the true principles of architecture. In a sense, architecture is the art of creation spaces. In other words, the art of architecture gives its products by creating spaces; space is the essence of the architecture (Güner, 1977; c.f. Nergiz, 2005). Sedat Hakki Eldem refers that space give shape to human life, "the gaps that shapes our lives. See what they serve you and how. If your life is full of challenges, this situation reflects the badness of space."(Demirkaya,1999). In fact, space is an emptiness which we live in and surrounded by structural elements (Zevi, 1993).

In Minimalism space is not a distance, it is endless openness (Silvestrin, 1998; c.f. Nergiz, 2005). Creating a space in minimalism can be defined as creating the necessary emptiness for people who live there. Emptiness, gives an existence of objects and people.

Generally in space designing important thing is ornamentation and decoration as a whole, however in Minimalism aim is dealing with emptiness and designing it. In Minimalism emptiness kept in foreground by relationship between empty and filled spaces, it is an expression of meaningful spatial emptiness (Sarıyer, 2002).

3.2 Classification of Space in Simplicity

In this section classification of space in Simplicity has been researched regarding the Interior, Exterior, Outside to Inside and Multi Purpose spaces which are have major role in Simplicity and Minimalist attitude on dwelling.

3.2.1 Interior space

Francis D.K. Ching defines interior space in his book Design Illustrated (2004):

> Upon entering a building, we sense shelter and enclosure. This perception is due to the bounding floor, walls and ceiling panels of Interior space. These are the architectural elements that define the physical limits of rooms. They enclose space, articulate its boundaries, and separate it from adjoining interior spaces and the outside. (pp.6)

When we say physic environment in interior space it reminds heat, light, sound, color, odor, and the elements of furnishing, human requirements and actions take place in a space. For example: while people eating meal they bring plate in comfortable position, the temperature of the living volume, the creation heat loss or heat concentration keep in optimizing the overall level is necessary conditions for life. The light, sound, heat and optimizing of moisture is necessary for live in ambient. This optimizing help live in comfortable environment. In addition, the moral

environment is the person or persons intuitive and emotional environment which in space. (Şensoy, 1977). The physical properties of minimalist spaces providing feelings such as freshness, peace and tranquility and show us the relationship between physical environment and the moral environment.

According to Ching (2004)

> Floors, walls and ceiling do more than mark off a simple quantity of space. Their form, configuration, a pattern of window and door openings also imbue the defined space with certain spatial or architectural qualities. We use terms such as grand hall, loft space, sun room and alcove not simply to describe how large or small a space is but also to characterize its scale and proportion, its quality of light, the nature of its enclosing surface, and how it relates to adjacent spaces. (pp.6)

Important issue in Traditional Japanese dwelling's interior is connection and fluidity between each spaces, according to different needs of users spaces can change its size and function furthermore protect the relation between human and nature relationship. This system used as lighting, ventilation and privacy controller (Yagi, 1992).

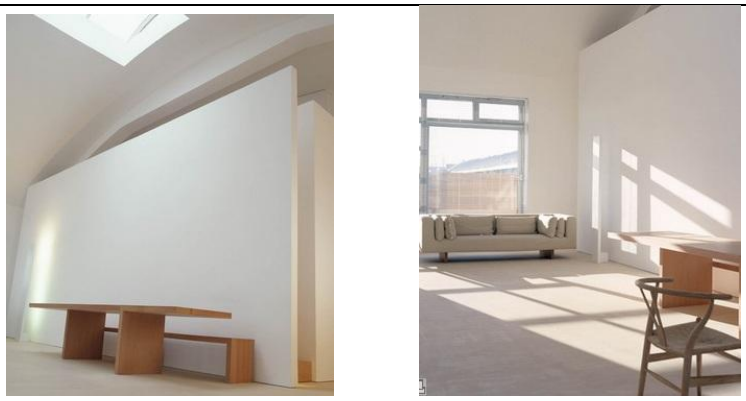
	
Traditional Japanese dwelling entrance (Mehta and et. al. 2005)	Traditional Japanese dwelling veranda (Mehta and et. al. 2005)

Figure 31. Indoor and outdoor relationship

In Traditional Japanese dwelling interior and exterior space not defined as separate spaces from each other, all definitions related about their relation. Nature, veranda,

entrance hall and this kind of passage spaces has been taken into the dwelling as a whole. These spaces have important role as much as interior spaces.

Minimalist spaces serve emotions such as relief, serenity, spaciousness and peace to people as a result of the physical properties of minimalism, this circumstance shows the relation between physical environment and physiologic environment. Minimalism is a concept which is directly related with human life (Islakoğlu, 2006).



Pawson house's interior space (URL14, 2012)

Figure 32. Modern minimalist interior space

In Minimalism understanding of interior space conception has been changed, interior space is not a volume which is surrounded with ceiling, floor and walls. The function has become more important than ever. The architecture is a space which has prepared and covered with particular functions and specific purpose.

In contemporary simplicity attitude on interior space is, less usage of volume and space with open plan system. Space as a single box divided into several functions without using physical dividers. Generally as mentioned before contemporary simplicity in interior space can be defined as a composition of Modern Minimalism with technology. Most important feature is, interior space has been equipped by

computers and technologic systems to answer human needs. However in some of the examples instead of geometric forms organic forms in interior space attract attention.

Render from interior space of residence (URL15, 2012)

Figure 33. Contemporary residence

Simplicity in interior space can be defined as a place which serves peace, serenity, comfort and less effort as much as possible in life organization with removing inessentials.

3.2.1.1 Space Organization

The reason of creating and organization of space is the need of comfort. Comfort in Architecture is; "necessary and sufficient opportunities to live" (Güner, 1977; c.f. Nergiz, 2005).

The way in which houses are spatially organized and rooms are designed and distributed, may provide or restrict possibilities for privacy and social life. Ideas on how social relations are materialized in buildings (Osterberg 1998; c.f. Thomsen and Tjora, 2006), as plans, forms and location of houses, may tell us about the anticipated needs and uses when they were planned and built (Thomsen and Tjora, 2006).

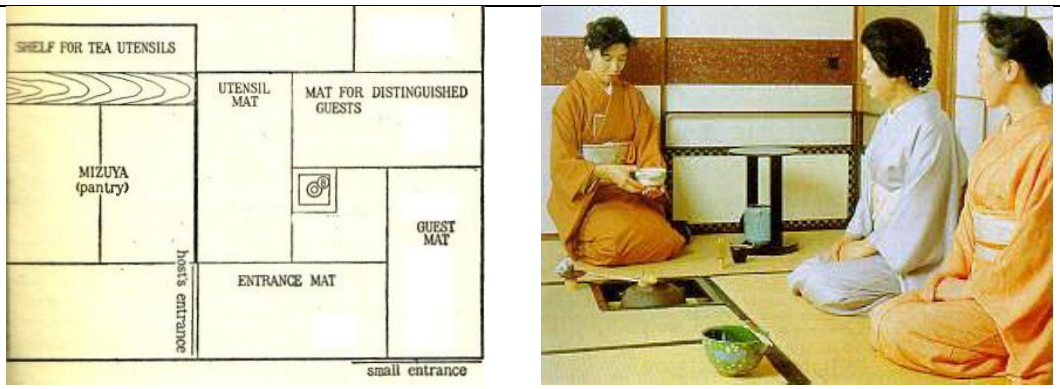
In order to understand importance of space organization in design and architecture; According to Auguste Perret "Architecture is the art of space organization." Bozkurt

defined, “Architecture is a space, where created and organized in specific manner and where serve aim”, from G. Scoot perspective relationship between space organization and architecture; “Architecture have dominance on space. Only Architecture can gives true value of space among the other arts. This pleasure that we take from space organization is the work of architecture. Painting render vista of space, poem can describe the elements, and music is similar to poem. However architecture is directly related with space.” (Kuban, 1990; c.f. Nergiz, 2005).

Environment and spaces that we live in reflect our living style. The space that organized well according to human behaviors and needs is important as air, energy and water. In other words space organization has to be organized according to user’s life style.

The functions that attached to the rooms of a dwelling usually define their sizes and the overall organization of a dwelling. They may also be seen as a limitation in the use of a dwelling’s rooms for non-ascribed purposes (Thomsen and Tjora, 2006).

In traditional Japanese dwellings, spaces organized according to their beliefs and religions. Japanese give importance their beliefs and ceremonies such as Tea Ceremony, in traditional Japanese dwellings there is a room which has been organized according to tea ceremony and called ‘Tea ceremony room’ (Nishi and Hozumi, 1985).



Japanese tea ceremony (URL16, 2012)

Figure 34. Tea room

To described the Japanese religions and beliefs briefly "voluntary poverty against the spiritual wealth". Japanese's religions have effects on world's fashion and art which increasing its value. Far East people can control their life with spiritual 'balance, harmony and serenity'. West always admired from this fact. (Hünal, 1999; c.f. Nergiz, 2005).

In modern times, Minimalism and minimalist space organization became a trend in dwelling architecture and show its effects. Minimalist concept of life style highly influenced from Japanese beliefs. However, if a person couldn't adapt to minimalist life style, couldn't live in a space where organized in Minimalist manner. Minimalist attitude on space organization in modern period can define as creating spaces which serve functions without ornamentation and unnecessary elements further more give a sense of spatial emptiness.

Pawson House (URL14, 2012)

Figure 35. Modern Minimalist interior space organization

Simplicity in interior space organization espouses the principle ‘less is more’. Smooth and uncluttered, contemporary style interior space organization have clean lines and fine finishing and equipped with technologic systems and high quality materials to create character. It is also characterized by the frequent use of sectionals and modular elements (URL17).

3.2.1.2 Multipurpose Spaces

In Minimalist spaces, multi functionality and multipurpose space feature has been observed. The concept of multipurpose spaces, allow users to do more than one activity at the same time or different times in a single spaces, in a manner of speaking multipurpose spaces can be define as overlapping activities.

Concept of multipurpose spaces is well defined multi functionality; furthermore it has to answer user needs in same time. According to Douglas Gordon (2010) the multipurpose space should be able to handle a wide range of functions furthermore multipurpose space should be able to satisfy the needs of its assigned functions.

Traditional Japanese and North Cyprus dwellings are good examples that reflect form of multipurpose usage of spaces. Traditional Japanese and traditional North Cyprus dwelling's space organization features discussed in detail on CHAPTER 4.

Multipurpose space organization has been highly influenced from Japanese traditional design and architecture. Traditional Japanese housing does not have a designated use for each room aside from the entrance area, kitchen, bathroom, and toilet. Any room can be a living room, dining room, study, or bedroom (Nergiz, 2005 & Benevolo 1971). Furthermore necessary furniture are portable and can be stored in a small section of the house. Large traditional houses often have only one space under the roof, other rooms like kitchen, bathroom, and toilet are attached on the side of the house as extensions.

Especially in Traditional North Cyprus houses multi-purpose room; allows for many activities such as a residence, guest reception, cooking, eating, and sleeping. "Warehouse" one of the important rooms in the houses which growing east-west direction. Warehouse the place which used for maintain the seasonal foods that necessary for life, product and farm tools. The small room which is called "kitchen" right next to warehouse, pre-meal preparation, washing dishes and pots are stored here. In addition, many housing also used this room as a place called "bath" for showering. All of these rooms open to porch which facing south; porch provides an indirect relationship and connection between street and closed spaces, because of its location in space organization (Günçe, 2006b, Dinçyürek and Türker, 2007, Salihoğlu, 2006b).

Interior view of Traditional North Cyprus house (Günçe, 2010)

Figure 36. Multipurpose room example

In well defined multipurpose spaces functionality should be at the forefront, especially in terms of identity and flexibility of space allow users to defined activity areas, functional interior environments should serve a purpose. (Nergiz, 2005)

This attitude still shows its strong effects on modern and contemporary simplicity space organization attitude. In order to provide the multipurpose space organization, to able to perform activities, space should give spatial emptiness feeling furthermore interior elements have to have features such as flexibility, mobility and etc... In multipurpose spaces, features of interior elements has been analyzed in section 3.1.3 Interior Space Elements.

3.2.2 Indoor and Outdoor Facade

Protection instinct of all living things from their existence, gives a feeling that let them to need take refuge, to hide and enter implicit places. “The protection instinct for all living beings forcing them in to an act to use natural environment to living and development." (Kuban, 2002).

Ching (2004) define:

> A building's from, scale and spatial organizations and is the designer's response to a number of conditions functional planning requirements, technology aspects of structure and construction economic realities, expensive qualities of image and style. In addition the architecture of a building should address the physical context of its site and the exterior space. (pp.4)

Aristotle defined the space as a concept which including and covering the objects. For this reason, the space occurs from a restricted outdoor and filled an interior. There is no empty space; everything has a place and position in space. The architect regulates the space between grounds, ceiling and walls for the people need to ensure freedom of movement and to cover all the other things. Space is a concept of the differential in the architecture its include the cities, streets, squares, parks, In short, these spaces formed with voids by the persons in space. Any types of buildings can create two different space; the description of the building interior and the affect all of environmental space in the urban. (Sırmalı, 1969; c.f. Nergiz, 2005)

According to Ching (2004) "A building can be related to its site in several ways it can merge with its setting or dominate it, it can surround and capture a portion of exterior space. One of Its faces can be made to address a feature of its site or define an edge of exterior space. In each case, due consideration should be given to the potential relationship between interior and exterior space, as defined by the nature of a building's exterior walls" (Ching, 2004).

Glass House (Davis, 2006)

Figure 37. Minimalist exterior facade example

In simplicity attitude and Minimalist understanding of indoor and outdoor conception in each period; on façade used purely geometrical forms to present simplicity and emphasized the characteristics of materials and the corresponding structural systems. Furthermore most important role of outdoor is outdoor facade should be accepted as connector with nature and exterior space has to have a relationship between interior space to provide the nature and human relationship.

3.2.3 Indoor and Outdoor Relationship

According to Ching (2004):

> A building's exterior walls constitute the interface between our interior and exterior environments in defining both interior and exterior space; they determine the character of each. They may be thick and heavy and express a dear distinction between a controlled interior environment and the exterior space from which it is isolate. They may be thin, or even transparent, and attempt to merge inside and outside. (pp.5-6)

Connection between interior and natural environment became a factor of integration between interior and exterior space. Connection between nature and conception of integration between interior and exterior space are very important in Minimalism.

According to the teachings of Bauhaus objects in space couldn't designed independently from one another, even movable, even fixed, both relation between interior and exterior furthermore relation between as a hole is important. Nothing in the venue (forms, functions and structures) can be considered independently of each other (Lefebvre, 2002).

Minimalism appears as a belief that achieves the maximum aesthetic in the physical environment with minimum usage of material, being without nature makes minimalism boring and overwhelming. This also means that the basis thing is the exposition form of 'at least' (Gür, 1999).

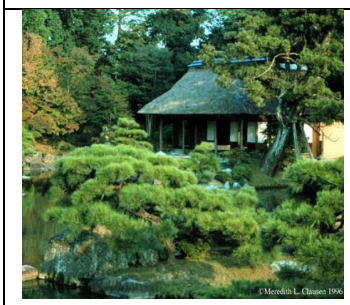
If the walls are not being used as a function of carrier, they can be restrictive or unifying effect in the flexibility or being the free dividers. This sliding wall divider are the most important elements in the Japanese traditional interior, not rupture between the spaces, the reduction and growing of the spaces according to the different needs of users, its keep the relationship with nature and people without removing sustainability of the inside and outside.

Indoor and outdoor relationship also can be seen on Traditional North Cyprus houses, the courtyard is important part of Cypriot life which accommodates many activities in it by this way users usually use outdoor and indoor together and this become a reason that create connection and bring importance of indoor and outdoor relationship. In courtyard vegetables grown up, foods prepared and stored for the winter, the annual needs of cheese (halloumi) is made for the family, resting, cook, eating, washing laundry, and many more daily household chores is made there. In

addition, livestock shelter, toilet or bath and bread making oven is located within the courtyard. (Günçe, 2006b)

In modern times the minimalist interior's the feature of harmony with nature and exterior attract attention, furthermore interior and exterior integrity, respect to the nature of material, the function of each element in the space, the perfection of detail and the importance of natural lighting in space has a important role in that harmony.

Table 4: Interpretation of relationship between indoor and outdoor

According to periods relationship between indoor and outdoor			
INTERPRETATION	TRADITIONAL	MODERN	CONTEMPORARY
			
	Katsura Palace (Clausen, 2011)	Glass House (Davis, 2006)	Garden and Sea House by Takao Shiotsuka (URL18, 2012)
	Physically relationship with nature attract attention	Transparency and visual relationship with outdoor is stronger	Connection with outdoor created in visual manner

In Minimalist spaces connection with nature and being a part of nature as much as possible is very important. In a sense, integrity of interior and exterior spaces and their permeability and fluidity has been observed. In minimalism interior and exterior spaces are taken as a whole, nothing is left to coincidence.

3.2.4 Form

The form as a result of architecture process, become important in the perception and evaluation of person who looking outside of an architectural work. Evaluation

criteria's of the outer surfaces of the building and with the emergence of these surfaces for shaping caused to the perception of form as a foundation, form have become important element for architecture in both theoretical sense and practice (Mozaikçi, 2012).

In the minimalist spaces, from external and formal view; simple, plain, basic geometric forms of fictional and aesthetic norms have been seen. Basic geometric forms, smooth and clear, lines with angular forms and functional accessories are preferred to use. Complex and ornamental forms has been rejected.

The Simplicity and the purity of the form, in a direct relationship functions of the form such as material and detail is also an important factor of elements in naturalness and simplicity. For example, the use of the material in its natural state, not include diversity and continuity furthermore leads form to visual to simplicity.

Basic geometric forms have been seen in the form of interior elements in space. Especially in indoor environment such as; the coffee table, sitting elements, designed as a library of modular equipment systems, it is possible to see the geometric forms. The characteristics of minimalist space's equipments examined in detail in subsequent sections.

3.3 Interior Space Elements in Simplicity

Simplicity attitude on interior space elements refers to use these elements as pure and simple as possible. Features of interior space element should provide the reflection of spatial emptiness.

The request of Simplification everything in a minimalist interior arrangement and returning to the basic objects and elements attracts attention. Simplicity and minimalist attitude preferred interior elements which highlight the functionality with simple and straight lines without ornamentation. (Gomez,1997; c.f. Nergiz, 2005)

Everything needs to be considered together reinforcement, materials, color, texture, light, etc. to achieve necessary desired atmosphere of the room. Elements that create the structure (walls, floors, columns, beams, etc.). Parts not united with each other, each one must be part of another one. The continuity of these elements from inside to out and from outside to inside, is a factor that expands the architectural formation between the establishment of interior and exterior integrity. Thus, the integrity and continuity of a space is created (Mozaikçi, 2012).

In next sections Simplicity attitude has been researched regarding the basic elements of design (color and texture, material and detail, furniture, structure) in terms of Interior Space.

Table 5: Interior space elements table

Interior Space Elements that have important role in Simplicity attitude	
ELEMENTS	Color & Texture
	Material& Detail
	Furniture
	Structure & Construction

3.3.1 Color and Texture

The color and texture have an important role in the perception of space. In a space it is possible to change the psychological perception without changing the physical

properties by different colors and textures. Color and texture are inseparable; texture of surface is the factor that determined the color.

Lighting is another factor that has an important role on perception of color and texture. Bright and light colors that appear on forms create effects such as; brightness, depth, closeness, distant feelings (Sırmalı, 1969; c.f. Nergiz, 2005). Opening and lighting element has been researched particularly in next section.

In Traditional architecture lack of technological conditions and deficiencies of that period, bring simplicity traditional dwelling architecture. Usage of natural materials with own color and texture without processing them, that coming directly from nature such as stone, wood, mud and etc... Bring simplicity to traditional architecture.

Interior view of Traditional Japanese house (Mehta and et. al. 2005)

Figure 38. Color preferences in Traditional Japanese house

In minimalist spaces usually light and neutral colors preferred which are reflecting the colors of nature (soil color, etc..). White and gray colors provide the serenity and purity features of space. White color effect on man's psychological perception of the

cleanliness, purity, innocence emotions, and a gray reminiscent of silence, stability, reliability and simplicity emotions.

Interior view of Leiria House (URL11, 2012)

Figure 39. Color preferences in contemporary Minimalist house

Preference of light colors especially the white color which reflects the light better from surface, is one of the reason that effect on light colors choice in minimalist space. Minimalist spaces refuse the usage of variety color and texture which tire the eye. More color and texture diversity in space create spatial chaos and occur disturbing effects on man.

3.3.2 Material and Detail

Transferring a certain thought in architecture, can possible by means of the forms given the technical construction materials. Abstract thought become concrete in architectural structure with contributed by the material. In this context, material is a concrete factor to understanding of the formation of form and visual perceive.

One of the most important features of simplicity and minimalist attitude in spaces, the usage of natural material or material in its purest form and nature. Usage of natural materials reflects spaces as pure and simple. Of rudeness or less processed

materials, gives a sense of purity. Reducing attitude on everything in minimalist spaces can be seen on diversity of material.

Being a part of nature and usage of material as its self is really important for Japanese and they accept this as greatness that they give themselves (Ayverdi, 1972). Creating a building in nature which contains nature, geometrical forms and elements as its nature, reflects the Japanese philosophy. (Sener, 1991).

Interior view of Traditional Japanese house (Mehta and et. al. 2005)

Figure 40. Example of natural material usage in dwelling

Frank Lloyd Wright who is the pioneer of Modern architecture used material as it own self. Wright define nature as; "Nature is not only determined with exterior environment, cloud, trees, earth and animals; it may referred to the nature of material, plan, feeling and instrument." (Nergiz, 2005).

In Modern and contemporary minimalist attitude, all the elements in the building reflects perfection on details with flawless fine finishes. Perfection gives simplicity plainness, silence and minimalist feeling to the space furthermore its shows importance of detail and poise in minimalist attitude.

Interior view of German House (URL, 2012)

Figure 43. Material preferences in Minimalist house

According to Anja Llorella Oriol “Transparent materials such as glass are used again and again. In this way, the themes of transparency and façade are a primary concern of minimalist architecture. In addition to the direct use of glazed façade surfaces, some architects prefer the semitransparent features of opaque claddings.” (Oriol, 2006, p8-9)

In the harmonious coming together of materials in minimalist spaces, reflect an elaboration and perfection of its relations with other elements. Minimalism is the most difficult one among architectural aesthetics. Because, in a space everything is pointed out, all the nudity are not hidden under decoration and undisguised ornamentation. This feature required the quality and perfection of the details.

3.3.3 Furniture

Furniture is the mass noun for the movable articles that are used to make a room or building suitable for living or working in, such as tables, chairs, or desks.

The main reason for using furniture in housing is meet the need of vital activities in a comfortable way. These needs are such as eating, sleeping, storage, mental and physical efforts and sitting or resting. The main goal is to answer human needs, according to increasing the value of the product due to usability of function; measurement must be in accordance with the size of the objects which the furniture of human and storage-display function. Simplification and Minimalist attitude refer to design furniture in simple geometric forms as the other elements.

The request of Simplification of everything in simplicity and minimalist attitude on interior arrangement attracts attention to the refining and return to the basic objects. They are preferred accessories which highlight the functionality with simple and straight lines without ornamentation (Gomez, 1997; c.f. Nergiz, 2005).

Creating oversize furniture with esthetic concerns, without realizing functional needs, being inessential, reducing the level of answering needs and it's also effects circulation and comfort in the house negatively. The functions which are not required by exaggerated forms do not take places (Ulusan, 2007).

According to Moscow furniture; In minimalist furniture concept, the attractiveness of furniture is directly related with the design unity as designers make the use of simple and basic shapes in order to enhance the maximum usage of the furniture (URL20, 2011).

From traditional simplicity till to contemporary, furniture have important role in space organization. Functionality and simplicity on traditional furniture show its

effect on today's simplicity and minimalist attitude. According to subject features of simple and minimal furniture has been analyzed in next sections.

Table 6: Types of Simple and Minimalist furniture

Features of Simple and Minimalist Furniture		
• Fixed Furniture	Fixed furniture allows users to hide and storage objects.	
• Movability	Movable furniture create empty spaces and used for different functions.	
• Modularity	Modularity allows users to carry and change the positions of elements to serve multi function.	
• Pliability	Pliability allows furniture to collected and stored easily.	

3.3.3.1 Fixed Furniture

Fixed furniture usually preferred in the small houses to save space and provide the fluidity of interior partitioning. Such as cabinets, niches in the wall and storage elements in building called built-in elements. Mainly in Traditional Japanese dwellings fluidity of interior space depend on fixed elements and fixed walls, but

also by either freestanding screens or removable ones set on built-in rails. (Yagi, 1982)

Spatial emptiness and simplicity in Traditional Japanese dwelling, provided by usage of fixed furniture, using fixed furniture allow to hide and storage movable elements furthermore its help users to take off them when they need.

	
Out of the fixed furniture comes a variety of furniture and other everyday items (Yagi,1982).	Bedding is used as flexbile element and removed from fixed furniture placed on the floor (Yagi, 1982).

