

T.C.
YASAR UNIVERSITY
GRADUATE SCHOOL OF APPLIED SCIENCES
DEPARTMENT OF INTERIOR ARCHITECTURE
GRADUATE THESIS

“LIVEABLE ROOFS” AS A SEMIOTIC PHENOMENON IN
ARCHITECTURE

Damla ŞİRAY

Thesis Advisor: Associate Prof. Fabio BACCHINI
(Sassari University/ Faculty of Architecture)
Assist. Prof. Dr. Gülnur BALLİCE
(Yasar University/ Faculty of Architecture)

Bornova - İZMİR
2013

TEXT OF OATH

I declare and honestly confirm that my study titled "LIVEABLE ROOFS AS A SEMIOTIC PHENOMENON IN ARCHITECTURE" and presented as Graduate Thesis has been written without applying to any assistance inconsistent with scientific ethics and traditions and all sources I have benefited from are listed in bibliography and I have benefited from these sources by means of making references.

24.01.2013

Damla ŞIRAY



I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.



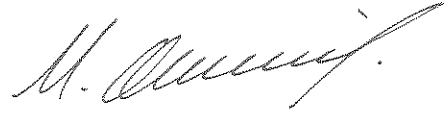
Asst. Prof. Dr. Gülnur BALLICE

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

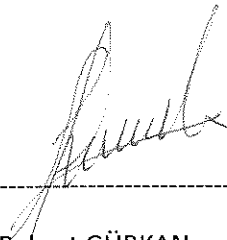


Prof. Dr. Tayfun TANER

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.



Asst. Prof. Dr. Malike ÖZSOY



Prof. Dr. Behzat GÜRKAN

Director of the Graduate School

TABLE OF CONTENTS

	<u>Page</u>
ÖZET.....	v
ABSTRACT.....	vi
ACKNOWLEDGEMENT.....	vii
INDEX OF FIGURES.....	viii
INDEX OF TABLES.....	ix
PART I – HYPOTHESIS.....	1
1. INTRODUCTION – a preliminary approach to “Liveable Roof Semiotics”.....	1
1.1. Aims and the Method of Analysis.....	1
1.2. Justification of the analysis.....	1
1.3.Theoretical sources.....	2
1.4. References for Roof Semiotics.....	4
1.5.Current or Recent Roof Communication Studies.....	5
1.6.Roof as a Link between the Interiors and the City.....	6
2. BASIC PRINCIPLES OF RESEARCH.....	9
2.1. Roof Semiotics.....	9
Content – Expression.....	14
Denotation – Connotation.....	14
Primary and Secondary Function.....	16
Meaning as cultural unit.....	16
Roof Language/ Code.....	17
Semantic Fields/ Contradictory Semantic Fields.....	18
Boundaries/ Threshold.....	21
PART II – ANALYSIS.....	22
3. METHODOLOGY.....	22
3.1. Model out of a Methodology.....	22
PART III - CASE STUDY.....	25
4. CASE STUDY.....	25

TABLE OF CONTENTS (Cont.)

	<u>Page</u>
4.1. The context.....	25
4.1.1. The Research: Methodology.....	32
4.2. The Analysis of the Message.....	33
4.3. Comparative Analysis of the data; AKA Central Park & Living Roof.....	39
4.3.1. Semiotic tools and their application to the analysis.....	48
4.3.1.1. 1 st Semantic Model.....	50
4.3.1.2. 2 nd Semantic Model.....	53
4.3.1.3. 3 rd Semantic Model.....	58
4.3.1.4. 4 th Semantic Model.....	62
5. CONCLUSION.....	65
BIBLIOGRAPHY.....	71

ÖZET

İç Mimarlık Yüksek Lisans Tezi

MİMARLIKTA SEMİYOTİK BİR OLGU OLARAK

“YAŞANABİLİR ÇATILAR”

ŞİRAY, Damla

Yaşar Üniversitesi

Fen Bilimleri Enstitüsü

İç Mimarlık Anabilim Dalı

Ocak 2013, sayfa 73

Bu araştırma, iletişim ve gösterge özelliklerini içerisinde barındıran bir öge olarak görülen çatıların analizine semiyotik açıdan bir yaklaşımın teorik imkânlılığını keşfetmektedir. Bu keşif esnasında çatıların semantik (anlamsal) ve pragmatik (yapısal) düzeyde iç mimari fonksiyonlarının belirlenmesine ve neticelerine odaklanılmaktadır. Yine bu araştırma, çatıları, kültürel süreçte iletişimsel faaliyetleriyle rol oynayan birer “semiyotik mekân” olarak anlayabilmemiz için, teorik bir arkaplan ve araç olarak “Yaşanabilir çatıların Semiyolojisi”ni geliştirerek, çatılara yeni bir disipliner bakış önermeyi amaçlamaktadır. Bu çalışmada ayrıca, iki zıt özelliğin (iç mekân x dış mekân) iç içe geçirilmeye çalışıldığı zorlu tasarım sürecinin incelendiği iki adet durum incelemesi bulunmaktadır. Esasen bir dış mekan ögesi olarak kabul edilen çatıların bir iç mekan ögesi olan Hotel Odası’na dönüşümünün, verilen durum incelemelerine dayanılarak (**AKA Central Park Hotel** ve **Capsule sur le toit/ Living Roof**) yapılan kapsamlı ve karşılaştırmalı incelemesi, bize çeşitli karşıt eşleştirmelerle yaşanabilir çatıların analizine yönelmemize imkan sağlamaktadır; *kapalı - açık; geleneksel - yenilikçi; gerçekçi - ütopyik; uyarılama - yeni; cevabi - özerk.*

Keywords: Semiotics of Liveable Roofs, Comparative Analysis, Culture, Exterior, Interior

ABSTRACT

MSc in Interior Architecture

“LIVEABLE ROOFS” AS A SEMIOTIC PHENOMENON IN
ARCHITECTURE

ŞİRAY, Damla

Yaşar University

Graduate School of Applied Sciences

Department of Interior Architecture

January 2013, Page 73

The research explores the theoretical possibility of a semiotic approach to the analysis of roofs, seen as entities where a process of communication and signification takes place – focusing on the consequences and the determination of the interior architectural functions of roofs, at their semantic and pragmatic levels. It aims proposing a new disciplinary look to roofs, developing “Semiotics of Liveable Roofs” as a theoretical background and a tool for understanding roofs as “semiotic spaces” acting in the cultural process through their communicative actions. This study also includes two different case studies, (**AKA Central Park Hotel** and **The Living Roof/ Capsule sur le toit**) through which the challenging design process of blending two contradictory features (exterior vs. interior) is examined. Depending on the given case studies, a comprehensive and comparative investigation of the transformation of an exterior space (Roof) into an interior one (Hotel Bedroom) allows us to address the analysis of liveable roofs between and within several oppositional pairs; *closed vs. open; conventional vs. innovative; pragmatic vs. utopian; adapting vs. new; responsive vs. autonomous.*

Keywords: Semiotics of Liveable Roofs, Comparative Analysis, Culture, Exterior, Interior

ACKNOWLEDGEMENTS

First of all, I would like to thank my thesis supervisor Associate Professor of Epistemology, Fabio Bacchini, at the Faculty of Architecture in Alghero/ Sassari University, for his abundant guidance and contributions in developing the theme and the content of my thesis. Second of all, my thanks and appreciation go to my co-supervising tutor Assist. Prof. Dr. Gülnur Ballice, who has never withheld her valuable supports and trust in my interior architectural skills and abilities since the beginning of my education and studies as well as my thesis. Likely, I would like to thank and appreciate my distinguished professors and the members of my thesis committee Prof. Tayfun Taner and Assist. Prof. Dr. Malike Özsoy.

Lastly, I want to express my gratitude for the helps and advises of Giuliana Frau, who is actually PhD student at the University of Sassari, and dedicate this thesis to my family who unremittingly supported me during my years of study and by the way who made this work possible.

INDEX OF FIGURES

<u>Figure</u>	<u>Page</u>
Figure 1.1. Exterior saloon on the rooftop of The apartment of Charles de Beistegui by Le Corbusier.....	8
Figure 1.2. A lounge on the rooftop of Unité d’habitation.....	8
Figure 4.1.a. AKA Outdoor Bedroom – Lounge Area.....	27
Figure 4.1.b. AKA Outdoor Bedroom – Bedroom.....	27
Figure 4.2. Living roof/ a self sustaining capsule for urban rooftop.....	30
Figure 4.3. Living roof/ a self sustaining capsule for urban rooftop.....	30
Figure 4.4. Living roof/ a self sustaining capsule for urban rooftop.....	31

INDEX OF TABLES

<u>Table</u>	<u>Page</u>
Table 2.1. Eco's Semiotic Process.....	11
Table 2.2. Different acceptances of different semioticians about Sign.....	13
Table 2.3. Roof's Semiotic Process According to Eco's Semiotic Process Model.....	15
Table 2.4. Classical Logical Square of Eco for Contradictory Semantic Field Model.....	19
Table 2.5. Roof's Logical Square according to Eco's Contradictory Semantic Field Model.....	20
Table 3.1. Eco's Semantic Model for all coded Connotations Depending on corresponding Denotations.....	23
Table 3.2. Multileveled Discourse Model.....	24
Table 4.1. Segmentation of the text: units of reading.....	39
Table 4.2. Unlimited Semiosis diagram mentioned by Saussure.....	47
Table 4.3. Greimassian Logical Square according to Eco's Contradictory Semantic Field Model_1.....	50
Table 4.4. Greimassian Logical Square according to Eco's Contradictory Semantic Field Model_2.....	53

INDEX OF TABLES (cont.)

<u>Table</u>	<u>Page</u>
Table 4.5. Greimassian Logical Square according to Eco's Contradictory Semantic Field Model_3.....	58
Table 4.6. Greimassian Logical Square according to Eco's Contradictory Semantic Field Model_4.....	63

PART I – HYPOTHESIS

1. INTRODUCTION – a preliminary approach to “Liveable Roof Semiotics”

1.1. Aims and the Method of Analysis

This study presents a method of analysing interior architectural form developed within the framework of research dealing with “*roofs*” as tools of “signification” and “communication” of space. Through this exploration we intend to contribute to the development of “Roofing” as a scientific field and not as only “technique” or a diachronic study of Roof’s history. We propose a new discipline for the field – that of “Roof Semiotics” as a theoretical background and a tool for the understanding of Roofs as “semiotic spaces” acting in the cultural process through their “communicative actions”.

This study may serve to clarify spatial work of roofs as a tool for the analysis and for the building of its main performances – roof plans – for the better understanding of the mechanisms of these semiotic processes and the evaluation of their effects on the public.

Our aim is to identify and define the specific language of roofs, in order to make it recognizable by both ends of the communication process – the senders and the receivers – and hence to make it better used and developed through many possible roof “speeches”.

1.2. Justification of the analysis

The reasons for the development of this research may be found in discovering the answers for questions regarding the roofs and their places in the present world.

The recent developments of these architectural elements, the appearance of new forms and features that could hardly be called just “roofs”, according to the traditional definition, their increasing use either as an exterior or an interior space,

and the growing interest of the architect's loading his own ideology to such cultural and recreational spaces, brought roofs to the threshold of "identity".

In modern countries the architectural role of roofs is being questioned. *The main questions may be; what are roofs? What are their specific functions or roles in present societies? What is roofing? What is the effectiveness of roof planning? What is the theoretical basis for these activities and functions?*

This research is an attempt to answer these questions by looking in a microscopic way at the nature of the roof phenomenon in order to discover the internal structure and basic elements of this cultural process which presents itself in a universal manner.

Despite the variability of their forms and contents, the roof phenomenon shows universally the same specific nature through a synchronic perspective. That nature enables the roof to stand at the frontier of Logics and Poetics. Thus, it is possible to develop a diachronic study for the total construction of roof theory and history. However, within the "economy" of the process itself we prefer reaching the surface and extra-roofing levels.

While starting our project we realized that we needed to make a selection between the analysis of constructive system of roofs and that of the visual/ worldly system. The second course was chosen for reasons that will be given during whole study with the explanations. So, the analysis only deals with the visual system of roofs.

1.3. Theoretical sources

The origin and the direction of this inquiry depends on the preliminary and original explorations of Roland Barthes and Umberto Eco's differentiations on his own semiotic model; from Eco's *Theory of Semiotics* (1979) we have assumed the basic and broad concepts of the author for any semiotic research, adopting his definition of terms and the structural models for this study.

Mainly the object of this analysis is to make a semantic analysis of roofs as minimum units of architectural form and to reconstitute step by step a system of “signification” and “communication” by taking advantage of Eco’s “theory of codes” and “theory of sign production” where these two terms are considered as notions which serve making distinction between these two theories.

Secondly, departing from the Eco’s argument which considers each semantic unit as “cultural” unit in his book called *La Structure Absente*, we shall analyse the meaning of a roof within a text and try to analyse the architectural form, by starting understanding the largest structure (city), continuing with the medium one (architecture/ a building) and ending with the smallest structure (an architectural element). To study the form of architecture we would first be to study each of these three structures separately and exhaustively, since a structure can not be defined apart from the substantial identity of the units which constitute it.

The reasons why we prefer such model are the Eco’s considerations of “metasemiotics” and that of the denotation and connotation. According to him, signifying units are attached to signified ones, either by restrictive rules (circumstantial selections) or cultural conventions (contextual selections); codes, s-codes.

Eco’s theory of codes allows us to understand the system and the structure of roof codes in their syntactic, semantic and pragmatical aspects, manifested or hidden in the roof communication process.

From his theory of sign production we have the models for the definition of a **typology of signs** (verbal/ non verbal, symbols, icons, indices, replicas and doubles, “super-signs” and other possible categories), mainly based in Peirce’s semiotics and models for the exploration of the different modes of sign production and of sign articulation.

From the works of Roland Barthes, mainly from his *Eléments de Sémiologie* (1964) we have taken the philosophy and the model of reading messages and

discourses of deconstructing texts and speeches in a critical way, starting from the signifiers to reach signification.

Barthes' analyses of literary texts and his conceptions on the literary function gave us the basis to propose the different roles of the roof language and speeches, supporting the spatial function of the roofs that we tried to define.

His lessons on the "*Kitchen of Meaning*", "*Semiology and Urbanism*", "*Semiology and Medicin*", "*Saussure the Sign, Democracy*", where he explores along his *Aventure Sémiologique* (1985) and *Système de la Mode* (1967) have been a fundamental source for our analysis of the "Roof Myth" and its power.

We have also profited from the ideas and the works of scholars like Algirdas Julien Greimas, who provided our research the model for nature of spatial roof work with his square and studies on the semiotics of scientific discourses and on the syntax and the grammar of socio-linguistic communication.

As common to our knowledge, all these leading semioticians refer to and inform us the fundamental principles of the two fathers of Semiotics; Charles Senders Peirce (1931) and Ferdinand de Saussure (1916); which constitute an important theoretical source for our study of Roof phenomenon.

1.4. References for Roof Semiotics

We took the advantage of studies which can be referred to as pointing out the process of signification happening in semiotic analysis of objects and garments, communication and the semiotics of space, semiotics of architectural ornament and museum semiotics, where authors enhance the referential function of architectural and objectual communication process.

Through these studies authors detect the main functions and contradictions of the displays, and the interaction between linguistic, visual and ideological codes along the synchronic narration.

One of the studies we took as reference is Roland Barthes' *Système de la Mode* (1967), in which the author explores the ways of reading fashion system. This semiotic study of garment arrangement proposes the need for a "pre-significant" element, a "matter" or "substance" along with the signifier and the signified, that would support signification in non-verbal semiotic systems.

