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THE ARCHITECTURE OF PUBLIC OPEN URBAN SPACES
HOW TO DEFINE A SYNTAX IN THE CONTEMPORARY URBAN ENVIRONMENT

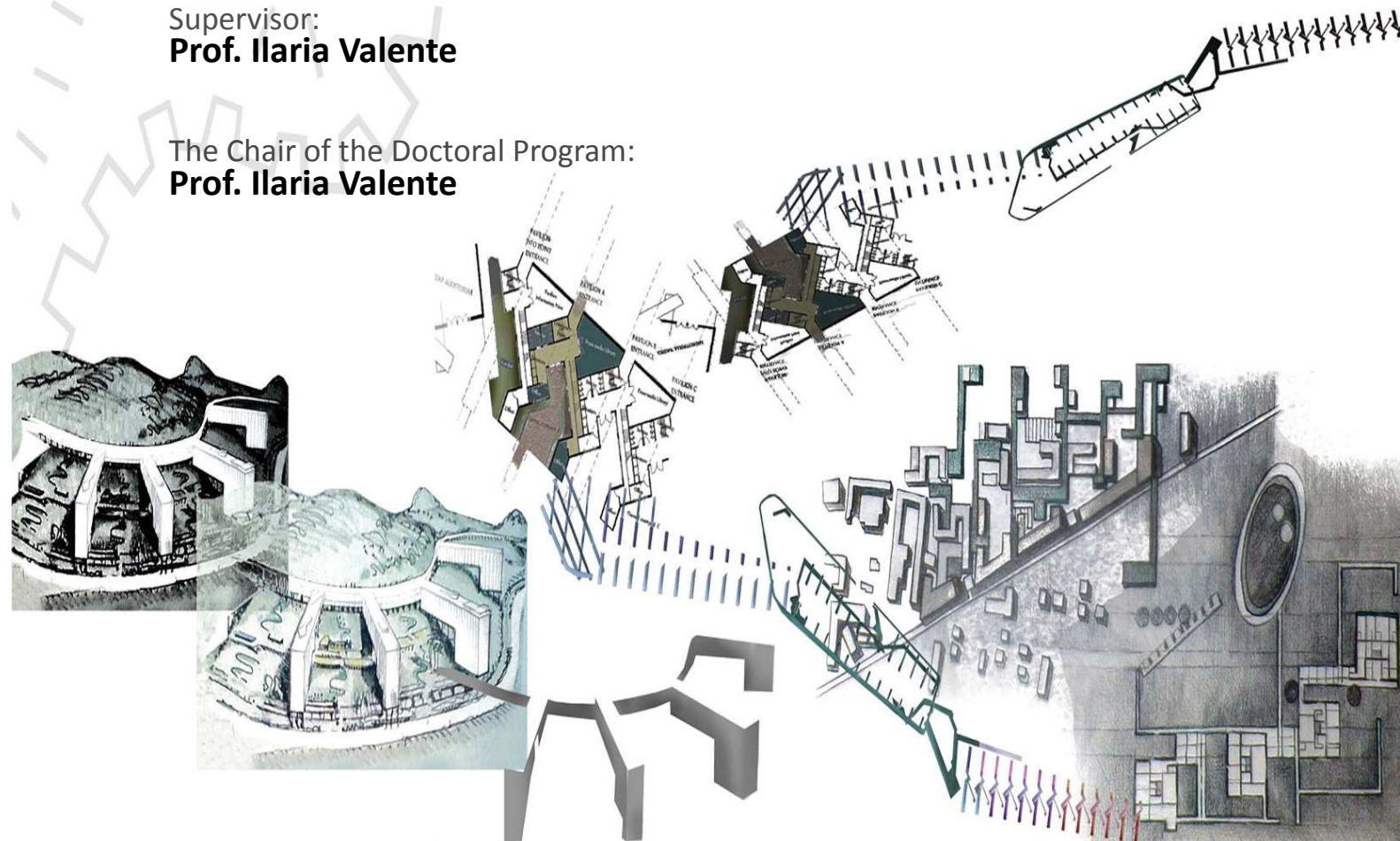
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The architecture of public open urban spaces; how to define a syntax in the contemporary urban environment

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"Hence 'The Hand Submits to the Intellect' recalls the Greek origins of painting and suggests that today it is self-generated from within a hermetic space, the history of art and Modernism. 'Painting painting itself', while seated atop the pure white spheres of Classicism and Modernism, is an allegory about the primary place of feedback and recursive structure in post-modern art."¹

¹ **Sperone Westwater Gallery**, New York, quote found in: Charles Jencks, *Critical Modernism; where is post-modernism going?*, Wiley-Academy, Great Britain: 2007, p.72.

"One mind fancied the other, and as they were walking side by side, they knew that what they were seeing was common inside of their cognitive vision – not because they had discussed about it, but because their inner most knowledge shared a common denominator of pre-existent reasoning.

The perception of seeing was the perception of each other's inner volitions, and one could almost paint the other's spiritual quintessence in a way that no trained painter could outline the portrait of a stranger's face.

The city, mystified into the semiotics of every building's corner, and every leaf's biological pore, became the background of a profound cerebral perceptual moment that dealt with the configuration of each individual's mind.

Architecture and nature blended into a monochrome vision, and what was evident was only the void of an orienting path, guiding the individuals through the labyrinthine environment of the made city, like the penetration of cold currents in the superficial warmth of a sun-struck sea.

Suddenly, the public open urban space became utterly personal to one's self, or better yet, personal between the momentary inner conversation of the wanderer and his very own existence.

The surroundings were his own identity of being there, and what could possible feel strange at first became the mirror image of his interpretation, once in an effort to think for a moment of what lied in front of him.

Thought became like the brush of a life-skilled painter, constantly struggling to find interpretational meanings to what lies in the sea in front. With the lack of his ever-stipulating thought, the brush would have only drowned in the depths of the surroundings and vanish. What would remain would be two identical, empty bodies, facing each other, in the blankness of existential oblivion."

Stefanie Leontiadis



THE ARCHITECTURE OF PUBLIC OPEN URBAN SPACES; HOW TO DEFINE A SYNTAX IN THE CONTEMPORARY URBAN ENVIRONMENT

abstract

The architecture of public open urban space has taken many forms throughout history, and the points of views of its proper syntax is one that has created conflict and discrepancies among architectural and urban design theorists and practitioners, following the beginning of the modern movement.

The way in which public spaces have been interpreted throughout history is a way of cognitive process that has much to do with the human phenomenology of a place and the design paradigms through architectural phases. Although modern design is contemporized in a broad existentialism of varying styles, the modes of constructing are intuitively based on modalities of civic art that are cognitively present in the minds of every architect with some artistic, historical and cultural awareness of civic art public open urban spaces, forming the basis of environmental compositions of aesthetic beauty, in the sense of habitable experience.

The goal of these places is often linked to the enhancement of cities, the strengthening of neighbourhoods and the provision of colour and character to the urban loci. They strive for aesthetic enhancement of public facilities, ensuring civic space and conservation of new and heritage art objects. Civic art, often confused with or correlated to the term public art that is rather characterized by individual artifacts acting within themselves and independently, blends beauty and meaning with function, involves an artful approach in creating the built environment, fosters feelings of identity and belonging, and blends beauty and meaning with function, involves an artful approach in creating the built environment, fosters feelings of identity and belonging, and leads to city identity. It is the identification of formal elements within spaces, usually appreciated as mimesis or representation of the human habitation – concepts with deep roots in the philosophical developments and teachings of Aristotle.

This thesis, a demonstration of the problem of defining civic art in relation to public open urban spaces from modernism and until today, along with the presentation of syntactic demonstrations of contemporary solutions, offers tools and actions for the architectural qualitative habitation of the contemporary public open urban environment.

research keywords

civic art, form linguistics, space syntax, heritage, signification, metaphor, abstraction, emergence

analysis keywords

layers, information availability, structure, framing, field, concept, ground, articulation, orientation, path

L'ARCHITETTURA DEGLI SPAZI APERTI PUBBLICI URBANI; COME DEFINIRE UNA SINTASSI NEL' AMBIENTE CONTEMPORANEO URBANO

abstract

L'architettura degli spazi aperti pubblici urbani ha intrapreso varie forme col passare degli anni, ed i punti di vista della sua propria sintassi hanno dato inizio a diversi conflitti e discordanze tra gli esperti di disegno architettonico ed urbano di orientazione sia teorica che pratica.

Il modo in cui gli spazi urbani sono stati interpretati nel corso degli anni, fa parte di un processo conoscitivo che ha molto a che fare sia con la fenomenologia umana ed il modo in cui l'uomo interpreta un luogo, che con gli esempi di concezione costruttiva, attraverso diverse fasi architettoniche. Malgrado la progettazione moderna sia contemporizzata ad un esistenzialismo di vari stili, i modi di costruzione si basano intuitivamente a modalità di arte civica che sono presenti nella mente di ogni architetto, caratterizzato da un minimo senso di consapevolezza artistica, storica e culturale degli spazi pubblici urbani, che formano la base di composizione della bellezza artistica, nel senso dell'esperienza di abitabilità.

L'obiettivo di questi luoghi è spesso collegato al miglioramento delle città, il rafforzamento del vicinato, e la provizione di colore e carattere degli siti urbani. Si effettua una ricerca di rinforzo delle agevolazioni pubbliche, assicurando lo spazio civico e la conservazione di oggetti sia nuovi che antichi. L'arte civica che si confonde spesso, oppure si relaziona al termine "arte pubblica", piuttosto caratterizzato da artefatti individuali che azionano indipendentemente, miscela la bellezza e la ragione con la funzionalità, coinvolge un approccio pieno d'arte nella creazione di un ambiente costruttivo, accoglie sentimenti di identità e appartenenza, ed infine porta alla definizione della stessa identità della città. E ciò che identifica gli elementi di forma all'interno degli spazi, normalmente concessa come mimesi, oppure come rappresentazione dell'abitazione umana - concezioni con radici profonde nello sviluppo filosofico e negli insegnamenti di Aristoteles.

La presente tesi, tenta di essere una dimostrazione del problema di definizione dell'arte civica in relazione agli spazi pubblici urbani, dall'epoca del modernismo entro oggi, che insieme alla presentazione della dimostrazione sintattica e delle soluzioni contemporanee, offre strumenti ed azioni per l'implementazione dell'abitabilità architettonica qualitativa nell'ambiente pubblico urbano contemporaneo.

parole chiave di ricerca

arte civica, forma linguistica, sintassi dello spazio, patrimonio, significazione, metafora, astrazione, emersione

parole chiave di analisi

strati, disponibilità delle informazioni, struttura, inquadratura, campo, concetto, suolo, articolazione, orientamento, percorso

preliminary summary

In pursuit of demonstrating the problem of an organizational syntax of public open urban space, the thesis is divided into three main parts; a theoretical (chapters one and two), an analytical (chapters three and four), and an experimental (chapter five).

The **first part** forms a synthetic explanation of the tools and premises available in order to understand and analyze the problem of syntactic representation of the public open urban spaces. Through the speculation of points of views of important architectural figures who scrutinized on the problem during specific circumstances and periods (look at fundamental bibliography), this theoretical part extracts the current knowledge of the compositional frameworks of public open urban space design. The categories of speculation include studies in the origins of urban spatial perception, symbolism, the role of the ground, the installations of art elements into the urban spaces, the role of the infrastructure and secondary urban spaces of the periphery. As a result of this theoretical research, and in pursuit of finding tools for the syntactic analysis of the second part of the thesis, the research goes deeper on the extracted keywords of *layers, information availability, structure, framing, field, concept, ground, articulation, orientation* and *path*, always in relation to the public open urban space application.

The **second part** of the thesis is a syntactic analysis of the public open urban space investigations during the CIAM 8 congress in Hoddesdon in 1951, along with the continuation of paradigms with the works of Team 10, from 1959 until 1966, in search for new vocabularies of public open urban space communication and thematic strength of design. This part is mostly a diagrammatic and schematic analysis of the public space solutions presented formally during the symposiums of the modern movement, at the same time reflecting on the continuation of keywords and themes, and the syntactic structural establishments of methods of open space communication to the public. This part of the thesis is an innovative extraction of a theoretical structural framework of the public open urban space that started to take shape during the problems of modernity. The goal is to understand and embody the continuation of public open urban space solutions, in pursuit of forming new paradigms of public open urban space evolution in our contemporary times.

This part continues in chapter four with the involvement of heritage considerations and interventional theory, in relation to the public open urban space leading into the schematic analysis of the public open urban spaces that fall onto the three first infrastructural rings of Milan. The schemes are primarily analyzed according to the keywords of the theory, and present a methodology of public open urban space perceptual understanding. More strongly involved with deep heritage considerations, chapter four investigates the schematic syntactic understanding also of the area of the Thissio Park in Athens, schematically elaborating on some of the keywords of the thesis.

The **third part** of the thesis involves the experimentation of contemporary public open urban space solutions that took place during four workshop investigations, in which many of the theoretical considerations of this thesis were elaborated through practical effectiveness. The projects involve a synthesis of public open urban spaces in the peripheral area of area Trucca in Bergamo; a combination of an architectural synthesis of cultural pavilions with sequences of public open urban spaces taking the form of a 'mosaic of cultures', in the center of Milan; and a sustainable public open urban space design on the international trade fair grounds of Thessaloniki in Greece.

final goal

The goal of the thesis is the demonstration of tools and premises for the understanding of the perceptual and structural qualities of public open urban spaces through studies of selected researches and samples, in order to demonstrate actions for the creation of secure and quality spaces in the contemporary environment. The final thesis will be a syntactic representation of case study analysis and methodological suggestions for new designs and interventions, based on fundamental theory of civic art.

the state of the art; importance of the theme, main researches, references

The meticulous understanding of public open urban spaces becomes crucial in the multifunctionality and hybridization of the contemporary world, because of the tendency to overshadow the public void with the forms of the architectural objects. The importance of this thesis is the understanding of civic space evolution from modernity until today, in a syntactic breakdown of fundamental keyword considerations, for the aid in establishing new paradigms in the contemporary city.

It is easy to fall into the regressive approaches of urban theorists who dwell on the beauty of traditional town open space settings, however, the contemporary city has evolved in architectural, ideological, pragmatic and semiotic ways, that make important the parallel evolution of contemporary public open urban space. This paradigmatic understanding since modernism will create tools for the evaluation of present conditions, and the suggestion of qualitative listings of parameters that may apply to the reality of today's cities. Hence, the thesis will provide a helpful syntax of existing tools and suggestive actions.

The selection of references is a careful decision of figures who were influential in their times, and inspired further research or opposition regarding their ideas, directly affecting the modern movement and today. The thesis underlines the differences in points of view on the specific topic, elaborating on various and contrasting ways of public open urban space approach in the architectural theories of the twentieth century, concerning the shape and public features of the contemporary city. Important figures that have been studied, include:

Camillo Sitto on civic design and the traditional squares of historical towns, Werner Hegemann and *The American Vitruvius*, Ernesto Nathan Rogers, Eric Mumford on the evolution of CIAM (International Congress of Modern Architecture), Kevin Lynch and his *The Image of the City*, Bob Venturi on *Learning from Las Vegas*, Aldo Rossi and his *The Architecture of the City*, Colin Rowe and his *Collage City*, Françoise Choay on *La città; utopie e realtà* along with her ideas on World Heritage Sites in *L'allegoria del patrimonio*, writings in *Casabella* on public spaces, Le Corbusier and his idea of the void in the modern movement, Ignasi de Sola Morales on Hegemann and Le Corbusier, Robert Fishman and his *Bourgeois Utopias*, and Raymond Unwin and Luis Barragán on suburbia - to name a few.

Very important in this discussion is the comparative study of the more regressive approaches and ideas of Rob Krier and Prince Charles for example, and the elaboration of why such approaches hinder the evolution of the contemporary world, without failing to justify the reasons behind their attempts.

methodology (also refer to preliminary summary)

The methodology of the research starts with the hypothesis that the contemporary design of public open urban spaces acquires characteristics of security, protection, perceptual pleasure and aesthetic comfort through the application of certain parameters that deal with the structure, scale, paths, orientation, frames, layers, fields of attraction and repulsion, articulation of objects, signification of symbolism, and geometric systems of the space.

The reaching of this conclusion starts with the **theoretical part** of investigation of premises of important reference figures and theoretical research, by means of a synthetic evaluation of correlations, comparisons and contrasts on the sub-categories of the topic of public open urban space.

These tools are later used in the **analytical part** to build up indicative methodological techniques for the investigation of the paradigms of modern public open urban space design primarily by CIAM 8 and Team 10, and also for the analysis of existing conditions in the two case studies of Milan's three inner infrastructural rings, and the historical part of the Thessio area in Athens, involving the perceptual understanding of heritage considerations as well. These schemes use demonstrative techniques that apart from theoretical elaborational debates in reference to the first part, primarily include schematic drawings of sketches, volumetric compositions, sections, plans, diagrammatic analysis' and three dimensional displays.

The keywords that are confirmed by the analytical methodology find place in the third **experimental part**, where theory, analysis and design form contemporary solutions for the demonstration of experimental examples that took place in four workshops throughout the research study.

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How to define a syntax in the contemporary urban environment**

Stefanie Leontiadis

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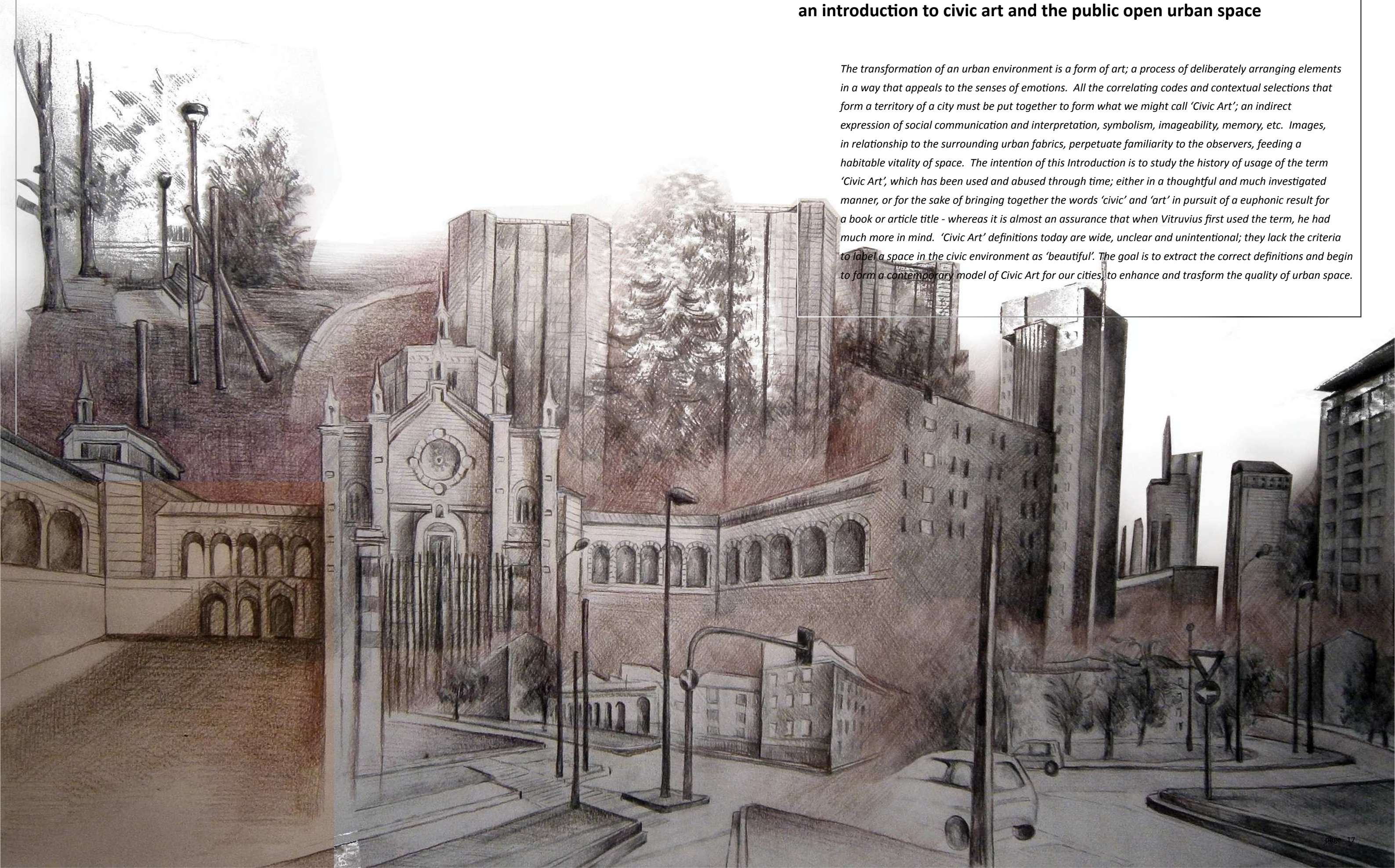
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introduction

an introduction to civic art and the public open urban space

The transformation of an urban environment is a form of art; a process of deliberately arranging elements in a way that appeals to the senses of emotions. All the correlating codes and contextual selections that form a territory of a city must be put together to form what we might call 'Civic Art'; an indirect expression of social communication and interpretation, symbolism, imageability, memory, etc. Images, in relationship to the surrounding urban fabrics, perpetuate familiarity to the observers, feeding a habitable vitality of space. The intention of this Introduction is to study the history of usage of the term 'Civic Art', which has been used and abused through time; either in a thoughtful and much investigated manner, or for the sake of bringing together the words 'civic' and 'art' in pursuit of a euphonic result for a book or article title - whereas it is almost an assurance that when Vitruvius first used the term, he had much more in mind. 'Civic Art' definitions today are wide, unclear and unintentional; they lack the criteria to label a space in the civic environment as 'beautiful'. The goal is to extract the correct definitions and begin to form a contemporary model of Civic Art for our cities, to enhance and transform the quality of urban space.



Civic art is a concept discussed throughout the history of urban architectural design in many occasions; describing solitary artifacts of an urban landscape, describing the ability to design city compositions on the grander scale, embodying urban architecture in the form of graffiti or ornamentation, describing land art, etc. The bibliography on *civic art* becomes wide, with no clarity of what the intentions are, or what the criteria is to label a creation in the civic environment as being beautiful. Civic art thus becomes very interdisciplinary, with no clear meaning of what the intentions are or what the criteria is to label a creation in the civic environment as being artistic. Raymond Unwin in his book *Town Planning in Practice* cautions against the misinterpretation of civic art; he distinctively states that it is not the “filling of streets with marble fountains, dotting of squares with groups of statuary, twining our lamp-posts with wriggling acanthus leaves or dolphins’ tails, and our buildings with meaningless bunches of fruit and flowers tied up with impossible stone ribbons”.¹

But if one studies the theoretical elaborations of architectural critiques through time, the conclusion is that civic art definitions are not in fact so chaotic. Writings on the creation of artistic urban environments seem to agree upon the existence of enduring formalistic artifacts, execution of rational results, expressive social communication and interpretation, meaning and symbolism, construction of places of consciousness, emotional comfort, and interpretational connectivity of human evolution, always in dialogue with the natural surroundings. The concepts all speak of a semiotic dialogue between man and environment, adjusting according to time, circumstances, and emotion.

To clarify the definition of *civic*, it is helpful to look into Spiro Kostof’s writings of *The City Shaped*; a book that looks at the city as an enduring artifact of human creation, investigating art-forms of cities in a speculative and experimental manner, categorizing their formation into themes of *organic patterns*, *the grid*, *the city as diagram*, *the grand manner* and *the skyline*, and interpreting each formation from hidden patterns and orders that resulted in those specific shapes. For Kostof, a description may be correlated to *civic* where there are assemblages of crowds as ‘settlement densities’, clusters of other towns and systems surrounding the urban fabric, “physical circumscription” creating borders between the inside of the city and outside, where unequal distribution of work and hierarchies take place, where income is involved, where the system is relied upon written records, where there is intermediacy with the countryside, ‘monumental definitions’, and cultural values. The author forms a civic art definition of the intentions behind the form of a city as a whole and single entity. The similarity that we find here between this more abstract approach and the intentions of analyzing and evaluating solitary spaces within a city is that Kostof also supports the connectivity of human involvement inside the interpretation of the resulting form. Very early in the introduction, he states: “Urban design is of course an art, and like all design it does have to consider, or at least pay lip service to, human behavior”. For Kostof, Civic Art is the whole intention behind the particular shape of one city, and the beauty of the consequences of the city’s evolution; the result of the creation, and the “subsequent behavior”.²

On the matter of art and *venustas* – a term borrowed from Vitruvio, to question here the concept of beauty in public spaces, various definitions of interpretations give for a rich anthology of meanings, starting with Leon Battista Alberti who defines the art of building as the provision of public service to all, giving hierarchical importance to a well-maintained temple positioned on the highest point of a city.³ For Alberti, the beauty of a space is not a simple matter, as it must first and foremost spring from the spirit of the artist infused into the work. Investigating further the writings of this renowned Italian author, artist, architect, poet, priest, linguist, philosopher and cryptographer, we read on his conceptions of what makes civic art, which above all, is the creation of spaces that abide to a “consistent theory; for to follow a consistent theory is the mark of true art”.⁴ He points out the common fault of architects to change the consistent theory of an environment to

1 Unwin, Raymond, *Town Planning in Practice; An Introduction to the Art of Designing Cities and Suburbs*, Princeton Architectural Press, New York: 1971 (orig. 1909).

2 Kostof, Spiro, *The City Shaped; Urban Patterns and Meanings Through History*, Thames and Hudson Ltd, London: 1999 (orig. 1993), pp.9, 12, 37-40.

3 Turner, Richard A., *Renaissance Florence; The Invention of a New Art*, Harry N.Abrams Inc., New York: 1996.

4 Alberti, Leon Battista, *On the Art of Building in Ten Books, Book 6*, in ID, *Architectural Theory; Volume I; An Anthology From Vitruvius to 1870*, Blackwell Publishing Ltd, UK: 2006 (orig. 1452), p.33.

suit their personal tastes and understandings, but rather should investigate the reasoning and intentions behind every line and every formation of space, for “the arts were born of Chance and Observation, fostered by Use and Experiment, and matured by Knowledge and Reason”.¹ This comes in interpretive agreement with Leo Tostoy’s definition of art as a way of indirect social communication. Furthermore, and in the context of public spaces, Alberti appreciates the quality of a “consistent theory; for to follow a consistent theory is the mark of true art” giving justice to Charles Mulford Robinson’s later writings in his book *Modern Civic Art of the City Made Beautiful* where he stresses the importance of executing rational results along with strong impulses and artistic perceptions. He states that “there must be a joint worthiness of impulse and execution, else the act is not recognized as art”. In other words, one can have all the theoretical ideas in the world of what civic art is, with strong impulses and highest artistic perceptions, yet if not able to execute a rational result, cannot be named a master.²

Moving further along in history, Leo Tolstoy defines art as a way of indirect social communication while contrary, Benedetto Croce and R.G.Collingwood were more keen towards the idealist view that the product of the creators (the architects and planners, in our case) can only be valued and appreciated in the minds of the creators.³ This is obviously a selfish-oriented definition of art that does not fit into the social values of urban designing, which is a practice for the public whole and not the selfish expression of individual acts of people. However, the more recent German thinker Martin Heidegger, has interpreted art as the means by which a community develops for itself a medium for self-expression and interpretation.

More absolute in the attitude of distinction becomes Kevin Lynch, stressing imageability and independence from practical functionality, as well as the will of meaning and symbolization. His theory of constructing mental maps inspires the concept of art proposed as a sort of grid, made up by reference points, independent from aesthetical or ideological evaluations within the city). In this case, a web of associations overlapping an urban tissue by means of an artistic project creates an important base for appropriation of a place. Taking this further in 1981 with his book *Good City Form*, Lynch proposes a model based more on perceptual motivation of the city rather than political or economic reasoning, by establishing descriptions of urban civic art through his ‘normative models’ of the *cosmic model*, the *practical model* and the *organic model*⁴, hence describing more tightly the relationship between the history of urban form and the reasoning behind it.

The idea of the existence of relationships between architectural compositions and cerebral structures that relate to the perception of space and the psychology of humans in given times and places, is an intriguing one forming relationships between human execution of phenomena, psychoanalysis, anthropology and philosophy.⁵ Evolved from linguistic structure, structuralism in architecture started to take shape, from which semiology evolved. If one looks closely at the specifics of linguistic theories and rules, one can understand how the architectural semiotic references began to blossom, starting with Claude Lèvi-Strauss in the 1950s, setting the notion of anthropological structuralism, defined as “the search for underlying patterns of thought in all forms of human activity”.⁶ The grammatical aspect of linguistic theory can be compared to the relevant morphological characteristic of an architectural and urban analysis, whereas the syntax analysis is the formation of rules that determines in each language where the words ought to be positioned to form sentences and phrases. Linguistic syntax may be compared to the formation of rules and styles that apply to the history of architectural composition to form definitions of *venustas*.

Semiology comes into place with the introduction of signs, symbols and characteristics of *genius loci*; elaborated by Christian Norberg-Schulz who studied the phenomenological construction of places of

1 Alberti, L.B, 2006, op.cit, p.34.

2 Robinson, Mulford Charles, *Modern Civic Art: Or the City Made Beautiful*, Cornell University Library, New York: 2009 (orig. 1903), pp. 27-28.

3 Collingwood, Robin George, *The Principles of Art*, Oxford University Press, New York: 1980 (orig. 1938), p. 30.

4 Lynch, Kevin, *The Image of the City*, The M.I.T. Press, Cambridge: 1970 (orig. 1960), p.4.

5 De Saussure, Ferdinand, *Writings in General Linguistics*, Oxford University Press, USA: 2006.

6 Doland, Angela, *Anthropology giant Claude Levi-Strauss dead at 100*, Associated Press, retrieved 4 November 2009.

consciousness, the phenomena that lie behind these structures, and the objects that serve as analytical instruments to analyze a space. Christian Norberg-Schulz proposed extensive semiotic models of identifying *venustas* of urban and rural environments, such as *basic categories of natural understanding* ('forces', thing, order, character, light, time), *the structure of natural place* (texture, color, vegetation), *models of natural understanding* (sacred places, cosmic order, character), *the spirit of natural place* (romantic landscape, cosmic landscape, classical landscape, complex landscape), *translating meanings into man-made things* (visualization, contemplation, symbolization), *the structure of man-made place* (enclosure, temenos, rotunda, grid, labyrinth, wall, building, articulation), to name a few.¹ Norberg-Schulz's interpretation of civic art is expressed inside the definition of *genius loci*, which in Roman mythology was defined as 'the protective spirit of a place', often depicted as a snake. In contemporary usage of the term, the *genius loci* will most likely refer to a location's 'spirit' and the kind of atmosphere that makes it unique. In critiquing modern architecture and civic art, the *genius loci* falls into the theoretical considerations of phenomenology, a philosophical method developed in the early 20th century, primarily elaborated by Edmund Husserl and developed by a chain of noteworthy figures, such as Heidegger, Merleau-Ponty, Jean-Paul Sartre, and other philosophers including Paul Ricoeur, Emmanuel Levinas, and Alfred Schulz.

From the point of view of Husserl, phenomenology deals with the construction of places of consciousness, the phenomena that lie behind these structures, and the objects that serve as analytical instruments to analyze a spatial situation. Husserl's perspective is important in the penetration of the deeper evaluation of a public space, as he not only deals with the evaluation of objects, but also the reflection of emotions that objects create within an environment. For his capacious and extensive consideration of things and perception, and his efforts to create a structure of explanation between the two, he appears firm in trying to establish phenomenology as a 'rigorous science'. Husserl's theories on phenomenology have had a vast impact on providing key concepts of public space evaluation, and supply tools of constructing an artful environment, where art here is defined as the *locus* of origination of emotion and meaning.

Taking this further with Heidegger, who was influenced by Husserl's thoughts, he states that all investigations of being have historically focused on particular entities and their properties, or have treated being itself as an entity, or substance, with properties. His writings support the importance of psychology in the study of urban spaces and environments of existential importance, which explains his doctoral thesis in psychologism; a field where psychology is considered to play a central role in grounding or explaining some other non-psychological type of fact or law. This is interesting in the sense that psychologism is one of the two fields (the other being historicism) that Husserl strongly criticized during his time, and particularly in his volume "Logical Investigations". Unlike his follower Heidegger, Husserl expresses clearly the difference between meaning and object, as he does in his book *Experience and Judgement*, published in 1939. Heidegger, on the other hand, links meaning and object in a direct and almost symbolic way, going deep into the investigation of fields such as existentialism, hermeneutics (the art of interpretation), deconstruction, postmodernism, and continental philosophy in general.

Going back to Christian Norberg-Schulz, Heidegger's follower, who deals with the phenomenology of place, it is important to punctuate Schulz's claims on locus, which particularly evolves in his *Genius Loci: Towards a Phenomenology of Architecture*, as the concept of dwelling. Although dwelling was a word initially analyzed by Heidegger as 'a thing that gathers world', Schulz uses the concept to analyze the meaning further, always giving full credit to the borrowed thought processes and analysis of his primary reference author, Heidegger. Schulz, therefore, explains that a dwelling is an 'existential foothold'; a place where man can orient himself, where he can identify with an environment, where the locus becomes something more than just a shelter, and where it is composed by spaces where life occurs as 'places', in the true sense of the word. In his book, he writes that in order for a man to *dwell* in a space, he must locate himself in space and expose to a

certain environmental character. "The two psychological functions involved, may be called "orientation" and "identification".¹ In other words, in order for a man to feel at home with his environment, he must be able to recognize fundamental traces of his surroundings, and also be able to identify what he sees by certain signs, and recognizable elements. For our purposes of defining Civic Art, Christian Norberg-Schulz's *genius loci*, is a key hint for reaching important conclusions.

Extending the interpretation of civic art into the writings and perspectives of the great contemporary theorist Umberto Eco, we approach another point of view of the formation of logic and 'photomechanical explanation' of forms in the field of semiosis; the interpretation of signs that Eco analyzes in a number of places in his writings. For Eco, where there is dialogue and a clear connectivity between the signifier and the signified (the designer and the object), then the result may be analogous to musical theory, where "we recognize familiar melodies" and there is "sophisticated intertwining of intervals and notes".² Translating these concepts to architecture and in his essay *Function and Sign: Semiotics of Architecture*, Eco hints to civic art as "the production of three-dimensional objects destined primarily to be contemplated rather than utilized in society, such as works of art".³ Civic art here is any architectural object withholding itself in time; as Lagopoulos explains, "Eco suggests that architects should create structures which, while functioning as forms in their times, are open to new processes of signification appearing in the future".⁴

Eco's consistent theoretical theme of signs and signification in the urban context, serving as codes of memory for orientation, may be paralleled in some ways to the writings of Robert Morris in his "An Essay Upon Harmony" referring to public spaces where the form, magnitude, dress, decoration and arrangement, the fitness and proportions, are all analogous to 'Numbers and Nature'. A civic space is considered valuable, where art manifests nature, and each part of the composition refers to the Whole.⁵ Another architectural theorist to dwell upon the lines of making connections between Civic Art and the specificity of the natural surroundings, is Ralph Waldo Emerson, the American essayist, poet and philosopher, who speaks of the connectivity of meaningful spaces to the human soul, and absorbing inspiration from nature. Emerson calls this mode of designing 'organically reproductive', where complete balance is created between materiality and spirituality of a place. In thorough critical investigation of the origins of art, Emerson concludes that all formalistic intentions have an organic reasoning, inspired by Nature.⁶

A counter-argument to consider, is the theoretical development of Alan Colquhoun in his article "Historicism and the Limits of Semiology" where he criticizes the references of aesthetics to the general field of semiology. What makes his judgment restrictive is his general reference to language semiology – a field not as structurally rational as architectural semiology in which shapes, forms and psychological intentions of the composition hide meanings of formal paradigms, compositional formations and urban and architectural patterns. In his article, Colquhoun fears the relationship of aesthetics to language semiology for reasons where; language changes fragmentally whereas in aesthetics the change occurs in all of the system; in language, change is unintentional as opposed to an aesthetic intentional change; the precise perceptual degree of difference in language is much unimportant compared to the precise degree of difference in aesthetics; and the value of language is subjective to the way of its use, whereas in aesthetics things are *what they are*.⁷ In mentioning of the sign and the faults found in its interpretation by theorists, Jacques Lacan, a French psychoanalyst and psychiatrist, criticizes the relationship between the signifier and signified as ambiguous, because meanings

1 Norberg-Schulz, C., 1991, op.cit., 19.

2 Eco, Umberto, *A Theory of Semiotics*, Indiana University Press, Bloomington: 1979, p.50.

3 Eco, Umberto, *Function and Sign: Semiotics of Architecture*, in ID, *The City and the Sign; An Introduction to Urban Semiotics*, Columbia University Press, New York: 1986, p.57.

4 Lagopoulos, Alexandros, *The City and the Sign; An Introduction to Urban Semiotics*, Columbia University Press, New York: 1986, p.56.

5 Morris, Robert, "An Essay Upon Harmony," in *Architectural Theory; An Anthology From Vitruvius to 1870*, Blackwell Publishing Ltd., USA and UK: 2006, pp. 116-117.

6 Emerson, Ralph Waldo, "Thoughts on Art", in *Architectural Theory; An Anthology From Vitruvius to 1870*, Blackwell Publishing Ltd., USA and UK: 2006, p. 447.

7 Colquhoun, Alan, *Historicism and the Limits of Semiology*, in ID, *Architectural Theory; Volume II; An Anthology from 1871 to 2005*, Blackwell Publishing Ltd, UK: 2008.

1 Norberg-Schulz, Christian, *Genius Loci: Towards a Phenomenology of Architecture*, Rizzoli, New York: 1991 (orig. 1980).

are “shifting, multiple and context-dependent”.¹

To be critical on Colquhoun’s writings and dwell upon Lacan’s thoughts, semiology as referred to architectural and urban formation is a course of art where each interference must be analyzed and studied in relationship to human behavior. Hence architectural and urban semiotics can be closely linked to art interpretation and theory, where actions and decisions may be fully linked to historical and analytical data and human psychology. Spiro Kostof claims the necessity of relating architectural forms to signs of human behavior through looking at plans and signs of disorientation or tediousness. In this modality, he suggests to analyze public spaces as to whether they reinforce social interaction and whether the architects have psychologically embodied themselves with the environment, “catching the distinctive quality of a street or a public space, being touched by it, wanting to incorporate that quality into their own designs.”²

Which leads us to the extreme articulation of land art, a concept further studied in the next chapter; an interesting movement emanated in the United States in the late 1960s and early 1970s, where figuring and carving on the ground takes place, and the designer interprets the direct linkage between landscape and his work. Many times, land art figures follow the existing patterns of the land, being traced as blueprints in quest of creating memories of past-existing contours. The intentions of land art were initially a movement of disapproval towards the modern developing movement of machinery, artificiality, ‘plastic aesthetics’, and commercialized architecture that was evolving during that time in America. Pursuing natural simplicity through concepts of minimalism, geometrical simplicity and organic expressionism, the movement has also spread in Europe and other parts of the world. Where land art usually becomes positioned in the countryside, intended to reveal its pure concept from a bird’s eye view, it would be interesting to see this concept developed inside the urban fabric, where the art will partake in the traces of the memories of the urban ground, and offer a public experience of subconscious investigation.

Contradictory to the above theories of Man and Nature, it is always interesting to go back to the masters of thought and dwell upon original and profound ideas that made for the creation of withstanding cities in time: When Socrates, the great townsman and contributor to the formation of the ‘polis’ said “I have nothing to do with the trees of the field, I have to do only with the man of the city”³, one comes to wonder about the complexity of human thought and the ability to create artifacts in any period of time, and under the guidance of a variety of perceptions. However, when speaking about the urban public space, which foundation lies upon the ‘public square’, we analyze its behavior and see that the intention, really, is to turn its back to the countryside, creating a space where “man frees himself from the community of the plant and the animal, leaves them outside, and creates an enclosure apart which is purely human, a civil space”.⁴

To enhance the quality of public urban space, it is enough to consider definitions of Civic Art that have been used in the past and elaborated above, in a brief manner, in an effort to bring back memories of ways with which great thinkers executed their urban architectural compositions and took awareness of their surroundings, always inside the urban context. Speculating the concepts from a wider scope, the term embodies perceptual interpretations of the surrounding atmosphere and of human emotion created within, applied into systematic creations or new forms. However simple it may sound, the genius loci to be found inside of every space is a continuous challenge that in the end differentiates a result of comfort and clearness from a result of obscurity and disorientation. However, with the elaboration of conceptual frameworks of modern times, and the reality of complex and multi-faceted cities, the final intentions are yet obscure.

In pursuit of theorizing the concept of civic art, it is noteworthy to reference the late contributions of Mark Jarzombek, who in his book *The Psychologizing of Modernity* makes his personal links between ranges of emotional comfort and of “a basic structure to the fabric of their contact”. This is very enlightening in the understanding of abstract forms that take place in the modern world along with Nietzsche’s writings of man’s will to emancipate contemporary design from existing norms and “accepted moral and pedagogical systems”.¹ The above mentioned concepts were strongly developed with the realization of the Gestalt psychology, primarily studied in the Berlin School with the elaboration of the form-forming capability of our senses, further enhanced with perceptual concepts of *emergence*, *reification*, *multi-stability* and *invariance*. Mark Jarzombek’s interpretation of perception and its relation to Civic Art is identifiable, when he writes about perception being non-arbitrary, but “linked to the same epistemological domain as the artworks themselves”. He stresses that to analyze Art, we should not acquire the knowledge beforehand, but should empathetically commerce with its “representational interiority”.² This creates some interesting connectivity between Mark Jarzombek’s later distinction in the book between art psychology and art history, with Edmund Husserl’s criticism on historicism. Jarzombek clearly expresses the inferiority of art history to art psychology, as the latter emphasizes with the intentions of art, whereas the former works on a basis of pre-existing knowledge and analytical predictability. An ideal speculation would be of course, the marriage of the two, in pursuit of our understanding.

Nevertheless, the study of the public open urban space becomes critical of becoming meaningless because of its ambiguity of three and four dimensionality, along with its abstract concept of definition. The analysis of a space for pre-existing knowledge and the attempt for analytical perceptibility and predictability assumes a clearer signification with the audible apprehension of what we are dealing with. As Françoise Choay mentions in a relevant argument, the debate develops on the consideration of the Greek language, in which there is no corresponding word to our contemporary abstract concept of space. “There exists only the word, *topos*, which means, as will become clearer, that only ‘places’ can provide pure semiological systems.”³

1 Hawthorn, Jeremy, *A Concise Glossary of Contemporary Literary Theory*, Routledge, Chapman and Hall, New York: 1992.

2 Kostof, S., 1991, op.cit.

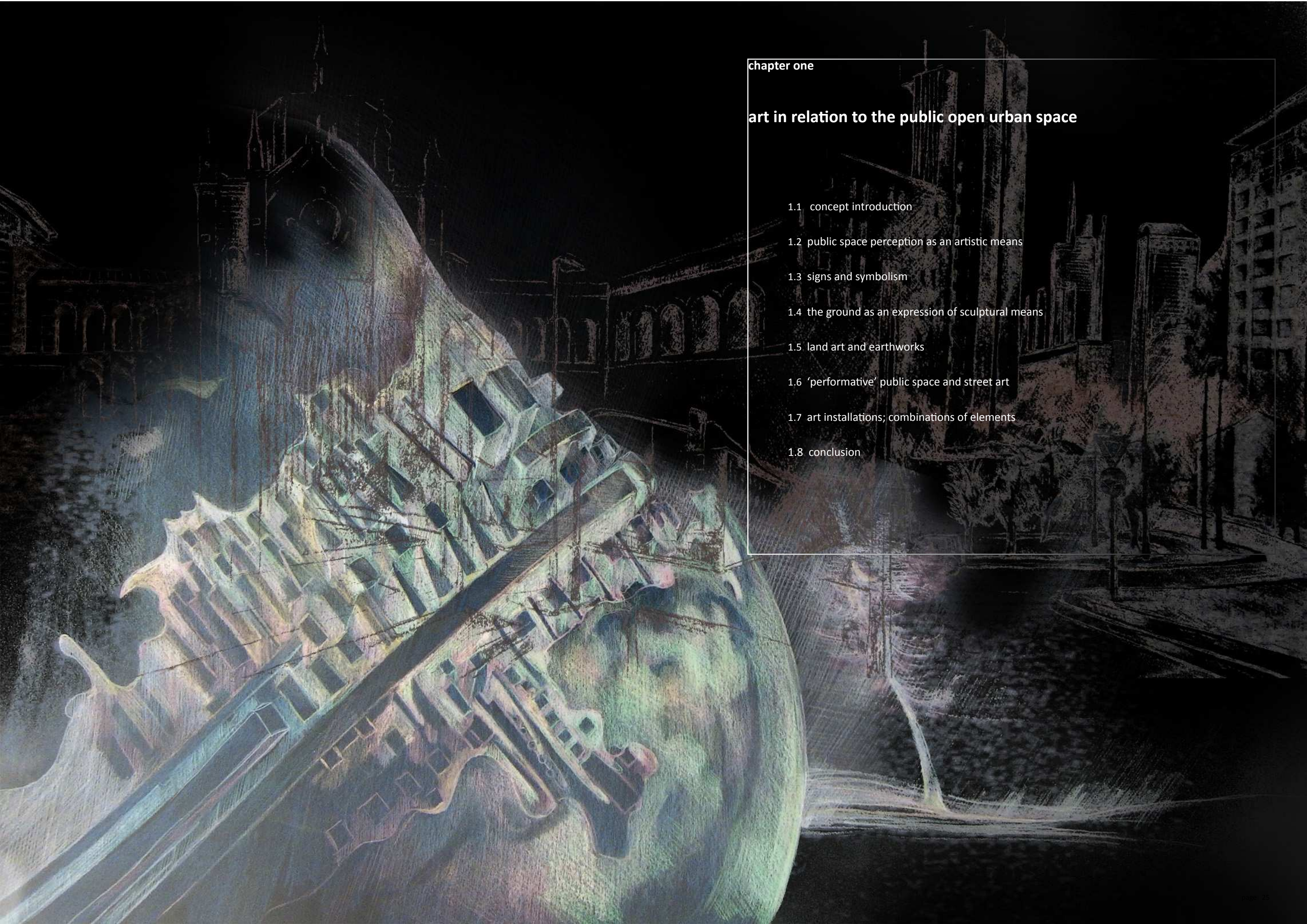
3 Gasset, Jose Ortega Y., *The Revolt of the Masses*, W.W. Norton, New York: 1932 (orig. 1930), p.164.

4 Bloomer, Kent C.; Moore, Charles W., *Body, Memory, and Architecture*, Yale University Press, New Haven: 1977, p. 5.

1 Jarzombek, Mark, *The Psychologizing of Modernity; Art, Architecture, and History*, Cambridge University Press, UK: 2000, p.24.

2 Jarzombek, M., 2000, op.cit, p.40.

3 Choay, Françoise, “Urbanism and Semiology”, in *The City and the Sign*, ed. M.Gottdiener, Alexandros Ph.Lagopoulos, Columbia University Press, New York: 1986, p. 166. (First published in English in Ch.Jencks and G.Baird, *Meaning in Architecture*, Barrie and Jenkins, London: 1969; based on a previous version in *L’Architecture d’Aujourd’hui*, June-July 1967. The article was republished, with revisions, in French, in *Le sens de la ville*, Seuil, Paris: 1972).



chapter one

art in relation to the public open urban space

- 1.1 concept introduction
- 1.2 public space perception as an artistic means
- 1.3 signs and symbolism
- 1.4 the ground as an expression of sculptural means
- 1.5 land art and earthworks
- 1.6 'performative' public space and street art
- 1.7 art installations; combinations of elements
- 1.8 conclusion

1.1 concept introduction

Creating a secure public open urban space of syntactic considerations inside an urban environment is a perceptual form of civic art expression; a process of deliberately arranging elements in a way that appeals to the senses of emotions. All the correlating codes and contextual selections that form a territory of a city must be put together in orders of *venustas*, to form what we might call *civic art*; an indirect expression of social communication and interpretation, symbolism, imageability, memory, etc. Images, in relationship to the surrounding urban fabrics, perpetuate familiarity to the observers, feeding a habitable vitality of space. Semiotics, a field that studies relationships of signs to the things they refer, of signs to each other, and signs affecting those who use them, propose theories, developed parallel to the philosophical logic of architectural phenomenology, suggesting new ground for the evaluation of modern beauty. The following chapter provides several relationships between semiotic theories and the concept of *venustas* in architectural open space syntaxes, demonstrating the modalities which civic art uses in the construction of the civic beauty of contemporary cities.

At the outset, the definition of the public open urban space as *civic space*, or *civic art*, already embodies and extrapolates its artistic role in society as art's fundamental role, as supported by Norberg Schulz's viewpoint of art "to gather the contradictions and complexities of the life-world. Being an *imago mundi*, the work of art helps man to dwell."¹ The role of art and its influence towards the humanization of society and its mission as initiator of ideas, has been widely discussed, especially with the start of the modern movement, when the mechanization and industrialization of society resulted in rigid, purely functional and more 'brutalistic' environments. Mentioned in Colin Rowe's *Collage City*, one finds the prophetic quote by poet Léon Halévy, who warns about the time when artists will possess the power to please and to move masses in a similar way to scientists' influence for understanding. Only then, he mentions, 'will the moral side of society be firmly established'.²

¹ Norberg-Schulz, C., 1991, op.cit., p. 23.

² Halévy, Léon, *Le Producteur*, Vol. I, p.399: Vol. III, pp.110 and 526, reference found in *Collage City* by Colin Rowe, the MIT Press, Cambridge and London, c. 1978.

figure 1.1 A small French marketplace, by Unwin, 1909. The structures build up of forms to a final tower, expressing the merging and re-emerging of houses, trees and shed roofs to establish diagonal planes that are similar to the planes and shapes in Cezanne's work. An example of anthropomorphic open spaces. (image and quote found in Unwin's *Town Planning in Practice*, Fig.4)

figure 1.2 An imaginary irregular English town by Raymond Unwin, 1909. "To communicate awareness of the exact position and amazing diversity of multi-faceted solids in space was an absorbing exercise for Unwin", similar to French Post-Impressionism. An example of anthropomorphic open space. (image and quote found in Unwin's *Town Planning in Practice*, Fig.5)



1.2 public space perception as an artistic means

The public open urban space is an artistic form of expression of the universality of its aim, directing to confirm the space's goal for progressivism and the figurative and perceptive expression of culture (Choay's *'anthropomorphic'* (figures 1.1, 1.2) versus *'technotropic'* interpretation of the public civic environment). Similar to art and its purposes of execution and significant involvement into the contemporary (and of all times) world, the public open urban space is also a three (and four) dimensional interpretation of man's 'psycho-physiological constants'¹, which according to Le Corbusier, are identified and inventoried by the appropriate experts, including biologists, doctors, physicists, chemists, sociologists and poets.²

Conclusively, the urban environment offers semiotic artful and technographic interpretations of each time's era, translatable by an interdisciplinary force, down to the non-scientific common wanderer who observes and perceives.

Art, which offers momentary or permanent impressions of themes, concepts and ideas within the urban fabric, may become questionable versus the concept of myth, which according to Ernst Cassirer, has its own fundamental laws of form which he takes time to extensively analyze in the second volume of his work *The Philosophy of Symbolic Forms* – where mythical space is closely related to the space of perception and rigorously set against the logical space of Euclidean geometry (following three basic themes of *continuity, infinity and uniformity*). (figures 1.3, 1.4)

Art, on the other hand, and always according to Cassirer, follows the rules of our own impressions of the fundamental elements of form, followed by the activity of inner understanding and perceptual analysis, from which one may extricate the very nature and essence of the human spirit in that period of time.³

From a different point of view, public open urban space as an artistic means implicates the three dimensional interpretations and points of references of experience. It was Adolf von Hilderbrand who endorsed the degree of artistry and qualitative interpretation of an open space in parallel deliberation to the experience of a work of art, through means of perception of space, the nature of a visual experience, the acts of vision, movement and touch, and the involvement of a global, sentimental experience.⁴

1 Choay, F., 1986, op.cit., p. 245.

2 Le Corbusier, p.38. Cf. "All men have the same organism, the same functions. All men have the same needs", Le Corbusier 1923b (orig. 1946), p.108.

3 Cassirer, Ernst, *The Philosophy of Symbolic Forms; Volume 1: Language*, Yale University Press, New Haven and London: 1955 (orig. 1923-29), p.88.

4 Solá-Morales, Ignasi; Thompson, Graham; Whiting, Sarah, *Differences; Topographies of Contemporary Architecture*, MIT Press, Boston: 1997, p.94.

1.2.1 landscape art perception

The idea of the perception of a public open urban space in reference to the artistic and atmospheric characteristics of the surrounding landscape is one emerging from the phenomenological period of the perception of space. For centuries now, man has delved for life inside nature. One of the main reasons why Siena's public open urban spaces sing of perceptual and formalistic poetry, is because they are expertly crafted using the embodiment of buildings into the land terrain. (figure 1.5) The curves of the ground create wave fabrics that encompass the placement of the buildings, while the hills and rocks serve as sheltering elements that define the city limits. Thus, the land terrain becomes an 'urban playground' that stimulates the urbanites with natural incentives.

Landscape architect Bernard Lassus proposes meaningful creation through functional and economical means, who "uses his art to invent the landscape", in interesting contrast to Monet, who used the landscape around him to create innovative art, as mentioned by Peter Jacobs in the introduction of Bernard Lassus' book *The landscape approach*; a section titled "The Sensual Landscapes" of Bernard Lassus.¹

After an extensive period of art development, in which 'picturesque views' have undergone an effort to be depicted in terms of two dimensional perspective theories, Lassus, once again, contrasts the norms of art and creates new art intentions of his own, where he tries to come up with imaginative perspectives, constructed with 'novel insight' and 'carefully developed tales', in order to form a new method of artistic depiction in the inverse nature of the classical extraction of perspective observation, out of an 'ordinary' landscape. This point of view is very similar to Lewis Barragan's *Gardens of El Pedregal* (figure 1.7), where the designer uses the volcanic and wild landscape to compose garden compositions with the coming together of inspiring elements of 'twisted vertical chimneys, horizontal lava tubes, stalagmites, stalactites, vesicles, smooth and fractured walls, accordion-form slopes, deeply furrowed plateaus, small cavities and larger caverns, tumuli and collapsed domes'.² However, a distinct difference between the two lies in the fact that while Barragan uses the forms of the existing landscape as inspiration for the program of his designs, which he is free to compose according to his own inspirations and desires, Lassus' design point of view shows that form is never imposed on the substance of a project or a place, but rather the results of the project derive from the demands of the program that is brought on to him, creating a story from the problem at hand; hence, the nature of the project guides his ideas, rather than the surrounding landscape itself. In fact, in response to the problem of

1 Jacobs, Peter, "The Sensual Landscapes of Bernard Lassus", in *The Landscape Approach* by Bernard Lassus, University of Pennsylvania Press, Pennsylvania: 1998, p.1.

2 Eggener, Keith, *Luis Barragán's Gardens of El Pedregal*, Princeton Architectural Press, New York: 2001, p.17.

Figures 1.3, 1.4 Anamorphosis Architects, Athens, Greece; Project for the museum of the Hellenic world (2002), ©Anamorphosis Architects. With great emphasis on the spatiality of the construction, it has a large open and continuously evolving space, with curved lines twisting into contorted spirals. This building, is in some sense, the start and (temporary) end of a discourse that began with Euclidean geometry thousands of years ago.



Figure 1.5 Siena's urban landscape



Figure 1.6 Quirico d'Orcia

form and garden art, his point of view is evident in *The Landscape Approach*, where one of his collaborators writes that “form is not primary, it is induced from the articulation of intention.”¹ (figure 1.8)

At this point it is further useful to study the interpretations of Gilles Clemente who speaks of an ‘agreeable perception’; this concept deals with cultural structures and the evaluation/ perception of space, where the issue of globalization forms the question of universal perceptual understanding of forms and spatial organization. The similarity here with Barragan’s Gardens of El Pedregal, is in his desire to also form the structured elements as background figures to the natural terrain, so he uses means of abstract simplicity with straight lines, flat surfaces and geometric forms, striving to create clean and modern buildings that complement, rather than protrude in the natural landscape; Keith Eggener, speaks about Barragan’s architecture in a similar way as Clemente speaks of his, in that “buildings should contrast but not vie for attention with the setting”, forming “appropriate forms”.²

1.2.2 virtual art perception and space

The question on the role of technology in regards to the concept of public urban being and our role in space and time, is one that acquires an artistic role, when considering the aesthetic and cultural considerations of virtual technology and relevant installations within the urban spaces, in order to create multiple layers of spatial orientation and perception. Martin Heidegger for example, associates the problem of information availability with the notion of ‘poiesis’ by the Greeks, in an effort to bring forth or reveal information into the present, with a historical involvement of the surrounding space. In his “The Question Concerning Technology”¹, he suggests this solution as a romantic alternative to the contemporary role of technology, which dominates as an instrument to control information and stimuli in a mechanical way. Char Davies, in his essay of “Changing Space”, and through his practices with virtual naturalistic spaces through new experiential means, suggests new inspirations for bringing forth experiences through abstract ideas (similar to modern art), so that they can be kinesthetically explored in a four dimensional situation and bodily lived.²

In our contemporary public open urban spaces, we start to study the virtual technological possibilities of things, where the anthropomorphic experience of ourselves becomes linked with the technotropic reality. Virtual reality then creates the surreal four-dimensionality where the understanding of an object or a space is closely linked to the perceptual quality of feeling and sensation.

In this effort, certain concepts of orientating references, directionality, path formation, framing possibilities, structural framing, and virtual or non-virtual fields become crucial in the virtual experiences of open (or closed) space perception, where the technotropic devices start providing hints and reference points for the understanding of a certain environment.

Cubism as well is a means of a two dimensional expression of a virtual state of perception by analyzing an image from multiple points of view all at once, looking through zones of simultaneity, absolute simulation, instability and electronic transmission. Thus, the attributes and creative expressional means of various art phenomena inevitably become means of spatial perceptive interpretation and expression in a contemporary world of enduring information. At the same time they touch the boundaries of virtual scenes that go way beyond the basic Newtonian and linear perspectives and wander in the fields of holographic technology, 360degree imaging, fiber optics and virtual branding, supporting the multidimensional new scientific theories of Einstein and Bohr.³

1 Donadieu, Pierre, cited on Lassus, “The Inventive Analysis”: “La forme n’est première, elle est induite par l’articulation des intentions”.