Figure 41. Fixed furniture example in Traditional Japanese House

In Minimalist dwellings storage needs to be answered by fixed furniture such as wardrobes cabinets, shelves and niches. These wardrobes, designed as hidden and fixed in the walls such as niches. In traditional Japanese dwelling, fixed furniture is designed as an architectural element. Fixed furniture provides most of the storage needs in minimalist spaces; hence there is no need to bring additional storage elements in to space. By this way, space doesn't get filled with unnecessary elements. Built-in furniture allows users to define and create empty spaces moreover provide the user's activities. These empty spaces which left to the user in building, due to the absence of any element that limits it, open to changing in life and create flexible

spaces. Fixed furniture generally has to be suitable in located area that designed, it is very important to be useful as long as possible in terms of flexibility.

According to Schleifer (2007)

> One of the basic rules of minimalism is to achieve maximum effect with the smallest number of components. For this reason Shelves, and storage furniture play important role in helping to avoid the effect of untidiness that usually results from the accumulation of objects (pp.10).

Most important fixed furniture which serve storage feature is wardrobe. Another way to answer of storage needs is setting up fixed furniture to the dead spaces, in other words dead spaces designed as storage. (Ökem, 2001)

Canal building interior by Claudio Slivestrin (URL21, 2012)

Figure 42. Fixed furniture & storage elements

First of all, in Minimalist dwellings which serve comfort to human living spaces, storage and fixed furniture elements have to designed according to human body.

Shelves wardrobes and such as fixed furniture's doors and drawers height and size have to appropriate to human body's standing reaching positions. Sliding doors usually preferred to use then winged wardrobe doors.

According to Schleifer (2007)

> It is a matter of distributing a space in to well defined compartments that will clearly mark out the various storage areas. For this purpose square or rectangular shaped pieces of furniture offer a better storage capacity, as well as a neat and light appearance. Compact modular volumes can then contribute to the purity of lines advocated by this esthetic movement. (pp.10)

Interior view from Glass house by Philip Johnson (Morris, 2012)

Figure 43. Fixed furniture usage in living space

In spaces where functions are not divided as living, eating and sleeping, open play organization, to able to perform different activities instead of fixed furniture movable furniture have important role also. Fixed furniture and storage used as an element which help to hide and stored objects. When we are considering objects that will be stored in this areas, according to elements that we used in our daily activities movable furniture come to forefront. Importance of movable furniture has been analyzed with detail in next section

3.3.3.2 Moveable Furniture

Perhaps movability is the most important feature of equipment in simple and minimal housing. Simple and Minimal places takes the benefit of mobility, especially in spaces which have various functions that overlap, moveable furniture makes possible the realization of functions at different times. Mobility, allows you to push,

pull, or remove the furniture from the area to be ready for other functions at the end of the performed function movable furniture creates endless possibilities in a space (Ökem, 2001).

According to Yagi (1982)

> The Japanese idea of setting up a room by surrounding a certain space with movable partitioning and furniture enables the function of a given space to be changed by adding, removing, or redistributing pieces of furniture. As a result, there is an interrelationship of design between the floor, pillars, partitioning devices, and furniture. (pp.42)

Japanese movable furniture (Yagi, 1982)

Figure 44. Movable furniture example

Today's and modern minimalist attitude, offers users to remove heavy and unnecessary interior elements as a design principle. Movable furniture as a part or as whole has to be easy to carry and light. These features also have to be applied on flexible and multifunctional furniture (Ökem, 2001).

In simple and minimalist spaces to provide multi functionality in space, especially middle part of the space have to leave empty and furniture that are not in used have to removed easily. By this way, in simplicity and minimalist attitude they preferred to use simple, plain, light easy to carry and portable furniture as much as possible.

Table 7: Movable and folding furniture sampling according to periods

TARDITIONAL	
	Traditional Japanese furniture (Yagi, 1982)
MODERN	
	Giancarlo Piretti's Plia chair (URL22)
CONTEMPORARY	
	Ufuk Keskin's Sheetseat (Wandering, 2012)

Multi functional, pliable and storable furniture also have to be movable in order to fulfill their function. For example; furniture which can be folded or easy collectible, may have to give more answer more than a function have to be movable to fulfill its function.

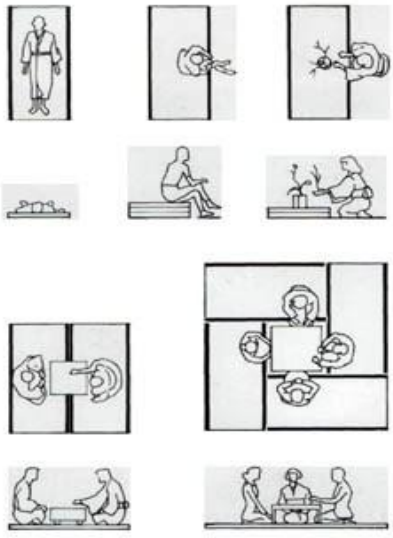
As in the traditional Japanese dwelling in Modern and Contemporary Minimalist dwellings in common use areas we can achieve functional transformations by movable furniture (Ökem, 2001). For example, a living space can transform to a sleeping area. Using a space as multi functional also provided modular interior elements.

3.3.3.3 Modular and Pliable Furniture

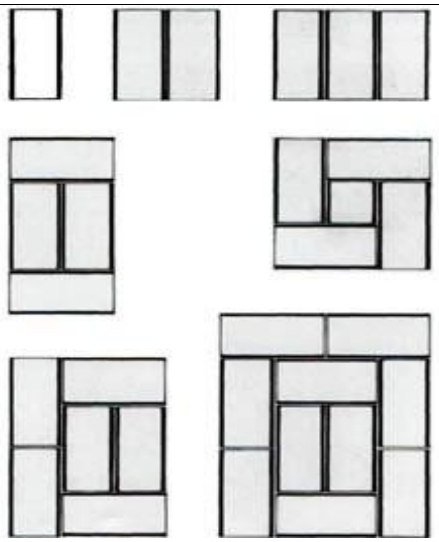
Modular furniture is really important especially in small spaces, these interior elements allow users to define and do more than one activity in a single space. Multi functionality supported with modular elements. Modularity consisted of multi peaces which have standard sizes and serve multi functions according to user needs, also these interior elements can easily transform to different interior element. Modularity allow users to define functions, this circumstance can be define as ; same type elements that linked to each other side by side and serve functions by being combined and serve unity to same element.

Most important modular element in Traditional Japanese spaces is tatami mats, simple addition to tatami with movable table and furniture gives different functions. Tatami mats have several types of usage; size of these tatami mats has been designed according to a single person size where e person can lie down. Combinations of different positions by coming side to side set up floor covering, by this way it has an importance on space size. When users put two or three tatami over each other, users can establish a sitting element or working bench, this feature serve different functions (Yagi, 1982).

In Japanese traditional dwelling usage of tatami mats shows variety, modularity allows users to define different functions by changing positions of mats (Figure 45.)



Ways to use tatami (Yagi, 1982).



Tatami patterns (Yagi, 1982).

Figure 45. Modular and pliable furniture example

Today's and contemporary examples shows that, parts of modular furniture system can come together in different positions furthermore can answer user needs by different functions. Also increase the flexibility and bring simplicity to space. Another important feature of modular furniture system is that it can be organized according to number of user. If the number of users increases, system can change places as side to side or over each other and give answer to user needs.

Patrick Norguet's modular furniture (URL23, 2012)

Figure 46. Contemporary modular sofa

More over concept of flexibility refer the idea that putting varies of function in a single space and answer human needs. Flexibility of space supported with pliable indoor environment, being collectible and storable of pliable furniture allows users to increase or decrease the size of space. Space have to design according to elements that used to partition of areas in spaces which help increasing or decreasing the size of area and serve multi functionality with pliable and movable interior elements.

In traditional Japanese dwelling, one of the major element is partition walls according to function of spaces partition walls help to increase and decrease of the size. Furthermore provide the fluidity between different areas (Figure 47), by this way it gives emptiness, simplicity and freshness to space (Yagi, 1982).

Sliding doors in Traditional Japanese dwelling (Yagi,1982)

Figure 47. Traditional modular and pliable indoor element

Pliability of furniture can be defined as "usage of furniture in different functions, easily collectable and storable". An element that we can call pliable furniture have to reflect the idea that giving solution and answering needs in a space that activities become complex, in other words pliable furniture have serve multi functionality to perform more than one activity in a single space and provide flexibility of space. (Ökem, 2001)

X-Module furniture, can be used as a shelf, a stool or a coffee table (URL24, 2012)

Figure 48. Contemporary modular furniture

Combining more than one function in a furniture create multi functionality. For instance, tables can expanded according to basic needs of human such as seating, studying and eating, also foots of tables can be used as box for storage. Basic principle is re usage of death spaces in the structure of furniture.

Simplicity that comes out with multi functionality is expression of minimalist attitude in dwelling. In the design process of interior elements designers may have to think all volume of furniture instead of functional part. Flexibility concept in furniture, provide less usage of off interior elements in space (Buldurlu & Nergiz, 2005).

In summary in minimalist dwelling's interior elements have to have features such as light weight, multi functionality, comfortable and expandable according to needed size, pliable, easily storable and movable. Interior elements mustn't clutter up space when they are not in use.

3.3.4 Structure & Construction

Spaces set up with building's structural system, defined by wall and ceiling planes and connected with other buildings by openings such as windows and doors. Each building has its own understandable structural system. Every system has its own geometry which gives shape to building. Either structure or space can be dominant in this relationship, both have important role in building design. (Ching, 2004)

Minimalist conceptions coincide with engineering criteria. In minimalist building's engineering design, especially structural system developed by copying minimalist natural formations. Creating largest opening with least material to give sense of spatial emptiness has been observed. These structures only reflect their static conceptions and functions, essentially based on the principle of maximizing minimal. (Isalkoğlu, 2006)

Generally in modern period, minimalist buildings reflect structural simplicity with sophisticated and minimal structural elements further more balanced rate of solid void and purity of glass reflect and developed the simplicity of structure. One of the elements which setup general conception of minimalist buildings is transparency. In this design process structural system support and developed both interior and exterior living relationship and help to reflect the building's physical properties from exterior.

In minimalist attitude structure have important role in terms of giving simplicity to building, structure preserves the continuity in space organization, provide the continuity between interior and nature by transparency and developed the sense of simplicity. This also provides the structure to take advantage of natural light

3.4 Functional Requirements

Function can be defined as realization of task or purpose. The color for painter is the function for the designer. If a building is successful in terms of functionality it means that it's done according to aim and executing the task .In a single word "beneficial". As a result major role of function is achieving the purpose. (Sırmalı, 1969; c.f. Nergiz, 2005).

Everything in a minimalist space is functional, everything have to serve a purpose not stand for ornamentation or decoration. Anything that inessential, gratuitous and purposeless can't take place in a minimalist space. Removing inessential and purposeless ornamentation revealing what is functional. This also leads to the essence of space and achieved to simplicity. Usage of less interior environment provides the spatial emptiness. Best examples of Minimalist functionality can be seen on Traditional Japanese dwellings.

Functionality of minimalist spaces is the indicator of relationship nature. In nature everything has a purpose, there is nothing purposeless and all the forms in nature related with their function. Moreover functional flexibility supports the interchanging and exchanging space. That kind of flexibility provides the opportunity of changing the places of volumes according to the needs of users (Bakkaloğlu, 2006).

Bringing together the functions, prevent complexity and bring simplicity. To achieve this feature plan organization comes to forefront. Where there is no planning, nor the purpose and meaning, nor the consistency can be mentioned. Where there is no

planning, there is irresistible feeling of deformity, complexity and lack (Corbusier, 1999; c.f. Nergiz, 2005).

In this next section, the importance of lighting and openings in space organization will be discussed.

3.4.1 Openings and Lighting

In spaces which are designed with simplicity and minimalist attitude, lighting have important role in terms of space perception. Lighting and shadows contributes to the formation of space. Lighting allows interior elements to express themselves with simplicity such as form, color, texture, material and detail.

Lighting have ability to create many physiological reactions in space, thus it has important role in space organization and fiction. Because of this features, instead of space perceptions lighting has another important feature in simplicity attitude. In minimalist space where everything is minimized; lighting used as solid building material, lighting gives and create effects on its own that many designers try to achieve with adding lot of element in space organization (Irmak, 2002).

The light that flows on the texture of a material can produce the different effects. Moves of light in the different directions can change material texture and can make it alive (Sırmalı, 1969; c.f. Nergiz, 2005).

In traditional spaces usage of natural lighting is very effective as much as other solid elements. When daylight taken into the space it does not allow to see, also allows the detection of structural elements that make up space.

Sunlight, constantly changes the quantity and quality according to the weather, season, and time of day. In this regard, it has a vibrant, dynamic character (Sirel, 2001; c.f. Nergiz, 2005). This variety and variable structure of day lighting provide different perceptions in spaces and give very different impressions in different hours. It also determined and blocked the usage of unnecessary objects and elements in space, thus it gives sense of simplicity and spatial emptiness.

Natural lighting shows its effect on both modern and contemporary periods. While analyzing the conception of lighting and shadows, it's impossible to not mention Tadao Ando's lighting usage that use lighting as basic and important element of architecture. Lighting and shadows are the major elements of Ando's designs. In formation of masses and objects there is always interaction with sunlight.

Koshino House (Furuyama, 2006)

Figure 49. Lighting usage of Tadao Ando's

Pure concrete that he uses in his concept helps to create different conceptions on surfaces (Figure 39). Ando's aim can be defined as; determining materials, simplification the maximum effect, removing inessential and combining space and human being, furthermore according to him shapes, types of lighting and shadows gives richness to the space in terms of design (Furuyama, 2006).

In Minimalist spaces factor of light that give different effects hampers the over diversity of textures and color. Color and texture may take different views because of light reflection. For example, in minimalist spaces various shades and tones of white color can be seen on the wall surfaces due to the lighting effects. Thus, there is no need to use more colors in space to give different effects.

Also according to Oriol (2006)

> In addition to features such as sleekness and emptiness, light plays a major role in minimalist architecture, and achieves status as a building material. The use of light as a construction material is not, limited to contact with a natural light source but, rather, includes artificial illumination elements, which serve to support the architectonic concepts. (pp 8-9)

Residence O by Andrea Tognon (Lyons, 2012)

Figure 50. Minimalist lighting usage in dwelling

Consequently, whether natural or artificial, lighting illuminate user needs more over its give the effects as solid elements and help to removing inessential elements in spaces with giving simplicity, purity, freshness and silence feeling.

3.5 Evaluation of chapter

In this section, strain of simplicity acumen and similarities of Indoor environment have been analyzed. In mentioned periods it’s obvious that indoor environment and

architectural elements have been designed and used as simple as possible. Although it's determined that, simplification attitude on indoor environment has added values to interior space such as; simplicity, freshness, timelessness, silence and serenity as an evaluation these values has been put in table, this table has been prepared by inspiring from Fatma Nergiz.

Table 8: Ordering the values that Simplification added through interior space

The values that Simplification added through interior space	
VALUES	Simplicity
	Freshness
	Timelessness
	Silence
	Serenity

Chapter 4

HOUSING CHARACTERISTICS OF SIMPLICITY ON TARDITIONAL, MODERN AND CONTEMPORARY HOUSING

4.1 Selection of the case studies

When Minimalism mentioned is in architecture, firstly housing buildings comes to mind. From this reason in the evaluation and analysis part of this research housing buildings examples has been chosen.

In this chapter of research, 30 different dwelling has been chosen and examined in terms of Minimalism and simplicity attitude, this dwelling example has been analyze to explore the evolution of simplicity attitude in mentioned periods. These dwellings has been analyzed and examined under three main periods which are Traditional, Modern and Contemporary period.

In Traditional period there are 10 dwelling examples, 5 dwelling has been chosen from Traditional Japanese housing, where pointed as a starting point of Simplicity attitude. Other 5 example has been chosen from Traditional North Cyprus housing. The reason of this choice is; Traditional North Cyprus houses have similarities between Japanese houses and space usage in North Cyprus houses show specific uniformity with Minimalism.

In Modern period, after the industrial revolution Minimalist housing examples shows itself in Europe where can be accepted as a birth of Minimalism. According to studies and researches that have done, well known 5 Minimalist Architect's popular housing examples from Europe in Modern period have been chosen to analyze in this section.

In contemporary period 15 dwelling examples has been chosen. Contrary to the Traditional and Modern periods, in contemporary period there isn't any study that has done in this field, thus today's building examples chosen from both Europe and Japan where are accepted as birth of Simplicity and Minimalism. In addition to subject Minimalist Residence conception has been analyzed to shed a light on the relationship between minimalism and this residence conception. Thereby, 5 contemporary Minimalist dwelling example chosen from Europe, 5 example chosen from contemporary Minimalist Japanese housing to analyze in detail, last 5 dwelling example chosen from Turkey, Istanbul in the frame of 'Minimalist Residence' conception and analyzed in detail separately from other examples.

The amount of examples in each periods shows variety the reason is minimalist attitude in traditional and modern period explored and analyzed in theoretical framework by this way less amount of examples chosen to support the theory, however in contemporary period there isn't any study, by this way in this section much more examples chosen to better understand contemporary minimalist attitude.

These case studies were carefully chosen to support and defend the thesis with objective criteria. These buildings examples put in comparison in order to interrogate

and obtain the objective results of the Minimalist conception and Simplicity on housing.

4.2 Method of analysis

Defining Minimalism or something minimal such as building, painting, sculpture or an object by your own and evaluated these objects in terms of Minimalism to decide how much minimal is that object is really hard, in this subject there isn't any precise and clear criteria furthermore these criteria can be change according to in different point of view.

From this reason at first sight, it seems easy to find Minimal by comparison method. However at this point in the selection process of buildings becomes very important. Chosen examples have to appropriate to comparison in terms of evaluating values.

Considering that Minimalism defined as usage of minimum amount of color, value, shape, form, material and texture in architecture, this thesis focuses on these issues. Thereby analyzing and evaluation of the building according amount of architectural elements (wall, floor, column, beam etc.) variations of color, texture and amount of divide space can be accepted as a right way for this research. Thus all building examples have been analyzed under Analysis table which has been prepared according to criteria which has been mentioned in Chapter 3.

As a part of the methodology, an analysis table was prepared by considering literately descriptions, under 3 main titles; classification of space, interior space elements and functional requirements. These 3 main titles consist of elements and criteria according literature survey.

Classification of space

- Interior space:
    - Spatial emptiness (expression of emptiness)
    - Spatial occupancy
    - Ornamented
    - Unornamented (without any kind of ornamentation)
- Space organization:
    - User oriented (organization according to user needs
    - Functional
    - Non functional
    - Fluidity in spaces (accessibility in each space)
    - Single unit plan
    - Multi unit plan
- Multipurpose space:
    - Overlapping activities (multifunctional spaces)
    - Individual activities (space for specific use)
- Outdoor façade:
    - Transparency (visually relationship between outdoor and indoor)
    - Opacity
    - Ornamented
    - Unornamented
- Indoor and outdoor relationship: (physical relationship between indoor and outdoor)
    - Permeability
    - Impermeability

    - Taken as a whole
    - Taken separately
- Form:
    - Geometric (pure) forms
    - Transformed form
    - Simple form
    - Complex form

Interior Space Elements

- Color:
    - White color (domination of white)
    - Own color of material
    - Variety of color (several color preferences)
    - Uniformity of color
- Texture:
    - Natural texture
    - Artificial texture
- Material:
    - Non processed material
    - Natural material (processed)
    - Composite material
- Detail:
    - Flawless details
    - Detail-less (without detail)

- Furniture:

    - Fixed
    - Movable
    - Modular
    - Pliable
- Finishing material:
    - Homogenous (less than two type of finishing material usage in interior space accepted as a criteria)
    - Plenty (Variety of finishing material in interior space)
- Structure & Construction:
    - Hidden
    - Visible

Functional Requirements

- Openings:
    - Ventilation (openings that support ventilation)
    - Circulation (openings that support physical connection between outdoor)
- Lighting:
    - Hidden
    - Visible
    - Natural
    - Artificial.
- Smart Technology:
    - Available
    - Unavailable.

In addition to subject according to literature survey and chosen case studies, dwelling examples were researched under 7 different types in terms of the typological approach which are; outer court, inner court, attached, detached, single storey, two or more storey and flat type house.

In the scope of this research, Minimalist housing examples have been chosen with common sense. Buildings examples have been evaluated and analyzed with retrospective study in a systematic frame work according to order of historical process.

4.3. Simplicity in Traditional Housing

In this section, specifically chosen 10 Traditional housing examples have been analyzed under two sections in terms of simplicity, which are Analysis of Traditional Japanese housing and Analysis of Traditional North Cyprus housing.

At the end of this chapter these traditional dwelling examples has been put in a comparison then evaluated and interpreted in terms of simplicity attitude on architectural elements and indoor environment.

4.3.1 Analysis of Traditional Japanese Housing

In this section 5 Traditional Japanese housing examples have been chosen and analyzed regarding simplicity attitude on dwelling and indoor environment. Building examples collected through literature survey and considering the book; Japanese Home and Garden by Tetsura Yoshida (1995). These building examples ordered from Type 1 to Type 5 and illustrated with representative pictures as in the Yoshida's book. Indoor environment of chosen buildings have been analyzed with visual examples beside of this supported with Tetsura Yoshida's expressions.

Table 9: General information of House Type 1

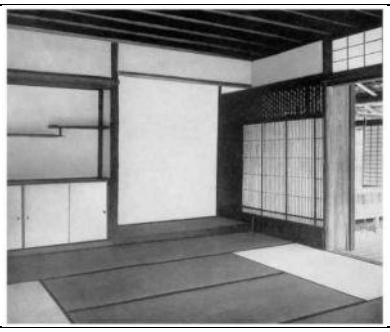
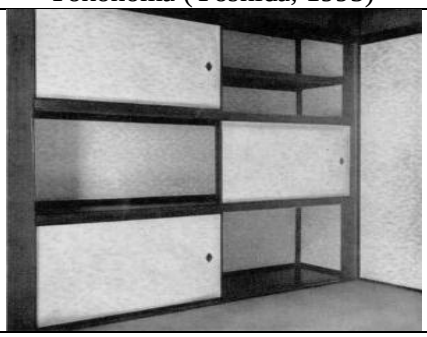
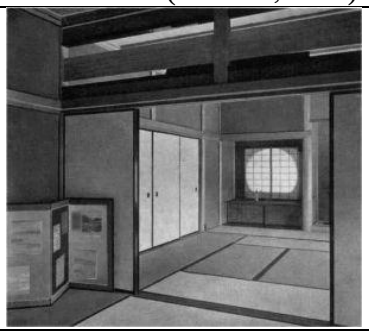
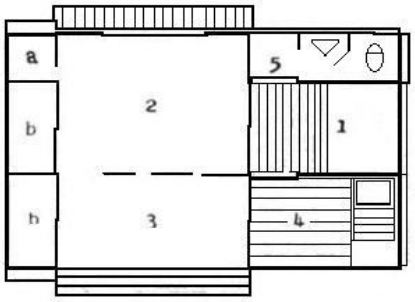
<table>
<tr><td colspan="3">CASE STUDY 1</td></tr>
<tr><td colspan="3">NAME OF THE BUILDING : Type 1</td></tr>
<tr><td colspan="3">LOCATION: Japan</td></tr>
<tr><td colspan="3">CONSTRUCTION DATE: 1800s</td></tr>
<tr><td colspan="3">ARCHITECT: Unknown</td></tr>
<tr><td colspan="2">  </td><td>  </td></tr>
<tr><td colspan="2">Tokonoma (Yoshida, 1995)</td><td>Interior view (Yoshida, 1995)</td></tr>
<tr><td colspan="2">  </td><td>  </td></tr>
<tr><td colspan="2">Wall-cupboard (Yoshida, 1995)</td><td>Interior view (Yoshida, 1995)</td></tr>
<tr><td colspan="3"> 
</td></tr>
<tr><td colspan="3">Building survey (Yoshida, 1995)</td></tr>
<tr><td colspan="2">FUNCTIONAL ANALYSIS OF DEFINED SPACES</td><td>TYPOLOGY</td></tr>
<tr><td colspan="2"></td><td>Outer court</td><td>X</td></tr>
<tr><td colspan="2">1 Entrance</td><td>Inner court</td><td></td></tr>
<tr><td colspan="2">2 Living room,</td><td>Attached</td><td></td></tr>
<tr><td colspan="2">3 Dining room</td><td>Detached</td><td>X</td></tr>
<tr><td colspan="2">4 Kitchen</td><td>Single storey</td><td>X</td></tr>
<tr><td colspan="2">5 Privy (Bathroom & W.C.)</td><td>Two or more storey</td><td></td></tr>
<tr><td>a Tokonoma (Spiritual center)</td><td>b Wall-cupboard</td><td>Flat</td><td></td></tr>
</table>

Table 10: Analysis of the House Type 1

CASE STUDY 1			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	**X**
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

House Type1, consist of single unit which serve 5 different functions in this small area. Entrance hall of house clearly defined; there are level differences between entrance hall and living areas. Living areas and service areas are devoted cleverly in geometric rectangular forms, one side of building consists wall cupboards. These fixed indoor environments provide to store and collect flexible indoor environment by this way space always seem empty. By movable and collectable indoor environments indoor spaces used as flexible multifunctional thus functions can be change according to users. Wooden structure of house blended with wooden indoor environment and semi transparent fusumas (sliding walls). Indoor surfaces decorated with kakejiku (scrolls) this also reflect their devotion to their religion and culture. Opening in house create directly relationship with nature also these opening create illumination and ventilation through interior space.