Another paper, unpublished, dealing specifically with the Museum language and its semiotic nature was that of Maria de Lourdes Parreiras Horta (1992), who proposes a new approach to Museum communication and semiotics of exhibition spaces and objects.

Another approach to the meaning of buildings was of William Whyte, "*History and Theory; How do Buildings mean? Some issues of Interpretation in the history of Architecture*" (2006).

1.5. Current or Recent Roof Communication Studies

In the specific field of Roof communication, the amount of articles and essays makes it impossible to claim that it has been worth to be considered as an area of semiological analysis currently. Recently, very few or any studies have yet focused on the nature of this particular experience, from the perspective of signification and of meaning production.

We witness numerous studies about semiology of urbanism and semiology of architecture; but we observe that, any study about the minimum unit of a building has not been conducted by any semiological analyst yet. The reason was the general understanding about the notion of dividing extensiveness in places which have been the main starting points of architectural semiotics and semiotics of space. However we believe that in such sets of relations, dividing architectural space into smaller units is possible (or moreover may be an obligation!) and shall represent a good mediator for a semiological analysis regarding the recent developments in modern architecture and architectural styling; because we know that, roofs, as the smallest unit of an architectural artefact, have been at the heart of these developments.

Due to the introduction of the idea of treating volume as a whole, roofs started to mean more than a coverage; they have been considered as the fifth façade merging urban fabric into interiors or vice versa. Also in terms of theoretical works of modernist architecture, a link between the city and the building has been established by propagating the design of flat roofs sensitive to human traffic. The idea was regaining the site lost through the footprint of the building.

1.6. Roof as a Link between the Interiors and the City

When Romans used the word “tettum” (roof), they were referring to the entire building; likewise today, due to the introduction of the idea of treating volume as a whole, roofs mean more than a coverage; they are considered as the fifth façade merging urban fabric into interiors or vice versa.

In terms of theoretical works of modernist architecture, the first step was taken on the way of establishing a link between the city and the roof, along with the Unité d’habitation of Le Corbusier which was propagating the design of flat roofs sensitive to human traffic. The purpose lying underneath that idea was regaining the site, lost through the footprint of the building. Then, it was called Modernist architecture where flat roofs were often viewed as a living area.

These developments were anticipated by Claude Parent and Paul Virilio in 1960. The roof and the urban fabric merged each other along with the distinction of introduction of discontinuity to the plastic configuration and the alternation between vertical and horizontal development of the shapes.

Following this manifestation, roofs started to be considered as a part of an overall structure in which they were assuming the functions of the facades in mid 1990s thanks to the introduction of CAD and 3D modelling software where we had the opportunity to see an artefact with its entire body.

And recently, due to maximization of the aesthetic reduction of buildings, architects did everything to neutralize the typological identity with the aim of achieving a purely platonic volume. However, much one seeks to suppress the roof,

it somehow manages to resist (Ruby, 2005: 7-8). The reason is that, in terms of its primary function, the roof is indispensable; and as secondary function it seems to play a great symbolic role.

Parallel to the elimination of the roof, we observe a process of integrating the overall structure into the roof. As a result, a megaroof form is created and this form exceeds the scale of architecture and is related more to the interior and urban dimension (Ruby, 2005: 2); that is to say, the process of overcoding has been actualized by turning the limits of objectual value of the roofs into thresholds. Thus, the behavioural response of the actant-user is not just to have an outer look anymore, but also to walk on it and use it as an interior space. Syntactic and semantic configurations have been changed. Lastly, the rules coupling the actant-subject and the actant-object are not the same anymore.

In following part of our study, we shall compare two case studies where such over coding is in question due to the transformation in the vertical dynamics of the spatial, objectual value of the roof into horizontal ones by referring to the first surrealist architectural works of Le Corbusier where he tries to design an exterior saloon on the rooftop of "The apartment of Charles de Beistegui" in Paris, and a lounge on the rooftop of "Unité d'habitation" in Marseille.

Figure 1.1. Exterior saloon on the rooftop of the apartment of Charles de Beistegui by Le Corbusier

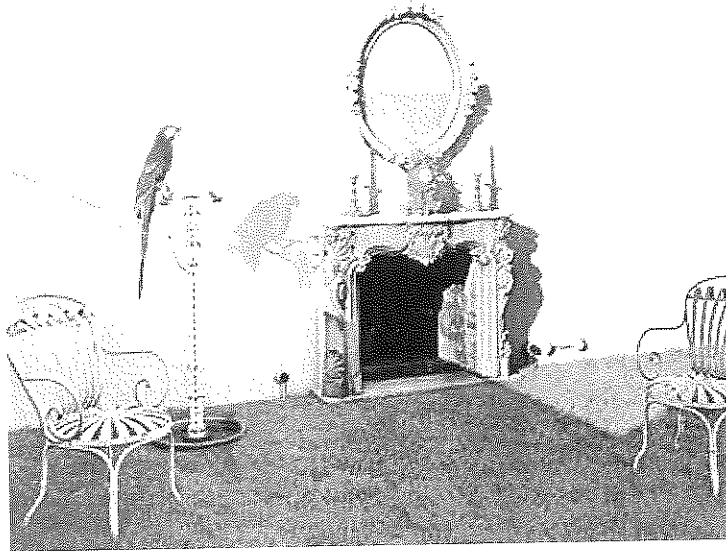
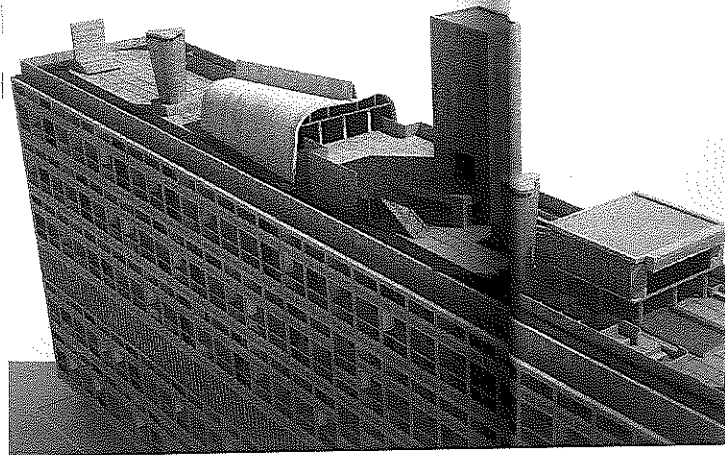


Figure 1.2. A lounge on the rooftop of Unité d'habitation



2. BASIC PRINCIPLES OF RESEARCH

In this chapter we will try to propose basic assumptions for the study of **Roof Semiotics** by defining its terms and concepts. We believe that these terms shall be useful for semiotic studies that present clue for understanding of the Roof phenomenon and experience. We will try to put forward the concept of “roof” as carrying “sign-function”, just like the words of “Interior Architectural Language” in the construction of “messages” and “discourses”.

2.1. Roof Semiotics

The term *sign* is found in very different vocabularies and its history is very rich and a very ambiguous one; so before we come to the Eco's acceptance of the word we must say arbitrary choice of various authors. According to them the sign is placed in a series of terms which have affinities and dissimilarities with it; such as, signal, index, icon, symbol, allegory are the leading rivals of the term *sign*. For Peirce, *index* is existential; it indicates its object; whereas for Wallon it is not. For Hegel and Wallon, *symbol* represents an analogy or motivation between two relata where as it is not true for Peirce. For Peirce, symbol is not existential, it is arbitrary and unmotivated. Unlike index or icons, symbols are not signs without an interpreter or reader. The presence of referent is a discriminant parameter which opposes to the theory of codes of Umberto Eco¹. He accepts it only with the sense that will be explained in following paragraphs.

Eco proposes a new classification of signs by opposing the others, since he believes that such trichotomy or dichotomy do not serve for the classification of modes in sign production where he is trying to focus on expression continuum (shaping the signal) and communication (correlation between signal and content). He says “a sign-function arises when an expression is correlated to content, both the correlated elements being the functives of such correlation” (Eco, 1979; 48).

¹ Different notions of the sign according to the given semioticians were taken from Barthes, R. (1964). *Eléments de Sémiologie*. Persée; Chp. II. Signifié et Signifiant, II.I. Signifié, Pp. 103

Now, at this position, he makes a difference between a signal and a sign. According to him, signal can be a physical system without any semiotic purpose, it can be a stimulus that does not mean anything but causes or elicits something; however when used as the recognized antecedent of a foreseen consequent it may be viewed as a sign; in as much as it *stands for* its consequent (Eco, 1979: 48). Eco prefers using the term “stand for”, since he believes that “translation” or “interpretation” is more proper while discussing the matter of reading a sign. He defines a sign as anything which may be interpreted to “stand for” something, where the reader and the sender are in concern. Thus, every time there is a correlation of this kind, recognized by a human society, there is **a sign** (Eco, 1979; 108); or in other words, **a mediating tool**.

Man needs tools to intervene in process of mental representation and symbolization that allows mental exchanges of concepts and ideas.

In this respect, roofs can be seen as **mediating spaces** or structures using their forms and colors as **mediating tools** for mental and cultural exchanges.

Eco’s consideration of culture as communication phenomenon is based on signification system. According to him every cultural unit becomes semantic unit as soon as they are inserted into a system of signification.

For a better explanation of the culture as a communicative process, Eco gives stone example in prehistoric times; as soon as the prehistoric man had started using the stone to split the skull of a baboon, an element of nature was transformed into a tool. However, the culture was not born yet.

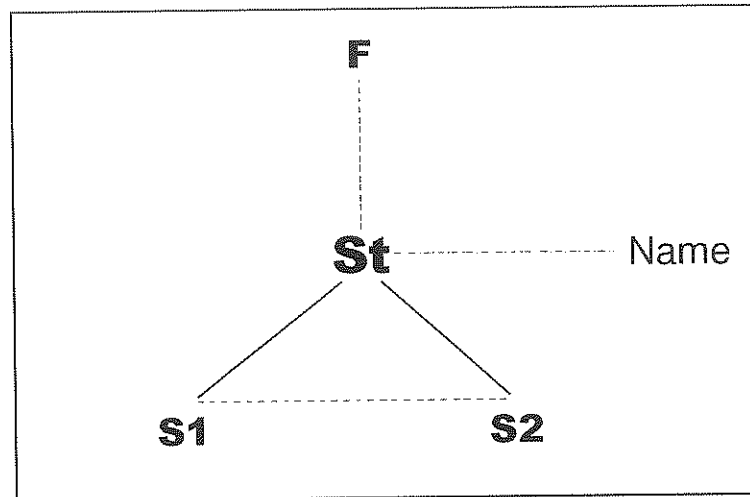
For Eco culture is born only when;

- a thinking being establishes the new function of the stone (irrespective of whether it works on it, transforming it into a flint-stone)
- he calls it “a stone that serves for something” (irrespective of whether he calls it so to the others or out loud)

•He recognizes it as the stone “that responds to the function F (irrespective of whether he uses it as such a second time: it is sufficient that he recognizes it) (Eco, 1979: 22).

Thus, the following semiotic process occurs;

Table 2.1. Eco's Semiotic Process



S1 is the first stone used for the first time as a tool and S2 is another stone, different in size color, and weight from the first one. After having used the first stone by chance and having discovered its possible function, the prehistoric man comes upon a second stone (S2) and recognizes it as a “token”, an individual occurrence of a more general model (St), which is the abstract “type” to which S1 also refers. Encountering S2 and being able to subsume it (along with S1) under type St, our prehistoric man regards it as the “sign-vehicle” of a possible function F. S1 and S2, as tokens of the type St are significant forms referring back to and *standing for* F (Eco, 1979: 23).

Briefly, he places a cultural or physical unit into a text or system, and then gives a “name” to the type-stone, since primarily this system provides it with the opportunity to be compared to the other elements of the same system through its necessary distinctive features and secondly he might be able to communicate his findings to another of his kind by giving rise to the birth of language.

Reminding the Saussure's treatment about "value", there may exist a semantic value, only if there exists a relationship between the neighbouring elements of the system; so that we can use it in a representational text or discourse; or in other words, place in another semiotic system. After that, the displaced semiotic unit functions in connection with the original semiotic system, and we simultaneously experience the socio-cultural and territorial identification.

Each time this mental representation is provoked by the sign in person's mind, it is determined by the context and the frame of references or the mental "encyclopaedia" of the user. This encyclopaedia is formed by signs, ideas, concepts and visual imagery that derive from former experiences.

Eco prefers using the term "capacity" for such ability to cooperate these two subjects; interpretant and sign.

Departing from Eco's prehistoric man example; we can say that as soon as he happened to commit his first crime with the same stone whose capacity is attributed to splitting somebody else's head, the stone/sign would then acquire another sign-function which is determined by the interpretant, that of a weapon.

Thus, the frame of references is established as a result of experiences. These experiences are organized in human's mind in different categories, by distinction and opposition, according to a structured code.

This fervent interconnection between the physical and the semiotic reality and classical definition of sign as "standing for something" takes us back to the foundation stones of contemporary semiotics itself: the relationship between the signifier and signified claimed by Ferdinand de Saussure (Saussure, 1959: 65-74), in his *Course in General Linguistics* (Randviir, 2002:148).

Eco also accepts Hjelmslev's definition of a sign as an entity which has both an "expression-form" and a "content-form" - with the Hjelmslevian vocabulary - and which is established by the interdependence between them. A sign is a unit

consisting of an expression and a content which are connected with each other by a mutual correlation or “sign function”. The same functive can enter into another correlation, thus becoming a different functive and giving rise to a new sign-function (Eco, 1979: 49).

Thus, properly speaking, according to Eco, there are not signs, but only sign-functions (Eco, 1979: 49).

Developing the one created by Barthes in his book *Éléments de Sémiologie* (1964: 104), the following table may help us to read different contradictions and transfers of the different semioticians;

Table 2.2. Different acceptances of different semioticians about Sign

	Signal	Index	Icon	Symbol	Sign	Allegory	Sign-function
Representation				Wallon	Wallon	Peirce Jung	
Analogy			Peirce	Hegel Wallon			
Immediacy	Wallon						
Adequate					Hegel Jung Wallon		
Existentiality	Wallon	Peirce		Jung			
Fidelity/ Scale of iconicity							Eco
Oppositions							Barthes

According to Eco, contrary to the Peirce’s acceptance, this relationship between the interpretant and the sign exists regardless of the object, since the mediation quality of the sign is independent of their nature or communicative intention. Meanings are in human minds, not in things themselves. There is signification as human beings attribute meanings to things (Horta, 1992:28). In Eco’s point of view, this attribution is mental work of “sign production” and of “sign-interpretation”. We will try to explore them in following chapters.

Thus, in the process of roof communication, the emitters interpret the roof forms and colours as signs of something else referring to their previous social conventions; they can be interpreted either as coverings or as places where “cultural values” are present. These are considered as significant in a given culture and in a given time. Social codes and systems of meanings are active.

However, not all the roof types are signs. Some of them have natures surely recognized as “cultural signs”, whereas some other are personally or privately signs. These are potential signs; or in other words, have semiotic potential but not semiotic function. They must only be considered as “stimuli” rather than a “sign”. Eco claims that, in such cases, the emitter needs a “semiotic competence” to elicit the foreseeable meaning for the given roof message (Eco, 1979: 241).

So, since they all refer to a relation between two *relata*, let us state the elements which are common to all terms but are subject to the distinctions of Eco and the other semioticians; *signifier* and *signified*.

Content – Expression

The major Eco distinction is that between content and expression, which is parallel to the Saussurean contrast between *Signifié – Signifiant*.