2 Eggener, K., 2001, op.cit., p.24.

1 Heidegger, Martin, “The Question Concerning Technology”, in *The Question Concerning Technology & Other Essays*, Harper & Row, New York: 1977, pp.17-27.

2 Davies, Char, “Changing Space: Virtual Reality as an Arena of Embodied Being”, in *The Virtual Dimension: Architecture, Representation and Crash Culture*, ed. John Beckmann, Princeton Architectural Press, New York: 1998, pp.4-5.

3 Beckmann, John, “Merge Invisible Layers”, in *The Virtual Dimension: Architecture, Representation and Crash Culture*, ed. John Beckmann, Princeton Architectural Press, New York: 1998, pp.4-5.

Figure 1.7 El Pedregal, Lewis Barragan.

Figure 1.8 Bernard Lassus, drawing of the proposal for the design competition Parc Duisburg-Nord (© Bernard Lassus). Lassus’ design proposed a new poetics of landscape, where the concepts of “démessurable” and depth are invoked to emphasize the significance of the imagination in formulating new ideas of space.

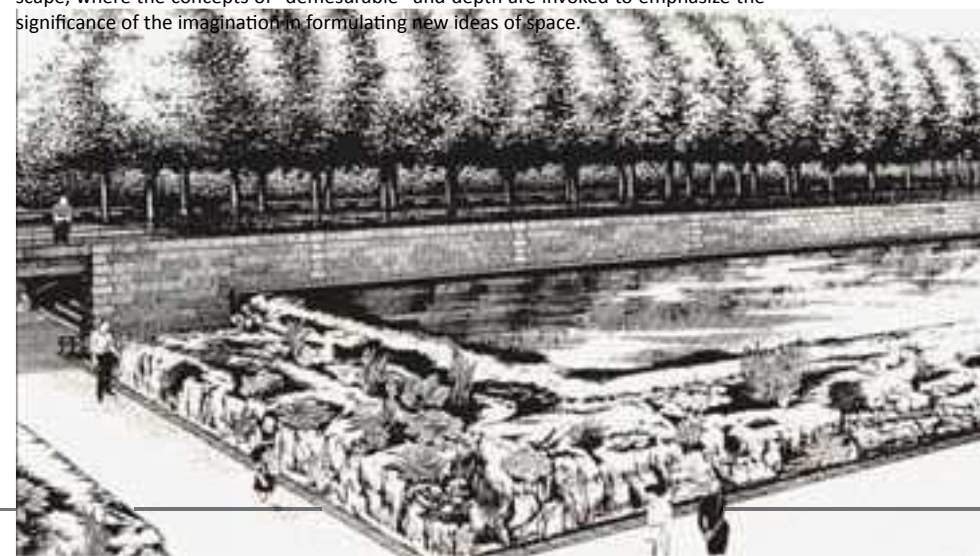


Figure 1.9 Eduardo Kac, *Fluorescent Dictyostelium* (2000-2001); the representation of synthetically luminescent life forms that share their environment with a biobot (a robot whose actions are controlled by a colony of amoeba acting as its brain). The intention is to show the virtual emergence of a new synthetic bioluminescent system. This example abstractly and also realistically depicts the situation of contemporary emergence of virtuality of space and the reality of traditional existence.



Figure 1.10 Char Davies, *Osmose* (1994-1995); *Osmose* is a space for exploring the perceptual interplay between one’s self and the world; i.e. a place for facilitating awareness of one’s own self as consciousness embodied in enveloping space. It becomes reality through an immersive interactive virtual-reality environment installation with 3D computer graphics and interactive 3D sound, a head-mounted display and real-time motion tracking based on breathing and balance.

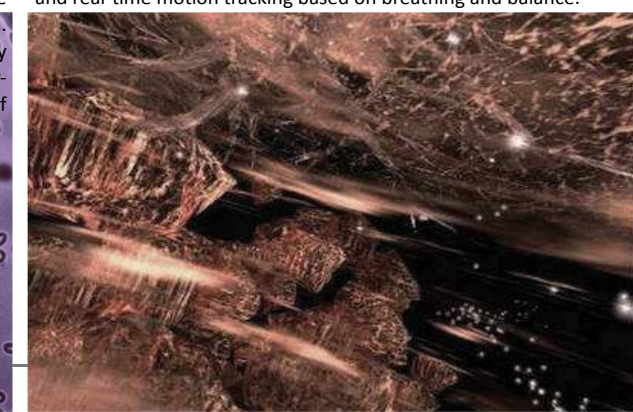


Figure 1.11 Char Davies, *Osmose* (1994-1995); Immersion in *Osmose* begins with the donning of the head-mounted display and motion-tracking vest. The first virtual space encountered is a 3D grid which functions as an orientation space.



Analytical cubism, represents the description of a space or an object, and virtually goes through the process of deconstruction for means of a pictorial expression and mimetic representation. Closely related to the essence of the concept of a public open space, analytical cubism may become essential for the virtual but two dimensional representation of a public open urban space through the representation of various perspectives and points of view all at once.

1.3 signs and symbolism

In a modernist effort of crisis, when seeking to re-establish some kind of an open space repertoire and new codes of existentialist communication within the city, evolves the experimentation and research of the role of the sign and symbol – elements that come hand in hand with the artful and more profound implementation of elements that tell some kind of story in relation to the adjacent objects. The positioning of signs and symbols often blends in with the concept of illusion of the present situation, in an effort to overcome the overwhelming references that a space could hold with the past – what Ignasi de Sola-Morales characterizes as a ‘phantasmagoria’. He considerably suggests the modernist inevitable but semiotic combination of repetition and difference, and the ideal solution of establishing a difference that avoids repetition; a process that denies the primacy of an original thought over the remembrance of its image.¹

The study of signs and symbolism in relation to public open urban spaces is a newer field, emerging from the philosophical movement of phenomenology of the seventies, blending in theories of cognitive geography, cognitive psychology, and socio-cultural characteristics. In the anthology of semiotic architectural studies *The City and the Sign*, edited by M.Gottdiener and Alexandros Ph.Lagopoulos, it is stated that “urban semiotics represents a unique and perhaps improved way of studying the social role of signification in settlement space”. Through the selective writings, it intends and succeeds in theorizing ideas of social and natural environments of individuals in relationship to their internal worlds, stating ‘objective, formal or scientific languages’ of public urban space communication, and forming a system of denotative and connotative codes of cultural interaction.²

The following subsections aim to present a collective and selective research of the application of the study of signs and symbolism to the design of public open urban spaces, emphasizing on the potential of contemporary application.

¹ Solá-Morales, I., et.al, 1997, *op.cit.*, p.110.

² Gottdiener, Mark; Lagopoulos, Alexandros Ph., “Introduction” , in *The City and the Sign*, Columbia University Press, New York: 1986, p.3.

Figure 1.12 Georges Braque, *Houses at la Estaque*, 1909 - early stages of cubism.



Figure 1.13 George Braque, *Violin*, 1910 - analytical cubism

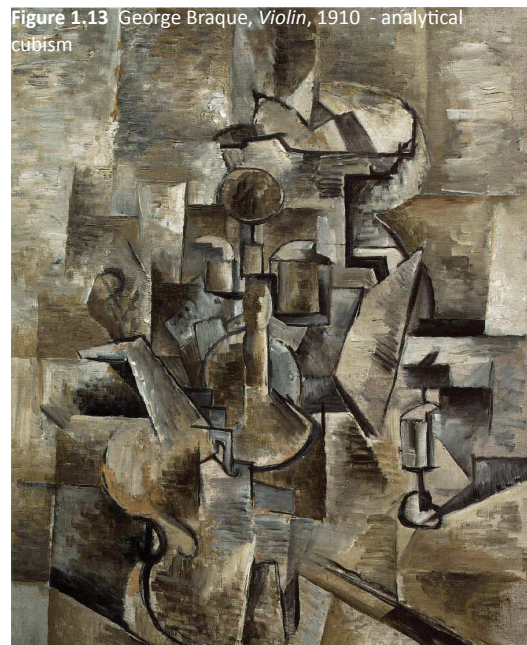


Figure 1.14 Picasso, *Girl with a Mandolin*, 1910 - analytical cubism



Figure 1.15 Aldo Rossi's *Analogous City* is represented as a collage of significant memories and places.

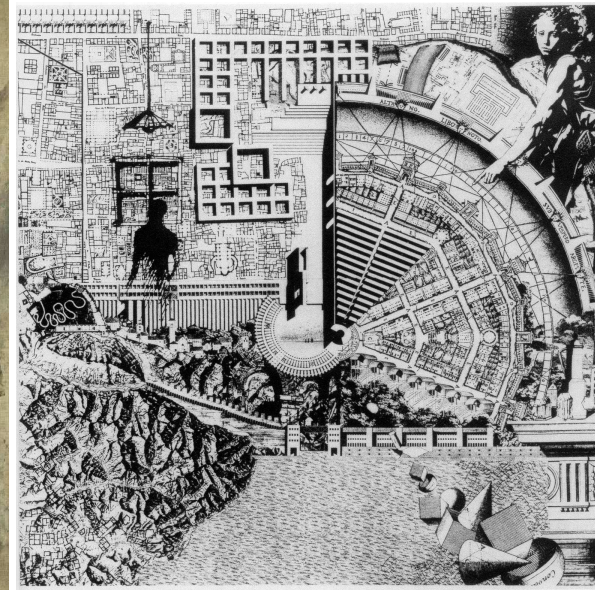


Figure 1.16 Michael Graves (2003-2004). The design creates a transition between the two schools, with a series of small buildings known as “houses” within the site’s long public space known as the “village green”.



1.3.1 relationships and meanings

Starting off with the masterly descriptions of Camillo Sitte (glossary: *Sitte, Camillo*), we gather a comprehensive syntactical structure of the nature of the historical plaza and the components that make it unique, when he speaks about the relationship between buildings, monuments and public squares; the characteristics of the open centers of public places, the enclosed character of the public square, the form and expanse of public squares, the irregularity of ancient public squares and their groupings. While this analysis is dedicated mostly to the Italian piazza, he goes further to study some good public space arrangements of Northern Europe as well.

The seeking and a more methodological analysis of relationships within a public open urban space composition, has its roots in General Linguistic theories and the architectural movement of phenomenology (glossary: *phenomenology*), in pursuit of the existence of a syntax in the urban forms and open spaces, where architectural compositions are derivations of universal unconscious formations of cerebral structures that directly relate to the perception of space and the psychology of humans.¹ (also refer to the following chapter on the *perception of space and invisible structures*).

The grammatical aspect of linguistic theory can be compared to the relevant morphological characteristic of an architectural and urban analysis, whereas the syntax analysis is the formation of rules that determine in each language where the words ought to be positioned to form sentences and phrases. Linguistic syntax may be compared to the formation of rules and styles that apply to the history of architectural composition to form definitions of *venustas*; Vitruvius' term contemplating the principles for beauty, and its relationships to contemporary cultures. This principle is only a part of three principles embellished by Vitruvius, the other two being *firmitas* (stability) and *utilitas* (utility)², all together inquiring technical structures and their qualitative relationships to the existing civilization images of the city.

Christian Norberg Schulz writes that in the making of a space, man has always wanted to achieve three things: to 'visualize' (figure 1.17), 'complement', and 'symbolize'.³ (figure 1.18) Symbolization in the urban setting implies the concretization of an existing perceptual or realistic phenomenon, using artistic or representative means. A symbol takes the place of an intermediary step between visualization and realization, and has played an important role in the architecture of the urban space through centuries. "When the man-made environment is meaningful,

man is 'at home'.¹

Schulz proposes extensive semiotic models of identifying *venustas* of urban and rural environments, such as basic categories of natural understanding '*forces*' (thing, order, character, light, time), the *structure* of natural place (texture, color, vegetation), *models* of natural understanding (sacred places, cosmic order, character), the *spirit* of natural place (romantic landscape, cosmic landscape, classical landscape, complex landscape), translating meanings into man-made things (visualization, contemplation, symbolization), the *structure of man-made place* (enclosure, temenos, rotunda, grid, labyrinth, wall, building, articulation), to name a few.² Furthermore, his interpretation of Civic Art is expressed inside the definition of *genius loci* (also refer to *Introduction* of the thesis), which in Roman mythology was defined as 'the protective spirit of a place', often depicted as a snake. In contemporary usage of the term, the *genius loci* will most likely refer to a location's 'spirit' and the kind of atmosphere that makes it unique. In critiquing modern architecture and Civic Art, the *genius loci* falls into the theoretical considerations of phenomenology, a philosophical method developed in the early 20th century, primarily elaborated by Edmund Husserl and developed by a chain of figures such as Heidegger, Merleau-Ponty, Jean-Paul Sartre, and other philosophers including Paul Ricoeur, Emmanuel Levinas, and Alfred Schulz.

The more we deal with public open urban spaces in the contemporary environment, the more it becomes complicated to study and find symbolic relationships between design and conceptual elements, as the conceptual, cultural, semiotic and historical facts become more and more complicated to decipher and understand. The study of spatial symbolism no longer deals with the relationships between volumes, but with multi-disciplinary and multi-conceptualizing problems that until now, have the possibility of ample means of expression.

Umberto Eco, in his *La struttura assente* of 1968, includes an architectural semiotic interpretation of the formation of relationships and meanings within the architectural environments of our urban existences with the two keywords of *functionality* and *communicativeness* taking place (where the former term is extensively used and the latter one is often and wrongly neglected). Françoise Choay, on a similar association of the urban signs in relation to the public civic environment, bases her analytical writings on Saussure's linguistic differentiation between *spatial contiguity* and *similarity*, respectively corresponding to two forms of mental activity; *conjunction* and *association*.³ But what is more interesting, is her initial and much older speculation of the civic space semiotics, in which she makes two very important differentiations

1 Saussure, F., 2006, op.cit.

2 Università degli Studi di Napoli Federico II Facoltà di Architettura; "Eurau'10; 5th edition, European Symposium on Research in Architecture and Urban design"; symposium theme; Naples: June 2010.

3 Norberg-Schulz, C., 1991, op.cit., p. 17.

1 Norberg-Schulz, C., 1991, op.cit., p. 50.

2 Norberg-Schulz, C., 1991, op.cit., p.19.

3 Choay, F., 1986, op.cit., p. 174.

Figure 1.17 Image expressing Christian Norberg-Schulz's perception of 'visualization' - Castle in Alto Adige. Found in his book *Genius Loci; Towards a Phenomenology of Architecture*; Rizzoli: 1991 (orig. in 1980).



Figure 1.18 Image expressing Christian Norberg-Schulz's perception of 'symbolization' - Petra in Jordan. Found in his book *Genius Loci; Towards a Phenomenology of Architecture*; Rizzoli: 1991 (orig. in 1980).

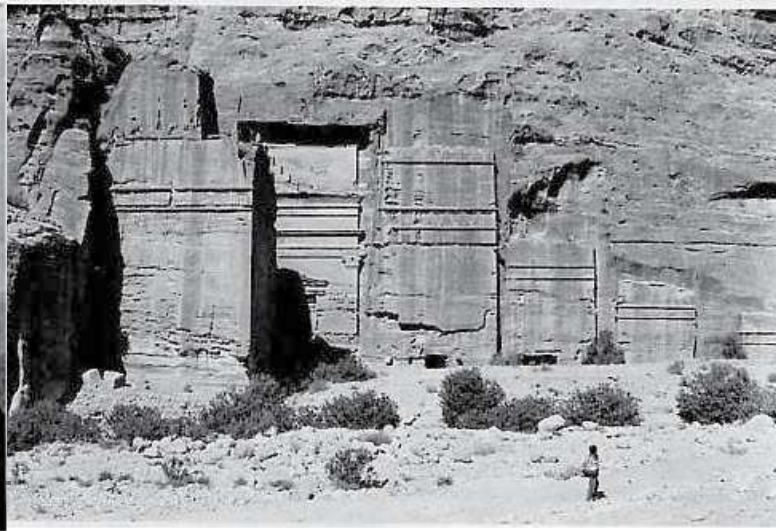


Figure 1.19 Christian Norberg Schulz's semiotic interpretation of '*identification*', in Naples, Italy.



Figure 1.20 Christian Norberg Schulz's semiotic interpretation of 'a *'labyrinthine world'*, village at Tuti Island, in Khartoum

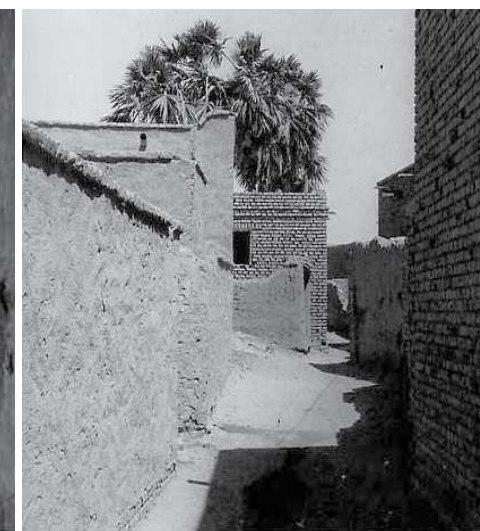


Figure 1.21 Christian Norberg Schulz's semiotic interpretation of an 'urban inside' of a set structure and various forces, resulting to the strong civic space of Siena, Italy



entiations in the consideration of signs in the public open urban space of the modern and contemporary city; the one consideration follows the approach of what she calls *technotopia*, linked to progressivism, and the other approach is *anthropopolis*, linked to culturalism. In her effective effort to translate the meta-modern trends of public open urban mixed systems, the imaginary civic capacity slowly deteriorates, searching for new vocabularies of a *metalinguistic* era, but certainly not escaping entirely from fantasy.¹

Eco's categorization of semiotic architectural urban significance is further broken down in terms of denotative and connotative meaning, signification through history and modes of changes, architectural codes, a comparison between architecture and mass communication and architectural definition. (figures 1.22, 1.23) All of the above lay on the conception of space as a sign and clue to cultural society, where the architectural depictions and formations generate an *iconic code*. This codification, according to Eco, has a purely cultural context, and the only empirical way to codify its communicative meaning is through the construction of structural models, postulated as a theoretical hypothesis.² (The main intention of this thesis is similar to this theory, where the formation of a structurally theoretical and demonstrative model is being used for the definition of the contemporary public open urban space). In order to make these relationships clearer, Eco presents the example of the cave, which may have a denotative meaning of a 'form of inhabitation' and a connotative meaning of 'family', 'group', 'security', 'familiar surroundings', etc.³

1.3.2 public spaces of the muses

The relationship between the civic space, or the urban core or sub-core, and its symbolic reference to hidden meanings and profound conceptual interpretations, takes a certain viewpoint in the seminar "Scales Interlaced Design in the Urban Region" that took place at the Politecnico di Milano. A synthesis of philosophical accounts of city identity, the seminar of 2010 investigated various subjects that become relevant to the semiotic considerations of the public open urban space. This reference draws us to a point of view of artful symbolism, sometimes mythological, that creates logical and creative analogies similar to what art does.

Some of the semiotic topics to consider are; territorialization of the human field at the scale of the net-city by looking at the 'city as a museum', analogous to 'the city of Muses'. The lecture suggests looking at urban semiology and the communication or competence of interaction with the place and the earth, investigating the dialogical dimension of memory and the images of the public space, examining local scales of the urban outline and the public realm as a theater and new movie sets, scrutinizing the 'urban archipelago' and its connections inside an interpretation of relations and geographical derivations as a network of processes between built and natural capital.

Issues of 'cartography', through the elaboration of topics on methodology of the metropolitan and urban scale decipher socio-spatial differentiation, delving on global and local urban visions and their presentation patterns for action, debating on complexity indicators and sustainable cities, analyzing codes of the project design for the representation of architecture, the city, and the landscape, and progressing from the flat to the virtual tri-dimensional representation. In this case, the urban space is being conceptualized as part of "the City of Muses" and hence, the public open urban spaces are obliged to follow the rules and philosophies of the Muses' needs and structures. These spaces are being described as loci that reign and inspire. The Muses are a profound identity of re-activation and renewal, a cluster of interactive poetic images, which create an invisible net of feelings and associations. The Muses of historical mythology have diverse identities, diverse talents, and diverse characteristics, but they all hold one common identity of inspiration in the creation of literature and the arts.

Here, the urban space is viewed as a developing work of literature and art, theory and practice, philosophy and application. Going back to the seminar's topic "Scales interlaced design in the Urban Region", we discover the analogy of the 'net city' and the situation of interlinked public open urban spaces, where multifarious functions of varying importance and manifold images are all interlaced into one common function of serving the people in the urban environment while providing spaces that 'sing'. It is no coincidence after all that the Greek *Mousa* is a common noun as well as a type of goddess, and it literally means 'song' or 'poem'.

- 1 Choay, F., 1986, op. cit., p.242.
- 2 Eco, U., 1986, op.cit., pp. 54-59.
- 3 Eco, U., 1986, op.cit., pp. 58, 64.

Figure 1.22 The semantic triangle, expressed in Umberto Eco's writings on the interpretation of formation of relationships and meanings within the architectural environments of our urban existences.

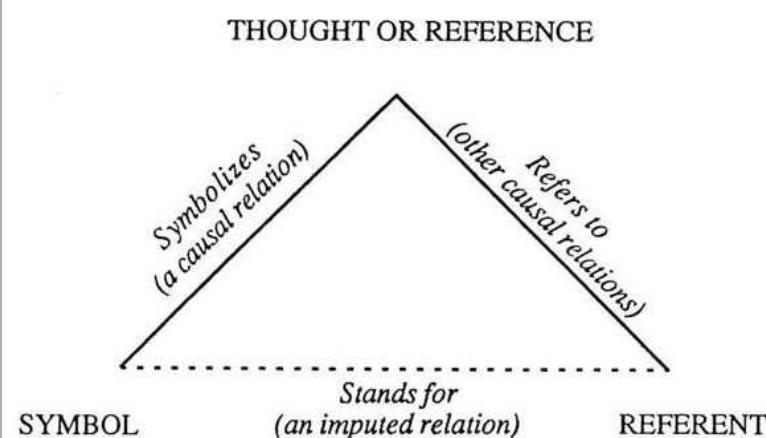


Figure 1.23 The circle of fifths, applied to music, is a geometrical representation of relationships among different pitch classes of the chromatic scale. Umberto Eco, in his *Function and Sign; Semiotic Architecture* (1986 ed.) speaks about the application of such rule to the built structures.

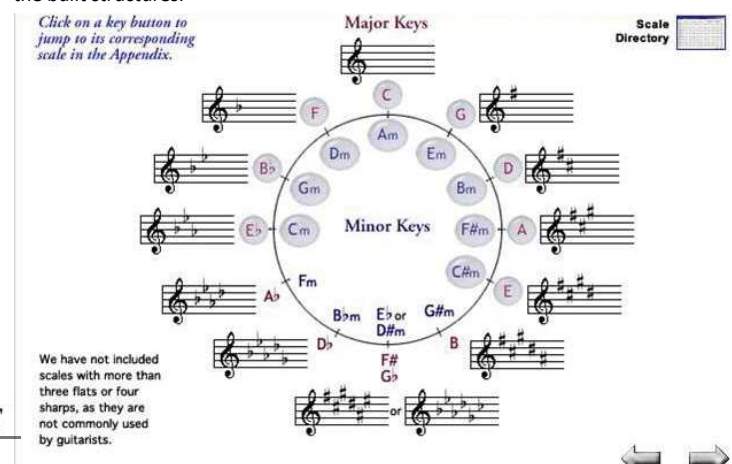


Figure 1.24 The Muses



The word is also probably derived from the Indo-European root *men-*, which is also the source of Greek *Mnemosyne*, and English 'mind', 'mental' and 'memory', distinctly reminding us of the theories of Aldo Rossi and his idea of *Locus*, where the city remembers its past (our collective memory), leading us to use that memory through monuments; hence, monuments giving identity and conceptual structure to the public open urban space.

The above concepts clearly express the assortment of public open spaces in variance, where urban metabolism, transformation and evolution take place, while always retaining the common 'faith'. Often, the city is also expressed as a 'double armature' of 'urban and social', 'built capital and social capital'. This duality is the result of two dynamics; the centripetal attraction affect, and the decentralization and diffusion movement, where spatial dimension is contrasted with corporal sensibility.

The seminar explained the variables of '*symbolic intermediary*', 'local fabric' (*tessuto*), 'urbanita', and 'new urban relations' (urbanita/conviviality). The breaking down of these concepts helps us visualize a synthetic city of fragmented conceptualizations, contributing to the 'cosmopolitan conviviality', which is defined as the 'spatial condition for the exchange of affections'. Hence, symbolic intermediary is interpreted as a central place for human intention, a transformation in symbol, a mental elaboration of memorable events. A local fabric/*tessuto* is broken down into the crossing point of the nets linked to geography, a point of support, a difference in identities. *Urbanita* is defined as city fabrics, conviviality, environmentally known ledges, difference in identities, a sense of belonging. And finally the new urban space relations (urbanita/conviviality) are expressed as the concepts of 'enclave' and the 'archipelago'. The City of the Muses is explained to have two tracks; syntactic/paradigmatic and characteriologic/figurative. The city as a public realm is being realized as a Theater, where spaces are expressed as body-place, constructed by the conditions of life and inspired by rooms for the wonder and imagination. This series of seminars was a series of analogies and close-up examinations that perceive the city from different philosophical points of view.

1.3.3 semiotics of the ground

Bernardo Secchi, in an article for *Casabella* titled "Progetto di suolo" (Land Design), mentioned that the neglect of land design in the second half of the 20th century is the major reason for the lack of semiotic significance of the public open urban space that we encounter in the contemporary days.

The case of Siena may very well be considered an example when the ground and its variations becomes the framework of artistic inspiration, leading to breathtaking public spaces within the city, that perceive the surrounding landscape profoundly. These elements are of a topological kind, which Norberg-Schulz mentions in his *Genius Loci*, borrowing principles of the Gestalt psychology on space perception.

Geosemiotics is a more contemporary theme of interest, sometimes linked to research of cyberspace, which investigates the identification of public open urban spaces through the study of signs categorized in three subsystems¹; interaction order (involving talking, circulating, public gathering), visual semiotics (signs, images, posters, advertisements), and place semiotics (positioning of buildings and landscape). However, geosemiotics and its relationship to the saussurian linguistics of group interpretations revolves around the debate of degrees of ambiguity, as the whole composition in a public open urban space for example, will always be greater than the sum of its parts.

Some of the research methodology concepts presented during *Darre Terra*², refer to the architecture of public open urban space defined as civic art, through a methodology of syntactic representations. The references will be used for the speculation of the thesis topic through the relation to civic space and ground symbolism of heritage importance. The aim is to draw semiotic differences of representing heritage through matters of scale and proportion, the development of form through perceptual influences, the use of specific stimulations of symbols and their meanings, and references to analogies and allegories. Although the above measures are usually influenced by a number of abstract criteria such as religion, communication and cultural traditions, there are more epistemologic and architecturally semiotic considerations, including landscape references and psychologism of perception, that lead the discussion towards criteria of architectural importance for the evaluation of the public open space.

However complex this issue may seem, there have been insightful contributions that enlighten the question of form and space representational differences, including Rudolf Arnheim's *The Dynamics of Architectural*

1 Scollon, Ronald; Scollon, Suzie Wong, *Discourses in Place: Language in the Material World*, Routledge, New York: 2003.

2 Contin, Antonella, curator professor of seminar "Darre Terra; nuovi modelli sostenibili per la crescita urbana", Galleria Vittorio Emanuele, Urban Center: Milano, 17-18 June, 2010.

Figure 1.25 "Darre Terra; nuovi modelli sostenibili per la crescita urbana", Galleria Vittorio Emanuele, Urban Center: Milano, 17-18 June, 2010; curator professor Antonela Contin



Figures 1.26, 1.27 A proposal of geosemiotic importance, by JDS Architects for Rimini Seascap, where green roofs are used to change the perception of architecture and the public open urban spaces in relationship to the adjacent seascape. The roofs are brought down in a vertical dislocation, making the roofscape seem as part of the terrain. In this way, both longitudinal and transversal fields of direction are created, incorporating qualities of orientation on multiple levels and dimensions.

Form, which debates the values of the Egyptian temple (figure 1.28), the Chinese pagoda (figure 1.29), and a Rococo hunting lodge¹, which may be considered a starting point of communal interaction for different heritages. Jeanneret calls the study of the semiotics of the ground ‘architecture of land’, and many times can be found as the expression of ‘pedometric’ phenomenology. This study goes hand in hand with the impression that perceptual sketches created while on foot, grasp an environmental understanding that is much deeper than a sketch created through other states of experience (memory, source, imitation, description). Jacques Gubler reinforces this concept when citing the existence of drawings that let one understand that the construction of the land affects the volume, similar to the situation of the Philotheou church in Greece, in which the rhythm of the plan precedes the explanation of the cross-section. It is also noteworthy here to mention the ordeal of the climbing of the Parthenon, also acknowledged by Gubler, who speaks of the pinnacle impression of one who climbs up the hill in contrast to the less powerful but yet still hearty ascent of those who use the steps. These variable experiences are also present in whatever city combines the monumental virtues with those of the sloping ground, as in Sienna, Prague, Istanbul, Bergamo – to name a few. Jean-Pierre Giordani describes the strength of the pedestrian experience on a varied ground as the instrumental memory of *the eye of the walker*², who sketches (in paper, or in memory), the impressions of sequences, named in empirical phenomenology as *operational research*.³ For the understanding of diverse cultural forms and space organizations, the *Darre Terra* seminar was very insightful in receiving clues on the ‘semiology of dwelling’, and the relationship between the users and the land of communal interaction.

The seminar brings up American authors’ elaborations on two ways of communal dwelling: ontological design and harmony, versus indicators, evaluation, and scientific data. This classification was punctuated by the American school, initially compounded by the Lynch/Alexander theories and also the Venturi-approach, which classifies modern semiology, and speculates ways in which the open spaces get organized according to their center (figures 1.30, 1.31). Similarly, the Italian Mediterranean studies of semiological city speculations are shown in Giancarlo Tonolo’s writings, mentioned in *Darre Terra*, which speak about classical rhythms and territorial formation, along with the problem of methodology in regards to analysis and interpretation of the project. There is the problem of spatial measures, infrastructure, the contemporary net city, the compression of geological time, the innovation of renewable energies, and the need for urban metabolism and substitution, transformation and maintenance; all of which are factors that must acquire semiological importance for the fluid paradigmatic transformation of the land in relation to the growing structures, according to specific heritage interpretations. This continuity of transformation is being presented as a form of contemporary crisis.

1 **Arnheim, Rudolf**, *The Dynamics of Architectural Form*, University of California Press, Berkeley; Los Angeles; London: 1977.

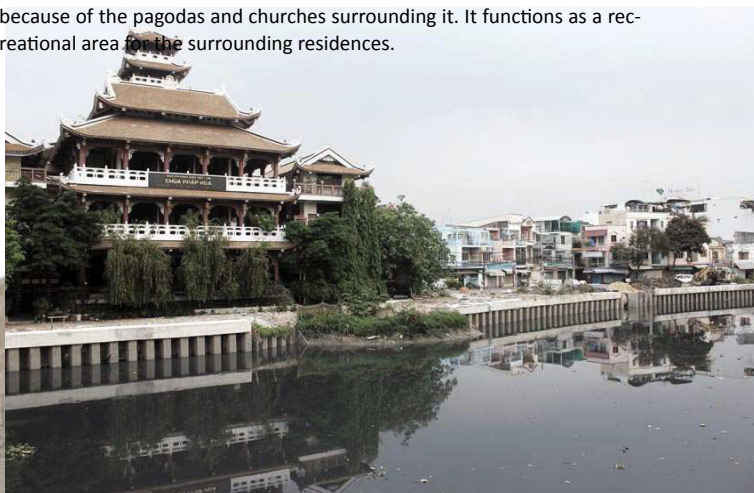
2 **Giordani, Jean-Pierre**, “Visioni geografiche”, in *Casabella*, vol.II (1987), n.531-532, pp.19-20.

3 **Gubler, Jacques**, “Moving, being moved. Notes on walking and on the architecture of ground” from Jacques Gubler’s “Motion, Emotion: themes d’histoire & d’architecture”, Infolio, Gollion/Lausanne, 2003.

Figure 1.28 Image of an Egyptian temple in Africa and its relationship to the open space.



Figure 1.29 Chinese pagoda orienting a public open urban space alongside the Thi Nghe Channel in Ho Chi Minh City in Vietnam, a ‘religious space’ because of the pagodas and churches surrounding it. It functions as a recreational area for the surrounding residences.



The mentioning of the Castle, for example, which was considered a representational core around which civic action took place, is an important part of the seminar that signifies a semiotic element of cultural heritage dominating the landscape in sequences of urban scenes, in which the landscape is almost infinite, with an identity of symbolic, sacred and holy value. It is important at this point to reference *The American Vitruvius* by Hegemann, in which there is the mention of ‘garden art as civic art’, encompassing the concept of perspective. Here, the mathematical elaborations of the infinite find place for analytical interpretation, revealing the secrets of representing the fine gradations of atmosphere into immeasurable distances, with civic design celebrating its highest triumph in the development of axes of great length.¹ Hegemann elaborates that in order to develop such axes in firmly planted manner, the development of long axes is required, to “strengthen and graduate their vanishing into the distance and to scale them by counter axes”.² The western axis of Versailles (figure 1.32) is brought up as an exemplary success of ‘unsurpassable climax’ of modern art, with its vanishing perspective making it seem as an endless landscape merging into unlimited space. (glossary: *Hegemann, Werner*)

Seeking to find rules of the structure of civic cores according to their linkage with the ground/soil, we may reference the historic city rules of the star (*stella*), where the level of city points change according to the ‘break’ of rules of morphological land features of the water, wind, light and ground, resulting in a variety of typologies and symbolic interpretations. Here, the *Four Canzioni* (four songs), link the above studies to the practical outcomes of heritage-classification in order to solve the ‘mystery’ of different typological and spatial organizations according to heritage evaluation, where we study the cross-cultural shifting from large scale to smaller scale and vice versa. The *Four Canzioni* refer to four models; a) the roman origin (where spaces are designed according to structured measures), b) the big church model (with a big urban piazza in front of a large church), c) the ottoman city (with the bazaar and mosque establishment) and d) the palace.

Darre Terra mentions in sequence the concepts and projects by Purini on *morphema*, who broke down his analysis into two parts: a) territorial analysis, landscape interpretation, geometry, preliminary indicators, synthetic indicators, program evaluation, taxonomy, operations, master plan study regards to regional and cultural identity – something that Christian Norberg-Schulz investigates in *Genius Loci*, where each landscape encompasses a unique perceptual character. However, this identification of landscape and natural materials that come from the surrounding terrains, characteristic of Scandinavian architecture, may bring up a different point by the Mediterranean Italian tradition, where the urban forms of the city and the architectural forms of a space are what define the ideational operating fields.

1 **Hegemann, Werner; Peets, Elbert**, *The American Vitruvius; an Architect’s Handbook on Civic Art*, The architectural book publishing co., New York: 1922, p.204.

2 **Hegemann, W, et.al.**, 1922, op.cit.

Figures 1.30, 1.31 Competition for Copley Square by Venturi and Rauch, Gerod Clark and Arthur Jones, 1966. Characteristic is the use of the grid, with an ‘un-American’ public space, considering the fact that Americans feel uncomfortable sitting in an open piazza (Venturi, *Complexity and Contradiction in Architecture*, 1992 ed., pp. 129-132.)

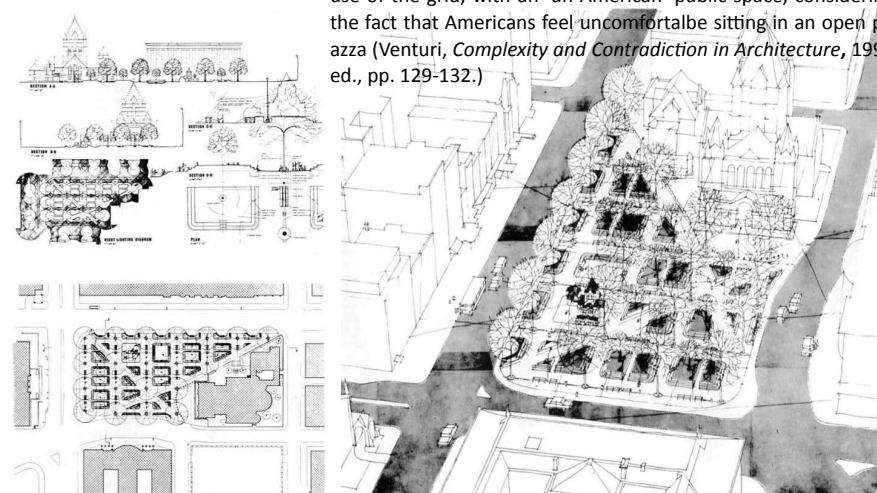


Figure 1.32 The western axis of the gardens of Versailles, with the vanishing perspective that makes the landscape seem that it is merging into unlimited space.



An example brought up is the comparison to the Dutch paintings (figures 1.33, 1.34), which enclave a hierarchical nature of the landscape in terms of productive processes that are directly connected to the process of the city and the aspiration of a garden-oriented movement.

b) The analysis of the *path* and its public spaces, the constructive *ground*, eco-system continuity, and study of the embedded system.

In Contin's presentation, the Italian semiology of constructional representation lies in the development of mental maps and the building of relationships between places and images. This point of view is characteristic of the Italian school, with a tradition of holding its main concepts on the foundations of 'memory', 'memorable images', 'imagination', 'emotion' and 'desire'. Vicenza is an example brought up to reinforce the issues being discussed. (figures 1.35, 1.36) The images here serve as mnemonic palimpsests, with their breakdown of a) incisions between the images and the foundations on the ground, b) the idea of the space and the paradigmatic models that guide the development of the architectural typologies and traditions, and c) the pragmatic ideologies of the spaces and the city. Here, territorial construction and dwelling correlations enclave keywords of 'geography' and 'urban biography'; symbolic intermediators with the final effect of fragmentation. This design of described virtual mental maps, aims to create a direct relationship between the building and the body, embellishing an interpersonal function of space and the relationship of the users to the environment, where the body acquires a lost symbolic relation to the environment.

At this point, it is noteworthy to bring up the most elementary forms of human perception of the environment that may be considered the vertical projection of objects through the course of walking, which as Kant expressed, is the activity that fosters the animal-like organization of the human body, developing muscular force and intellectual faculties. Perceiving the open spaces from the ground along the horizontal plane, is expressed by Kant as the act of 'walking and reflecting', in a free play of imagination, while the motion helps to recover one's energy.¹

On the portion of *Darre Terra* that references 'ways of seeing' perceptual images of landscape territory and definitions of landscape, it is helpful to examine the concept of styling and allusions in regards to regional and cultural identity (figure 1.37) – something that Schulz investigates in his *Genius Loci* once again, where each landscape encompasses a unique perceptual character. However, this identification of landscape and natural materials that come from the surrounding terrains, characteristic of Scandinavian architecture, may bring up a different point by the Mediterranean Italian tradition, where the urban forms of the city and the architectural forms of a space, are what define the ideational operating fields. (figure 1.38)

An example brought up is the comparison to the Dutch paintings, which enclave a hierarchical nature of the

¹ Gubler, J., 2003, op.cit.

landscape in terms of productive processes that are directly connected to the process of the city and the aspiration of a garden-oriented movement.

Darre Terra brings up several points of views of the embodiment of landscape reference to the architectural design of an urban space. Perhaps a good example may be Luis Barragan's Gardens of El Pedregal, where the architectural styling extracted inspiration from the then in extinction forms of Mexican tradition and the surrounding wild and colorful terrain. Perhaps, the flatness of some American lands could explain the uniform colonial style of repetitious housing, placed in absolute uniformity, amidst perfect-green gardens and linear fences, in light of the 'American dream'. Whatever the land references, the fluidity between various porous definitions is what provides fluidity of urban views, where the landscape becomes neither innocent and passive, nor inactive and benign.

Relevant to this study is also Guya Bertelli's synopsis and contribution of public urban living and figures of transcriptions concerning signs, traces, lands, limits, intervals, sequences, voids, empty spaces, inter-spaces, transit spaces, common spaces and threshold spaces (also refer to *project spread 2*), all of which speak of a means of semiotics of the ground and references to its morphological and historical importance. Referring to absolute, relative, and relational spaces, the morphological descriptions relate to the architectural, urban and environmental forms of a project, deriving the theme from the three Greek sources of *Morfe* (= form), *Eidos* (=species), and *Idea* (=idea). This speculation is also the beginning of divisions of major schools of thought, as those developed by Plato and Aristotle; the former supporting the notion that form is separated from the material world and is abstract and motionless, and the latter describing a form of a recognized body that belongs to events of the world and deeper meanings.¹

In a parallel speculative analysis, one also sees this horizontal ground involvement with the works of Aldo van Eyck (figures 1.39, 1.40), who appoints rudimentary ground details, where all actions are founded on the very connection to the ground and every project is a new design invention but concurrently a ground transformation. Such an approach often relates to the concept of a nominal intrusion and the concept of minimalism, where the reference point is always the existing morphology (also refer to *layering*).

From a speculative and open perspective view, it becomes evident that the universal landscape is unstable and may only be constructed through artistic practices, open to revealing alternative sets of possibilities. Each heritage, withholding its own treasures of historical references, sensibility values and means of construction, reveals stylistic interpretations according to a variety of patterned rules and openness to

¹ Bertelli, Guya, "Description and interpretation of the architectonic, urban and environmental forms; Theories and Techniques", Politecnico di Milano PhD course, 2009.

Figure 1.33 Dutch painting evolutionary example of the productive process of the hierarchical nature of the landscape, connected to the process of the city and the aspiration of a garden-oriented movement.

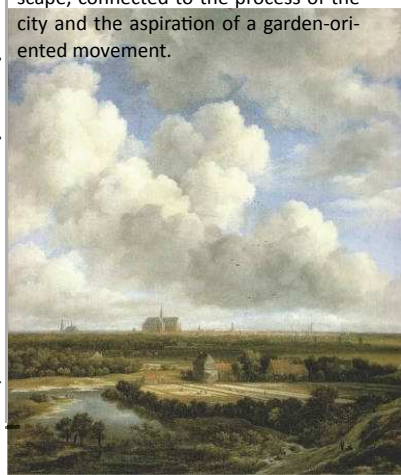


Figure 1.34 Dutch painting perceptual interpretation of the public open urban space; The Grote Markt and Sint-Bavokerk, Haarlem, 1696, by Gerrit Berckheyde



Figure 1.35 Vicenza panorama for understanding of the relationships between the built form and the ground, taken from Monte Berico.



Figure 1.36 Vicenza panorama.



Figure 1.37 Norwegian winter cityscape. Reference on the 'identification' of public open space by Norberg-Schulz.



Figure 1.38 Napolitan street market cityscape. Reference on the 'identification' of public open space by Norberg-Schulz.



experimentation. It is interesting to see the degrees of the above mentioned phenomena alter, through the course of history, and through the effects of contemporary reality, heavy traffic and infrastructural barriers. In such complicated cases of peripheral disorder, the semiotic link must often be only visual, concentrating as a starting point, on only a few direct linkages of semiotic dialogue and reference to one another.

The maintenance and flow of relationships and meanings from the city center to the urban periphery, may be achieved through a variety of ways of the design of architectural and landscape patterns, re-appropriating urban territories, and celebrating a richness of connections and interactions among the diversity of space significance (in density, use, typology and quality of open space). These repeating patterns may also be able to create a concept of meaning among different scales of operation inside the surrounding city. A method of semiotic interpretation may also be found in the flow of connections through narratives (*concept and theme*, section 2.7), which may articulate the forms through analogy and meaning and set the scene for the pivotal role of human action. Finally, there is also the solution of the peripheral use of monuments (civic art by means of architectural or artistic/sculptural creations), which when used delicately and thematically, may provide important nodes that become identifiable against the more anonymous urban fabric.



Figures 1.43, 1.44, 1.45 (top) These examples (and the three following), by the 'Laboratorio Dottorato Progettazione Architettonica e Urbana, XXII Ciclo', prof. Guya Bertelli, Ilaria Valente and Fabrizio Zanni, called "Excursion in the West City", show on a large scale, the polysignificant existence of relationships that partake in the urban periphery of Milano, in pursuit of creating an urban center for the Expo 2015. Figures 1.46, 1.47, 1.48 (bottom) The chaotic and ambiguous site of the New Expo 2015 of Milan, in the North-Eastern periphery adjacent to the Cemetery and the Rho Fiera exposition center, lies the problem of semiotic interpretation of elements in order to provide efficient links. The images show the Scale Farini; a goal to enhance the exchange between vectors, in order to avoid any kind of congestion; also foster dialogue between different parts of the city as opposed to the railway embankment. This is an example of eclectic semiotic concentration.

1.3.4 cyber-semiology

And then there is the contemporary phenomenon of remote signs and symbols, where through telecommunication and remote-sensing technologies, one is allowed through non-physical effort to become at once actor and spectator, transmitter and receiver.

Cyber-semiology goes in a parallel direction with the nihilistic and deconstructionist approach of architectural space, as it 'denies' reality of the physical experiences and uses signs of mortality, as acknowledgement of our own inevitable biology. Cyber-semiology also agrees with E.H. Gombrich's ideas of profound visions in the drawings and expressive spatial representations of the children's act, because in the virtual world, the over-simplistic and child-like forms of graphic representation bring out merely an icon of reality, "the brutally alluring 'there' that the dream of the future is, and in which, by definition, one cannot be."¹



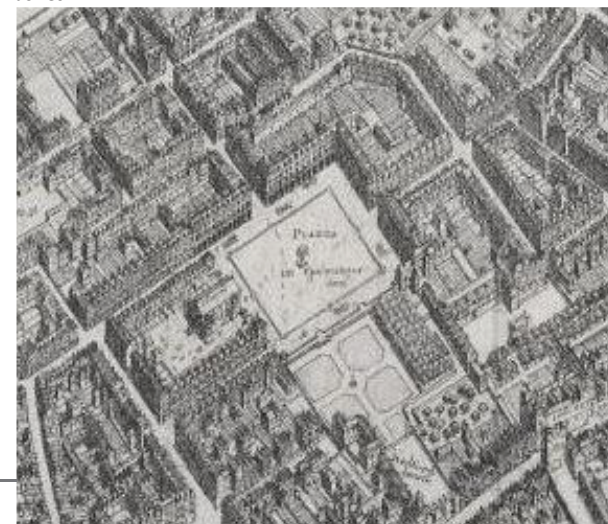
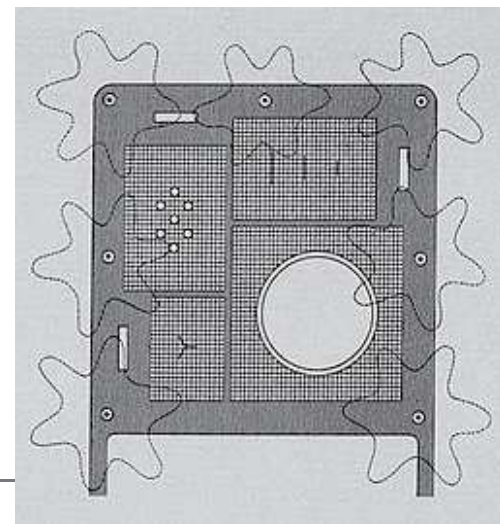
1 Dyson, Frances, "Space, 'Being,' and Other Fictions in the Domain of the Virtual", in *The Virtual Dimension: Architecture, Representation and Crash Culture*, ed. John Beckmann, Princeton Architectural Press, New York: 1998, p.42.

Figure 1.39 Aldo van Eyck playground in Bertelmanplein, 1947 (The vertical climbing bars behind the sandpit were added after 1947).

Figure 1.40 Aldo van Eyck playground in Zaanhof, 1950.

Figure 1.41 Covent Garden, by Inigo Jones.

Figure 1.42 Covent Garden; Wenceslaus Hollar's bird's eye view, around 1650, with the Piazza in the center. The garden of Bedford House, open to residents of the Piazza, is visible immediately below, with Bedford House itself visible on the Strand toward the bottom of the image. By the late 1630s, every house on the Piazza was tenanted by a peer or gentleman. (image from the British Museum).



1.4 the ground as an expression of sculptural means

The relationship between public open urban space and the ground is one that will be more artistically and elaborately developed in the following section of Land Art, but is important to include in an introductory and more precise section, which expresses more fundamental ideas of this conceptual interpretation of space. Considering even the epistemological relevance of the ground partaking a significant role of a constant in the equation of the Earth's complex stability, one may consider the formulation of the Gaia hypothesis of the 1970s (by chemist James Lovelock), parallel to time of phenomenological investigations and new-expressionism. The Gaia hypothesis/theory/principle, relates to the consideration of treating the ground as a point of reference of a self-organizing system, for the phenomenological interpretation of the ground as one single and self-regulating complex system, where each particle that is placed becomes strongly affected by its behavior. This doesn't refrain much from the complexity theory of the same period of post-modernism, where qualities of architectural open space compositions are trying to find deeper values of linkages among forms, themes and aesthetic ideas, investigating multivalent relationships of many meanings.

Dimitris Pikionis, of the same generation as Le Corbusier and Mies, deeply goes into the investigation of the groundscape and topographical sensibility, associating the designs with the direct interaction of the being with 'the glyptic form of the site'. His point of view on this topic is firstly found in his 1935 essay "A Sentimental Topography", first published in the *Third Eye* magazine:

"We rejoice in the progress of our body across the uneven surface of the earth. And our spirit is gladdened by the endless interplay of the three dimensions that we encounter at every step... Here the ground is hard, stony, precipitous, and the soil is brittle and dry. There the ground is level, water surges out of mossy patches. Further on, the breeze, the altitude and the configuration of the ground announce the proximity of the sea... Stone, you compose the lineaments of this landscape. You are the landscape. You are the Temple that is to crown the precipitous rocks of your own Acropolis. For what else does the Temple do but enact the same twofold law which you serve?... Is it not because of this concordance, because the same laws are at work in both nature and art, that we are able to see forms of life, forms of nature transformed before our very eyes into forms of art and vice versa?..."¹

Pikionis' works and writings depict an almost ecological perseverance with the bend of nature and culture in to the definition of the open public space, offering solutions that are valid for contemporary situations of landscapes of historical importance, in the midst of strong topographical imagery (also refer to chapter four on *Heritage considerations*).

¹ Binet, Henele (photographer), *Dimitris Pikionis, Architect 1887-1968; A Sentimental Topography*, The Architectural Association, London: 1989.

His point of view may become similar to Jacques Gubler, who also speaks of the Architecture of the Ground, dividing the topic with considerations of a) the ground in its relationship with the subsoil; b) the ground and its realization; c) the ground as starting point for the architectural project. The first case studies the problem of the modern city and the subsoil's concerns with industrial infrastructures and their network. Here, Viollet-le-Duc scrutinizes the necessity of connecting foundations and structures, where the ground reveals 'geological surprises'. The second case is more related to what we exactly walk on in the city, 'searching for the identity of a city by looking at it from the feet'. Aldo van Eyck's interpretation of the Amsterdam playgrounds are a pure expression of this phenomenon, translating the morphological characteristics of the place into playground objects, laid out on the outline of a cement grid. Finally, in the third case, Gubler speaks about 'pedestrian intuition', and contact with the ground, with the building base being a means of 'orographical reading' of the site.¹

Professor Fabrizio Zanni, in his lecture on 'Thematic Seminar on Urban Design', touches upon this issue when speaking about the possibility of making architectural spatial design by cutting, modifying, shaping and stratifying. To enhance this idea, he compares skylines with ground slabs in pursuit of forming a connective dialogue where one part can work with the other to create new transformations in both levels of investigation. In fact, we learn that Franco Purini in Rome, was another architect who suggested 'folding' as a keyword to modify a territory's ground.

Folding relates to the field of operation, and results in the composition of the design. It is not important on what kind of space we apply the folding, because as Zanni mentions, 'folding is folding'; it is closely related to constructivism and philosophy. This concept of operative topography, has been proven to be a Catalan tradition since 1919, where the general theory of urbanization was developed composed of the notion of the city as having three grounds: the ground, the underground, and the overground. Now in order to modify, develop, improve, and transform these three general urban elements, one has to follow the processes of 'folding', 'furrowing' (engraving) and 'rolling' (stratifying).

Another place where we find the same concepts being developed is in 'magmatiques', which develop theories of the ground of the city as new mathematical shapes and develop a new morphological concept where the ground is the new part of the city. Le Corbusier mentioned the "liberation of architecture from the fetters of the ground", but Zanni investigates the magic of earth-living, and the concept of 'groundscapes'; the rediscovery of the ground in contemporary architectural design. He talks about the making of a new urban land, which he calls 'subterranean architecture', and mentions Peter Eisenman concerning the connections with

¹ Gubler, Jacques, "The architecture of ground", in "Modern architecture in Switzerland: Nationalism & Internationalism" in Course with foreign Professors "Construction and History of Cities and Landscapes: Transformation, Permanence, Memory", 31 May, 2011.

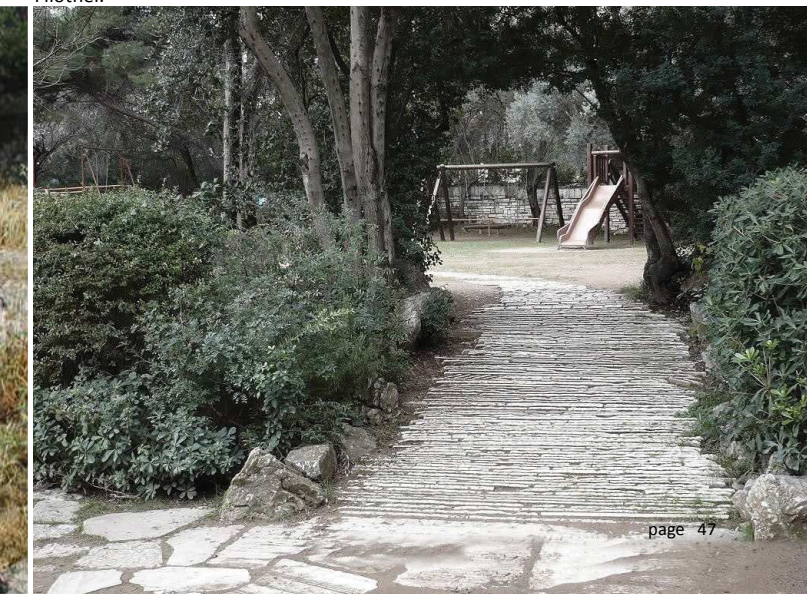
Figures 1.49, 1.50 Landscaping of the Archaeological Site around the Acropolis and Filopappou Hill, a posthumous prize for Pikionis



Figure 1.51 The walks around the Acropolis and Pnyx and Philopappos, designed by Dimitris Pikionis



Figure 1.52 The walks of a playground by Pikionis, in the Athenian suburb of Filothei.



cities of artificial excavations. Relating to the topic of ground-designing, he studies the concept of ‘fold’ in contemporary design, and Martin Price’s “The natural way of nature”, as well as a PhD thesis in Naples titled “Tra Naturale and Artificiale”. Finally, again with Peter Eisenman as a reference, he mentions the famous architect’s “Folding in Time”, to drive home his point of a new conceptualization of designing with a new dimension and meaning.¹

And certainly, when speaking about incorporation of the ground for the figurative expression of the idea, we are bound to speak about Land Art, which is further elaborated next.

1.5 land art and earthworks

1.5.1 an introduction

In the condemning repetitious patterns of city expansion and city sprawl, in an effort to expand our cities into a convenient and practical way, we come to view a city that is lacking true uniformity in quality and meaning. It is a universal problem to be dealt with in cities across the globe, in cities that have no choice but to expand in a rapid and often unwanted way, in frequently spontaneous and thoughtless manners.

It is inevitable, with the atomization and mechanization of the professional disciplines of planning and architecture, landscape architecture, communication and transport engineering, sociology, economy, group and individual psychology, behavioral studies, art and humanities, that urban design has become a more rational, analytical discipline where urban designers have developed dogmatic manifestos that create blunt and uninteresting *loci*. From a general point of view, in the midst of urban public open voids and a parallel need for intimate interaction, results the interpretation of an organic worldview, meaning the definition of an environment that follows a natural flow according to the needs of the territory, and following a conceptual theme. Frederick Law Olmsted, considered the pioneer of American landscape architecture that made an effort into associating with the natural environment, might have been the start of the artificial natural design of the public open space of the modern movement, associated with the concept of the peripheral expansion and pursuit of new conceptual civic spaces. (glossary: *Olmsted (Frederick Law) public space*)

In an effort to work minimally inside an urban void of a dense city, where every effort to attach and embody with the rarely existing green is excessive, it is worthwhile extracting inspiration from land appreciation where organic forms make shapes that are shouting for universal attention, in ways that at the small scale, are subtle. (glossary: *land art*)

1.5.2 artificial nature and open space

During the modern movement of landscape rationalization and the need and urge to relate things exclusively to their functional approaches to design, the concentration of design considerations evolved around the concepts of access, orientation, landfall, water table, prevailing wind, ecological imperatives – to name a few. In doing so, the treatment of the voids became the result of some alienated spaces that looked away from the picturesque, and the perceptual appreciation of elemental concepts that help create feelings of comfort in

¹ Zanni, Fabrizio, “Thematic Seminars on Urban Design”, Politecnico di Milano PhD seminar, 2009.

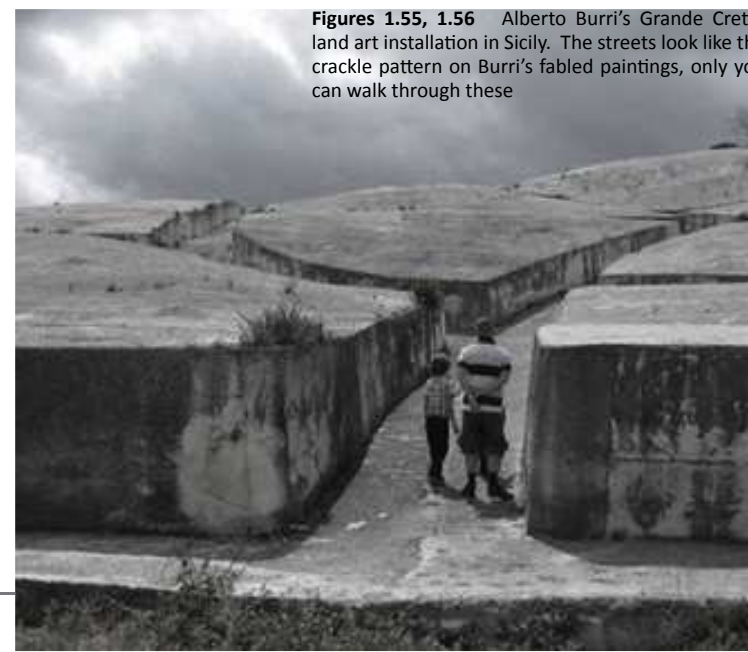
Figure 1.53 Peter Eisenman’s holocaust memorial in Berlin. As one walks into the memorial the ground slowly slopes downward and these rectangular forms which were once at your calves slowly grow taller and taller until they loom above the head, causing a disarming and affecting experience.