Table 11: General in formation of House Type 2

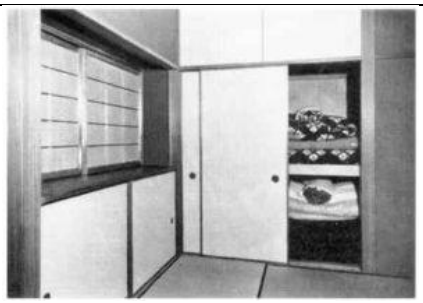
CASE STUDY 2

NAME OF THE BUILDING : Type 2

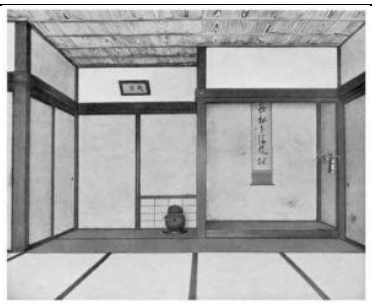
LOCATION: Japan

CONSTRUCTION DATE: 1800s

ARCHITECT: Unknown



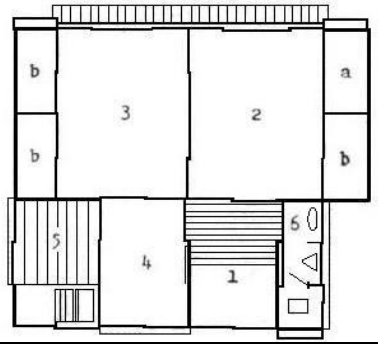
Wall- cupboard (Yoshida, 1995)



Tokonoma (Yoshida, 1995)

Reception room (Yoshida, 1995)

Veranda (Yoshida, 1995)



Building survey (Yoshida, 1995)

FUNCTIONAL ANALYSIS OF DEFINED SPACES		**TYPOLOGY**	
		Outer court	**X**
1 Entrance hall	6 Privy (Bathroom & W.C.)	Inner court	
2 Reception room		Attached	
3 Living room		Detached	**X**
4 Dining room		Single storey	**X**
5 Kitchen		Two or more storey	
a Tokonoma (Spiritual center)	b Wall-cupboard	Flat	

Table 12: Analysis of the House Type 2

CASE STUDY 2			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	**X**
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

House Type 2, at first appearance bright indoor space attract attention semi transparent rectangular walls bring natural light through interior space and opening on walls create connection with outdoor both visual and physical. Interior space consists of 2 main areas. Bigger part composed of living area and reception room where all daily activates happened. More over flexible and movable indoor environment provide to use this area as multifunctional. Kitchen dining room and bathroom located in the other part of house and devoted from living area this shows their behavior on privacy. Indoor environment dominated with wooden structure and natural colored elements in simple geometric forms.

Table 13: General information of House Type 3

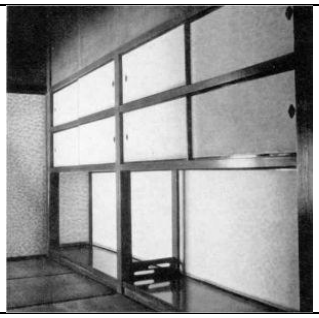
CASE STUDY 3

NAME OF THE BUILDING : Type 3

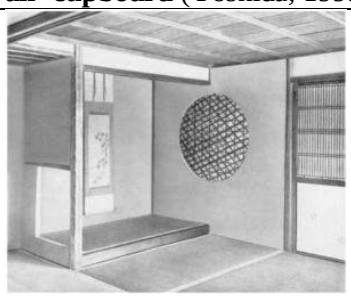
LOCATION: Japan

CONSTRUCTION DATE: 1800s

ARCHITECT: Unknown

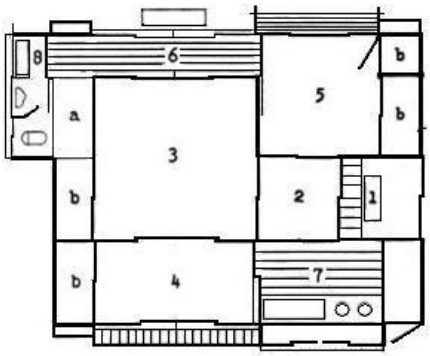


Wall- cupboard (Yoshida, 1995)



Tokonoma (Yoshida, 1995)

Veranda (Yoshida, 1995)



Building survey (Yoshida, 1995)

FUNCTIONAL ANALYSIS OF DEFINED SPACES		**TYPOLOGY**	
		Outer court	**X**
1 Entrance hall	6 Anteroom	Inner court	
2 Reception	7 Living room	Attached	
3 Dining room	8 Privy (Bathroom & W.C.	Detached	**X**
4 Veranda		Single storey	**X**
5 Kitchen		Two or more storey	
a Tokonoma (Spiritual center)	b Wall-cupboard	Flat	

Table 14: Analysis of the House Type 3

CASE STUDY 3			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

House Type 3, attract attention with its wide veranda where has big opening through outdoor, both visual and physically this house has a connection with outdoor. This opening support natural illumination and ventilation to indoor space. Relationship of indoor and outdoor emphasizes the importance of nature in Japanese life. In contrast to previous examples building has anteroom which is located nearby entrance. This building also consist of 2 main part in rectangular and square forms as the other examples as its mentioned previous sections these rooms consist by regarding the size of tatami mats. Bigger area composed of living area and the other part consists of service areas. Beauty of wooden structure supported with natural colors.

Table 15: General information of House Type 4

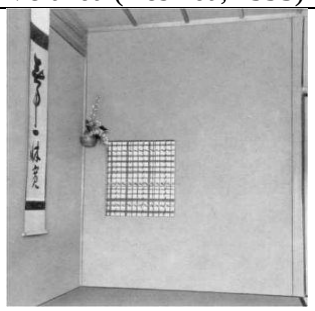
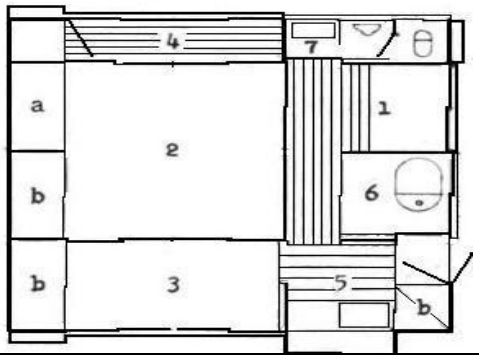
CASE STUDY 4			
NAME OF THE BUILDING : Type 4			
LOCATION: Japan			
CONSTRUCTION DATE: 1800s			
ARCHITECT: Unknown			
			
Multipurpose space (Yoshida, 1995)		Veranda (Yoshida, 1995)	
			
Tokonoma (Yoshida, 1995)		Interior view (Yoshida, 1995)	
			
Building survey (Yoshida, 1995)			
FUNCTIONAL ANALYSIS OF DEFINED SPACES		**TYPOLOGY**	
		Outer court	**X**
1 Entrance hall	6 Bathroom	Inner court	
2 Living room	7 Privy (Bathroom & W.C.)	Attached	
3 Dining room		Detached	**X**
4 Veranda		Single storey	**X**
5 Kitchen		Two or more storey	
a Tokonoma (Spiritual center)	b Wall-cupboard	Flat	

Table 16: Analysis of the House Type 4

CASE STUDY 4			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	
		Ornamented	**X**
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

In House Type 4, space organization is similar to previous examples however this building has served much more functional features and seems user oriented. Fluidity of interior spaces attracts attention. Service areas cleverly devoted in the side of entrance hall, thus other part render its self bigger. Big verandas which create connection with outdoor bring natural day light in to living area and create continually visual connection with nature. In indoor space tatami mats linear and geometric patterns create great harmony with wooden indoor environment. Usually indoor environment designed in simple and geometric forms this also create dimensional proportion.

Table 17: General information of House Type 5

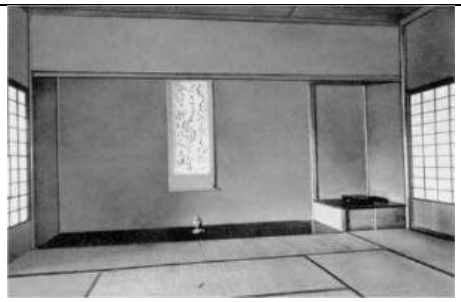
CASE STUDY 5

NAME OF THE BUILDING : Type 5

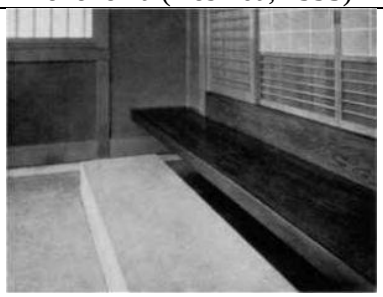
LOCATION: Japan

CONSTRUCTION DATE: 1800s

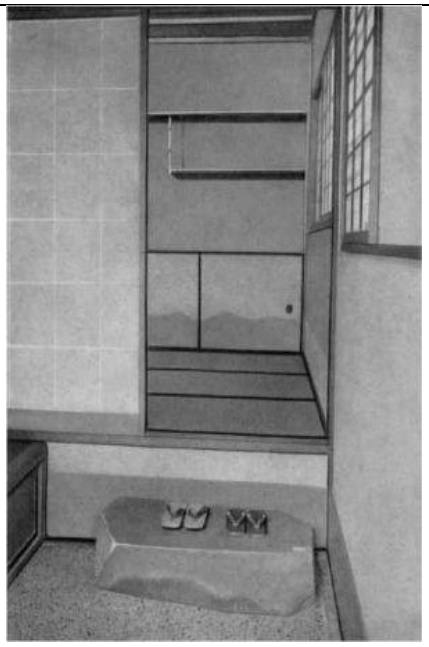
ARCHITECT: Unknown



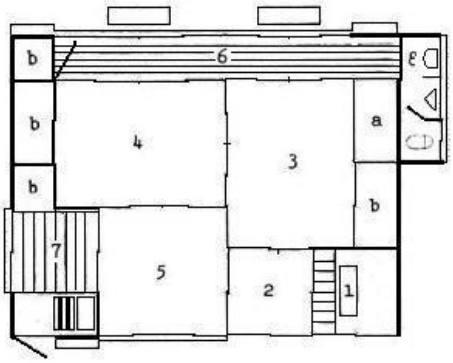
Tokonoma (Yoshida, 1995)



Anteroom (Yoshida, 1995)



Entrance (Yoshida, 1995)



Building survey (Yoshida, 1995)

FUNCTIONAL ANALYSIS OF DEFINED SPACES		**TYPOLOGY**	
		Outer court	**X**
1 Entrance hall	6 Veranda	Inner court	
2 Anteroom	7 Kitchen	Attached	
3 Reception room	8 Privy (Bathroom & W.C.)	Detached	**X**
4 Living room		Single storey	**X**
5 Dining room		Two or more storey	
a Tokonoma (Spiritual center)	b Wall-cupboard	Flat	

Table 18: Analysis of the House Type 5

CASE STUDY 5			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

At first glance, House Type 5 attracts attention with its huge veranda, in contrast to other examples building's veranda provide ventilation and bring natural light through all parts of dwelling. This open plan organization supported with wall cupboards which are located on the both 2 side of house. Spaces defined proportionally in simple geometric forms according to size of tatami mats from smaller to bigger regarding the aim of functions. This flexible multipurpose space oriented with patterns of tatami mats, natural textures, wooden structure and indoor environment with the support of fusumas and kakejikus. Verandas create spatial permeability such as; physically relationship with nature, bring daylight through interior space and provide ventilation more over render outdoor as a part of house.

4.3.2 Analysis of Traditional North Cyprus Housing

In this section 5 Traditional North Cyprus housing examples has been chosen and analyzed in terms of simplicity attitude on dwelling and indoor environment. Building examples selected from rural houses by regarding the three main dwelling units of Traditional Cypriot houses which are outer porch, inner porch and without porch (Dinçyürek and Türker, 2007) in this selection examples are selected from inner and outer porch house examples. These Traditional North Cyprus dwellings are illustrated by author, regarding the former design of building and expressions from owner of house and owner's relatives.

Table 19: General information of Cambaz House

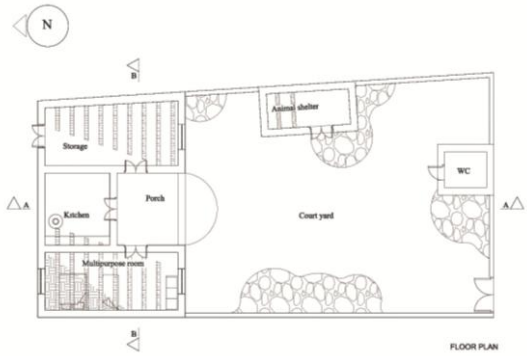
CASE STUDY 6

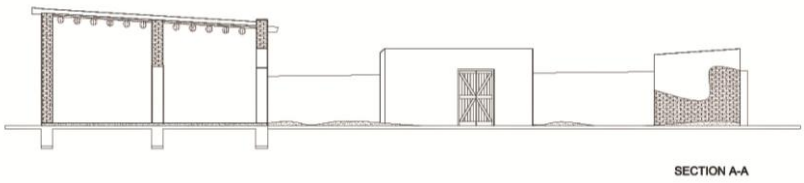
NAME OF THE BUILDING : Cambaz House

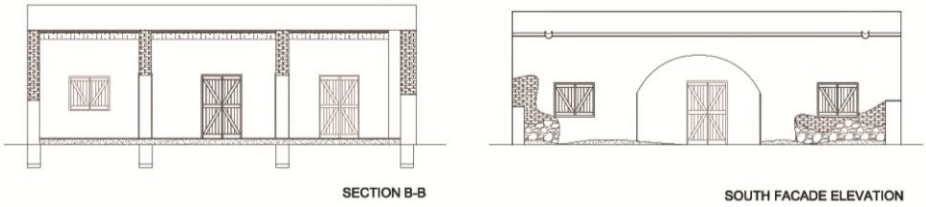
LOCATION: Mesaoria, Cyprus

CONSTRUCTION DATE: Unknown

ARCHITECT: Unknown







FUNCTIONAL ANALYSIS OF DEFINED SPACES	TYPOLOGY	
	Outer court	**X**
Multipurpose room	Inner court	
Kitchen	Attached	
Storage	Detached	**X**
W.C	Single storey	**X**
Animalshelter	Two or more storey	
	Flat	

Table 20: Analysis of the Cambaz House

CASE STUDY 6			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

Cambaz house is a single storey early dwelling which consists of 3 main part and porch. Porch is an important element in Traditional Cypriot Architecture where all daily activities happened. In this building a part of house devoted through users daily activities and sleeping activities which is called multipurpose space and the other parts are devoted to service areas. Bathroom and W.C located out of building. Building structure mud brick create patterns on walls and particularly covered with gypsum. Indoor environment ornamented with cultural symbols potteries plates and pot on the shelves which is called ‘Yüklük’. Simple geometric forms attract attention proportionally devoted rectangular plan organization stand out. Opening on walls create air permeability and support ventilation to building.

Table 21:General information of Alaniçi House

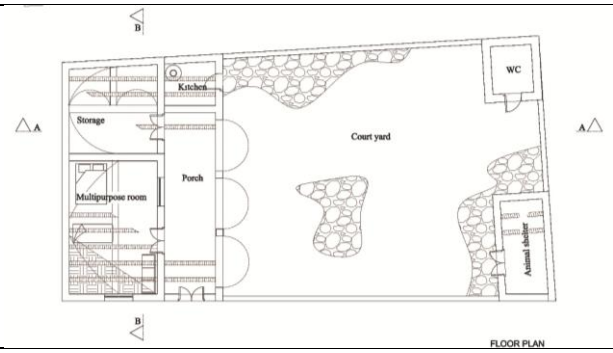
CASE STUDY 7

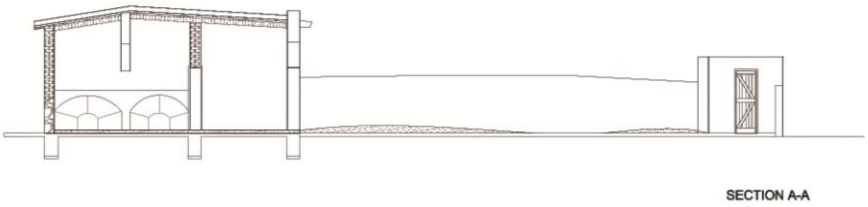
NAME OF THE BUILDING : Alaniçi House

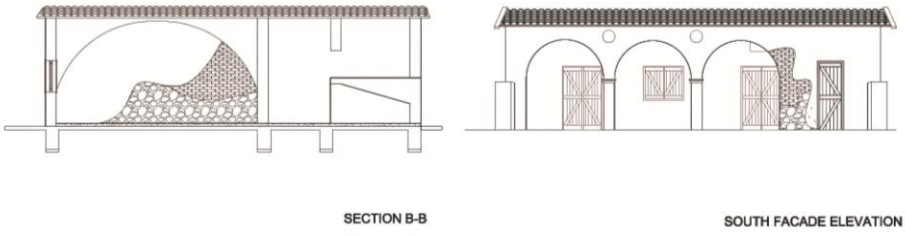
LOCATION: Mesaoria, Cyprus

CONSTRUCTION DATE: Unknown

ARCHITECT: Unknown







FUNCTIONAL ANALYSIS OF DEFINED SPACES	TYPOLOGY	
	Outer court	**X**
Multipurpose room	Inner court	
Kitchen	Attached	
Storage	Detached	**X**
W.C	Single storey	**X**
Animalshelter	Two or more storey	
	Flat	

Table 22: Analysis of the Alaniçi House

CASE STUDY 7			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This well organized building stands out with its arches in the entrance of porch. Building consists of 2 parts which are multipurpose space and storage kitchen located on the east side of building and bathroom located in the courtyard. In indoor space simple geometric forms attract attention multipurpose space visually devoted by an arch in the middle. Somehow this arch defined different functional spaces as sleeping and daily life routines. Indoor facades dominated with white color and ornamented with traditional crafts. Windows almost on each façade bring natural light interior and provide ventilation.

Table 23: General information of Yusufcuk House

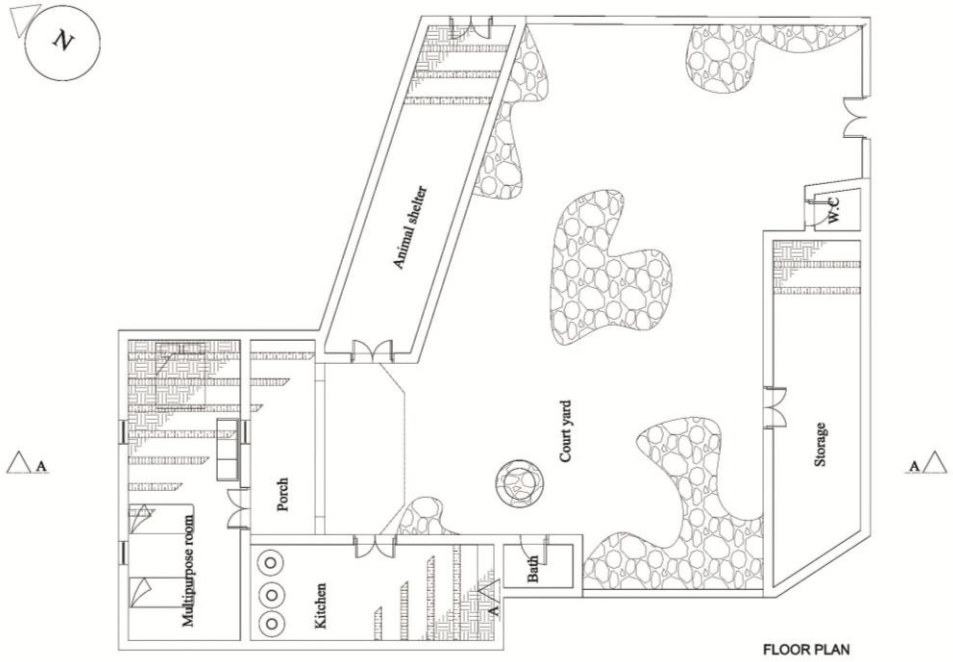
CASE STUDY 8

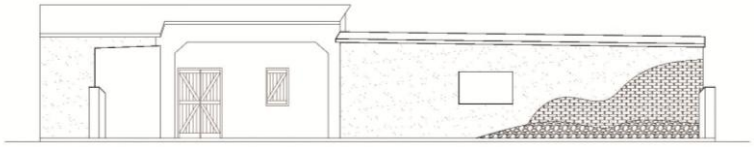
NAME OF THE BUILDING : Yusufcuk House

LOCATION: Mesaoria, Cyprus

CONSTRUCTION DATE: Unknown

ARCHITECT: Unknown





SOUTH FACADE ELEVATION

FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Multipurpose room	Inner court	
Kitchen	Attached	
Sotrage	Detached	**X**
W.C	Single storey	**X**
Animalshelter	Two or more storey	
Bath	Flat	

Table 24: Analysis of the Yusufcuk House

CASE STUDY 8			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

Yusufcuk house consists of 3 parts as the other Traditional Cypriot house. Building located at the edge of the land. L shape building seems like surrounding the land. Contrary to other Traditional Cypriot housing examples Yusufcuk house has Bath which is located near the kitchen on the west side of land. Porch shared by kitchen and multipurpose space, user spent their daily routine under this porch. Indoor environment painted with white and ornamented with cultural art and crafts. This also shows and emphasizes the importance of cultural values in that period

Table 25: General information of Davulcu House

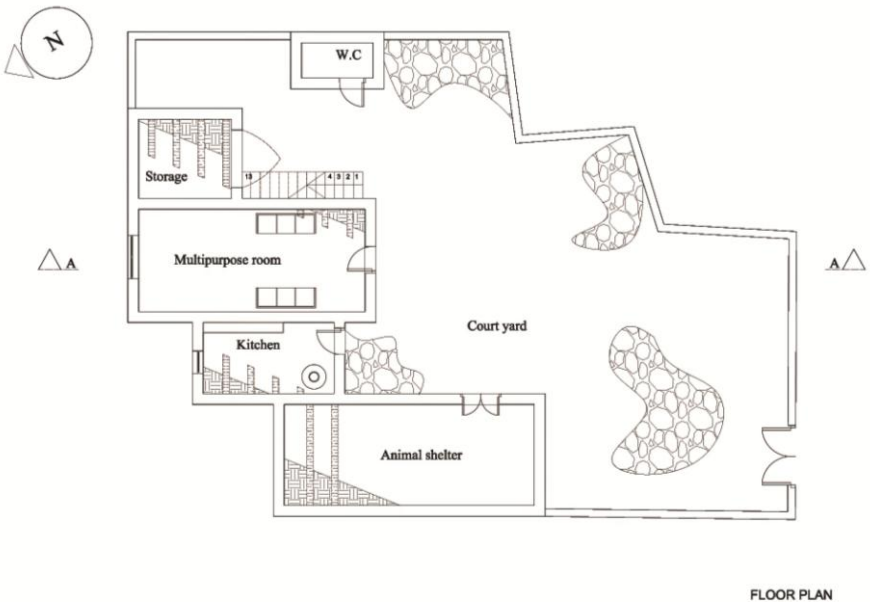
CASE STUDY 9

NAME OF THE BUILDING : Davulcu House

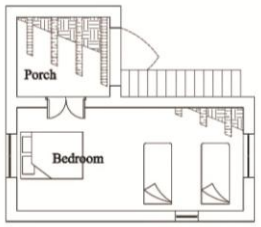
LOCATION: Mesaoria, Cyprus

CONSTRUCTION DATE: Unknown

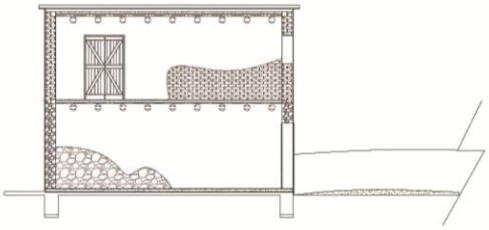
ARCHITECT: Unknown



FLOOR PLAN



UPPER FLOOR PLAN



SECTION A-A

FUNCTIONAL ANALYSIS OF DEFINED SPACES	TYPOLOGY	
	Outer court	**X**
Multipurpose room	Inner court	
Kitchen	Attached	
Sotrage	Detached	**X**
W.C	Single storey	
Animalshelter	Two or more storey	**X**
Bedroom	Flat	

Table 26: Analysis of the Davulcu House

CASE STUDY 9			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This is two-storey type building of Traditional Cypriot Architecture, generally upper floors of this type building called ‘Hanay’. Hanay used for a bedroom for all family and multipurpose space used for daily activities and weaving job. In this house ground floor of building constructed from stones and upper floors constructed from mud brick. As in the other examples Bathroom and W.C located in court yard, contrary to other examples this building’s porch is used for storage and animal shelter. Building consists of simple and geometric forms, wooden beams and straws on the ceiling emphasize the natural textures and materials. Opening through court yard create connection and fluidity between indoor and outdoor accordingly air permeability supported by this openings.