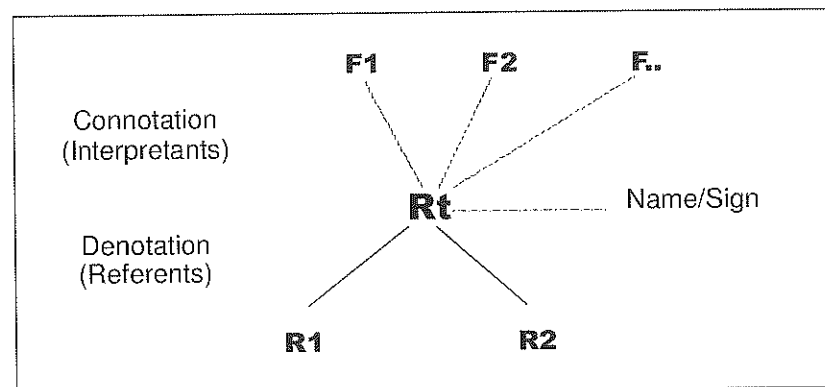
Eco’s theory is founded on the Hjelmslevian layered conception of denotative semiotics. Denotative semiotics is a simple semiotic whose expression plane can not be analysed as content – expression group. None of its planes is semiotic. Barthes refers to content and expression as *concept* and *form*: a concept is a signified in general, a form is a signifier. *Meaning* is the term used to refer to the association of a concept and for in general and in particular it is reserved for a first articulation (denotative).

Denotation – Connotation

Once roofs are taken out of their primary context (covering) - just like the ones that we encounter in the case of flat roofs – they are charged with another sign-function; that is, they gain a new function. As socially conventionalized cultural signs, the sign-function of the flat roof is equipped with a basic “semantic marker”; carrying the distinctive significant features of an interior space.

Basically, taking the diagram proposed by Eco as reference, we shall figure out such diagram for flat roofing, in which “roof 1” is the (R1), and the second roof is Roof 2 (R2) corresponding to an other category of a “Roof-type” (Rt) and standing for different functions, denoted by different names and determined by the many roofing codes, referring to or connoting different “interpretants”.

Table 2.3. Roof’s Semiotic Process According to Eco’s Semiotic Process Model



In this model, “Roofs” (R1), (R2), ... would be the first roofs in a collection of “roof-type” (Rt), standing as sign-vehicles for many different functions (F1), (F2), ..., in the codified structure of the Roof’s signification system, of its academic or scientific theories or even for the mythological and implicit functions; i.e. standing for the richness or completeness of the artefacts.

The name given to these “type-roofs” may be a new one depending on the systems of categorization and classification; i.e. “Modern Roofs”. These names determine sign-function and the use of concrete signs, and their organization in paradigmatic structures.

Primary and Secondary Function

As argued by Eco while discussing about the semiotics of architecture, we believe that; architecture not only serve as a shelter or connote a primary function, but also with its presence, it criticizes the ways of livings, offers an interpretative reading and tries to be innovative (Eco, 1968: 261).

So, at this perspective, the discourse of styling is situated. According to Eco, styling can be the superposition of new secondary functions onto the primary unchanged functions. For sure it informs the user about the things to be done by the new strategies but sometimes the re-semantisation of the object operated by styling can appear just to connote another ideological vision. The function remains the same but its consideration in relation with other values and the system of other objects changes.

Meaning as cultural unit

As Umberto ECO has noted “*we commonly do experience architecture as a communication, even while recognizing its functionality*” (Eco, 1997: 58), architecture is perceived not only as a mere structure but also as a meaning or message. Yet, it is still not clear how that communication works. For some semioticians, architecture is a *Zeitgeist*, which is a German word for “time-spirit” and refers to the general moral, intellectual, and cultural climate of an era (Anonymous, 2005). They claim that the architecture doesn’t exist in a vacuum; it is very much influenced by what is happening around it spatially as well as culturally. So, they claim that, to understand a building, it’s helpful to understand its original cultural context. For others, it is a kind of interpretation within the framework of its own sign system, grammar, syntax and ways of meaning. However what unites these two views is the idea that architecture is understood by analogy to both language and speech where “message” occurs; Language, because it is a social institution, a “code” capable of communicating the architect’s intentions to the user; Speech, because it is an individual act of selection or discount.

From the Eco's point of view, this message must be considered as a text, whose content is a multileveled discourse (Eco, 1979: 57). As Metz advanced in his hypothesis; "in every case of communication we are not dealing with a message but with a text" (Eco, 1979: 57). Both Metz and Eco claims that, a "Text" represents the result of the coexistence of many codes (or at least many subcodes) (Eco, 1979: 57). He believes that architecture is not only a text, simply to be read, but also a series of translations.

Of course, such assumption is not a new one. In 1745 Germain Boffrand claimed that "*An edifice, by its composition, expresses as on a stage that the scene is pastoral or tragic, that it is a temple or a palace, a public building destined for a specific use, or a private house. These different edifices, through their disposition, their structure, and the manner in which they are decorated, should announce their purpose to the spectator.*" (Whyte, 2006: 2), and he went on suggesting that "*the profiles of mouldings and other parts which compose a building are to architecture what words are to speech.*" (Whyte, 2006: 2)

Roof Language/ Code

The possibility of giving a "name" to things or states of the world gives rise to the birth of language (Horta, 1992: 32).

Departing from his example regarding the names that European civilizations assigned for the colour spectrum, Eco claims that wave lengths constitute cultural units to which a name is assigned; i.e. green for 540 – 490 mμ. However, here the important point that he wants to take our attention is that; we may talk about the arbitrariness of the assignment of the names in the sense that another culture divided the same continuum in a different way, but not the arbitrariness of the choice, since it is based upon naïve experiences in given culture.

Basically codes are matter of choice and distinction, the competence of coupling given sign-vehicles with various systems of meanings in a given organized system.

In the urban context, roofs or any other kind of architectural elements are organized in structures according to specific semantic fields and axes which correspond to their signification and functions in their primary context; that is their first and primary use in a given original culture. However, actually, each unit is structured in accordance with a certain contextual aim corresponding to their own systems of meanings and to their vision of the world.

In such pertinence, there exists a hierarchy and position of signs in a given system. The presence and absence of these units in a signifying chain are also significative elements for understanding given code.

For instance, basing on the Barthes' consideration about language where he points out "*it is a system of "values", constituted by a number of elements, which are in themselves a "standing for" relationship and at the same time a "term" of a broader function in a differential relation to other correlative values*" (Horta, 1992: 34), we may say that each roof in an urban context "stands for" another idea or situation in a given cultural system and has a "value" in itself; however at the same time it is a "term" in the system of values of the roof code or signification system which does not necessarily correspond to that given original system.

In this regard, sign-function is taken out of its primary context and replaced to a new, spatial one, as it is shown in Table 2.3.

So, roof language is basically the arrangement of "stimuli", equipped with a sign-function and structured according to semantic fields and axes of the roof code and the architect's systems of signification all reflecting and based on a given cultural model.

Semantic Fields/ Contradictory Semantic Fields

Eco proposes that, as soon as a "cultural unit" enters into a system of oppositions and relationships with other semantic units in a signification and communication process, it turns out to be a "semantic entity" (Eco, 1979: 27). Thus, every semantic unit may be an element of semantic field where it is considered as a

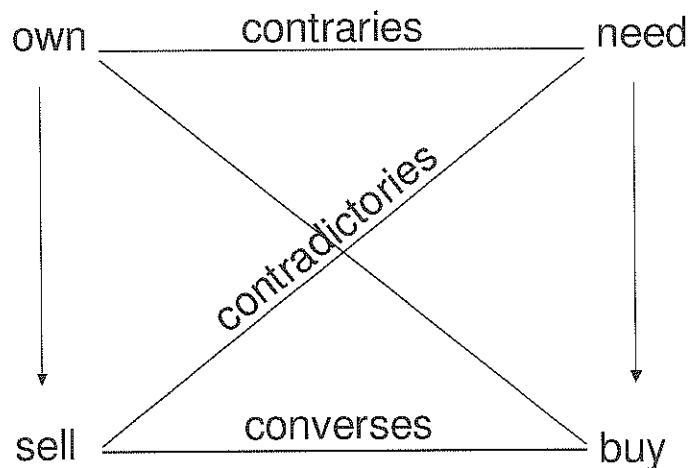
cultural unit as well and it may be an aspect of the world-vision belonging to a particular culture.

Additional to that semantic field proposition, Eco points out an oppositional system of language based on an arbitrary system of signification; called Contradictory Semantic Field. He states that in a given culture there can exist contradictory semantic fields which semiotics must take into consideration rather than ignore it (Eco, 1979: 80).

For a better understanding let's go through the example of prehistoric man of Eco where he created a system of language for the stones which are not good for splitting; that was based on an arbitrary system of signification, using the system of differentiations and oppositions; "splitting/ not for splitting".

Literally, here comes up the problem of "antonymous terms" as pairs of oppositions constituting a semantic axis (Table 2.4. Eco, 1979: 81).

Table 2.4. Classical Logical Square of Eco for Contradictory Semantic Field



In Table 2.4. "own vs. need" represent two contraries; "sell vs. need" and "own vs. buy" represent contradictories; "sell vs. buy" are classical converses; sell may imply own and buy may imply need (Eco, 1979: 82).

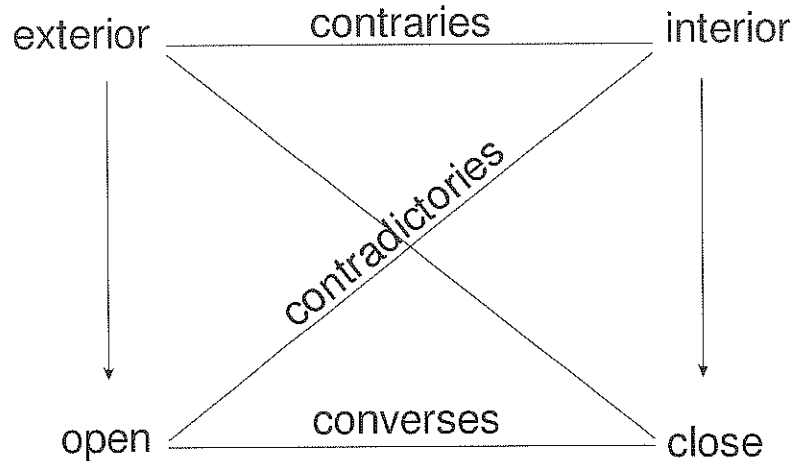
In such construction of pairs of antonyms, following points reveals;

1. The same term can entertain different relationships provided that it is inserted into different axes.
2. The same term can entertain a contradictory or converse or contrary antonymous relation depending on the rhetorical (and ideological) way in which these relations are viewed (Eco, 1979: 81).

Likewise the case in natural language, where cultural units are very rarely univocal entities and are very frequently “fuzzy concepts”, the flat roofs serve as living areas must be posited and defined in this regard.

Thus, following table could represent the correct explanation for such problem in roof language for the semiotic competence of the flat roofs where we may build up many texts and discourses through using different “signifiers” in terms of forms and material.

Table 2.5. Roof's Logical Square according to Eco's Contradictory Semantic Field Model



In table 2.5., model for roofs that serve as interior spaces; “exterior vs. interior” represent two contraries; “interior vs. open” and “exterior vs. close” represent contradictories; “open vs. close” are classical converses; open may imply exterior and close may imply interior.

Boundaries/ Threshold

While analysing the sign and signification we will encounter with some boundaries; or with the words of Eco, with some thresholds. Eco divides these thresholds into two; the ones posited by transitory agreements and the ones with the object of discipline. The former is called *political boundaries* and the latter is called *natural boundaries*.

PART II – ANALYSIS

3. METHODOLOGY

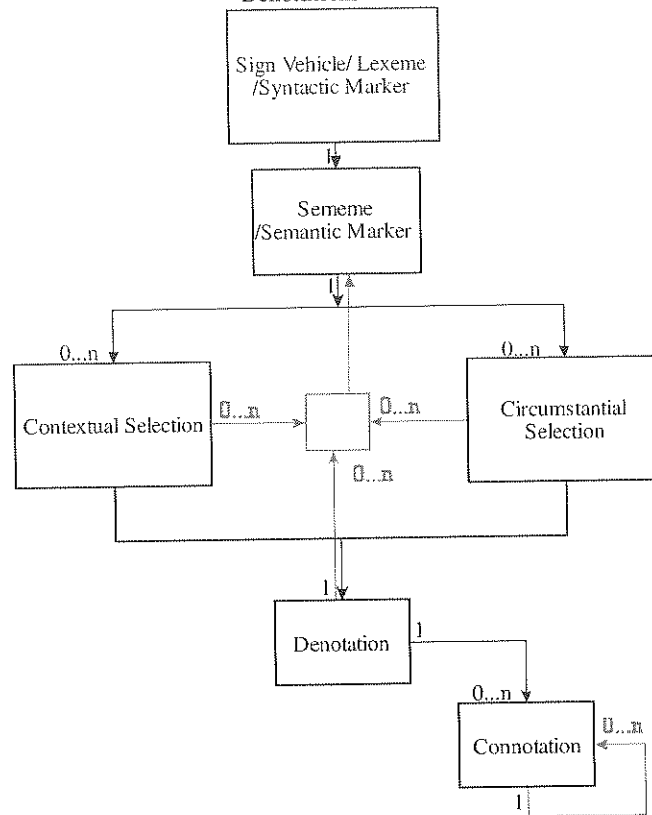
3.1. Model out of a Methodology

According to Eco's consideration, a sign exists only if it is in relation with other actors. Basically, an object exists only within practices. In such practice, the relations constitute a certain object and secondary function is articulated. So, it means that, in order to account for an object and describe the way it articulates relations and its position in practices, we have to consider various relations that an object can go through. But in order to explore the object and not just the practices in which it takes place, we have to describe on what basis a certain object can take part in certain practices. In our study these practices are limited with time and place; *modern architecture in modern societies*.

Following model is a map of these relations: It assumes that the object is an intersecting point in a network of relations. So, the aim of such model is to show what kind of relations a semiotic analysis must consider and the ways in which these relations are related to one another.

(Before all, it must be noted that, below diagram is not posited by Eco; but departing from his *theory of codes* we tried to put forward such logic of network for our study)

Table 3.1. Eco's Semantic Model for all coded Connotations depending on corresponding Denotations



This model tells us that;

1. an object takes part in contextual and circumstantial relations (Eco, 1979: 105).
2. all coded connotations depend on corresponding denotations as well as contextual and circumstantial selections (Eco, 1979: 105).
3. these selections distinguish the different readings of the sememe and determine the assignment of different denotations and connotations (Eco, 1979: 105).
4. these selections perform as *switching function* (Eco, 1979: 105).
5. a sign vehicle is a syntactic marker in a semiotic system (Eco, 1979: 105).
6. syntactic marker pertains to the expression, not to the content (Eco, 1979: 105).

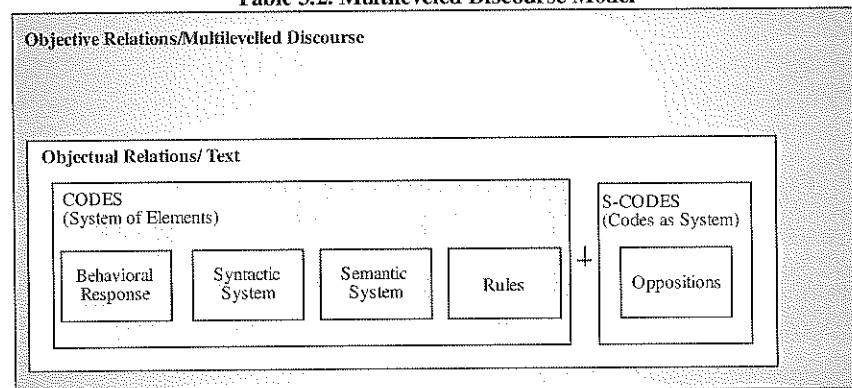
7. a sememe may have denotative markers which remain unchanged in every possible contextual and circumstantial selection or may have different denotative markers and therefore different connotative markers according to diverse contextual and circumstantial selections (Eco, 1979: 105) (these diversities in turn are shown with red colour).