Figure 1.54 City of Culture of Galicia, Santiago de Compostela, Spain, competition model, 1999, by Peter Eisenman, Eisenman Architects.



Figures 1.55, 1.56 Alberto Burri’s Grande Cretto land art installation in Sicily. The streets look like the crackle pattern on Burri’s famed paintings, only you can walk through these



the urban environment.¹

In the developmental theoretical approaches of CIAM 8 in 1951, on the *Heart of the City*, the artificiality of nature starts to form a clear understanding of an urban distance from the biological natural surroundings, as the city is in fact, a means of protection against the wilderness of uncontrolled and unsecured nature. Consequently, it starts to evolve around a more phenomenological approach, based on the experience of man-made building materials, their sensory properties, and their ability to create environmental perceptions of unique and orientating environments. As a consequent result of such studies, different parameters of approach take place, including the *landscape* in its pure form, the concept of urban and suburban recreation, and the treatment of *open space* and its absolute form, as relating to the surrounding elements.

The conclusion rises that one may speak of segments of landscape of the core as a public open urban space, as it refers to man-made constructions; civic landscape, that may sometimes include natural elements such as trees, but when those elements are designed in a way to support the intentions and overall structure of the space, and not a result of random planting and spontaneous wild-growth, unless part of the overall concept. It is important at this point to stress Giedions' statement that the civic landscape, otherwise characterized as the Core, "should not be confused with a landscape garden in which the buildings are lost in space".²

After the modern movement, the need for re-interpretation of the point of view of open spaces and urban voids put on the surface new ways of extrapolating urban identities and perceptual significations. Bernardo Secchi, in his "For a town planning of open spaces", speaks of the finding of new ways for designing spaces 'between the things' that will fill up with meaningful and relevant functions and rules.³ Yorgos Simeoforidis, in his "On Landscape and Open Spaces", brings forward as examples of such a phenomenon the projects of Soviet avant-garde, the functionalists of the Weimar Republic and the Swedish Welfare State.⁴

The invasion of the 'non-site' came after the modern movement and towards the seventies and eighties with an erosion of boundaries between different architectural, artistic, and landscaping disciplines. Alessandra Ponte, in *Casabella's* special issue on the design of open spaces, speaks about this phenomenon as a very important movement for the contemporary solutions of urban voids, describing it as a cross between sculpture

and architecture, or a hybrid composition of sculpture and landscape design.¹ At this point in time, the artificiality of nature comes forth and the landscape of the unsecure and unknown, beyond suburbia, is more ignored, stressing the cognitive boundaries between civilization and wilderness. Here, rises the syndrome of the *nostalgia* for nature (see chapter four, also separate atlas: *nostalgia and regression*, glossary: *nostalgic/regressive civic space*), evident especially in the anti-urbanist approach of the United States in the nineteenth century, with the presence of the pioneers connected with the image of a virgin nature; a movement that begins with Thomas Jefferson, and continues with Ralph Waldo Emerson, Thoreau, Henry Adams, Henry James, and summing up with one of the most distinct characters of the Chicago School, Louis Sullivan.² The post-industrial city was finally looking for a new vocabulary of expression for contemporary problems concerning the urban voids, and what emerged was the surprising creativity of earthworks, that was called 'dirty realism' and a form of 'new narrative', creating an innovative means of providing character for the public open urban and semi-urban space.

The emergence of this type of design is representative of the frequent situation of the modern city and urban void, where there is the need for a new type of space that is not architecture, it is not garden design, it is not sculpture, and it is not an abandoned vacuumed place (glossary: *alan*). Here, 'non-architecture' coalesces with 'not-landscape', and a new kind of public open urban space emerges. After a long time of emulating and paraphrasing typological stereotypes of the street, the square and the block, this proposal adds to nature the cultural artificiality of human existence. This situation represents a typical European phenomenon of the time (nineteenth century), where the city strives to pull away from the prototypes of tradition and to find new vocabularies of expression, especially in spaces of suburban character, which distance themselves from the historical core. The emergence of new relationships in the suburban cores, forms an interesting triad of models, all combined in one, but interestingly expressed in a completely different way than the effects that the urban heart offers. In the suburban context of natural affiliation and communal need, rises the new model (the other two, according to Choay, being the culturalist and progressivist model) of naturalism, which is thought to be important for the "harmonious development of the whole person..."³ But since these types of cores also offer miniature industrial and cultural establishments (refer to Frank Lloyd Wright's Broadacre city), linking to the totality of space, the decisive technology of progressivist transportation and communication systems, and the garden city culturalist vision (refer to Ebenezer Howard), the result is a civic creation combining all three models; the culturalist, the progressivist and the naturalist model.

1 **Frampton, Kenneth**, "In Search of the Modern Landscape, Denatured Visions, Landscape and Culture in the Twentieth Century", The Museum of Modern Art, New York: 1991.

2 **Giedion, Sigfried**, "Historical Background to the Core", in *The Heart of the City – towards the humanization of urban life*, CIAM 8, (Tyrwhitt, Jaqueline; Sert, Josep Lluís; Rogers, Ernesto Nathan (Editors), Pellegrini and Cudahy, New York: 1951, p. 161.

3 **Secchi, Bernardo**, "For a town planning of open spaces", in *Casabella*, special issue on 'The Design of Open Spaces', 1993, 587/158, 5.

4 **Simeoforidis, Yorgos**, "On Landscape and Open Spaces" in *Arch. & Comport./ Arch. & Behav.*, Vol.9, no.3, 1993, p.321-327.

1 **Ponte, Alessandra**, "The non-site", in *Casabella*, special issue on "The Design of Open Spaces", 597/598, 1993, p.102.

2 **Choay, F.**, 1986, op. cit.

3 **Choay, F.**, 1986, op. cit.

Figure 1.57 Ivan Klun's *The Moving Landscape* (1914-1915), in an effort to express the relationship between Avant-Garde, the perception of it and modern information and communication technologies. (known as Russian Avant-Garde movement of the early 20th century).

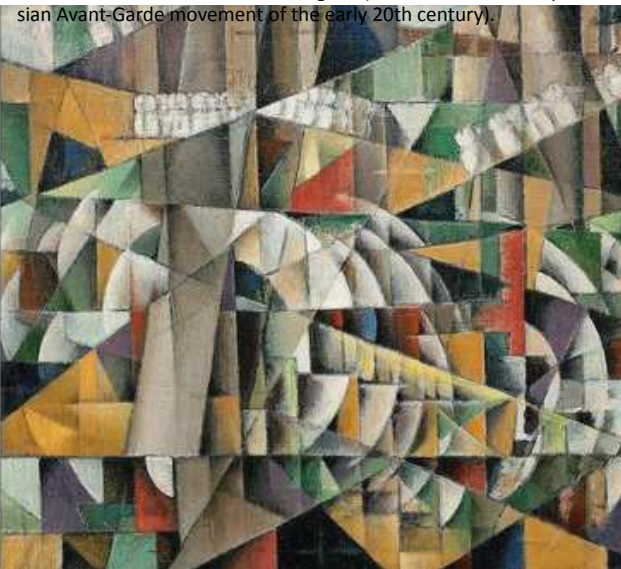


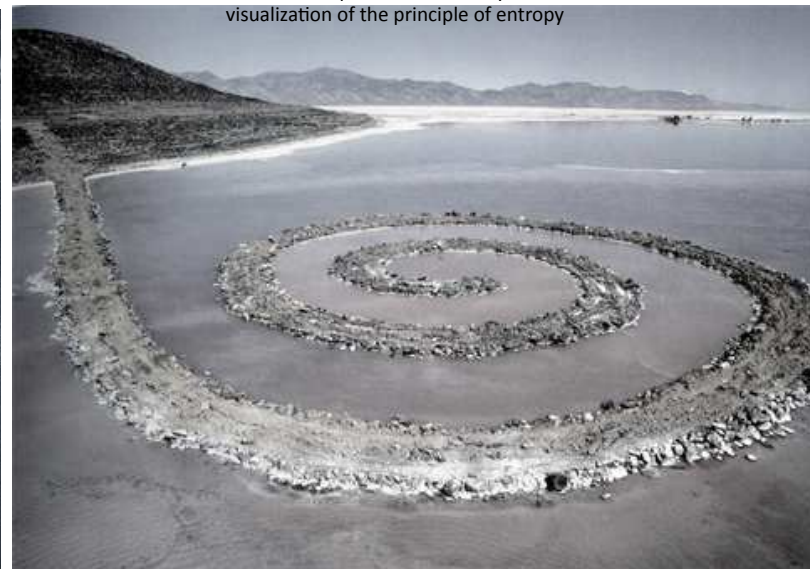
Figure 1.58 The soviet avant-garde, expressing the era's constructivist - rationalist split. This image is an architectural experiment by Nikolai Ladovskii, 1924.



Figure 1.59 The spiral hill, or so-called "stairway to heaven" by Herman Prigann, in Ruhrgebiet, Germany (1998-2005); an example of an industrial spoil; the artificial hill raises 1220m high, with a tower constructed from reclaimed concrete blocks.



Figure 1.60 Robert Smithson's *Spiral Jetty* (1970) at Rosel Point on the Grand Salt Lake in Utah, holds significant interpretations relevant to passage towards death as a metaphor, an ascent towards enlightenment, a representation of mythic forces, an articulation of time, a visualization of the principle of entropy



Figures 1.61, 1.62 Jose Plecnik's *St. Jame square* and detail, exemplifying the minimalist attitude of natural orientation and means of reductionism.



Vidler, in his *The Architectural Uncanny*, remembers the evolution of 'dirty realism' and this groundbreaking idea of public open spatial expression, which has been replaced by automated designs based on fixed industrialized and commercial problems, rather than perceptual evaluation and interpretation of a situation. Sadly, "the margins, the wastelands, and the zones of ruined technotopias are celebrated in film, science fiction and now a deconstructivist architecture that emulates the rusting detritus it sees as its context".¹

Land Art attempts to promote a figurative character to the 'new landscape' of mass society of the contemporary city. Flirting between the two phenomenological facts of reality and illusion, it transcends objects into multiple layers of meanings, offering symbolic advice. (figures 1.59, 1.60) Relevantly taking place during a period of transitional typological and stylistic changes of urban expressions, Land Art's concept of expression has been referred to as a "transitional phenomenon". Taking the forms of literal pieces of art, they offer to the visitors thematic security, as the symbolism or blunt message of their forms may reveal significant memories, events or realities that embody the people who partake in the environmental experience.²

1.5.3 minimalism and open space; desert or vacuum art

(glossary: *minimalist civic space, nonplace, vacuum public space*)

Minimalism of open space is a blunt expression of the concept of the space (*concept and theme*, section 2.7), expressed by means of reductivism or rejection, where the character of the environment is revealed in a way that is powerful as it is anterior to any logical or narrative discourse. (figures 1.61, 1.62) In reference to the public open urban space of the contemporary city, where the references for pursuit of meaning and organization of specific hybridized environments are becoming less or more hectic, open space minimalism helps in the pursuit of return to the origins of open space perception, a finding of purism of the corresponding era, and the renewal of signification.

When speaking about desert as a form of art, we speak of the minimalist notion of having an empty space as it is, with the minimum possible architectural intrusions. Wim Wenders suggests a desert panorama or spot from which we are able to perceive the city as a horizon of urban activity.³ In this case, the open space may be positioned a little outside of the city for a more holistic perceptual view, and the spectator

¹ Vidler, Anthony, *The Architectural Uncanny, Essays in the modern unhomey*, part III: Spaces, The MIT Press, Cambridge, Massachusetts, London: 1992, p. 167.

² Aymonino, Aldo, "Introduction; More space, less volume: a story in movement", in *Contemporary Public Space; Un—volumetric Architecture*, by Aymonino, Aldo; Mosco, Valerio Paolo; Skira Editore, Milano: 2006, p.23.

³ Wenders, Wim; Kollhoff, Hans, "The City. A Conversation", in *Quaderns*, issue on 'New Narration', no.177, 1988, p.44.

Figure 1.63 Aldo van Eyck's Bertelmanplein playground, 1947.



Figure 1.64 Aldo van Eyck's Zaahnolf playground, 1950.



may be positioned in this urban void of resilience, experiencing the 'ruins' of an abandoned site inside a dense urban fabric. Yorgos Simeoforidis speaks about this situation of urban voids and artful inspirations as an uncanny paradox (glossary: *uncanny public zone*), where the architects and artists are urged to design something, but there might be the need to treat the space with a nihilistic approach inside the city. In fact, the Greek *plateia alanion* derived from such a situation of forming public open spaces in the 19th century exactly on the old threshing grounds of interstitial spaces (glossary: *plateia alanion*).

Aldo van Eyck, though his pluralism and expression of thought through descriptive, rather than normative views (similar to the work of Ernesto Nathan Rogers), approaches this concept by touching on the sensory perception of the child, searching for elementary signs traced on the ground and punctuated through a re-discovery of obstacles. (figures 1.63-1.67) In this way, he traces back to the progress of the evolution of the environment, beginning from what is at the utter most level of the spatial knowledge, referencing the existing morphology, and engaging the activity of production through implication of the elementary data of the external world.¹ His executional mechanisms are very similar to the pre-mentioned works of Dimitris Pikionis who strives for a symbiotic, ontological architecture, also evident in the dream-like playground that he realized for small children in 1965 in the Athenian suburb of Philothei.

This concept, also elaborated by John Dixon Hunt, an admirer of landscape architecture and the idea of crossing and hybridization between its incorporation into the public spaces of the contemporary city, juggles with keywords of the *minimalistic picturesque*, where painterly artistic strokes are applied inside of an urban space, in the form of a square or a garden, combining the effects of artificiality of nature and the subtractive design of space, in an effort to express a deserted natural feeling. This picturesque involvement certainly comes in ideological contrast to Le Corbusier's abstain from the aesthetic tools of the past, practicing "surgical planning"², as Choay mentions in her *Utopies et réalités*, much similar to the Husserlian philosophy of a subtractive analysis of the structures of consciousness and the phenomena that appear in acts of consciousness. (It is interesting to note here the existence of this phenomenon also in cubist art, although the Husserlian philosophy was practically unknown to the cubists. This condition reinforces the perceptive strength of the concept in the epistemological sense, as statistically and un-affectively more valid).

Françoise Choay relates this minimalism of open space to the artful condition of the synthetic cubist era, evolving during parallel times, and also associating to the philosophies of perceptual purism and the *De-Stijl movement* (look glossary); a new utopian ideal of spiritual harmony and order, in a pure abstract method of

¹ Solá-Morales, I., et.al, 1997, op.cit., p.87.

² Choay, F., 1986, op.cit.

Figures 1.65, 1.66 Aldo van Eyck's Dijkstrastraat playground, 1954.(before and after)

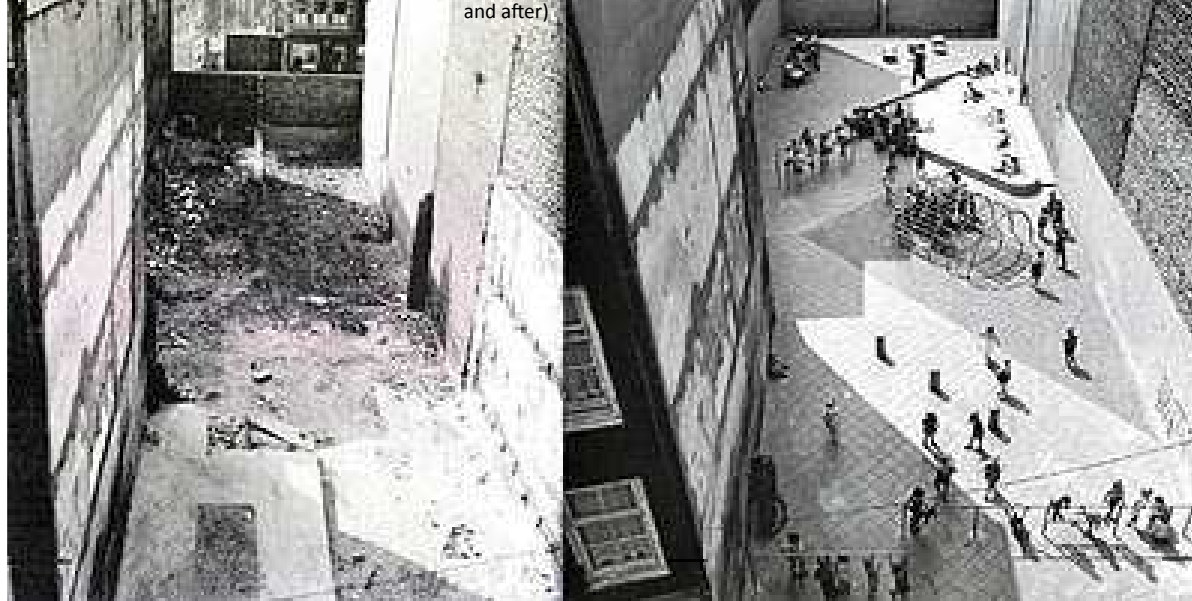


Figure 1.67 Aldo van Eyck's Durgerdammerdijk playground, 1955.



execution in essential forms and colors. Choay writes about these ideas' close affiliations to Le Corbusier's perception of the ideal minimalist civic environment based on the purity of mathematical geometric simplicity, "arranging cubic or rectangular elements according to straight lines intersecting at right angles." Finally, Corbu gives a satisfactory solution to Choay's need to relate her *technotropia* to her *anthropopolis*, by defining culture as an orthogonal state of mind.¹

Land art, expressed as an elaboration of the conceptual vacuum of the 1980s, brings out the perceptual impressions of an "expanded field"², where minimalism of the open space becomes analogical to the minimalism in sculpture or in art. The goal being to characterize an urban environment only with a few gestures, using the ground to its advantage, makes it into a priceless tool that combines advantages of memory, ground interrelation, minimalism, symbolism and aesthetic beauty, in an unconventional manner. This is one prime example when minimalism becomes full of meaning and interpretive diversity. Vittorio Gregotti also speaks of this nihilistic attitude when he suggests an area to undergo 'minimum displacement' and 'minimum essential design'.

1.5.4 arte povera

Where the notion of *minimalism* in public open urban spaces depends on the elementary formalistic and interpretational experiences of the environment, relating to parameters of geometry, color and space, arte povera's intention is to re-elaborate the existing iconography from a comprehension of the history of the place and an accumulated memory. *Arte Povera*, as described by Ignasi de Sola-Morales in his *Differences*, is a form of 'artistic minimalism'; an intend 'to draw back to the limits', and to reach a 'degree zero of aesthetic signification' through a reductive manner of abstraction.³

1 **Le Corbusier**, 1946, op.cit., p. 35.

2 **Spens, Michael**, "Site/Non-Site; Extending the Parameters in Contemporary Landscape", in *Architectural Design*, issue on "Landscape Architecture; Site/Non-Site", guest edited by Michael Spens, ed Helen Castle, March/April 2007, Profile No 186, Volume 77, No 2, Wiley Academy: London, p. 7-8.

3 **Solá-Morales, I. et. al.**, 1997, op.cit., p.113.

Figure 1.68 Robert Smithson's idea of short-life mobile attractor; miniature Central Park on a barge, cruising back and forth off the shore of Manhattan, which was recently re-created by the Whitney Museum. Realized in 2005, the theme appreciated Central Park as an artificial landscape,



Figure 1.69 Piazza Castello at Turin 2006 Winter Olympic Games; the center with international-level musical events and performances that accompanied the medal ceremonies, where squares hosted artistic and performance events



1.6 'performative' public space and street art

Starting off with the speculation of context of activities that take place on the *street*, which is the primary root of the performative function of the public open urban space (glossary: *plateia/piazza/plaza and origins*), one begins to go as far back as the Greek and Roman entertaining public open urban 'performances' (glossary: *agora; forum romanum*) of philosophical encounters and dialogues, fortune telling, entertaining and street-board games, prostitution of both sexes, begging, street trade and crime, to name a few. The street being usually the primary element of transformation in terms of activity and use, seems to create analogies between the past and the present, suggesting a contextual eternal theme that links together the contents of the public open urban space.

The performative intentions of public open urban space, became very strong in the historical origins of the baroque period with a strong tendency for publicity, persuasion and festive displays of territorialization, preeminence, and claim of royalty. The use of the public space becomes identified by the lively happenings and involvement of all of the senses, in order to demonstrate the theme. The concept of the spectacle peaks in 17th century Rome for the Italian city for example, taking place on the Pincian Hill and bringing to the surface themes of symbolism, visual economy, visual frame and the predominance of an axis.¹

The concept of performative space for urban activities reveals a recreational way of providing opportunities for the community to interact and create the perceptual atmosphere of the urban public space. The participants, mentioned in Graham Shane's article "Recombinant Landscapes in the American City" as 'urban actors', sometimes may open themselves up to public open spaces of use, which are sometimes leftover spaces created by industrial shrinkage; one we refer to as non-site. The goal of such actions of recombinant nature is to create new localized hybridized public environments that are very appropriate to the contemporary urban life situation. Particularly for the American cities which are facing multiple crisis of abandoned and de-used open spaces within cities, Graham Shane suggests a rapid kind of adaptability to the ever-expanding cities with a multi-centered (multi-core), heterotopic, mixed-use situation of local ecology, urban parks, and agriculture. Although this might not sound as the typical urban space of interaction and intellectual sophistication, it suggests new grounds for public space development, sending across new motives, ideals and constructional frameworks.²

In some cities such as Spain, the primary intention of every public open urban space has been of non-secular incentive, creating compositions of a central void that would suit social transforming uses such as festivals,

1 **Napolitano, Elena C.**, University of Toronto, "In the Presence of All of Rome': Publicity, Persuasion, and Festive Display on the Pincian Hill", in *Prima Biennale dello Spazio Pubblico*, Istituto Nazionale Urbanistica, Facolta di Architettura Roma Tre, 13 May, 2011.

2 **Shane, Graham**, "Recombinant Landscapes in the American City" in *Architectural Design*, topic "Landscape Architecture; Site/Non-Site", guest edited by Spens, Michael; Castle, Helen; Wiley Academy, London: March/April 2007, Profile Number 186, Volume 77, No 2, p. 35.

Figure 1.70 Piazza Vittorio Veneto was the 'Superstore' for the Winter Olympics of Turin 2006.



tournaments, demonstrations and public speeches, all of which are activities that complement the Spanish notion that 'the square creates the town' and its levels of energy (glossary: *typical Spanish civic space incentive*). For these intentions, the designers of Spain saw it appropriate to use structural language of a rigidly geometrical foundation, completely non-organic in nature. Castilian main squares for example, are rectangular, as this has been found to be an ideal composition for the temporary involvements of festivals, tournaments and markets,¹ very similar to the Greek and Turkish traditional implementation of the public open urban market, which served a predominant function of commercial trade and assemblage of shops (glossary: *mpezestenia, pazar, tzarsi/tcharchi*).

Graham Shane challenges the emerging public open urban spaces since the twentieth century as an urban core that should motivate temporality and change. Some of the elements that he mentions are interesting for this study, to consider parametric situations and components that might affect the perceptual qualities of an open space that according to its success, could convert itself to a civic space of artful and recreational activities. An example includes tiny gardens that could be initiated by volunteer gardeners on vacant spaces, with the potential to become further developed and habitable. With this suggestion, the framework and fundamental function of the public open urban space could become very interesting, as the public space initiative would not be the traditional Roman concept of '*il dolce di far niente*' or a space for public gatherings and randomized activities, but could take the shape of a different concept of an ecological and sustainable character (of gardening); a hot topic for design in our contemporary cities.

Other examples following the above considerations are included in Graham Shane's writings; small-scale antique flea markets, green or farmers' markets featuring local organic produce, temporary community street fairs, seasonal carnivals, flower markets, sidewalk Christmas-tree sellers and mobile fruit and vegetable carts.²

A good example of a 'performative' public square is Piazza di Spagna in Rome, which not only creates visual relationships between the primary architectural elements and the pedestrian zones, but also provides the ground for evening and night-time events, attracting large crowds of people and transforming the environment to one of different proportions of an anthropic field.

A public space could also change the theme of the environment, as what happens in Piazza Stradivari in Cremona during the "Mondinsieme, la Festa dell'Immigrazione", which aims at the commemoration of

immigrants of the city, celebrating values and ideas of sharing, contact, and exchange. Other examples include the five days of the "Festivaletteratura" in Mantua, with readings, performances, concerts and author encounters; "Festivalfilosofia" in Modena, Carpi, and Sassuolo; "Festival of the Two Worlds" in Spoleto, exhibiting the location's scenic appeal and theater spaces within the city.¹

1 **Ventós, Maria Rubert**, "Squares in Spain", in *The Square, a European Heritage; A topical survey in five countries* (Spain, France, Greece, Italy, Poland), Luciana Miotto (Editor), Fondation Maison des Sciences de l'Homme, European Commission: 2000, pp.32, 43.

2 **Shane, G.**, 2007, op.cit., pp. 32, 34.

1 **Mancuso, Franco**, "Squares in Italy", in *The Square, a European Heritage; A topical survey in five countries* (Spain, France, Greece, Italy, Poland), ed. Luciana Miotto, Fondation Maison des Sciences de l'Homme, European Commission: 2000, pp.150-151.

Figures 1.71, 1.72 *Street graffiti art by the New Yorkers.* Spring Street – 19th century NoLiT building whose exterior bore two decades of spray paint and wheat paste artwork – announced in 2006 that it would be demolished and rebuilt as condominiums.



Figures 1.73 *Street graffiti art by the Dutch.*



1.7 art installations; combinations of elements

“The emergence of relations among things, more than the things themselves, always gives rise to new meanings” (Aldo Rossi)

The consideration of permanent or temporary artistic interventions inside the civic spaces is important to consider for the concept of art in the civic architectural environment. The advantage of these installations is their temporality in time while having the opportunity to change and adapt the themes and messages through the course of the city’s architectural paradigmatic evolutions. Similar to linguistic signs, art impressions within the civic space cause a **permanence of impression** that offers different means of articulation within the space.

An art installation within a public open urban space may function as means for motivation and recentralization, and often even proposing a brand new articulation of self-defined elements within the public space, referring to an idiolect of its own “and not to preexisting codes, for it is essentially an object [the art installation] intended to be contemplated, and it can communicate this new code, implicit its makeup, precisely by fashioning it on the basis of the preexisting codes, evoked and negated”.¹

However, art inside of a civic space often rises conflict with the existing composition and circulation of space, as it loses focus from the fundamental principal events and the true essence of the original public open urban space. One example is that of the sculptor Constantino Nivola who designed a piece of sculpture in monumental remembrance of the poet Sebastian Satta in the then-called Piazza del Plebiscito of Nuoro in 1966. His intervention caused a situation where the free space became occupied by the combination of sculptural triangles and benches, leading to the situation being one of obtrusion, rather than an event, while preventing the traditional public space activities and the liberation of the surrounding facades. Another similar art intervention that ‘fails’ in a similar way, takes place in Vinci, with sculptor Mimmo Paladino’s work in memory of Leonardo’s genius. Here, “the artists totalizing approach annihilates the essence itself of the square”, causing the paths to be constrained, obstructed and complex. Even though the square has become of significant artistic value and the sculpture itself is of high quality, its relationship to the existing spatial syntax has been lost, and lies free of context, preventing the variety of functions that took place there prior to the installation.²

1 Eco, U., 1986, op.cit., p.63.

2 Mancuso, F., 2000, op.cit., pp.145-146.

Figure 1.74 Mestre; a large pool of water located in correspondence to a focal point of the square reflects a beautiful golden sculpture by Alberto Viani, symbolizing the theme of ‘motivation’.



Figure 1.75 Carbonia; recentralization of an otherwise abstract space with scarce animation by attractive functions is entrusted to the white marble sculpture by Giò Pomodoro, also located along the edge of a pool of water.



Figure 1.76 ‘Salt Mountain’, in Naples, of a series of art demonstrations that took place after the restoration of Piazza Plebiscito. It began in 1995 by Mimmo Paladino and his salt display, then Jannis Kounellis in 1997; Mario Merz in 1998; Bob Rauschenberg in 1999; Gilberto Zorio in 1999; Giulio Paolini and Anish Kapoor in 2000; Rebecca Horn, Joseph Kosuth, Sol Lewitt, Richard Serra, Jenny Holzer.

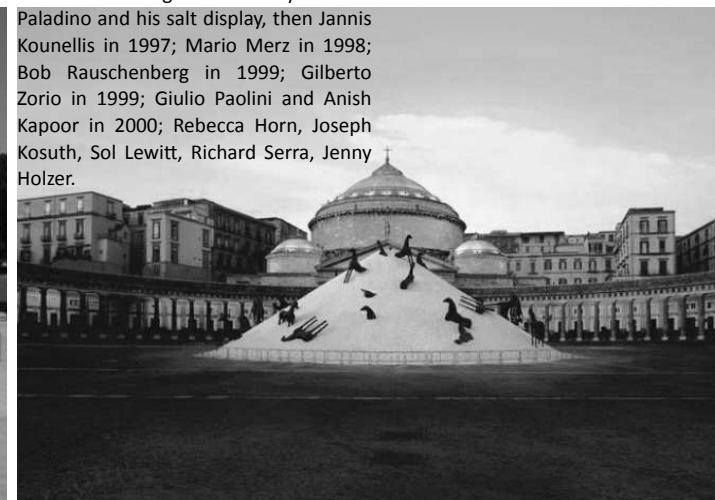


Figure 1.77 Anish Kapoor in 2000; Piazza Plebiscito in Naples.

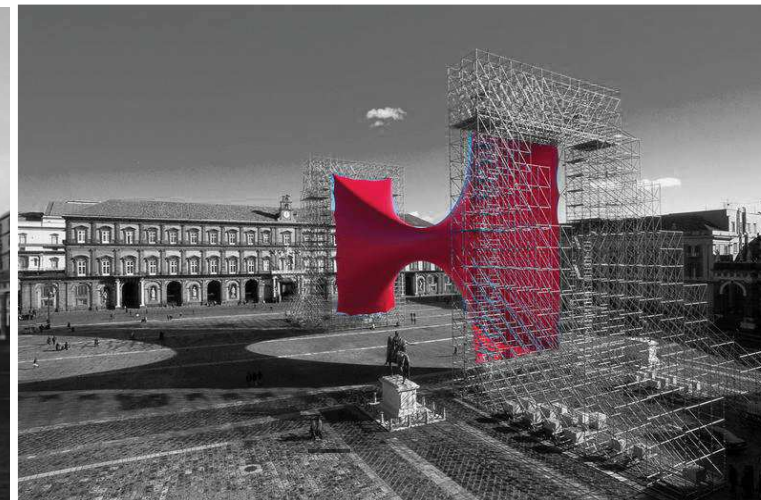
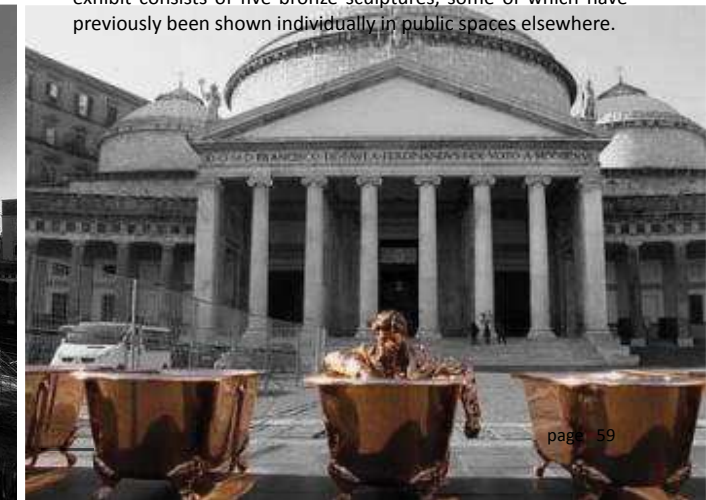


Figure 1.78 Jan Fabre in 2008/9; Piazza Plebiscito in Naples. His exhibit consists of five bronze sculptures, some of which have previously been shown individually in public spaces elsewhere.



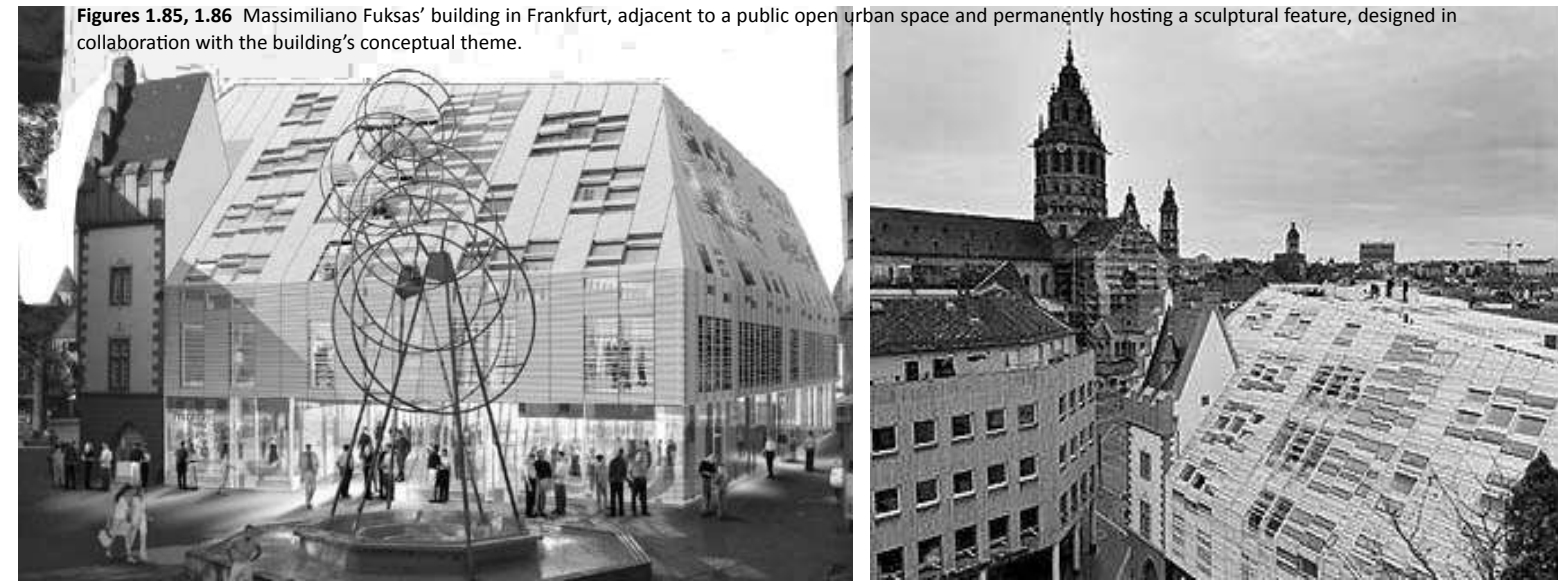
1.7.1 integral relationships; parallel concept of building and art

An example of the integral relationship of civic space takes place with a strong desire to express an evident concept of paradigmatic evolution, similar for example to that of the deconstructivist movement. In many cases with this situation, the structure itself becomes the artistic figure that frames spatial voids in which to wander the civic environment, offering a perceptual clarity of design intentions and cultural situations of the contemporary reality. (glossary: *Deconstructionist oriented civic space*)

Examples of this integration may be found in Mathias Goeritz's 'emotional architecture' (El Eco Experimental Museum, Mexico, D.F., 1953), where the space is treated as an environment where all arts assemble as a single unit, expressing the emotional aspect of humans and the Romantic expression of the time, contrasting an interchange between perspectives and volumes, establishing new guidelines of modernity, and embellishing on an existing cultural tradition of twentieth-century Mexican art.

The following images demonstrate also further examples of parallel space and entity formation.

Figures 1.79-1.84 Public open urban space in the Nou Barris district. It constitutes a flowing, almost liquid substance that slips between the blocks and high-rise buildings of the estate to fill its interstitial spaces and give them cohesion. In some cases the curved line is very gentle and the stalk is almost upright; in others, the curve is so pronounced that the stalk is bent over at an angle of almost ninety degrees. In each cluster, the combination of these two kinds of stalks and the different directions in which the iconic palms are distributed over the horizontal plane reinforce their similarity to vegetal elements. The park negotiates the distance and difference in levels between the Placa Karl Marx and the old hospital by means of a sequence of terraces separated by retaining banks and connected by ramps. The gentle slopes of the retaining banks are paved and constitute the most urbanized elements of the park's landscapes.



1.7.2 applied relationships; building conceived first

In the Nou Barris district, a vast conglomeration of different neighborhoods with different urban histories and weak connectivity were to be considered, extending over eight square kilometers. This was of course a larger scale project than the one dealing with here, but the challenge was uniting the whole area, which was achieved partly by the use of a number of urban piazzas with strong sculptural, architectural and natural features.

Virtual civic space:

This category of art installations may also include the phenomenon of virtual space, as a result of technological and virtual installations in the existing contexts of the city. (It is of course also possible to create a virtual space parallel to the construction of buildings to fit in the category of the parallel concept, however, it is found more appropriate here as an afterthought, as it is more often a phenomenon that in our contemporary world takes place later, also in a futuristic way). The creation of virtual space falls into the category of an art installation exactly because it creates an impression of the future, parallel to bringing closer to the spectators and players remote realities in a twisted, embellished, realistic, exaggerated or subdued way. Virtual space brings forth a semblance of information as knowledge (described by John Beckmann as quantitative information or even phenomenological experience), intensifying a dream-like and illusionary virtual cannibalization of space.¹ At the same time there exists the paradox of exposedness to a situation of boundlessness of space at the cost of being dispossessed from finite time, as the virtual image creates the ability of implicit and indirect boundlessness. This is an artful phenomenon of virtual impressions enacted in the urban civic *locus* in means of televised screens and virtual images, often illusionary that travel one to remote spaces, constantly stressing and punctuating the phenomenon of the holographic situation and future of our urban experiences. (figures 1.84, 1.85)

¹ Beckmann, John, "Seeing with your Eyes: An Email Discussion between Vivian Sobchack and John Beckmann", December 1996 - March 1997, in *The Virtual Dimension: Architecture, Representation and Crash Culture*, Beckmann, John (Editor), Princeton Architectural Press, New York: 1998, p.346.

Figures 1.87, 1.88 The Cloud, also called a 'celebration of technology', is a massive, highly sustainable sculptural structure, whose bubbles act as structural elements, habitable spaces, decoration and LCD screens on which data could be projected.



1.7.3 related relationships; relating theme, but standing alone

The related relationships between solitary elements within a public open space, may be classified, referencing Umberto Eco, into the 'semantic codes' of an urban architectural composition, where the denotative and connotative meanings of each object plays a significant role in establishing certain relationships of individual sign-vehicles. When Eco further breaks down these semantic codes, we find tools for the classification of compositions into *primary functions* of the main architectural elements (roof-parts, stairways, windows), *secondary functions* of selective stylistic components (a gothic arch, or a modern sculpture, etc), *ideologies of inhabitation* hinting to the social interrelations of the activities (a functional forum or agora, a performative space for certain events, an eating area, etc), and larger scale typological meanings, classifying certain *functional and sociological types* (a school district playground, a shopping area, a civic interactive environment, etc). Umberto Eco describes these relationships as 'figures of speech' that compose the syntactic codification of an urban space, creating the 'grammar' and technical codes of the otherwise empty environment. These principles may be very well compared to the characteristics of statics and dynamics, extremely relevant and paralleled here to architectural structures, where certain geometries, under certain rules, make up for a variety of formalistic perceptions and syntactic interpretations, thus extrapolating a diversity of messages.¹

Aldo Rossi's *Teatro del Mondo* in Genova (originally designed for the Venice Biennale in 1979) takes place in 2005 as a successful art installation at various key positions around the city of Genova, as macro-installations, architecturally constructed, in order to explore the relationship between the arts and architecture in the 20th century, suggesting a connection with the collective memory of the urban environment. Later constructed in piazza Caricamento, it becomes the programmatic symbol and three-dimensional representation of a dialogue between architecture and the arts, hinting the designer's theoretical contributions that architecture provides a stage for life with public spaces acting as backdrops for life's experiences; "The theater, in which the architecture serves as a possible background, a setting, a building that can be calculated and transformed into the measurements and concrete materials of an often elusive feeling [...]" (Aldo Rossi). This theatrical impression of architectural settings becomes very similar to Giorgio de Chirico's urban-setting paintings, acting as interpretations of public open urban spaces of perceptual backdrops, where the player serves as the actor of interpretative role and a full-fetched experience (also see chapter two on *public open urban space perception in pieces of art*).

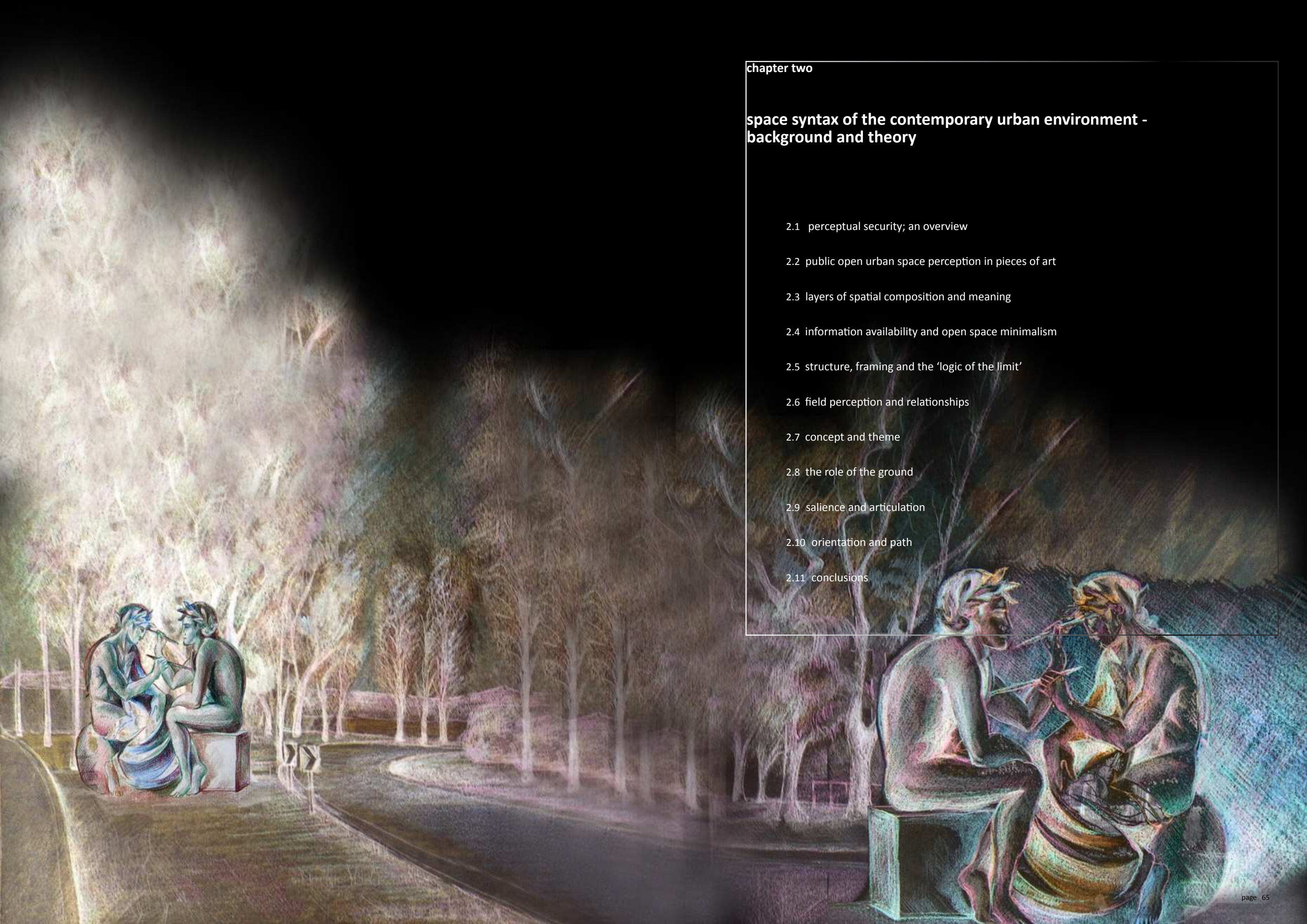
¹ Eco, U., 1986, op.cit., pp.75,76.

Figures 1.89, 1.90 Aldo Rossi's *Teatro del Mondo* sketch and architectural installation in Piazza Caricamento, Genova. The theatrical impression of architectural settings is similar to Giorgio de Chirico's urban-setting paintings.



**space syntax of the contemporary urban environment -
background and theory**

- 2.1 perceptual security; an overview
- 2.2 public open urban space perception in pieces of art
- 2.3 layers of spatial composition and meaning
- 2.4 information availability and open space minimalism
- 2.5 structure, framing and the 'logic of the limit'
- 2.6 field perception and relationships
- 2.7 concept and theme
- 2.8 the role of the ground
- 2.9 salience and articulation
- 2.10 orientation and path
- 2.11 conclusions



2.1 perceptual security; an overview

2.1.1 origins of perceptual civic expression

If we consider that the historical world had much more landscape and natural surroundings from which to draw inspiration and perceptual references for the creation of the public open urban spaces within their small-then cities, then it is also natural to strive to create sense from their syntactical compositions in reference to what was available to them. Man, always creating in conjunction with his reality and environmental awareness, was bound to try to create layouts which indit elsewhere. Some may argue that the organic content was totally ignored, with the also symbolic construction of the surrounding walls (aside from their protective purposes) as a means of creating a new, more secure and ordered environment. However, as mathematics and other physical sciences took place parallel to the historic construction of civic spaces, it was well evident that order existed in nature, and man was evidently aware of this phenomenon. The need for syntactic interpretation of urban public space (which was usually the most significant space within a city) came from the parallel need for **syntactic understanding** of the logic of his surroundings. As nature was the immediate source of information, man began to draw inspiration from it. Christian Norberg Schulz mentions very wisely this process, as '*visualization*', '*interpretation*' and '**symbolization**', (figures 2.1, 2.2) where symbolization here may be interpreted as the process of concretizing compositional layouts in reference to what already existed. The historical public open urban spaces are what Schulz would call a 'microcosmos', in which he felt secure.

In the concretization of natural forces, we may encounter various approaches, such as the one by the Nordic people with forces expressed directly by means of lines and ornament, or such as the one by the Mediterranean civilization where forces are being concretized by man-made things. The prime matter of importance is that of the need for an order, which came from the interpretation of the cosmos and became interpreted in an orthogonal space. The way that formal articulation took place defined the character of each environment; its style. In the example of Greek Civic Space, this **articulation**, as stressed by Schulz, meant more than the dedication of a structure to a certain divinity; the prime intention was the delivery of a building which provided the linguistic foundation for the character of the place. This linguistic foundation (symbolism) was driven from the mythology (interpretation), which was driven from nature (visualization). Articulation, in the organization of the Greek public open space, meant articulation of a particular character, which as simple or as complex, further determined every part of the spatial composition. This is closely tied to the **concept and theme** of the civic space.

The rigidity and the regulating lines that characterize the formations of the historical civic spaces, derive from the above concepts, and according to Le Corbusier are what provide 'assurance against capriciousness', 'a satisfaction of a spiritual order which leads to the pursuit of ingenious and harmonious relations', 'reassuring

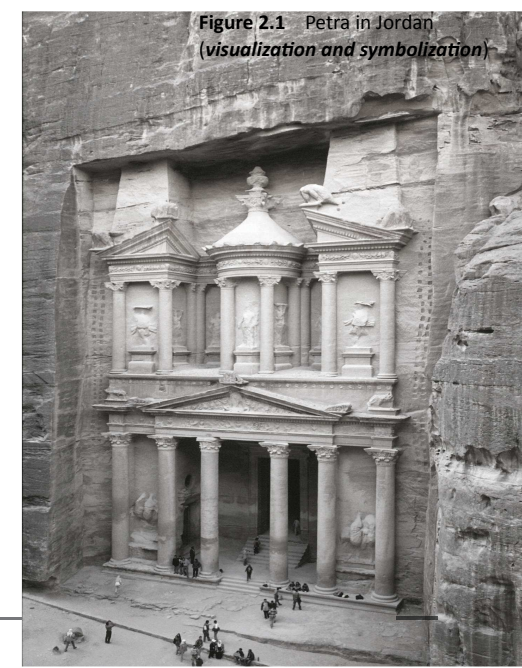


Figure 2.1 Petra in Jordan
(visualization and symbolization)



Figure 2.2 Castle of Alto Adige in Northern Italy
(visualization and symbolization)

protection of order', and fixing the geometry of the world and a space's 'fundamental character'. Le Corbusier also goes back to the observation of the Greek and Egyptian spaces, along with Michaelangelo and Bondel who consolidated regulating lines in order to check their work and its relationship to mathematical thought.¹

However, a different kind of perception of the open space in the historical origins also exists in the framework of *unvolumetric* (glossary: *un-volumetric historical civic spaces*) civic expression. These often include a transparent plan with multiple openings and free circulations, drifting away from the above mentioned rigidity of lines and pre-set templates of organization. (figure 2.3)

The impact and the outcomes of the public open urban spaces of antiquity have a different character in different countries. For the Spaniards for example, 'the square creates the town', for the Italians 'the square is there because the town is there', for the Poles 'the square is born with the town', and for the French 'the square is the breathing space of the town'. Regarding the Greeks, whose definition of the square sprang from the original democratic form and civic function of the agora, the wide use of the public open urban space had to be deprived from them for thirteen centuries of Byzantine and Ottoman conquest, during which the square hardly existed. However, all of the above outcomes of the perceptual structure of the public open urban space have their common roots, which go back to the double model of ancient cities. The first, that of the market (the Greek agora or Roman forum), is seen through the eyes of the urban authorities and progressively evolves in formalistic expression. The second model, that of the new cities founded by the Hellenistic kings and extended by Rome and its empire, conceives the public space in means of orthogonal composition, aiming to punctuate hierarchical relationships among quarters of the draft board, organized with two main axis – *cardo* and *decumanus* (figure 2.4, glossary: *cardus and decumanus*); this type of civic space became the core of civic life, with main religious monuments reminding the city's priorities of ideals. As the public open spaces evolved, one could underline the opposition between the organic and spontaneous formation of civic spaces, caused primarily by many old and new market places that guided the form and expansions of these functional urban voids, and the public open urban space of geometric rigor that was outlined by the city's foundational plans, offering the first steps of urban coherence and order.²

2.1.2 on the perception of space

On the design of contemporary public open urban spaces, much debate has taken place since modernism, on the evaluation of the levels of perceptual security scrutinized upon since the time of Camillo Sitte, who studied concepts of enclosure, groupings, open and closed structures, and irregularity of peripheral vision as means of perceptual security and pleasure. The problem becomes more complicated with the more synthetic and hybrid characteristics of modern city development where enclosure, irregularity and proportion come in contrast with values of openness, minimalism, and cubist interpretations of design solutions. During the CIAM 8 congress on 'the heart of the city', much was said about the importance of the feeling of security within the urban open space; Philip Johnson, stresses that what is required is "a feeling of being 'cuddled' [...] the sense of protection, with a wall behind you, and yet where people are going by around you".¹ This sense of protection, this sense of 'being at home in public', has been described by Charles W. Moore as the quality of 'public inhabitability'.

In an effort to resolve a contemporary problem through the stipulation of an overly successful historical city for example, the study of the city of Siena is a valid example where the number of spaces for activity equals the number of spaces for quiet, and they would not exist without each other. "Urban quality emerges from their reciprocal integration".²

To look at the issue from a different perspective, as Gianarlo De Carlo mentions, the places where city dwellers seek comfort in the web of the urban fabric are spots like the entrance of a supermarket, in front of a church, at crossroads where groups of youngsters gather. These are all places that have some kind of vitality, and also are prone to change. The supermarket vanishes after closing time and holidays, the church is busy only on Sunday mornings and hours of service and the groups of young people will change their meeting spots constantly.

Where there is a high level of vitality, quiet spaces are also needed. There are also a number of historic spots where very little circulation seems to occur. The atmosphere is quiet, the area seems partly deserted, yet there is a feeling of attractiveness and pleasant mysticism that causes the urbanite to feel relaxed. "Without places with low vitality the ones with high vitality become fastidious and insolent. Similarly, without places with high vitality the ones with low vitality appear as dead [...] so it only makes sense, that in order to maintain balance, we must provide the side of the equation that is missing. "We must [...] keep on turning

1 **Le Corbusier**, *Towards a New Architecture*, Dover Publications Inc., New York: 1986 (orig. 1931) pp.74-75.

2 **Aymard, Maurice**, "A history of squares, squares for history", in *Squares of Europe, Squares for Europe*, Mancuso, Franco; Kowalski, Krzysztof (Editors), European Commission 'Culture 2000', p.29.

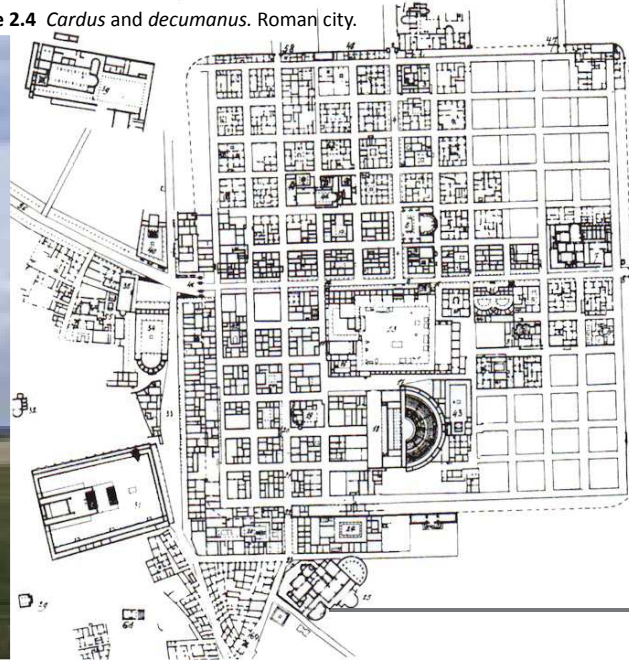
1 **Sert, Josep L.; Rogers, Ernesto Nathan; Tyrwhitt, Jacqueline** (Editor), *The Heart of the City. Towards the Humanization of Urban Life*, Hump Humphries, London: 1952, p.78.

2 **International Laboratory of Architecture and Urban Design (ILA&UD)**, "The Contemporary Town, Volume 2", Firenze, Italy; 1990, p.7.

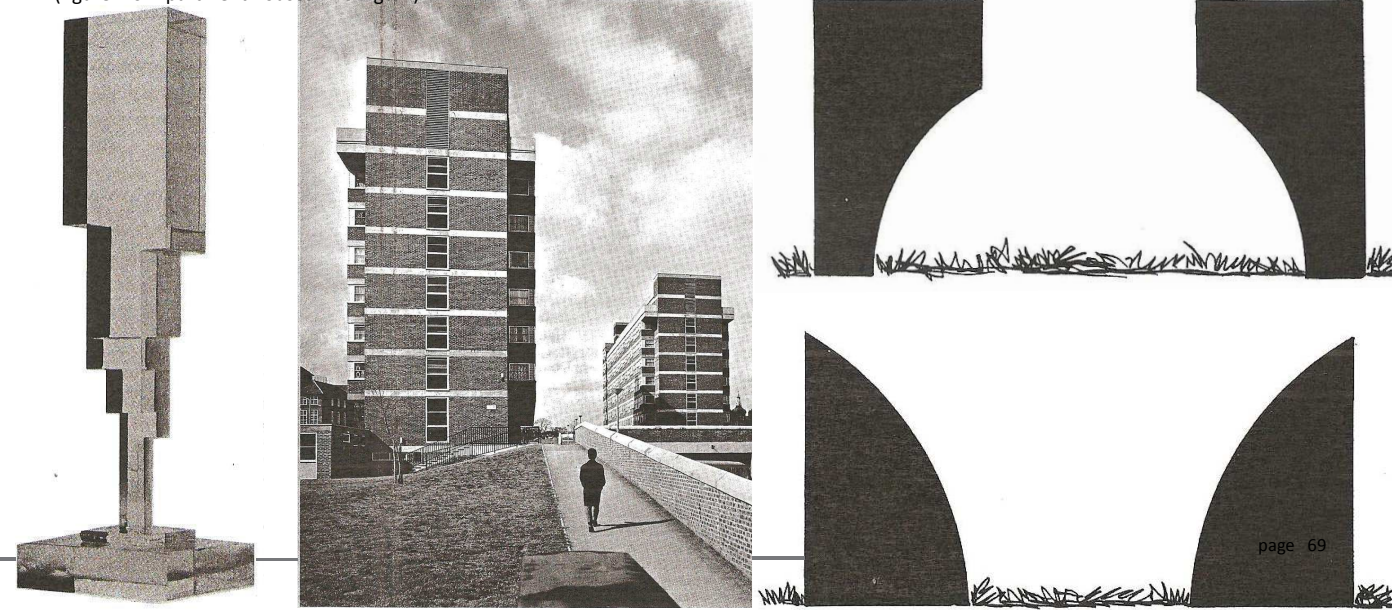
Figure 2.3 Un-volumetric space. Stonehenge.



Figure 2.4 Cardus and decumanus. Roman city.



Figures 2.5-2.8 Figure-ground perception of space. Roman city. (image from *The Dynamics of Architectural Form*, by Rudolf Arnheim). (figure 2.6: Apartment houses in Islington).



over omelets that others keep cooking only from one side”¹.