Table 27: General information of Karasu House

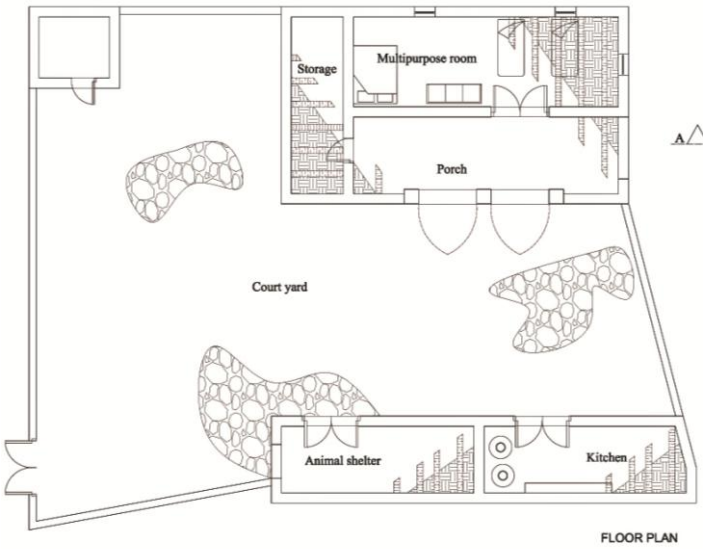
CASE STUDY 10

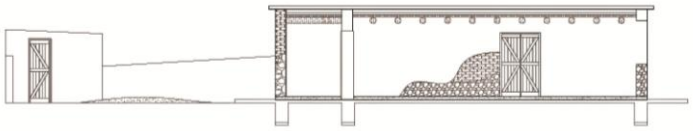
NAME OF THE BUILDING : Karasu House

LOCATION: Mesaoria, Cyprus

CONSTRUCTION DATE: Unknown

ARCHITECT: Unknown





FUNCTIONAL ANALYSIS OF DEFINED SPACES	TYPOLOGY	
	Outer court	**X**
Multipurpose room	Inner court	
Kitchen	Attached	
Sotrage	Detached	**X**
W.C	Single storey	**X**
Animalshelter	Two or more storey	
	Flat	

Table 28: Analysis of the Karasu House

CASE STUDY 10			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

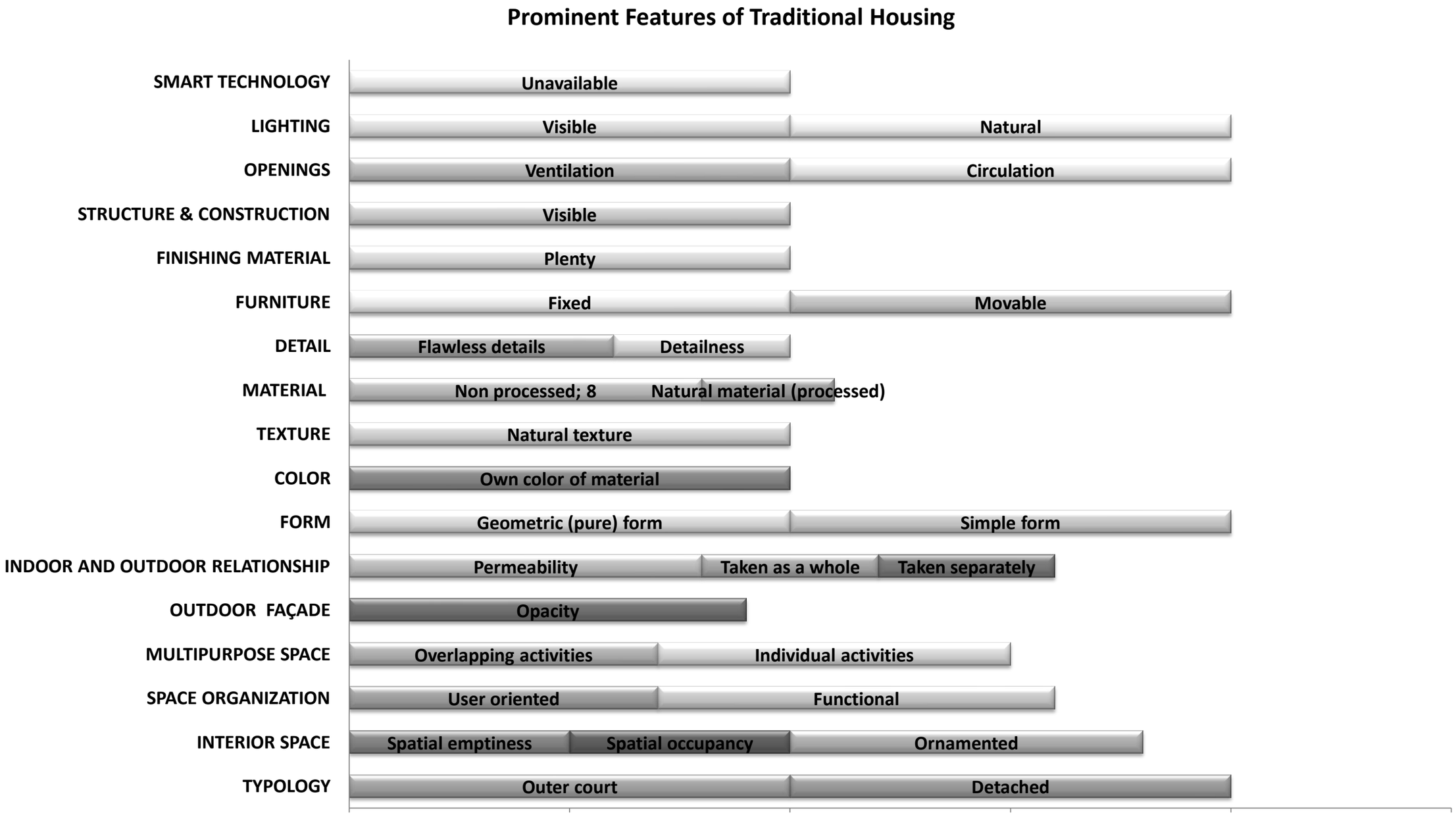
	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This symmetrically organized simple building consists of porch, storage and multipurpose space. Porch blended with arches, and created connection between storage, multipurpose space and courtyard as an entrance hall. Multipurpose space used for bedroom and living area, indoor environment ornamented with shelves, pictures and cultural crafts. Wooden beam structure and white gypsum covered wall create harmony. Building and building environment consist of simple and geometric forms these forms blended with the patterns of stone mud brick structure.

4.3.3 Interpretation of Simplicity on Traditional Housing

Japanese Traditional dwellings and Traditional North Cyprus dwellings have significant similarities both form and indoor organization. Usage of multipurpose spaces, indoor and outdoor relationships is some of the features that stand out. Accordingly indoor ornamentation with cultural crafts and symbols emphasize the importance of cultural values in that period. Both of the Traditional dwelling examples have been constructed with natural materials, material preference show differences from each other because of climatic conditions. These Traditional buildings consist of proportionally simple and geometric forms, in both traditional dwelling examples openings have important role in terms of permeability. It has been observed that in both traditional housing examples functionality and user oriented plan organization attract attention. In order to better understand, prominent features of these dwelling examples have been ordered under Table: 29.

Table 29: Prominent features of Traditional Housing



4.4 Simplicity in Modern Housing

In this section Minimalist attitude in Modern dwelling architecture and indoor environment has been analyzed regarding the prepared analysis table. At the end of this chapter these 5 Modern Minimalist dwelling examples has been evaluated and interpreted in terms of simplicity attitude on architectural elements and indoor environment

4.4.1 Analysis of Modern Minimalist Housing

In this section chosen 5 housing examples has been analyzed, these chosen dwellings are literally proved examples which are; Farnsworth House by Ludwig Mies van der Rohe, The Glass House by Philip Johnson, Azuma House by Tadao Ando, Neunderf House by John Pawson and lastly Garcia Marco House by Alberto Campo Baeza. These building ordered and analyzed according historical order in terms of construction year.

Table 30: General information of Farnsworth House

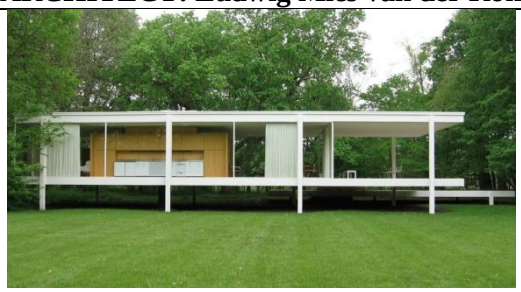
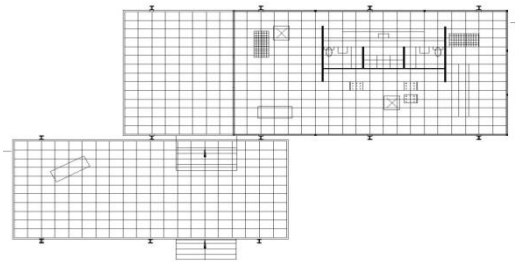
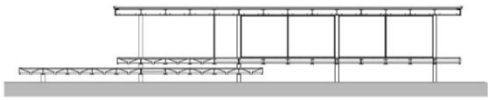
CASE STUDY 11		
NAME OF THE BUILDING : Farnsworth House		
LOCATION: Plano, Illinois		
CONSTRUCTION DATE: 1946-1950		
ARCHITECT: Ludwig Mies van der Rohe		
		
Exterior view of building (Davis, 2006)	Exterior view of building (Davis, 2006)	
		
Interior view of building (Davis, 2006)	Interior view of building (Davis, 2006)	
 		
Building survey (Davis, 2006)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Multipurpose space	Inner court	
Service room	Attached	
Laundry	Detached	**X**
Bathroom & W.C	Single storey	**X**
	Two or more storey	
	Flat	

Table 31: Analysis of the Farnsworth House

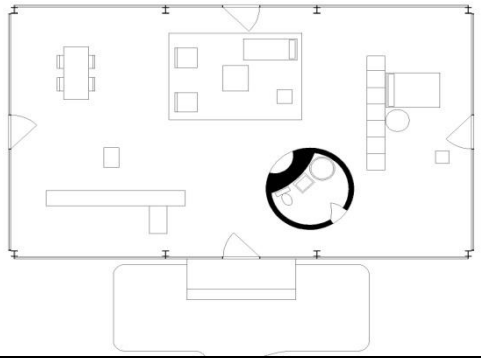
CASE STUDY 11			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

Farnsworth House reflect almost all characteristic of both Modernism and Minimalism, architect influence from Le Corbusier's concrete skeleton formed building idea and transformed this constructional system in to the steel structure in.

In the first seen of scheme the solution of plan is quite minimal, composed of thin steel structures and glass surfaces minimized mass walls. Farnsworth house is quite diverse in terms of spatial concept, architect put wet areas in the middle of building thus strengthen effect of fluidly and circulation in building. In this sense, this spatial wealth regarded as favorable in terms of architecture, on the other hand emerges as a factor which impairing the Minimalist approach of building.

Table 32: General information of The Glass House

CASE STUDY 12	
NAME OF THE BUILDING : The Glass House	
LOCATION: New Canaan, Connecticut	
CONSTRUCTION DATE: 1949	
ARCHITECT: Philip Johnson	
	
Exterior view of building (Davis, 2006)	Exterior view of building (Davis, 2006)
	
Interior view of building (Davis, 2006)	Interior view of building (Davis, 2006)
 	
Building survey (Davis, 2006)	

FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Multipurpose space	Inner court	
Bathroom & W.C	Attached	
	Detached	**X**
	Single storey	**X**
	Two or more storey	
	Flat	

Table 33: Analysis of the Glass House

CASE STUDY 12			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

The Glass House; establish on wide range land where in the middle of nature and completely integrate with nature without binding space. According to the other examples of dwellings The Glass House much more minimal in terms of spatial diversity and richness

Despite the fact that asymmetric plan layout organization and cylinder block which easily comprehending from exterior, on façades of the building symmetric conception attract attention. Cylindrical mass is the only closed area in this building which contain wet areas, somehow this mass strengthen the spatial emptiness feeling. In each four façade there are doors which designed in the middle. From this reason front with back and side façades are symmetrical to each other. In this building designer highlight conception of symmetry.

Table 34: General information of Azuma House

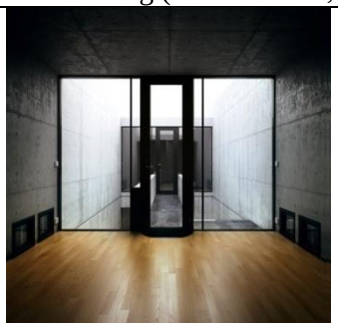
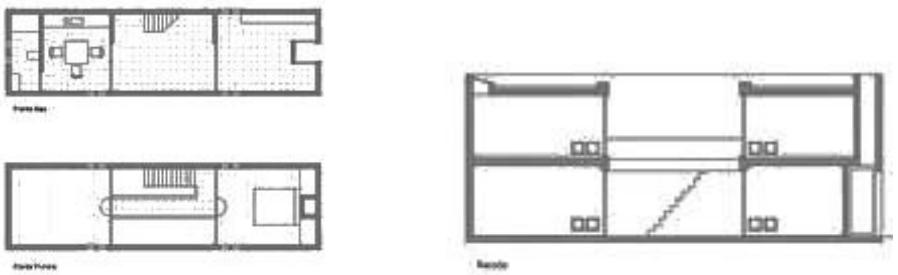
CASE STUDY 13		
NAME OF THE BUILDING : Azuma House		
LOCATION: Osaka, Japan		
CONSTRUCTION DATE: 1976		
ARCHITECT: Tadao Ando		
		
Entrance of building (Lo and Inoue, 2012)	Exterior of building (Lo and Inoue, 2012)	
		
View from courtyard (Lo and Inoue, 2012)	Render of a room (Lo and Inoue, 2012)	
		
Building survey (Lo and Inoue, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	
Bedroom	Inner court	**X**
Bathroom & W.C	Attached	
Kitchen	Detached	**X**
Dining room	Single storey	
Living room	Two or more storey	**X**
Bridge	Flat	

Table 35: Analysis of the Azuma House

CASE STUDY 13			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	
		Artificial texture	**X**
	MATERIAL	Non processed	**X**
		Natural material (processed)	
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

Azuma House, include all characteristics of Ando's architecture such as; pure concrete, consciously usage of lighting and openings. This small 65m2 dwelling is great example which has reflecting the Japanese ability that extending small areas.

In Azuma House consciously usage of openings and lighting attract attention, lighting taken from courtyard. According to different time periods in a day all rooms take benefits from lighting. Although on Ando create opening on ceiling in bedrooms to support the strong effect of light. Light create different texture on concrete. Azuma House is great example of Minimalist dwellings because of its characteristic; create maximum effect in minimum area, different reaction with nature, usage of material without processing it, lighting and shade.

Table 36: General information of Neuendorf House

CASE STUDY 14

NAME OF THE BUILDING : Neuendorf House

LOCATION: Majorca, Spain

CONSTRUCTION DATE: 1989

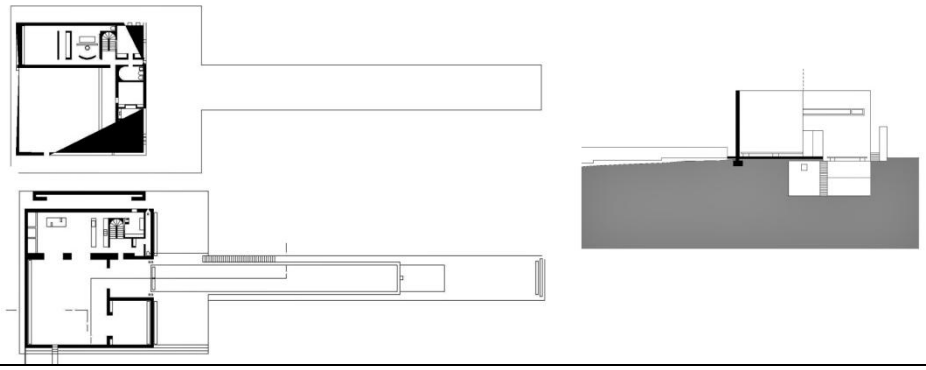
ARCHITECT: John Pawson & Claudio Silvestrin

Exterior view of building (Davis, 2006)

Exterior view of building (Davis, 2006)

Interior view of building (Davis, 2006)

Interior view of building (Davis, 2006)



Building survey (Davis, 2006)

FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Living room	Inner court	
Dining room	Attached	
Kitchen	Detached	**X**
Bedroom	Single storey	
Bathroom & W.C	Two or more storey	**X**
Study room	Flat	

Table 37: Analysis of the Neuendorf House

CASE STUDY 14			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

Neunderf House has huge but simple courtyard, landscaping sleek but plain in contrast to other dwelling examples. Building has huge soil colored facades each facade give different effect and feeling in terms of perception.

In this building simple and plain organization shows its self, architects take the benefits of natural lighting by using several and rhythmic formed openings on ceiling, these openings also create different texture and shade on indoor façade. Building interior also consist with geometric forms as exterior, indoor environment formed and designed with simple forms furthermore materials used with their natural texture. Contrary to the outdoor, indoor façade dominated with white and natural colors.

Table 38: General information of Gaspar House

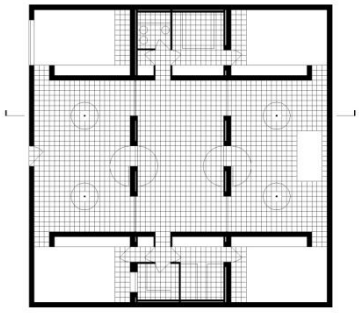
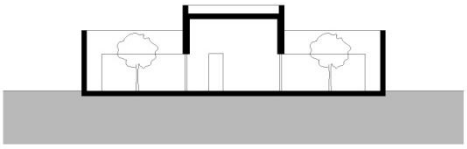
CASE STUDY 15		
NAME OF THE BUILDING : Gaspar House		
LOCATION: Majorca, Spain		
CONSTRUCTION DATE: 1992		
ARCHITECT: Alberto Campo Baeza		
		
Exterior view of building (Davis, 2006)	View from courtyard (Davis, 2012)	
		
View from courtyard (Davis, 2006)	View from courtyard (Davis, 2006)	
 		
Building survey (Davis, 2006)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Multipurpose space	Inner court	
Kitchen	Attached	
Bedroom	Detached	**X**
Bathroom & W.C	Single storey	
	Two or more storey	**X**
	Flat	

Table 39: Analysis of the Gaspar House

CASE STUDY 15			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	
		Pliable	
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

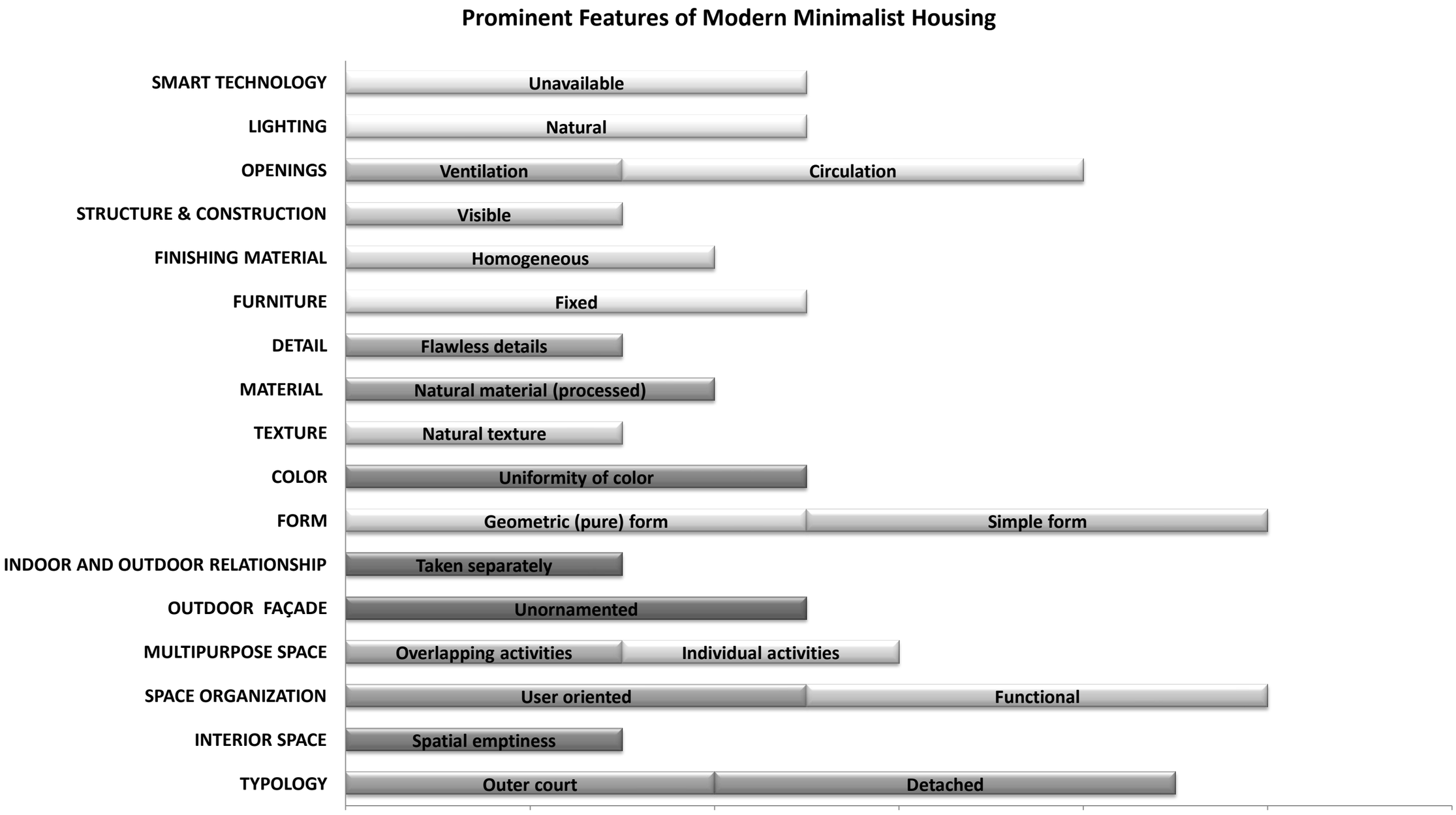
At a First sight this massive white cube attract attention, Gasper House has impressively solid and plain façade, both side of exterior façade dominated with white. Only the windows on front façade break the integrity of this white cube. As other works of architect Campo Baeza, this building also reflect the characteristic of his attitude which is presence of nature, he placed lemon trees in the courtyard and water, the transparency of glass and white walls bring nature through interior.

This dwelling organized and designed with an inner hall, which create connection with backyard and provide the fluidity between indoor and outdoor. In indoor space organization building has strong spatial emptiness feeling, openings are take the natural light through interior space and these opening are only element that visible in indoor, space organization without furniture provide the emptiness feeling.

4.4.2 Interpretation of Simplicity on Modern Housing

These Modern Minimalist dwellings by 5 different designers have been analyzed and evaluated. Building examples generally constructed with concrete and steel structure, importance of fixed furniture emphasized in all dwelling examples. Natural material choices and compositions of natural and artificial material attract attention. Unornamented and glass façades attract attention transparency and visual relationship with outdoor is become stronger. Buildings generally consist of single unit plan fluidity in indoor space stands out. As in the Traditional Japanese and Traditional Cypriot housing examples functionality is really important, in both periods there is nothing unnecessary in space. Contrarily to Traditional period there isn't any ornamentation. In this period by the industrial revolution artificial illumination come out. In that period lighting started use especially in the design process of Minimalist dwellings. Prominent features of Modern Minimalist Dwellings have been explored in the Table: 30.

Table 40: Prominent Features of Modern Minimalist Housing



4.5 Simplicity in Contemporary Housing

Minimalist attitude on Contemporary dwelling architecture and indoor environment has been analyzed under three sections which are; Contemporary Minimalist dwelling, Contemporary Minimalist Japanese dwelling and Dwelling in the frame of 'Minimalist Residence Conception'. At the end of this chapter these 15 contemporary dwelling examples has been evaluated and interpreted in terms of simplicity attitude on architectural elements and indoor environment

4.5.1 Analysis of Contemporary Minimalist Housing

In this section chosen 5 Contemporary Minimalist housing examples has been analyzed under simplicity and minimalist attitude, dwelling examples chosen regarding; 5 different architect's dwelling examples from Europe which are; Guerrero House by Alberto Campo Baeza, Leiria House by Manuel Aires Mateus, German House by Marte-Marte Architects, House in Melides by Pedro Reis and House Roces by Govaert & Vanhoutte architecture. Dwelling examples analyzed and ordered by historical order in terms of construction year.