8. Contextual and circumstantial selections are considered as cultural units or expressions which serve both as markers or “selection restrictions” (Eco, 1979: 106).

In this model we observe a sign-function where two levels of signification stand for meaning and which must be analysed separately; *expression level* and *content level*. Without doubt the sign-vehicle is an element of expression level whereas the rest is referring to the content level. Since the expression level plays the most important role in a semiotical analysis, we suggest starting studying these relations from the expression level.

Thus, Merging previously developed models and categories of Greimass, Akrich, Latour, Floch, Fontanille and Deni, and the theory of codes of Eco, we offer following model for our semiological analysis;

Table 3.2. Multileveled Discourse Model



PART III - CASE STUDY

4. CASE STUDY

This chapter will describe the roof context and the situation of the interior/exterior space in a comparable manner analyzed as a case study, as well as the methodologies applied in this study. It will try to find answers to the questions coming up as a result of such contradictory semiological analysis square where “external vs. internal” represents two contraries, “internal vs. not internal” and “external vs. not external” represent contradictories, “not external vs. not internal” are converses, “not internal” may imply external and “not external” may imply internal. In this regard; in following chapters we will be dealing with the following questions; *what is not-external without being internal? Can a space be considered both as an exterior and an interior space at the same time? What is neither internal nor external? How can we manage designing the same interior space on an exterior space; roof?*

4.1. The context

The choice of “**AKA Central Park Hotel**” and “**Capsule sur le toit**” (**The Living Roof**) as a field for exploration and comparative semiotic research on Roof Language and Roof Communication process was motivated by the character and the nature of these artifacts. The transformation from a roof to a bedroom in **AKA Hotel** suits and **Capsule** shaped rooms on top of a hotel’s roof constitute great examples in terms of detecting some of the strong features of roof’s and given interior space’s original natures. **AKA Central Park Hotel** and **Capsule sur le toit** on the roof are good models for exploration of the nature and the language of these designs which have “spatial” power, rhetorical speech of modern architecture, and strong and clear usage of some of the most traditional codes of “roofing” and “space”.

New York’s **AKA Central Park** hotel has created New York City’s first **Outdoor Bedroom**. Also it has been found as a perfect ground and framework for a synchronic study of the roof semiotic mechanisms and productions; developed through the analysis of a given specific discourse: that of “Hotel Room”.

The Situation:

This “major living activity; sleeping/ Bedroom” held by the **AKA Central Park Hotel** in New York and the idea of “**Capsule sur le toit**”, was chosen as a proper comparative “laboratory experience” for the analysis of the modern roof language and communication process as a good “case study” from which to work out a basic deductive model for the understanding of some principles, codes and rules which govern the transformation of an exterior space into an interior system. The concept of Roofing and the specific mechanisms and some spatial codes implied on it could be understood easily from this semiotic study, however since it may be limited, it is expected to be opening up for further exploration in many fields.

The AKA Central Park is a five-star hotel chain located in New York City’s posh 58th Street. The luxury hotel boasts of fantastic location, thanks to its proximity to 5th Avenue. Located one block from Central Park, NYC’s expansive urban oasis, **AKA Central Park** is in the center of the city. Stores like Bergdoff Goodman, Tiffany & Co., Apple and Louis Vuitton are but a stone’s throw away. Tourists are in for a treat because upper 5th Avenue is home to nine landmark museums including the Metropolitan Museum of Art.

Apparently that amazing orientation feature of the hotel motivated the designers to create a design to enable the guests enjoy views of Central Park from the comfort of their own outdoor queen-sized bed. Such design envisaged luxury experience in front of the wood-burning fireplace on the 900-square-foot terrace of the suite. The eastern side is preferred by the guests, who are looking for *romantic* vacations, since it offers better views and houses an oversized rain shower.

The outdoor bedroom is offered as an add-on to **AKA Central Park**’s two penthouse suites located on the 17th floor. It is proper for celebrities looking to escape the glare of the public eye without giving up on their outdoor time. It must be booked two weeks in advance, since it takes that long to set up the outdoor bedroom at **AKA Central Park**. Regarding the weather conditions, which are of vital importance when an outdoor living space is in question, the mattresses have plastic covers just in case.

The penthouse suites are usually offered at the equally princely rate of \$2,000 per night. However, costs increase if you want to star-gaze. Each penthouse offers 900 square feet of space, equipped with Anne Jacobsen Egg Chair, a concealed kitchen, Sony LCD televisions and a spa shower. Adding to the overall ambience is 1,500 square feet of wraparound terrace, complete with high-end fireplaces, lounging areas and a dining space.

You can literally count stars, thanks to the high-powered telescope present in the outdoor bedroom. Candles and complimentary champagne add to the overall ambience. The guest can make use of the e-reader or simply play some music (Gwyneth, 2012).

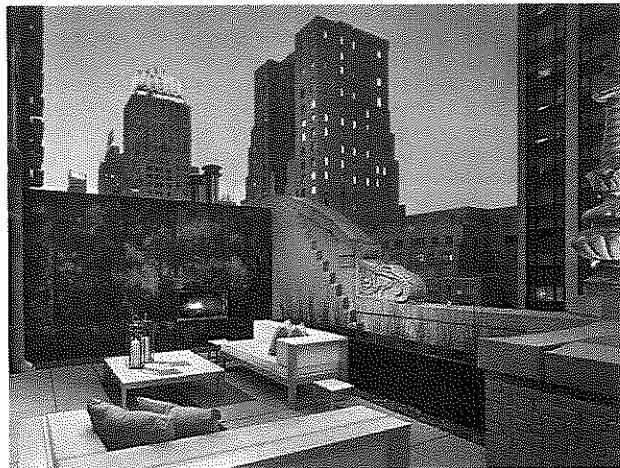


Figure 4.1.a. AKA Outdoor Bedroom – Lounge Area
(AKA Central Park Official Website (n.d.), 2012)

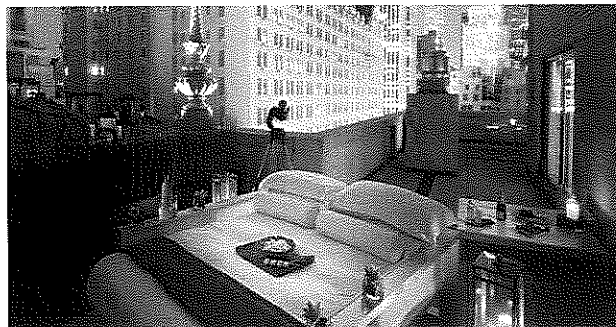


Figure 4.1.b AKA Outdoor Bedroom – Bedroom
(AKA Central Park Official Website (n.d.), 2012)

Brief Information about the design of the AKA Central Park's Penthouse outdoor bedroom;

original architect: schwartz and gross, 1926

aka architect: hlw, 2005

interior design: nicholas cardone, 2005

interior design: steven learner studio, steven learner, 2010

graphic identity, environmental graphics: fluxism.com

architecture and interior design, penthouse east and west: studio intramuros

penthouses: sheila rock, norfolk dream, 2008, norfolk wash, 2009 and sea storm

The "**Living Roof**" is a futuristic compact and self-sustaining capsule for urban rooftops. It is a green energy-powered temporary apartment tamped into a tiny, 28-foot-long capsule that, on a whim, can travel from the rooftops of New York to the tree canopies of the Amazon. It's been designed to cover essential elements such as a refuge to recover, plan excursions into the city, or just simply stare into the stars.

The "Living Roof" squeezes all the requisite amenities of a hotel room into what looks like a cross between a giant bonbon and works like a mini power plant, producing more energy than it consumes, through wind turbines, solar panels, and rainwater collection. The Living Roof is 'intended for urban rooftops,' the architects write, but can be transported "into the savanna" -- or anywhere else for that matter -- at a moment's notice. The idea: to help "resolve one of the paradoxes of modern life: the contemporary citizen seeks mobility, but also wants to tread softly on the environment."

Living Roof is intended as an alternative to hotel rooms or temporary residence for multi-city travellers. Their location changes every 2 years to provide unexpected adventures for repeat visitors.

On the edge between hotel and residence, individuals booking a weekend getaway or frequent business travellers, may find the Living Roof an attractive option.

Inside the suite, guest can find interactive guide which is completed with video preview and menu listing. This information can be transferred into a PDA or other gadgets. A hatch slides open, stairway extends, and a voice welcomes guest inside.

Guests will first take note of the interior's reduced palette, harmonious curves and panoramic wrap-around window bands. The real innovation however resides in the Living Roof's accommodation of the occupant's functional needs. Rather than dispersing different activities — increasing the unit's size and demands for heating and cooling — a rotating ring vertically combines sleep, lounge and work areas. The centre of the oval room, a section rotates to take three different positions. It includes a structure that becomes alternately a bed for the night, a bench for relaxing and a tablet for work. So we could even picture suits using it as a pied-à-terre on extended work trips.

Guests can choose to lie in bed while gazing through a skylight, watch a film while looking out across the skyline, or do a bit of work simply by rotating the ring to the desired module. The whole is equipped with a screen, which looks in all positions. "This is the lifeline of the capsule, which connects to the rest of the hotel" explains the architect Jean-Lucien Gay. The entrance hall is found on both sides of the room, along with the bathroom, and a kitchenette equipped with hotplates. Bathing and cooking functions are sequestered at one end, assuring a bit more privacy and a firm connection to the waste water filtration system. It is equipped with flush-fit panels, built-in information systems and plenty of clever storage to stash belongings out of sight. A large information screen provides the latest dining tips or a wide screen cinematic entertainment experience. Comfortable upholstery softens the experience while the window bands provide views overlooking the city from all directions. The structure rotates 240 °, creating different arrangements of this room of 8.5 m².

Additionally, even when visitors exit the unit, and set it in dormant mode, its photovoltaic array continues feeding electricity into the electrical grid or on board battery packs. Depending on guest use, over the year the suite can be a net electricity generator. This, along with a rainwater capture and gray water filtration system, make the Living Roof one of the world's greenest structures.

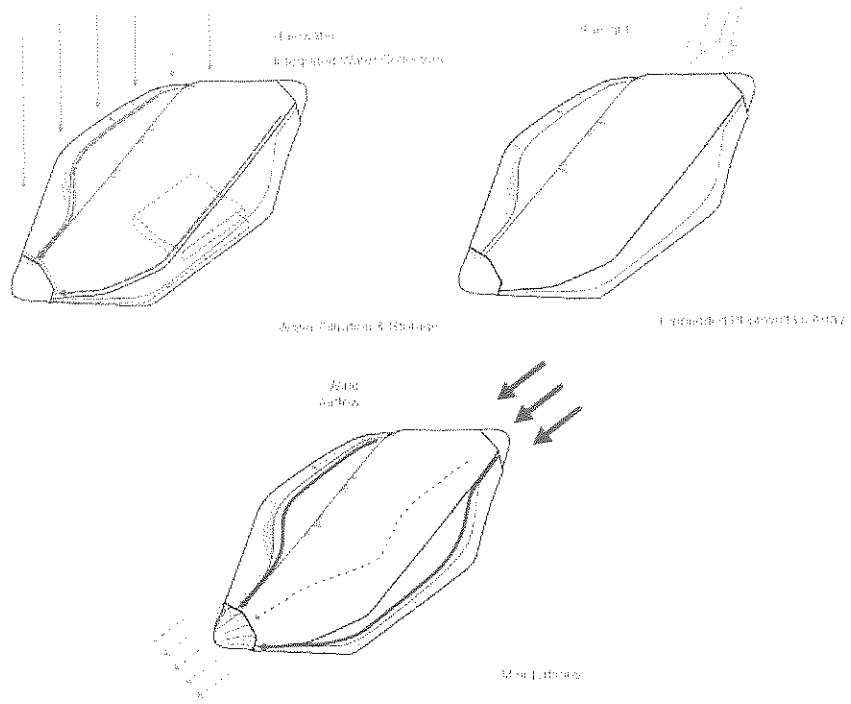


Figure 4.2. Living roof/ a self sustaining capsule for urban rooftop

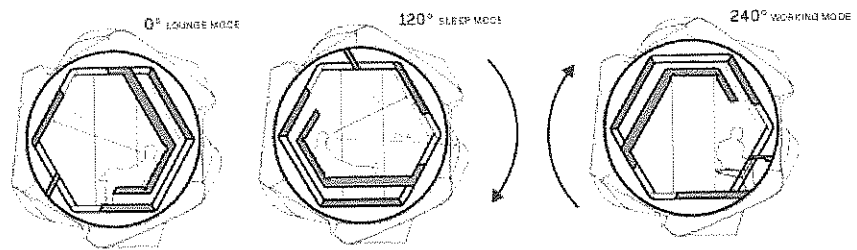


Figure 4.3. Living roof/ a self sustaining capsule for urban rooftop

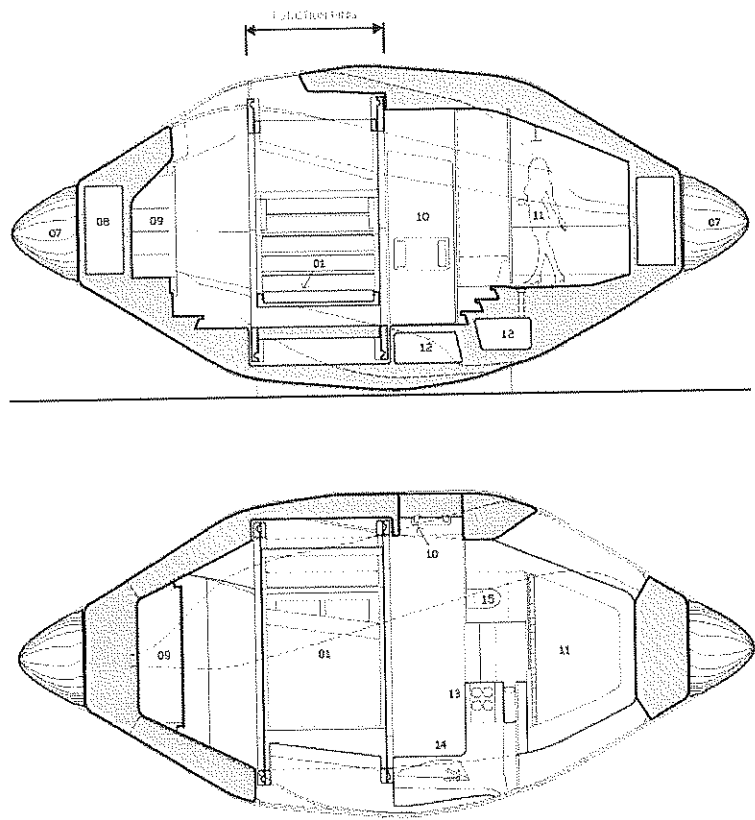
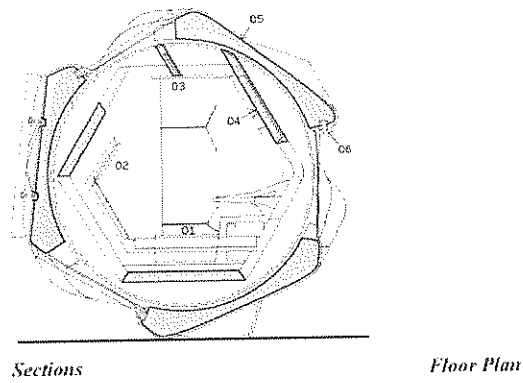


Figure 4.4. Living roof/ a self sustaining capsule for urban rooftop²

² Technical drawings' scale is calculated by the author as 1/100 and they are taken from the www.maisonapart.com

Designer: NAU Design

Finally, these are the main features and aspects which form the picture of this semiotic situation that will be further analyzed in this study.