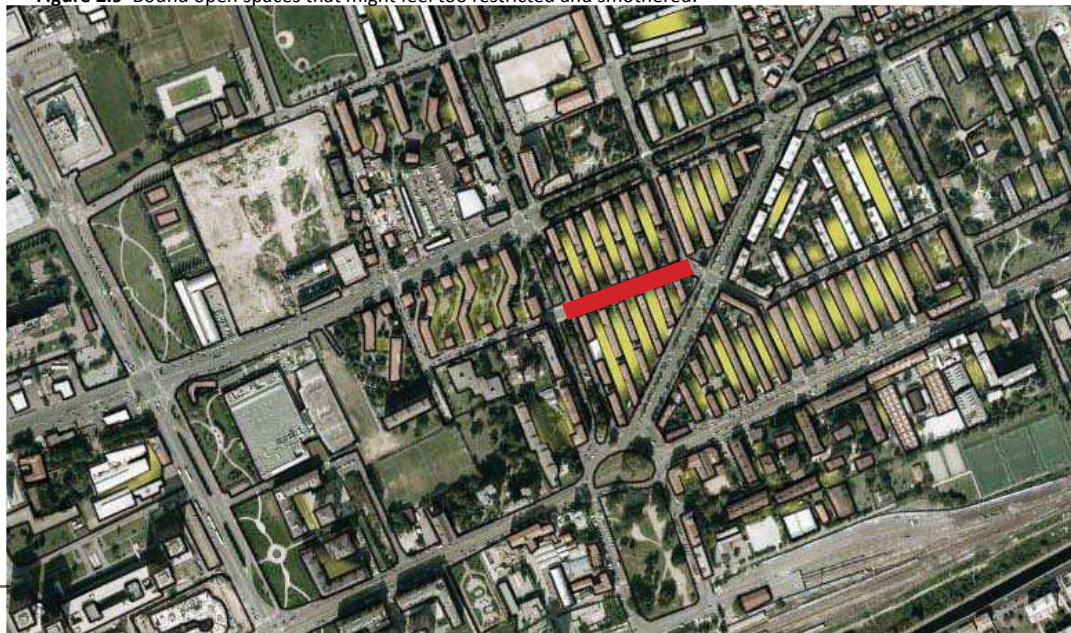
In the midst of the hybridized contemporary city, one often finds oneself experiencing the ‘void’ through a feeling of desertion, abandonment and twilight, or through the abstract synesthesia of a dynamic-temporary perception. With no clear references for the application of a vivid concept or theme, as used to be the appearance of gods, myths, hopes and dreams, Kenneth Frampton for example finds solutions in the “reappropriation of the sense of place, of light, of the tectonic, and of the tactile over the purely visual”². This ‘tectonic’ behavior often deals with the considerations of overlapping of different layers, in pursuit of creating a profound system of ‘interweaving languages’ of favoring regionalism and resistance. Furthermore on the problem of philosophical perceptual contemporaneity of space, Ignasi de Sola-Morales himself speaks of an “architecture which has also emptied itself of individualism and subjectivity.”³

For ensuring the psychological and phenomenological feeling of comfort within a public open urban space, the theoretical interpretations have been ample, with no clear syntactical references to those elements, keywords and named characteristics of perceptual qualities and objective relationships that should take place. For example, one may find arguments about the listing of public spaces with a diverse sense of ownership, the possibility to participate and adapt, re-use various territories, provide small scale interventions along with introductions of compact city form, discourage the use of car, encourage travel on foot, just to name a few.

The following study shown in the images below is an analysis aimed at providing a more in-depth understanding of the psychology of perception within a space, through the investigation of interpersonal functions and their relationships to the visitors, through evaluation of **bound spaces** (where someone may feel either comfortable, safe and protected, or restricted and smothered) and **unbound spaces**, (where someone may feel either free or vulnerable and exposed). (figures 2.9 - 2.14, glossary: *bound public open urban space*; *unbound public open urban space*) The end result is a syntactic coherence including elements of structure, theme, information availability, framing, articulation, and path.

- 1 **ILA&UD**, 1990, op.cit., pp.11-12.
- 2 **Frampton, K.**, 1991, op.cit.
- 3 **Solá-Morales, I.**, et.al., 1997, op.cit., pp.24-25, 64-66.

Figure 2.9 Bound open spaces that might feel too restricted and smothered.



In the general writings of the evaluation of form and space in the universal literature, much debate is formed around the perception of urban public environments appropriate to the context of the surrounding city and the degree of familiarity, orientation and ‘strong field’ creation. In the design of an open space within the dense center of the city, it becomes important to understand the patterns and philosophy that evolved in the development of the current form, and create a continuation of the existing conditions, which, if not ideal, should be improved upon. This emphasis on urban structure and phenomenology of form has its roots in urban space theory, deriving from General Linguistics, which stresses the existence of syntax in urban forms and open spaces where architectural compositions are derivations of universal unconscious formations of cerebral structures that directly relate to the perception of space and the psychology of humans.¹

The psychology of perception for the establishment of levels of security in the evaluation of public open urban spaces is a synthetic matter that begins with the study of the origins of human expression and interpretation in reference to artistic forms of experience. Ernst Gombrich, an Austrian-born art historian who spent most of his life investigating the sequences and reasons behind art revolutions, paradigms and expressional norms, has produced work that is considered to form epistemological references for the justification of many art and architectural gestures studying the origins of human expression and interpretation. In *Art and Illusion*, he analyzes the ‘psychology of perception’ related to poetry, art, iconology and the history of representation. It is interesting in this book to speculate the analysis of personas such as Alhazen, who established differences between senses, knowledge, and inference, John Locke, who denied all innate ideas, Berkeley, who embellished the knowledge of space and solidity through sense of touch and movement, and Helmholtz, who scrutinized the far interesting topic of psychological optics; a field that tries to balance the empirical scientific investigations with the illusions of representation. Furthermore, some interesting speculations by Gombrich, noted in his book *The Image and the Eye*, speak about the optical world as a part of the sampling of the eye and visual sensations that we experience. He mentions “a fixed correlation between the physical world, the optical world and the appearance of this world in our experience”².

The issue of objectivity in the arts is critical for certain theorists, artists and interpreters, especially in fields of epistemological questioning. Gombrich does a fine job in analyzing these issues, and also puts good mention on the objectivity and indeterminacy of the images that we perceive, speaking of ecological optics; a term defined as the behavior of things in our world by Gibson. Contrary to the conventional definition of space as

- 1 **Saussure, F.**, 2006, op.cit.
- 2 **Gombrich, Ernst H.**, *The Image and the Eye; Further Studies in the Psychology of Pictorial Representation*, Phaidon Press Limited; Oxford: 1982, p. 178.

Figure 2.10 Via Manzano ground analysis.



one homogeneously barren area, even in the framework of an urban setting, the more abstruse studies and analysis of space assessment suggest that space may be evaluated according to its **density**, its **energy**, its degree of **tension** with the surrounding elements, its **shape** and its **character**, just to name some of the precedents of space perception gathered from readings of the most specific scrutiny of such speculation. Here, the physicists' and psychologists' definition that space is simply the relation between objects, is debunked by the more analytical confirmation that interstitial space is percolated by gradients of different densities.¹ (figures 2.5 - 2.8, glossary: *Arnheim oriented civic space*)

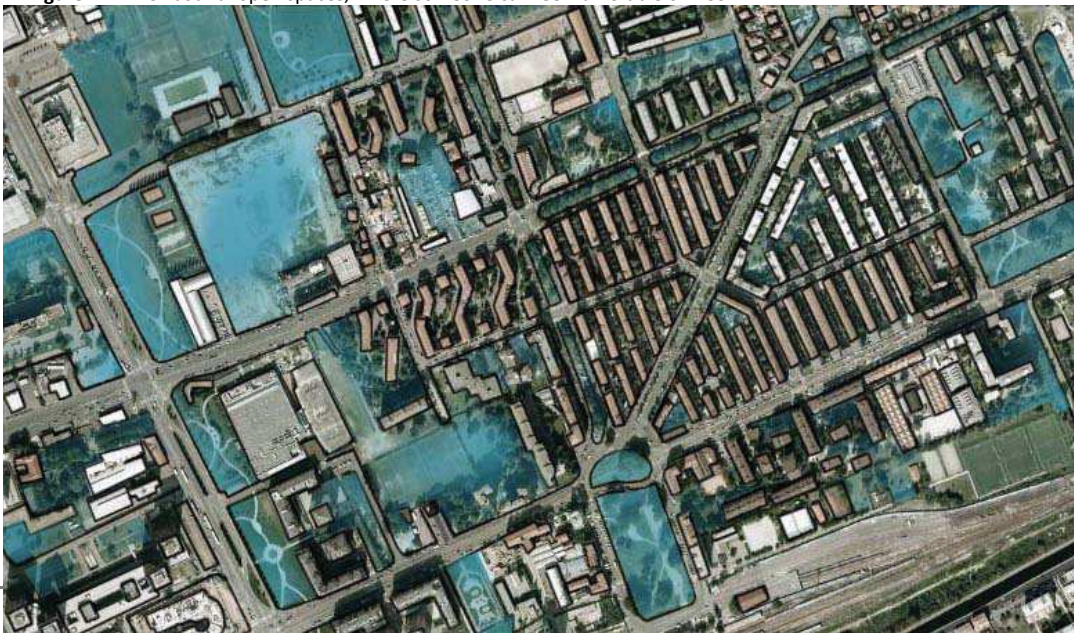
These differences of gradients inside of a space have been indirectly supported by a number of theories on space perception. Alhazen, a scientist and polymath, studied the differences between senses, knowledge and inference. A visual sensation reaches the borders of interpretation and representation, while seeing is enough to recognize an object in nature. A good test that alludes to the existence of space gradients is the Rorschach test with the inkblots that psychologists perform, where the spaces outlined by the inkblots may take subjective forms according to individual interpretation. These methods of perceptual interpretation come hand in hand with the concepts of **imitation of nature** inside of the mind, **idealization** and **abstraction**, where sense impressions come first, and later become elaborated, distorted, or generalized according to the mind of each individual.

In the effort to explain the states of visual space perception through architectural explorations, one encounters spaces of total mobilization, expanded spaces, fragmented spaces, spaces that lose a defined center. The mentioning of 'reference systems' as a method to stipulate these states is very interesting, particularly with the mentioning of the space of Euclide; a reference system lost in time, and being followed by the examination of curved spaces of non-Euclidean geometry, and later on, Einstein's general theory of relativity. This clearly defined mathematical progression of perception of space is appealing in relation to the architectural perceptions of space in the contemporary world. Following through the progression of the beginning point of Euclidean three-space, perception of space is initially defined by using certain postulates and other properties that follow axioms of logics, later progressing into more complex functions of algebra and calculus and advancing to the modern *relativity* theorem with complex interrelations of space and time, mass-energy and momentum. In a parallel direction, the problem of perception of the urban space of contemporaneity falls under a complexity of considerations such as chronological interpretation, investigation from the 'local' space to the 'global' space, from the consolidated to the fluid, from the metric to the topological'. (G.De Matteis, *Il progetto impicito*, Milano 1905).

In Viollet-le-Duc's *Historie d'un dessinateur*, two chapters creating analogies with the title of "lectures on

1 **Arnheim, R.**, 1977, op.cit., p. 17.

Figure 2.11 'Unbound' open spaces, where someone can feel vulnerable or free.



comparative anatomy" are examples of using architectural typologies as spatial elements referenced to a conditional space. Also in his Dictionary of Architecture, he makes correlations with organs and the subordination of characters. "An organ existed only in relation to the whole, and each form could be explained only through its place, or placement, in the system".¹

Evaluating the perception of space with its categorization into groupings of 'architecture as mass communication', Umberto Eco is able to support the role of the relationships and meanings between objects inside of a public open urban space composition. He does this by evaluating the space's perception in terms of: mass appeal (eliciting a certain type of consent), *psychological persuasion* (hidden persuasion, sexual associations, etc), *inattentive experience* (opposite to how we would experience an installed work of art), architectural *interpretations of an aberrant way* (Foster's Swiss Re HG building in London, or the Venus de Milo for erotic purposes), *fluctuations* between coercive and indifferent messages (implying ways of living or as one would see fit), objects or compositions belonging to the *realm of everyday life* (pop music, clothing in-style, etc), and compositions formed purely for *business* (affected by economy, politics and technology).² The design of a public open urban space affected by the realm of everyday life is a framework parameter that also Françoise Choay speaks about in reference to The Medieval Syntagm of a civic center designed around "crystallizing the forms of church and feudality and by organizing in a syntagmatic structure the emotional relationship of proximity which is still alive today in so many Western villages".³

2.1.3 perceptual security on bound and unbound spaces

The sense impressions gathered inside of public open urban spaces gather information of the existing elements in order to create the feelings and levels of security in the environment in question. Generally, the binding of spaces may be the relationship between the figure and the ground of the pictorial space representation and intimate experience that takes place. Arnheim for example, speaks of breathing space that architecture should provide, in order to establish comfortable and *safe* environments for the perceptual well-being. Thus, visual objects define visual centers, and perceptual structures that guide the field of vision may be articulated by types of boundaries which establish vectors of compositional value. If the above did

1 **Teyssot, Georges**, *Norm and Type. Variations On A Theme; "Architecture and the Sciences"*, Princeton Architectural Press: 2000.
 2 **Eco, U.**, 1986, op.cit., pp.77-78.
 3 **Choay, F.**, 1986, op.cit., p. 164.

Figure 2.12 Piazza Tirana looking South-East.



Figure 2.13 Piazza Tirana looking North-West.



not exist, the dweller might feel abandoned and insecure. Camillo Sitte was one of the first researchers to establish a syntax of security and comfort for the sake of protection, orientation, and comfort. His analysis is based on the sensitivity aesthetics of time, while he criticizes the regular and obsessive order of contemporary squares and the isolated placement of monumental elements in the middle of visual fields. (glossary: *Sitte, Camillo*)

In Norberg Schulz's terms, the horizontal direction is the reference to man's concrete world of action, and starts with the horizontality of the ground, which represents the foundation of construction and the floor of a civic space.¹ Consequently, secure spaces in the civic environment demand the articulation of the horizontal coordinate, but not existing alone. As Arnheim explains, "in our spatial system, the vertical direction defines the horizontal plane as the only one for which the vertical serves as an axis of symmetry". Man needs objects to feel that he has reference to something, and the verticality of perception of objects cannot be supported without the existence of a horizontal reference point. Furthermore, the fundamental requirement for the establishment of a secure space is horizontality that finds reference to proximal vertical objects.

Contrary to the perceptual impression of comfort, safety, protection and freeness that a bound space is prone to extract, the contrasting effect of unbound spaces correspond to the impression of a restricted, smothered, vulnerable and exposed urban environment that leads to the situation of non-safety.

Insecure spaces are usually closely related to the concept of framing and the lack of it, along with improper energy fields within compositions. In perception, boundaries are the dubious products of encountering forces, and which psychologists name *contour rivalry*; when a *contour rivalry* exists, there is no correct framing of an environment, as there are opposing forces overlapping, creating a sense of discomfort; a boundary is when two spaces are fighting for the same common contour, but no correct designing has been attempted to achieve a harmonious transition, leading towards a sense of disorientation. Additionally, insecure spaces on boundary lines are often created when there is a change of function of the two adjacent areas, so the vectors end up competing in two different directions. With the dealing of architectural groups and spatial forms, this matter becomes complicated, as the vector analysis must be perceived in three dimensional forms, and not on flat surfaces, as would be the case in a painting or on a two dimensional object.

For the bonding of spaces, it is crucial to deal with the relationship between objects and spaces and to align elements into groups with shared dispositions using tools such as; bonding icons, hybridization, and classification or framing. For example, a *strong classification* would be the definition of things kept apart in a meaningful way, whereas in *weak classification* elements would be put together. Framing refers to the strength

¹ Norberg-Schulz, C., 1991, op.cit.

of the physical boundaries around a space. For the purposes of this paper, the syntax for the classification of secure and comfortable public open urban spaces will dwell around the parameters of interpersonal function of space, *information availability, structure, framing, field, theme/concept, salience/articulation, and path/orientation*.

A public space of security may not only be defined by its concrete characteristics, but also by the messages that it reveals. One example mentioned in the earlier chapter is Land Art: Being a literal piece of art in the midst of an urban and sometimes amorphous and complex environment, Land Art will aim at revealing a certain message, memory, event or reality through its figurative and morphological appearance. This creates immediate comfort for the people who will pass through the space, as the messages create a personal dialogue of strong meaningful significance to each and every one. Even if the message is unclear, the sole realization of the artist trying to tell a story creates a personal relationship between the creator and the urban player. (glossary: *secure public open urban space, insecure public open urban space*)

2.1.4 wire-frame civic space perception

When teleporting ourselves into the fields of visual spatial reality, another interesting means of perception occurs, which is that of wire-frame vision – a way to analyze certain points of views in an open space by seeing through plan, elevation, section, birds-eye-view, etc. This concept comes close to a keyword analysis that follows in terms of layering, where here, the merging of the layers occurs. John Beckmann speaks about this phenomenon in his "Merge Invisible Layers" essay, in which he cleverly studies the contemporary civic phenomenon of an overstuffed world while finding different ways to interpret our perception of reality within the architectural urban space. In an effort to grasp and comprehend "the teleschizoid assemblages that we have yet to fully formulate", arises the need for new representational methods (figures 2.15, 2.16), or even the incorporation of art installations, often in virtual form as a representational electronic remote reality that will provide that "quick sensory fix"¹ of perceptual orientation, or theme clarification within the space.

¹ Beckmann, J., 1998, op.cit., p.3.

Figure 2.14 Piazza Tirana; comparing 'bound' and 'unbound' public open spaces.



Figures 2.15, 2.16 Wireframe examples of project showing a series of public open urban spaces. (Civic art as a mosaic of cultures; project spread



2.1.5 on interpersonal function of space

Alberti was one of the crucial figures of architectural theory to speak about the interpersonal function of space in relation to the psychology of secure perception, in order to inhabit a city that seems familiar and comfortable to the actors. His suggestion for example of rebuilding Rome as a state of mind, in order for it to be 'comfortable', 'useful' and 'beautiful', embodies the concepts of civic art in the urban environment that this thesis aims to demonstrate and theorize. In Alberti's eyes, this security strives from the continuity with the past, and he speaks about the epistemological proof that people of the Renaissance in fact drew their ideas from the historical space perceptions, and not actually inventing a new type of urban habitation and civic existence. This theme relates to the idea of the urban space as a means of narration and description of a past and present structural perception, which is in fact the knowledge of what is layered underneath and revealed on the surface. In fact, 'description' in Greek and Latin means knowledge, so the experience of the space – the mental constructs – offer this very description of the urban context.¹

The foundation of the interpersonality of space deals primarily with concepts that Jan Gadeyne also spoke about during his speech at the First Biennale dello Spazio Pubblico in Rome, in which he points out the importance of spatial practice, the self as situated awareness, the state of an aesthetically grounded vision of the self that hints to a means of poetics, and the concepts of 'embodiment', 'perception' and 'narration', complimenting to other research also presented on the same day, on similar topics. Here, the theme of poetics is intimately linked to the public space as means of providing multiple roles of qualitative investigations. Poetics may be interpreted as the structure of the compositional design, which justifies the creator's perspective in personal and epistemological terms, providing a system of representation that can resonate in the experience of the actor.²

The most elementary perception of the human experience in relation to architecture, occupying space, is the vertical projection of an object, perpendicular to a horizontal plane. When speaking of the interpersonal function of space, what is meant is the relationship between the person, his field of action, and the standing elements of the environment, arousing testimonies of people who insist on the physical, muscular, sensory and psychomotor perception that emerges from the *vehicle* of the feet.³ These relationships are based on perceptual theories of forms and spaces and are supported by recent studies on spatial psychology. The

1 **Saura, Magda**, Technical University of Catalonia, "Public space as image, power-making: L.B. Alberti's writings on Rome", in *Prima Biennale dello Spazio Pubblico*, Istituto Nazionale Urbanistica, Facoltà di Architettura Roma Tre, 13 May, 2011.

2 **Gadeyne, Jan**, Cornell University, "Shortcuts: the formation of streets in the Early Middle Ages", in *Prima Biennale dello Spazio Pubblico*, Istituto Nazionale Urbanistica, Facoltà di Architettura Roma Tre, 13 May, 2011.

3 **Gubler, J.**, 2003, op.cit.

Figure 2.17 Via Odazio perspective, along the Naviglio strip of Milan. (on interpersonal function of space)



feeling generated through the course of interacting with the direct surrounding environment, primarily during the course of walking, has been elaborated by Jean Jacques Rousseau, who suggests the transformation of feelings in ideas and the process of using our animal and savage virtues as a learning guide to understand our surroundings; where "our first philosophy teachers are our feet, our hands, our eyes".¹

The concretizing of the above concept is the column, becoming analogous to the replication of the human figure and its upright stance, since through the course of architectural developments and urban compositions, the human figure has always been the point of reference for scale, geometry, and spatial perceptions. According to Bloomer and Moore in *Body, Memory, and Architecture*, the argument is made that various design features become completely analogous to the human body, creating forms such as walls inscribing human territoriality, roofs crowing a building, and columns regarded as talismans.²

The debate around the verticality of objects as single elements or as elements supporting larger structures, is an issue debated through time. A column has been defined as an object that *supports, resists, transmits, and decorates*, most of all providing essential structural necessity, relative to the musculature of limbs and torso of the human body which exemplify *grandeur, proportion, and fitness*, yielding to an interpersonal relationship between this vertical figure and the viewer's stance. Plato, however, would argue such an importance, as his philosophy was based on the idea of lack of involvement of the human body in interpersonal relations with our environment, and rather a pure emotional affiliation through the mind.³

Centrally based fields of forces help actualize the square as an autonomous visual object, also providing an architectural counterpart to the human occupant's presence. It is noteworthy to mention here the minimal influence of a single man in an open space in contrast to the high effect of a large crowd gathering inside a large space; the energy of the mass affects the energy fields in question, providing a sense of security.

1 **Rousseau, Jean J.**, *Emile ou de l'éducation* (1762), Flammarion, Paris, 1966, p.215, 157; Italian edition, Emilio, edited by Aldo Visalberghi, Laterza, Bari, 1953, later 2008; then in Rousseau, "I classici del pensiero", vol.II, Mondadori, Milan, 2009.

2 **Bloomer, Kent C.; Moore, Charles W.**, *Body, Memory, and Architecture*, Yale University Press, New Haven and London: 1977, p.5.

3 **Bloomer, K.C.** et. al., 1977, op.cit., pp. 18, 19, 24.

Figure 2.18 Piazza Tirana perspective, along the Naviglio strip of Milan. (on interpersonal function of space)



2.2 public open urban space perception in pieces of art

The history of urban architectural executions has been through a long road of trial and error, replication of established ways of designing that proved to be successful, or the effort to create styles and patterns according to some analogy from a different science or type of methodology that seems to work. The latter case may become an interdisciplinary approach, however, due to the communicativeness and direct interaction between and among certain disciplines, the expression of one through the other is often a usual and effective phenomenon.

The perception of public open urban space often becomes illuminated through the observation of its depiction in pieces of art, especially paintings, which portray in a two dimensional way the experience of civic interaction. This cross-coding with content among disciplines becomes characteristic in the modern and post-modern era; in some modern approaches, the subject of art is often the process of art, whereas in some post-modern interpretations, it is often the history of art producing itself from within.

“Hence ‘The Hand Submits to the Intellect’ recalls the Greek origins of painting and suggests that today it is self-generated from within a hermetic space, the history of art and Modernism. ‘Painting painting itself’, while seated atop the pure white spheres of Classicism and Modernism, is an allegory about the primary place of feedback and recursive structure in post-modern art”.¹ (figure 2.19)

In the discussion here, the above interpretation of the inter-connectedness of subject and execution, idea and expression, is found in the reflective paintings of a desired or critical civic space for the city. The interpretation of the relevant painting here, also becomes affiliated with the keywords analyzed further down of field and emergence, expressing the outcome of one idea coming from within, and all emerging into a mirroring impression of the world.

Furthermore, by studying the paintings’ figure and ground properties (also see glossary: *Figure/Ground spatial analysis*), one is able to point out the **predominant elements of the composition**, showing what is important to the visitor and what stands in the background. Through the composition, colors, atmosphere and tone of the artist, we may get a general or specific idea about the qualitative points of view of the observers. Many times, when interpretation is involved, it is interesting to grasp the psychology of perception of certain public spaces such as the one depicted in the medieval painting of the Colosseum (figure 2.20), where the public environment appears as fragmentary survival of the memory of the ancient city, bringing forth a tendency of **mythologization** and nostalgic memory.²

1 **Sperone Westwater Gallery**, New York, quote found in: Jencks, Charles, *Critical Modernism; where is post-modernism going?*, Wiley-Academy, Great Britain: 2007, p.72.

2 **Yawn, Lila**, Cornell University, “Frangipane and Pierleoni Territories in the *Era of the Antipopes (1050-1150)*”, in *Prima Biennale dello Spazio Pubblico*, Istituto Nazionale Urbanistica, Facolta di Architettura Roma Tre, 13 May, 2011.

Figure 2.19 Carlo Maria Mariani, *La Mano Ubbidisce all’Intelletto*, 1983, oil on canvas, 78 ½ x 69 in.



Figure 2.20 Painting of the Colosseum in the medieval period.



Plato was one of the first scholars to question the learning capacities drawn from the field of art, who questioned the dangers of expressing “mimetic and narrative representations of the world and of human actions”.¹ The debates carry on until today, and although far from being solved, they bring up some interesting considerations among those who claim that we can indeed learn from art, and those who claim that we cannot. Scholars who defend the first point, base their arguments on the theory that since art provides new ways of seeing things and evaluating situations, we become facilitated in acquiring new knowledge. There are in fact many artworks that help us gain greater understanding of the world around us, thus opening roads to new ‘scientific’ knowledge. John Constable is only one of many examples. Scholars who defend that art cannot in any way provide justified knowledge, speak of art as a field which does not generate valid arguments, that does not offer information in the traditional sense of justified true belief and that is influenced by single-sided perception and individual interpretation of images, circumstances and events.

It is interesting to compare and contrast the points of view towards the effects of art of Plato and Aristotle, both of which believed that art is strong enough to influence the morality of a person and hence the approach that one holds towards sciences and the speculation of life. Plato, in the *Republic*, states that the more one indulges in emotions aroused by representation, the more likely one is to suffer the effects of an unbalanced soul, and ultimately the development of a bad character.² While Aristotle also agrees that art can change one’s perceptions, he believed that it could do so in a positive and beneficial way, producing ‘emotional catharsis’.³ This claim is based on the speculation that by exploring one’s emotions, the possibilities of being more rational in everyday life are greater.

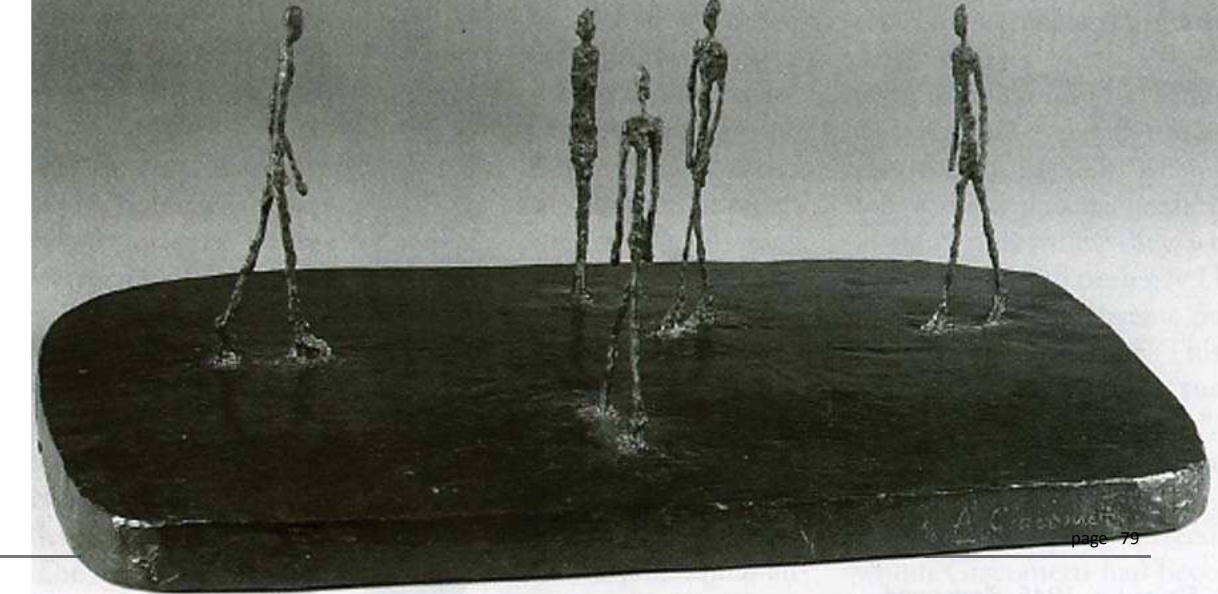
When trying to draw conclusions upon the meaning of architectural forms within the urban environment, it is always crucial to trace back into antiquity and follow the traces of formalistic evolution from the more basic means of expression of human behavior; that of painting and sculpture, representing a fundamental category of expression throughout time. From the primitive era of artistic expression, to the development of Egyptian, Greek and Renaissance art, until the modern revolution of form depictions, it becomes arousing to study various means of expression of the surrounding environment and its psychology of perception. Primitives and children have a way of articulating the conceptual meaning of objects, which is not necessarily purely a matter of lack of skill, but mostly a result of a different perception, uninfluenced by forced methods of examining the world and expressing it through certain techniques of image creation. As the arts of painting and sculpture evolved, it is fascinating to study the kind of progress that took place, and the areas of representative improvement, coming closer to ‘realism’; a truly abstract term, in this analysis.

1 **Worth, Sarah E.**, “Art and Epistemology”, in “Internet Encyclopedia of Philosophy; A Peer-Reviewed Academic Resource”. 25 July 2005.

2 **Plato**, *Republic*, Hackett Publishing Company: 1992 (orig. 320 BC).

3 **Aristotle**, *Poetics*, Cosimo Classics: 2008 (orig. 335 BC).

Figure 2.21 Alberto Giacometti’s *City Square* of 1948 (Museum of Modern Art, New York); “Man crossing a square on a sunny morning” of 1950 (The Detroit Institute of Arts)



In paintings such as the one attributed by Luciano Laurana in “Citta ideale” of the mid-XVc (figure 2.22), is shown the model of Leon Battista Alberti’s ideal representation of the public open urban space; rendered in an almost symmetric composition of main directional axis, characterized by a certain rigidity and spatial emptiness, awaiting for the animation of its context by the appearance of actors in the setting.¹

When Keith Eggner speaks about Barragan’s architecture in a way that buildings should contrast but not flirt with attention in a setting, it seems very similar to the results attained in the metaphysical paintings of Giorgio de Chirico (figures 2.23, 2.24); paintings which bring out a particular seductiveness of despondency and elation, solitude and anxiety; with the impression of a setting of an empty stage where the viewer is waiting quietly for the actors to come out and begin performing.² This psychology of civic desolation and metaphysical emptiness, expressed in his paintings as early as 1910, defined many of his surrealist subjects, and symbolize among other things, the *perception of emptiness*.

The authors of *Lotus International* compare this to the urban setting of the Bicocca Village by Vittorio Gregotti, where a proper analogy between the form of landscape art and urban harmony is the desired result, strived by proposing discreet and new structures in a setting that has perhaps become ‘wild’ and uncontrolled, in terms of typological and contextual orientation.

In Edward Hopper’s painting “The City” (1927), we face the observation of the condition of the modern city with a formalized urban and well structured square in the foreground, framed by a combination of classical and more minimalist design. In the background but still in our direct attention, stands the condition of an urban void pointing towards the direction of a multi-storey monumental structure surrounded by a flat urban environment. The traditional against the modern is depicted also with the double illustration of the urban and the natural within the same visual frame. The way in which all the information is being laid out, provides points of references to understand the transition from classical to baroque to modern. These points of references are important to hold on to for the construction of contemporary spaces, when in the need to express a meaning or *concept*. Furthermore, the point of view, which is elevated, demonstrates the new gathered perspectives and the possibility for a *vertical kind of layering* within the city.

Some pieces of art in relation to the public space, speak of the intentionality behind the existing structure and space relationships within the urban environment, very well expressed in Piet Mondrian’s paintings of the De-Stijl movement, who with the reductionist approach of form and color to its pure minimum, gives an

abstracted schematic interpretation of the public open urban situation, evident in two examples; his “Broadway Boogie Woogie” work shows the grid structure of the city, evidently structured in a planned and pre-conceived way, while the “Place de la Concorde” evidently shows “the stony emptiness of the expanse to the left of the square which stands empty in the middle of the painting”.¹ (glossary: *De Stijl movement*)

Through the portrayals of public open urban spaces even through paintings, it is evident that “the aesthetic, geographical and semantic character of public space, [...], has been modified”.² But also through sculpture, as in the works of Alberto Giacometti, and in his three-dimensional representations of solitude of the modern city, does one fully comprehend an attitude towards the void of modernity. Jean Paul Sartre writes:

“reality creates its own no-man’s land [...] A figure of Giacometti’s in Giacometti himself, surrounded by his small individual-nothingness. However, all these insignificant nothings that belong to us like our names, our shadows, are not sufficient to create a world. Above them there is ‘the void’, the comprehensive distance between all and all. The street lies empty under the sun: and in this void suddenly a person appears”.³

The sculptor’s works reveal several emotions of degrees of security within the modern public open urban city, which in his works “City Square” of 1948, and “Man Crossing a square on a sunny morning” of 1948-49, we get the impression of man fascinated by the metropolis, confused by a mix of feelings of *fear, amazement, admiration* and sometimes *respect*.⁴ In these figurative representations, the intention is not to express the ideal feeling of ‘togetherness’ but rather depict the inevitable state of urban ‘co-existence’.⁵

Associated with these depictions, is also the unsecured public feeling of *agoraphobia*, revealed in Alberto Giacometti’s works of figural representation in the public realm (figure 2.21), also connected back to Camillo Sitte’s speculations on the syndrome. On this he speaks of the natural outcome of modern sickness, as man is found uncomfortably suited in the vastness of the scale of modernity.⁶

1 **Bollerey, Franziska**, “The square: visions of multitude and solitude”, in *Squares of Europe, Squares for Europe*, Jagiellonian University Press: 2000, p.73.

2 **Lotus International**, no.131, Milano Boom, 2007.

1 **Bollerey, F.**, 2000, op.cit., p.80.

2 **Aymonino, A.**, 2006, op.cit., p.18.

3 **Sartre, Jean-Paul**, “Die Gemälde Giacomettis”, in Alberto Giacometti (exhibition catalogue): 1987 (orig. 1954), p.355.

4 **Sartre, J.P.**, 1987, op.cit., p.358.

5 **Bollerey, F.**, 2000, op.cit., p.73.

6 **Sitte, Camillo**, *Der Städtebau nach seinen künstlerischen Grundsätzen. Vermehrt um Großstadtgrün*. Wien: 1909 (orig. 1889), pp.56-57.

Figure 2.22 Tavola di Baltimora, veduta di citta ideale; “Città ideale”, mid-XV c. (Walters Art Museum, Baltimore)

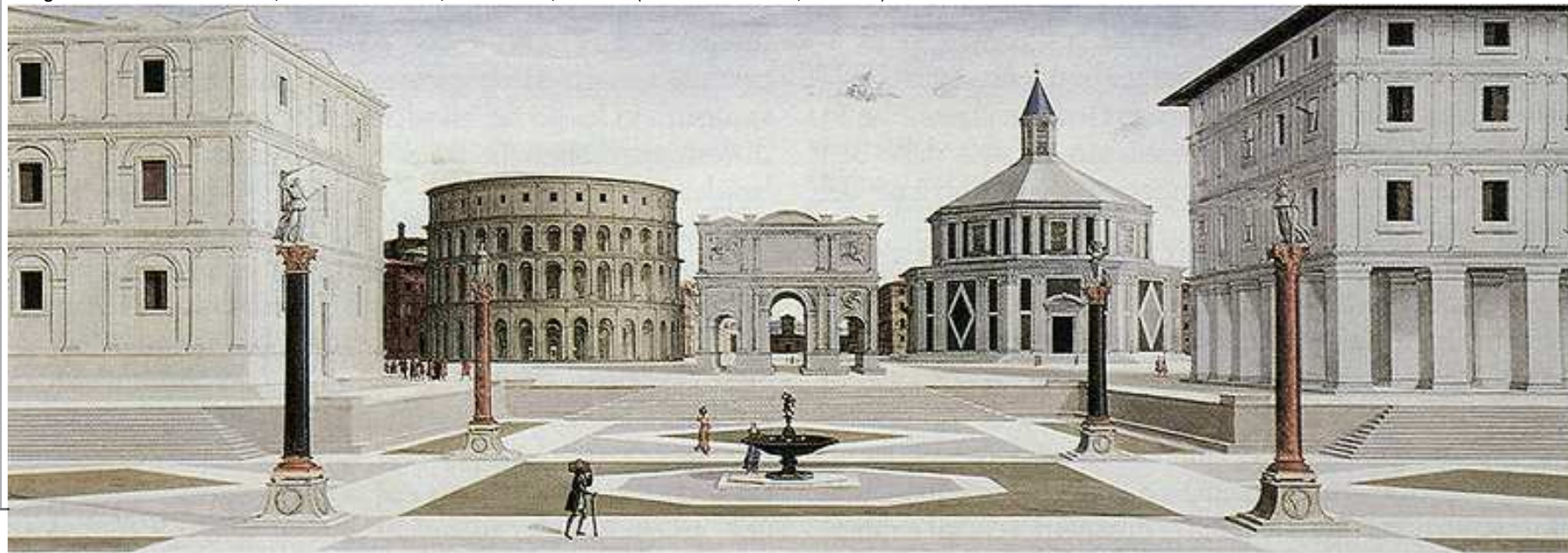


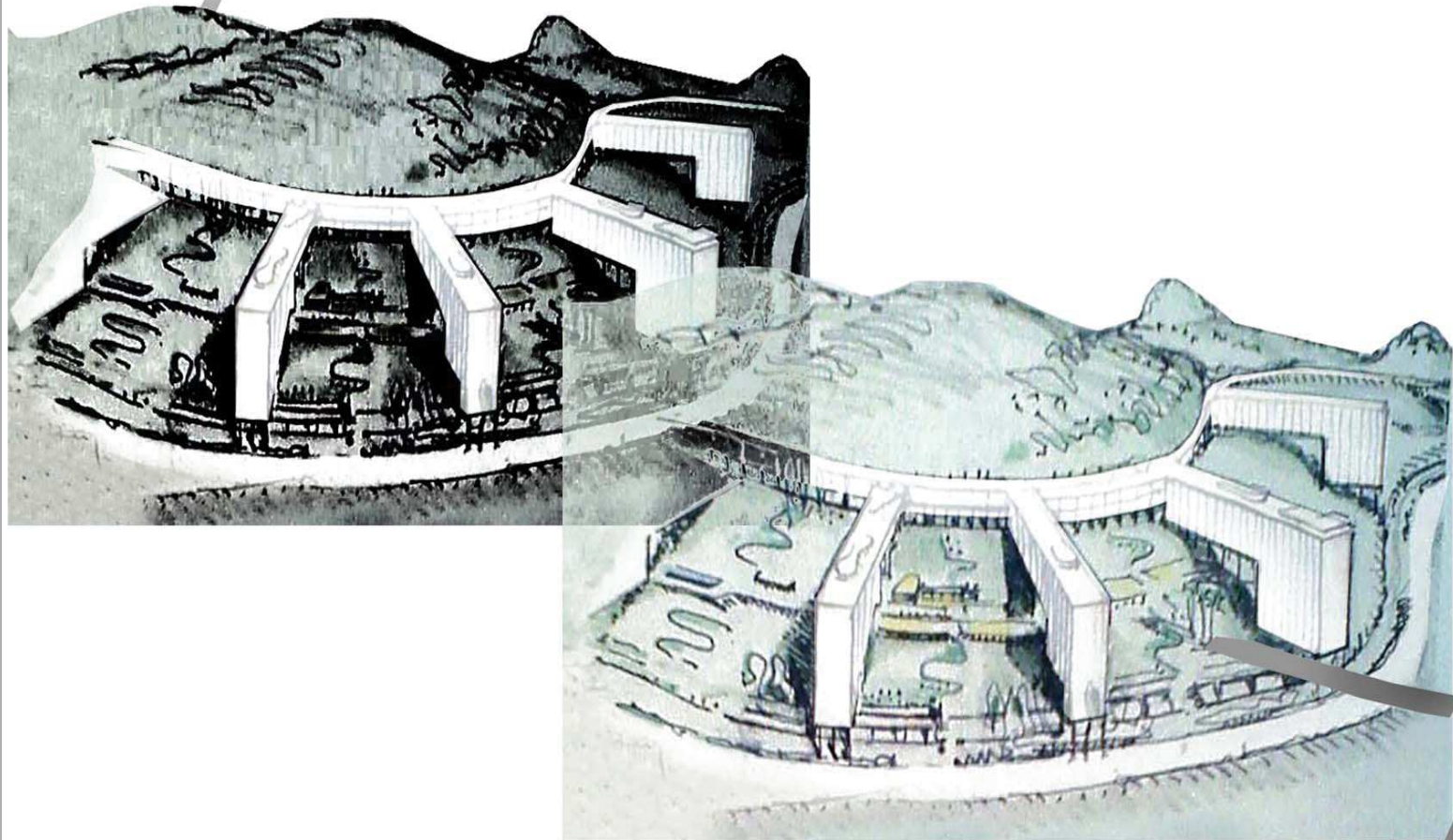
Figure 2.23 Giorgio de Chirico; *The Nostalgia of the Infinite*, 1911



Figure 2.24 Giorgio de Chirico; *La Piazza d'Italia*, 1912.



layers



2.3 layers of spatial composition and meaning

In the general writings of the evaluation of form and space in the universal literature, much debate is formed around the perception of urban public environments, appropriate to the context of the surrounding city and the degree of familiarity, orientation, and strong field creation. In the design of an open space within the dense center of the city, it is important to understand the patterns and philosophy that evolved in the development of the current form, and create a continuation of the existing conditions, which if not ideal, should be improved upon. This emphasis on layers of urban structure and phenomenology of form has its roots on urban space theory, deriving from General Linguistics, stressing the existence of a syntax in urban forms and open spaces, where architectural compositions are derivations of universal unconscious formations of cerebral structures that directly relate to the perception of space and the psychology of humans.¹

The grammatical aspect of linguistic theory can be compared to the relevant morphological characteristic of an architectural and urban analysis, whereas the syntax analysis is the formation of rules that determine in each language where the words ought to be positioned to form sentences and phrases. Linguistic syntax may be compared to the formation of rules and styles that apply to the history of architectural composition often expressed in layers, to form definitions of *venustas*; Vitruvius' term contemplating the principles for beauty, and its relationships to contemporary cultures.

The modern city's civic realities of public open urban space, face the role of existing spaces that have been pre-designed, destroyed, redeveloped, formed by default (urban voids or in-between spaces), or preserved. The need to consider the layering of an existing public open urban space that is due to be designed, redeveloped or preserved, is an outcome of an overly changing environment with partial restructuring and worn-out syntagms in the new, up-to-the-minute syntagms. (ex. glossary: *Muslim civic spaces*) Françoise Choay particularizes on the above by bringing up the example of Paris and public spaces' changes of perceptual and contextual meaning (a changing of the layers); the Portes St.Denis and St.Martin (figures 2.25, 2.26) with a modified value of borders and urban fabric, along with the Parc Monceau rotunda (figure 2.27), with a functional change, and hence perceptual alteration of the evolving layers. However, it becomes essential to consider the different layers of the city in a whole, with a more stressful and parallel contemplation regarding adjacent sites, in order to form holographic systems of information with homogenous and homologous degrees of layering. "It is precisely at the time when this system ceases to refer to the whole range of social behavior that the transition from place to space occurs."²

¹ Saussure, F., 2006, op.cit.

² Choay, F., 1986, op.cit., pp. 167-168.

2.3.1 horizontal layers

(glossary: *layers of horizontality*)

When designing a public open urban space, the key reference for elaboration and design description is often a layer or multiple layers of the city that 'hides underneath', revealing hidden secrets of the form transformations, intentions, and primary structures of the open space and surrounding habitations. In fact, the Core of a city should be the revelation of the fundamental idea that led to the emergence of a particular environment and the revealing of the layers becomes an obligatory task for any conscientious designer. What emerges in the atmosphere is then knowledge of the past and fluidity of city composition; a cognitive apparatus that may reveal the progressive artificiality of the public fabric or the reverse naturalization and intentional 'emptiness' of an urban place.

The analysis of horizontal layering may reveal the civic space growth patterns in the literal heart of the city (in the center), and further elaborate on the means of blossoming and complication of framework as a result of various linkages between several open spaces. This was a phenomenon that for example appeared in the medieval times (glossary: *Medieval public space*), with the rise of Christianity, when shifts of conceptual beliefs created new paradigms of spatial forms. Concepts of dematerialization prevailed, leading to the elimination of classical orders (which hinted anthropomorphic concretization) and the domination of 'light' as a theme, a phenomenon that has been a primary means of architectural characterization until today.¹ These horizontal layers are closely tied to thematic and *conceptual interpretations* of the civic open space.

However, while revealing these horizontal historical layers (often revealed for study in the form plans) may help understand the complexity of 'heritage' for one particular site of open space intervention, this understanding alone does not provide the answers for the best solutions to be implemented. "This action must try to reconcile, in proportions and according to variable modalities, conservation and adaptation, faithfulness and restructuring and even sometimes rupture."²

¹ Norberg-Schulz, C., 1991, p. 54.

² Aymard, Maurice, "The Squares of Europe: A Metaphor for the Long Run, a Challenge for the Present" in *The Square, a European Heritage: A topical survey in five countries (Spain, France, Greece, Italy, Poland)*, Miotto, Luciana (Editor), Fondation Maison des Sciences de l'Homme, European Commission: 2000, p.9.

For example, the reformation of the public open urban space in Greece during the 19th century, is relevant to the juxtaposition of different layers of its fluttered past and an evident effort to relate to the modernized western European countries, which seemed to be well ahead from a paradigmatic point of view in typological and stylistic development. Along with the strive for a historic continuity with the Byzantine and ancient Greek traditions, there was also the adoption of the old Oriental in the Balkans, the French 'military' of the early 19th century, German neoclassicism, or the École des Beaux-Arts in Northern Greece, all of which created different layers of horizontality and meaning. In the Dodecanse, the towns were fundamentally remodeled by the Italians, after the occupation of the Italian-Turkish war of 1911-1943. In all of the above cases, the figure of the square takes dominance of form, which symbolizes freedom, equality, and openness in a single space. Its equilateral sides, demonstrating power accessible to all, illustrates conceptual physical, political and social dimensions. (glossary: *typical Greek civic space incentive*)

2.3.2 vertical layers

Vertical layers may apply to vertically-shaped public open spaces with multiple elevations, from which one is able to grasp a variety of perceptions of the surrounding environment. (glossary: *layers of verticality*)

Perpendicular to the horizontality of the **ground** is the principal dimension of action. In Kent C. Bloomer and Charles W. Moore's *Body, Memory and Architecture*, the fundamental example of the column gives practical light to this theoretical deliberation, which represents a replication of the human figure and its upright stance, giving a point of reference for scale, geometry, and spatial perception. These criteria become analogous to the human body, in relationship to the stable ground, and the columns provide the vertical basis for walls inscribing human territoriality, which are regarded as talismans.¹ According to Alexander Tzonis and Liane Lefaivre, the concept of dwelling and residence within the womb of Mother Earth, is most likely a result of the analogy of the image of mother and womb. The verticality of objects as single elements, or as elements supporting larger structures, is an issue that has been much debated through time, being considered the elementary form that it is. A column has been defined as an object that *supports, resists, transmits, and decorates*, most of all providing essential structural necessity, relative to the musculature of limbs and torso of the human body, exemplifying grandeur, proportion, and fitness. This results in an interpersonal relationship between this vertical figure and the stance of a viewer. Plato, however, would argue such an importance, as his philosophy was based on the ideal of lack of involvement of the human body in interpersonal relations with our environment,

¹ Bloomer, C.K., et.al., 1977, op.cit., p.5.

Figures 2.25, 2.26 Paris, Porte St. Denis, Porte St. Martin; demonstrating their modified values of borders and urban fabric.



Figure 2.27 Paris, Parc Monceau rotunda; characterized by a functional change, and hence a perceptual alteration of the evolving layers.



and contrarily supporting a pure emotional affiliation through the mind.¹

Elements of consistency in Le Corbusier's designs, which will form a standardized system for his work during the sixties in relation to the creation of the public open urban space, is his use of a grid and the isolated tower block, resulting in very strict and basic open spaces that fall under the category of *vertical layering* conceptual organization. These spaces are generally inhabited by the modern vertical and multi-storey circulation of vehicles and pedestrians, with green courtyards which seem to work, unlike the infrastructure, which cuts through the public spaces and seems to get lost inside pedestrian property. Here, along with Mies van der Rohe's approaches, who speaks of the 'transparency of space', primarily in the sense of a flowing transition from internal to external space while never really dealing exquisitely with the design of the open space itself, is the classical criticism against the modern movement; designers caring exclusively about the attainment of a functional society, rather than the quality and natural needs of man as a being.²

However, there are yet examples that prove the opposite, such as the Plan for expansion of Antwerp by Le Corbusier and Pierre Jeanneret of 1933, which shows the multi-imaginative imagery and multi-functional approach of the urban space, which however, because of its proportions and typological nature, could become disorienting if executed on a large scale.

Relevantly, we must consider the affiliation through the 'meta-projectual' environment of virtual surroundings, and a *status d'animo* (state of the soul). This may be achieved through the proposition of lifestyles with the definition of tissues in the city, such as the permanence of Porta Ticinese and the liquid strip of the Naviglie in the South of Milan.

2.3.3 multi-dimensional layers

(glossary: *layers of multi-dimensionality*)

Spatial composition and organization comes in layers of analysis through design interpretation, but layering is not only the two-dimensional or three-dimensional interpretation of the space. As Denise Scott Brown mentions, there is also the possibility of four-dimensional architecture, which considers the functional changes. For example, the syntactic expression of Italian piazzas during the organic medieval period, (glossary: *organic medieval square*) introduces new values of increasing frequency within the urban cores.

1 Tzonis, Alexander; Lefavre, Liene, "The Mechanical versus the Divine Body", in *Journal of Architectural Education* 29, no.1 (1975), pp.4-7, 18-24.

2 Krier, Robert, *Urban Spaces*, Academy Editions, London: 1979 (orig. 1975), p. 74.

The theme of a multi-dimensional layering of the public open urban space is also expressed in the *First Biennale dello Spazio Pubblico* in Rome, where Jan Gadeyne of Cornell University speaks about *Thirdspace* as deconstruction and heuristic reconstruction of *Firstspace*, along with *Secondspace* duality.¹ These ideas pertain to the themes of conceptual interpretation of a public space and hidden messages behind the superficiality of the primary visual impressions, where the immaterial merges with the material language of reality.

2.3.4 a new core in the urban periphery

The keyword of layering finds its purpose in the definition of new cores in urban peripheries, where the need to attract information from the surrounding and more accessible natural environment, the ambiguity of the void, and the relationship to the denser heart of the main city, creates a syntactical consideration of different layers. The secondary public open urban space, the core of the urban periphery, creates hybridized layers of the town and the country, merging together the city core and the natural landscape that surrounds the city's boundaries. (glossary: *suburban core*, *suburban gates/city gates*).

More specifically, this desire of new urban hearts rises as the result of the need for an establishment of new districts, of the industrial revolution with the functional prevailing over the aesthetic, and of the contemporary period and desire for a human scale and pleasant framework for life. This suburban desire inescapably shows its road to the Chapham phenomenon of a hybridization of the country house, the villa, and the picturesque traditions, causing a problem of typologically syntactic expression. Hence, the search for a paradigm of the *secondary public core* gives rise to an interesting perspective. (figure 2.30, glossary: *Chapham*)

The perceptual intention behind the establishment of a primary and then secondary space has its roots in the man-made construction of elements composed around an urban void that gathers meaning by the function of the surrounding buildings and the intentional demonstration of public events. For example, observing the syntactic representations of the ancient and historical cities brings light to the forthright guidelines, prototypes, syntactic language and conceptual ideas and values that almost always defined a civic space in the near center of the community, functioning as a primary space.

1 Gadeyne, J., 2011, op.cit.

Figures 2.28, 2.29 Section Giambellino, near Piazza Tirana, along the Naviglio strip of Milan.



Bernard Lassus and Peter Cook were two of the forefathers of establishing a new type of suburban core design. They propose emergence of the topographies and the process of re-envisaging the future of open space design in both urban and rural context¹, which today seem to be closely linked together, exactly due to the intermediary phenomenon of suburban regions. Bernard Lassus defines a suburban public space as a 'cultural reading' and a 'construction of the mind'. Attention to the interactive nature of the landscape underlies all of his projects, and approaches each site with the intention of using a variety of opportunities to challenge what is present and embellish the experience of the surroundings induced from the articulation of intention.

A difference here emerges between the amalgamations of people in the suburban civic core, as a suburb is often characterized by a certain group of people, which also may influence the theme and general functions present in that suburban core. Unlike building civic cores in the urban center, in which all kinds of people may interact and shape up the spontaneous civic perspectives, the suburban core may become more rigid and predictable due to the social class stability that may characterize it. Additionally, the growth of the suburbia meant a strengthening of the specialized services at the core, and as these services were influenced by the cultural backgrounds that inhabited them, each suburb could acquire a character of its own.

Because these places are usually in the midst of a variety of typological constructions, including residential, industrial, commercial and maybe cultural, the character of the core usually takes the identity of a mixed use function. Robert Fishman, in his *Bourgeois Utopias*, calls this phenomenon the "divided environment".² The challenge to this situation since the modern movement has been to find a new vocabulary of communication and new ways of extrapolating concepts and converting them into functional and aesthetically significant suburban cores, or what one might call, 'secondary cores'. Emerging from the conceptual practicality of geographical situations, similar to district squares whose concepts include the articulation and linkage of old and new, the display of power, the punctuation of monumental elements, etc, (figure 2.31, glossary: *district squares*) rises the need for a more genuine strategic proposition, at a time of rapid blossoming of the periphery.

Vittorio Gregotti had proposed a solution concerning "the critical modification of the topography and the site", but other than this type of proposition, the strategic debates since the modern movement for the treatment of the non-sites have not been considered successful for the new definition of public open urban spaces.

One example or resolution is OMA's project on Park de la Vilette at the outer ring of Paris (figure 2.32) and bordering the suburban department of Seine-Saint-Denis was an expression of the deconstructionist movement initiated by philosopher Jacques Derrida and expressed in this project by the architect Bernard Tschumi. The importance of this public open urban space, which is much more than a green park in a suburban atmosphere, lies on the facts that it proposes new experiments on space and form, parallel to the ability of the people to recognize certain realities and interact with them. Perception here plays an important role, and the variations of activities along with the strategy of compositions and sequences, makes a result that challenges thought and new methods of suburban and urban interactions. The main intention is to deconstruct the traditional stereotypes of what a park should look like, proposing a suggestive middle-ground between natural landscape and man-made construction of contemporary thought.

(also refer to glossary: *front lawn public space*, *garden city core*, on the topic of *a new core in the urban periphery*)

1 Spens, M., 2007, op.cit., p. 10.

2 Fishman, Robert, *Bourgeois Utopias; The Rise and Fall of Suburbia*, Basic Books Inc.Publishers, New York: 1987 (orig. 1946) p.147.

Figure 2.30 Chapham



Figure 2.31 Place de Vosges in Paris (an example of a district square).



Figure 2.32 Park de la Vilette in Paris, by Bernard Tschumi





information availability

open space minimalism

Figure 2.33 Piazza Tirana perspective interpretation of the open space.



2.4 information availability and open space minimalism

Creation of security inside of an urban environment can sometimes take the preconceptions of many assumptions that should not be made. Earlier in this analysis the conclusion was made that perception of space is indeed a complicated issue, varying according to each individual's multi-parametered point of view. With conclusions made so far, it becomes evident that in order to express the *atmosphere* in mind, the availability of the correct information must be present. The observer must be regarded as the *innocent eye* (a term used by Gombrich in his writings, and to which Ruskin gave currency). The superficial satisfaction of seeing is not enough for the lasting quality of a civic space setting, and often in the context of the ever-changing contemporary city, the result is the constant change of relationships between objects. The urban context is full of such additions and subtractions of information availability and it becomes important to study the perceptual behavior of each changed space. Investigating the combinations and relationships between information within the urban context of civic space is a synthetic task, as Ernst Cassirer also supports in his *The Philosophy of Symbolic Forms*, stating that "the ways in which the diversity of sensory impressions can be synthesized into spiritual unities can reveal the most diverse nuances".¹ This assumption, although boisterous in regards to the intention of information availability analysis and theorization, may also result in a sanguine realization of the complexity and variations in our contemporary realities.

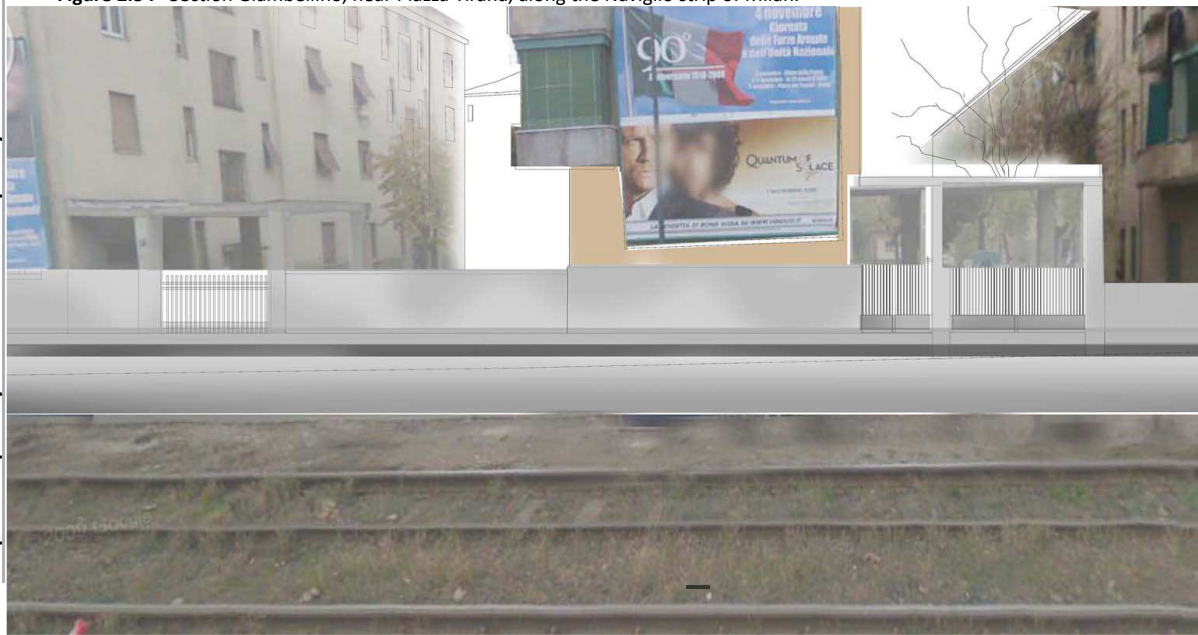
The information available to the visitor for the understanding of the spatial environment should be complete and clear; however, sometimes the visitor is enforced to circulate around objects in order to grasp a full understanding of the environment. The latter result, if designed carefully, may yield to a space of energy and vibrant circulation that will encompass frequent flow of visitors and observers; the information inside may be artfully kneaded so that the eye has constant stimulations of perceptual fields, and the body is guided by the mind's anticipation to discover hidden mysteries behind objects.