Table 41: General information of Guerrero House

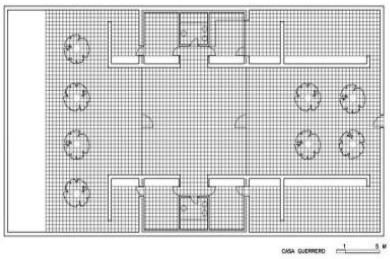
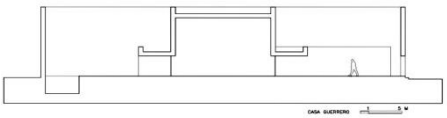
CASE STUDY 16		
NAME OF THE BUILDING : Guerrero House		
LOCATION: Cadiz, Spain		
CONSTRUCTION DATE: 2005- 2007		
ARCHITECT: Alberto Campo Baeza		
		
Exterior view of building (URL25, 2012)	View from courtyard (URL25, 2012)	
		
Interior view of building (URL25, 2012)	Interior view of building (URL25, 2012)	
 		
Building survey (URL25, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	
Multipurpose space	Inner court	**X**
Bedroom	Attached	
Bathroom & W.C	Detached	**X**
	Single storey	**X**
	Two or more storey	
	Flat	

Table 42: Analysis of the Guererro House

CASE STUDY 16			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	**X**
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

At first appearance white horizontal rectangular box take attraction, on the front facade of the building only opening is entrance door. On the other sides, openings take the natural light inside and create ventilation and circulation between court yard and indoor space. Dominancy of white color on outdoor facade highlights the nature. House and environment consists of three parts which are closed living area, semi open veranda and pool. Only the entrance for this building is a door on the front facade.

In interior organization of the building, spatial emptiness feeling supported with high ceiling which also give airiness feeling to user. Plan organization is quite simple and plain, middle part of this rectangular box devoted through a living are where serve multifunction and sides of this rectangular box devoted through closed spaces such as wet areas and bedrooms. Interior facades also dominated with white color, partly natural and wooden indoor environment emphasize their self.

Table 43: General information of Leiria House

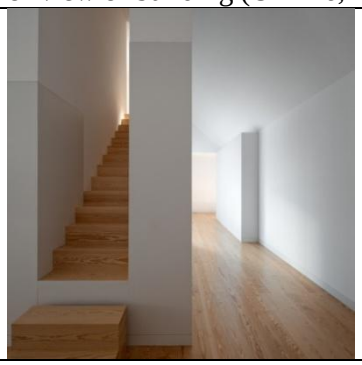
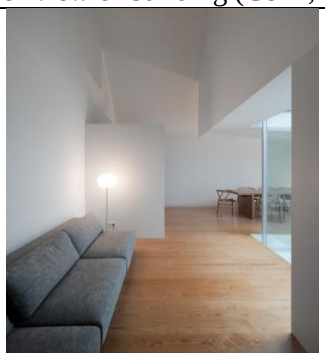
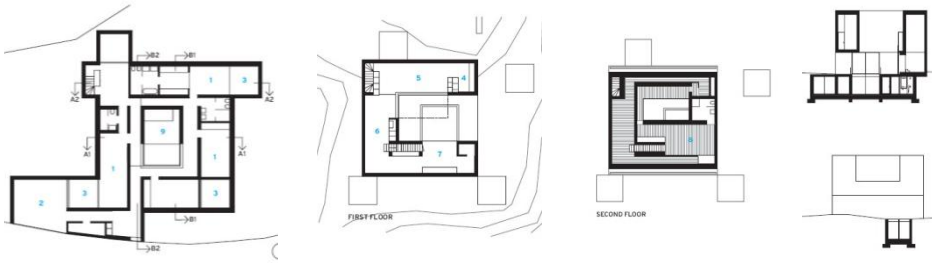
CASE STUDY 17		
NAME OF THE BUILDING : Leiria House		
LOCATION: Leiria, Portugal		
CONSTRUCTION DATE: 2008-2010		
ARCHITECT: Manuel Aires Mateus		
		
Exterior view of building (URL26, 2012)	Exterior view of building (Cohn, 2012)	
		
Interior view of building (URL26, 2012)	Interior view of building (URL26, 2012)	
		
Building survey (Cohn, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	
Bedroom	Inner court	**X**
Kitchen	Attached	
Dining room	Detached	**X**
Living room	Single storey	
Studio	Two or more storey	**X**
Guest room	Flat	

Table 44: Analysis of the Leiria House

CASE STUDY 17			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	
		Transformed form	**X**
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

As the other Contemporary minimalist examples, this dwelling brings its self forward as a massive white mass in nature. Triangle roof formed without tiles is completely perceived as pure and plain geometric form. Big openings on the roof and side facades provide circulation and ventilation more over bring natural light through inside.

At first sight simple and plain interior decoration attract attention house divided according to user needs and service spaces. These closed and semi closed areas surround the courtyard, this inner courtyard create connection between all rooms and bring natural light inside. Pure white walls with wooden floor coverings and indoor environment give serenity feeling.

Table 45: General information of German House

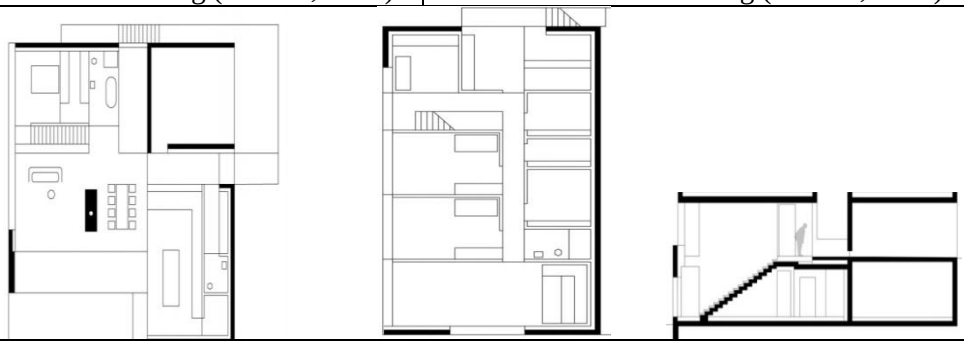
<table>
<tr><td colspan="3">CASE STUDY 18</td></tr>
<tr><td colspan="3">NAME OF THE BUILDING : German House</td></tr>
<tr><td colspan="3">LOCATION: Feldkirch, Austria</td></tr>
<tr><td colspan="3">CONSTRUCTION DATE: 2009</td></tr>
<tr><td colspan="3">ARCHITECT: Marte-Marte Architects</td></tr>
<tr><td colspan="2">  </td><td>  </td></tr>
<tr><td colspan="2">Exterior view of building (URL27, 2012)</td><td>Exterior view of building (URL27, 2012)</td></tr>
<tr><td colspan="2">  </td><td>  </td></tr>
<tr><td colspan="2">Interior view of building (URL27, 2012)</td><td>Interior view of building (URL27, 2012)</td></tr>
<tr><td colspan="3">  </td></tr>
<tr><td colspan="3">Building survey (URL27, 2012)</td></tr>
<tr><td colspan="2" rowspan="2">FUNCTIONAL ANALYSIS OF DEFINED SPACES</td><td>TYPOLOGY</td></tr>
<tr><td>Outer court</td><td>X</td></tr>
<tr><td>Kitchen</td><td>Utility room</td><td>Inner court</td><td></td></tr>
<tr><td colspan="2">Multipurpose space</td><td>Attached</td><td></td></tr>
<tr><td colspan="2">Bedroom</td><td>Detached</td><td>X</td></tr>
<tr><td colspan="2">Study room</td><td>Single storey</td><td></td></tr>
<tr><td colspan="2">Studio</td><td>Two or more storey</td><td>X</td></tr>
<tr><td colspan="2">Sauna</td><td>Flat</td><td></td></tr>
</table>

Table 46: Analysis of the German House

CASE STUDY 18			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

At a first sight, German house formed as pure concrete box which is located in the nature. Pure concrete façade render it more noticeable also this circumstance support the better perception of nature. On back side of building glass façade create relationship between nature and interior in visual manner.

Kitchen is located in the center house as only devoted space on first floor, kitchen works as a bridge between each spaces and outdoor. Natural textures and wooden indoor environment create harmony with pure concrete on indoor façade. Housing environment has perfect details in terms of function however in visual manner these environments seem detail-less. Contrast to the ground floor, first floor divided according to user needs.

Table 47: General information of House in Melides

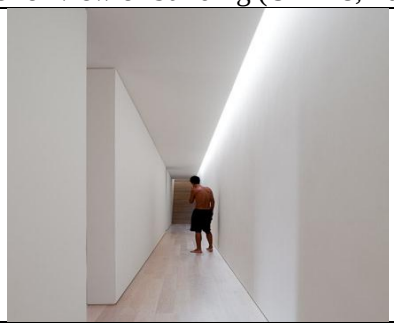
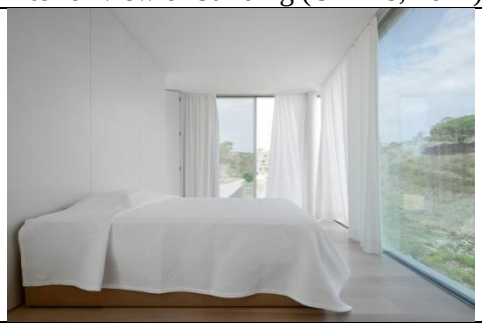
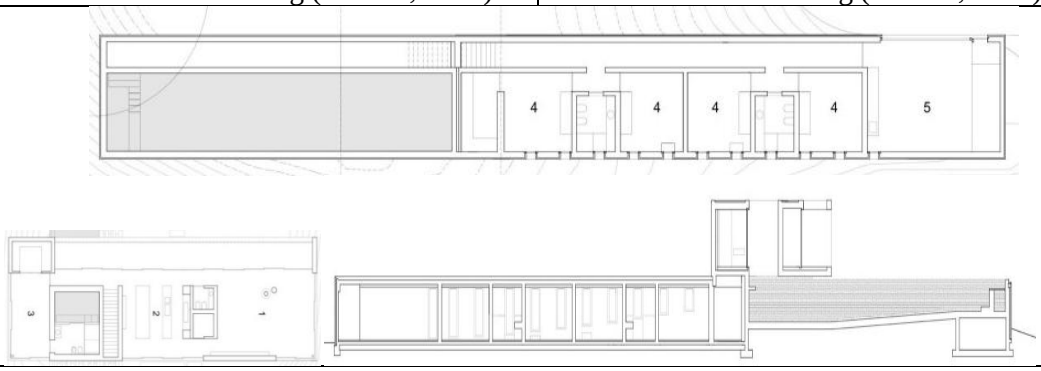
CASE STUDY 19		
NAME OF THE BUILDING : House in Melides		
LOCATION: Melides, Portugal		
CONSTRUCTION DATE: 2010		
ARCHITECT: Pedro Reis		
		
Exterior view of building (URL28, 2012)	Exterior view of building (URL28, 2012)	
		
Interior view of building (URL28, 2012)	Interior view of building (URL28, 2012)	
		
Building survey (URL28, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Living room	Inner court	
Kitchen	Attached	
Suite	Detached	**X**
Bedroom	Single storey	
Bathroom & W.C	Two or more storey	**X**
	Flat	

Table 48: Analysis of the House in Melides

CASE STUDY 19			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This contemporary minimalist dwelling has signs of modern minimalist dwelling samples such as; Farnsworth House and Glass House. This building has simple structure which constructed in rectangular form and located on the hill. Exterior façade is dominated with white color and glass surfaces. These glass surfaces create visual connection between nature and bring natural light through interior space.

The main living spaces and service areas are separated from private spaces. The main living space of building serve multifunction and provide flexibility of space, smooth white surfaces, wooden natural textured indoor environment and glass surfaces create great harmony and provide the plain and simple space organization. Natural light that come from outside and natural landscape reflect the characteristic of building.

Table 49: General information of House Roces

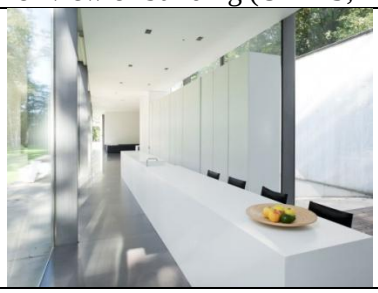
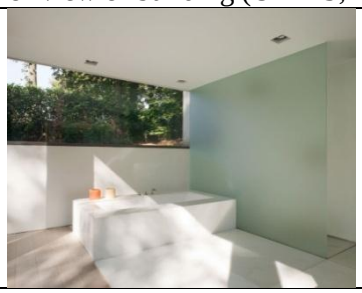
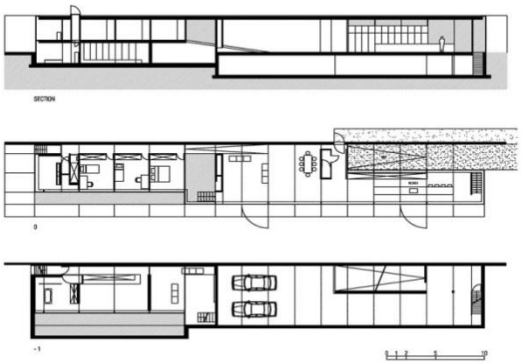
CASE STUDY 20		
NAME OF THE BUILDING : House Roces		
LOCATION: Bruges, Belgium		
CONSTRUCTION DATE: 2011		
ARCHITECT: Govaert & Vanhoutte architecture		
		
Exterior view of building (URL29, 2012)	Exterior view of building (URL29, 2012)	
		
Interior view of building (URL29, 2012)	Interior view of building (URL29, 2012)	
		
Building survey (URL29, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Dining room	Inner court	
Living room	Attached	
Kitchen	Detached	**X**
Bedroom	Single storey	
Bath & W.C	Two or more storey	**X**
	Flat	

Table 50: Analysis of the House Roces

CASE STUDY 20			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

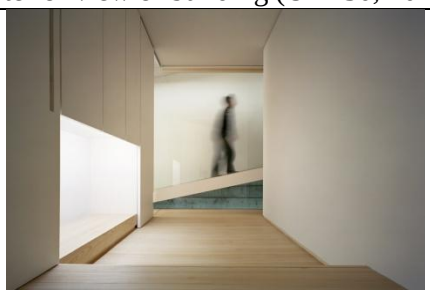
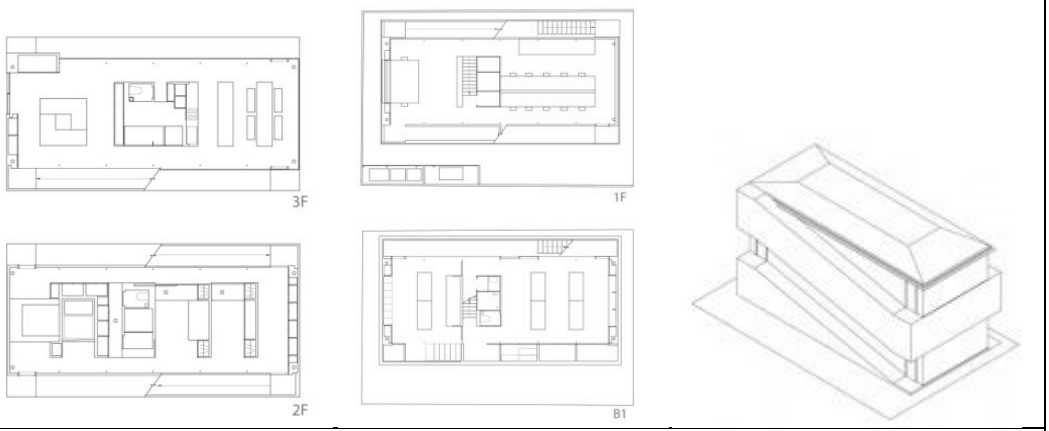
At a first sight House Roces seems like long rectangular shape which has glass coated exterior facades and steel structure, however in contrast to exterior interior space organized with straggled coat levels. Glass surfaces in the building take the nature through inside moreover these sliding glass surfaces create fluidity between interior and exterior space.

On the first level of plan these rectangular form used as a way without completely devoted. In space organization all spaces connect to each other by a linear long corridor and this connection provided by pure white walls which are not touching to ceiling. Kitchen and dining room can be divided by sliding walls and this circumstance also creates e flexible and multifunctional spaces. Interior space has dominated with white.

4.5.2 Analysis of Contemporary Minimalist Japanese Housing

In this section chosen 5 Minimalist Japanese housing examples has been analyzed under simplicity and minimalist attitude, dwelling examples chosen regarding; 5 different architect's dwelling examples from Japan which are; C1 House by Gwenael Nicolas, Curiosity & Tomoyuki Ustumi, F-White by Takuro Yamamoto, Minimalist House by Shinichi Ogawa, House A by Takeshi Hamada and House in Saitama by Satoru Hirota**.** Dwelling examples analyzed and ordered by historical order in terms of construction year.

Table 51: General information of C1 House

CASE STUDY 21	
NAME OF THE BUILDING : C1 House	
LOCATION: Tokyo, Japan	
CONSTRUCTION DATE: 2007	
ARCHITECT: Gwenael Nicolas, Curiosity & Tomoyuki Ustumi	
	
Exterior view of building (URL30, 2012)	Exterior view of building (URL30, 2012)
	
Interior view of building (URL30, 2012)	Interior view of building (URL30, 2012)
	
Building survey (URL30, 2012)	

FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Living room	Inner court	
Kitchen	Attached	
Studio	Detached	**X**
Bedroom	Single storey	
Bathroom & W.C	Two or more storey	**X**
	Flat	

Table 52: Analysis of the C1 House

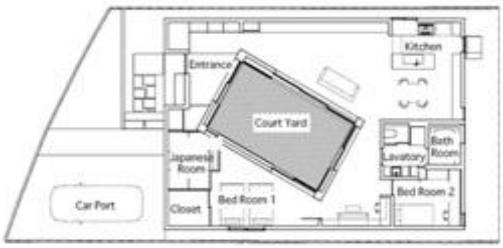
CASE STUDY 21			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	
		Transformed form	**X**
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

C1 House has plain semi transparent façade, this semi transparent glass façade bring dim day light through interior, at first sight a ramp which has surrounding the dwelling attract attention, this ramp create fluidity and connection between each floor and provide the circulation between interior and exterior.

In interior space instead of this dim light which coming from outdoor, artificial lighting elements illuminate interior space, these element are hided in between structure. All floors organized and designed as single unit, thus Impermeability in each floor and fluidity between floors by ramp attract attention. In building furniture element generally designed as fixed and wooden material, more over this building has dominated with white color both interior and exterior.

Table 53: General information of F-White house

CASE STUDY 22	
NAME OF THE BUILDING : F-White	
LOCATION: Kashiwa, Japan	
CONSTRUCTION DATE: 2009	
ARCHITECT: Takuro Yamamoto	
	
Exterior view of building (Barnes, 2012)	Exterior view of building (Barnes, 2012)
	
Interior view of building (Barnes, 2012)	Interior view of building (Barnes, 2012)
	
Building survey (Barnes, 2012)	

FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	
Multipurpose space	Inner court	**X**
Lavatory	Attached	
Kitchen	Detached	**X**
Bedroom	Single storey	**X**
Bathroom & W.C	Two or more storey	
Japanese room	Flat	

Table 54: Analysis of the F-White house

CASE STUDY 22			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	**X**
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This single storey F- White House designed with cubic shape, in each outdoor façade it has several openings which take the sunlight through interior and create visual connection with nature, moreover on roof there is a huge opening which also serve function as inner courtyard in the building.

Building interior, organized according to huge opening on the roof. Functional spaces defined around this inner court yard. Service areas and private spaces are the only devoted parts other spaces defined by indoor environment. In interior space fluidity and simple floor plan organization attract attention. Furniture and indoor environment dominated with white color and natural textures.

Table 55: General information of Minimalist House

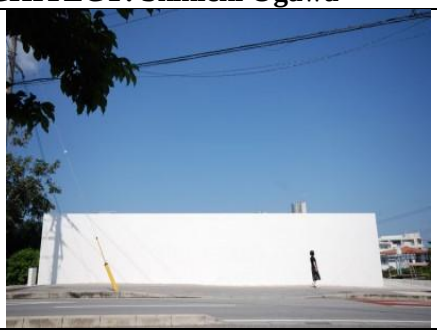
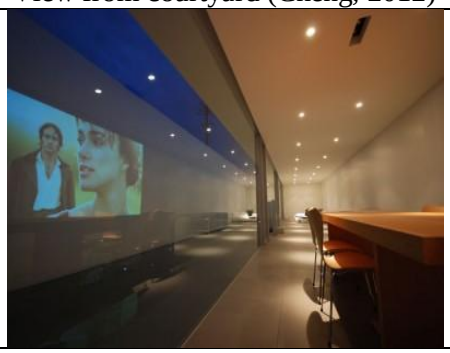
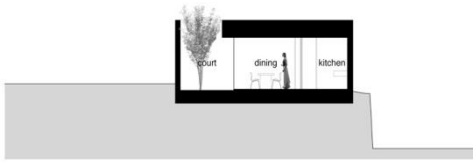
CASE STUDY 23		
NAME OF THE BUILDING : Minimalist House		
LOCATION: Okinawa, Japan		
CONSTRUCTION DATE: 2010		
ARCHITECT: Shinichi Ogawa		
		
Exterior view of building (Cheng, 2012)	View from courtyard (Cheng, 2012)	
		
Interior view of building (Cheng, 2012)	Interior view of building (Cheng, 2012)	
		
Building survey (Cheng, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	
Multipurpose space	Inner court	**X**
Kitchen	Attached	
Study room	Detached	**X**
Bathroom & W.C	Single storey	**X**
	Two or more storey	
	Flat	

Table 56: Analysis of the Minimalist House

CASE STUDY 23			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	**X**
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	
		Artificial	**X**
	SMART TECHNOLOGY	Available	**X**
		Unavailable	

This white box which is located on the corner of street, isolate itself from the outside world. At a first sight it's obvious that there is no opening on the front facade of building its hard to find the entrance, this simple and plain white box has a court yard which is located on the opposite side of the street that create the only connection with exterior. Glass surfaces and opening on the back side façade create connection between interior and courtyard. In a manner this house isolated itself from pollution of daily life and serve peace to user.

In indoor space, simple plan organization attract attention spaces defined parallel to building shape, house divided by big wall into two pieces which consist of fixed furniture and technologic environment, this element create two equal spaces. This divided two main spaces use for more than one function in each part functions determined by indoor environment. Building interior dominated with white color and glass surfaces.

Table 57: General information of House A

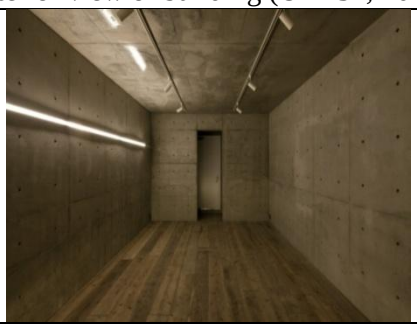
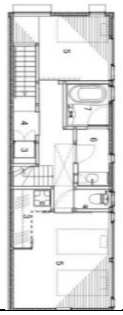
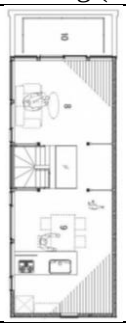
CASE STUDY 24		
NAME OF THE BUILDING : House A		
LOCATION: Osaka, Japan		
CONSTRUCTION DATE: 2010		
ARCHITECT: Takeshi Hamada		
		
Exterior view of building (URL31, 2012)	Exterior view of building (URL31, 2012)	
		
Interior view of building (URL31, 2012)	Interior view of building (URL31, 2012)	
  		
Building survey (URL31, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Living room	Inner court	
Kitchen / Dining room	Attached	
Hobby room	Detached	**X**
Bedroom	Single storey	
Bathroom & W.C	Two or more storey	**X**
Storage	Flat	

Table 58: Analysis of the House A

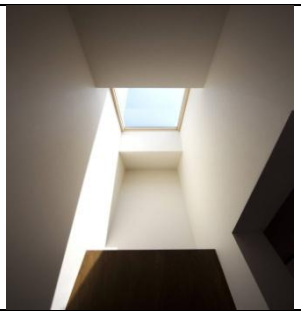
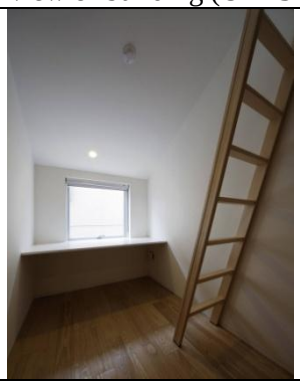
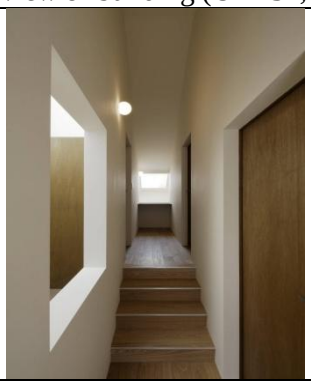
CASE STUDY 24			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	
		Visible	**X**
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This small house is located in Osaka, Japan, at a first appearance harmony of pure concrete and white façade get noticed. This 3 storey dwelling designed principle can be defined as maximum function within minimum space. Contrary to other Japanese dwelling's pure and plain facade, overhang elements on façade create dynamic render and collect the natural light inside by the way create visual connection with interior.