4.1.1. The Research: Methodology

In order to develop this semiotic research on the roof discourse and message, after the definition of basic principles and concepts proposed for the study of the Roof Language. The research work has been developed in two different operations; first one encompasses three successive phases under the title of “analysis of the message”; and the second one, the data collected through first operations for each case will be compared.

a. **The analysis of the message** is proposed on the basis of Barthes', Greimass' and Eco's theoretical contributions to these kinds of studies which we have mentioned in previous chapters. This analysis covers three levels of linguistic approach, which correspond to the three first stages of structuration of discourses in rhetorical model: the “*inventio*”, the “*dipositio*” and the “*elocutio*” of a discourse.

The **first level** is focused on the structure and the elements of hotel bedroom text, looking for typical “isotopies” or semantic fields which can be found in it, the segmentation of the text into units or segments of meaning, and the analysis of their functions and roles inside the basic “grid” dictated by the main “topics” (the hotel bedroom plan)

The **second level** is focused on the codes of expression of the message (iconic, design code and their subsidiary lexicons), their hierarchy and intersection. At this level we will also be detecting the implicit and explicit semantic codes which give direction to its expression; such as art-historical code, chronological code, historical and geographical codes interpreted by the emitters of the discourse.

The **third level** is focused on the correlations of units, functions and actions in the discourse, looking for the “structural matrix” at the background of the displayed message.

We have used detailed observation and study of the hotel bedroom, from the Web Sites of the given cases, and all sorts of published materials, and the comments of the main emitters - guests', the designers' and the educational staff- of the message from the forums as the basic tools. Their personal views on the designs, the difficulties and the obstacles encountered along the process and their own evaluation of the entire designs...

b. The comparative analysis of the data collected through first and second operations, is performed in order to conclude from these findings the level of possibility and of communicability of the transformation of an exterior space into an interior one by using different actants and mechanisms, the problems involved in its production and its consumption, the role of design rules supporting the communication, the transactional relations in this specific situation along with the public reaction to them, the analogy and the oppositions between the two cases. Analogies and the oppositions are believed to be strong conceptual devices that structure our understanding of space. Thanks to the common and different properties of the cases we shall discover new and interesting things about our target concept. So, finally we shall find the opportunity to claim that it is possible to conclude the effectiveness of the model and of the concepts proposed in this research for such study.

The tools for this comparative analysis have been the first studies made on semiotics and communication fields and the data collected throughout the research.

4.2. The Analysis of the Message

As claimed by Maria de Lourdes Parreiras Horta (Horta, 1992: 189), in her study called *Museum Semiotics*, we shall follow a process which is inverse to that of its construction in the analysis of the roof after its production as hotel bedroom, that

is, as a “text”, ready to be consumed by the emitters, and as a “discourse” presented to the guests. In the process of deconstruction, we shall start from “elocutio”, from the finished product as it is presented before the emitter’s eyes and then we shall try to map it backwards. By this way we shall be able to reach its basic form or the structure; that is “dispositio” of basic contents and meanings, which is proposed through “inventio”: the subject, the ideas, the arguments and proofs intended by the emitters to be communicated to their guests (Horta, 1992: 189).

The first step in this process will be the first functional unit of the meaning in the whole work presented: this is the **title (or with the design terms; concept)** of the Roof Top Hotel Bedroom; *Outdoor Privacy, Long term Luxury*, and *Romanticism* (as in the case of **AKA Central Park Hotel**) or *Mobility, Ecological and Adventurous* (as in the case of **Living Roof**).

Just like “exordium” in rhetorical model; Exordium is one of six parts of discourse. The purpose of the discourse is laid down in exordium. While doing this, following things are considered;

- What kind of cause is he presenting? For instance, is it an honourable cause (defence of a hero) or a dishonourable one (defence of a murderer)?
- Should a direct opening be favoured, or should the opening be more subtle and indirect?
- In what manner ought the speaker to proceed (e.g., light-heartedly or seriously)?
- The speaker should introduce their own character or credentials, so as to make the audience predisposed to believing their arguments.
- If required, or possible, the speaker might also call into question the character or credentials of his opponent³.

Thus, the “speech” of the Rooftop hotel Bedroom Language is opened up and the receiver is prepared to see the arguments in a favourable frame of mind.

³ The author takes this description from the following source: <http://en.wikipedia.org>

Referring to the titles of the advertisements and articles published in press about **AKA Central Park Hotel**, the “exordium” of the discourse announces the subject matter and the place from which it will be derived; “Temporary Stay on rooftop” and the main topics which will be approached during discourse; *Extended Outdoor Privacy, Long term Luxury and Romanticism*.

- “*Central Park Luxury Extended Stay, Central Park Furnished – AKA/ AKA’s official Web site*”
- “*The Great Outdoors/ Wall Street Journal/ Urban Gardner*”
- “*Luxury Long-Term Lodging Begins to Feel Like Home/ The New York Times*”
- “*AKA Hotel Residences Extend Luxury/ Just Luxe*”
- “*long stay deluxe/ Gatsby Magazine*”
- “*Sleep Under the Stars/ New York Times*”
- “*Snooze Under the Moonlight/ USA Today*”

Following the same road, we find out different exordiums for **Living Roof**; whereas the subject matter and the place is the same; “Temporary Stay on rooftop”, but the topics are different; *Mobile, Compact, Self-Sustaining and Adventurous*.

- “*A Living Roof! Temporary Apartment Compacted In A Capsule/ Bloggs74*”
- “*LIVING ROOF |ADNAU/ Arch20.com*”
- “*Nau Architects Unveil Self-Sustaining “Living Roof” Pod Home Concept/ Inhabitat*”
- *Living Roof: A Self-Sustaining Capsule For Urban Rooftop by NAU/ Uniquerobots*

The **message** is thus “framed” and situated in a given field of the rooftop hotel bedroom’s possible objects and of knowledge. This frame will determine the selection of the items to be presented, the isotopies, and the disposition of the discourse, the basic plan or the arrangement, which constitutes the rooftop hotel bedroom structural matrix. This basic information states the aims of the discourse and already communicates a meaning in itself. This meaning refers to the emitters’ and the general concept’s codes and systems of signification of a particular world vision.

These basic statements, which determine what the concept is, suggest the guests the nature and the kind of items which will be used in the message: Interior objects and elements which manifest the *Extended Outdoor Privacy*, *Long term Luxury* and *Romanticism* of the guests of the **AKA Central Park Hotel**; and *Mobile, Compact, Self-Sustaining and Adventurous* character or demand of the **Living Roof**'s guests. As clear, it also works as a reactor for the expectations of the emitter.

The second step will be "dispositio"; or in other words the analysis of the **structure of the text**, arrangement of the major parts of the discourse; as it is explicitly presented through the codes of the spatial language: Iconic, linguistic and the design codes. The form of the communicator and the contents of the message can be better understood if the "disposition"; the plan or the basic spatial articulations of the units of the discourse is analyzed.

Main Basic Structure

We will examine the structure of the spatial organization of the two different cases through dividing them into headings of each section.

The whole "text" for **AKA Central Park** case could thus be divided into 3 main sections focusing 2 main "themes" additional to the bedroom section. So, the basic structure can be proposed as following for the "**AKA Central Park**" Rooftop Hotel Bedroom;

1. Bedroom
2. Lounging area
3. Dining space

The "text" in **Living Roof** case is divided into 7 main sections focusing 6 main "themes" additional to the bedroom section. (See Figure 4.2; 4.3; 4.4: living roof/ a self sustaining capsule for urban rooftop). So, the basic structure can be proposed as following for the "**Living Roof**" Rooftop Hotel Bedroom;

1. Entry
2. Bedroom
3. Lounge
4. Working Area
5. Kitchen
6. Toilet
7. Shower

Description of the Sections

*First Section: **Entry***

This Section, which is not present in **AKA Central Park Case**, presents space's character, summarizing the content and offering a basic guide for its reading in the case of **Living Roof**. The entrance hall is found on both sides of the room. The space is arranged as a welcoming hall of white wall and floor panels, serving as a background to the first and main "character" of the planning, working as a "sign" for the whole discourse, in all its possible levels of "reading". A sign for minimalism, a sign for its aesthetic expressions, a sign for the style – thus a first "super-sign" in a main cardinal function, that inaugurates two parallel discourses; that of Minimalism in its wide term and that of the Rooftop Hotel Bedroom's Narrator in particular.

Glass Panels at right/ left side of the entrance, which separate it from the other sections, introduces the subject, the first basic concepts of Minimalistic and Futuristic **Living Roof**, with its materialistic character of "transparency".

*Second Section: **Bedroom***

The second section inaugurates the main "subject" of the Hotel Concept: Sleeping.

In both cases the theme has been developed in this main area of the roof, with different materials distributed along the walls and the central area. The dominant item - the bed- is the representation of the image of taking rest and of its many

variations and transformational designs in different forms and materials expressing different additional purposes.

In the case of **Living Roof**; futuristic/ minimalistic styles and economy of space purposes are emphasized with the vertical rotating ring that transforms the structure into a bed with an angle of 120° for the night and equipped with a screen, which looks in all positions and is considered as the lifeline of the capsule, which connects it to the rest of the hotel.

On the other hand in the case of **AKA Central Park**; a queen-sized bed, which envisages luxury experience in front of the wood-burning fireplace on the 900-square-foot rooftop, represents the purpose of picturing romantic vacations.

However, in both cases, these are the central attractive items of this section.

Third Section: Lounge

The third section of the both cases is actually a continuation of the precedent one, focusing on passing time idly.

This section occupies the second main purpose of a hotel room concept on a liveable roof. The thematic spatial segmentation of the text goes in two walls in **AKA Central Park** case.

The third step will be the “*inventio*” or in other words; finding what to say, discover the forms of the contents. Basically this stage corresponds to two operations; *selection* of signs and their *combinations* in the given culture; meanwhile Eco’s theory of sign production can be helpful in understanding its working mechanisms.

Additional to the Eco’s view which takes “*Inventio*” as the sign production and the inventive arrangement of the signs, one can also claim that it refers to the recognition and discovery of the given function in stimuli as Barthes argues. In later argument two wide paths are in question; First one is logical (which helps convincing); second one is psychological (which helps moving the readers, or

discovering the messages which mobilize the readers.) Thus, these two are the final aims of the rhetorical art; convincing by logical reasoning and mobilizing the emotions.

These three steps of rhetorical technique can be applied to the comparative analysis of liveable roofs context and the discourse can be explored as following through the strategies mentioned above.

4.3. Comparative Analysis of the data; AKA Central Park & Living Roof

Mainly, the aim of this part is to give a comparative analysis from a semiological point of view, on the factors which differentiates the open and closed interior spaces in their exterior identity. Particularly, the analysis of the symbolic elements in transformation of an exterior area into an interior one shows us that the operation can be achieved in two different ways; closing and without closing the space; in a conservative/ traditional manner and radical/ avant-garde manner.

Segmentation of the text: units of reading

For the sake of analysis the text will be divided into “units of reading” or “lexicas”, corresponding basically to the sub-sections described in the structure of the rooftop hotel room (see 4.1., 4.2.). These segments can be considered as “short-discourses” expressed throughout the whole work as proposed in following structure suggested separately for **AKA Central Park** and **Living Roof** cases;

Table 4.1. Segmentation of the text: units of reading

AKA Central Park	Living Roof
Bedroom	Entry
Lounge	Bedroom
Dining space	Lounge
	Working Area
	Kitchen
	Toilet
	Shower

The structural plan helps us determining and demonstrating main units of meaning in different codes of expression.

Basically in these two cases, two units of reading in the codes are common; units of **iconic codes** and units of **design codes**.

The units of reading in the **iconic code** are the concrete and visual signs which could be found in the segments, as “types” of interior objects or either as “tokens of types” play a functional role in the discourse. Such as candle lights, which were used in their secondary functions to create a romantic ambiance, apart from lighting in **AKA Central Park**.

These functional units may constitute in some cases “ideas” or “concepts”; as for instance a queen size bed for a romantic bedroom, a fireplace for a luxury lounge in open air looking over fabulous city view in **AKA Central Park** case, or a modular compact structure for Mobile, Self-Sustaining and Adventurous **Living Roof** case.

The criteria used for defining these units are that of “meaning” they support in the text according to the proposed matrix or to the isotopies; that is to say, for each cases; apart from the stylistic matter in interior objects used, the main criteria that makes the difference in meaning is the closeness and openness of the space. In Living Roof the semiotic implications where “closed X Interior” is present, are confirmed. Since the reasonment is conservative, it is not new under conceptual point of view. However, on the other hand, **AKA Central Park** case goes against the implication where “open X exterior” is present. The transformation operation of an open area into an interior space is performed through using interior objects and the meaning was created. So, since it is more innovative, and avant-garde, it is considered to be more valuable in terms of our semiological analysis.

In case of **AKA Central Park**, the manner which is totally different (avant-garde) and which doesn't provide any traditional relations, the reader may encounter with the problem of not recognizing new function denoted by the new forms. Because they don't coincide with the basic codes that enable architectural and artistic relation.

Thus, the architect should have respected basic code and study the executions which were accepted by the *articulation system*.

To achieve that, Eco states, the architect shall take advantage of cultural phenomenon while referring to the articulation system, and may limit himself to examine how inside of a social corpus these equivalence rules are established between a signifier and a signified.

So, signs go into the universe of cultural conventions which regulate the communicative exchange.

The units of reading in the **design code** can be defined by an imaginary “frame” and ordered sequence either in groups of items and objects of the same kind or linked through a sign-function.

It is observed that individually used materials, in an “iconic monologue”, do not create the sense of interior space in **AKA Central Park** case, since the space is not segmented clearly by the walls or panels. Subsidiary materials, such as commode, candle lights, flowers and complementary champagne are used to create the sense of romantic bedroom, additional to the bed.

Or, all subsidiary materials, such as interactive guide which is completed with video preview and menu listing or other gadgets in **Living Roof** case are considered as units of the Design Code, in their explanatory or illustrative role as “metalinguistic” devices.

We already said that the code is a structure; the structure is a system of relations determined by the successive simplifications according to an operational intention. So, in **Living Roof** case, the architect referred to those general codes of situation. The architectural operation followed the rules fixed by a code that had already been known and based on the perception researches, statistical replies, commercial exigencies, etc... Whereas in **AKA Central Park case**, a new system was needed to be integrated onto the system of social function of roof along with the norms of an hotel room, and the architect reduced the known codes to other codes

which were common to all, and then gathered the contextual objects to create the sense of interior space.

Thus, **AKA Central Park** architect who tried to construct new codes for such type of design process, where he tried to transform an exterior space into interior without closing it came up with three solutions;

- *Absolute integration into the social system:* He accepted common norms of life that regulate that society. He obeyed the corporal demands of it. He understood its houses designed to provide traditional system of life without attempting to change it. So it was possible for the architect to refer to a typological code of architecture, to a lexicology of the conventional elements and obeyed these laws of codes mostly situated out of architecture.
- If the architect had obliged people to live in a manner totally different (avant-garde) which didn't provide any traditional relations, community would not, without doubt, have recognized new function denoted by the new forms. Because they didn't coincide with the basic codes that enable architectural, kinship, linguistic, and artistic relation.
- The architect should have respected basic code and study the executions which were accepted by the *articulation system*. He elaborated a different system of relations which forced him to follow. Once he established a new code which comprised the users with its affinity to the precedent, he managed to elaborate a signifying architectural code to denote a new system of functions.