Umberto Eco, in his *La struttura assente*, labels the information availability of the pedestrian urbanite in terms of the 'anthropological system', where the successful urban environment of different sign vehicles and messages should hold reference to something that lies outside it, in order to bring external codes inside the picture. In this way, the constancy in spatial evolution and inclusive information that takes place offers an ever going cycle of available information. However, Eco goes further to put some breaks or parameters in the continual public urban transformations, mentioning the need for the architect to "be designing for variable primary functions and open secondary functions"² (where primary functions are the basic architectural elements that define a composition; stairs, railways, windows, etc, and secondary functions are stylistic elements that give a certain character to the space; ex. a new-Gothic arch, a modern column, etc).

1 Cassirer, Ernst, *The Philosophy of Symbolic Forms; Volume 2: Mythical Thought*, Yale University Press: New Haven and London: 1955 (orig. 1923-29), p.29.

2 Eco, U., 1986, op.cit., pp.80, 82.

Figure 2.34 Section Giambellino, near Piazza Tirana, along the Naviglio strip of Milan.



The above observation stresses the need for cultural and stylistic evolution, where the architecture should leave open options of design flexibility and improvisations, whereas the primary semiotic objects may be constant and fixed.

2.4.1 the role of the infrastructure

In essence, the street (the essence of the infrastructure), began as another form of public open urban space with the primary definition of the *plateia* (glossary: *plateia*) – which later became *place*, *piazza*, *praça*, *plaza*, *plein*, and *plads* in European languages. This, as mentioned earlier, is due to the fact that the word initially appeared as an adjective next to 'street', in order to establish a differentiation between a wide and narrow street (where the narrow street is called *stenopos*). Later, the Latin language will embody the term *platea*, offering an almost identical meaning.¹ The transformation of the concept of the street is evident in Constantinople during the Byzantine Empire, where daily life took place on the streets, and no distinct civic square for formal gathering was mentioned. The *mésé* (glossary: *mésé*) hosted economic and commercial life, which was surrounded by porticos, crossing the city for several kilometers. The *mésé* was also called *plateia* and *agora*, revealing the correlation between street and square. (also look at glossary: *tzarsi/tcharchi*)

Even in Italy of the 17th century with the decline of economic and political power, the infrastructure took importance in the articulation of the newly invented baroque urban spaces 'as scenographic hinges for the street system'. (glossary: *Baroque square*) Here, the role of the street takes the role of a means for speculation and admiration of 'civic art', from the perceptual point of view of the passenger. During this period, with the aid of the infrastructural expansion and the stepping out of the city in unprecedented dimensions, the new public spaces underwent a process of renovations and alterations, also with the broadening of the streets that affected the surrounding perimeters. Rome has plenty of such examples which shows the transforming interrelationship between metamorphosis of the infrastructure along with that of the square, where the widening of the streets created new perspectives in correspondence to new axis of circulation. (example Piazza del Popolo of Rome, figure 2.35)

1 Ananiadou-Tzimopoulou, Maria; Yerolympo, Alexandra, "Squares in Greece" in *The Square, a European Heritage: A topical survey in five countries (Spain, France, Greece, Italy, Poland)*, Miotto, Luciana (Editor), Fondation Maison des Sciences de l'Homme, European Commission: 2000, pp.97-99.

Figure 2.35 Section Giambellino, near Piazza Tirana, along the Naviglio strip of Milan.



Figure 2.36 Turin, Piazza san Carlo.



Such transformations of open civic space also take place during the reconstruction or transformation of cities such as Turin (figure 2.36) and Catania (figures 2.37, 2.38), where the city's infrastructural system is being reconfigured into orthogonal streets, and squares are being opened at the intersections between the streets or in front of the most important buildings.

The period of the Baroque must be the first formal period of the Italian public open urban space development, where the square acquires the serving functionality of the surrounding traffic, making it more lively and congested. However, it distances itself from the situation of the later modern and contemporary movement, in the sense that it provides scenographic requirements while withholding on the privacy and security of the square prerequisites, separating the enclosed space from traffic circulation.¹

The Napoleonic period brought about many changes throughout the infrastructural outlook of Europe, menacing the infrastructure as a fundamental element in the syntactic considerations that affect the fields of attraction and repulsion within an open public environment, and the degrees of safety. Highways were built, and the perceptual impressions of open spaces took a different dimension with the demolitions of fortification for the better incorporation of the interconnecting streets. Because of this, many civic spaces were transformed into shady promenades. With the increasing of the built infrastructural system in the 19th and then 20th century, the power of the street led to the transformation of the traditional 'square' into a roundabout, in order to better facilitate traffic, or to play the role of 'pivots' for further expansion.²

Evoking the city as a live organism, with the communal core (civic core) taking the role of the heart of the city, we face the dilemma of how to construct a proper biological structure, where the civic heart must become supported and supplemented by the correct concretization of the arteries, aorta, and arterioles that are defined by the infrastructure. Le Corbusier asks a critical question of "how then insert in this protoplasm a cardiac system indispensable to the circulation and the organization of the modern city?"³ In some situations, the process of organic growth in a logical matter (starting with the core and expanding outwards) does not follow the norm, but the infrastructure causes sporadic instances of centralization and civic liveliness. This was the case of Los Angeles for example where cars moved swiftly through relatively empty countryside, making it possible to live on almost empty orange fields and still be close to the core.⁴ However, the question arises of whether such a settlement, caused by the role of the infrastructure, helps the establishment of qualitative

1 Mancuso, F., 2000, op.cit., p.131.

2 Miotto, Luciana, "A Future for the Square in Europe" in *The Square, a European Heritage; A topical survey in five countries (Spain, France, Greece, Italy, Poland)*, Miotto, Luciana (Editor), Fondation Maison des Sciences de l'Homme, European Commission: 2000, p.21.

3 Le Corbusier, translated by Aujame, E. as *Precisions on the Present State of Architecture and City Planning*, MIT Press, Cambridge, MA: 1991 (orig. *Precisions sur un état présenté l'architecture et de l'urbanisme*, Cres et Cie, Paris: 1930), p.212.

4 Fishman, R., 1987 ed., op.cit., p.160.

Figure 2.37 Catania, Piazza Dante



public open urban space, which will enhance the life of the people living there. The infrastructure that would surround them, with its large and high-speed characteristics, would seem as a boundary of alienation and discontinuity to the outer world, creating to the suburban inhabitants the syndrome of the isolated islander.

The infrastructure, or in other words the path of direction within the city, is said to represent the concretization of time. The infrastructure of the contemporary city thus has acquired a character of general speed and futurism, often prioritized over the quality of the public open urban space, which represents a more static and central situation. As mentioned by Norberg Schulz, the civic center may very well be the representation of the stop of time; the arrival of time to a certain element of primary importance. However this may sound like a turndown for contemporary society, where things must always move forward and in a fast way, we may also find ourselves to the psychological situation of an extremely pleasant feeling, when 'time suddenly stops', and we are able to feel and experience all of our senses in relation to the urban reality. From this perspective, a true experience may only be attained while static (within an open space), concluding that the infrastructural point of view will be nothing but a momentary grasp of photographic images which may remain somewhere in the deep subconscious memory. Logically, the slower the infrastructure (the more time spent in an x distance), the better that space will be perceived. Venice has been so much talked about, largely due to the city's pedestrian nature and total lack of automobile experience. Visitors get the chance to fully sense the different layers, structures, articulations, ground, symbols and themes in an intimate and timely fashion.

However, the infrastructure holds its own identity and beauty, offering new experiences of perceptual orientation. When speaking about the quality of public open urban spaces in the suburban environment, the infrastructure comes to play a substantial role, as the areas under scrutiny are often derelict, neglected, or unconsidered in the general transportation and circulatory systems coming from the main core. Especially in areas that fall in the zones between the density of the urban center and the peripheral scattered habitations and industrial sites, the infrastructure starts to be the initial determining factor for the accessibility, flow and further qualitative development of spaces for more energized activities.



Figure 2.38 Catania, Piazza del Duomo

Here, is raised the dilemma accessibility to the public open urban space access either with the guide of the infrastructure, that may form a relentless network of lines of streets, or the condition of trying to find one's way from one open space to another (a condition that may appear so in Venice), "negotiating what is presented as the prime movement system with a combination of mild frustration and patience".¹ Logically and for the sake of orientation, in the sense of discovering a place with greater ease, the location of the public space on intersecting roads, similar to the old carsija, (glossary: *carsija*) seems like a more favorable condition. However, Rowe argues on the ability for animation of such spaces, when so adjacent to an alternative and probably much more charming condition of finding a space en route of travel on a more linear direction. This debate may be resolved with the consideration of speed with which one is travelling, and the particularization and distinction between a pedestrian or vehicle-oriented urban condition, which could lead to a much complicated discussion.

However, the goal is to extract the tools necessary in order to develop a methodological syntax for the improvement of public open urban spaces of cities, striving for a pedestrian-oriented structure that becomes friendlier to the human natural will to walk slowly (at approximately five kilometers per hour), while using all of his senses and fully experiencing his surroundings.

In the peripheral areas, the phenomenon of rapid transportation means (faster highways), causes a different perceptual impression, accompanied by a lack of memory, "a loss of perceptible points of reference and the disappearance of visual signs, despite the futile claims made by the advocates of 'postmodernism'".¹ As a result of this condition, the transition of the pedestrian to the public space becomes completely different than what one might experience inside the urban core, where circulation is slower, and transitions of spaces become more fluid, and often from a pedestrian's point of view. This is perhaps the reason why infrastructural connections gather attention, as the speed there decreases, and one is led to look around; this type of an environment becomes more prone to becoming of civic importance, but ironically, often presents a more complicated issue of typological conditions. Such a 'crisis' is demonstrated in project 1 of chapter 4; where the need to define a civic community space is being challenged by the rough infrastructure that cuts the site's boundaries, in addition to the complication of industrial, commercial, residential and vacant surroundings. In *Casabella's* issue on public spaces, Richard Ingersoll describes this situation as 'jumpcut urbanism'.²

The way in which the infrastructure is connected to the public open urban space, defines the relationship of the pedestrian to the traffic, and the role that the public square may play (its functions, usage, quality of perception, etc). In the square of Siena for example, the infrastructure meets with the square on a tangent, rather than taking the direction of the square's main axis, having the square be conceived as a place of pedestrian collectivity, rather than traffic congestion and higher speed exchanges.

1 Rowe, Colin, "Foreword", in *Urban Spaces* by Krier, Robert; Academy Editions, London: 1979, (orig. 1975), p.11.

1 Simeoforidis, Y., 1993, op.cit., pp.321-327.

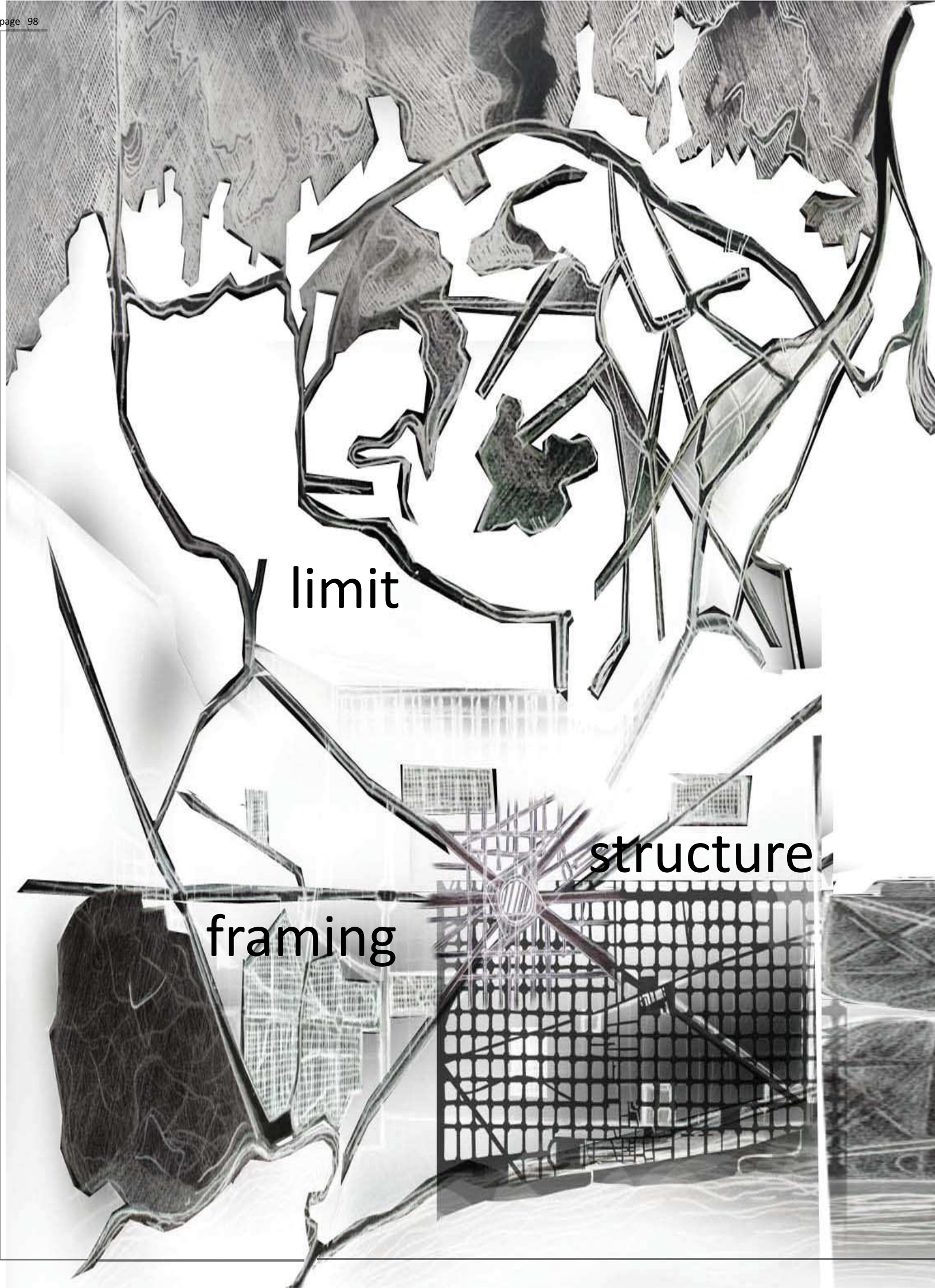
2 Ingersoll, Richard, "Jumpcut Urbanism", in *Casabella*, special issue on 'The Design of Open Spaces', 597/598, 1993, p.52.

Figure 2.37 Catania, Piazza Dante



Figure 2.38 Catania, Piazza del Duomo





2.5 structure, framing and the 'logic of the limit'

2.5.1 on structure

Due to human curiosity and the need to know what hides underneath functions, choices, images and phenomena, there has always been a tendency to look for the configuration of objects. From the desire to comprehend the structure of natural objects, of the universe, of human evolution, of subatomic particles, and of animal and human anatomy, man has wanted to break down systems to discover their true mechanics. Kevin Lynch has noted man's ability to unhide structures in the urban environment otherwise one would become lost in a city, with a feeling of forlornness. For this reason, every public structure should aim at providing orientation. Consequently, perhaps the only noted structural organization of space that aims at disorientation is the labyrinth. Leonardo da Vinci, known for his structural curiosity, peeled off skins and tissues of corpses in order to unveil their fabric, while children, in their early drawings, show in their works a tendency and desire to reveal the baby inside of a gestating woman.

The role of structural continuation of the form and thematic layout of the public open urban spaces of the city, relates to the composition of the surroundings and paying the analogous reference to the organic expansion of methods of organization and expansion, similarly to the movement of the abstract renaissance public open urban space (glossary: *abstract Renaissance square*). Not coincidentally, this involvement of 'composition' is a term also used extensively in fine arts in order to define a visually logical structure that involves the balance or non-balance of elements, organized in a visual frame of points of references and elements of comparison, contradiction, or harmony, to attain the desired atmosphere and theme. Relevant to the common expression that the whole supersedes the sum of the parts, one may also argue that the architectural composition goes beyond the amount of all architectural elements involved.¹ In the Laura Themes (refer to previous reference), this is also described as the *locus* of a project or typological data that are gathered for 'a precise and exclusive condition', which results in the shaping of devices and elements in order to define the place in question. The fact that each device or architectural object is by nature and the law of physics undependable from the objects in the vicinity, makes architectural composition the key element of building relationships and the visual structure for *creative fusion*.

Here rises a dilemma of whether the structures found in nature are truly prone to the simplest solution of formation, or whether they are so beautiful due to their complexity. Gestalt psychology favors the elementary conclusion that "any pattern created, adopted, or selected by the nervous system will be as simple as the given conditions permit". (figure 2.40) The simple and minimalist structure is also the one perceived easiest, which shows in Kevin Lynch's analyses that "the more orderly the objectively given spatial structure, the

¹ Laura Themes, "A possible meaning for the architectural design", PhD seminar (hand-out) at the Politecnico di Milano, 2009.

more agreement there is in the images people form of the setting". The structure of how things work is often more complex than we might wish to imagine. The simple conclusion may be that what our brain wishes to perceive is miles simpler than the actual reality of a working system and when trying to resolve the details of complexity, as Arnheim supports, the human perception achieves it in "a scale of increasing complexity, by which spatial imagination proceeds from the simplest structures to the most complex".¹ Perhaps it becomes relevant to take into consideration here the suggestion by Schulz, who might consider the structure of the space relevant to its technology, which on its part, reveals the character exhibited. As the technological elements of the space reveal how things are made, (*techne*, means 're-vealing' in Greek), the truth in something belongs to the making (*poiesis*, means 'making' and also 'poetry' in Greek). Thus, the way in which an urban structure may be perceived, will have to deal with the modes of its construction (its structure), and also this relationship to the surrounding urban volumes or spaces.²

Hence in the interpretation of the city as "a dynamic system that is continuously subjected to a structural modification"³, we can imagine a lot of references to the biological and organic interpretations of morphologies and structures, similar to the writings of another theoretician of *Kulturgeschichte*, Franz Carl Muller-Lyer, whose *History of Social Development* (1912) was read by many in Germany in the 1920s (including Walter Gropius).

"Just as in organic nature a progressive movement exists from the monad to the mammal, so is it in culture. And in both developments the movement goes from small to great, from simple to complex, from homogeneous to heterogeneous, and in these processes of increase, combination and differentiation ... lies progress – and it lies in nothing else. That is the objective formula of the idea of culture progress. The happiness of the individual has no place therein. For Nature offers up the individual everywhere with cruel indifference on the altar of – the Type".⁴

What goes on with the structure of a design composition is a matter of roundabout perceptual demonstrations of the **theme** of the design, debating between the primary importance of the structure, and the level of perception of that structure in relation to the more obvious imagery stops of the small public spaces and greater space of the whole site. The levels of structural perceptions are analyzed by Rudolf Arnheim who studies painters such as Pieter Brueghel (figures 2.41, 2.42) or Tintoretto (figure 2.43), both of whom frequently hide the principal theme of their works by bringing forth secondary elements. But reference is also made to

Shakespeare and his evasive way of introducing his audience to the plot of his work. Arnheim nicely describes this as "the tension created by the discrepancy between the **structure** of what is to be understood and the appearance of what is being offered to the senses".

The structure remains an arousing paradox of our environment, and the need to express its importance bel- lows with a movement in architecture; deconstructionism, introduced by the French philosopher Jacques Derrida, contradicted the harmonious presence of unified concepts, basing its foundations on the belief of contradiction, multiple and inextricable interpretations. The keyword for this speculation is '*aporia*', of Greek origin (*απορία*), meaning *wonder*. As with every radical claim, these theories have brought plenty of dichotomy, confusion and rejection, mentioning that such a structure of meaning cannot exist, as the conclusions are founded on what J.Hillis Miller calls *thin air*, demonstrating that the theory has basically dismantled itself.¹

Gyorgy Kepes states that the designer's goal should be "to find a plastic image in which the most advanced knowledge of space is synchronized with the structure of the image".²

(also see glossary: *Hippodamus agora*, *Plaza Mayor*, relevant to the concept of structure)

2.5.2 on invisible structures

Due to the infinity of information that the contemporary city has acquired, often arises the need for a more profound structure that organizes the data through means of tectonic strategies and virtual themes that might not be directly conceptual and perceptible to the eye, but indirect and artistic in thought. These kinds of structures, the invisible structures, go beyond a mere collage of architectural objects and concrete essential structure, and also beyond the manipulation of historical fragments. John Beckmann, in his architectural essays on virtual spatial perspectives, sees this as a result of the polymorphous porosity of the contemporary situations, where arises the need of exploring a geometry of the uncanny surface through groundbreaking methods of interpretation.³

1 Arnheim, R., op.cit., pp. 15, 16.

2 Norberg-Schulz, C., 1991, op.cit., p. 15.

3 Bertelli, G., 2009, op.cit.

4 Muller, Lyer; Franz Carl, "History of Social Development", London: 1923 (orig. 1921).

1 Miller, Hillis J., "Stevens' Rock and Criticism as Cure", *Georgia Review* 30: 1976, p.34.

2 Kepes, Gyorgy, *Visual Representation*, n.d. UIC ID Box 6, Folder 174.

3 Beckmann, J., 1998, op.cit., p.15.

Figure 2.40 A typical image of Gestalt explanation; the Rubin vase, an example of multistability.

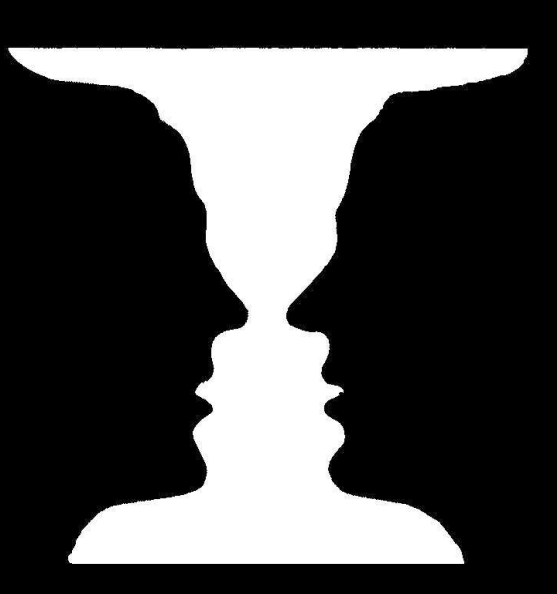


Figure 2.41 Pieter Brueghel the Older, *Turmbau zu Babel* (1563)



Figure 2.42 Pieter Brueghel the Younger, *The Creek*.



Figure 2.43 Jacob Tintoretto Robusti, *The Bathing Susanna*, 1560-62.



The idea of the existence of relationships between architectural compositions and cerebral structures that relate to the perception of space and the psychology of humans in given times and places, is an intriguing one forming relationships between human execution of phenomena, psychoanalysis, anthropology and philosophy.¹ If one looks closely at the specifics of linguistic theories and rules, one can understand how the architectural semiotic references began to blossom, starting with Claude Lèvi-Strauss in the 1950s, setting the notion of anthropological structuralism, defined as "the search for underlying patterns of thought in all forms of human activity". The grammatical aspect of linguistic theory can be compared to the relevant morphological characteristic of an architectural and urban analysis, whereas the syntax analysis is the formation of rules that determines in each language where the words ought to be positioned to form sentences and phrases. Linguistic syntax may be compared to the formation of rules and styles that apply to the history of architectural composition to form definitions of *venustas* and aesthetic visual structures.

Schulz's evaluations of spaces deal with different categories of perception, including *man with natural* (pragmatic space of physical action); *identity as person* (perceptual space of immediate orientation); *social/cultural totality* (existential space weighing more than the image of the environment); *thinking about space* (cognitive space of the physical world); and *tool to describe others* (abstract space of pure logical relations).

When speaking of a non-volumetric structure, we can very well hint to the framing of space, as it is what surrounds an area in order to make it look like a unified entity of spatial orientation. Such non-volumetric categories, as mentioned in Denise Scott Brown's foreword in *Contemporary Public Space; Un-volumetric Architecture*, may include canopies, skin structures, and technological and micro-structures, originating from the methods of the primitive hut, and also seen during the initial stages of the modern movement, which plays with constructivism and transparency as means of defining an invisible structure.²

More interestingly and briefly elaborated by Françoise Choay, is the structure that forms the 'pattern of knowledge' within a space, often irrigated by a 'mathematical experience'. Such invisible structures become expatiated by concepts of legality, symmetry and reversibility, while in order to grasp a more multi-disciplinary understanding of the idea, she refers to as "a cosmology derived from Ionian philosophies".³ A structure here takes the form of an imperceptible but perceivable physical and political thought, of the *same vocabulary* and the same *conceptual tools*. The loss of semantic structure begins with Choay from the Baroque city, with the ever changing alterations and flashes of pictorial illusions, carried on from a distance of infrastructural

evolving networks, creating anachronistic scenes and perceptual interpretations of various (and confusing) semantic values, extensively evident in the modern and contemporary civic spaces.¹

Hence in studying these structural contemplations, in addition to perceiving a public open space in terms of forms as figure and forms as solid structures that coincide with the exterior aspect of objects, a more profound reflection seeks for internal arrangements. This consideration in relation to the visual images that the descriptions accompany, further bring out the biological origins of discovering real forms of phenomena and internal structures. Roots of forms for example, may be traced back to figurative ideas and beliefs. In the second half of the nineteenth century for instance, the classical notion of archetypes (i.e. developed by Quatremere de Quincy, referred to original ur-forms such as the temple or the basilica, formed in Greek and Latin history. De Quincy also talks about transformations in his writings, referring to architectural re-conceptualizations throughout time, and giving names and new terms to each meaning, including 'vernacular' architecture, or the Baroque 'idiom' or the 'vocabulary' of Classicism.

Here, we distinguish a kind of *civic art* that is in the form of 'hidden patterns' ('hidden' in the sense that the civilian, randomly positioned in an open space will not become fully aware of this pattern). These create a concept; a *syntactic structure* that will provide guidance for space-forming decisions, in order to maintain the clear coherency of organization and city-structure. E.H. Gombrich speaks of 'linguistics of the visual image', comparing such a terminology to the study of poetry, where there must be complete awareness of the language of prose. So he further supports the possibility of being fully aware of visual images, in order to supplement the study of art; and in our case, that of civic art. To Gombrich, the intentions, inspirations and grammar of the way the language of art refers to the visible world is both so obvious and so mysterious that it is highly interesting to study and try to understand its grammar and *semantics*.² To clarify the definition of Civic in this particular discussion, it is helpful to look into Spiro Kostof's writings of *The City Shaped*; a book that looks at the city as an enduring artifact of human creation, where he investigates art-forms of cities in a speculative and experimental manner, categorizing their formation into **structural themes** (figures 2.44-2.47) of organic patterns, the grid, the city as diagram, the grand manner and the skyline, and interprets each formation from hidden patterns and orders that resulted in those specific shapes.³ This analysis of urban shapes and compositions helps in understanding the importance of a *common theme*, which, as Arnheim explains in *The Dynamics of Architectural Form*, is what establishes the order in architectural compositions, transforming itself into a design, using forms and symbols in order to express the main idea in terms of simplicity, regularity, symmetry, etc.

1 Saussure, F., 2006, op.cit.

2 Scott Brown, Denise, "Foreword", in *Contemporary Public Space; Un-volumetric Architecture*, by Aymonino, Aldo; Mosco, Valerio Paolo; Skira Editore, Milano: 2006, p.9.

3 Choay, F., 1986, op.cit., pp. 165, 168.

1 Vernant, Jean-Pierre, "Les origines de la pensée grecque", in *Mythe et pensée chez les Grecs*. 2vols, Paris, Maspero: 1974 (orig. 1969), p.167.

2 Gombrich, Ernst H., *Art and Illusion; A Study in the Psychology of Pictorial Representation*, Princeton University Press, Princeton; New Jersey: 1969, p.8.

3 Kostof, S., 1991, op.cit.

Figure 2.44 Organic structural patterns: Superimposition of a medieval agrarian settlement pattern over a Roman grid in Trier (Germany).

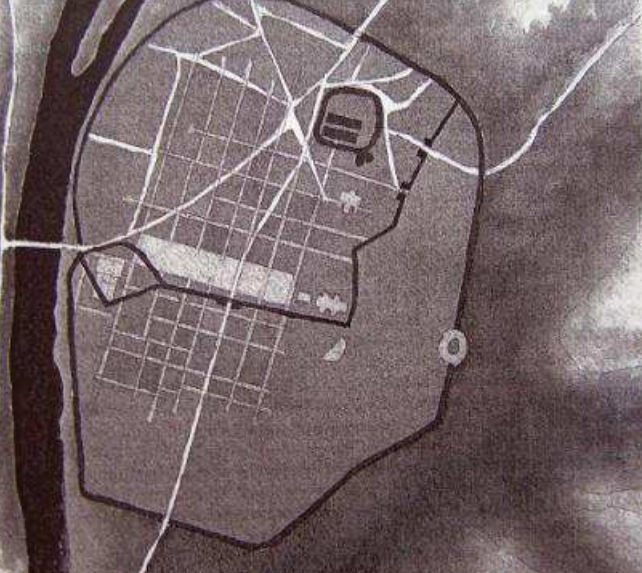


Figure 2.45 The grid: Plan of Los Angeles (California), ca. 1875.

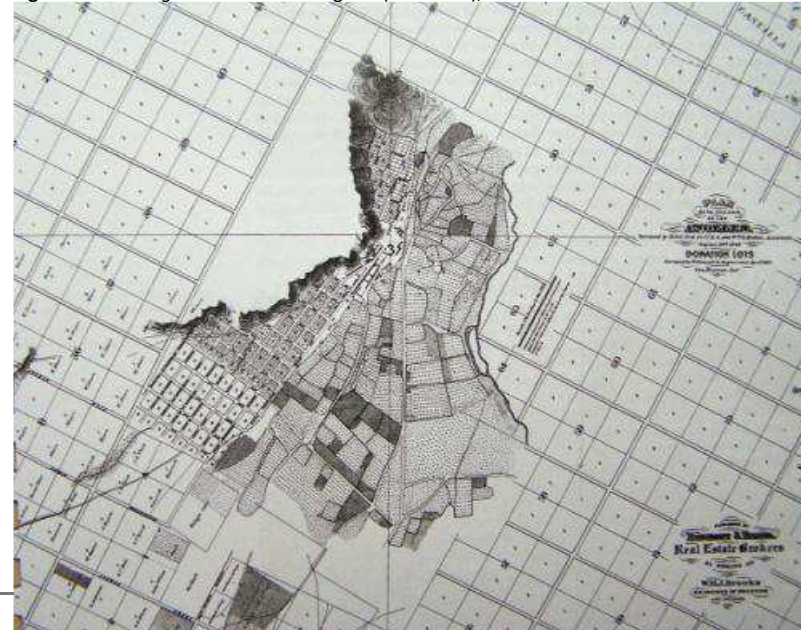


Figure 2.46 The city as diagram: Canberra (Australia), plan, entry by Walter Burley, 1912; ink on silk drawing by Mahoney Griffin

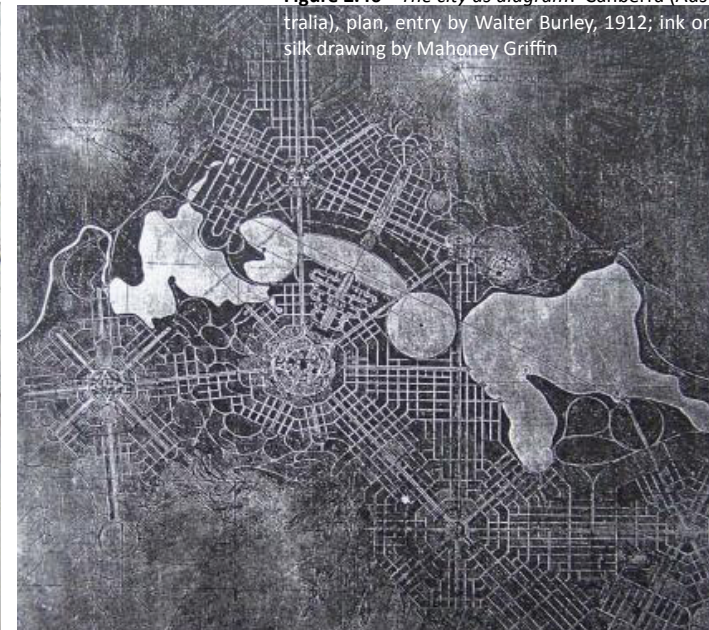


Figure 2.47 The grand manner: Plan for Washington by Pierre Charles L'Enfant, 1791.



2.5.3 on framing

(glossary: *framing*) In the urban open spaces, framing is expressed by completeness of form by the distinct articulation of buffers. The classical orders of architecture are considered complete and framed within themselves, because they have a base and a cornice, which can also hold true for any individual piece of architecture. The Spanish public open civic squares, form mass-boundaries of a spatial-outline in a similar fashion, constituting institutional squares closed to the surrounding traffic that also have the four angles defined by a perfect cornice. Some examples of classical squares take place in Northern Spain (Vitoria, Bilbao, San Sebastián) and Catalonia (Placa Reial in Barcelona). (glossary: *Spanish framing*)

The major shift from the traditional civic space to the modern one, may be considered a lack of formality and structural rigidity of innate rules that characterized the traditional public open urban space. When the means of civic art communication used to be structured around justified and well thought out perceptual methods of framing, the modern civic space slowly shifted to a looser perceptual understandings. However, there are several kinds of informality that have created shifts in the past, which shouldn't be neglected; such examples include the shift from the Renaissance to the Medieval and Post-Renaissance and the phenomenon of Michelangelo who broke the chains of architectural rules, both ancient and modern. "New and more complicated ones [rules] were established and the new ones grew continuously more intricate".¹

The larger picture that composes a public open urban space is the framing of the environment which determines where the public space begins and where it stops, in order to form an entity in the urban context. However, as suggested by Heidegger, "A **boundary** is not that at which something stops but, as the Greeks recognized, the boundary is that, from which something begins its presencing."² (glossary: *boundary*) From a nostalgic and characteristically regressive point of view, Camillo Sitte wrote about the definition of a concrete space by the continuity of a background of buildings, keeping away from "the modern disease of isolation."³ In other words, he judges the existence of a perceptual frame to be of vast importance for the degree of spatial security and orientation in the public civic setting. (figures 2.48 - 2.51)

Inspired by the transparency of the typological structures that started to take place from the beginning of the modern movement, suggesting flowing relationships between inside and outside, the modern movement faces the problem of a city in the middle of Mojave Desert in Las Vegas. Here, due to the largeness of scale for the definition of spaces that seem too far from the buildings that could define some boundaries, space has to

be modulated around the streets, with large signs creating the points of reference and framing. These signs, appearing from the streets much larger than the buildings, become the perceptual grasping images that are withheld in memory, and orient the urbanite. As man gets closer to the Core of Las Vegas, the realization of reaching that point is dissimilar to the cues that one would acquire from a more traditional setting; the Core is realized not because of the change of density of buildings, or by the more structured layout of the strip, but it is rather realized due to the increase of vastness of communicative signs and sign absorption, stressing the slogan "Symbol in Space Before Form in Space".¹

Consequently, going much deeper than the superficial suggestion of a distinctive boundary around a public open urban space, which may be interpreted inside the definitions of formalism (glossary: *formalism*) and concrete visual impressions, the framing of an open space touches upon the research of mental sites; those places in the mind where works of architecture install themselves² in a pathetic way, due to the circumstances of the surroundings. The boundaries, or **edges**, of a public open urban space, like Russ Ellis describes, do not have to be sole formalities of a form, defining the borders of an urban site. They can be visual, physical, phenomenological or spiritual. Sometimes taking the role of a **horizon** in the context of the dense urban environment, where within the open public space only the edge becomes the resting point of a framed image (similarly to the compositional framework of a painting), it may take the role of various means of communication; such as 'seeing' (the physical line between earth and sky, the profile of the apparent world), 'acting' (the contour or boundary of daily experience), 'knowing' (a perimeter of comfort and assurance about the form and nature of the physical world), 'belonging' (the reach of one's sense of engagement, effectiveness and aspiration).

Modern architecture, with its development of freer flowing forms, began to make the establishment of public open urban spaces more complex, as the incorporation of elements was not only bound to simple vertical and horizontal lines, but also to diagonals, elements of piercing and penetration, overlapping, and even deeper perceptual lines such as deconstructive behavior and minimalist attitude. Sitte supports in *The Art of Building Cities* that the irregularity of the public space frame was highly based on intuition and designing on the spot of the site, firmly criticizing the use of the straight edge and design board inside of the studio. If this holds true, we can already see the complexity under which the definition of urban framing is set. With the added complexity of individual objects of the contemporary world, this mission becomes more confound, as oftentimes, even the intentions behind forms of individual elements are ambiguous and wrong, compared to the urban context. In the *First Biennale dello Spazio Pubblico* of Rome (May 2011),

1 Hegemann, W. et al., 1992, op.cit., p.20.

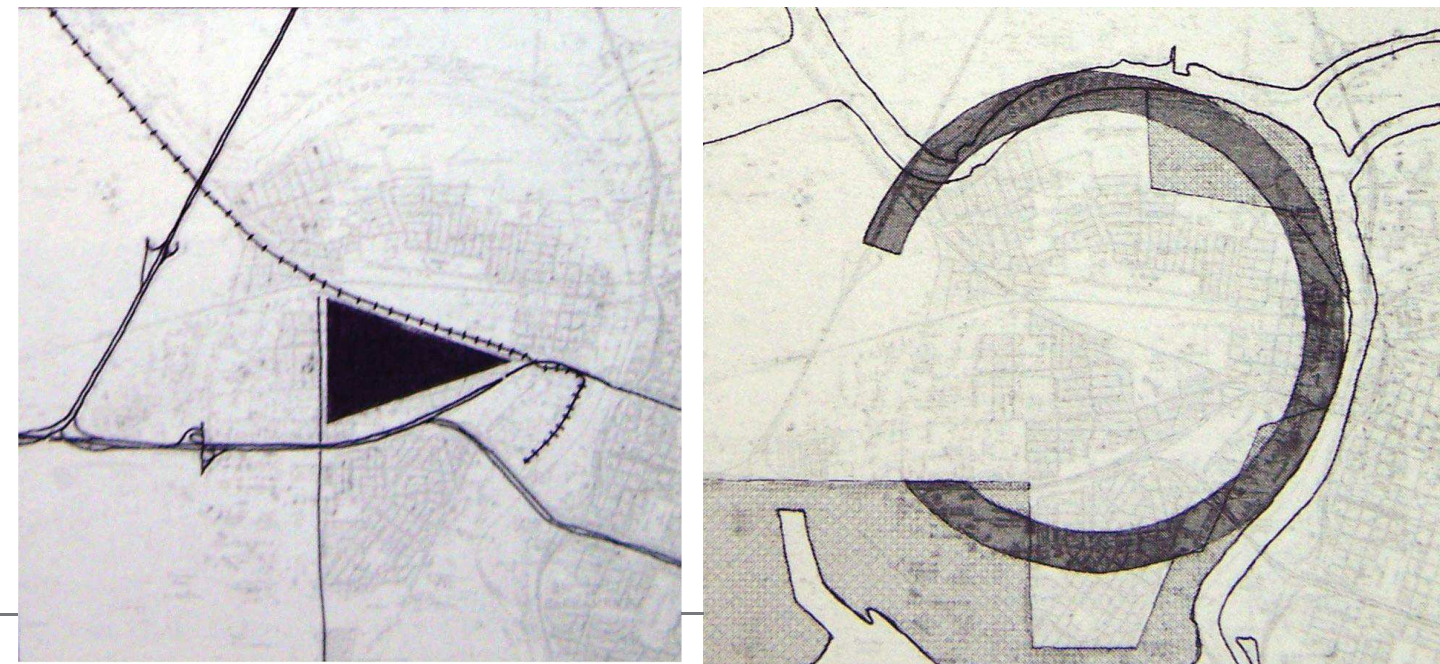
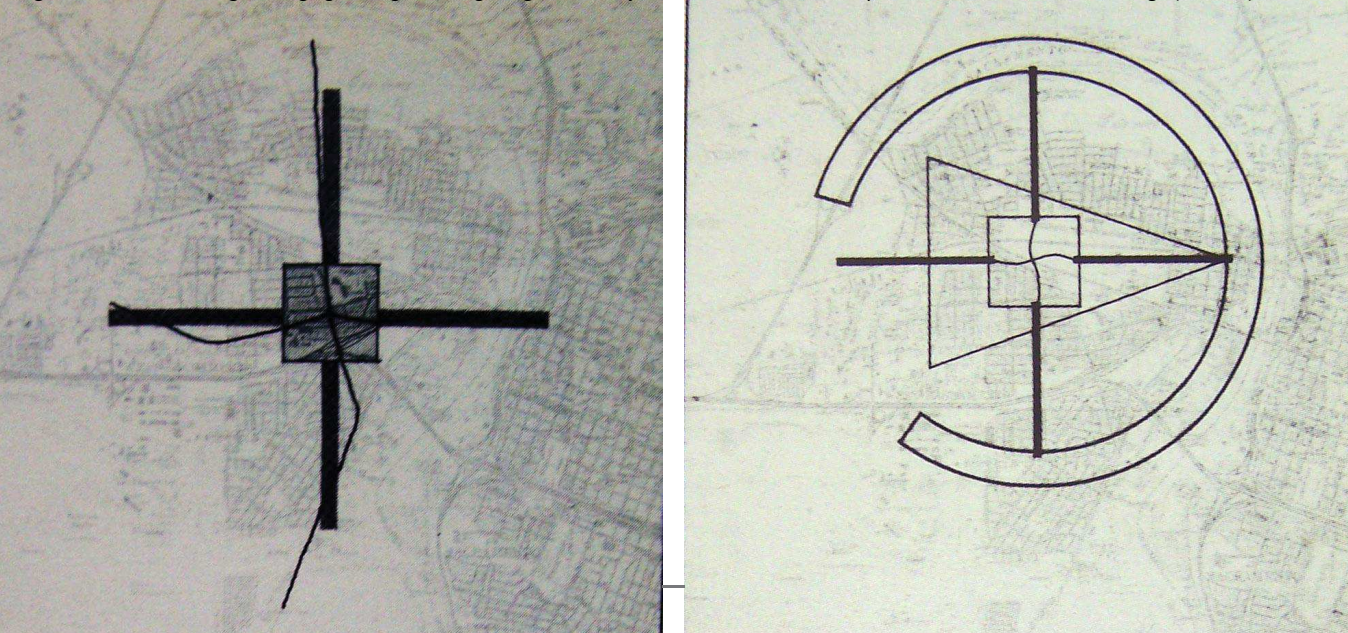
2 Heidegger, Martin, "Presence is the Old Word for Being" in "Poetry", in *Poetry, Language, Thought*, Hofstadter, Albert (Editor), New York: 1971, p.154.

3 Sitte, Camillo, *Der Städte-bau nach seinem künstlerischen Grundsätzen*, Carl Graeser, Vienna: 1918 (orig. 1889), p.39.

1 Scott Brown, D., 2006, op.cit., p.10.

2 Solá-Morales, I., et.al., 1997, op.cit., pp.6-7.

Figures 2.48-2.51 Acting, belonging, seeing, knowing; Diagrams on Edges; International Laboratory of Architecture and Urban Design (ILA&UD).



David Mayernik of the University of Notre Dame, in his speech "The Shape of Public Space: Place, Space, and Junk Space", spoke about figurative space and figural buildings as not only the contemporary solution for the identification and characterization of urban contexts, but also as an answer to the problem of 'junkspace', bringing forth as a precedent the Piazza del Campidoglio of Rome.¹ (figure 2.52)

There also exist cases where the architectural objects themselves suggest incompleteness, calling for the definition of a frame around the surrounding public space. This frame, which could also be called a boundary, determines the degree of enclosure as well as the spatial direction. The positions of these openings might on their part form an internal axis, hinting to an invisible (or visible) path. The degree of visible and concretized framing in an urban space will also determine its character. "The solidity or transparency of the boundaries make the space appear isolated or as part of a more comprehensive totality."²

Although this effect might be working according to the architect's intentions, its incorporation will always be partially problematic, as the absolute intention will remain ambiguous. The problem is more easily solved when one composition shares a common reference of styles, as happens obviously with the historical public settings of monumental cities with objects constructed during similar eras when similar notions on framing were shared. Nonetheless, there are other examples where a contemporary element of modernistic behavior is placed in a historic open public space, fitting harmoniously in a thunder-view of a different style; the setting that comes in mind is the glass pyramid of the Louvre museum, however one can argue that this only works because the framing has already been set by the boundary-form of the surrounding museum, creating a distinctive outline for the space within, thus yielding to a sense of safety and comfort.

Gyorgy Kepes' contribution on this topic is important, as he speaks of 'the language of vision' and the surrounding elements that refine one's visual means by organizing elements into mellifluous wholes. This is done by several consecutive or alternating methods and experiences of 'forming dynamic processes of integration', 'shaping sensory impressions into unified wholes', the existence of a 'plastic experience', and 'the experience of a plastic image as a form evolved through a process of organization'.³

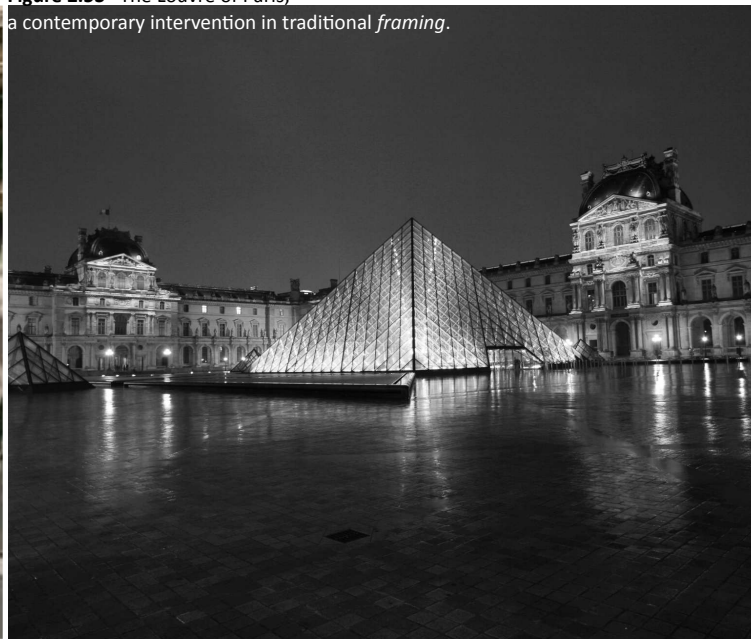
Although the contemporary point of view is a more open-minded and free-flowing process of combining elements and linking different orientations in a web-like and stitching manner, the fundamental intention when trying to create a public open civic space is more than often that of creating different kinds of variations of enclosure, through the stored energy that circulates within the space and momentarily freezes mobility.

- 1 **Mayernik, David**, University of Notre Dame, "The Shape of Public Space: Place, Space, and Junk Space", in *Prima Biennale dello Spazio Pubblico*, Istituto Nazionale Urbanistica, Facolta di Architettura Roma Tre, 13 May, 2011.
- 2 **Norberg-Schulz, C.**, 1991, op.cit., p. 63.
- 3 **Kepes, Gyorgy**, *The Language of Vision*, Paul Theobald, Chicago: 1944, pp.15-16.

Figure 2.52 Piazza del Campidoglio of Rome



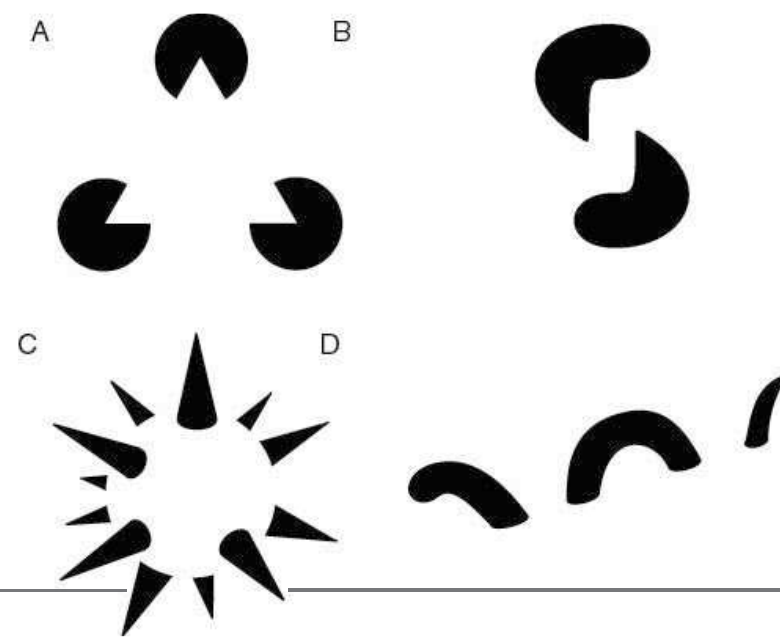
Figure 2.53 The Louvre of Paris; a contemporary intervention in traditional framing.



Interpretive framing therefore becomes a relatively flexible means of organization, as one is able to interpret boundaries in an abstract or concrete way, or based on a variety of references of themes, concepts, information availability, solid boundaries, orientation, or paths. Ironically, framing becomes itself the heart of the thesis, embracing the further developed keywords of syntactic references, holding the role of an 'interpretive framework'¹ similar to the awareness of Gilles Deleuze and his means of *coining*, *decanting*, and *manipulating* concepts and themes.

This must also hold true in the boundaries of electronic virtual imagery within the public space, through means of virtual (or not) art installations or cybernetic environments, where the framing perception must hold some kind of invisible limit; "an envelope of recursive cell-like boundaries that mirror our conception of the cosmos, and our place within it."²

- 1 **Solá-Morales, I.**, et.al., 1997, op.cit., pp.10-11.
- 2 **Beckmann, J.**, 1998, op.cit., p.13.



2.6 field perception and relationships

2.6.1 on field

(glossary: *fields of public open space*)

The speculation of fields and field perception might be one of the more abstract concepts of this syntactic awareness, for examining the site and the establishment of forces of tension and repulsion that are pivotal for the definition of new relationships. As Ignasi de Sola-Morales explains in his *Differences*, unconnected positions and situations are just as important in the establishment of forms and relationships in the urban and architectural compositions.¹ This investigation of unconnected positions comes hand in hand with the decomposing speculative manner of the Roland Barthes model² of de-structuring the urban text into units, distributing these units in formal classes and finding rules of combination and transformation of these units and models.

However, the diagrammatic exploration of this concept's representation is a problematic one, often interpreted as interrupted lines taking place around poles, similar to the magnetic field depictions in the field of physics. Ignasi de Sola Morales mentions the understanding of 'differences' in the relative positions of objects of comparison, while variables and forms of relationships are established between apparently unconnected positions and situations; a speculative method that is not only apparent in architecture, but also philosophy, the visual arts, literature and cinema.³

Paolo Portoghesi is a figure in architectural perceptual theories that has developed an explicit role in the understanding of fields in architectural compositions and urban spaces, recognizing that forces are not isolated vectors, but rather form a composition of forces influencing and intersecting one another, creating perceptual fields that do not only exist outside of architectural volumes, but also inside (figures 2.54, 2.55, glossary: *Portoghesi-oriented civic space*). This holds a qualitative relationship to the concept of gradients that are carried in the psychological Rorschach test, judging levels of originality, location, popularity and sense impression (glossary: *space gradients*). More scientifically, Albert Einstein also spoke of such fields, comparing their strength to that of the strength of matter, where the concentration of energy appears to be larger but only in quantitative terms, hence categorizing both the quality of field energy and matter energy on the same level.⁴

Kevin Lynch deals with the subject in creating spatial field relationships in terms of paths, landmarks, nodes, edges and districts. Here, the analysis is scrutinized upon the composition of the existing space, in an effort to

¹ Solá-Morales, I., et al., 1997, op.cit., pp.10-11.

² Barthes, Roland, *Elements of Semiology*, Hill and Wang, New York: 1967.

³ Solá-Morales, I., et al., 1997, op.cit., pp.10-11.

⁴ Arnheim, R., 1977, op.cit., pp.28, 30.

Figure 2.54 Drawing by Paolo Portoghesi

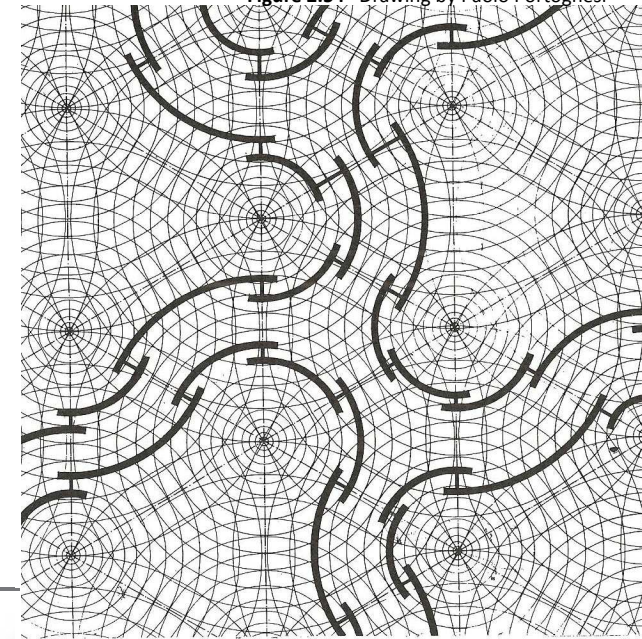
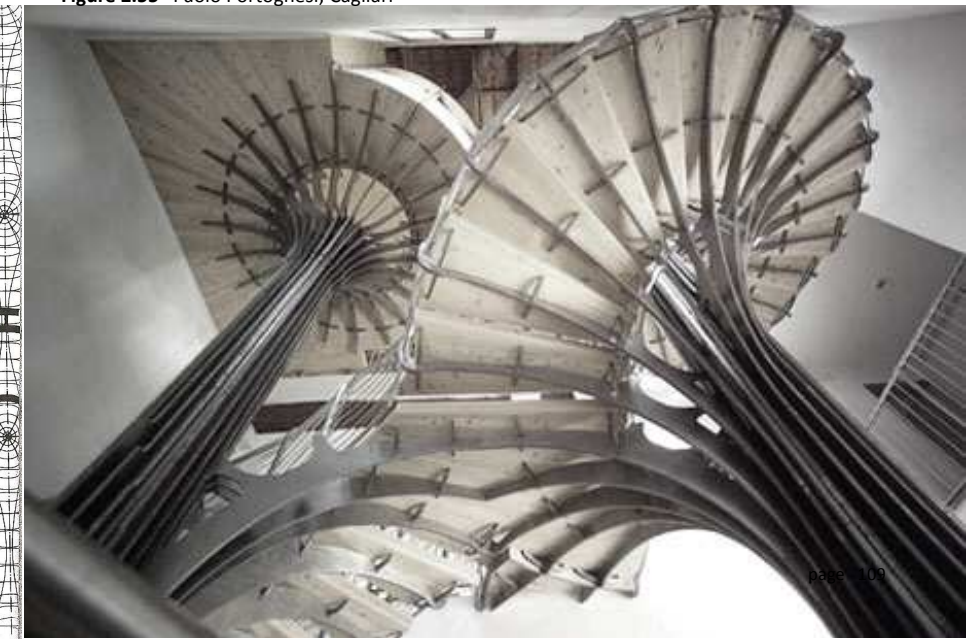
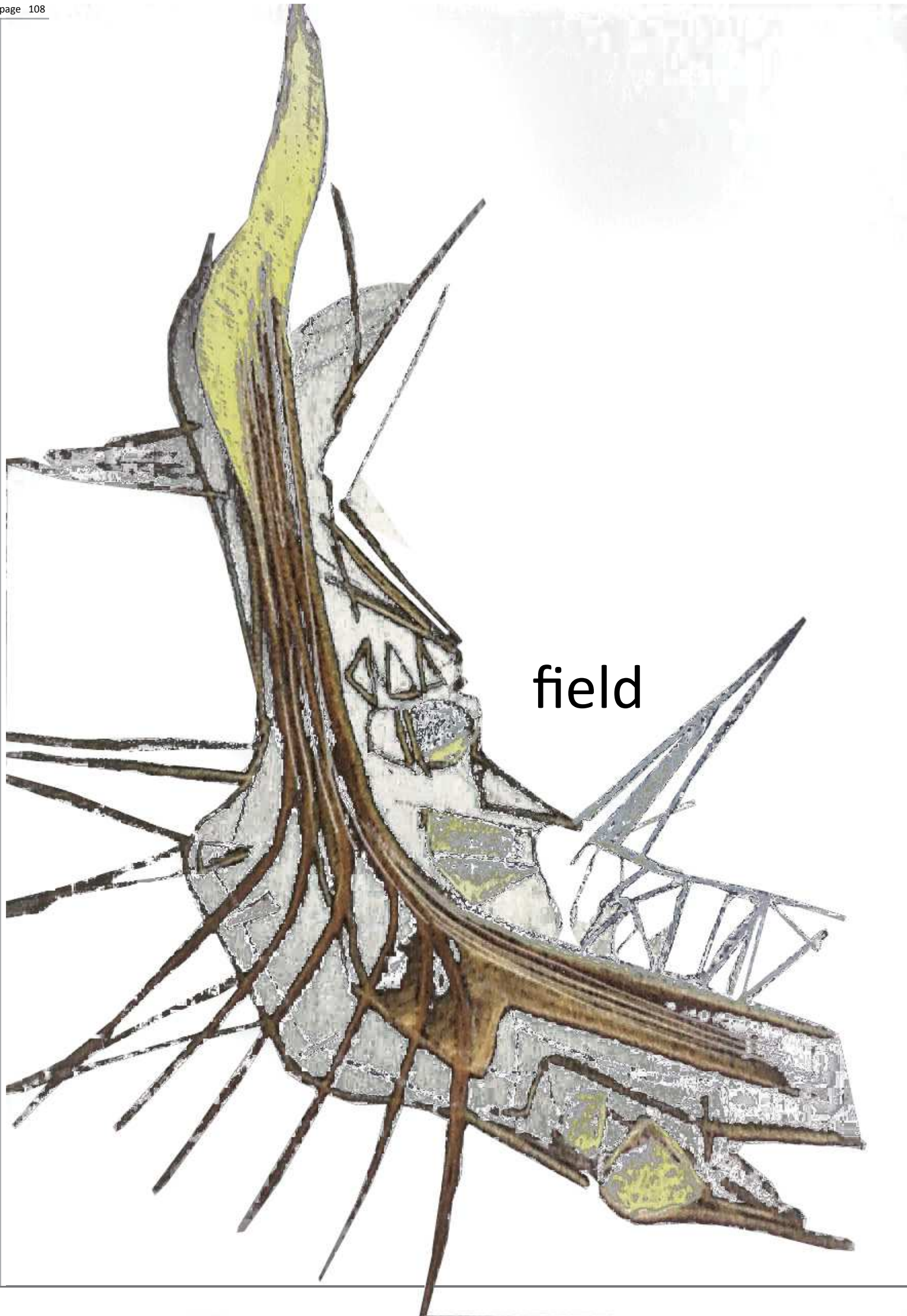


Figure 2.55 Paolo Portoghesi; Cagliari



field



further understand the environment and start to draw conclusions upon the energy forces created by *fields* of these different elements, forming a synthesis understanding of the degrees of tension and repulsion that exist. With the identification of nodes (refer to project spreads 2.3, 2.26, 2.27, 3.5, 3.36) the two main 'poles' are immediately recognized, in addition to the landmark of figure 20, which concentrates on the yet conceptual presence of the future auditorium. This study is important in order to locate right away the main attraction and the orientation of the field directions on a site, already creating energy of forces that will provide the required hierarchy - and also by studying the existing surroundings of the locus, punctuating upon the edges and districts (mainly residential) that will be directly adjacent to the site, thus influencing the context of the design. These conceptual stimuli of Lynch's interpretation of imageability, psycho-biological approach and adaptation to the surrounding environment, characterized by *paths-edges-nodes-districts-landmarks* (refer to project spreads 3.35-3.39), play the role of mere formal field perception, where physical forms are being assigned to certain significations that aid in directing behavior.