Space organization of House A is quite minimal and simple. Activities and functions divided into three-storey according to functional similarities. Most of the spaces used as multipurpose spaces, flexible indoor environment used this spaces promotes multi-functionality. Pure concrete texture gives a silence feeling and somehow creates calmness feeling. From ground to upper levels indoor space organization started to be dominated with white and wooden materials.

Table 59: General information of House in Saitama

CASE STUDY 25	
NAME OF THE BUILDING : House in Saitama	
LOCATION: Saitama, Japan	
CONSTRUCTION DATE: 2010	
ARCHITECT: Satoru Hirota	
	
Exterior view of building (URL32, 2012)	Interior view of building (URL32, 2012)
	
Interior view of building (URL32, 2012)	Interior view of building (URL32, 2012)
	
Building survey (URL32, 2012)	

FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	**X**
Living room	Inner court	
Kitchen	Attached	
Guest room	Detached	**X**
Bedroom	Single storey	
Outer room	Two or more storey	**X**
Bathroom & W.C	Flat	

Table 60: Analysis of the House in Saitama

CASE STUDY 25			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
	Element	**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	**X**
		Spatial occupancy	
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	
		Multi unit plan	**X**
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	**X**
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	
	DETAIL	Flawless details	
		Detail-less	**X**
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	**X**
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	
		Unavailable	**X**

This old school type roofed pure white house is located in Saitma, Japan. At a fist appearance openings on the facade seems like putted randomly, however these opening placed according to organization and locations of rooms, each space and room in a building take the benefit of natural light.

Spatial diversity create dynamic plan organization, each room and space connected to each other by staircases and corridor more over opening on indoor walls also support the fluidity feeling in visual manner. Building dominated with white color as other examples, floors covered with wooden also wooden structural elements create great harmony with their own natural texture. Openings on the façade and ceiling bring natural light through interior.

4.5.3 Analysis of Residences in the frame of 'Minimalist Conception'

In this section chosen 5 Residence housing examples has been analyzed under 'Minimalist Conception' and simplicity attitude, dwelling examples chosen regarding; 5 different companies 1+1 residences which are dominated as 'Minimalist Residence'. Building examples collected from Istanbul, Turkey. These examples are; Dumankaya Minimal, Canan Residences, Trump Tower Residences, Anthill Residences and Sapphire Residences. Aim of this analysis is to emphasize the differences of this conception from other Minimalist dwelling examples. Dwelling examples analyzed and ordered by historical order in terms of construction year. These building examples have been analyzed separately from other contemporary buildings in order to understand the relationship between minimalism and residence conception.

Table 61: General information of Dumankaya Minimal

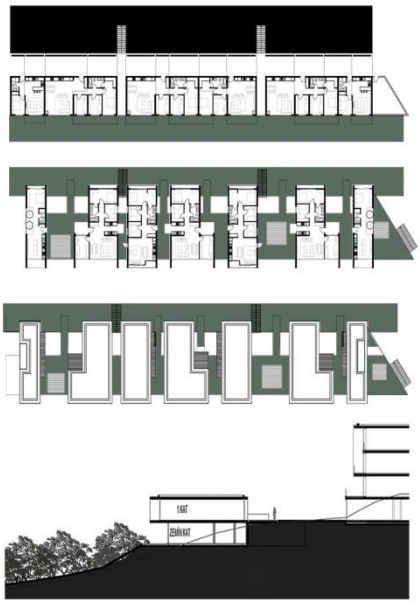
<table>
<tr><td colspan="3">CASE STUDY 26</td></tr>
<tr><td colspan="3">NAME OF THE BUILDING : Dumankaya Minimal</td></tr>
<tr><td colspan="3">LOCATION: Istanbul, Turkey</td></tr>
<tr><td colspan="3">CONSTRUCTION DATE: 2008-2010</td></tr>
<tr><td colspan="3">ARCHITECT: Dumankaya İnşaat A.Ş</td></tr>
<tr><td>  </td><td colspan="2">  </td></tr>
<tr><td>Exterior view of building (URL33, 2012)</td><td colspan="2">Exterior view of building (URL33, 2012)</td></tr>
<tr><td rowspan="2">  </td><td colspan="2">  </td></tr>
<tr><td colspan="2">Interior view of building (URL33, 2012)</td></tr>
<tr><td colspan="3">  </td></tr>
<tr><td colspan="3">Building survey (URL33, 2012)</td></tr>
<tr><td rowspan="2">FUNCTIONAL ANALYSIS OF DEFINED SPACES</td><td colspan="2">TYPOLOGY</td></tr>
<tr><td>Outer court</td><td></td></tr>
<tr><td>Living room / Kitchen</td><td>Inner court</td><td></td></tr>
<tr><td>Bedroom</td><td>Attached</td><td>X</td></tr>
<tr><td>Bathroom & W.C</td><td>Detached</td><td></td></tr>
<tr><td></td><td>Single storey</td><td></td></tr>
<tr><td></td><td>Two or more storey</td><td></td></tr>
<tr><td></td><td>Flat</td><td>X</td></tr>
</table>

Table 62: Analysis of the Dumankaya Minimal

CASE STUDY 26			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	
	FINISHING MATERIAL	Homogeneous	**X**
		Plenty	
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	
		Artificial	**X**
	SMART TECHNOLOGY	Available	**X**
		Unavailable	

Dumankaya Minimal residence consists of 2 parts in a single unit, biggest part is devoted to service are and other part of building devoted for bathroom and bedroom. Kitchen and living room located in the bigger are, where used as multifunctional space and most of the daily activities happened, on the other hand other part consists of bathroom and bedroom. Plan organization of residence is quite simple also there is slight feeling of simplicity with modern ornamentation. In indoor space, generally white color preferred to use on surfaces and these surfaces blend with colorful indoor environment. Residence's transparent façade bring day light in also this glass surface create visual connection with exterior landscape where artificial pond is located.

Table 63: General information of Canan Residence

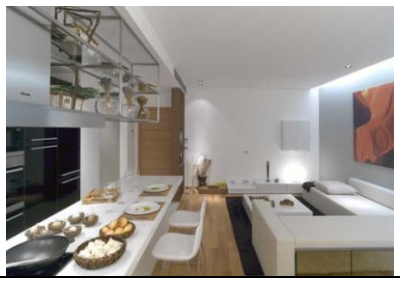
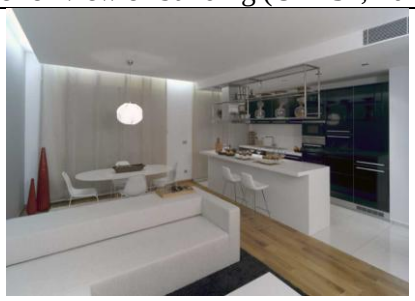
<table>
<tr><td colspan="3">CASE STUDY 27</td></tr>
<tr><td colspan="3">NAME OF THE BUILDING : Canan Residence</td></tr>
<tr><td colspan="3">LOCATION: Istanbul, Turkey</td></tr>
<tr><td colspan="3">CONSTRUCTION DATE: 2008-2010</td></tr>
<tr><td colspan="3">ARCHITECT: Canan Yapı Üretim A.Ş</td></tr>
<tr><td colspan="2">  </td><td> 
Interior view of building (URL34, 2012)
  </td></tr>
<tr><td colspan="2">Exterior view of building (URL34, 2012)</td><td>Interior view of building (URL34, 2012)</td></tr>
<tr><td colspan="3">   </td></tr>
<tr><td colspan="3">Building survey (URL34, 2012)</td></tr>
<tr><td rowspan="2">FUNCTIONAL ANALYSIS OF DEFINED SPACES</td><td colspan="2">TYPOLOGY</td></tr>
<tr><td>Outer court</td><td></td></tr>
<tr><td>Living room / Kitchen</td><td>Inner court</td><td></td></tr>
<tr><td>Bedroom</td><td>Attached</td><td>X</td></tr>
<tr><td>Bathroom & W.C</td><td>Detached</td><td></td></tr>
<tr><td></td><td>Single storey</td><td></td></tr>
<tr><td></td><td>Two or more storey</td><td></td></tr>
<tr><td></td><td>Flat</td><td>X</td></tr>
</table>

Table 64: Analysis of the Canan Residence

CASE STUDY 27			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	
		Unornamented	**X**
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	**X**
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	**X**
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	**X**
		Modular	
		Pliable	
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	
		Artificial	**X**
	SMART TECHNOLOGY	Available	**X**
		Unavailable	

Canan Residence reflect the serenity feeling in the first appearance, interior façade of building dominated with white color and wooden textured indoor environment. In addition to great harmony of white color and wooden texture, simple and proportional decoration and illumination create great harmony in interior space organization. Besides of this features this residences render its self as classy and chic. Residence devoted in to two equal part with and small hall. A side devoted to service area and other part is devoted for bedroom and bathroom. Usage of same color in building, strengthen the effect of simplicity and freshness feeling in this small area.

Table 65: General information of Trump Tower Residence

<table>
<tr><td colspan="3">CASE STUDY 28</td></tr>
<tr><td colspan="3">NAME OF THE BUILDING : Trump Tower Residence</td></tr>
<tr><td colspan="3">LOCATION: Istanbul, Turkey</td></tr>
<tr><td colspan="3">CONSTRUCTION DATE: 2011</td></tr>
<tr><td colspan="3">ARCHITECT: Trump Organization</td></tr>
<tr><td rowspan="2">  </td><td colspan="2">  </td></tr>
<tr><td colspan="2">Interior view of building (URL35, 2012)</td></tr>
<tr><td rowspan="2"></td><td colspan="2">  </td></tr>
<tr><td colspan="2">Interior view of building (URL35, 2012)</td></tr>
<tr><td rowspan="2"></td><td colspan="2">  </td></tr>
<tr><td>Exterior view of building (URL35, 2012)</td><td colspan="2">Building survey (URL35, 2012)</td></tr>
<tr><td rowspan="2">FUNCTIONAL ANALYSIS OF DEFINED SPACES</td><td colspan="2">TYPOLOGY</td></tr>
<tr><td>Outer court</td><td></td></tr>
<tr><td>Living room</td><td>Inner court</td><td></td></tr>
<tr><td>Kitchen</td><td>Attached</td><td>X</td></tr>
<tr><td>Bedroom & Bathroom</td><td>Detached</td><td></td></tr>
<tr><td>W.C</td><td>Single storey</td><td></td></tr>
<tr><td></td><td>Two or more storey</td><td></td></tr>
<tr><td></td><td>Flat</td><td>X</td></tr>
</table>

Table 66: Analysis of the Trump Tower Residence

CASE STUDY 28			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	**X**
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	**X**
		Artificial texture	
	MATERIAL	Non processed	
		Natural material (processed)	**X**
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	**X**
		Unavailable	

In contrast with other residence examples Trump Tower Residence is attract attention with devoted plan organization, service areas and other functional spaces devoted and clearly defined in a single unit. Residence proportionally decorated with modern attitude and gives elite and classy feeling. Walls covered with pastel colors, in order to help space defining in terms of function, some walls painted with invincible colors by this way spaces clearly defined without solid elements. Building take natural light inside and these natural light create different perception in space organization.

Table 67: General information of Anthill Residence

CASE STUDY 29		
NAME OF THE BUILDING : Anthill Residence		
LOCATION: Istanbul, Turkey		
CONSTRUCTION DATE: 2011		
ARCHITECT: Ant Yapı İnşaat		
		
	Interior view of building (URL36, 2012)	
		
Exterior view of building (URL36, 2012)	Interior view of building (URL36, 2012)	
		
Building survey (URL36, 2012)		
FUNCTIONAL ANALYSIS OF DEFINED SPACES	**TYPOLOGY**	
	Outer court	
Living room/ Kitchen	Inner court	
Bedroom	Attached	**X**
Bathroom & W.C	Detached	
	Single storey	
	Two or more storey	
	Flat	**X**

Table 68: Analysis of the Anthill Residence

CASE STUDY 29			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	**X**
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	
		Opacity	**X**
		Ornamented	
		Unornamented	**X**
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	
		Impermeability	**X**
		Taken as a whole	
		Taken separately	**X**
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	**X**
		Own color of material	
		Variety of color	
		Uniformity of color	**X**
	TEXTURE	Natural texture	
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	**X**
		Hidden	
		Natural	
		Artificial	**X**
	SMART TECHNOLOGY	Available	**X**
		Unavailable	

Anthill Residence consist of two main part as the other residence examples, in the first appearance this residence's indoor environment and walls dominated with white color its render its self simple but distinguished, plain but energetic. Frames on the walls and other decorative particularly reduce the simplicity feeling of white surfaces. In the space organization bedroom is the only area that devoted from a whole. Other areas also devoted and defined but rendered as a whole, this circumstance provide the flexibility in the building.

Table 69: General information of Sapphire Residence

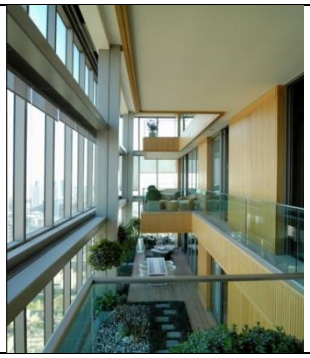
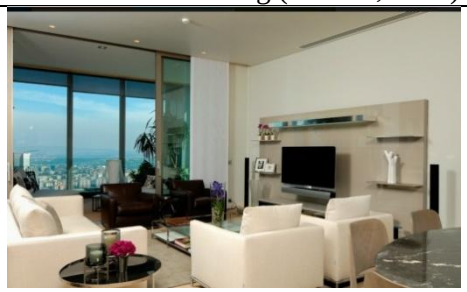
<table>
<tr><td colspan="3">CASE STUDY 30</td></tr>
<tr><td colspan="3">NAME OF THE BUILDING : Sapphire Residence</td></tr>
<tr><td colspan="3">LOCATION: Istanbul, Turkey</td></tr>
<tr><td colspan="3">CONSTRUCTION DATE: 2011</td></tr>
<tr><td colspan="3">ARCHITECT: Kiler Holding</td></tr>
<tr><td rowspan="2">  </td><td colspan="2"> 
Interior view of building (URL37, 2012)</td></tr>
<tr><td colspan="2">  </td></tr>
<tr><td>Exterior view of building (URL37, 2012)</td><td colspan="2">Interior view of building (URL37, 2012)</td></tr>
<tr><td>  </td><td colspan="2">  </td></tr>
<tr><td>Building survey (URL37, 2012)</td><td colspan="2">Interior view of building (URL37, 2012)</td></tr>
<tr><td rowspan="2">FUNCTIONAL ANALYSIS OF DEFINED SPACES</td><td colspan="2">TYPOLOGY</td></tr>
<tr><td>Outer court</td><td></td></tr>
<tr><td>Living room / Kitchen</td><td>Inner court</td><td>X</td></tr>
<tr><td>Laundry</td><td>Attached</td><td>X</td></tr>
<tr><td>Bedroom / Bathroom & W.C</td><td>Detached</td><td></td></tr>
<tr><td>Storage</td><td>Single storey</td><td></td></tr>
<tr><td>W.C</td><td>Two or more storey</td><td></td></tr>
<tr><td></td><td>Flat</td><td>X</td></tr>
</table>

Table 70: Analysis of the Sapphire Residence

CASE STUDY 30			
ANALYSING THE SIMPLICITY CONCEPT IN INDOOR SPACE			
Element		**Criteria**	
CLASIFICATION OF SPACE	**INTERIOR SPACE**	Spatial emptiness	
		Spatial occupancy	**X**
		Ornamented	**X**
		Unornamented	
	SPACE ORGANIZATION	User oriented	**X**
		Functional	**X**
		Non functional	
		Fluidity in spaces	
		Single unit plan	**X**
		Multi unit plan	
	MULTIPURPOSE SPACE	Overlapping activities	
		Individual activities	**X**
	OUTDOOR FAÇADE	Transparency	**X**
		Opacity	
		Ornamented	**X**
		Unornamented	
	INDOOR AND OUTDOOR RELATIONSHIP	Permeability	**X**
		Impermeability	
		Taken as a whole	
		Taken separately	
	FORM	Geometric (pure) form	**X**
		Transformed form	
		Simple form	**X**
		Complex form	

	Element	Criteria	
INTERIOR SPACE ELEMENET	**COLOR**	White color	
		Own color of material	**X**
		Variety of color	**X**
		Uniformity of color	
	TEXTURE	Natural texture	
		Artificial texture	**X**
	MATERIAL	Non processed	
		Natural material (processed)	
		Composite material	**X**
	DETAIL	Flawless details	**X**
		Detail-less	
	FURNITURE	Fixed	**X**
		Movable	
		Modular	**X**
		Pliable	
	FINISHING MATERIAL	Homogeneous	
		Plenty	**X**
	STRUCTURE & CONSTRUCTION	Hidden	**X**
		Visible	
	OPENINGS	Ventilation	
		Circulation	**X**
FUNCTIONAL REQUIREMENTS	**LIGHTING**	Visible	
		Hidden	**X**
		Natural	**X**
		Artificial	**X**
	SMART TECHNOLOGY	Available	**X**
		Unavailable	

At first glance Sapphire Residence emphasizes its self with its elite and sleek look. In indoor space organization clever plan solutions and clearly defined user oriented functional spaces attract attention. Residence consists of two part, living room, kitchen and other service areas located together in the half side of building, in the remaining part of residence consists of bedroom, storage room and bathroom, this part clearly solved in terms of functional definitions fluidity in that space attract attention. This residence has its own courtyard which located nearby living room and kitchen; glass surfaces on façade bring natural light inside thus residence take the benefit of day light. Indoor environment preferred as simple and plain, materials choices highlight the indoor environment.

4.5.4 Interpretation of Simplicity on Contemporary Housing

In this section firstly Contemporary Minimalist dwelling examples has been analyzed than Contemporary Japanese Minimalist dwelling has been examined in detail. Similarities and prominent features of Contemporary Minimalist housing has been explore under Table 70. In order to better understand the subject, Residence's prominent features have been explored under Table 71 and compared with Contemporary Minimalist housing examples. As a result of this comparison it has been observed that Contemporary Minimalist dwelling stand out as a house which dominated with white, simple and geometric forms without ornamentation and strongly spatial emptiness feeling. A house purified from detail give a feeling of detail-less and user oriented functional detached buildings.

Residences in the frames of 'Minimalist Conception' stands out as a intelligent flats which minimize daily life staff and equipped with technological facilities in an simple but elegance and elite form. These buildings generally designed in a single unit with clever plan solutions, fluidity in indoor spaces attract attention. These buildings makes user free of responsibility and serve minimal life. In order to better understand and evaluate prominent features of both section explored on the next page.

Table 71: Prominent features of Contemporary Minimalist Housing

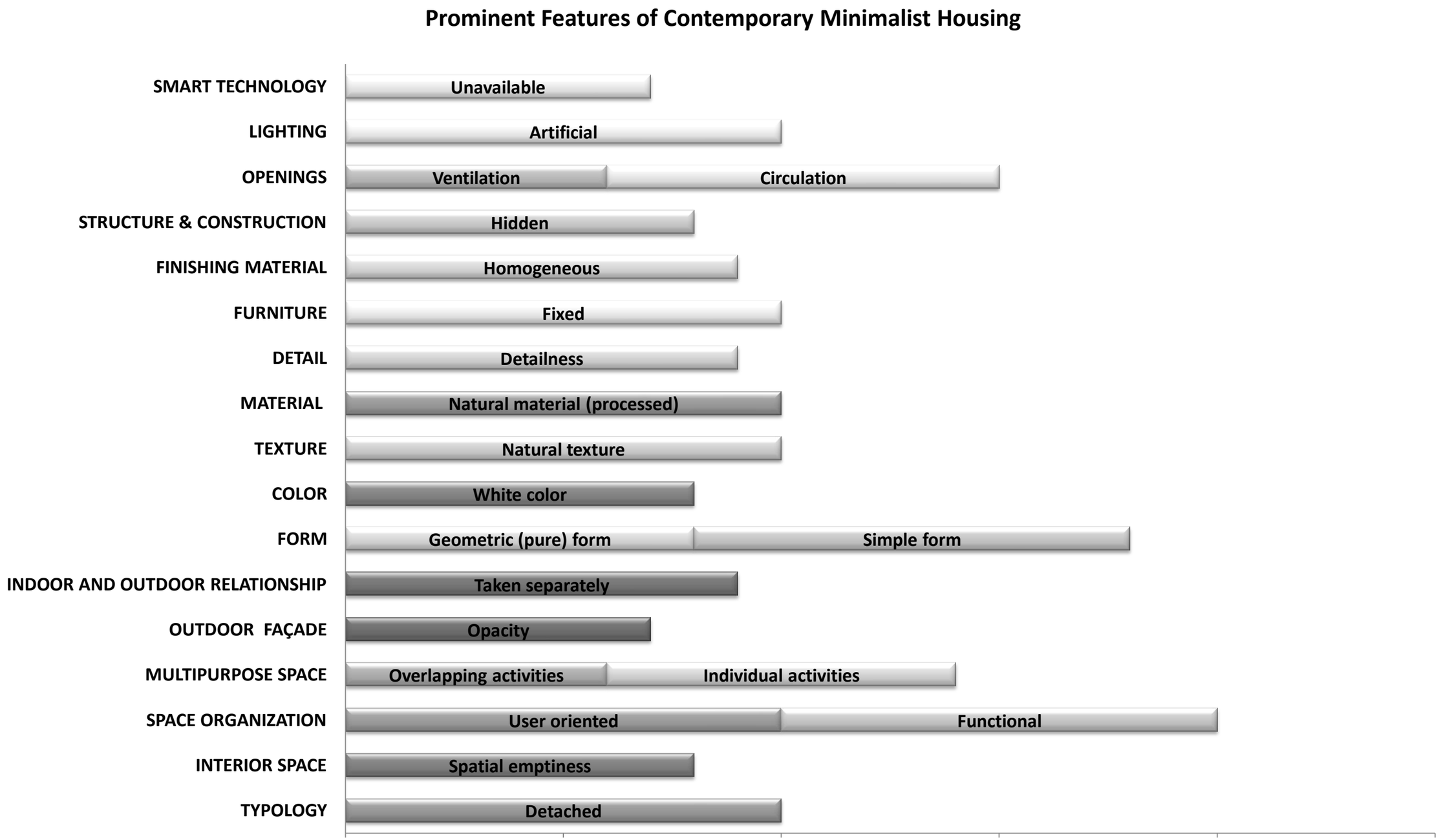
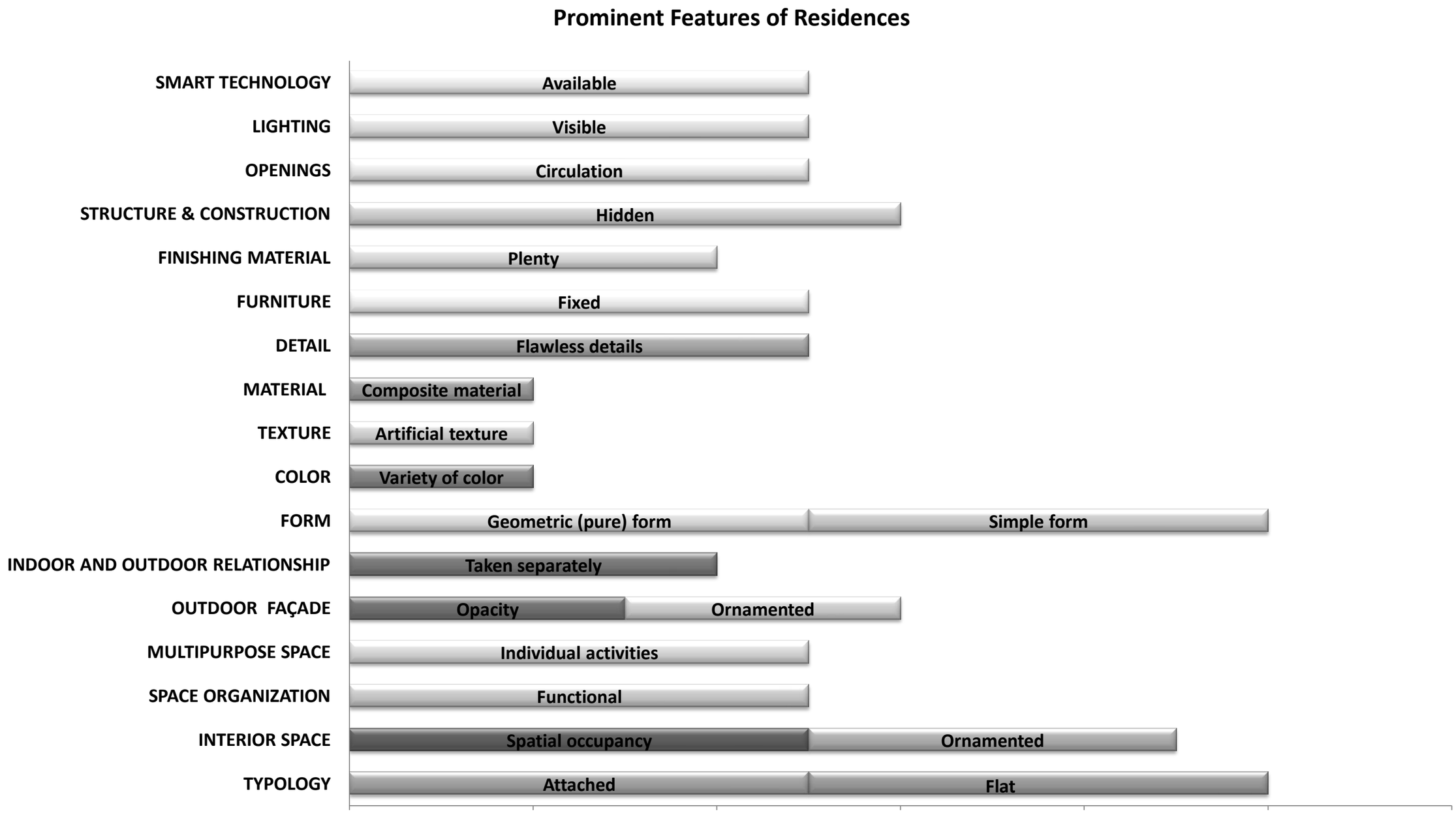


Table 72: Prominent features of Residences



4.6 Evaluation of Chapter

In Traditional period, dwellings were simple because deprivation of material and lack of technical flaws make traditional architecture simple. In addition to subject physical relationship with nature and being a part of nature is one of the significant features that stand out. In the examination of Traditional dwelling it has been detected that these houses are designed according to proportional size with geometric plan organizations. In these dwellings multipurpose spaces threw fresh a light on today's multifunctional and flexible space solutions.