In this sense, we can say that architecture is a *service*; it studies the system of our possible expectations, and see in which measure they are actualisable, comprehensible and acceptable, their relational possibilities with other systems in the middle of the society to give us what we expect from it.

So in this case, the architect elaborated his proper signifiers on the basis of the system of signified by rendering them explicit. In this sense, the job of architect was to refuse all the interior architectural codes that are not valid since they don't classify solution-messages actualised before, but provoke formulas of new messages by articulating contextual interior objects.

So, what are the combinational rules between the constitutive signs that an architect should follow? If he refuses the regulations proposed by traditional rhetorical lexicons which new rules he should adopt? There remains only one answer; Architecture may depart from existing architectural systems, but is based on the codes other than that of architecture. And the users of architecture perceive the signs of architectural message by referring these last ones.

So, such type of operation can be followed while proposing the idea of open air rooftop hotel bedroom;

1. Discovering a series of exigencies and put them in a system.
2. Determining a system of functions which can satisfy these exigencies; so the functions become the signifier of these signifieds which were exigencies.
3. Establishing a system of forms which correspond to the functions; so the forms become signifier of these signifieds which were functions.

On the other hand, in **Living Roof** case the following remarks are present;

1. Interior design process had to be based on basic codes, to communicate the function that it wants to provoke, since it was traditionally conserved close space.
2. Architectural codes established limited possibilities of movement and resemble advantage to the systems of rhetoric that classify solution-messages that had already been applied.

3. Architectural messages that were based on these codes became persuasive and assuring. It was not innovate; it only gave what we expected him to give us.

4. Architecture seemed to be going in direction of information and upset of the system of rhetorical and ideological expectations.

5. To achieve that, architect had to abstract from the basic codes. Because without basic codes the communication wouldn't be efficient and there wouldn't be information.

Hence, in the following part we will be dealing with the **AKA Central Park** case particularly by deconstructing the discourses, since we believe that it contributes more to our semiological study by giving life to a code which is not present in interior architecture.

We can claim that the traditional architecture is nothing than a technical **syntax**. Obviously it doesn't mean that syntax has no importance in our semiological research, but in understanding the message it is of vital importance to discover its degree; *what is the importance of syntactical relations within an architectural system? What types of relations function?*

According to Barthes, it has a practical importance; it is a **syntax** that unites the signifying units of a system in an order. The **syntax** is a relation of simple combination which links certain number of matrices into a single utterance. They play a chronological function in the development of the "story" and "logical" function in the development of the structural matrix of the speech.

The functional **Syntax** unites "catalyses" and "nuclei", as proposed by Roland Barthes as two types of relations. "Catalyses" are wedged in between principal actions that "fill in" the narrative space separating the hinge-type functions. They imply a cardinal function.

Deconstruction of the Discourses

AKA Central Park Rooftop Hotel Bedroom is not the simple sum of interior objects and propositions. In any system of meaning, organization is essential. The **AKA Central Park** Rooftop Hotel Bedroom narrative system can be seen as based on two fundamental processes: a process of **articulation** of its elements in the **level of forms**, and a process of **integration** of its elements in the **level of meanings/ contents**.

Verbal Language is based on basic units of sounds (phonemes), which are meaningless in themselves but only mean when structured in words (morphemes) and inserted in sentences or texts. Terms acquire meaning not in isolation, but in relationship with other terms, on the same level, and on different levels. Narratives are a hierarchy of instances.

So, similarly, to read an interior space created in exterior, it is not enough to go from one object to another, but actually project the “horizontal axis” of the **distribution** of the sign units and their “vertical axis” of **selection and integration**.

In this respect, we will try to describe the structure of the **AKA Central Park** Rooftop Hotel Bedroom basing it on Barthes’ three level structure of narratives; level of **functions**, level of **actions**, level of **narration**.

- The **level of functions** will be taken in the sense proposed by Eco; “sign-functions”.

- The **level of actions** will be taken in the sense proposed by Greimass; narrative characters as “actants”.

- The **level of narration** will be taken in the sense of Roland Barthes; “styles of representation”.

Levels of description

Level of functions: When we talk about the level of functions, we need to define the smallest segment of the rooftop hotel room; which is basically corresponding to the term sign-function of Eco.

Any element or segment in the narration and structure is a *functional unit*, since it presents a term of correlation. Their degrees of signification may vary but a narrative always consists of functions and correlations. Even the most insignificant object or element has a meaning in general context. Everything presented in the setting is intentional, even if it is inappropriate, redundant or irrelevant to the main narrative.

Every single element or unit in this avant-garde bedroom must be decoded; articulation of the units, just like phonemes structured into morphemes according to syntactic rules in sentences.

The narrative units may either not be strongly and systematically linked to the elements of the system and the functions may be represented by an individual object (i.e. the single telescope standing at the edge of the rooftop which refers to the romance of watching the stars) or by a group of objects fulfilling a unique sign-function (i.e. a commode, a wardrobe and a bed which refers to the idea of bedroom). This group of functional units may be superior to the clear divisions by walls while they hardly have individual meaning at all. The same elements or units may only have different functions or correlations when the sender and the receiver envisage different semantic code and integrate in different vertical axis.

According to Barthes, a “functional unit” is a necessary concept for the sake of the whole story or the discourse and it is possible to group functions under two major classes;

- distributional level (syntagmatic display of signs, the succession of facts, events, forms and concepts),
- Integrative level (contributes to the meaning of the story as indices of the characters, identity of a specific atmosphere; the elements attribute to the segment in terms of quality rather than functions). (Horta, 1992: 165)

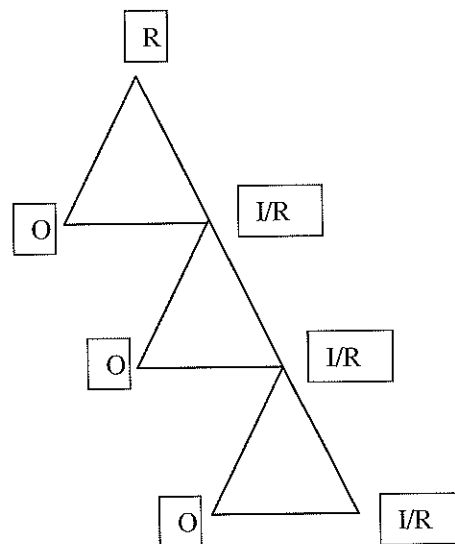
The arrangement of a group of objects according to their formal, material or substantial aspect (variants of the same type/ tokens of types) will empower the formal quality of the *abstract* type proposed or the concrete *model* type presented.

Model Type may have “true function” of being a unit or element in the consequential order and the logical matrix of the narrative. Then this object plays role as sign-function on the distributional level. In the chronological or logical structure of the message it will perform a function according to its relation to other elements. (i.e. the fireplace represents a “new type” of object in evolution of types, since its true function of heating is not presented any more but luxury and romance are proposed, or it is the reason for the appearance of other types on the abstract level).

Most of the times, **Distributional** and **Integrative** levels go together. For instance, distributional level which represents the correlation of the signs on the same plane (morphological, syntactic or semantic) shall refer to the integrative level of paradigmatic relations composed by the vertical axis of signification in the end. Every turning point in pertinence which corresponds to a sign-function in the horizontal axis of the spatial structure can be related to a “higher” signified in the semantic system of the discourse.

As figured in *Visible Signs* of David Crow, such type of relation was firstly mentioned by Saussure with the term “**Unlimited Semiosis**” through following representational diagram;

Table 4.2. Unlimited Semiosis diagram mentioned by Saussure (Crow, 2003)



Here, what lead to different representations of the main character of the narrative are the different aesthetic narrations or formal styles in the art-historical code. Every one of these representations is only “variant” of the same type of the concept, which in itself gathers multiple contents.

The paradigmatic relations of the sign-functions composed in their integrative level or vertical axis refer to the “signifieds” of the units and not to the “operations” or the “dynamics” of the signs developed on the distributional or horizontal level. These signs can be seen in their paradigmatic sanction as truly “semantic units”, and their meaning will only be grasped on the higher level of actions of the signs, in the context of the narrative. In the distributional level, the functional units stand in a syntagmatic correlation with the other units that surround them in the sentence, on a same level of correspondence, and supporting the unfolding of the story in a complementary or consequential way: one leads to another, or implies another, or yet follows another. In this sense they can be seen as truly “narrative units”, in a chronological or logical sequence (Horta, 1992: 167).

Thus, here we see that the functions of elements are classified as “operational” and “indexical”. Similarly, the transformation operation of an exterior space into an interior can be either operational or indexical; just like it is powerfully operational in **Living Roof** case, where the purpose was mainly creating a compact functional interior space with minimum space covered and maximum function added. Or it can be both functional and indexical; just like it is presented in **AKA Central Park** case where the material properties of the interior elements were used along with their operational values to create the idea of an interior space without closing the area. Without doubt the functionality predominates or is more apparent in such discourse, but we can not ignore the latter type of relation.

4.3.1. Semiotic tools and their application to the analysis

Over the past years, modern interior design institutions have devoted greater attention towards conceptual planning when confronted messy problems in conflict environments; such as, liveable roofs. Conceptual planning may develop either innovative or conservative approaches for subsequent planning. While doing that, designers struggle with how to blend traditional planning with new and emergent concepts.

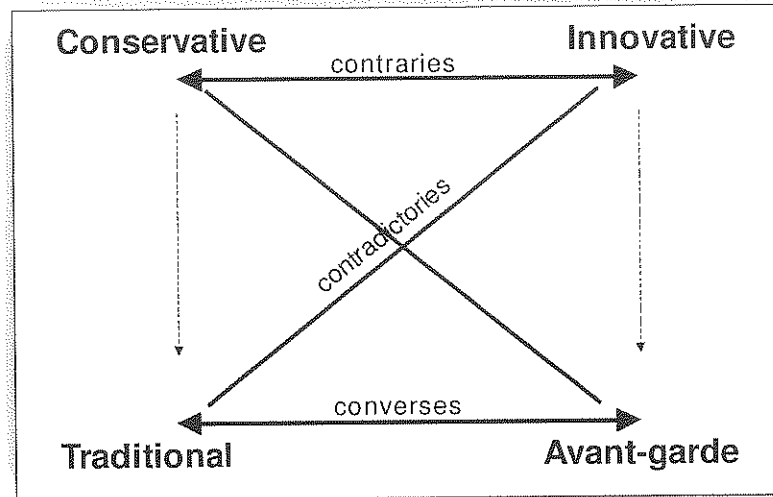
Modern architecture presents complex and dynamic environments that challenge the designers and architects. These challenges concern sign production, communication and hierarchical structures with strong cultural roots. Whether they urge using novel products or securing local or regional stability through traditional operations to accomplish conservative objectives, architects must plan, synchronize, and execute complex human needs in an innovative manner. *Yet, how do they actually blend conservative-innovative theory and internal-external organizational codes to accomplish their goals while creating a liveable roof?*

In this part, we will try to illustrate some useful models that designers can use to explore other applications where such blend of theory and adjustments result in a cohesive design which is deliverable for a liveable roof. All of the illustrations in this part are modified facsimiles of Eco's contradictory semantic field model based on Greimassian Logical square and demonstrate the integration of a variety of design and operational theory processes into established architectural design codes.

In this respect, the following semiotic square suggested by Greimass and developed by Eco for the analysis of message, which is thought to be useful for the structural analysis of the rooftop hotel bedroom narratives in accordance with the conclusions of the case studies we came up in the previous chapters will be adopted;

4.3.1.1. 1st Semantic Model

Table 4.3. Greimassian Logical Square according to Eco's Contradictory Semantic Field Model_1



In order to analyse the message according to the Greimassian Logical Square in regard of Eco's Contradictory Semantic Field Model, it is important to point out contraries, converses and contradictories.

The improvisation within Table 4.3 led us towards recognizing the paradoxical behavioural differences in sign production in each of our study cases. It also provides another example of unexpected results by improvising a fusion of accepted codes with new design theory through appreciation of organizational and spatial identity – being a conceptual hotel bedroom of a certain concept.

According to this square; the terms “*conservative*” and “*innovative*” are contraries. Here the term *Conservative* is used for the purpose of indicating a form that has changed little over its history or which is totally resistant to change.

The classical sign production in **The Living Roof** case through a closed structure, remained conservative, compared to the **AKA Central Park** case which is supposed to be highly abstract and holistic with its novel knowledge usage. At this

early stage in sense – making and space planning, the team did not want to solve the problem in an innovative understanding. It remained closer to an older interior form from which it evolved and relative to cognate forms from the same source. That is to say, it is a rigid value with following features;

- Static
- Uniform
- Historically structured
- Doctrine-centric
- Hierarchical
- Non-innovative value-centric
- Reductionist
- Centralized
- Perpetual
- Mimicry
- Conforming
- Non-improvisational

In this regard, conservative structures are carrying similar properties with the written language, where it is generally said to be more conservative than *speech*; that is to say, the written forms in language change more slowly than the spoken language does.

On the other hand, here in our sample - **The Living Roof**- it is conservative in one respect while simultaneously innovative in another. The restrictions in dimensions and contemporary human needs, forced it to be innovative in terms of sustainability, and mobility. Similarly we observe such operation in closely related languages; such as Slavic languages, where verbal system is conserved but all vestiges of the complex Slavic case system have been discarded.

Taking all these features into consideration, we can say that conservative structures – in our case study it is **The Living Roof** - are thought to be simpler than innovative ones. Simple changes have little effect on the overall reading of the message.

Contrarily, the innovative sign production in **AKA Central Park**, which was achieved by turning an exterior area into an interior one without closing it and with articulating the interior objects, taking advantage of their interior objectual values, remained as a better solution for such a messy problem.

It presents a creation of better or more effective and novel idea or method that is readily available to the society. It avoids mimicry, which refers to the notion of doing something different, rather than doing the same thing better. With this feature it differs from the term improvement and proposes the following values;

- Flexible
- Liberal
- Experimental
- Improvisational
- Paradigm breaking
- Critical
- Creative Thinking
- Non-conforming
- Adaptive
- Event-driven
- Innovative value-centric
- Technological
- Holistic
- Abstract
- Non-doctrinal
- Non-traditional
- Non-historical
- Avant-garde

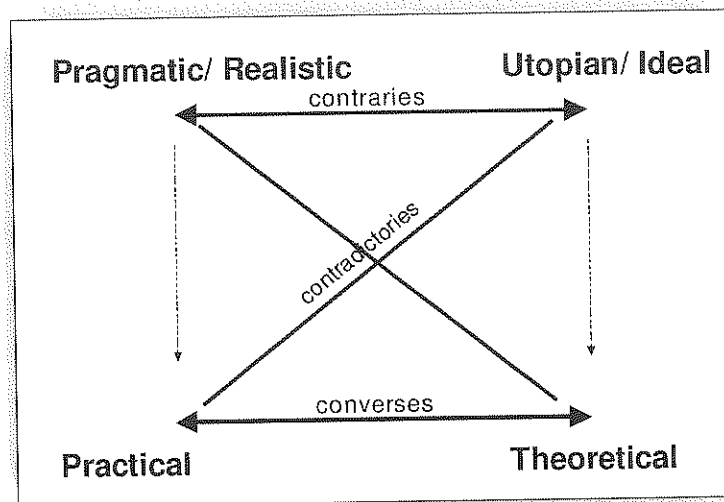
Second and innovative solution provides us with a blended perspective of theory and adjustments in order to isolate root metaphors within the design that obscure holistic appreciation of a messy problem.

4.3.1.2. 2nd Semantic Model

Basing our knowledge on the above developed model of oppositional pairs “conservative vs. innovative”, we propose another model for the understanding of roof phenomenon, chiefly for the understanding of its liveability and openness to the human circulation potential in a comparative manner. In this model, we will again use semiological square and will be talking about basically two different sign production methods each of which are designed to appeal to a certain group of readers/ receptions; *Pragmatic/ Realistic* and *Utopian/ Ideal*.