Zaha Hadid also speculates this theme deeply, and demonstrates it in her MAXXI museum of XXI century art in Rome, Italy. (figures 2.56, 2.57) On this project and its relationship to the keyword and key urban environmental characteristic of the 'field', she mentions:

"The flow, bifurcation, and confluence of architectural elements affiliate to the multiple trajectories of the urban context and embrace the existing buildings on the site that are incorporated in the new institution. The project's unity and coherence is thus constituted internally as field rather than externally as object. The building turns the corner and partly embeds itself into the context. It has no overall shape that can be visually grasped in a single glance. Instead it opens a characteristic 'world' to dive into (rather than a building that confronts you as a signature object). The new urban campus is organized and navigated on the basis of directionality and the distribution of densities rather than through boundaries or key points. This is indicative of the character of the MAXXI as a whole: a porous, immersive field condition. The field is a force of lines ..."¹

Inasmuch as the building itself does not resemble a public open urban space, its characteristics that Hadid speaks about are extremely relevant to the concept of field perception of an open space; this project's relationship to the context, as Hadid describes it, follows the key words of *directionality* and *irregularity*. The visual fact of it being of an inconsistent form as perceived in space, and not visually distinguishable as a whole through only a single glance, brings forth the characteristics that Sitte speaks of, on the visual and experiential fulfilling absorption of public open urban spaces that follow a structural framework of spontaneous irregularity, consequently creating a variety of internal fields of spatial volume density.

Spatial density surrounding a public open civic object may also be analyzed in terms of the emergent

¹ Zaha Hadid Architects (text by Giovannini, Joseph, *MAXXI: Zaha Hadid Architects: Museum of XXI Century Arts*, Skira/Rizzoli: 2010, p. 39.

configurational properties of that space, on more contemporary studies on possible implications of space syntax for spatial cognition. Here, the problem is analyzed through the *squaring law* (refer to relevant figure), where "as we move objects from corner to edge and then to central locations in bounded spaces, total inter-visibility in the system decreases, as does visual integration (or universal visual distance) defined as how few visual steps we need to link all points to all others."¹ This inevitably affects the field of vision and emotional field of perception of space.

In the theories of architectural space and environmental perception, this analysis of the spatial field has been interpreted by Gestalt theories, which handle the organization of discrete elements into a whole. Eric Mumford also describes these spatial forces as 'fields' of a plastic image; retinal, three-dimensional and pictorial, noting that any optical differentiation of a picture surface generates a sense of space, which the eye organizes into a whole. The fields are being distinguished into physiological and psychological ones, and the climax of this quest is reached with the cubist expression of annihilation of a fixed classical perspective order, and the consequent "complete rapport of spatial forces", found in works of painters such as Mondrian, Van Doesburg, and prospective Bauhaus teacher Jean Hélon.

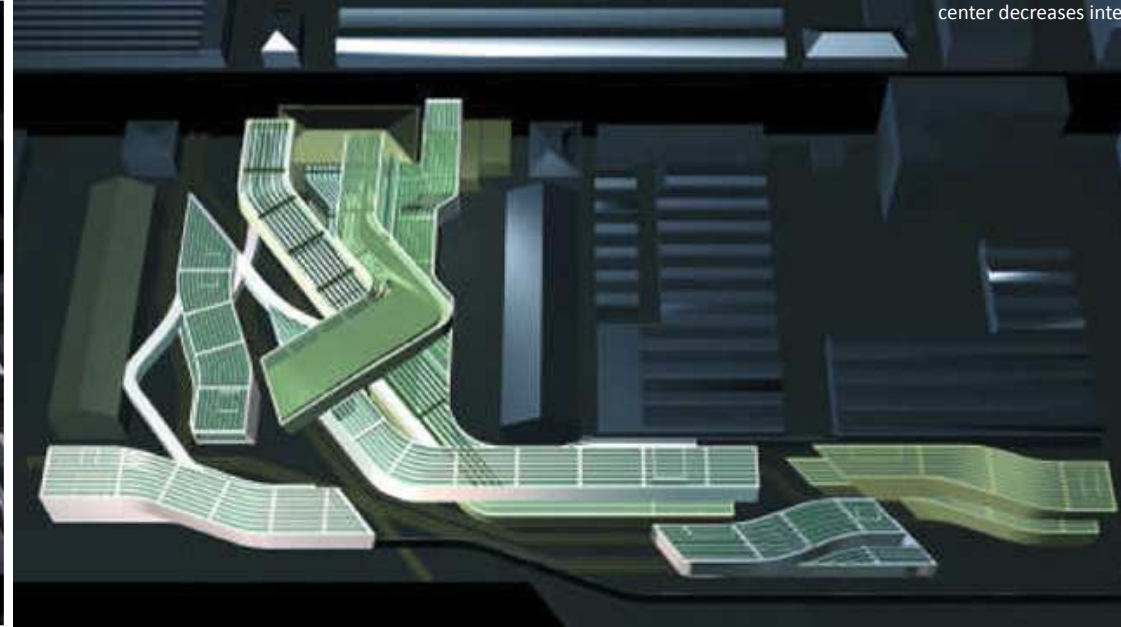
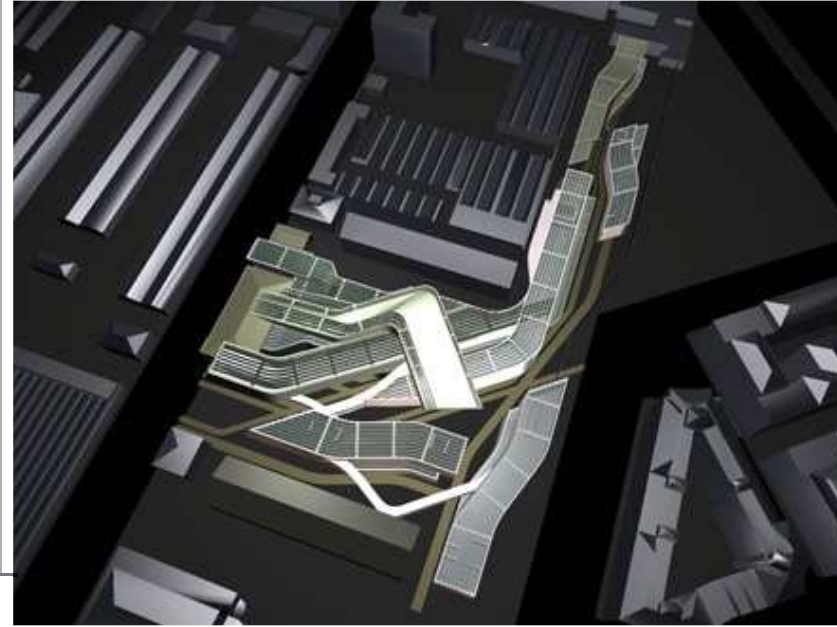
In most cases, the field creation of an object standing on a certain height, will depend on the *distance* that governs this field creation in relationship to the viewer, the load distribution, which causes different visual masses in our field, and the *potential energy* that an object will create. The field within an urban space may also be determined by the degree of repulsions and attractions that the objects contrive. A straight line is the simplest case of such an incident, creating movement in both directions of its nodes, with the potentiality of fields of attraction and repulsion with other objects along the vector lines. Arnheim brings the example of short columns to justify this argument, stating that they are relatively passive recipients of the pressure exerted from the load above, and the load coming from below.

When speaking about the fields in a public open urban space, it is important to be able to identify the areas which must create the energy of the public realm and the areas that must form the distinction of the private space. However spontaneously this relationship may vary according to design interventions and creativity, the designer should understand what needs to express the characteristic of its contextual significance. Although a public open urban space should obviously fall inside the perceptual boundaries of a free and public space with access to all, Yorgos Simeoforidis, in his "On Landscape and Open Space" also adds a further element to the list of civic spaces, which are balconies², creating new parameters for considerations of civic

¹ Hillier, Bill, "Studying cities to learn about minds: some possible implications of space syntax for spatial cognition", originally given as the keynote paper to the Workshop on Space syntax and spatial cognition at the Conference on Spatial Cognition 2006 at the University of Bremen. Revised 27 June, 2008.

² Simeoforidis, Y., 1993, op.cit., pp.321-327.

Figures 2.56, 2.57 Zaha Hadid's Maxxi Museum of XXI century arts, Rome, Italy; 1998-2009.



Figures 2.58, 2.59 The squaring law; moving an object from corner to center decreases inter-visibility.

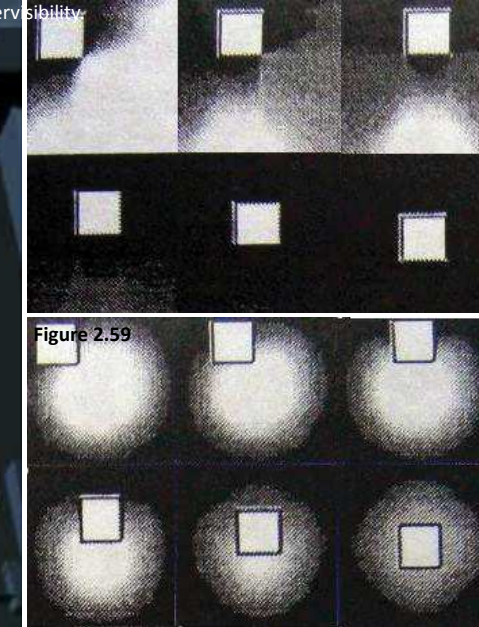


Figure 2.60 The concept of *emergence* in biology.



public space fields and perceptual orientations of the environment.

On field and the necessity to create a strong distinction between pedestrian and automobile activity, circulation between the two may be cut by elements which discontinue the field of activity of one side and the other. Here, the civic landscape and the overall layout of the urban fabric plays a very important role, and when the organization is lacking, it becomes necessary to create design interventions for the improvement of security and pedestrian fields of orientation.

2.6.2 on field as emergence:

“The Universe is Four Jumps: energy, matter, life, consciousness. Each of the Four worlds emerges unpredictably from a small part of its predecessor and our world is the first to look back and reflect on the underlying causes and laws. The post-modern sciences of complexity, as opposed to the modern reductive sciences, investigate these holistic laws of emergence”.¹

In urban and architectural design, the concept of emergence can be defined as the realization of a space through pure vision, where no explanation and analysis is needed. The concept of emergence is crucial in the establishment of a main concept here, involving the co-existence of pavilions hosting different nationalities of representatives, all falling under the same structural composition. **Emergence**, although hinting to the simple unification of multiple elements into one unitary form, is deeper in meaning, referring to the more profound emergence of multiple elements of different perceptual understandings. Some images here depict different concepts of representing this concept in biology (figure 2.60), symbolism (figure 2.61), architecture (figure 2.62), and simple geometrical correlations (figure 2.63). Figure 2.64 shows the concept of emergence explained by the themes of Gestalt psychology, the study of the meaning of shape of an entity's integral form. When referring to pure forms and architecture within the etymological principles of structuralism, emergence may be defined as the composition of elements, patterns, shapes and properties inside a complex system, where each entity interacts with each other in a meaningful relationship. This definition, found particularly in the work of *EMERGENT*, founded by Tom Wiscombe relates to the subdivision of the analysis of semiotics that leads to the concept of syntactic organization, defined in semiotic theory as the relations among signs in formal structures. According to the theme of *EMERGENT*, “what distinguishes a complex system from a merely complicated one is that some behaviors and patterns emerge in complex systems as a result of the patterns of relationships between the elements. [...] A system made of several things can host properties

1 Jencks, Charles, *Critical Modernism; where is post-modernism going?*, Wiley-Academy, Great Britain: 2007, p.24.

Figure 2.61 The concept of **emergence** in symbolism.

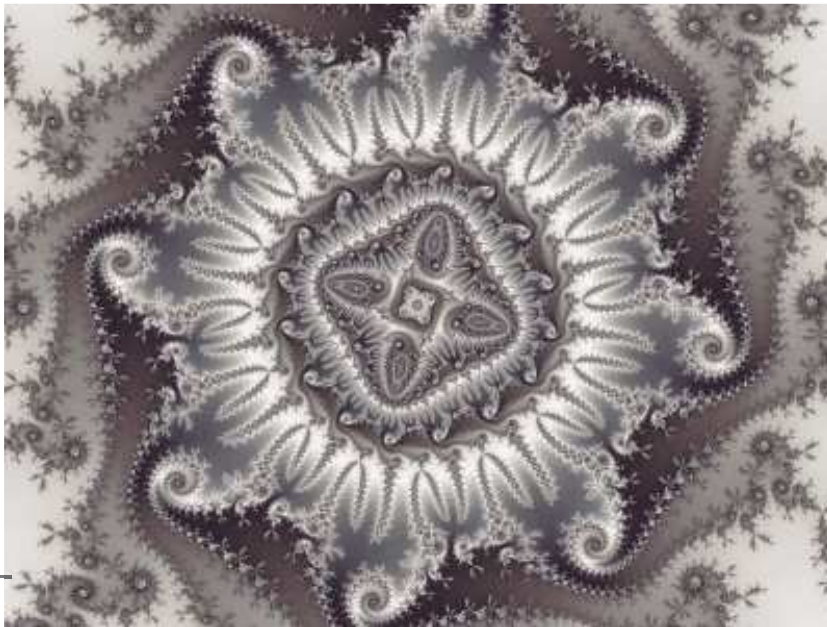


Figure 2.62 The concept of **emergence** in architecture.

The Emerald Plaza, by Emergent Architecture deals with the problem of urban space in the hot climate of Abu Dhabi.



which the things themselves do not have”.¹

The emergence of Gestalt psychology is that of impregnating all conceptions of form, tying in nicely with the theories on semiotics and linguistics mentioned above, and the phenomenological conceptions of Maurice Merleau-Ponty, who speaks of a system of structural behavior that conceives the primary perception of one concept; where “the experience of the world around us comes from the body in its totality”, embodying characteristics of spatio-temporal, sexual, mobile and expressive components”.² (glossary: *Gestalt-oriented civic space*)

In reference to the post-modern scrutinizing phenomenon of ‘space-time compression’, and the ‘global village’ where no single principles stand out as point of references, grows the concept of emergence, in which one tries to sketch down and study the organization of mental acts of general patterns of emergence. Initiated through Chris Langton’s Emergence diagram in 1992, what is shown is a demonstration of different qualities of an environment emerged into one, interacted through conscious, social and cultural feedback. With the lack of evident equilibriums, that were characteristic in the traditional city, these new emerging compositions need to be analyzed differently, within the existence of fields of free flowing energy.

The inquisition of the concept of emergence as field for the public open urban space holds a history of interpretation in the Fibonacci spiral, the golden section, Le Corbusier’s Modulor Man, and is evident in nature’s spiral patterns of the hurricane, ammonite, the Whirlpool Galaxy and Norman Foster’s spiral diagrid. In all of the above, exists the expression of one outcome being affected by the adjacent surroundings, leveraged by natural patterns and geometrical conditions that overrule others, in pre-determined and organic schemes. Relating this phenomenon to the complex adaptive system theories of artifacts, where a material resource with a definite location can respond to the action of surrounding and adjacent agents, one can easily already distinguish the similarities of this emerging concept with the semiotic interpretations of the public open urban spaces and the artifacts placed within. Similarly to the intimation of critical coding that Jencks mentions in his *Critical Modernism* of contemporary computer methods able to locate patterns of nature (figures 2.66, 2.67), fractals, strange attractions and complex morphological shapes of folding, the emergence of elements in civic spaces follows these same complexity theories that may take the form of structural or ornamental parameters, curved morphologies, complex compositions and digitization.³ (figure 2.65)

Interesting here are the ‘emergent patterns of growth and movement’, demonstrated by Philip Ball in his

1 Wiscombe, Tom, “About EMERGENT”, in *EMERGENT*, www.emergentarchitecture.com, 2009.

2 Merleau-Ponty, Maurice, *Phenomenology of Perception*, Routledge & Kegan Paul, London: 1962 (orig. in French *Phénoménologie de la perception*, 1945).

3 Jencks, C., 2007, op.cit., p.192.

Figures 2.63, 2.64 The concept of **emergence** in geometrical correlations and in Gestalt psychology.

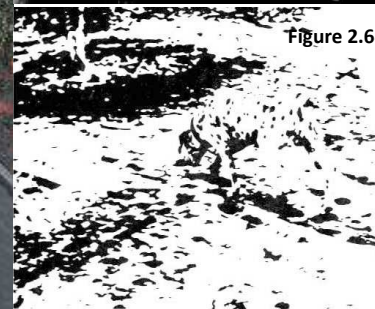
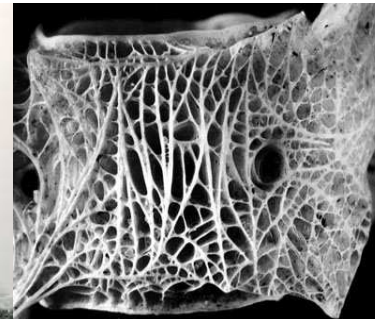
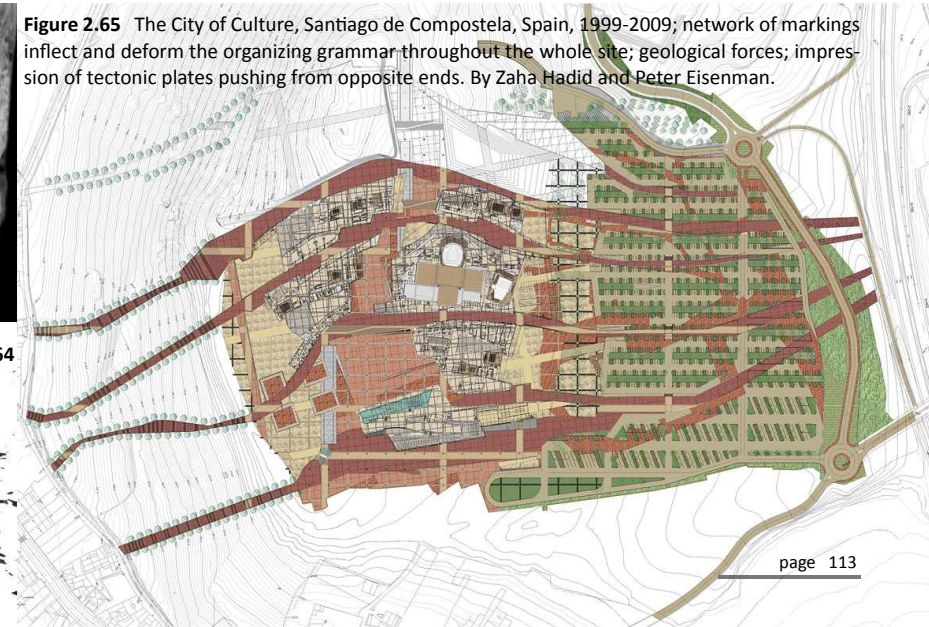


Figure 2.65 The City of Culture, Santiago de Compostela, Spain, 1999-2009; network of markings inflect and deform the organizing grammar throughout the whole site; geological forces; impression of tectonic plates pushing from opposite ends. By Zaha Hadid and Peter Eisenman.



Critical Mass, How One Thing Leads to Another, 2004. In an effective effort to demonstrate the emergence patterns of frost formation which similarly to snowflakes, minerals and bacteria, grow along similar fractal lines each depending on specific temperature and humidity levels, he creates beautiful images of the result. Charles Jencks relates these pattern evolutions to civic pedestrian traffic in the city, following certain emerging shapes according to speed and density of flow (also see section on suburban public open spaces), coming to the conclusion that collective behavior reveals such patterns of organization emerging out of chaos.¹

Frank Gehry's architectural compositions (figure 2.69), although may seem random and irrelevant to the city's formations at first glance, are indeed based on fractal formation and a formalistic dialogue with nature and the city. Using formations and shapes generated from computer fractal and folding theories, his approach suggests a new kind of complexity, proposing an extension to Venturi's *Complexity and Contradiction*. Attracted towards the 'organic' shape, one discerns public open urban space compositions in urban formations of Wilkinson and Eyre's *Tilting Bridge* (2001), overlooking Norman Foster's *Sage Auditorium* (2004). (figure 2.68).

The field as emergence becomes further critical in the midst of a variety of typological constructions, including residential, industrial, commercial and maybe cultural, where the character of the core usually takes the identity of a mixed use function. Robert Fishman, in his *Bourgeois Utopias*, calls this phenomenon the 'divided environment'. The challenge with this situation since the modern movement, has been to find a new vocabulary of communication and new ways of extrapolating concepts and converting them into functional and aesthetically significant suburban cores, or what one might call, 'secondary cores'. Vittorio Gregotti had proposed a solution concerning "the critical modification of the topography and the site", but other than this type of proposition, the strategic debates since the modern movement for the treatment of the non-sites have not been considered successful for the new definition of public open urban spaces.

The new scale of the modern city for instance, caused numerous expansions, which along with the renewal of the role of the infrastructure, re-evaluated the roles of the natural phenomena and schematic restorings of river banks, coastlines, and regional parks taking place. The projects' main themes were tranquility and embodiment with the natural surroundings, which was also the prime motive of the inhabitants that moved there in the first place. Some interesting schemes of these types of examples take place in Spain, (in Vigo, Torrevieja, Gavà, or Salou), and are characterized as public spaces planned on a different scale and pattern,² in an attempt to harmonize the variety of emerging surrounding fields that took place.

¹ Jencks, C., 2007, op.cit, pp.62,99.

² Ventós, María Rubert, "Squares in Spain", in *The Square, a European Heritage; A topical survey in five countries (Spain, France, Greece, Italy, Poland)*, Miotto, Luciana (Editor), Fondation Maison des Sciences de l'Homme, European Commission: 2000, p.45.

Figures 2.66, 2.67 A demonstration of natural patterns of frosting conditions, relating to the critical coding that Jencks mentions in his *Critical Modernism*, of locating patterns of nature, to form structural or ornamental parameters, curved morphologies, complex compositions and digitization.



Figure 2.68 Wilkinson and Eyre's *Tilting Bridge* (2001).



Figure 2.69 Frank Gehry's *Guggenheim Museum* in Bilbao.



During the modern movement, we see some key figures such as Le Corbusier and Mies van der Rohe stumbling upon the facing of the situation of the emergence of new topographies, putting somewhat aside the vocabulary of the surrounding landscape, but concentrating more on the blunt forms of modernity and the creation of urban memories in the suburban fields.

Here rises the dilemma between urban assimilation along with natural desolation, and urban remembrance along with natural incorporation.

concept & theme

2.7 concept and theme

In pursuit of meaning in terms of a particular, individual code, specific to each case, should exist the tendency to organize the visual field in a way that makes sense to the surroundings. This was translated for example through geometrical knowledge acquired in antiquity, often described as the 'Greek miracle' of *correcting* the disanalogous and amorphous images of perspective reactions. This phenomenon, according to Schäfer, is unique in the history of image representation, and shows the tendency of man to create the most pleasing spatial compositions, where forms will be distorted to their minimum (also look at *open space minimalism* of the previous chapter), and the organization of the information will be more clear to the *innocent eye*. This shows the reliance that man holds towards pure compositions and his faithfulness towards 'schemata' (pure forms), that Schäfer calls "conceptual art".¹ Fitting to the prioritizing of this section's analysis on textual function of space, and the organization of information into a meaningful whole, Greek art as well, gave priority to conceptual modes, adjusting the natural appearances to such spatial concepts, unlike archaic art, which represented the schema almost always as a symmetrical frontal image.

¹ Heinrich. Von ägyptischer Kunst. 3rd edn., Leipzig: 1930.

The elaboration of concepts in spatial environments provide not only a sense of belonging and thematic reference, but also some innate orientation and understanding of a foreign space. Egyptians became masters in depicting thematic scene sequences through signs, remarks, names, songs and exclamations, illuminating the action.¹ Similarly, the relationships that are created between the architectural objects and the surrounding environment should suggest the theme and concept of the space; a civic mannerism that took place since historic times found from the era of the agora's *Hestia Koine* (glossary: *hestia koine*), taking place as the center of a common denominator.² A similar application of conceptual executions into the desing of the open spaces certainly takes place during the Roman era as well, with the prevalence of open spaces relating to; religious (temples), civil, and hierarchical (palaces) elements, or a presence of veritable systems of squares (glossary: *Roman-era square*), becoming equivanlty relevant all the way to the Renaissance period of thematic open spaces demonstrating monumental themes (glossary: *monumental Renaissance square, Renaissance square*).

Furthermore, what becomes crucial in the definition, creation or embellishment of the concept of a public open urban space, which inevitably will fall amongst the compositional patterns of ample urban objects and buildings, is the surrounding (and ground) materiality, of which durability might support and produce a variety of perceptual reactions that are partly subjective, and partly influenced by each individual alone, similarly to the reaction towards a piece of art. One might further study the individual works of Mies van der Rohe (figure 2.70) that alter the perceptual impressions of certain civic spaces, producing a diversity of sensations through the effects of a building mass' materiality, reaching concepts and creating spiritual signification.³ Neglecting the materiality and language of the surrounding edifices, Mies stands true to the belief of affirming the independent existence of an artistic object as significant itself, rather than referring to things of the past, social ideas, or to individual emotions. It is only logical to come to the conclusion that when such an edifice appears in an otherwise mono-dialectic civic environment, the theme of the space immediately takes a twist, composing new spatial hybridizations and suggesting a whole new network of future possibilities of the space's evolution.

Le Corbusier, with his 'unités d'habitation' utopian project that took place in 1929, creates an expression of the transitional and compositional combinations between classicism and the modern world; he uses free standing monuments as expressions of the modern vocabulary, surrounded by lower structures, with "direct typological relationships with Roman baths and Palladian villas".¹ The composition is classical, creating ample public open space for the urban habitats. The success of this project probably lands partly on the fact that it does not create a radical approach of modern fabricated alienation with total concern for functionalism and machine-like living, but cares for the quality of urban space. The fact that it has been stamped as a utopian vision, perhaps signifies the physiological and cognitive distance of the people of the modern time to the qualitative vision of urban life that would offer an ideal kind of city habitation.

1 **Groenewegen-Frankfort, Henriette A.**, *Arrest and Movement*, London: 1951, pp. 33-34.

2 **Vernant, Jean-Pierre**, "Les origines de la pensée grecque", in *Mythe et pensée chez les Grecs*. 2vols, Paris, Maspero: 1974 (orig. 1969).

3 **Solá-Morales, I.**, et.al., 1997, op.cit., pp.32-33.

1 **Krier, R.**, 1979, op.cit., p. 77.

Figure 2.70 Mies van der Rohe, School of Social Service Administration Building at the University of Chicago.



ground

2.8 the role of the ground

The involvement of the nature and morphology of the ground into the design of the public open urban space is hybridization of the symbolic perceptual values that were studied earlier in the thesis (chapter one), and the pursuit of a paradigm of concepts and themes, in an era where cultural, religious, political or social beliefs seem to be globalized, confused, fulfilled with variety and ambiguity. The ground, always a constant denominator in the reference point of the designer, opens up immense possibilities for structural bases and thematic considerations.

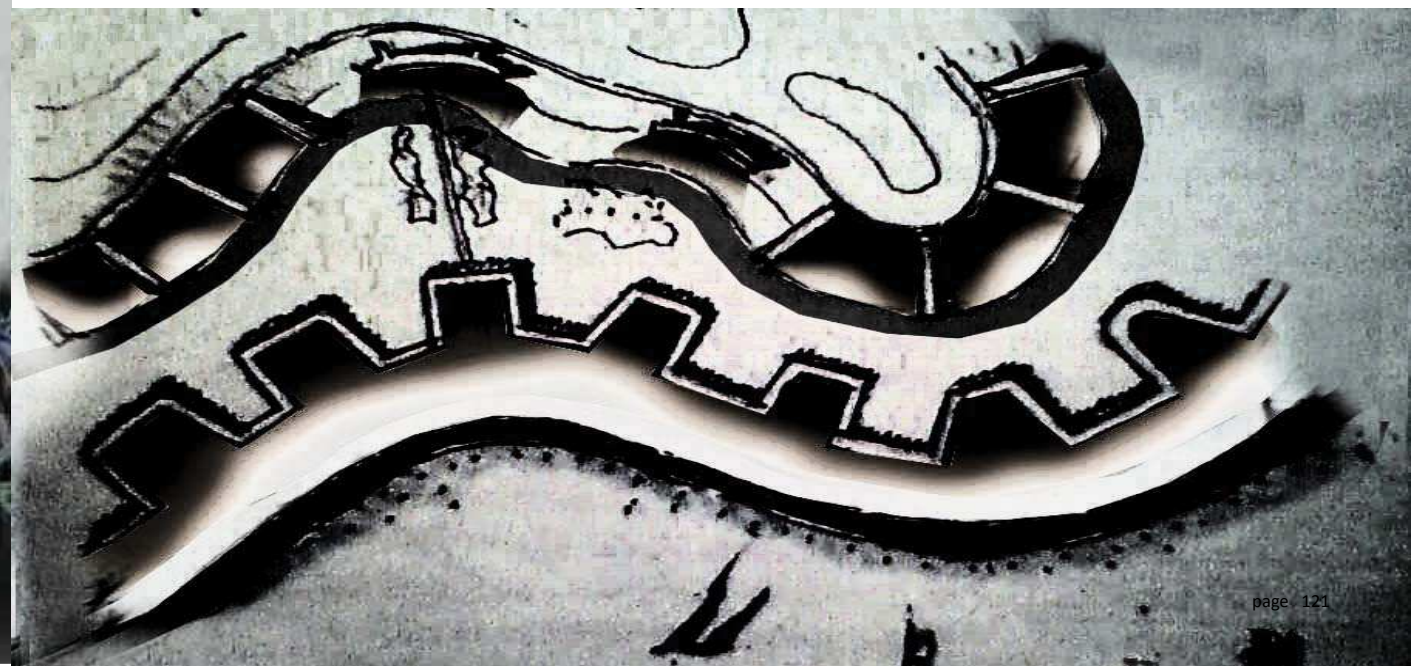
For these reasons, 'earthworks' became popular in the last decade of the examination of public space perception, offering interesting solutions, some of which shown in the figures below. The goal is to promote architecture in relation to a reference point that is familiar to man's natural understanding of the world, hybridizing the natural material with the artificial, in an effort to transcend symbolic qualities and open the field for perceptual discussion and understanding. Consequently, going further than the historical use of the ground as a hill (glossary: *mal*) expressing a hierarchical element of transcending towards the holy, the ground today acquires a more complicated and symbolic meaning.

In figure 2.75, showing Ricardo Bofill's Volcans d'Auvergne Service area in France, the project picks up inspiration by the variable colors and light reflections of the volcanic surfaces, interpreting the forms in a series of circular and fractal-like figurative approaches.

The extension of the cemetery of Saint-Pancrace also in France (figure 2.73), uses the inclination of the hill as a means to excavate within it. The choice of materiality (white stone and concrete), in a succession of gradient terraces and a concluding destination to the sea, creates a metaphor to the theme of the design of a cemetery, aiming at the demonstration of the passage of phases and the goal of the 'metaphysical calm'.¹

The design for the new cemetery in Urbino (figure 2.74) is an interesting study of a formation of the ground deriving from the work of Arnaldo Pomodoro's sculpture, which shows an inverse of precessional design. This is interesting because it shows the initial attempt of a pure idea of a spatial form in relation to the earth, and then when opportunity arises, the concept is put into territorial execution with much success. Here is most relevant to also touch upon the conceptual relationship between the ground and the civic open space environment in a hybridized conglomeration of civic settlement, permanence, ground association and semiotic importance. A perfect example is the traditional Greek 'plaza of the sycamore tree' (πλατεία πλατάνου),

¹ Aymonino, Aldo; Mosco, Valerio Paolo, *Contemporary Public Space; Un—volumetric Architecture*, Skira Editore, Milano: 2006, p.264.



where the initiation of civic public gathering takes place from the sole existence of this tree, which is rooted into the ground, in a symbolic gesture of pursuit of permanence and stability, after a historical period of ottoman conquest (glossary: *plaza 'of the sycamore'*).



Figures 2.71, 2.72 Residenza La Piazza in Bicocca Village, Milan; it is laid around a split-level square that occupies the geometric center of Bicocca.

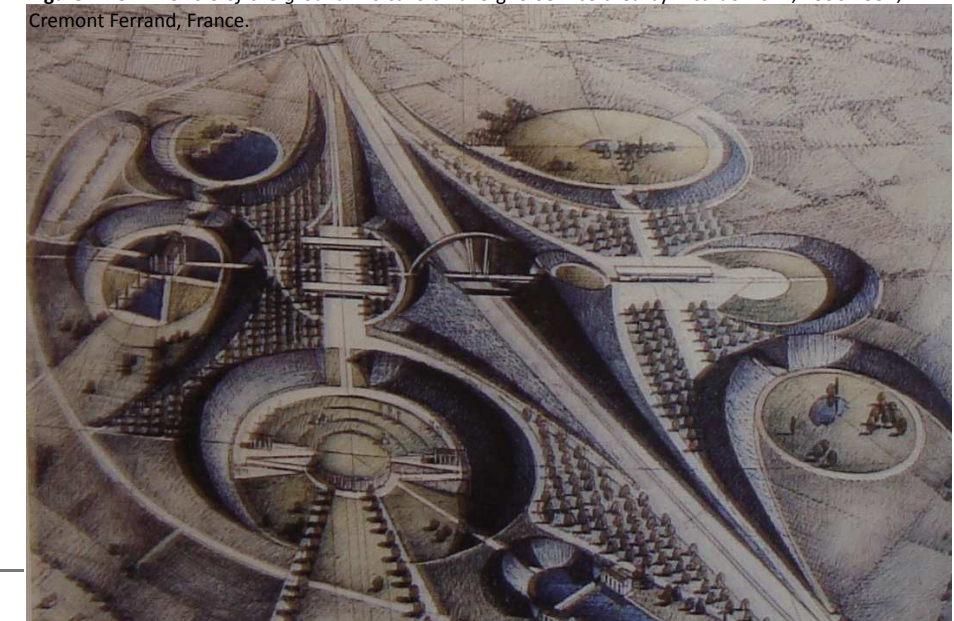


Figure 2.73 *The role of the ground.* Extension of the cemetery Saint-Pancrace, 1990-1992; Roquebrune Cap-Martin, France.

Figure 2.74 *The role of the ground.* Design for the new cemetery in Urbino, 1978, Italy. Arnaldo Pomodoro's sculpture on a territorial scale.



Figure 2.75 *The role of the ground.* Volcans d'Auvergne Service area by Ricardo Bofill; 1990-1991, Cremon Ferrand, France.



2.9 salience and articulation

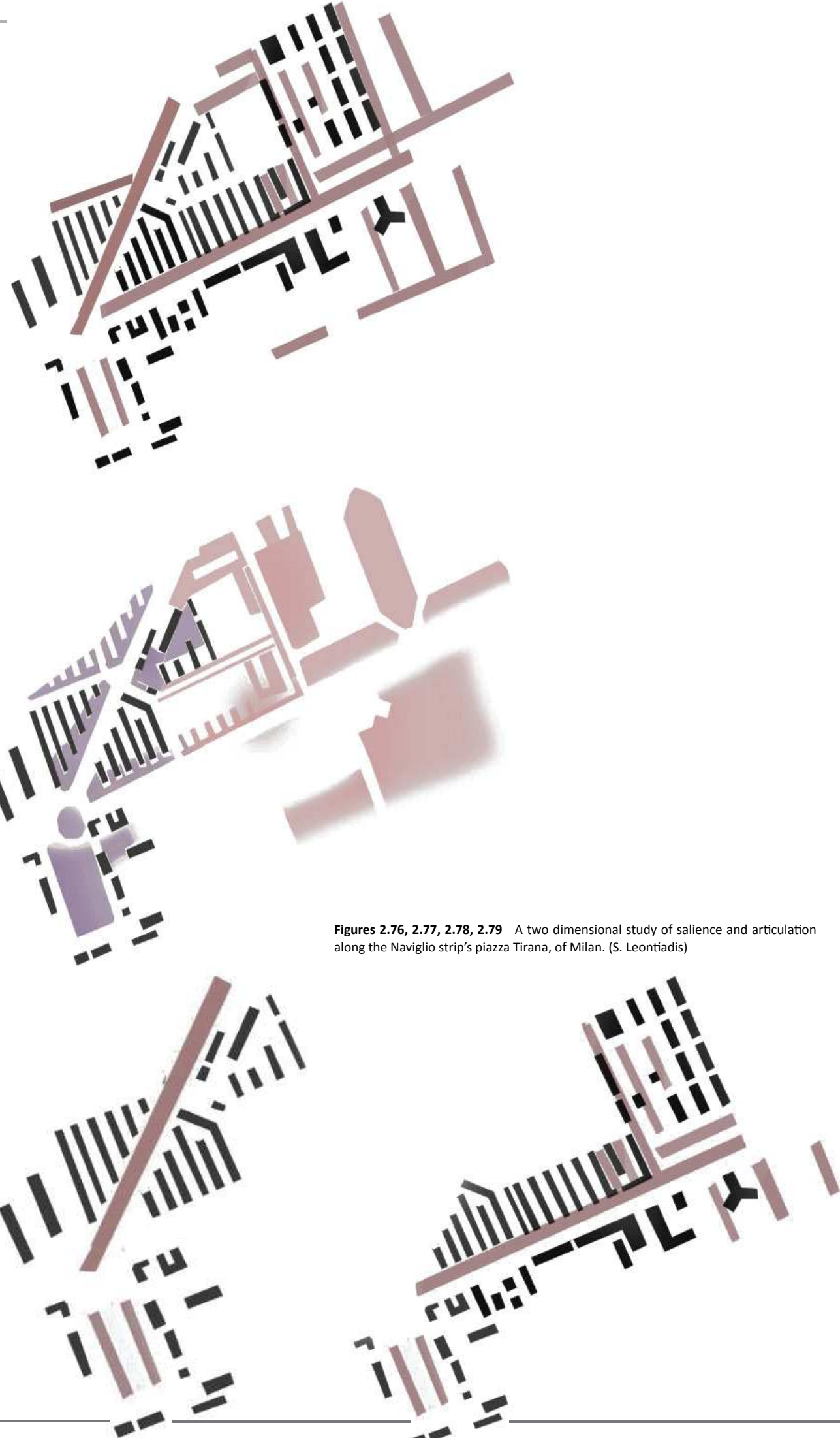
The way in which salience and articulation is expressed in a civic space, is the primary means of offering 'character' and individuality. In chapter one on the historic public open urban space, was the mentioning of the difference between organizing the world's logic into concretized elements, versus the articulation of those elements that offered character to a space. As the concretization of elements requires the use of semiotic communication (symbolic references), the articulation of entities within a space is a method of organizing symbols in a hierarchical way.

Salience and articulation inside a civic space may be created by various forms of hierarchy and visual chains of command. These may be as simple as location, difference in shape, color, texture, and difference in size. However, articulation and salience also take place in the insurance of effective (constant or partly excessive) measure within the architectural composition, the quality of relationship between structure and space, the contrast between tectonic systems and adjacent voids, the level of character, the entire correspondence between the building functions and their respective shapes, as well as the relationship between linguistic choices and the specific trends of each single composition.¹ The articulation of features in a spatial environment, can thus be punctuated by such formalistic applications, which may nevertheless become elementary without the consideration of other important aspects of space that deal with Cartesian coordinates and the 'weight' of spatial axis in the urban civic space at hand.

¹ Laura Themes, 2009, op.cit.

articulation





Figures 2.76, 2.77, 2.78, 2.79 A two dimensional study of salience and articulation along the Naviglio strip's piazza Tirana, of Milan. (S. Leontiadis)

As Rudolf Arnheim confirms, all three coordinates of the Cartesian system of space have the same degree of importance and character. However, living in the earthly environment of restrictions of physical laws, we have become conditioned to think of the vertical direction as the most heavily coordinated, due to gravity. Other spatial orientations are usually perceived according to the relationship that they hold to the vertical direction. This is why the leaning tower of Pisa creates such a strong unsettled feeling; due to its central axis not being the vertical one. Similarly in modern design, when, inside an architectural construction of space, a designer wishes to create the feeling of uneasiness and unbalance, the method may very well be that of diagonal walls/slabs/windows/objects that seem to be falling or supported somehow in an ambiguous way. The coordinates drift away from the simple and comfortable expression of horizontal and verticals and acquire a geometrically more complex system of intersecting axes. (figures 2.76-2.79) Hence, the solidity of walls and their direction is very important for the articulation of a certain point of space.

Cassirer classifies the perceptual articulation of a public space in the framework of an objective analysis, which is inevitably valid, in which judgment plays a cardinal and dominant role based on individualized realizations of sensory impressions and *significance*. The extensive studies on this matter of topic seem to directly connect the perception of the world to acts of *identification, differentiation, comparison* and *coordination*,¹ all of which have been concepts that Christian Norberg Schulz has touched upon in his *Genius Loci* elaborations. Subsequently, the articulation of elements within a public open urban space becomes the articulation and visually perceptible exploration of a relation of the representation to the object, which is nothing more than this articulation into a larger systematic relationship in which a specific place applies to; this directly correlates to the concept or theme of an environment - an interplay between representational objects and degrees of relationships tied into acts of identification. (figure 2.69)

Umberto Eco interprets this concept in his *La struttura assente*, when he emphasizes the need for articulation of the structural and perceptual language in reference to external elements, to always relate a spatial work 'in terms of the totality'. For the above reasons, Eco classifies the architectural designer as a sociologist, a psychologist, an anthropologist and a semiotician.²

¹ Cassirer, E., 1975, op.cit., pp.30, 32.

² Eco, U., 1986, op.cit., p.82.

orientation

2.10 orientation and path

(glossary: *path origins in civic space*)

Every time that we deal with the challenge of creating an outdoor dwelling in terms of a public open space in the urban context, in order to make a space that coincides with the psychological comfort of the visitors, we cannot help but go back to the theories of Norberg-Schulz who defined the *locus* of a city as the space or architectural object that is the 'existential foothold'; a place where man can **orient** himself and identify with the environment, where he can find comfort in the background image of a historical setting, where the *locus* becomes something more than just a 'shelter'. In fact, the origins of the creation of an *orienting path* goes deep back in history, with the identification of the *via sacra* of the ancient city, going through important religious and civic monuments, and having a final destination point, as well as the Medieval path leading straight to the basilica, through the 'path of salvation'. (glossary: *Medieval path, via sacra*)

This identification main element of the public open spaces is what Schulz refers to as a process of 'dwelling', involving both psychological functions of 'orientation' and 'identification'.¹ For this to occur, man must be able to recognize fundamental traces of his surroundings and identify recognizable elements. Project spreads 3.29-3.32 show examples of dwellings of Milan, that fall along the rigid rings of the central structure of the city, demonstrating good examples of open public spaces that are in comfortable relations with the surrounding objects; these spaces, when experienced, have a sense of 'belonging', forming contours and irregularities falling away from 'impeccable symmetry'. As Sitte states in *The Art of Building Cities*, "it is strange that the slightest irregularity in modern city plans upsets us, although those of ancient public squares do not have a displeasing appearance".² Some of the public open urban spaces in Milan do in fact follow the theoretical preferences of Sitte, guided by a spontaneous and perhaps in some cases random composition, but nevertheless relying on cognitive perception of the environment from which the angles and orientations of buildings are being decided accordingly. (figures 2.81, 2.82) This approach favors an impulsive and appropriate evaluation of the site.

Kevin Lynch simplifies this term with his concepts of 'node', 'path', and 'district', which become his major elements of human orientation within the city. With the aid of the above, a clear environmental image may be perceived, which provides an exigent reaction to emotional security, offering a vivid memory of imagery that is used to interpret information and guide action.³ (glossary: *Lynch (Kevin)-oriented civic space*) Umberto Eco also speaks about the importance of forming the sense of orientation within a public urban environment, in reference to what he defines as 'image-recognition and orientation', which to him, is a means of perceptive

1 Norberg-Schulz, C., 1991, op.cit.

2 Sitte, Camillo, *The Art of Building Cities*, Reinhold Publishing Corporation, New York: 1945 (orig. 1889), p. 32.

3 Lynch, K., 1970, op.cit., p. 4.

path

code elaborated through the understanding of space perception of the inhabitants.¹ This point of view is difficult to analyze and demonstrate in extent obviously due to the three-dimensionality of reality, however, Eco speaks of a certain validity and significance of operation, that depends on the researcher's particular point of view in that space, which could very well be the point of view of the majority of people experiencing it, holding a statistical connotation. This comes hand in hand with Lynch's remark on the success of orientation, creating a standpoint with the permission of purposeful mobility and originality of function.² For some theorists like Charles Jencks, this quest of figuring out orientation has a deeper linkage to some 'spiritual overtone' of finding meaning and explaining things that surround us, in the much complex urban civic space.

Below are Kevin Lynch's definitions of orientation within a civic environment, mentioned in *The Image of the City*:

- Orientation through differentiated landscape as a 'mnemonic system' and 'symbolic organization'. (This is more valid in the suburban environment, where the civic experience is more closely related to nature).
- Holy elements of spiritually charged importance (churches, temples, etc).
- Environmental image, remembered through color, light and forms. This kind of information permits 'purposeful mobility' and 'organized activity'.
- Distinguishing and patterning the environment for 'ordering of knowledge'.
- Coordinates.
- Numbering systems.
- Abstract names.
- Magical connotations (North China plain; north is black and evil; south is red and joyful).
- Space tied to a particular edge in the landscape.
- Organized by one or more intensive foci, towards which other things seem to 'point'. (Lynch mentions Meshed of Iran, which is an example of a sacred city where different points hold spiritual meaning, and the urbanite becomes unconsciously oriented by the bowing movement of his head at certain nodes. Also Florence is relevant, which was organized around loggias, lights, coats of arms, tabernacles, etc).
- Imaging and referencing by districts.
- Space patterned by lines of movement.³

1 Eco, U., 1986., op.cit., p.81.
 2 Lynch, K., 1970, op.cit., p. 124.
 3 Lynch, K., 1970, op.cit., pp. 124-130.

Figures 2.81, 2.82 A perspective study of orientation and path along the Naviglio strip's piazza Tirana, of Milan; The arrangements studied are guided by a spontaneous and perhaps in some cases random composition, but nevertheless relying on cognitive perception of the environment from which the angles and orientations of buildings are being decided accordingly.

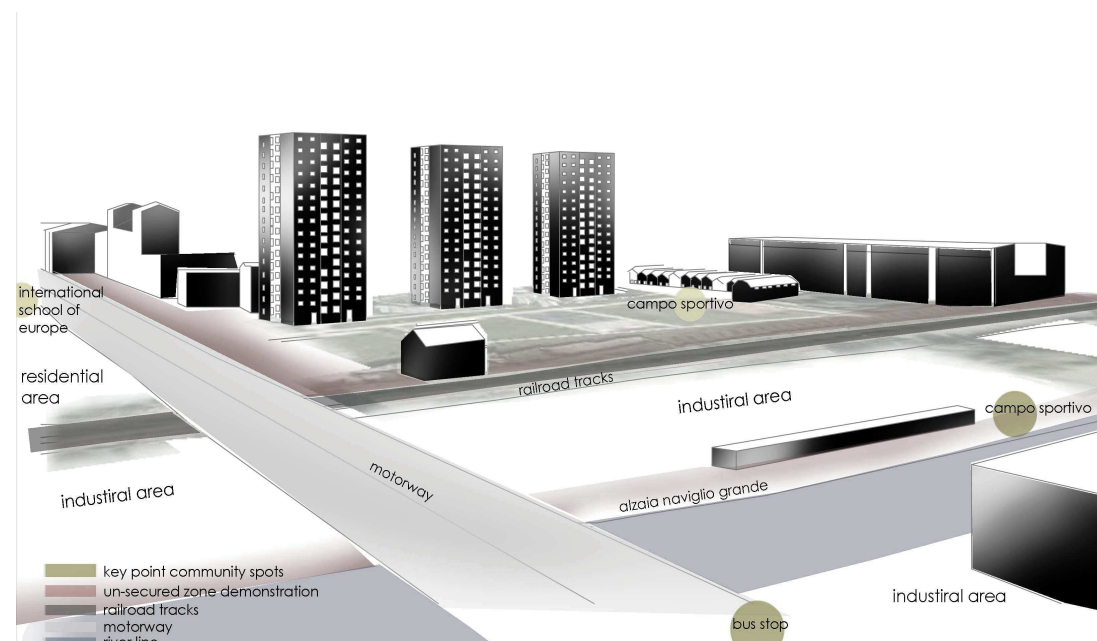


Figure 2.83 Yaohua Wang(Foral), Scott Chung, Jiaohao Lu, Xiaoxuan Lu, Lennard Ong, Jan Majo, second prize from AIM International Competition Beijing CBD



The path and orientation of a spatial environment is geometrically determined by its axes of coordinate systems. The Cartesian coordinate system, developed by René Descartes in the seventeenth century, was a revolutionary contribution that resolved precision descriptions of geometrical orientation. Cartesian geometry has been applied not only in mathematics, but also in astronomy, physics, engineering, computer graphics, computer-aided geometric design, and other geometry-related data processing, showing the impact that it has had in the expression and articulation of direction in everyday life. In the example below (figure 2.83), the space is treated in order to create an opposition with the surrounding geometrically refined Cartesian geometry, punctuating the latter's meaning and contrasting it effectively to make it stand out. Here one sees an interesting approach that touches the boundaries of Land Art in the urban context, in an effort to create a free and open space that is visible and accessible from all Cartesian edges, where emergence can occur among the surrounding cultural phenomena and artful executions. In the end, as stressed by Charles Jencks on his encounters on orientation themes of critical modernism, orientation is purposeless to discuss if it does not reassure social passions, sympathy and empathy, affiliation with the surrounding environment, and above all, creativity.

Naturally, orientation becomes closely related to the structure of the space, as a clear-defined version of structure may be emphasized while the orientation is based upon the articulation of direction. Furthermore, orientation is closely related to identification of one space in a more sensual and personal note, similar to the identification that one might feel inside a familiar environment, even though it might lack structure, framing, concept, visible layering, a clear ground, etc. However in a multi-diverse society which moves in a very rapid space, it is good to assume that whoever we might try to orient, is a stranger.

Orientation finds great usefulness in the relationship between vertical and horizontal planes. The person perceiving a space will feel oriented if such relationships may be found, because then the comprehension of the environment becomes more forthright and disentangled. The sole existence of a horizontal plan is not useful at all if there is no reference to the vertical dimension, something directly or indirectly learned in the first years of formal architectural education, with the study of both the plan and elevations/sections not only of individual structures, but of larger spatial compositions as well.

Path on the other hand, may acquire a more conceptual and abstract meaning, related to the function of time. Norberg Schulz writes about this in *Genius Loci*, where he speaks about the need for direction and movement, also correlated to rhythm. The path becomes a fundamental existential symbol which concretizes the dimension of time.¹

1 Norberg-Schulz, C., 1991, op.cit., p. 56.

2.11 conclusions

The syntactic structure of General Linguistics and studies on spatial perception bring out theoretical derivations to the architectural compositions of urban space theory, relating to the perception of the public open urban space and the psychological reactions of humans within the city.

The consideration of layers associated to the city fabric, or the site alone, creates and extracts holographic and historical systems of information to decipher concepts, meanings and continuations of themes through horizontal, vertical and multi-dimensional layers. Horizontal layers may refer to revelations of frameworks, linkages, dematerialization, architectural themes, conceptual interpretations and heritage interventions. Vertical layers are interpreted by means of elevations of perceptual understanding, perpendicular to the horizontality of the ground. The verticality of layers may be studied through the reference to single key elements within the public open urban space that support larger structures, resulting in conclusions of interpersonal relationships between the vertical objects and the stance of a viewer. Multi-dimensional layers deal with the functional and perceptually deeper changes of heuristic reconstruction, conceptual analysis, hidden messages and immateriality. The layering speculations of the public open urban spaces find a profound purpose in the continuing of conceptual themes of the 'subcores' of the urban periphery, merging together the city-core with the natural landscape boundaries.

Information availability and open space minimalism is the study of relationships between public open contextual synthesis and sensory impressions, always leaving room and design flexibility options for improvisations and theme evolutions, where the primary objects (sometimes of heritage importance) may be constant and fixed. The role of the infrastructure, from which a means of higher velocity of information of a different perceptual realization is experienced, evokes the city as a large organism, by means of direction and paths, and by pursuing the concretization of time. The infrastructure, in many cases, forms the primary determining factor for the accessibility, flow, and further qualitative development of spaces for more energized activities.

The role of the structural continuation relates to the innate syntactic composition of the space, forming the framework of the *locus*. This structure may have biological, organic, anthropological, morphological and other influences, demonstrating in each case a special kind of theme of organization. Invisible structures, often more mystical, indirect, hidden and discrete, organize data through tectonic strategies and virtual themes.

Subsectional to structural elaborations, the analysis also brings out the theme of framing; a boundary, an edge or a horizon of visual or invisible characteristics, inspired by the transparency of the typological structures that started to form during the beginning of the modern movement. Determining the degree of enclosure and spatial direction, it offers stored energy that circulates within the public open urban space and momentarily freezes mobility.

Field perceptions refer to the energized relationships that are perceived with a public open urban space, in an abstract realization of visual contours, space gradients, trajectories, sense of directionality and irregularity, spatial diversity and configurational properties, visual integration, potential energies of objects, degrees of repulsions and attractions, and notions of emergence. Furthermore, the pursuit of a concept or theme in the public open urban space further elaborates on the spatial stimuli, involving the prioritizing of contextual meaning and story-telling in terms of civic mannerism, language, mass materiality and spiritual signification.

Consideration of the role of the ground also comes into play, with the civic involvement of nature and morphology for the incorporation of earthworks and artificial natural interventions. With the strong involvement of the ground in civic art, the environment becomes a hybridized conglomeration of civic and natural permanence of stable association and rooted value on the earth. This stability of existence may become emphasized, punctured or interrupted by the salience and articulation of spaces or of objects related to them, offering further syntactical tools of concretizing spatial organization.

As the concretization of elements comes with the use of semiotic references, the articulation of elements within a space is a method of organizing symbols in a hierarchical way of cardinal and dominant realizations of sensory impressions and levels of significance. The articulation analysis of the public open urban space directly connects to degrees of evaluation of identification, differentiation, comparison and coordination.

Finally, the orientation of the spatial organization is the definition of directionality, identification and a reference point through an orienting path, creating the permission of purposeful mobility and originality of function.

With the above considerations of ways of forming a syntax for the contemporary public open urban space, the problem of perceptual organization and security becomes more concise and understandable. With the definition of parameters of evaluation, it is easier to distinguish and evaluate the situation of bound spaces, where someone feels comfortable, safe, protected, or restricted and smothered, versus the impressions of an unbound space, where someone may feel free, vulnerable and exposed. The syntactic coherence that finds its roots in the traditional investigations and attempts to find place in the contemporary environment falls in the categories mentioned, which may in sequence provide significant aid for the diagrammatic representation of existing situations and solutions for the provision of public security, from the visual perceptive point of view.



chapter three

**a demonstration of syntactic evolution of the civic space
since modernity**

3.1 CIAM 8, Hoddesdon 1951; syntactic paradigms and evolution

3.2 CIAM 8, Hoddesdon 1951; schematic summary

3.3 Team 10, 1957-1972; syntactic paradigms and evolution

3.4 Team 10, 1957-1972; schematic summary

3.1 CIAM 8, Hoddesdon 1951; syntactic paradigms and evolutions

“Nowadays it is not easy for us to imagine the important role that the central square played in the life of an old city. Traffic and exchange of thoughts, in the days where the printing press and newspapers were unknown, took place much more intensely on the marketplace; for us, who find our world-wide daily news at the breakfast table and who are used to conducting most of our business by letters and telephone calls, it is enormously difficult to conceive the importance [...] of the agora and forum (or of a medieval, Renaissance or Baroque square)”.¹

The baroque period is followed by the 19th century, which either embellishes and promotes or trivializes the Renaissance public open urban space initiatives. In the industrial city, the public open urban space is being reduced to a traffic hub, while the majority of public life is being transferred to the interiors of enclosed spaces. While analyzing the medieval plazas and their superior aesthetic quality, Camillo Sitte notes that this modern type of civic space had lost its historical function and meaning by the end of the century. During this time, civic space becomes lost in the formless free space that surrounds the buildings. (glossary: *industrial revolution civic space*) Its initial meaning however returns during the second half of the 20th century during the regressive, critical and nostalgic disposition that takes place as a symbol of the lost urban qualitative spirit of older times. Now, contemporary studies mark out the public open urban space as an intrinsic coefficient of the urban form of construction and life; an essential built spatial element of urban design and life of the city.