In modern period with the industrial revolution, material choices and other technologic facilities bring new vista to simplification attitude; dwellings become much more transparent and lighter in terms of structure. Spatial emptiness feeling started to be emphasized flexible furniture and single unit open plan solutions provide simplicity. Fluidity in indoor spaces attracts attention. Nowadays simplicity show itself much more effective with the support of electronic facilities, Contemporary Minimalist dwellings become much more minimal and useful, creating maximum effect in minimum area as a result of today's simplification attitude, Contemporary Minimalist buildings generally dominated with white serve serenity to users.

In addition to subject, residences with green spaces which are surrounded by heavy foliage gardens will prevent the being concrete. Furthermore instead of these features residences buildings will add value and quality through architectural design. Residences that offer a more secure and comfortable life, with intelligent buildings promises a free responsibility of life.

As an evaluation of chapter, it has been observed that from Traditional to Contemporary Minimalist Housing examples in all periods, emphasize the functionality, fluidity in space, spatial emptiness feeling and user oriented plan organization stand out as an important elements of Minimalism. More over user oriented plan organization emphasize the importance of human in Minimalism.

Chapter 5

FINDINGS AND CONCLUSIONS

As a result of this research, in the essence of Minimalist conception, it seems that Minimalism is not a temporary approach. One of the biggest reasons is; function is the most emphasized feature of Minimalism. In Minimalist attitude everything is for human. Minimalism refers to remove elements which are used for unnecessary visual ornamentation and minimalism highlight function and functionality.

Lighting stands out as one of the most important element of Minimalism, even natural or artificial usage of lighting and taking the natural light thorough interior spaces is most common point of Minimalism in each period. Correct usage of openings is attached great importance to illumination and circulation between indoor and outdoor space thus permeability come into prominence.

Accordingly in minimalist indoor spaces in each period feeling of spatial emptiness attract attention, spatial emptiness feeling is supported with white and pure color choices in flawless details. Preference and usage of natural material with its own texture in each period emphasize the importance of nature in Minimalist dwelling.

Most common points of space organization are user oriented and functional plan solutions, wet areas and private spaces are generally defined individually from whole. One of the most particular features in each period is multipurpose space; these spaces

support the overlapping activities in single space. To sum up Minimalism refer to use these object and elements in a simple and geometric forms. Simplification with minimizing everything is another reason for existence of Minimalism. As a result of these features, it so happens that Minimalism is not a fashion or movement.

When examining the Minimalist conception in historical frame, essentially it is not a product of recent years, it has historical roots. Minimalism trace its descent back to Japanese minimalist life style philosophy, also to their Traditional Dwelling architecture even in Modern Architecture strain of Minimalism has been observed. This is an indication of being pre existence.

The main goal of the research is to raise the awareness of the issue, and create a base for the other researchers to develop this study further as a guide line. This study is focused on the Minimalist attitude on dwelling and its indoor environment, however future studies can be developed on the Minimalist attitude on commercial buildings and their indoor environments as well.

Studies and analysis shows that Minimalism has significant similarities with Traditional North Cyprus dwelling, life style of Cypriot culture. Particularly Traditional North Cyprus Architecture's multipurpose room is one of the evidence of minimal life in Cyprus. However after 1974, changes which come out with restructuring in island and westernization effort led to extermination of cultural and minimal life style values. Traditional Cypriot spatial life style which has significant similarities with Japanese traditions couldn't be adapted to today's conditions and didn't find opportunities to sustain. Nowadays, dwelling interior being modernized

with effect of Modernism however we can't say the same thing for Minimalism. This conception which West tries to achieve was founded and used by Turks and Turkish Cypriots, however unfortunately lost this conception again with the effect of Westernization.

Today's minimalist attitude rises to the occasion especially in Europe and Japan. According to dwellings which have been analyzed and evaluated in this study, it is possible to say that Contemporary Minimalist attitude has become much more plain and effective in terms of simplification. As in the Modern Minimalist attitude Contemporary Minimalist attitude highlight the functionality, user and relationship between user and space. On the other hand being that much effective in terms of simplification sometimes caused to formation of meaningless spaces in this circumstance spatial emptiness feeling transformed to real emptiness. Although Minimalist spaces without indoor environment render itself as meaningless, these features attract attention with significant part of Minimalism.

Technology appeared as an element which help to achieve simple, plain and essence. For instance technologic facilities can help to minimize detail solutions and contribute the visual simplicity in space. Again technology was used in indoor environments to serve more than one function. By this way, indoor environments can be used as multifunctional; moreover provide the flexibility of space. Correspondingly, the word "minimal" in Residential Conception does not symbolize the visual or architectural minimizing, more importantly it is used for minimalization in life. As it is observed in this study Residences in the frame of Minimalism, stand

out as technological flats which help to minimize daily routines and preferred by who prefer to live a minimal life.

When Minimalist spaces examined by architectural elements, importance of nature in the minimalism stand out in every field. In indoor space organization minimalist spaces come out as plain spaces which has simple and geometric forms, functional spaces, dominated with white and natural textures where serve spatial emptiness feeling and serenity.

Minimalism doesn't mean absence of everything in a space, contrary Minimalism is achieving essence of objects and it is an attitude increase the value of spaces. As a result Minimalism is removing in essential to emphasize the important.

"How simple you want to make it has to be complex that much"

REFERENCES

1. Akriti, L. (2009) *Bueth Residence designed by SPF Architects,* Revised 2012 from the Worldwide Web: http://mydreamdecor.blogspot.com, extracted in 2012

2. Arıcı, P. (2009) *Sanat Akımları - Pop Art (Pop Sanatı),* Revised 2012 from the Worldwide Web: http://msxlabs.org, extracted in 2012

3. Aşıcıoğlu, E. (2006) Geleneksel Konut Mimarisinin Önemi, *Konut Kurultayı*, (2), 42-52

4. Ayverdi, A. (1972) *Japonya Mimarlığı Mekanı*, İstanbul, I.T.U Matbaası

5. Azarbad, N. (2011) *Minimalizm (minimal sanat),* Revised 2012 from the Worldwide Web: http://www.sanalda1numara.net, extracted in 2012

6. Bakkaloğlu, E.C. (2006) *A Quest on Flexibility Criteria in the Design of Residential Interior Space,* Famagusta, E.M.U, Unpublished Master Thesis

7. Balkan, E.A. (1998) *Tarihsel Süreç İçerisinde Kuzey Kıbrsı Türk Cumhuriyetinde Toplum ve Mimarlık,* Famagusta, E.M.U

8. Barnes, C.(2010) *F-White by Takuro Yamamoto,* Revised 2012 from the Worldwide Web: http://www.dezeen.com, extracted in 2012

9. Bertoni, F. (1999) *Claudio Silvestrin,* Switzerlan, Birkhauser Basel

10. Canizares, A.C.G (2003) *Lofts*, Spain, Harper Collins Publishers

11. Çekici, N. (2010) *Rezidans'da Yaşam*, Revised 2012 from the Worldwide Web: http://www.womenist.net, extracted in 2012

12. Cheng, P. (2010) *Minimalist House*, Revised 2012 from the Worldwide Web: http://www.minimalissimo.com, extracted in 2012

13. Cheng, P.PJ. (2010) Minimalist House, Revised 2012 from the Worldwide Web: http://www.minimalissimo.com, extracted in 2012

14. Ching, F.D. (2004) *Interior Design Illustrated*, New Jersey, John Wiley & Sons, Inc

15. Clausen, M.L (1996) *Katsura Palace*, Revised 2012 from the Worldwide Web: http://content.lib.washington.edu, extracted in 2011

16. Cohn, D. (2011) *House in Leiria*, Revised 2012 from the Worldwide Web: http://archrecord.construction.com, extracted in 2011

17. Davis, C. (2006) *20th Key Houses of the Twentieth Century: Plans, Sections and Elevations*, China, Laurence King Publishing

18. Demirarslan, D. (2005) Türk ve Japon Konut İç Mekanlarında Depremsellik Açısından Konut ve Eşya Kullanım Alışkanlıklarının İrdelenmesi, *Deprem Sempozyumu 2005*, Kocaeli

19. Demirkaya, H.(1999) *Mekan Kavramının Tarihsel Süreç İçinde İncelenmesi ve Günümüzde Mekan Anlayışı*, İstabul, I.T.U Unpublished Master Thesis

20. Dovey, K. (2008) *Home and Homelessness: Introduction*, Revised 2008 from the Worldwide Web: http://www.asu.edu, extracted in 2012

21. Dinçyürek, Ö. and Türker, Ö.O. (2007) Learning from traditional built environment of Cyprus: Re-interpretation of the contextual values, *Building and Environment (*42), 3384–3392

22. Erda, S. (2001) Basitlikle Karıştırılıyor, *Mutfak-Banyo Dekorasyon*, (41), 44-45

23. Eroğlu, Ö. (1998) Minimal Art (Minimalizm), *Yapı Dergisi,* (199), 122-126

24. Furuyama, M. (2006) *Ando,* Singapore, Taschen

25. Gordon,D.(2010) *National Clearinghouse for Educational Facilities*, Washington , University of Virginia

26. Güler, Z.E. (2011) *Rezidanslarda "Yeni" ve "Seçkin" Yaşam Alanları*, Revised 2012 from the Worldwide Web: http://www.yasanabilirkent.blogspot.com, extracted in 2012

27. Günçe, K. (2006a) Kullanıcısı Tanımlanmamış Konutlar, Kuzey Kıbrıs'ta Alıcı Bekliyor, *Konut Kurultayı*, (2), 161-172

28. Günçe, K. (2006b) Gelenekten Günümüze Konut: Kıbrıs Örneği, *Yapı,*(292)

29. Günçe, K. (2010) Geleneksel Mimaride 'Dört Duvar' ve Ötesindekiler, *Mekan Perest*, (4), 6

30. Gür, S.Ö. (1999) Minimalizm- Fütürizm- Natüralizm-Yoksa?, *Yapı Dergisi*, (210), 58-68

31. Hasol, D. (1998) *Mimarlık Terimleri Sözlüğü*, İstabul, YEM Yayınları

32. Irmak, C.H. (2002) *Mimarlıkta Yalınlık ve Minimalist Tavır*, İstanbul, I.T.U Unpublished Master Thesis

33. Islakoğlu, P.M. (2006) *Minimalizm Kavramı ve Mimarlıkta Minimalist Yaklaşımlar*, İzmir, D.E.U Unpublished Master Thesis

34. Kaiser, V. (2010) House in Komae, Revised 2012 from the Worldwide Web: http://www.minimalissimo.com, extracted in 2012

35. Kazmaoğlu, A. (1997) Minimalizm; Sanat, Tasarım, Mimarlık, *Maison Française,* (30), 104-105

36. Kobus, S. (2012) *Kamyk Heritage Park/ Tamizo Architects*, Revised 2012 from the Worldwide Web: http://onthemoveafrica.blogspot.com, extracted in 2012

37. Kortan, E. (1998) Mimarlıkta Modalar ve Evrim, *Yapı Dergisi*, (199), 68-73

38. Kortan, E. (1999) Mimarlıkta Estetik Değerler, *Yapı Dergisi*, (211), 63-68

39. Kuban, D. (2002) *Mimarlık Kavramları,* İstanbul, Yem Yayın

40. Kurt,T. (2006) Modernizm ve Post-Modern Bağlamında Kıbrıs'ta Konut Mimarisi, *Konut Kurultayı*, (2), 110-123

41. Lefebvre, H. (2002) Mekanın Üretilmesinden, *Mimarist*, (6), 25-33.

42. Lo, J. and Inoue, T. (2010) *Azuma House*, Revised 2010 from the Worldwide Web: http://www.archtlas.com, extracted in 2012

43. Lyons, N. (2010) *Residence O by Andrea Tognon*, Revised 2012 from the Worldwide Web: http://baltares.blogspot.com, extracted in 2012

44. Maeda, J. (2006) *The Laws of Simplicity*, London, MIT Press

45. Malhan, K. (1997) Hiçle Oluşan Tüm, *Maison Française*, (30), 103-104

46. Maxwell, C (2011) *Traditional Japanese Housing Design*, extracted in 2011

47. Mehta, G., Tada, K. and Murata, N. (2005) *Japanese Style Interiors*, Sigapoure, Tuttle Publishing

48. Morris, M (2009) *The Glass House is minimalist, modern, and magnificent:*, Revised 2012 from the Worldwide Web: http://melissacmorris.blogspot.com, extracted in 2012

49. Mozaikçi, B. (2011) *Mimarlıkta Forma Dayalı Algı Kavram, Metal Malzemeler Üzerine Br İnceleme*, Revised 2011 from the Worldwide Web: http://www.iticu.edu.tr, extracted in 2012

50. Nergiz, F. (2005) *Study of Design Properties and Visual Qualities of Minimalist Space with the Basic Elements of Architecture on the Typology of House*, İstanbul, I.T.U Unpublished Master Thesis

51. Nishi, K. and Hozumi, K. (1985) *What is Japanese Architecture ? A Survey of Traditional Japanese Architecture with a lists of sites and a map*, New York, Harper & Row Publishers

52. Nokki, A. (2012) The Otto Bock Simple Modern Building Design, Revised 2012 from the Worldwide Web: http://www.zeospot.com, extracted in 2012

53. Oriol, A.L. (2006) *New Minimalist Houses*, Spain, Collins Design and Loft Publications

54. Ökem, S. (2001) Minimal Konutlarda Mobilya, Mimarist Dergisi, (2),19-28

55. Pawson, J. (1998) *Minimum*, Hong Kong, Phaidon

56. Pawson, J. (2002) Asgari, *Arredamento Mimarlık*, (2), 80

57. Pople, N. (2003) *Small Houses Contemporary Residential Architecture*, U.S.A, Universe Publishing

58. Prudon, T.H.M. (2008) *Preservation of Modern Architecture: The Begining*, New Jersey, John Wiley & Sons, Inc.

59. Roth, L.M. (2000) *Mimarlığın Öyküsü,* İstabnul, Kabalcı Yayınevi

60. Salihoğlu (2006b) *Kıbrıs Adasında Kount*, Lefkoşa, Dört Renk Matabaacılık ltd.

61. Salihoğlu,T. (2006) Geleneksel Konut Mimarisinin Önemi, *Konut Kurultayı*, (2), 21-34

62. Sarı, S.(2012) *Sanat Sözlüğü*,Revised 2012 from the Worldwide Web: http://www.sadettinsarı.com, extracted in 2012

63. Sarıyer, D. (2002) Minimalizm, *Maison Française*, (100), 161

64. Schleifer, S. (2007) *500 Decoration Details: Minimalism*, Spain, Taschen

65. Şener, M.S. (1991) Ando ve İpuçları, *Mimarlık Dekorasyon*, (7), 82-96

66. Şentürer , A. (2000) Tokyo; Türkiye'den Bakmak, *Arredamento Mimarlık*, (5), 116-129

67. Sullivan, M.A. (2006) *Villa Savoye Introduction and Index*, Revised 2006 from the Worldwide Web: http://www.bluffton.edu, extracted in 2011

68. Thomse, J. And Tjora, A. (2006) Changeable Space as Temporary Home A Qualitative Exploration of Life in an Experimental Student House, *Nordic Journal of Architectural Research,*(19), 14-15

69. Ulaş, U. (1990) *Lefkoşa Arab Ahmet Mahallesi Konutları Morfolojik Analizi*, Famagusta, E.M.U Unpublished Master Thesis

70. Uluçay, P.,Uraz, T. and Pulhan, H. (2010) Türkan Aziz Evi/ Lefkoşa, *Mekan Perest*, (6), 5

71. Ulusan, U. (2007) *Endüstri Ürünleri Tasarımında Sosyal Statü – Ürün Etkileşimi*, İstanbul, M.U. Unpublsihed Master Thesis

72. UNHCR (1995) *Twelve Traditional Cyprus Houses*, Nicosia, UNHCR

73. Uraz, T. ,Pulhan, H. and Uluçay, P. (2010) Modernizmin Yerel Açılımları: Dr. Ali Fikret Evi, *Mekan Perest*, (3), 5

74. URL1: http://www.japan-guide.com, extracted in 2012

75. URL2: http://www.house-arch.com, extracted in 2012

76. URL3: http://www.homeinsides.com, extracted in 2012

77. URL4: http://www.whatwedoissecret.org, extracted in 2012

78. URL6: http:// designergirlee.files.wordpress.com, extracted in 2011

79. URL5: http://www.dumankaya.com, extracted in 2012

80. URL7: http://www.alyngriffiths.com, extracted in 2011

81. URL8: http://www.architecturenewsplus.com, extracted in 2011

82. URL9: http://www.egodesign.ca, extracted in 2011

83. URL10: http://www.coolboom.net, extracted in 2012

84. URL11: http://www.archdaily.com, extracted in 2012

85. URL12: http://www.littlediggs.com, extracted in 2012

86. URL13: http://www.archithings.net, extracted in 2012

87. URL14: http://www.johnpawson.com, extracted in 2012

88. URL15: http://www.minimalik.com, extracted in 2012

89. URL16: http://www.bookmice.net, extracted in 2012

90. URL17: http://interiordesign-jobs.com, extracted in 2012

91. URL18: http://www.architings.com, extracted in 2012

92. URL19: http://www.digsdigs.com, extracted in 2012

93. URL20: http://www. http://www.moscow-furniture.com, extracted in 2011

94. URL21: http://www.claudiosilvestrin.com, extracted in 2012

95. URL22: http://global.rakuten.com, extracted in 2012

96. URL23: http://www.momoy.com, extracted in 2012

97. URL24: http://chmararosinke.com, extracted in 2012

98. URL25: http://www.campobaeza.com, extracted in 2012

99. URL26: http://www.archdaily.com/118906/, extracted in 2012

100. URL27: http://www.archdaily.com /52393/, extracted in 2012

101. URL28: http://www.archdaily.com /108648/, extracted in 2012

102. URL29: http://www.archdaily.com /231802/, extracted in 2012

103. URL30: http://www.archdaily.com /9542/, extracted in 2012

104. URL31: http://www.archdaily.com/131079/, extracted in 2012

105. URL32: http://www.archdaily.com/238133/, extracted in 2012

106. URL33:http://www.dumankaya.com, extracted in 2012

107. URL34: http://cananresidence.com, extracted in 2012

108. URL35: http://www.trumpsitanbul.com.tr, extracted in 2012

109. URL36: http://www.anthillresidence.com, extracted in 2012

110. URL37: http://www.istanbulsapphire.com, extracted in 2012

111. Vice, P. (1994) *Architectural Design: Aspects of Minimal Architecture*, Great Britain, Academy Group

112. Vidler, A. (2008) *Histories of the Immediate Present: Inventing Architectural Modernism*, Cambridge, MIT Press

113. Vreeswijk, S. (2009) *Japanese Dwelling from Traditional to Contemporary*, www.scribd.com, extracted in 2011

114. Wandering, S. (2009) Clever, Revised 2012 from the Worldwide Web: http://baltares.blogspot.com, extracted in 2012

115. Yagi, K. (1992) *A Japanese Touch for Your Home*, Tokyo & New York, Kodansha International

116. Yazıcı, C.T. (2012) *Loft tipi daire ne demektir*, http://www.uzmantv.com, extracted in 2012

117. Yılmaz, Z. (2006) Akıllı Binalar ve Yenilenebilir Enerji, *Tesisat Mühendisliği Dergisi*, (91), 7-15

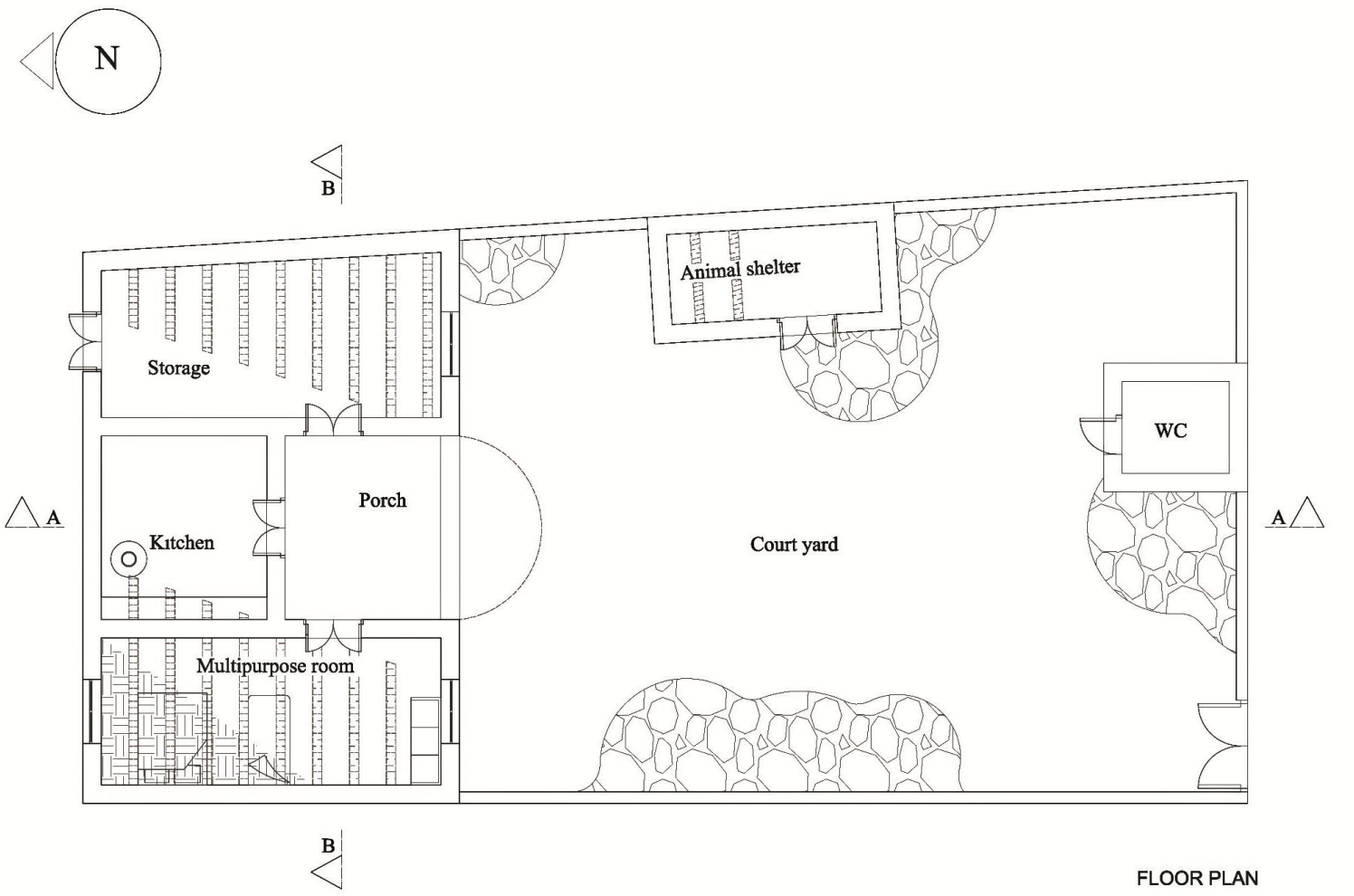
118. Yoshia, T. (1955) Japanese Home and Garden, New York, Praeger