We will analyse *Pragmatic*, under two different stylistics of reception; *utilitarian* and *practical/ pertinent*, while *Utopian* will be analysed through using the different receptions of *stimulative/diversionary* and *non-stimulative*.

Table 4.4. Greimassian Logical Square according to Eco's Contradictory Semantic Field Model_2



In above table, the roof phenomenon was tried to be figured in its interpretive usage as hotel room. The metaphor of the Roof as Hotel bedroom evokes the interpretations of those employing different perception strategies. The optimal experience of different group of readers is the production of new models of the world either in terms of *form* or *content*; *practical* or *theoretical*; *utilitarian* or *existential*.

The *utilitarian values* – as we observe in **The Living Roof** case – and the *existential values* – as we observe in **AKA Central Park** case – were analysed in a comparative manner under the headings of “*Pragmatics/ Realistic*” and “*Utopian/ Ideal*”.

In the *Pragmatic* reception of the liveable roof by the reader, “utility” constitutes the primary criteria of reception. Utilitarian values are the key parts of this strategy, with the roof as a type of hotel room for the acquisition of proper and discrete activities.

Especially in the **AKA Central Park** case, for the reader, the first perceptual stage of interaction with a hotel room concept on the roof is marked by an extraordinary way of perception of the potential for the optimal experience defined as the acquisition of a useful idea or activity. This “content” was present and communicated by the collection of interior objects separately for each section in an efficient and timely manipulative way – which will be detailed in the following paragraphs. However, this could be better achieved either through providing information about solutions to space organization, or a storytelling performance by flush-fit panels and built-in information systems as we see in **The Living Roof** case. During the second manipulatory stage, the readers favour a rational verbal and visual presentation of easily- identified information or training in a practical activity with emphasis on concrete problem-solving applications.

Here, the preferred image of the message sender is that of the instructor and the preferred image of the message receiver is that of learner. The preferred figure of perception, constructing the relations between the constructed receiver and the message as an ensemble of signs, is that of passive receiver of information but in the interest of actively using the information outside the roof context. The preferred figures of representation; such as, different “manners” or “forms” of the message to present reality, are direct factual descriptions and demonstrations with possibility of repetition by the guests.

However, certain group of readers are tending to receive the first perceptual stage which is present in **AKA Central Park** case better; that is to say, they favor

the acquisition of ideas, which are valued for their form or place in an abstract order. The space is evaluated in terms of non-existential values as well as the principle of pertinence, which has its origins in phonology as a study that tries to establish the differences of sounds of a language, insofar as these differences correspond to differences of meaning. What one analyses, according to this principle in rooftop hotel bedroom narratives is the difference of forms which causes differences of contents. So, then, the reader tries to detect the pertinent features of the organization of the space, whether the units, signs, syntagms, functions and actions which are significant for the construction of the work and which correspond to the certain meanings or contents. These 'meanings' are not the "full signifieds", but their intratextual or extratextual correlations; i.e. the correlation of each element with other elements in the context, -or with other elements outside the context, in a given -cultural system, which makes possible the understanding of the messages. The "pertinent" units are those which have a "meaning" in the context of the exhibition and in the cultural context of which it is a reflection.

Thus, this is the reason why the principle of pertinence is supposed to be counted under the side of "Pragmatic" of oppositional pairs.

Here, the reader is less concerned about the efficiency of the interaction than its intellectual or aesthetic challenge. Compared with the practical perception, here, the reader is more likely to be attracted by the promise of identifying the original source of the outcome, for appreciation of the collections of interior architectural instruments. Particular group of elements are related to the general themes of the space by the readers, in order to grab the overall schema of knowledge that the sender has intended to communicate.

Thus, the preferred image of the message sender is that of a professional lecturer and the preferred image of the message receiver is that of expert. The preferred figure of perception is that of active organizer of information. The preferred figures of representation are the collections that exhibit logical system of classification.

As we see there exist two ways of producing sign in a pragmatic manner, both of which are *Pragmatic*, since the reader is not the hero in a story where the text is closed (with the terms of Eco).

Briefly, *pragmatic* value is a realistic value with the following features;

- Useful Information
- Critical
- Non-existential
- Utilitarian
- Aesthetics of displays
- Features of collection
- Systems of classification

On the other side of the oppositional pairs, there exists Utopian/ Ideal reception, which defines the existential values.

The worldly expressed innovative signs encourage the reader to recover the possibility of imagining a new and different world, and let them shape their identity through decoding and identification of their personal reactions.

However, here the important thing is to provide the indices of the “other world” through reader’s reflection of acts of imagination rather than the sender’s assimilation of the messages. Thus, joint manipulation is in question.

The **AKA Central Park** case, which is considered to be successful in this regard, extends its readers’ bounds of imagination and self-awareness with its novel identity; both being an open area and cast in the role of an interior space. On top of that, it is supposed to be an open and aesthetic text, since it doesn’t promise any physical or emotional stimulation to the reader.

However, contrarily but similarly with the **AKA Central Park, The Living Roof** case presents alike features, which can be accepted as *utopian*, when we take its technological and ecological aspects into account and ignore its classical identity

of being a closed interior space in an open exterior area. That is to say, the features of sustainability and mobility add a diversionary value to the design, since it promises new physical or emotional stimulation by offering a chance to be replaced on any roof and to move rather than the reader's discovery of newly expressed world.

As a result, both ways of sign production are *Utopian*, since the reader is the hero in a story where the text is open (with the terms of Eco).

Thus, *utopian* value is an idealistic value with the following features;

- Inspirational
- Explores possible worlds
- Increasing awareness
- Active beneficiary
- Dramatic discourse
- Existential
- Non-utilitarian
- Theoretical
- Diversionary
- Without physical stimulation
- Enjoyable

To sum up; *utilitarian* and *practical/ pertinent* receptions, which take place under *Pragmatic* side of the contraries, seem to be mostly interested in rules and laws, along with the practical objects or tools and forms; while the receptions of *stimulative/diversionary* and *non-stimulative* which take place under the *Utopian* side of the contraries, is least likely to engage their readers to practice the kind of manipulations desired by the sender. Freedom of decoding is an important feature that has to be taken into consideration in second group of reception.

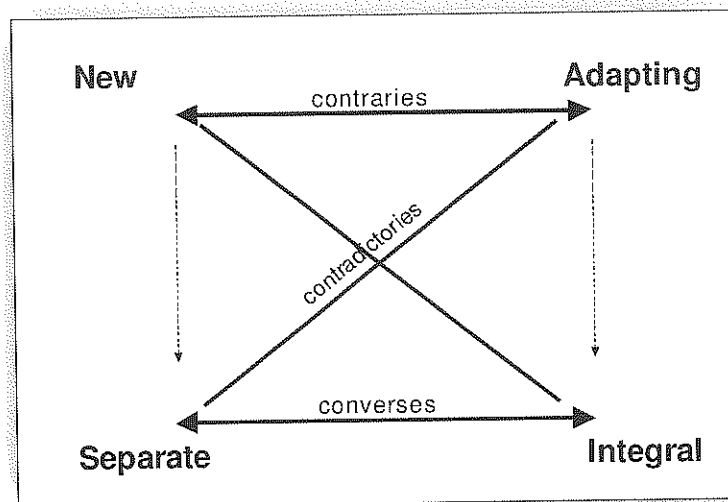
These pairs are important in both conservative and innovative designs; because, if they have been successful, the reader will come away with the satisfaction of knowing that he has acquired a new piece of useful information, a new and

worldly presented sign-function based on cultural codes. Then the said sign-function will become a generalized symbol of that knowledge (over coding).

4.3.1.3. 3rd Semantic Model

As common to the basic knowledge of all interior designers or who deals with the profession of interior design, there are two types of space to work with; existing building and unbuilt structure. Even though there are shared features in both spaces, the distinctive features are more visible and attention taking while driving a semiotical comparative analysis of such cases like; **AKA Central Park** and **The Living Roof**. Basing on the above mentioned information and models, we shall develop the following model which comprises the oppositional terms “adapting” and “new”.

Table 4.5. Greimassian Logical Square according to Eco’s Contradictory Semantic Field Model_3



The term “Adapting”, refers to the process of completely altering the original use or function of a building or a space. It involves creating new rooms, new circulation areas and establishing new relationships between particular spaces (Brooker & Stone, 2010: 28). Actually, this is exactly what we call “interior architecture”. In this regard, **AKA Central Park**, which shall be analysed under the

“Adapting”, is considered as a good example for such analysis, whereas the **The Living Roof**, which remains weaker, shall take part under the title “new”.

While reshaping and reusing an existing space, the most important question is “how to point out the meaning and value of the existing building”; because “already built” provides a direct link and connection with the past and its environment. Such operation tells us the story of how a particular need and culture evolved. On the other hand, architecture is not independent of place.

Thus, the transformation of the roof, which used to be a covering element primarily, but turn out to be an extension to the city life depending on the recent cultural, social and economic exigencies, needs to describe this direct link with the new and the existing. That is to say; here we are talking about a site that is defined by sight from rooftop and in **AKA Central Park**, we can clearly read this text. It provides us the first and the last impression of the culture that requires to get rid of the closeness of the apartments and enjoy some fresh air on the rooftop. By means of keeping the openness of the area without using a piece of glass on which the depth collapses and emphasizing the view of the location, **AKA Central Park** rooftop hotel room meets such need; the building is installed in the site and constitutes a frame to the view. However, viewing a landscape through a window implies a separation. The only way to fully enjoy the star spectacle was by staying in open air and watching the sky by a telescope on the rooftop, and this is successfully preserved in **AKA Central Park** case. As Rosalind Krauss expresses “A window breaks the connection between being in a landscape and seeing it”.

However in **The living Roof** case, such connection with the place and the value of being rooftop that implies outside and watching the view is discarded with the idea of mobility and replacement of the “same”, “compact” structure into “different” contexts and urban situations. These concerns, which also busy today’s society and architecture, and deal with the real engagement with the urban situation in a responsible and sympathetic manner is ignored in **The Living Roof** case. It is more like an individual genius rather than a duet. As Fred Scott suggests in his work called “*On Altering Architecture*”, it is not a proposal concerning how the designer may form a response in their new work to the host building.

In this regard, when compared with the **AKA Central Park** case, **The Living Roof** can be considered as weak, simple, lethargic and tasteless.

On the other hand, there is another issue which presses most of the societies at the beginning of twenty-first century and constitutes a distinctive feature between Adapting and New Rooftop designs; *Sustainability*.

A building's design, construction and maintenance have tremendous effects on our environment and natural resources.

According to the reports of American Environmental and Energy Study Institute, buildings are the major sources of pollution with the following consumption and emission percentages in U.S.

Consumption

- Buildings are responsible for 40% of total annual U.S. energy consumption
By comparison, the transportation sector consumes 28%; industry consumes 32%
- Of total U.S. resources, buildings use about:
 - Electricity: 70%
 - Potable water: 12%
 - Raw materials: 30%
 - Raw materials (excluding food and fuel): 60%
 - Petroleum: 8%
 - Natural gas: 53%
- Over \$80 billion dollars are spent every year on electricity and natural gas in buildings
- Lighting alone comprises nearly a quarter of a building's total energy consumption

Emissions

- The United States produces 25% of global greenhouse gas emissions
- Buildings are responsible for 48% of U.S. greenhouse gas emissions, including:
 - 35% of Carbon Dioxide (CO₂)
 - 49% of Sulfur Dioxide (SO₂), the main cause of acid rain. SO₂ is produced almost exclusively from the combustion of fossil fuels.
 - 25% of Nitrogen Oxides (NO_x)
 - 10% of Particulate Matter (PM) (OFEE 2006)
- The majority of these emissions come from burning fossil fuels
- 40% of non-industrial waste is produced by buildings (136 million tons annually)
- Buildings are responsible for 31% of the Mercury (Hg) in municipal solid waste (U.S. EPA, 2006)

Even though it is claimed to be sustainable thanks to its ability to produce its own energy, construction of a new structure like **The Living Roof** uses large amounts of energy; the procurement, acquisition of raw materials, their processing, manufacturing, and transportation to the site are nonrenewable energy consumptions.

On the other hand, reuse of an existing building or space to accommodate a new use, is a very sustainable approach to creating a new space. We observe such saving of energy in **AKA Central Park** case, since the structure is already in place and the services and elements are already on site. They are saved through reuse. Such operation of sustainable reuse of buildings is accepted as one of the most important twenty first century considerations as well.

Moreover, some recycled materials such as tiles on the floors and steel add character to the project by their incorporation. The project becomes unique, irreplaceable and inimitable.

Thus, adapted **AKA Central Park** case is a site distinctive project when compared to **The Living Roof** case.

As well as its construction and recycled materials, the manipulation of full natural light and passive ventilation adds a sustainable value in the **AKA Central Park** rooftop hotel room since they present an advantage for those who occupy the space. The natural ventilation cools the space in warm summer nights and days, and minimizes the need for extensive air-conditioning. It also provides the occupant a connection with the landscape outside the building. The process only includes the orientation of the elements, programming forms rather than composing them from the beginning.

Briefly, adapted **AKA Central Park** case is labour intensive, whereas **The Living Roof** is capital intensive.

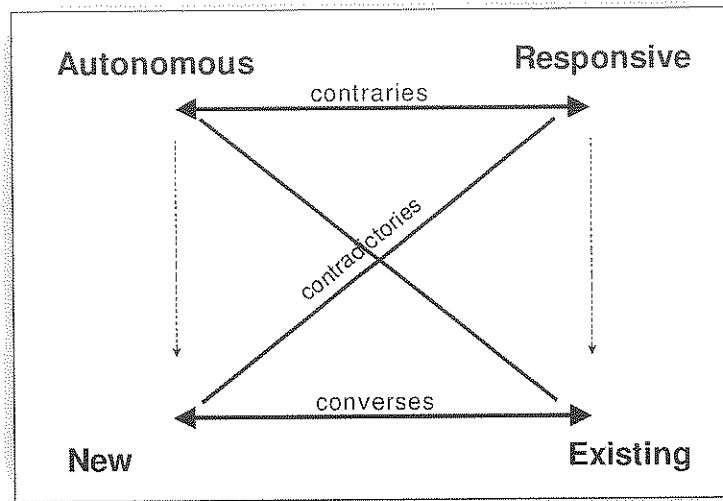
In fact, such use of rooftops to create a relationship between form and climate has been developed over thousands of years and is explicit within vernacular architecture. It is an area of architecture and design, rich in ideas. This is one of the reasons why **AKA Central Park** is more worth to be semiotically analysed.

4.3.1.4. 4th Semantic Model

While working with either of the above mentioned spaces (existing building and unbuilt structure), the interior architect will always employ a strategy for the overall transformation job. Each design process requires a particular strategy. This strategy may be as simple as creating a new interior in a manner that optimizes space while also projecting a particular style; which we observe in **The Living Roof** case. Or likewise the strategic approach, that is visible in **AKA Central Park**, may also be a more complex blend of contextual, ergonomic, and cultural factors, which force the designer to develop a specific approach. For the second type of strategy we will call *Responsive*, whereas the first one will be named as *Autonomous*. Following square shall present us these oppositional terms to clear our ideas upon the matter;

Table 4.6. Greimassian Logical Square according to Eco's Contradictory Semantic Field

Model_4



Basically there are two methods of working with interior space; Responsive and Autonomous. The interior architect may fully take the constraints and the influences of the surroundings on the working space into consideration, and therefore propose a transformation that is responsive to its contextual environment. Or conversely, the interior architect may reject them and propose creating an interior that is autonomous (For further information please see; *“What is interior design”*, RotoVision, Graeme Brooker and Sally Stone, 2010).