The challenge of the modern period began during a time when values started to change and decline, and styles were renamed, in a crisis of urban existentialism (glossary: *existentialism of the public open space*). Colin Rowe, in his foreword for Rob Krier’s work *Urban Spaces*, summarizes the situation very effectively;

“At some moment in time there occurred a cessation of meaningful artistic production and a catastrophic decline in all sense of value. Standards of craftsmanship were abruptly terminated. Collective endeavor declined. Society became atomized and the individual alienated. Disassociation of sensibility ensued and tragic schism between feeling and thinking was the inevitable result”.²

The response to this general decline, led to the decision of bringing together multiple personalities from different cultures and backgrounds for critical retrospective of the haphazard situation that took place, bringing forth debates on the shape, form and functions of the modern public open urban space, aiming to stabilize its role.³ (glossary: *modern civic space*)

One characteristic of the CIAM generation in the treatment of public open urban space is its members’ conviction that open space is virtually ‘empty’, or in other words is made of whatever is left among the solidity of buildings that make a space seem ‘full’. However, this was strongly opposed by Walter Gropius, who stated that “the most important factor in building a Core is the relation between the building masses and the enclosed open spaces”.⁴ (glossary: *CIAM generation Civic Space, Gropius (Walter) public open space treatment*)

However, a negative outcome of the design approach of modernity in reference to the open space, often resulted in the phenomenon of ‘junkspace’, expressed by Rem Koolhaas as an apotheosis or meltdown of the effort to share the blessings of science globally. “Although its individual parts are the outcome of brilliant inventions, lucidly planned by human intelligence, boosted by infinite computation, their sum spells the end of Enlightenment, its resurrection as farce, a low-grade purgatory..”⁵

1 Unwin, R., 1971, op.cit., p. 175.

2 Rowe, C., 1979, op.cit., p.7.

3 Sandercock, Leonie, *Towards Cosmopolis: Planning for Multicultural Cities*, Wiley, London: 1998, pp.34-37.

4 Gropius, Walter, “The Human Scale”, in *The Heart of the City – towards the humanization of urban life, CIAM 8*, Tyrwhitt, Jacqueline; Sert, Josep Lluís; Rogers, Ernesto Nathan (Editors), Pellegrini and Cudahy, New York: 1952, p. 53.

5 Koolhaas, Rem, *Junkspace*, Quodlibet: 2006 (excerpt from the OMA website).

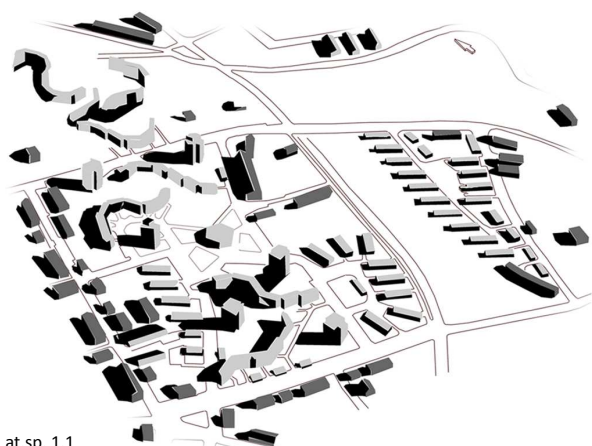
CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.1) New Bastle, Switzerland - "a new city neighborhood" (O.Senn et al)

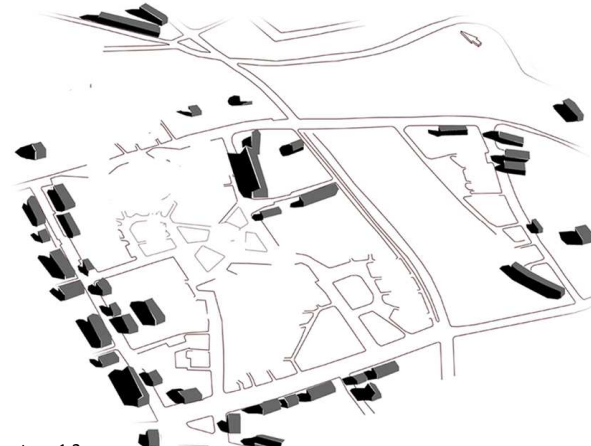
The graphical analytical demonstrations here are a further elaboration of the research done by O.Senn et al for the CIAM 8 congress , for a new city neighborhood urban 'core' for a population of 12,000, designed to integrate scattered housing on the southern fringe of Basle. The definition of the public open urban spaces is emphasized by keeping the traffic outside of the core, by six thirteen-storey towers of small apartments for visual emphasis, and by shorter lines of five-storey apartments in order to contrast the visual effects.

The new hexagonal church becomes the center of compositional arrangements.

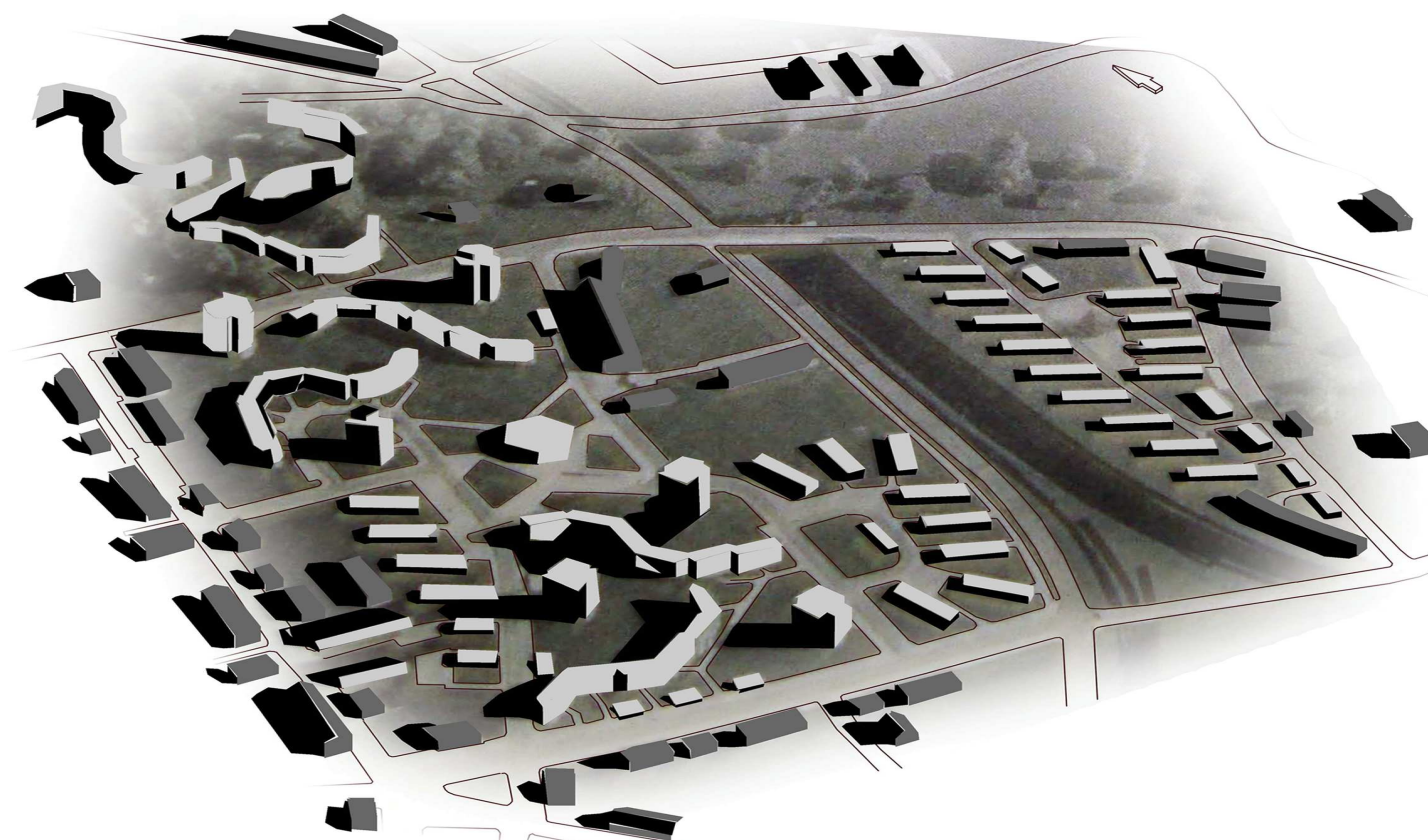
On the left and far on the right of the opposite page, are shown the relationships of the church with the adjacent groups of built spaces, demonstrating a variational interpretation of public open urban space arrangements and volumetric proportions.



at.sp. 1.1
The existing neighborhood buildings (in darker shade, in relation to the new propositions)

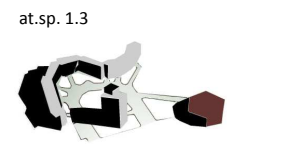


at.sp. 1.2
The existing neighborhood buildings shown alone.

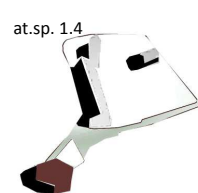


A layering demonstration of the design condition; the grey building masses are the existing ones, used as reference points for the further design and spatial arrangements of the new public open urban space compositions. The hexagonal church, hierarchical in form and use, becomes a reference point of perceptual orientation and structural space-integration.

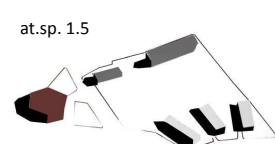
Selective analysis of the hexagonal church used as perceptual orientation for the adjacent definitions of public open urban spaces:



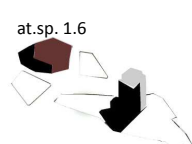
at.sp. 1.3
With a curved framing opposite of the point of reference, and an intermediate object breaking the open field, this organization suggests a new interesting way of central configuration and a successful concentration of attention to an object other than the hierarchy of the hexagonal church (falling onto the intermediate object).



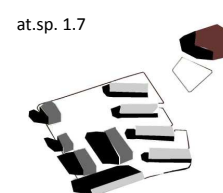
at.sp. 1.4
This composition creates a perceptual interplay of the positioning of visual barriers in front of the hidden existence of a larger field, which holds similarities to the traditional settings, but with a modern creation of forms.



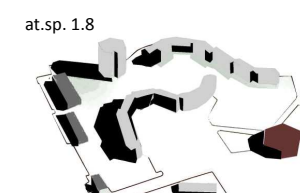
at.sp. 1.5
In pursuit of the 'loose square', the public open urban space here perceives a 'leaking' effect of open holes, piercing through the surrounding visual fields. The sense of security here might become less rigid.



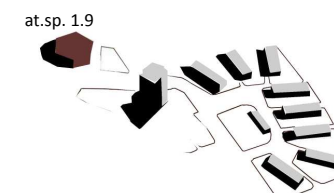
at.sp. 1.6
A classical battle of hierarchy, this scheme demonstrates the modern problem of the hierarchy of form, with the surrounding field becoming of secondary importance, creating the condition of the structural void.



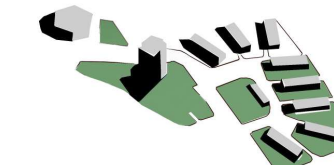
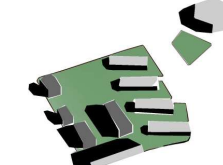
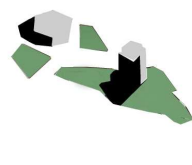
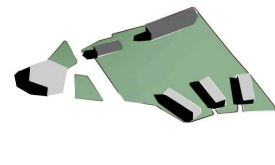
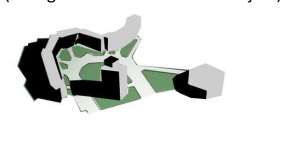
at.sp. 1.7
The addition of a patterned series of objects, aim for a visual barrier from the openness of the public conditions, to create a more enclosed residentially secured environment.



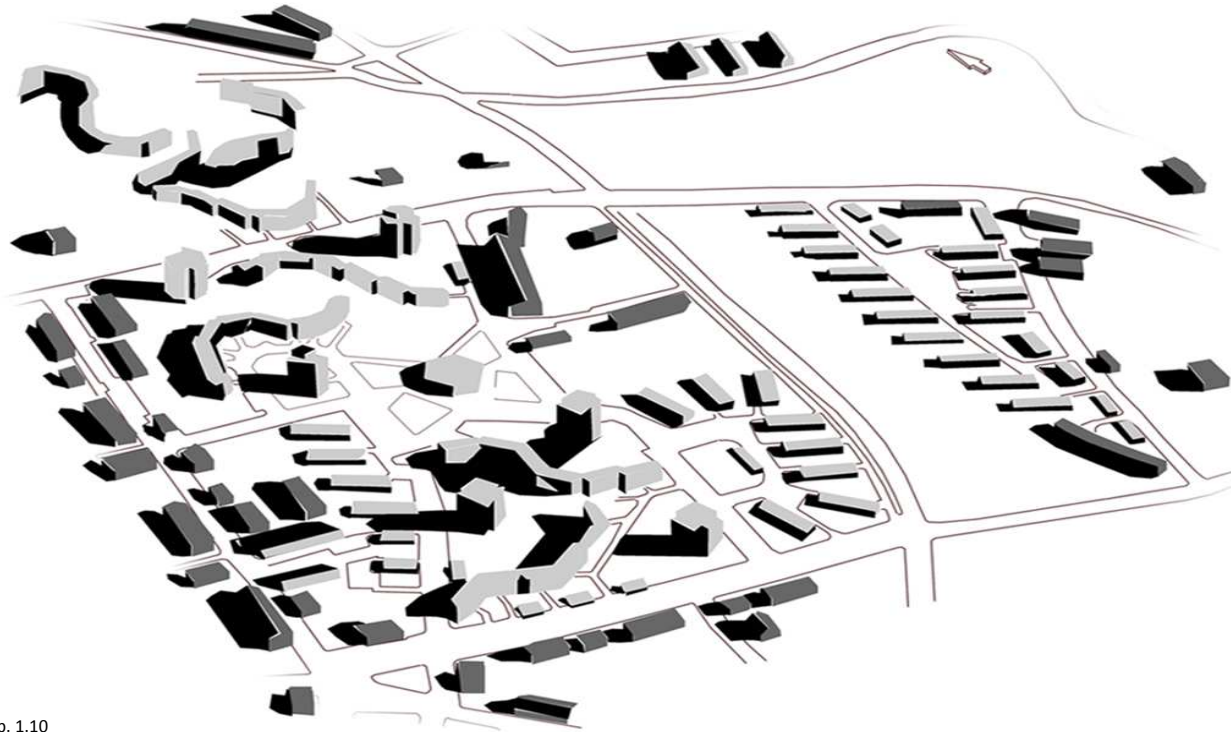
at.sp. 1.8
A variety of perceptually interesting visual sequences, creating intensity and thematic interests.



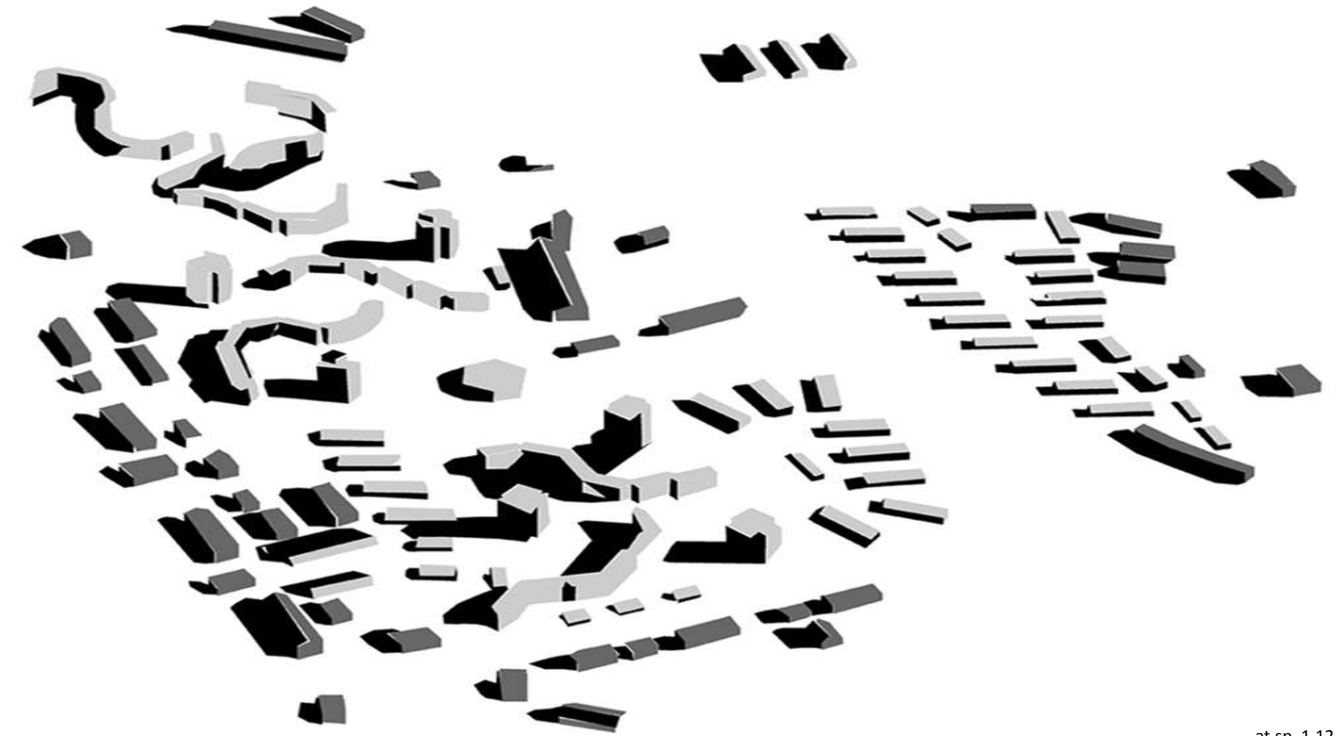
at.sp. 1.9
Through a series of articulation techniques (through the hierarchical building masses) and orientational figures, this scheme shows a strong organization of a public place on the right side of the scheme.



(New Bastle, Switzerland - "a new city neighborhood")



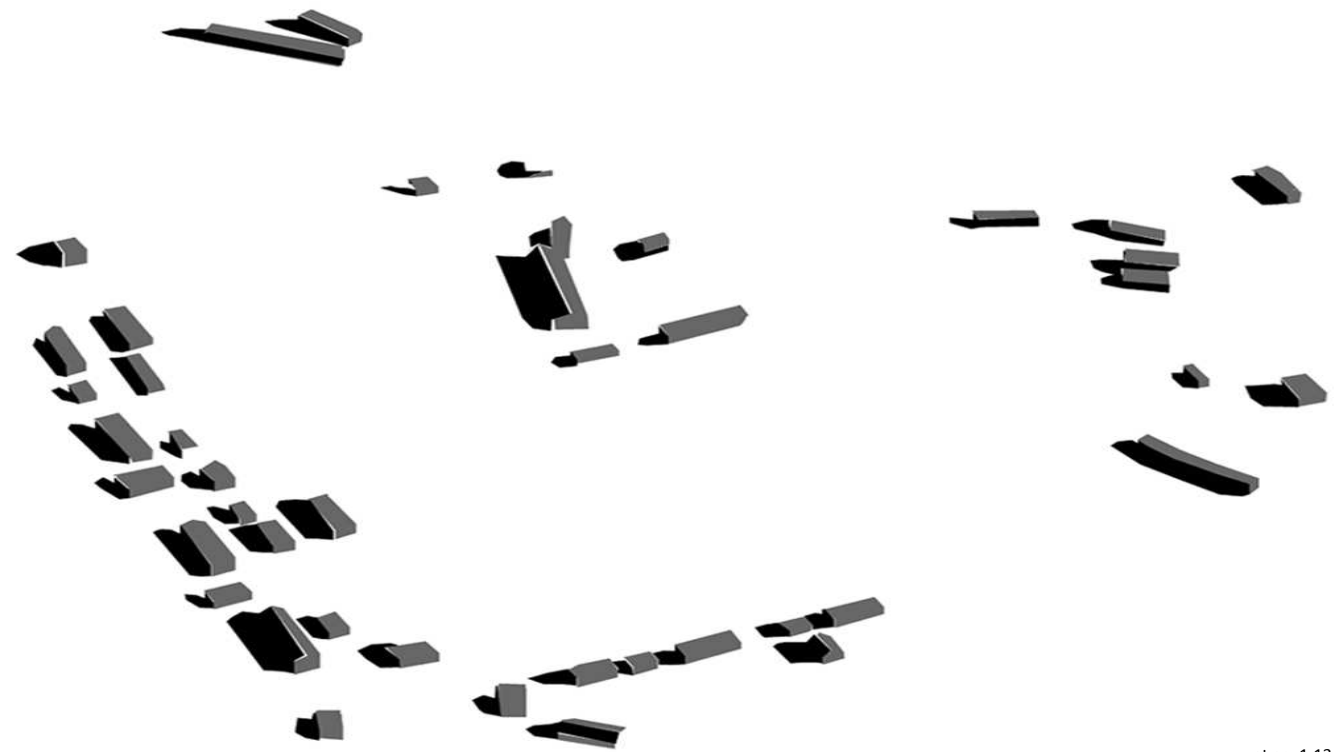
at.sp. 1.10
Existing neighborhood buildings (in darker shade, in relation to the new propositions. This diagrams demonstrate the horizontal layering through the process of development, and the structural choices that were made, choosing to keep the infrastructure away from the pedestrian public open urban spaces.



at.sp. 1.12
Existing neighborhood buildings (in darker shade, in relation to the new propositions. Emitting here the demonstration of the infrastructure, one sees the means of framing that is created against the infrastructural void, as a method of achieving isolation from traffic and more secure public open urban space environments.



at.sp. 1.11
The existing neighborhood buildings. This scheme is interesting to study the structural starting point of the further developments, in pursuit of the *integral relationships* of the new interventions. (Refer to Chapter 2, section 8, on *combinations of elements*).

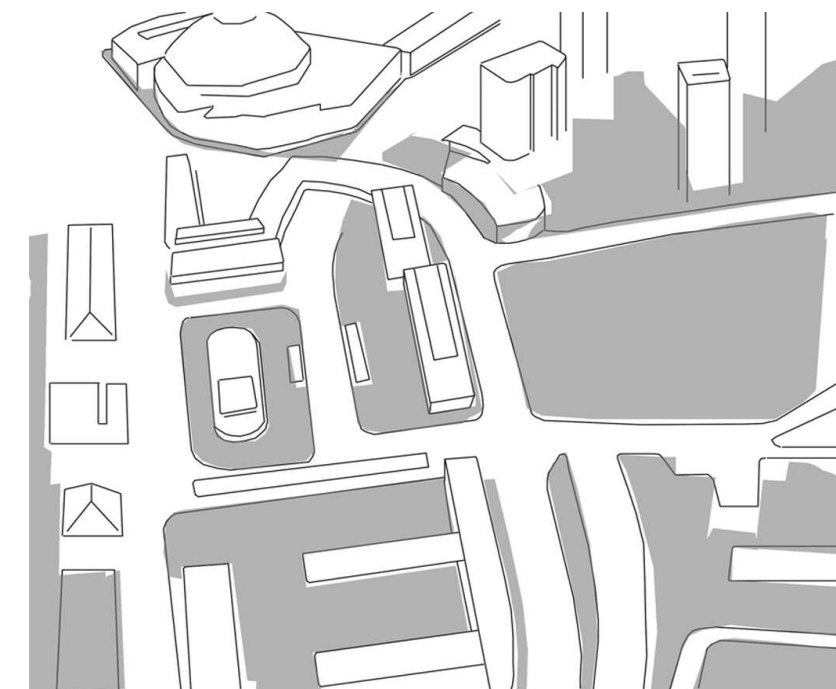


at.sp. 1.13
The existing neighborhood buildings, emitting the demonstration of the infrastructure. Through observation of the final design, one clearly sees the methods of mass positioning and infrastructural relationships in order to actualize means of *habitable security* and *identification/theme*.

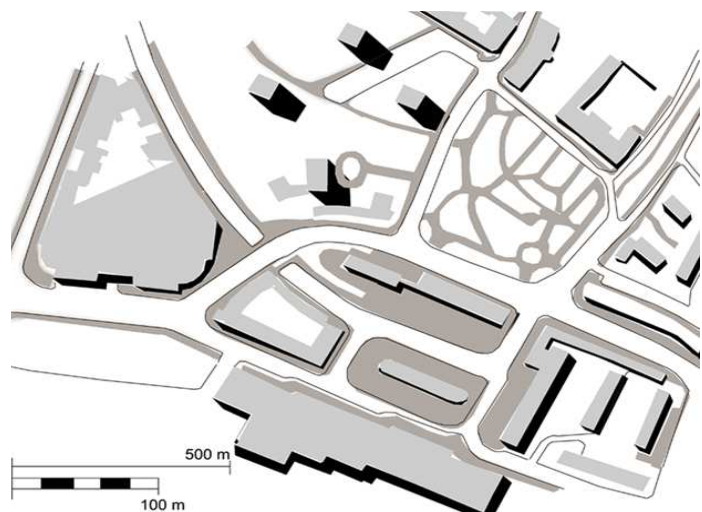
CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.2) Bastle, Switzerland - (O.Senn et al)

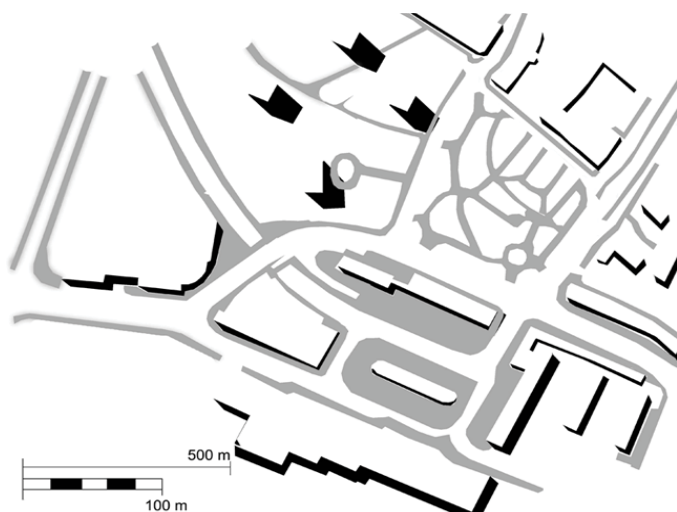
This plan was initiated in the CIAM 8 congress by the group O.Senn et al, for a town population of 200,000. The problem of the old core, with all functions of buildings and open spaces being confused within each other, resulting in the hectic atmosphere of a disfunctional city core, is proposed to be replaced by a spacious new core which clears away obsolete buildings, covering part of the railway yards, and forming thoughtful public open urban spaces with the interventions of shopping areas, hotels, offices, and entertainment buildings.



at.sp. 2.5



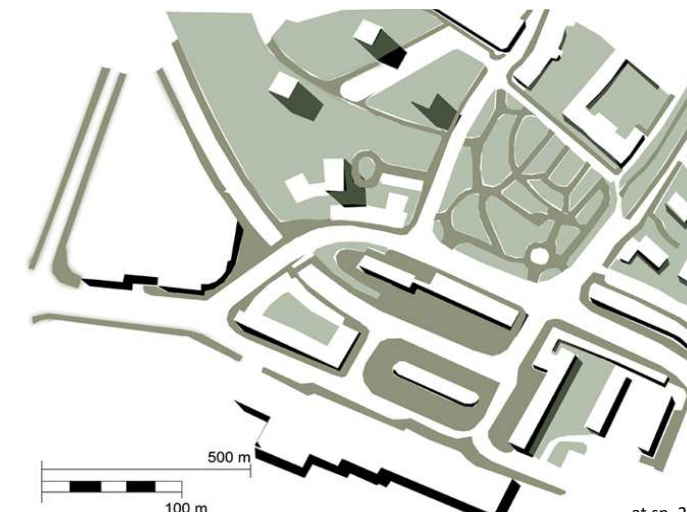
at.sp. 2.1 Building masses and public open spaces. This scheme demonstrates a variety of typological open public spaces, with the existence of also vertical layering of structures. However, the high rises show an effect of the undetermined void surrounding the high rises - a characteristic almost negative phenomenon of the modern reality.



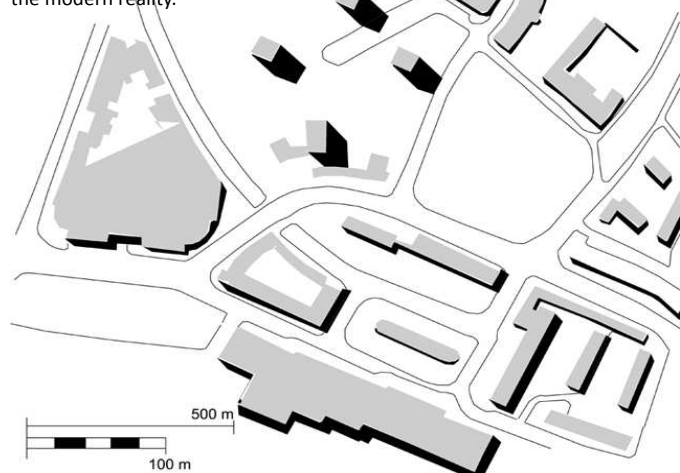
at.sp. 2.2 The shaded areas show the evening public activity, and it is interesting to study in this perspective the reference point of the four high towers, as means of orientation.



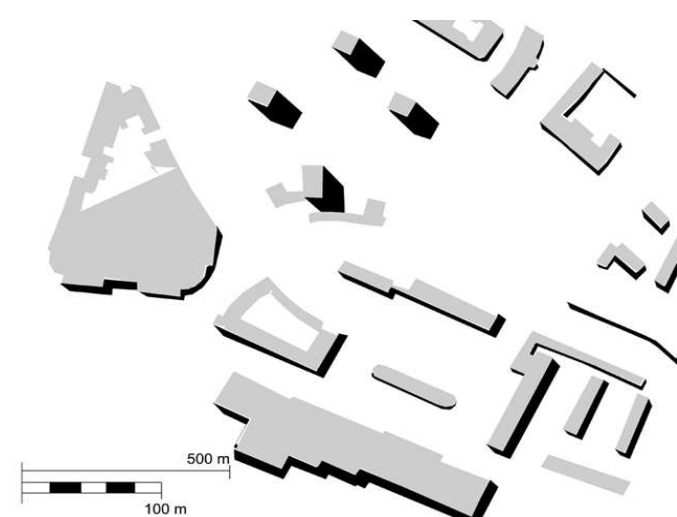
at.sp. 2.6 Demonstrated here are the public spaces of high evening activity.



at.sp. 2.7 Public open green shown in light grey, in reference to the public evening activity areas, in reference to the building masses. This scheme shows the sense of path and the pedestrian relationships among the different open areas and reference points.



at.sp. 2.3 The building masses shown in relationship to the infrastructure. This scheme demonstrates a design of affiliation between traffic and pedestrian movement, which in later cases, is attempted to be emitted.



at.sp. 2.4 The building masses shown in isolation.



at.sp. 2.8 The public open green areas, shown in isolation.

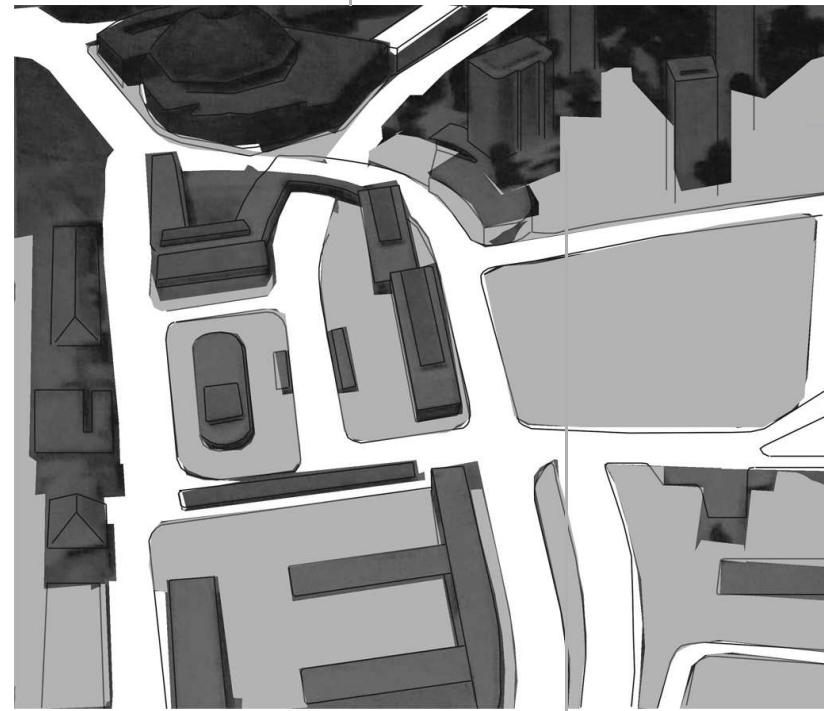


at.sp. 2.9 The public open green areas shown in reference to the building masses. One sees here the large urban voids created around the high rises, accentuating their orientational characteristics.

(Bastle, Switzerland - "a new center for an old city")



at.sp. 2.10

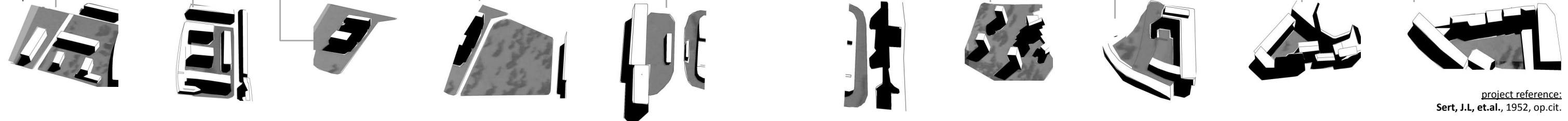


at.sp. 2.11



at.sp. 2.12

at.sp. 2.13



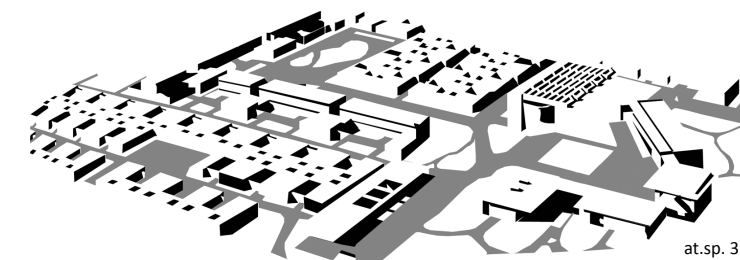
project reference:
Sert, J.L, et.al., 1952, op.cit.

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

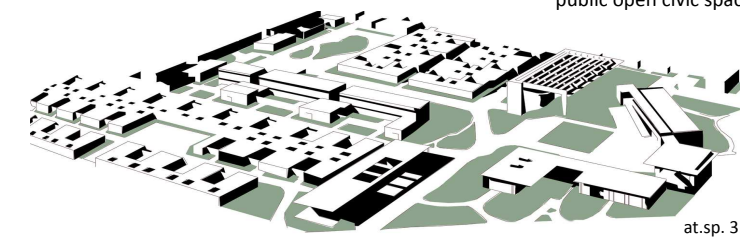
(3.1.3) Chimbote, Peru - (P.L.Wiener and J.L.Sert with the Oficina Nacional de Planeamiento y Urbanismo)

The following is an early version of a plan by P.L.Wiener, and J.L.Sert with the Oficina Nacional de Planeamiento y Urbanismo, where the core of the city opens up to the city front and suggests a portion of the modern paradigm for the civic development of cities that overlook the beach.

The center, free of traffic movement, consists of: administrative buildings, a public library and museum, a hotel and touristic center, a church and a bell tower.



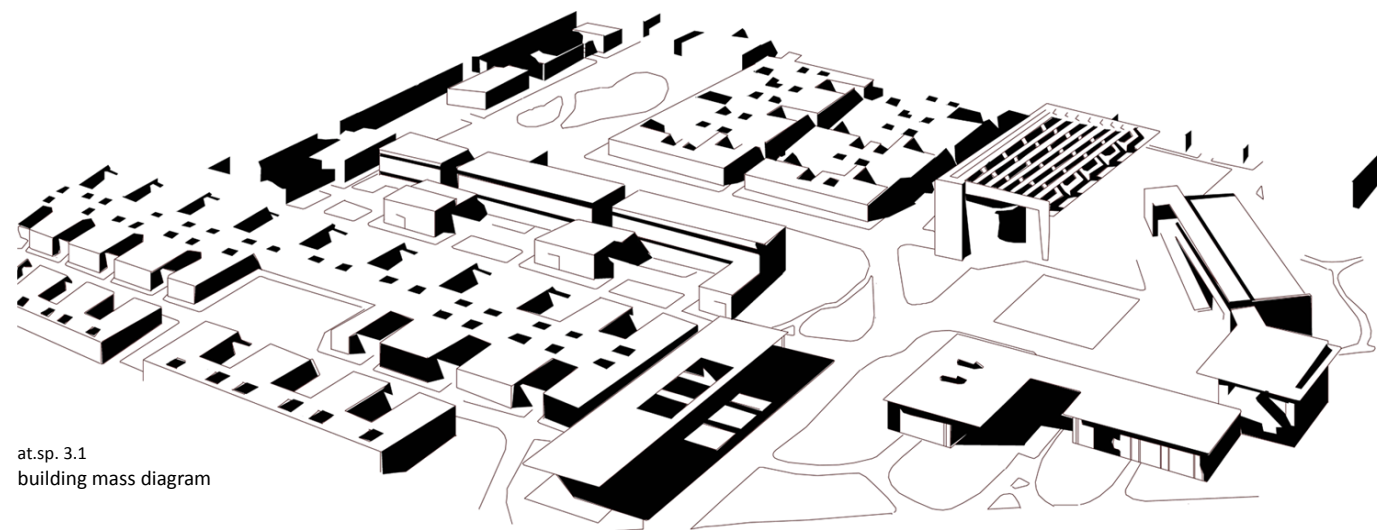
at.sp. 3.2 public open civic space



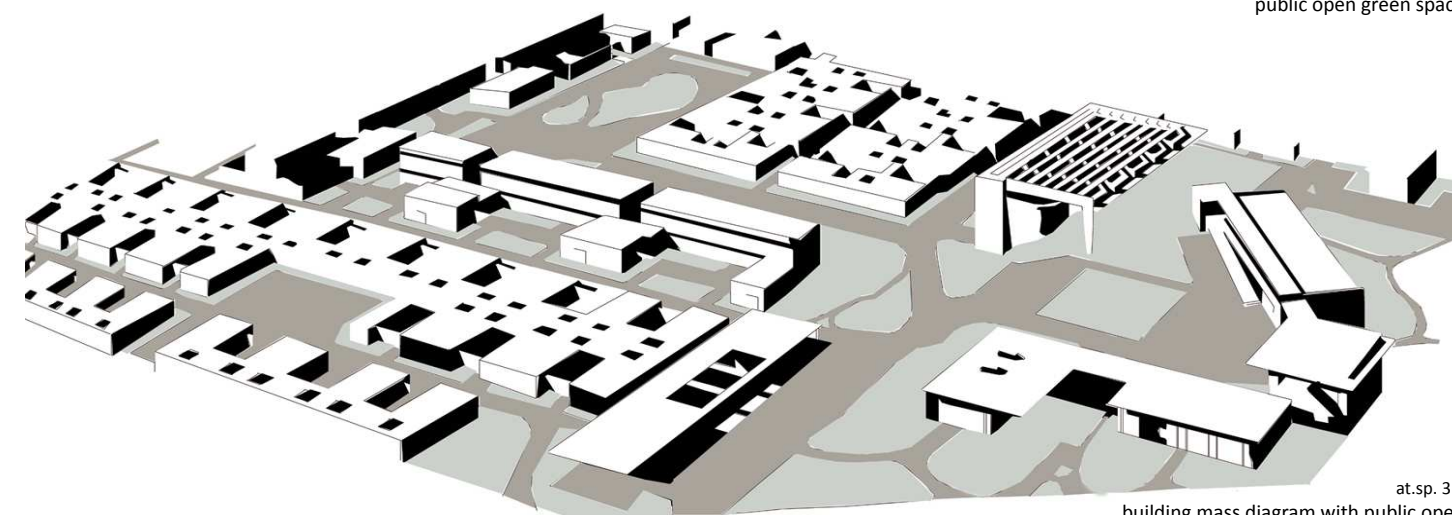
at.sp. 3.3



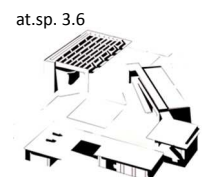
at.sp. 3.4 public open green space



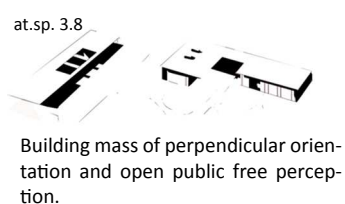
at.sp. 3.1 building mass diagram



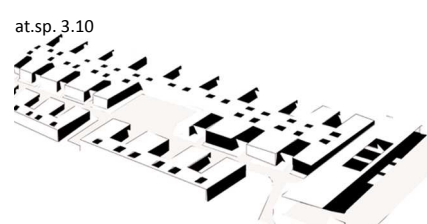
at.sp. 3.5 building mass diagram with public open spaces and public green



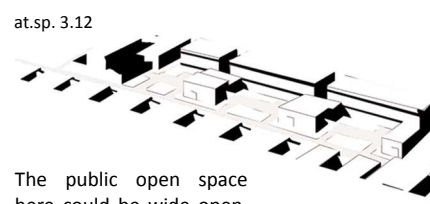
at.sp. 3.6 Semi-open civic space open from two orientational directions, and framed by an obtuse-angled perimeter.



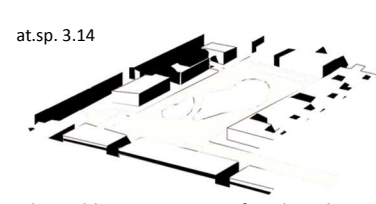
at.sp. 3.8 Building mass of perpendicular orientation and open public free perception.



at.sp. 3.10 The following arrangement, organized and linear, suggests interesting enclosures and commercial functional sense.



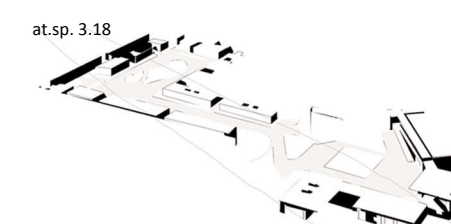
at.sp. 3.12 The public open space here could be wide open, but is interrupted by building masses that suggest rhythm and intervention of functional activity.



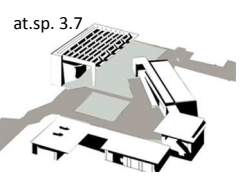
at.sp. 3.14 This public open spaces of traditional nature, offers geometrical rigidity and orthogonal perspectives.



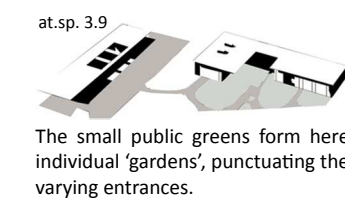
at.sp. 3.16 The semi-symmetrical composition creates a hierarchy of form and direction, guided by a main invisible axis that offers a variety of perceptual experiences.



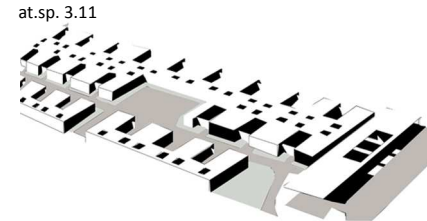
at.sp. 3.18 This diagram shows the opposition and connection of mirroring open spaces oriented linearly.



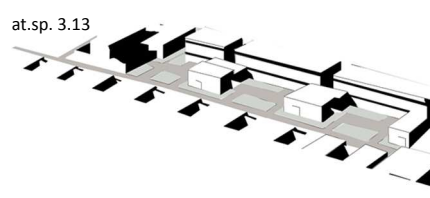
at.sp. 3.7 The pedestrian paths of civic movement are hints to the main directions to be taken, suggested by the designers.



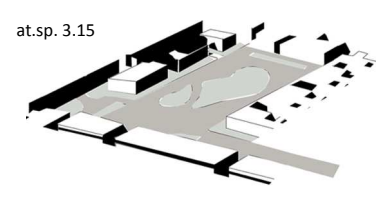
at.sp. 3.9 The small public greens form here individual 'gardens', punctuating the varying entrances.



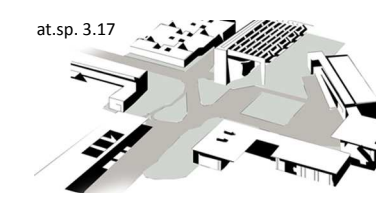
at.sp. 3.11 The complex building organization offers here a variety of perceptual impressions of the open space.



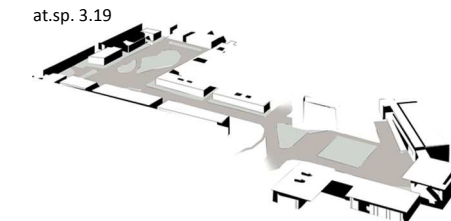
at.sp. 3.13 Here the interrupted and 'staccato' placement of buildings is escorted by the staccato greens.



at.sp. 3.15 Due to the orthogonal traditional framing, the freeness of the central green form, breaks up the rigidity of forms.



at.sp. 3.17 The placement of the paths orient the direction of the adjacent public open spaces, above and below.

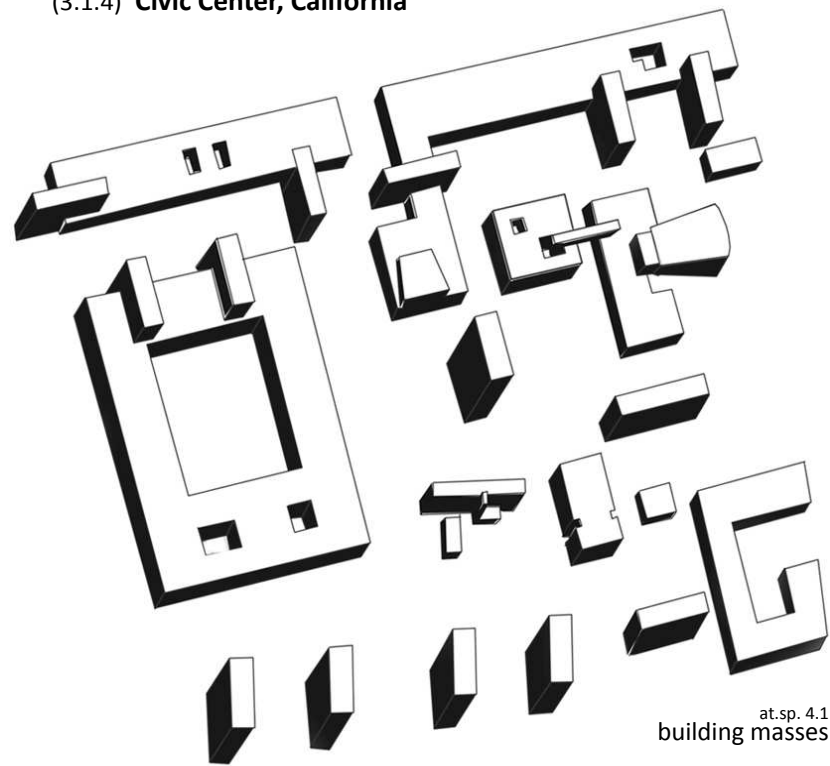


at.sp. 3.19 This diagram demonstrates the strong linear axis connecting the two major public spaces.

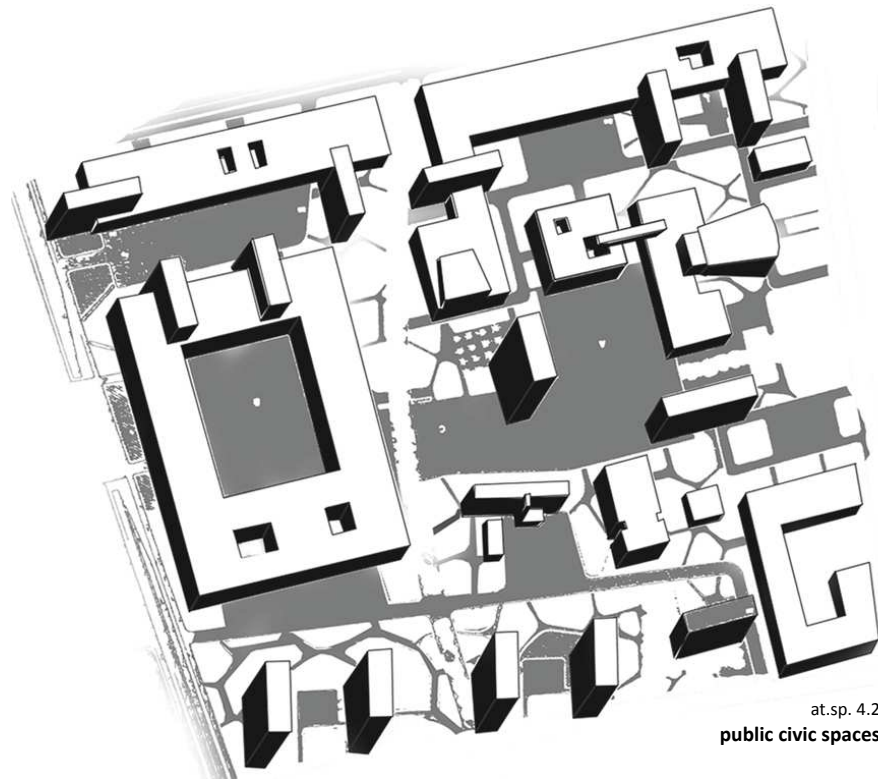
project reference: Sert, J.L., et.al., 1952, op.cit.

CIAM 8 meeting, Hoddesdon 1951 - 'The heart of the city'

(3.1.4) Civic Center, California



at.sp. 4.1 building masses

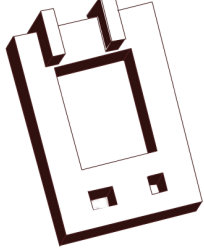


at.sp. 4.2 public civic spaces

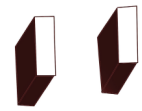


at.sp. 4.3 public open greens

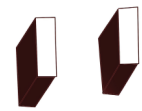
BUILDING MASSES



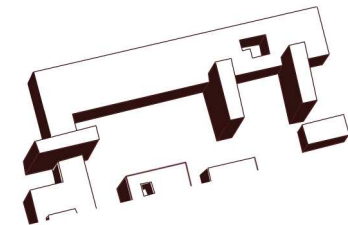
at.sp. 4.4 mass enclosure - orthogonal puncture



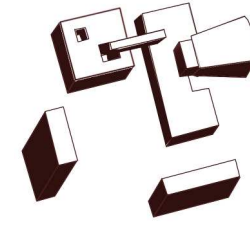
at.sp. 4.7 twin masses



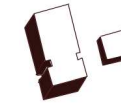
at.sp. 4.6 twin masses



at.sp. 4.7 synthetic L-shaped and interrupted enclosure



at.sp. 4.8 interrupted square formation with various openings



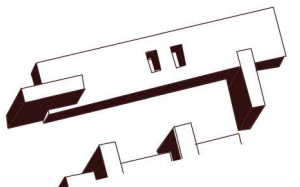
at.sp. 4.9 opposite mass relationship - hierarchy



at.sp. 4.10 almost continuous mass enclosure

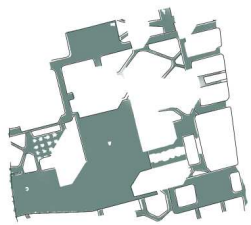


at.sp. 4.11 interrupted L-shape

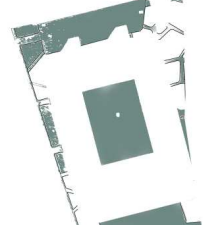


at.sp. 4.12 L-shaped and enclosed

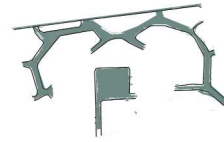
PUBLIC CIVIC SPACES



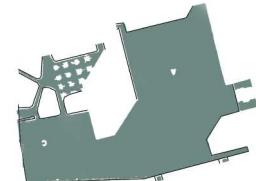
at.sp. 4.13 compositional scheme of the public open urban spaces



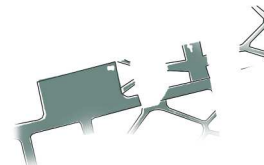
at.sp. 4.14 spaces defining mass-periphery and mass-center spaces defining mass-periphery and mass-center



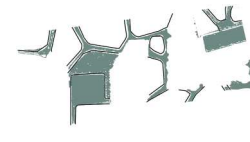
at.sp. 4.15 circulating civic paths of polygonal form



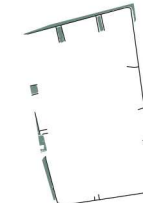
at.sp. 4.16 continuous main peripheral



at.sp. 4.17 concentrated with direct path connections



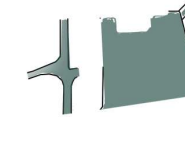
at.sp. 4.18 symphony of civic spaces and multiple-oriented paths



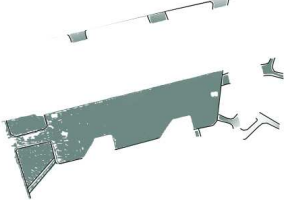
at.sp. 4.19 circulating civic paths of orthogonal form



at.sp. 4.20 scattered pathways reaching building masses

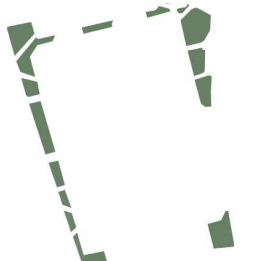


at.sp. 4.21 main condensed space parallel to path

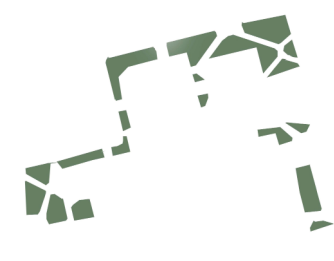


at.sp. 4.22 condensed elongated

PUBLIC OPEN GREENS



at.sp. 4.23 rectangularly peripheral narrow interruptions



at.sp. 4.24 orthogonally peripheral greens broken by diagonal paths



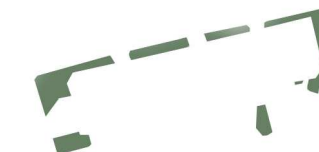
at.sp. 4.25 rhythmic green sequences around building masses, with polygonal interrupted pathways



at.sp. 4.26 puzzle pieces around massing voids



at.sp. 4.27 rhythmic green sequences



at.sp. 4.28 orthogonally peripheral narrow interruptions



at.sp. 4.29 orthogonally peripheral narrow interruptions and interior enclosed green



at.sp. 4.30 rhythmic green sequences around building masses

project reference: Sert, J.L, et.al., 1952, op.cit.

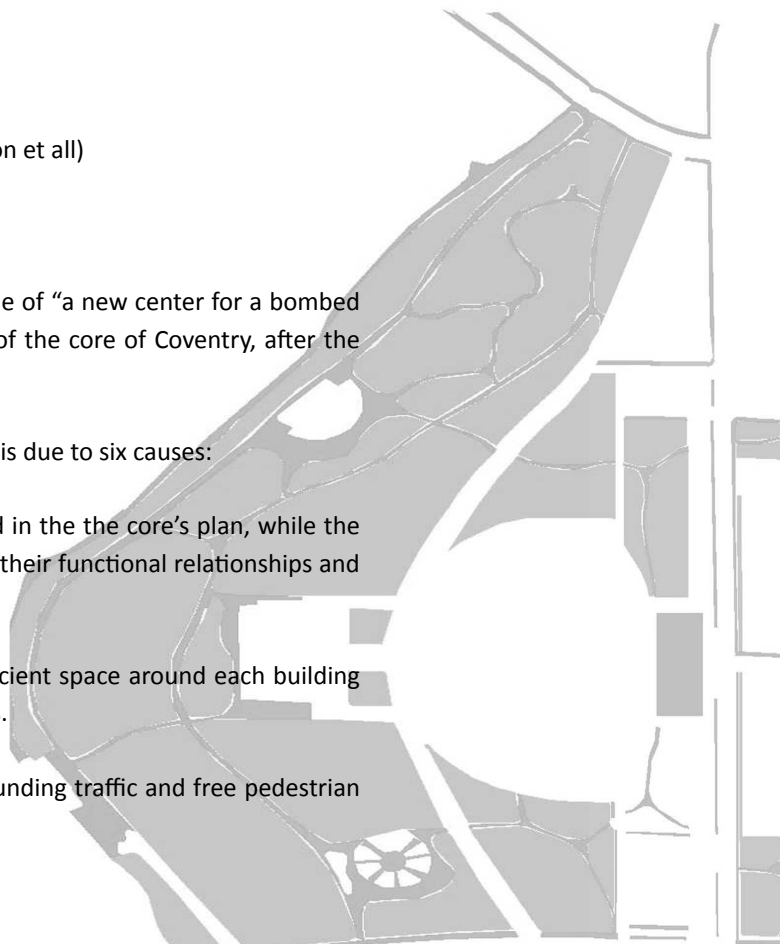
CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.5) Coventry, England - "a new center for a bombed city" (D.E.E. Gibson et al)

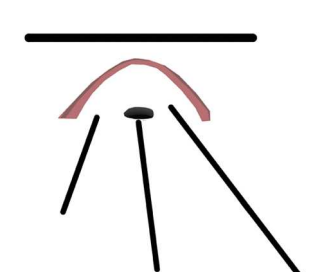
The following project, initiated in CIAM 8 by D.E.E. Gibson et al, under the title of "a new center for a bombed city" of a population of 260,000, was a proposal for the reconstruction plan of the core of Coventry, after the Great Blitz of November 1940.