119. Zevi, B. (1993) Architecture As Space, How to Look an Architecture, New York, Da Capo Press

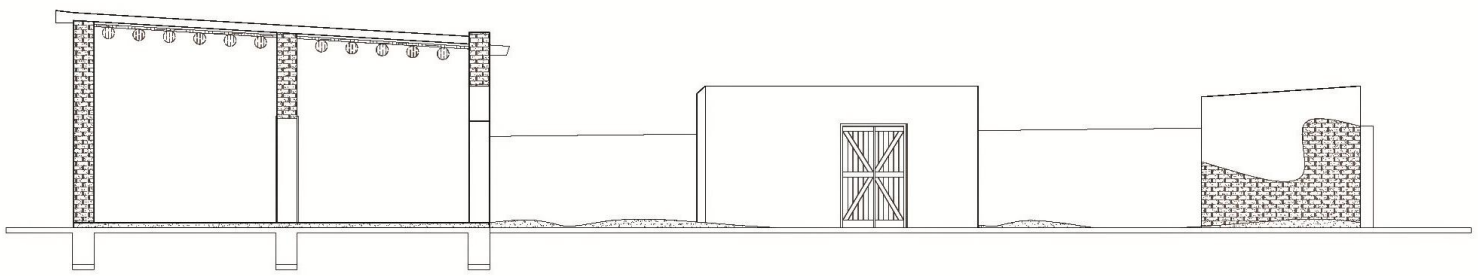
120. Zimmerman, C. (2006) *Mies Van Der Rohe,* Deutschland, Taschen

APPENDICES

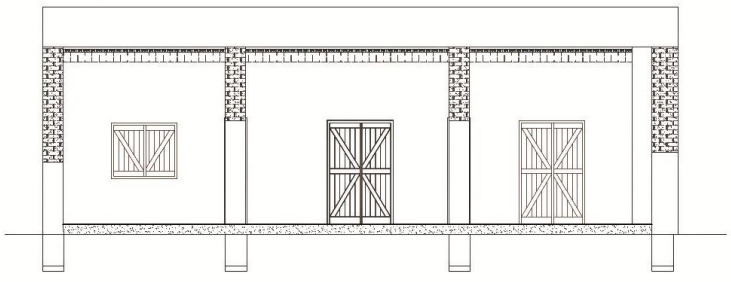
Appendix A: General information of Cambaz House



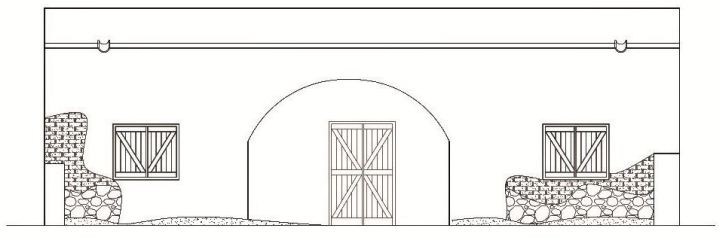
FLOOR PLAN



SECTION A-A



SECTION B-B

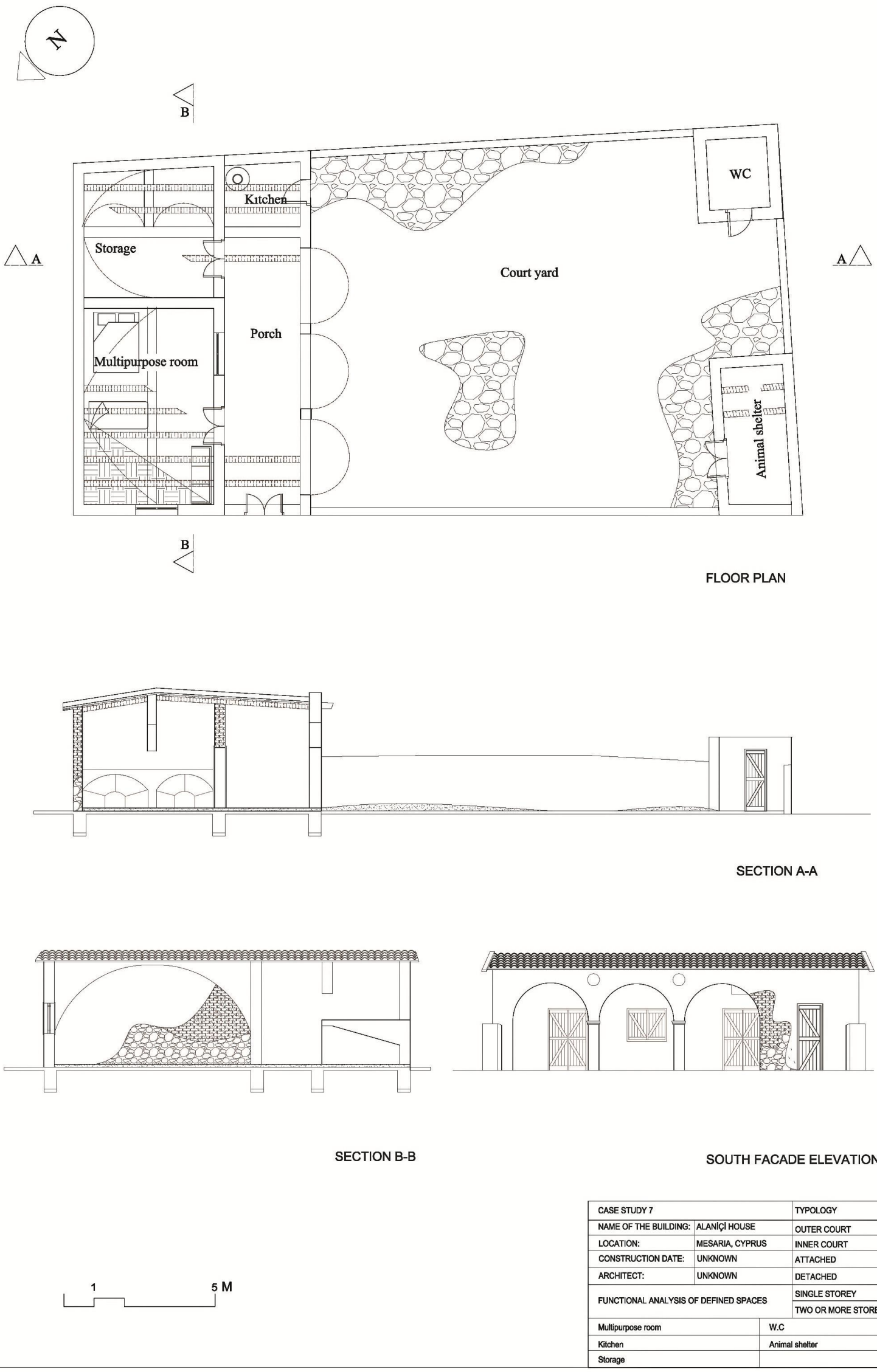


SOUTH FACADE ELEVATION

1 5 M

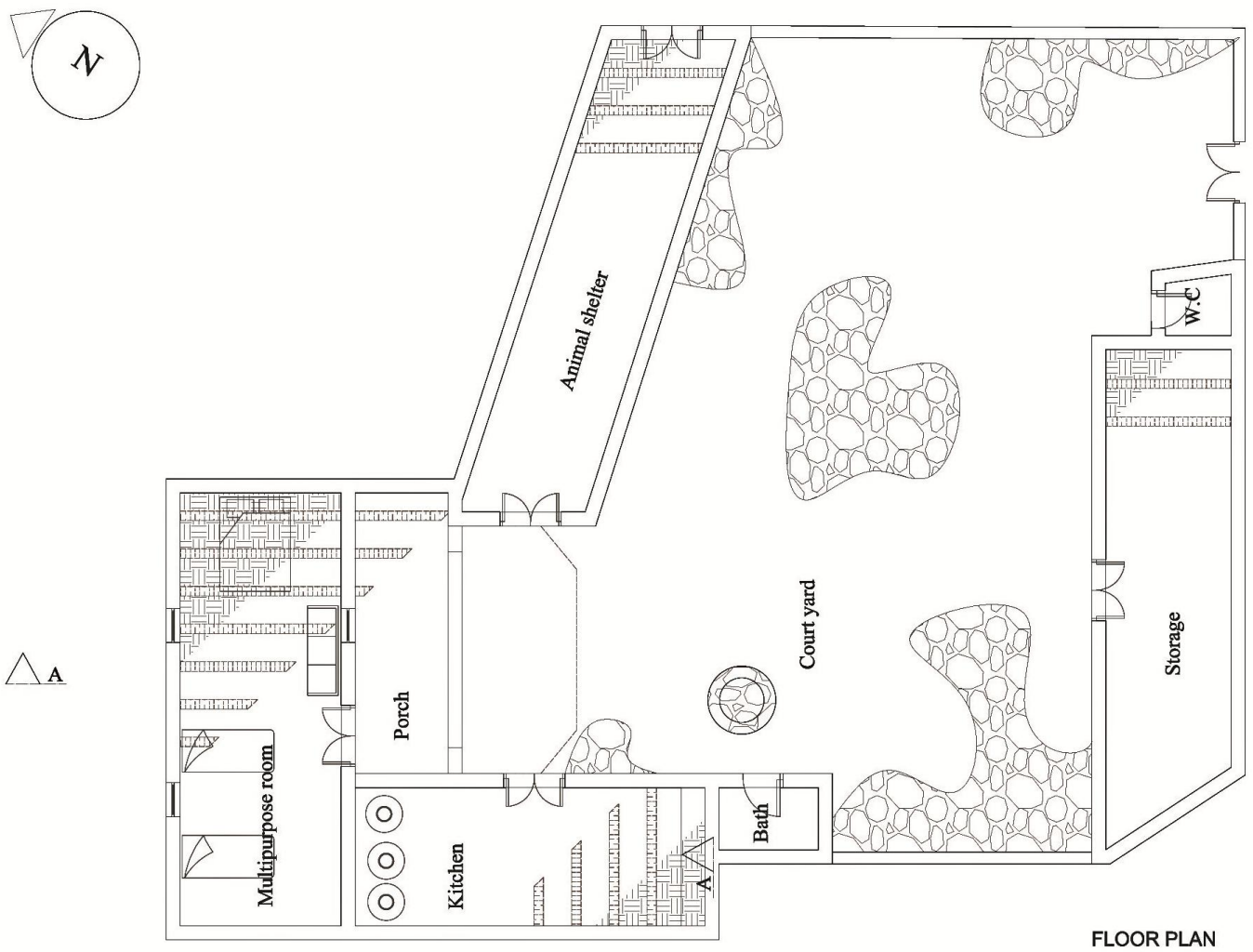
CASE STUDY 6		TYPOLOGY	
NAME OF THE BUILDING:	CAMBAZ HOUSE	OUTER COURT	X
LOCATION:	MESARIA, CYPRUS	INNER COURT	
CONSTRUCTION DATE:	UNKNOWN	ATTACHED	
ARCHITECT:	UNKNOWN	DETACHED	X
FUNCTIONAL ANALYSIS OF DEFINED SPACES		SINGLE STOREY	X
		TWO OR MORE STOREY	
Multipurpose room		W.C	
Kitchen		Animal shelter	
Storage			

Appendix B: General information of Alaniçi House

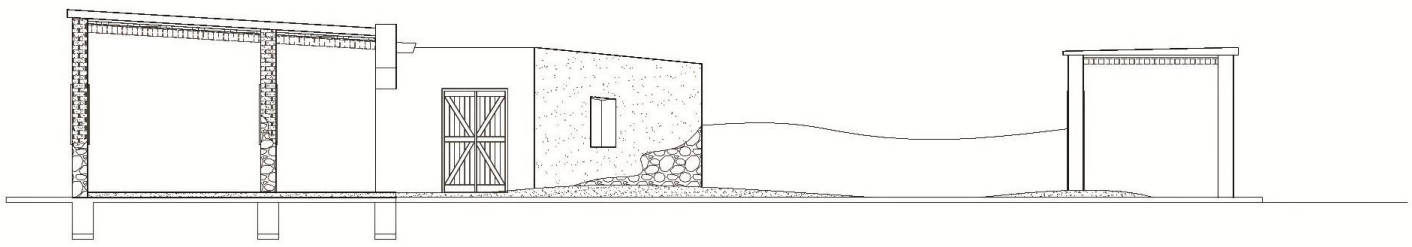


CASE STUDY 7		TYPOLOGY	
NAME OF THE BUILDING:	ALANİÇİ HOUSE	OUTER COURT	X
LOCATION:	MESARIA, CYPRUS	INNER COURT	
CONSTRUCTION DATE:	UNKNOWN	ATTACHED	
ARCHITECT:	UNKNOWN	DETACHED	X
FUNCTIONAL ANALYSIS OF DEFINED SPACES		SINGLE STOREY	X
		TWO OR MORE STOREY	
Multipurpose room		W.C	
Kitchen		Animal shelter	
Storage			

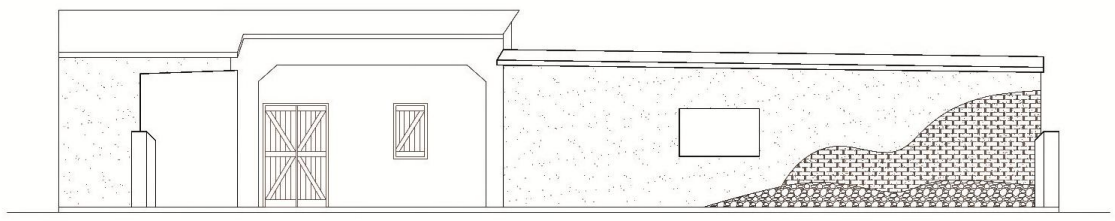
Appendix C: General information of Yusufcuk House



FLOOR PLAN



SECTION A-A



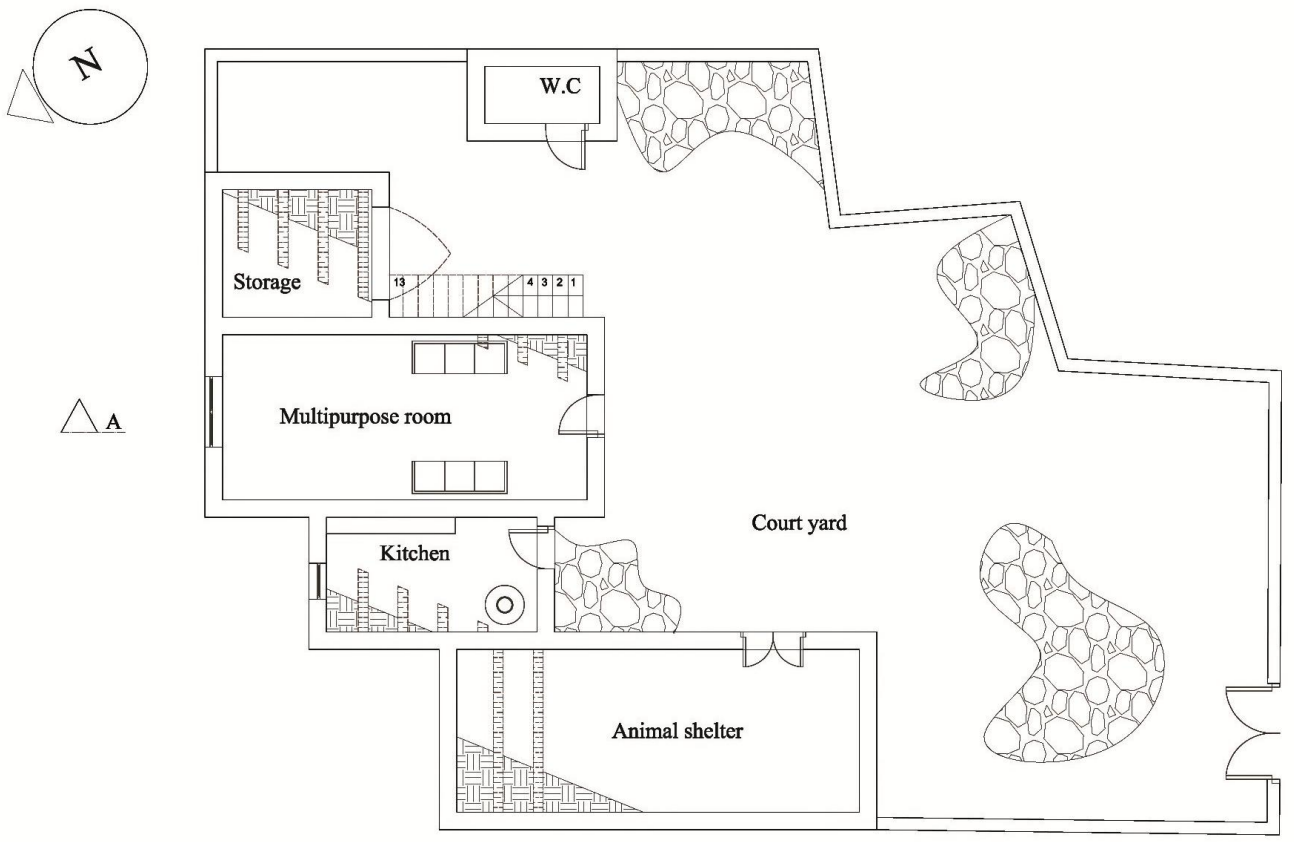
SOUTH FACADE ELEVATION

1 5 M

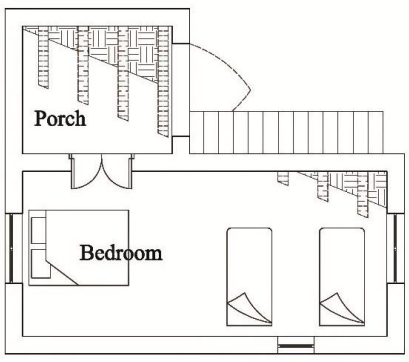
CASE STUDY 8		TYPOLOGY	
NAME OF THE BUILDING:	YUSUFCUK HOUSE	OUTER COURT	X
LOCATION:	MESARIA, CYPRUS	INNER COURT	
CONSTRUCTION DATE:	UNKNOWN	ATTACHED	
ARCHITECT:	UNKNOWN	DETACHED	X
FUNCTIONAL ANALYSIS OF DEFINED SPACES		SINGLE STOREY	X
		TWO OR MORE STOREY	

Multipurpose room	Bath
Kitchen	W.C
Storage	Animal shelter

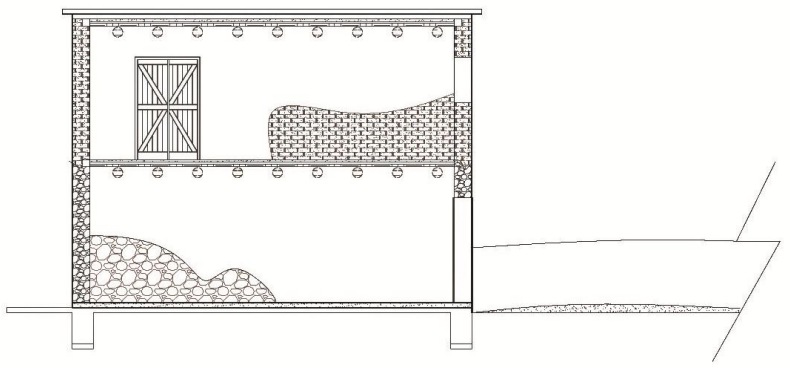
Appendix D: General information of Davulcu House



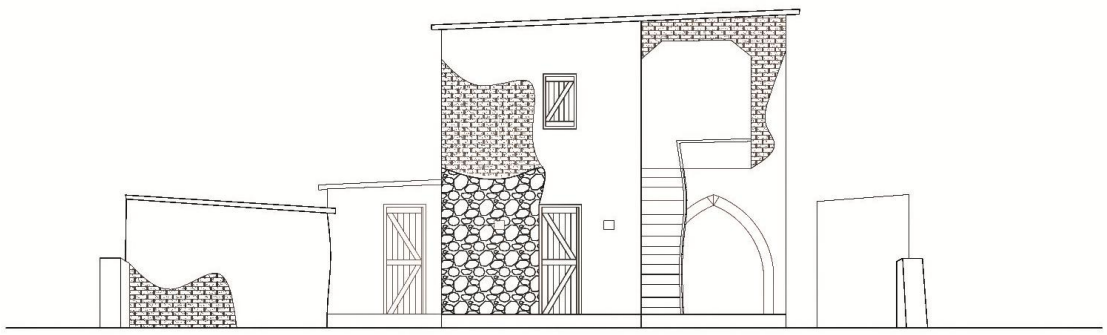
FLOOR PLAN



UPPER FLOOR PLAN



SECTION A-A

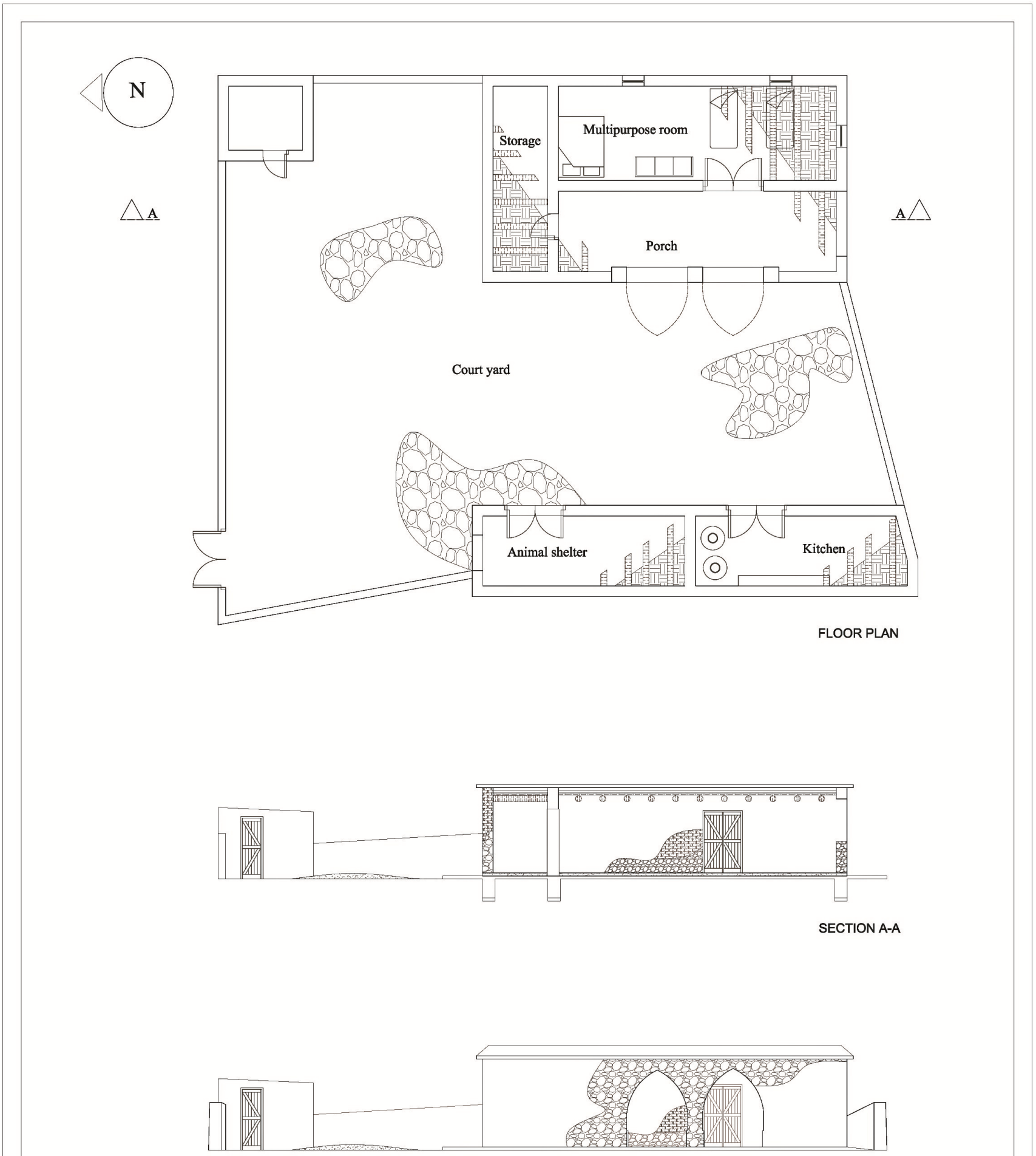


SOUTH FACADE ELEVATION

1 5 M

CASE STUDY 9		TYPOLOGY	
NAME OF THE BUILDING:	DAVULCU HOUSE	OUTER COURT	X
LOCATION:	MESARIA, CYPRUS	INNER COURT	
CONSTRUCTION DATE:	UNKNOWN	ATTACHED	
ARCHITECT:	UNKNOWN	DETACHED	X
FUNCTIONAL ANALYSIS OF DEFINED SPACES		SINGLE STOREY	
		TWO OR MORE STOREY	X
Multipurpose room		W.C	
Kitchen		Animal shelter	
Bedroom		Storage	

Appendix E: General information of Karasu House



FLOOR PLAN

SECTION A-A

SOUTH FACADE ELEVATION

1 5 M

CASE STUDY 10		TYPOLOGY	
NAME OF THE BUILDING:	KARASU HOUSE	OUTER COURT	X
LOCATION:	MESARIA, CYPRUS	INNER COURT	
CONSTRUCTION DATE:	UNKNOWN	ATTACHED	
ARCHITECT:	UNKNOWN	DETACHED	X
FUNCTIONAL ANALYSIS OF DEFINED SPACES		SINGLE STOREY	X
		TWO OR MORE STOREY	
Multipurpose room		W.C	
Kitchen		Animal shelter	
Storage			