AKA Central Park, whose roof has been redesigned to occupy a remodelled hotel room, represents a good example for responsive approach. The mechanized qualities of the existing space are combined with the functional needs of the new users and living style. The real constraints upon the design are the size and the shape of the space. It is important for the continuity of the development of the brand for there to be a sense of the same corporate identity throughout the entire hotel. This conceptual particularity of the responsive approach is missing in **The Living Roof** case, since it is a simple, solid structure regardless of its site-specific issues.

In responsive approach, existing building may function as a guide which inspires the designer. The designer may respond to the environmental conditions that

the building is situated in. When combined with the complete knowledge of the new functional needs of the end users, the design turns out to be surprisingly exciting and extraordinary.

For instance; the orientation of the building in such transformation of the roof into an interior encourages the designer to exploit a particular view and placement of objects. In other words, the designer tries to explain the story of the structure by a selective addition or demolition. It is considered as important as the creation of new design and objects. The designer emphasizes the clearest element of the structure (the view) by rearranging the space with the objects, and lets the reader interpret the new look. **AKA Central Park** manages to gather these basic requirements of such operation successfully.

On the other hand, **The Living Roof** reduces the place that we call hotel room to its bare essentials. An autonomous rooftop hotel room was created from just the essential elements that are required to perform the basic functions of dwelling for a certain period of time. A living space that distilled the essence of modern living was created via movable structures. The essential functions of the hotel room were organized as a series of slideable panels. Each of them contained an element of essential living equipment. However, what was ignored here is the harmony with the character of the building and the symbolization of the nature of the brand, in which it conveys a message about the ideals and aspirations of the business. Though, every situation is different, each existing building is distinct and individual. The responsibility of the designer to evaluate the enough amounts of this character and its combination with the complete knowledge of the needs of the end user was skipped.

Moreover, the reuse of an existing space is mostly preferred to contribute to the image of that brand. An old structure, converted in a sympathetic manner may convey traditional reliability. So, it can give the impression of a company which is progressive and dynamic but still aware of its professional responsibilities.

Also we know that all good architecture must be based on a rhythm and logic, which is visible in **AKA Central Park** case with responsive strategy.

5. CONCLUSION

In the comparative analysis of these case studies, our principle aim was to point out the fact that the “whole is much more than the sum of its parts”. We tried to analyse a new concept in interior design, which is called as “liveable roofs” in this study, and the application of that well known cliché via two different insights.

We believed that we might discuss the topic under the light of semiotic tools and the principles used in the exploration task and different insights in the development of such a challenging work of transformation. Even though the insights are limited there are some clues to be noticed for further, future studies. Actually the development of further studies is seen as a must; because the dimension and the complexity of the problem envisaged through limited data and basic design resources gathered along this process showed us that this study must be considered as a gate for new findings. The findings and conclusions all result from observation and our basic theoretical knowledge in interior design.

The semiotic tools chosen for this approach to the liveable roofs phenomenon and communication process have proved to be useful and satisfactory for the purposes defined before; the need to explore a new concept coming up as a necessity of modern living, the nature of the transformation process, different levels of communicability.

Along with the semiotic tools we inspired from the preliminary and original explorations of Roland Barthes from his masterpiece called *Éléments de Sémiologie* (1964), his semiological considerations from *L'aventure Sémiologique* (1985), *Système de la Mode* (1967) and Umberto Eco's differentiations from Eco's *Theory of Semiotics* (1979) and his evaluations about architecture and semiotics from *La Structure Absente* (1968).

Also we applied Greimassian logical square which was improved further with Eco's contradictory field theory to demonstrate the integration of a variety of design and operational theory processes into established architectural design codes.

For sure we didn't omit the two fathers of Semiotics Saussure and Peirce who provided us the basic knowledge in our study.

By the way, the semiotic approach to the "liveable roofs" which creates a bridge between exterior and interior, allowed us to see interior design under new lights, which are far distant from the traditional concepts and principles sovereign analysis of interior space communication. Through this new way, the design of a space (it can be either exterior or interior) which carries the features of an interior is seen as a text with "value", providing to their users and producers exploring the collection of utilitarian values.

The lessons which can be taken from this sort of investigation may contribute for a greater awareness and understanding of the communicative potential of an interior space and certain inferences lead by the recognition of the collection of the functional aspects of objects, which can be considered as a sign anymore. So to speak, we know that when similar consequences have been previously observed, a sign is defined as the evident antecedent of a consequent or the consequent of an antecedent. We consider it as an entity from which we can infer the past, present and future existence of another being. It is a revealing connection to its consequence.

Depending on the given case studies, a comprehensive and comparative investigation of the transformation of an exterior space (Roof) into an interior one (Hotel Bedroom) allowed us to address the analysis of liveable roofs between and within several oppositional pairs; *closed* vs. *open*; *conventional* vs. *innovative*; *pragmatic* vs. *utopian*; *adapting* vs. *new*; *responsive* vs. *autonomous*.

As a consequence of the information we argued from all these oppositional pairs and models mentioned above, we concluded that there exists a semiotic process, since human thought, knowledge and communication are involved along with the cultural recognition and systematic codes. As Eco proposes, "every semiotic process does not imply an act of inference but there exist acts of inference which must be recognized as semiotic acts." (Eco, 1979: 17).

On the other hand, the material aspect of hotel bedroom signs, as a first element of the Liveable Roof Language has a semiotic potential and generate meaning, since it is inserted in a system of signification of a given cultural code.

Of course there may be other possible interpretations from technical, historical, aesthetical, economical, political and whichever perspectives, as we tried to discuss in 3rd and 4th semiotic models.

On the basis of the theoretical propositions developed in this research and analysed through two different case studies, it is possible to say that the process of Liveable Roof Communication is basically performed by following two strategies; autonomous and responsive (4th Semiotic Model).

Although they differ in act, we can consider both as vehicles of transmission of messages. These messages correspond to the “speech” of the liveable Roof Language, as texts, or discourses on the expression plane. Also, in this communication process, there is an implicit “sender”, the interior architect who speaks the text and an implicit receiver, the public to whom the discourse is addressed.

This relation or signification, so to speak, is analysed by taking advantage of the semiotic tools, through which we tried to express the importance of these texts which are shaped according to the architectural, cultural, social, and institutional codes. It enables us the opportunity to produce and interpret signs.

On the other hand, in this communication, objects play a fundamental role of mediation and signification. The material aspect of signs generates meaning and has semiotic potential in the system of signification of a given cultural code or of the design itself.

The Liveable Roof context can be considered as a “coded context” which may contain certain denotations and connotations, based on the tradition and the authority of the said institutions (hotels in this study) in present social systems and relics of the past. Actually, beyond the explicit messages proposed through hotel bedrooms in

present social systems, there is a hidden message which is that of the Hotel Institution itself, of its identity and the architectural value of the artefact, which is rarely recognized and read by public in the relics of the past. In this regard, these implicit messages can be called as the rhetoric of the liveable roof system and our semiotic research provides decoding of this essence which accounts for the surplus of this sign production experience.

This process is called abstraction and basically comes up with **recognition** of the supposed meanings of the signs in relation to the familiar cultural units which are stored in the minds of the people *as a result of* previous experiences. (A capsule shaped, closed, interior space in **The Living Roof**) However, whenever there is a new content or expression, it is not possible to talk about recognition anymore but **inference** or **abduction** *based on* experiences. (An exterior bedroom in **AKA Central Park**)

It is well known that the first reaction of strangeness to the correlation of signs and units is possible in case of such effort. However as soon as the stipulation is clearly posited, the ambiguity in the expression will be removed and by the way, “noise” in communication will be eliminated. (Organisation of the objects in **AKA Central Park** case to create different spatial effects)

In this respect, the selection, articulation and the integration of the signs or the units is the most important mechanisms of the Liveable Roof Language. There exist so many expressive codes that generate a specific grammar; such as, iconic, linguistic and design. These objects are considered to perform as sign functions.

Within this framework, in a communicable and effective discourse, the rhetorics of Liveable Roof design may function as an amalgamator in the structural matrix. (Remodelling of the space in **AKA Central Park** by maintaining the architectural value of being an open area)

In this sense, creative and purposeful juxtaposition or opposition of signs may lead to new effects. In this sense it is possible to talk about a “poetic” nature of forms.

Thus, if the architects and interior architects want to discover the potential of the communicative power of the Liveable Roofs, which have recently been the driving force behind the modern architecture, the fully awareness of the semiotic nature of the Liveable Roofs, their mechanisms and processes of sign production and sign interpretation are essential.

In the designs analysed in the case studies, two ambiguous “isotopies” of the proposed text –interior, exterior – were tried to be solved through different approaches. That “nebulous” theme was the most important obstacle in creating a clear and a homogenous structure. The conceptual and institutional clashes were differently digested by the sender in each case. Choosing another structural matrix in **AKA Central Park**, different from that proposed in **Living Roof**, in order to build up a more integral and inspirational text signifies a certain response to the new and secondary functions of the existing space. We discover such integration through 3rd model, and by taking advantage of it we noticed that this interaction was a complex one which needed to be promoted and communicated in balance.

Briefly, the investigation of the Liveable Roofs’ semiotic nature, the laws which govern their processes and productions, their causes and effects, their questions and responses requires the formulation of principles and concepts relevant to the design field.

The ambiguity of the Liveable Roof messages in different cases, and the codes of the language would require deeper analysis of the perceptual and cognitive problems. Further studies should be developed from this starting point; so that, the role of individual needs and backgrounds in the process of perception can be understood better.

A “diachronic” study of Roof works and texts could be irrelevant and unnecessary for the understanding of the Roof phenomenon as they manifest themselves in particular cases and along specific time and social contexts. So, the meanings and the specific character of each one of these manifestations may not be grasped properly.

Our aim is not to show their change and evolution in paradigmatic and syntagmatic structures but to propose a preliminary model based on the semiotic research for the analysis of a newly created text and discourse, which is called Liveable Roofs. We believe that it may be useful for such comparative studies from a “synchronic” perspective.

On the other hand we drew the limits of our approach to put forward Eco’s theory and conception of culture, where Liveable Roof practice can be studied as a communicative phenomenon; because we believe that the extended concept of roofs developed recently by emerging new forms, supports and justifies this idea.

The analysis of cultural processes taken as communicative processes in different cultural languages is a field to be explored by Semiotics of Liveable Roofs. So, the cultural heritage is again a communicative process in adapted spaces and the semiotic model of investigation we used in this research was proposed to represent a guide for our own discourse (3rd Model).

As Eco says; “One cannot do theoretical research without having the courage to put forward a theory, and therefore, an elementary model as a guide for subsequent discourse; all theoretical research must however have the courage to specify its own contradictions, and should make them obvious where they are not apparent” (Eco, 1979: 7).

While speaking about the “Liveable Roofs” way of speech and of communication, we hope to contribute to the field of interior architecture and to influence in some extent this field.

BIBLIOGRAPHY

- Anonymous**, Un lit qui pivote pour prendre trois positions. (n.d.). *Maison a part*.
 April 2012, from
<http://www.maisonapart.com/edito/amenager-decorer/chambre-rangement-dressing/une-chambre-capsule-sur-le-toit-d-un-hotel-p2-6661.php>
- Anonymous**, AKA Central Park Official Website (n.d.). April 2012, from
http://www.stayaka.com/locations/central_park/default.aspx
- Anonymous**, Zeitgeist (n.d.). march, 29, 2012 from
<http://dictionary.reference.com/browse/zeitgeist>
- Anonymous**, Exordium (rhetoric) (n.d.). May, 24, 2012 from
[http://en.wikipedia.org/wiki/Exordium_\(rhetoric\)](http://en.wikipedia.org/wiki/Exordium_(rhetoric))
- Anonymous**, (JULY 03, 2012) Living Roof : A Self-Sustaining Capsule For Urban Rooftop by NAU, 8pp
<http://uniquerobots.blogspot.it/2011/07/living-roof-self-sustaining-capsul...>
- Anonymous**, (June 4, 2012) LIVING ROOF ADN AU,
http://www.arch2o.com/living-roof-adnau/#.T_M6PrVm8uc
- Anonymous**, (November 10, 2011). A Living Roof! Temporary Apartment Compacted In A Capsule,
<http://www.bloggs74.com/inspiration/a-living-roof-temporary-apartment>.
- Anonymous**, Long – Stay Deluxe (2008). *Gatsby Magazine*, 168pp.
- Barthes, R.** (April 1967). *Système de la Mode*. Editions du Seuil
- Barthes, R.** (October 1985). *L'aventure Sémiologique*. Editions du Seuil
- Barthes, R.** (1964). *Éléments de Sémiologie*. Persée

- Boffrand G.**, (2003). *Livre d'Architecture*. Ashgate Publishing Limited.
- Brooker, G., Stone, S.** (2010). *What is Interior Design?*. RotoVision. 28pp.
- Crow, D.** (2003). *Visible Signs: An Introduction to Semiotics in the Visual Arts*.
AVA Books (UK) Ltd. (2nd Edition)
- Eco, U.** (1979). *A theory of Semiotics*. First Midland Book
- Eco, U. (Ed.)**. (1997). *Function and Sign: The Semiotics of Architecture*. In
Rethinking Architecture. Neil Leach. London: Routledge
- Eco, U.** (1968). *La Structure Absente – Introduction à la recherche sémiotique*.
Mercure de France
- Gardner, R.** (May 28, 2012). The Great Outdoors. *Wall Street Journal*
- Glusac, E.** (May 29, 2011). Two New York Hotels Allow You to Sleep Under the
Stars. *The New York Times*.
- Gwyneth**, (2012). Most Expensive Outdoor Bedroom. *TWO57*.
<http://world-most-expensive.com/outdoor-bedroom>
- Horta, M. L. P.** (1992). *Museum Semiotics: a new approach to museum
communication*, Doctoral Thesis, University of Leicester, Faculty of Arts;
Department of Museum Studies
- Houghton Mifflin Company, (Ed.)**. (2005). *The American Heritage – New
Dictionary of Cultural Literacy* (3rd Edition).
- Jones, C.** (January 8, 2011). Hotels offer visitors a chance to snooze under the
Moonlight, *USA Today*

LaBarre, S. (2012). A Rooftop Hotel Capsule For Eco-Minded Nomads, *Fast Company*.

<http://www.fastcodesign.com/1663745/a-rooftop-hotel-capsule-for-eco-minded-nomads-slideshow>

OFEE, (2006)

http://www.ofee.gov/sb/fgb_report.html

Olson, E. (February 8, 2012). Luxury Long-Term Lodging Begins to Feel Like Home, *The New York Times*

Randviir, A. (2002). *Space and Place as Substrates of Culture*. In: V. Sarapik et al. eds. Kohta ja Paik II. Space and Location II. Proceedings of Estonian Academy of Arts 10/2002.

Ruby, I. & Ruby, A. (2005). Il tetto è morto, lunga vita al tetto. *DETAIL - Rivista di Architettura, Coperture*, 7- 8

Rothaar, J. (November 16, 2011). AKA Hotel Residences Extend Luxury,

<http://travel.justluxe.com/travel-news/feature-1675336.php>

U.S. EPA, (2006)

<http://www.epa.gov/epaoswer/hazwaste/sqg/c&d-rpt.pdf>

Wallon, H. (1942). *De l'acte à la pensée*. Flammarion, Paris

Whyte, W. (2006). *History and Theory; How do Buildings mean? Some issues of Interpretation in the history of Architecture*. Wesleyan University.

Zimmer, L. (May 3, 2011). Nau Architects Unveil Self-Sustaining "Living Roof" Pod Home Concept,

<http://inhabitat.com/nau-architects-unveil-self-sustaining-living-roof-pod>,