In the congress proceedings review, it is mentioned that the plan's significance is due to six causes:

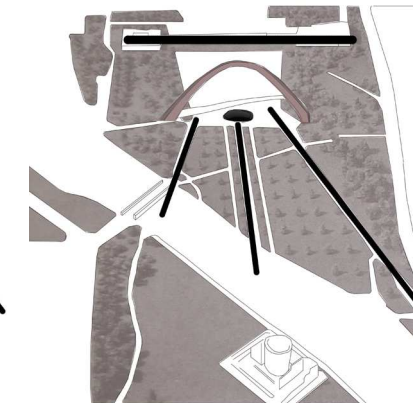
- The residential and industrial districts are being segregated and not included in the the core's plan, while the main cultural and public open functions are divided and grouped according to their functional relationships and uses.
- The zoning is shown in a very well-thought-out manner, where there is sufficient space around each building mass, avoiding the need to distort natural forms because of bad site conditions.
- The experimentation of a new type of shopping unit takes place, with surrounding traffic and free pedestrian movement within the civic space.
- The proposal of a small central park within the urban core.
- The careful creation of linking relationships among the various elements and functional units.
- The meticulous phasing of the project in five-year periods, offering quality spaces throughout each phase.



This is a diagram of a bird's-eye-view of a model of the Peace Hall from the north.



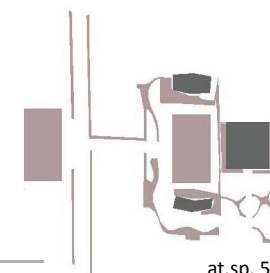
at.sp. 5.3



at.sp. 5.4

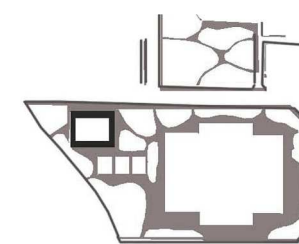
The athletic stadium entrance space is shown in reference to the public plaza, the international culture facilities , the library, the museum and also the science museum.

The football field is in relation to the park to the north and the building mass facility on the left.

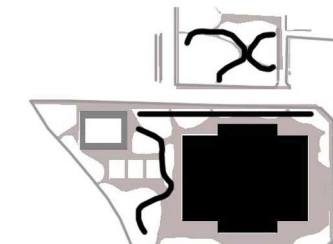


at.sp. 5.5

This diagram shows the connections among the above demonstrated spaces and facilities. The variation of linear and organic key path arrangement shows an interesting relationship between structure and organic park.

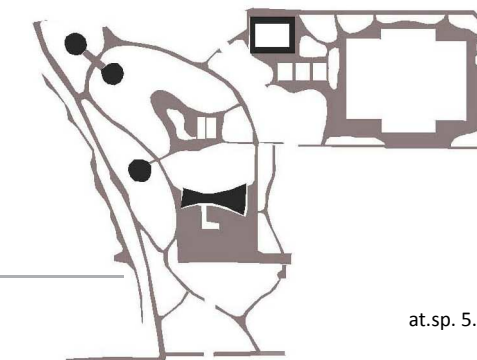


at.sp. 5.6

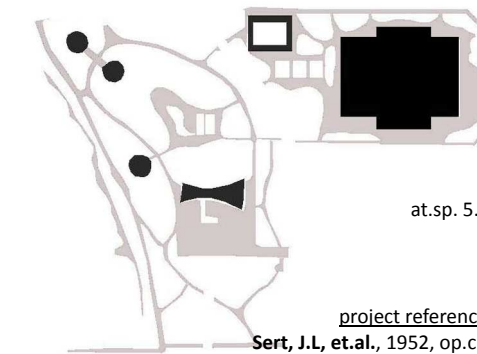


at.sp. 5.7

From southern mass and moving clock-wise: Children's Hall, Library, Art and Science Museum, Athletic Stadium.



at.sp. 5.8



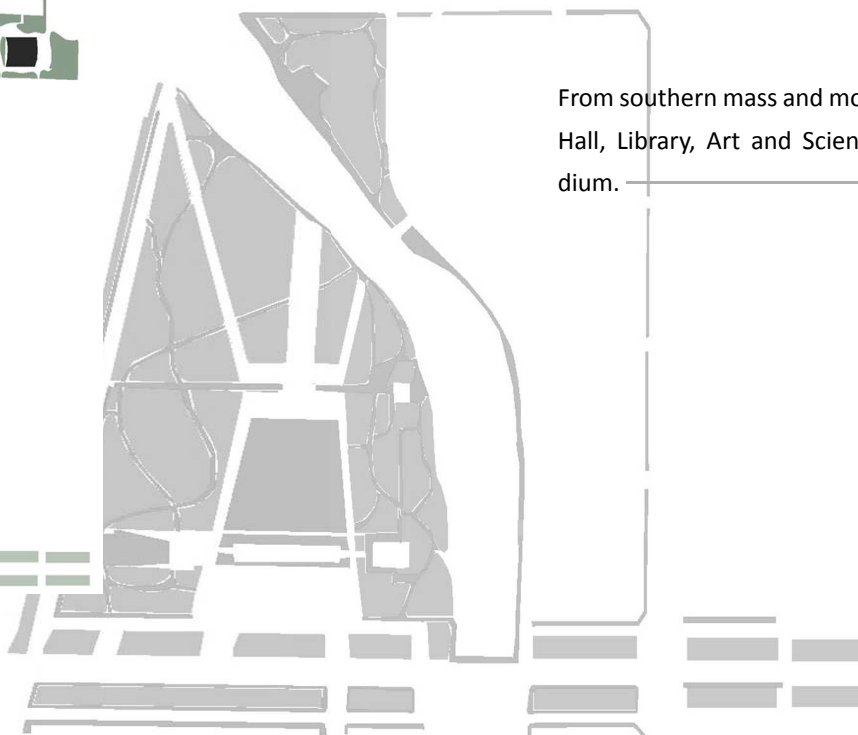
at.sp. 5.9



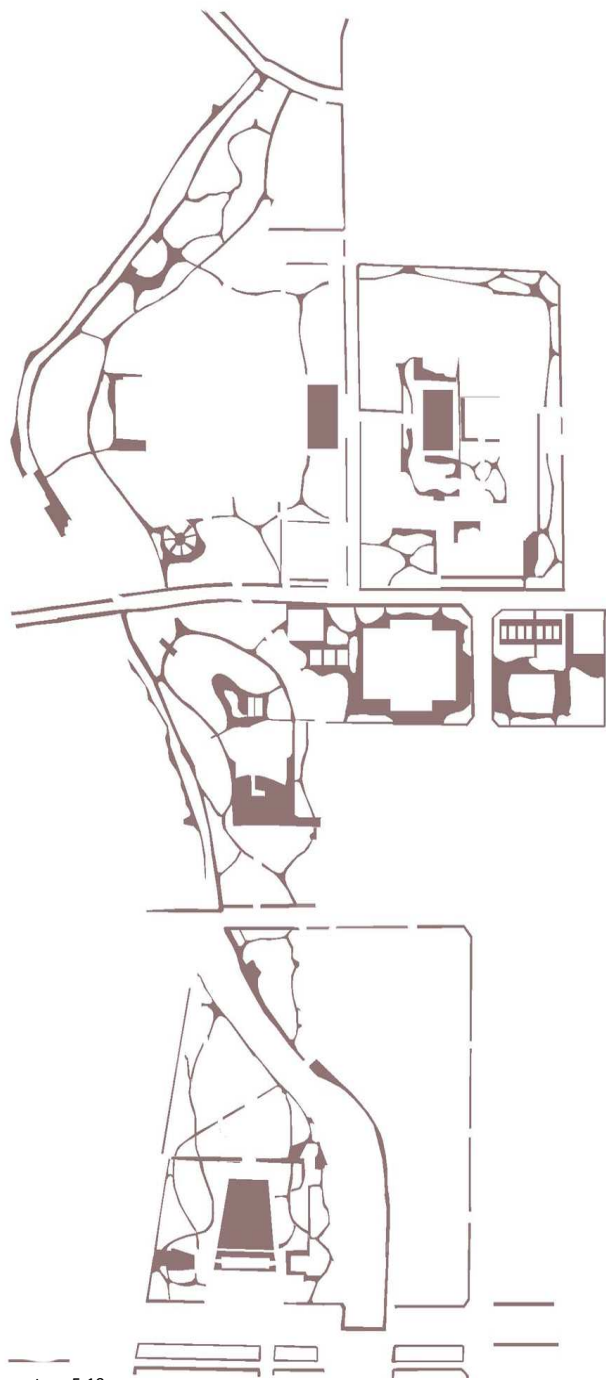
at.sp. 5.1 public open green spaces



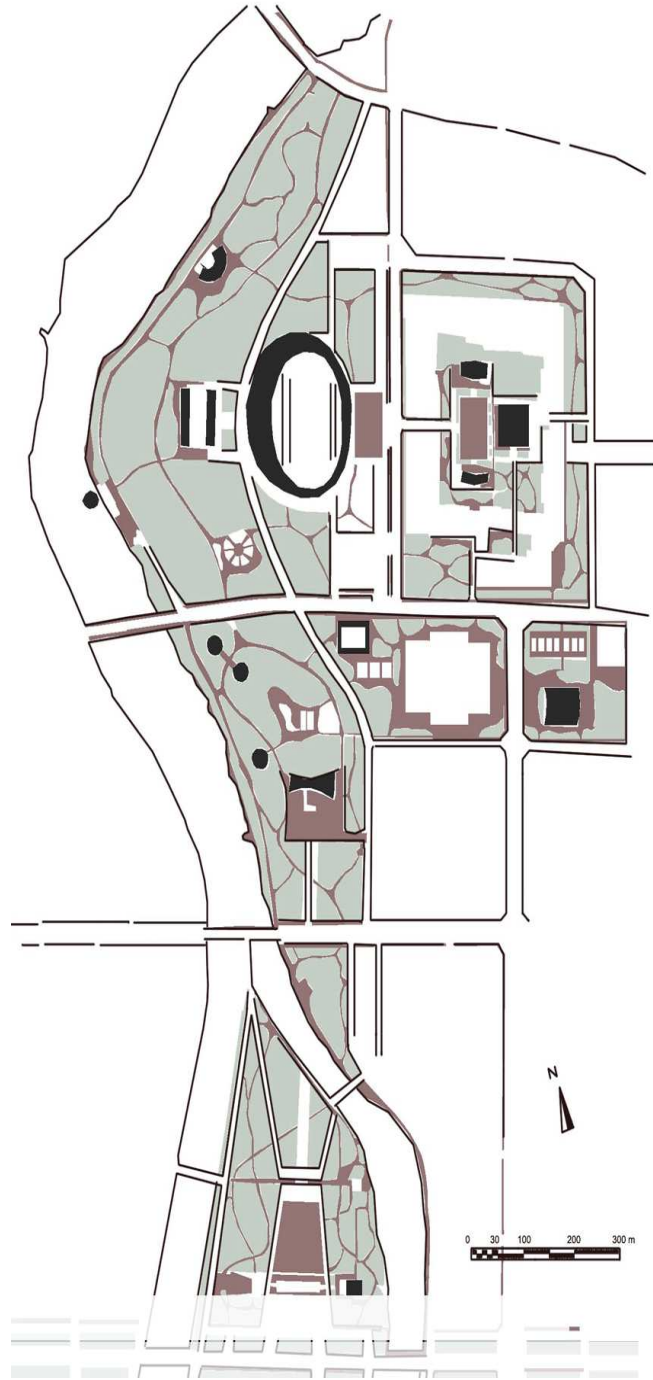
at.sp. 5.2 public open green spaces and building masses



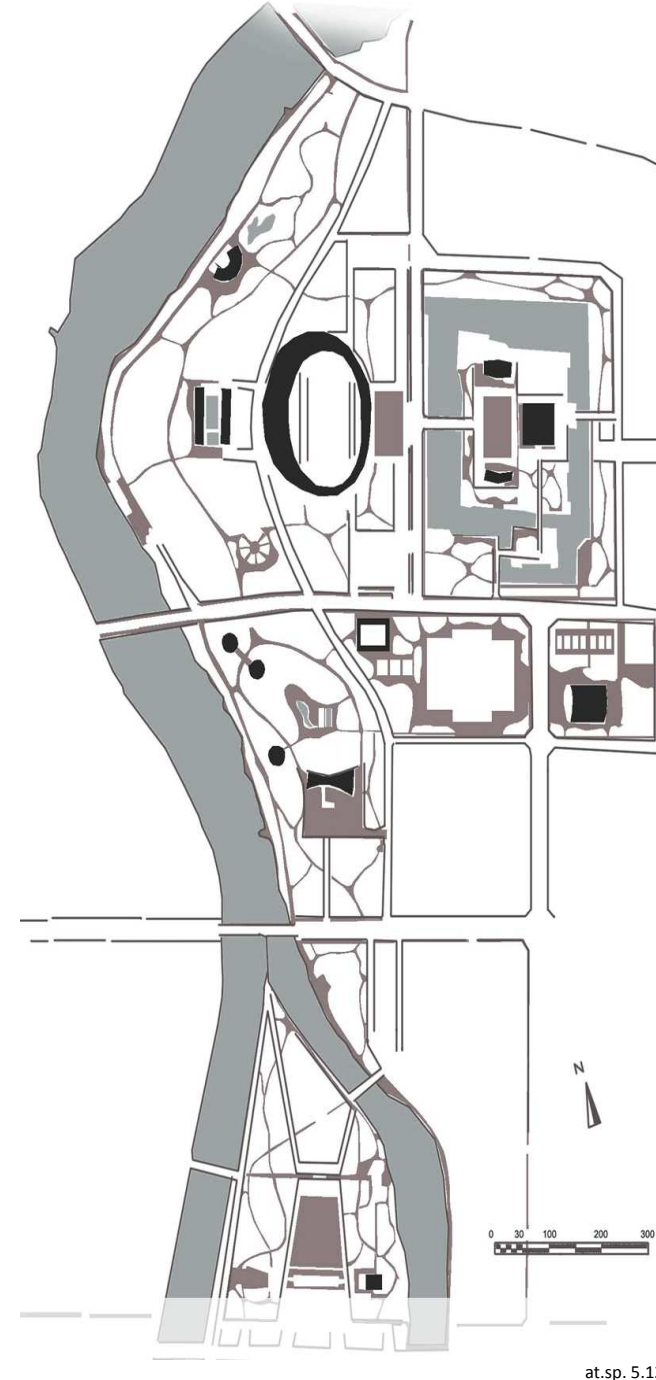
(Coventry, England - "a new center for a bombed city")



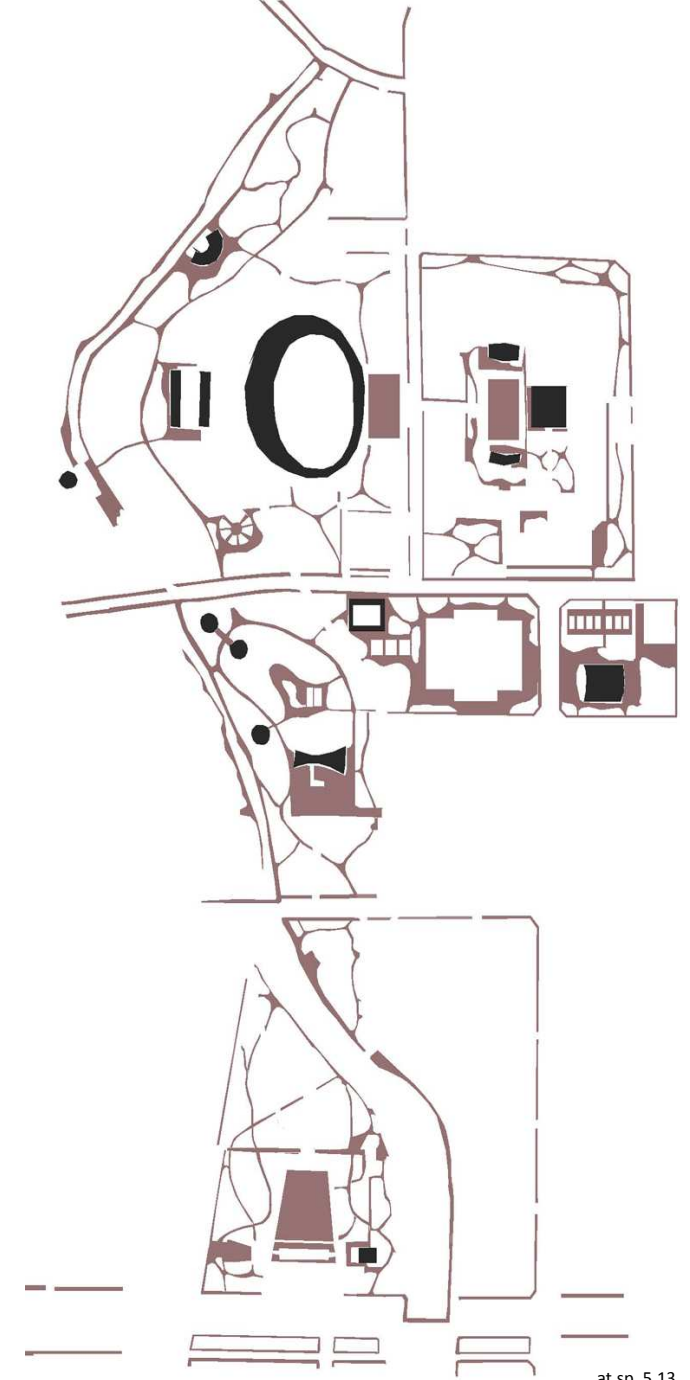
at.sp. 5.10
public open civic spaces



at.sp. 5.11
public open green spaces, public open civic spaces, building masses and river outline



at.sp. 5.12
public open civic spaces, building masses and river illustration



at.sp. 5.13
public open civic spaces and building masses

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.6) Graduate Center at Harvard campus, Massachusetts - "the human scale" (Walter Gropius)

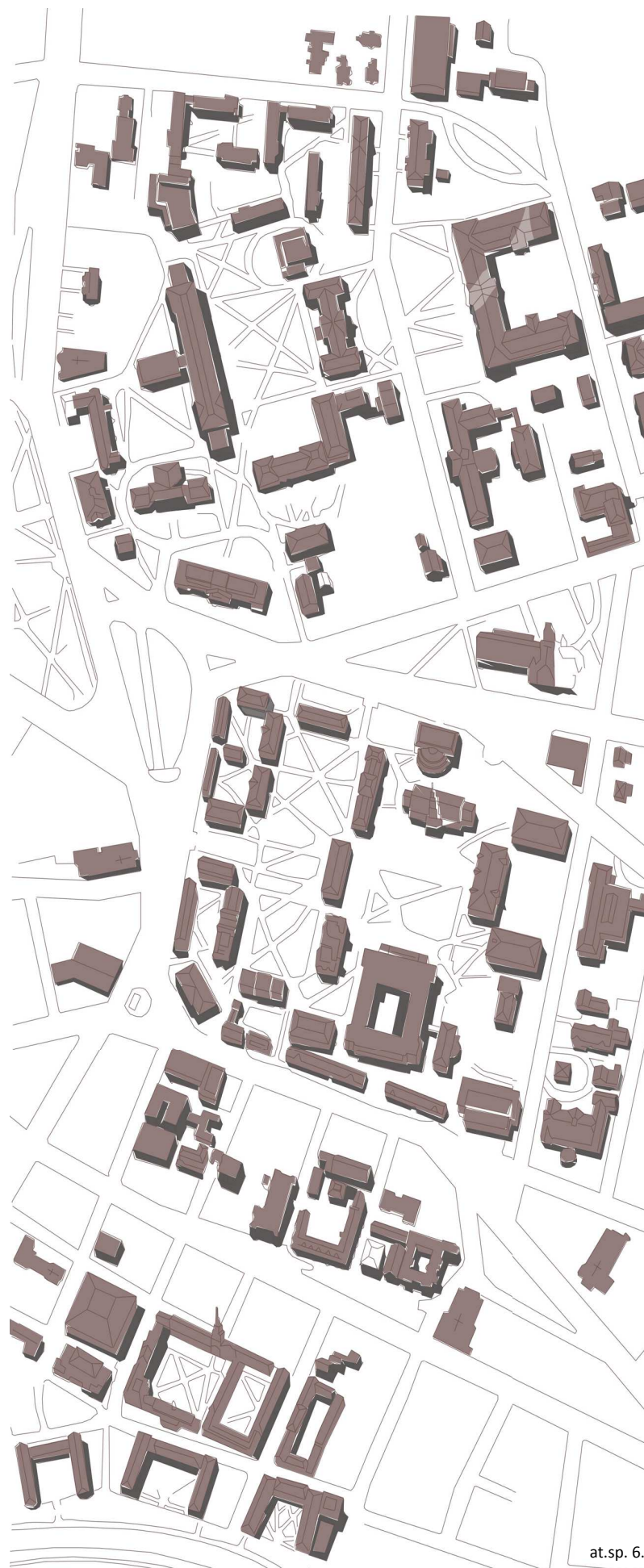
Walter Gropius' paper at the CIAM 8 congress on "The Human Scale", prepares the further analysis of the present study, where the compositional arrangements of the public open urban environments coincide between the traditionality of solid forms and the loose experimentation of the 'unsecured void'. Here, the formal approach conserves the tradition of the rectilinear plaza, whereas the latter approach supports the modern interpretation of the detached and more flaccid urban void.

The main intention, making Gropius' presentation in the 1952 congress of substantial meaning, is the emphasis on the human scale, causing him to suggest compositions not as dispersed as those of the modern movement, but rather more rectilinear, less strewed and closer to human proportions. Criticizing the american phenomenon of things tending to be larger and further apart, with architectural interventions falling under the influence of the surrounding fresh land and adjacent wilderness, the intention is to approach european standards of a more 'tamed landscape'. So stressing the most fundamental aspect of the open spaces being that of the relationship between the building masses and the void, Walter Gropius believes that the successful execution of such implementation makes even an ugly building appear pleasant, within the correct proportions of incorporation.

The image on the left of the Harvard courtyards is an excellent example in order to study in detail the relationships created among the building masses.

For example, to the north of Kirkland Street, we see a variety of organizational compositions, varying among the rectangular and highly traditional shape of the courtyard of the Jefferson building, with the multi-radial directions of the pathways accessing every building with every other. To the north is the more scattered approach of building arrangements that carry no intention of a celebratory and hierarchical organization, which seems valid, considering that in every urban block of the overall center's arrangement, there is the intention of only one main and centrally located courtyard of primary importance.

It is more interesting to ponder on the way in which some of the corner-block secondary courtyards have been arranged; on the northern block of the scheme, the courtyard being defined by the graduate school of education, and also the one of the chemical labs, in addition to the courtyard of the graduate school of design on the central block, and finally the more undefined urban spaces falling beneath Massachusetts Avenue and more so above Mount Auburn St. These spaces, looking away from their central counterparts, suggest an influence from the modern public space approach of relative remoteness and fondness of the unframed void.



at.sp. 6.1



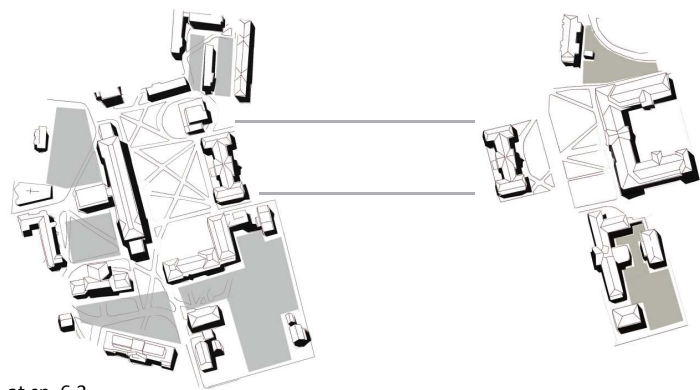
at.sp. 6.2

(Graduate Center at Harvard campus, Massachusetts - "the human scale")

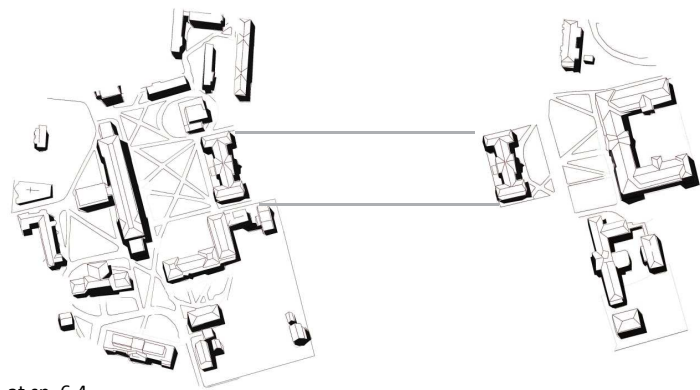
The study here analyzes the relationships between the building masses of the Harvard Graduate Center, which have been found to be 'good and pleasant'. Walter Gropius, in his paper "The Human Scale" in the CIAMA 8 congress, interestingly speaks about the psychology of space, which takes a step away from the design of individual buildings and character, but touches upon the perception of an environment, similarly to the way in which art is perceived when appreciated (which has been extensively discussed by E.H.Gombrich in his books *Art and Illusion*, and *The Image and the Eye*).

When the practical requirements of a space - interior or exterior - are fulfilled along with the psychological requirements of building relationships, construction proportions and human scale considerations, then the desired effect may be achieved, according to this study.

Going further, he writes about the two psychological conditions that must be avoided; those of agoraphobia and claustrophobia. The Harvard Graduate Center is a good example of showing the avoidance of these two conditions, with the implementation of highly orthogonal and structural compositions, combined with hints of 'modernist' urban voids that embody some of the vastness of the 'left-over' space which surrounds the more quadrilateral courtyards.



at.sp. 6.3

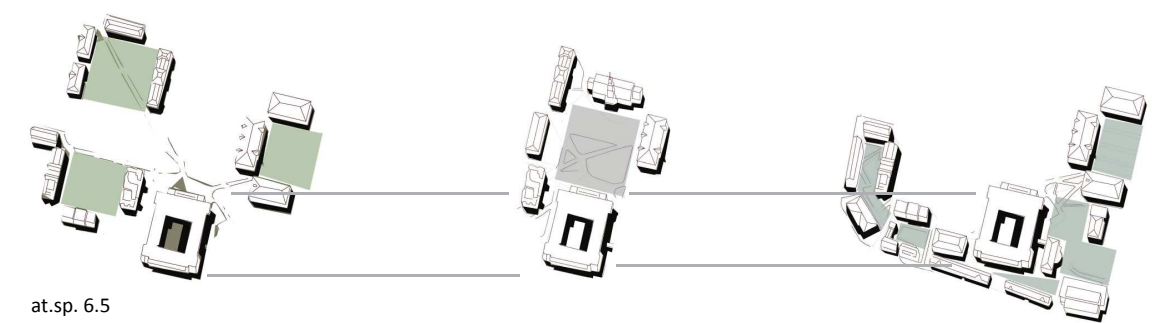


at.sp. 6.4

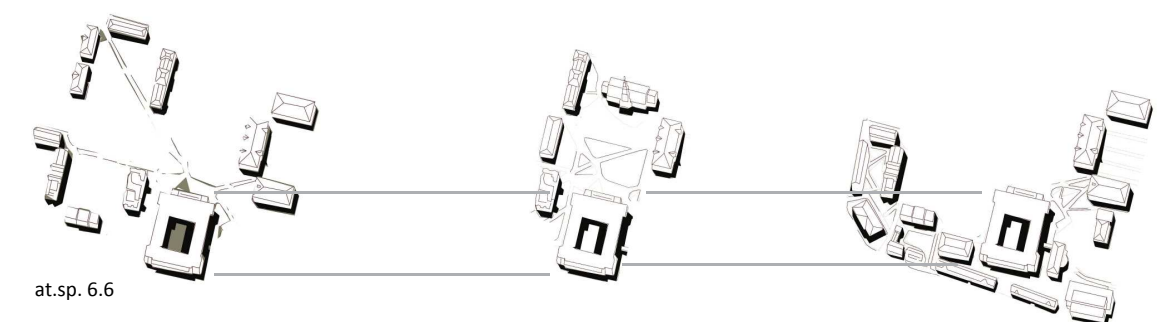
The first two schemes on the right demonstrate the classical example in this study of the primary regularity of the main space, surrounded by the looser placement of the adjacent subcores. It becomes absorbing to study the various ways in which secondary public open urban spaces may be formed, especially when influenced by the modern movement of a looser structure, and what one might call the creation of more disorienting fields of attraction, that are yet cancelled out in this case by the sole existence of a regulated frame as a point of reference and conceptual meaning.

The scheme analysis' on the right, have been chosen and created because of their reference to the main and centrally located building of the central courtyard of the campus.

The intention is to break down the overall composition to the center's references and relationships to the surrounding groups of buildings. The realization, especially on the first and second scheme, is of a public open urban space that carries the size and proportion of the central building mass. It is interesting to speculate the third and last scheme, which considers the more secondary and minor spaces on the southern and eastern side of the space, which in a way, frame and 'hug' the remaining arrangement in a discreet and hidden way. Thus, the intention for secondary role-giving is not only expressed in size and placement, but also in form and direction of the masses, where here, the buildings lose their orthogonal placement and acquire a more tilted and 'disoriented' perceptual feel.



at.sp. 6.5



at.sp. 6.6

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

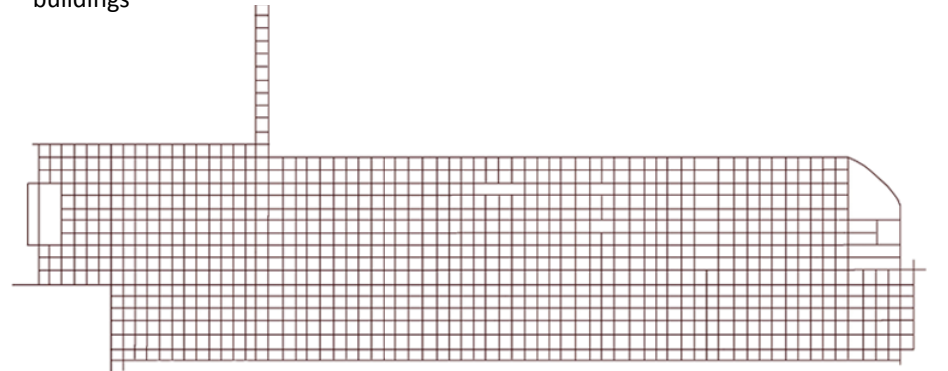
(3.1.7) **Lusanne, Switzerland** - "a new center for an old city" (W.Vetter and group)

This plan was also initiated during the CIAM 8 congress presentations, under the group of W.Vetter, for a town population of 120,000.

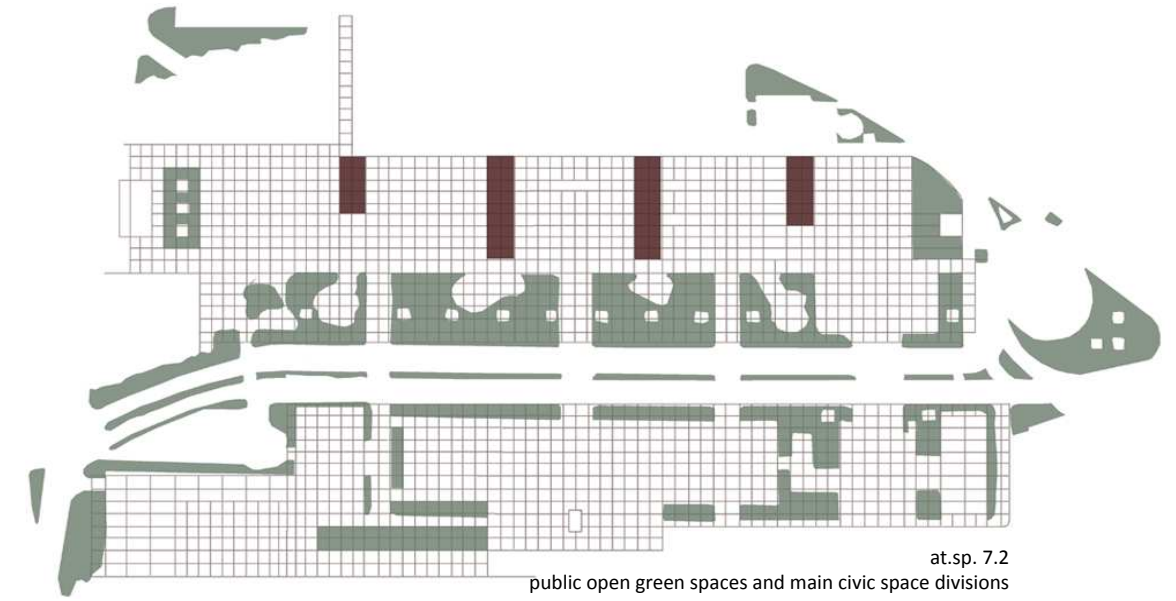
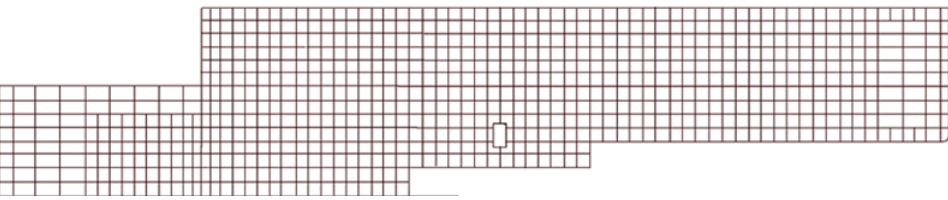
The development is composed on the grid-foundational layout of an extended civic public open space, which, punctuated by connective, organized, and partially organic green forms, offers a variety of cultural and entertaining facilities.

The challenge of the particular plan was the preservation of the existing warehouses that lied twelve meters below the level of the surrounding streets. The new plan keeps this morphological characteristic, but puts a roof over the warehouses with a platform on which stand:

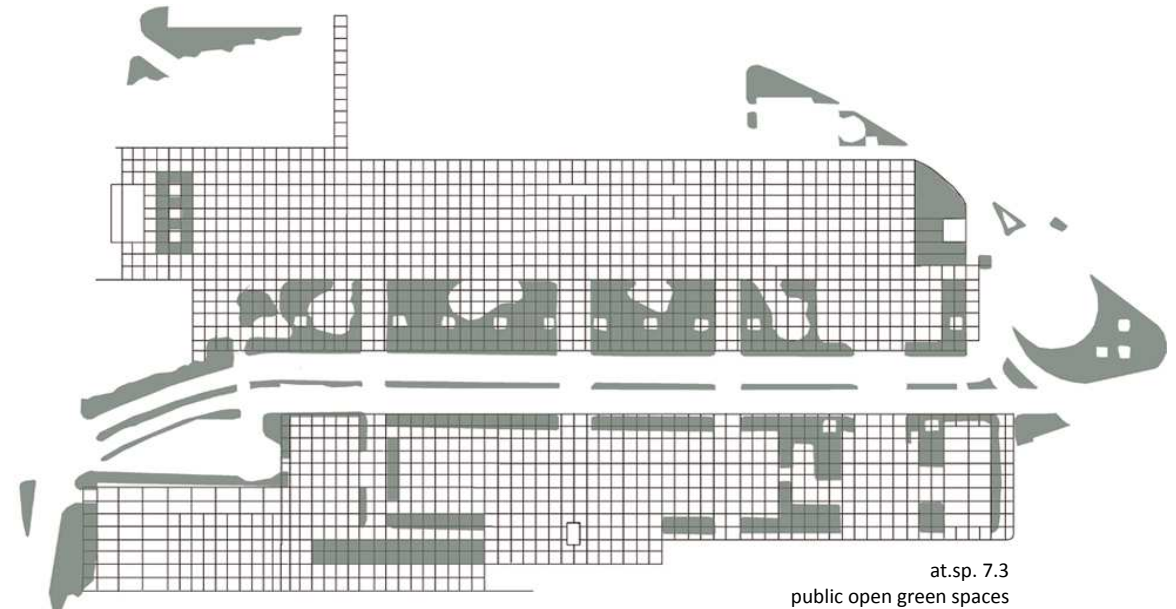
- a new twenty-storey town tall
- an arts center with a concert hall, museum and library
- a commercial center with cafes, shops and theater at and below street level, surmounted by ten-storey office buildings



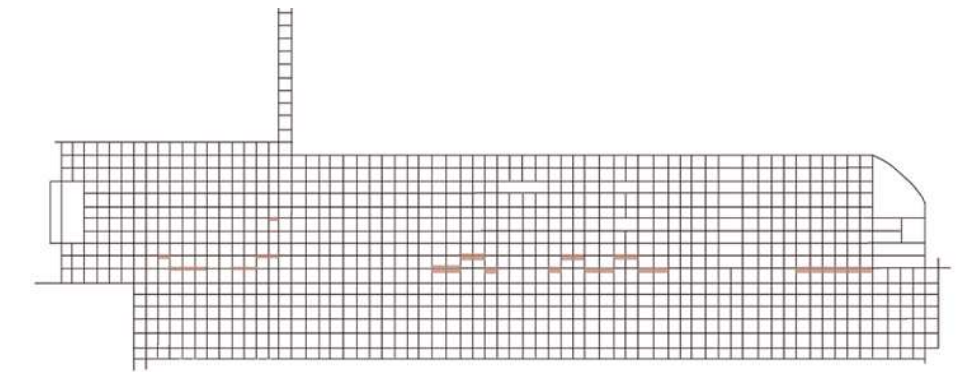
at.sp. 7.1
public open green spaces grid



at.sp. 7.2
public open green spaces and main civic space divisions



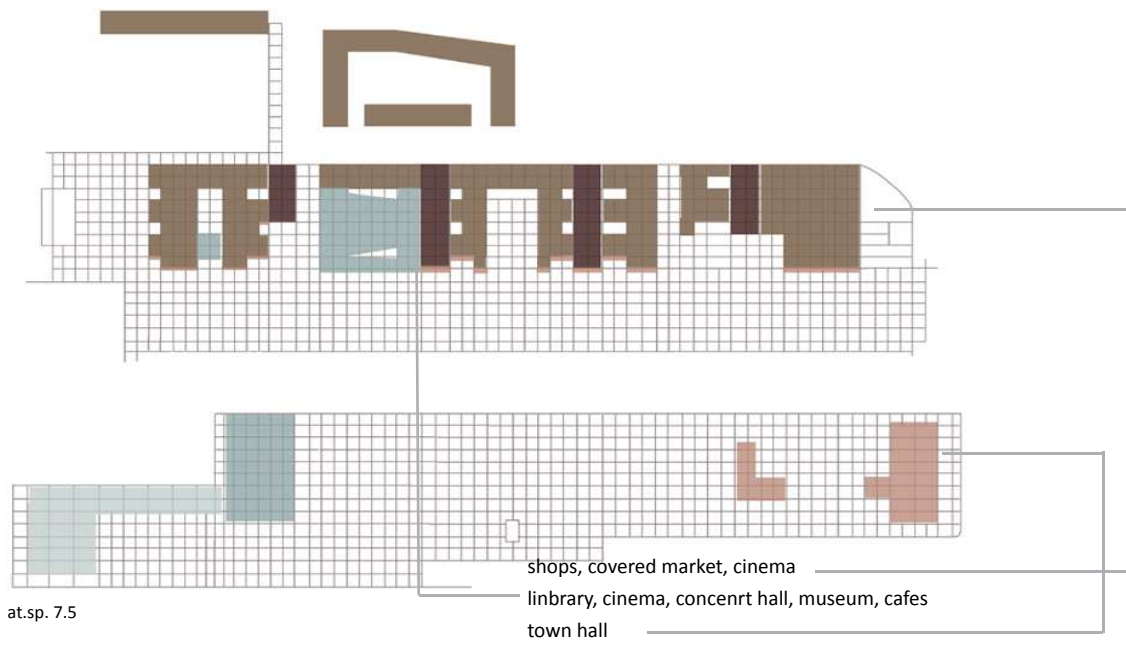
at.sp. 7.3
public open green spaces



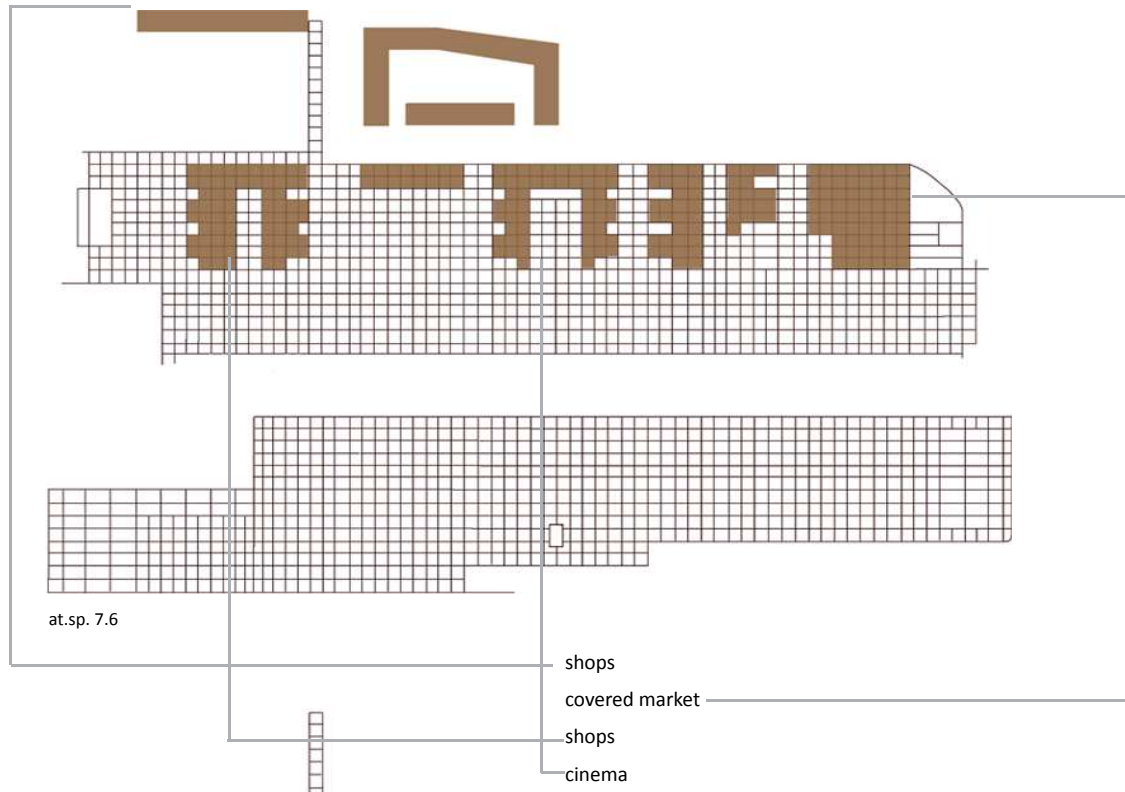
at.sp. 7.4
town hall

project reference:
Sert, J.L, et.al., 1952, op.cit.

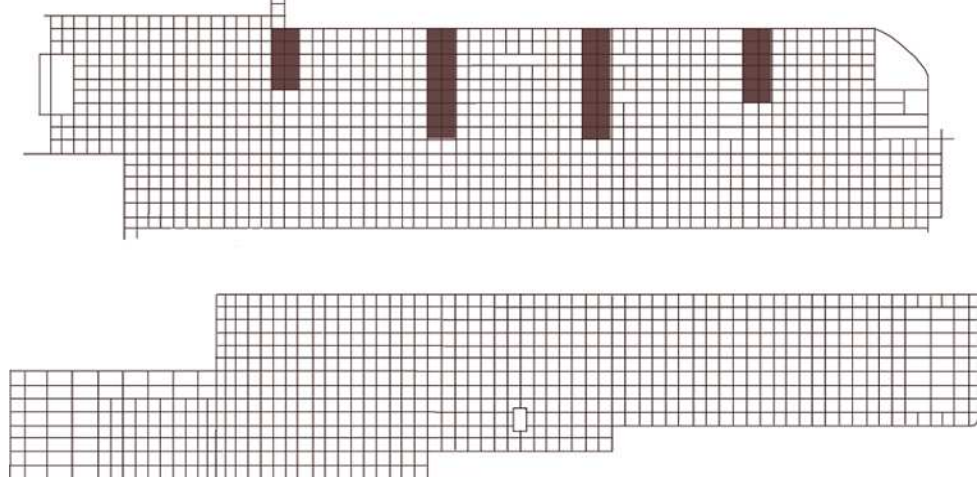
(Lousanne, Switzerland - "a new center for an old city")



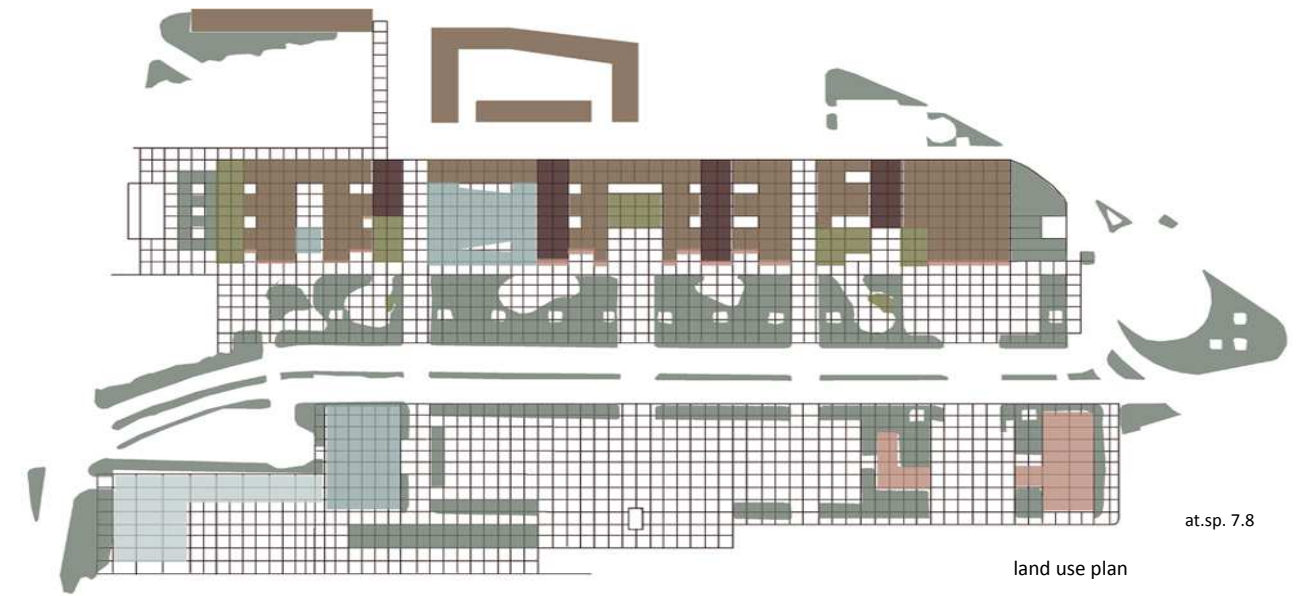
at.sp. 7.5



at.sp. 7.6

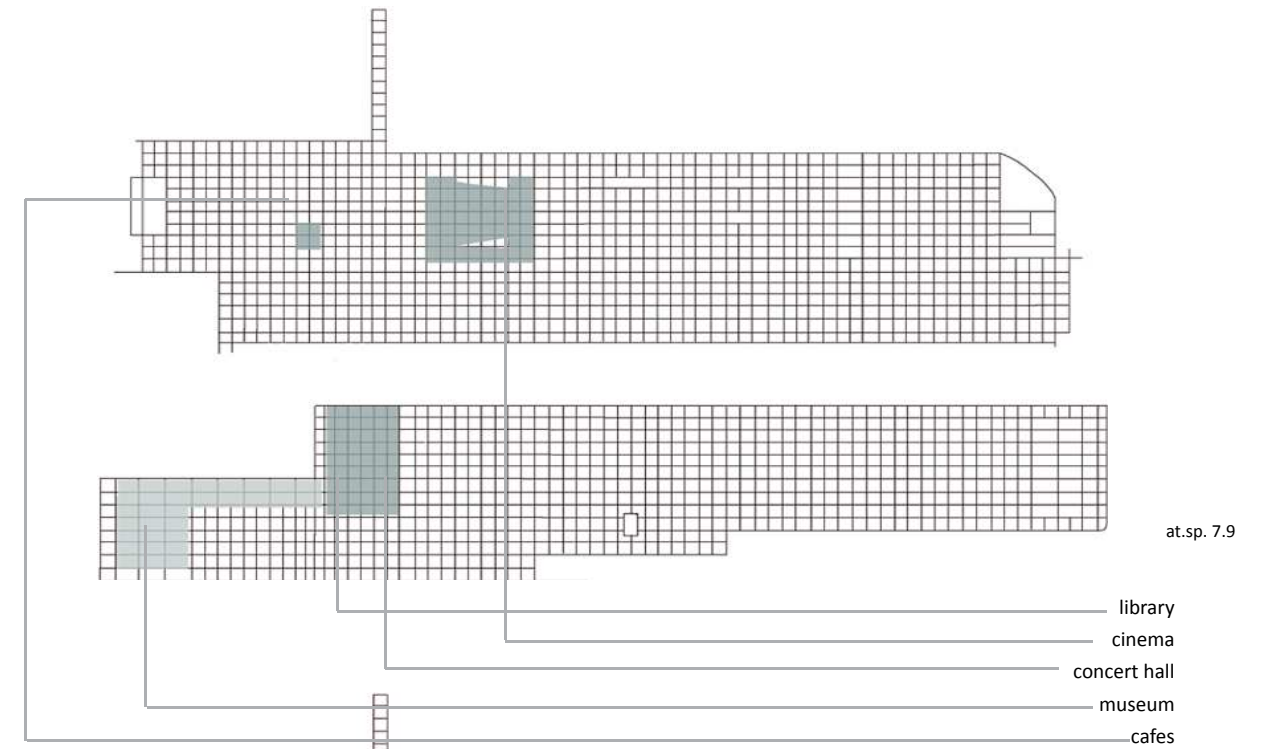


at.sp. 7.7

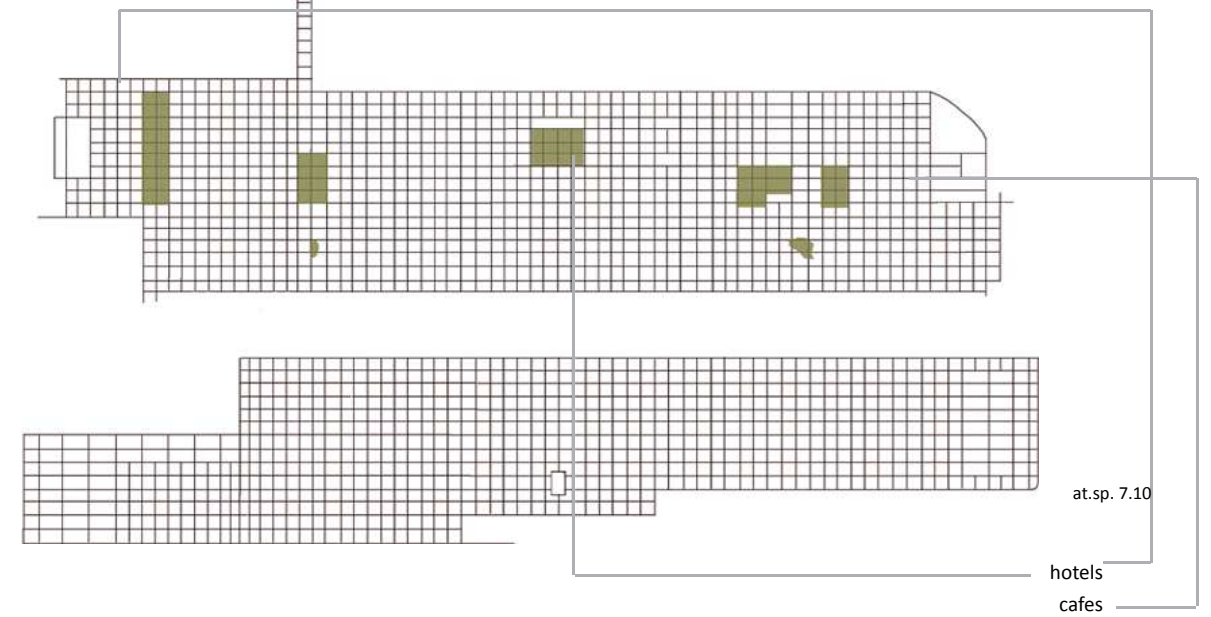


at.sp. 7.8

land use plan



at.sp. 7.9



at.sp. 7.10

project reference:

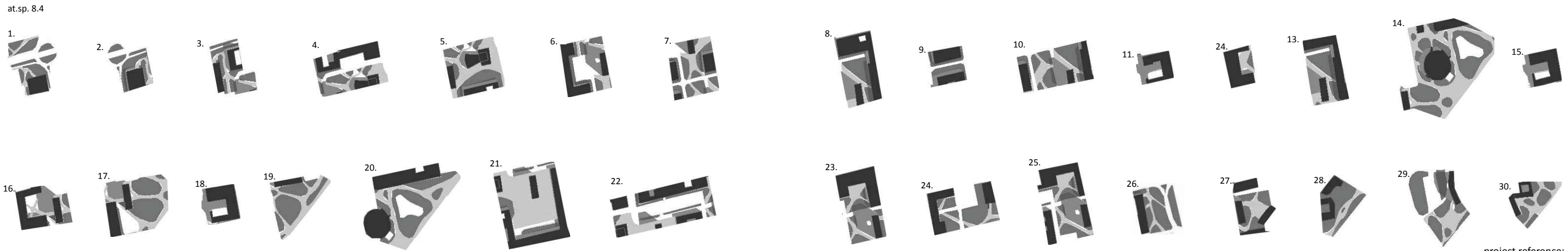
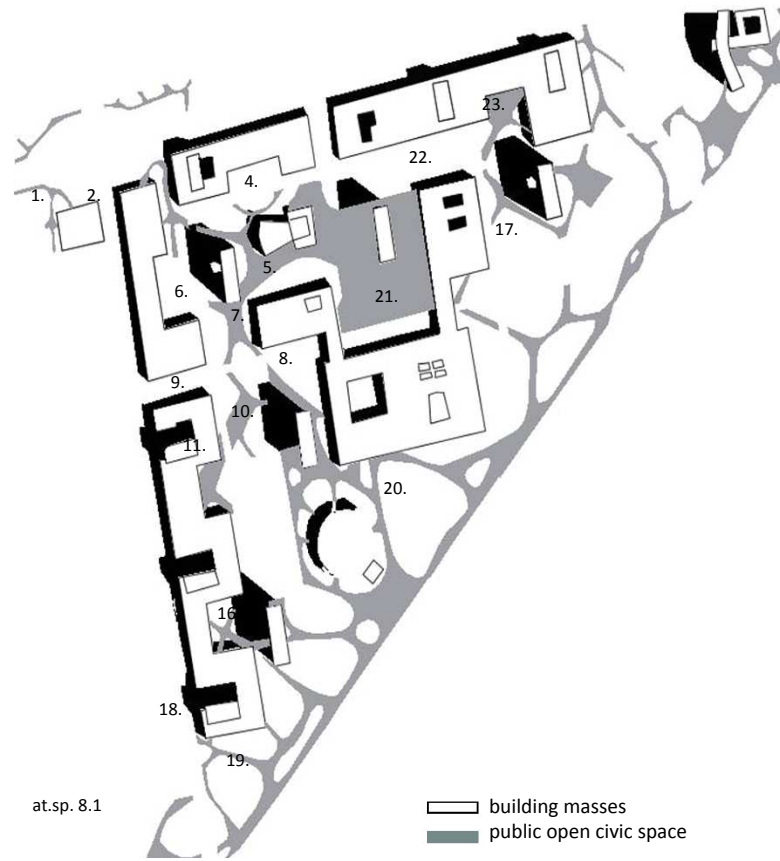
Sert, J.L, et.al., 1952, op.cit.

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.8) New Haven, U.S.A. - "project for a replanned city center" (students of Yale University)

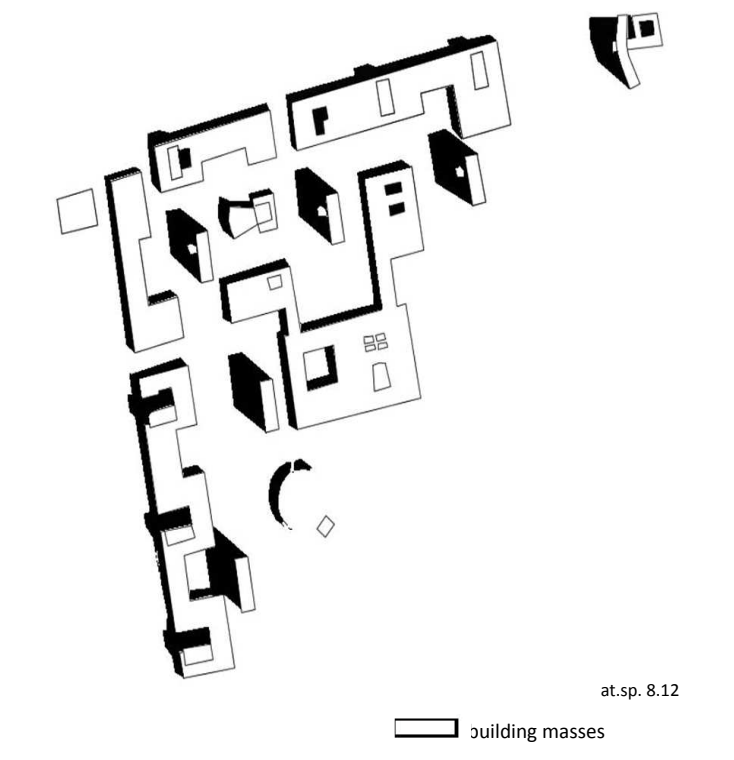
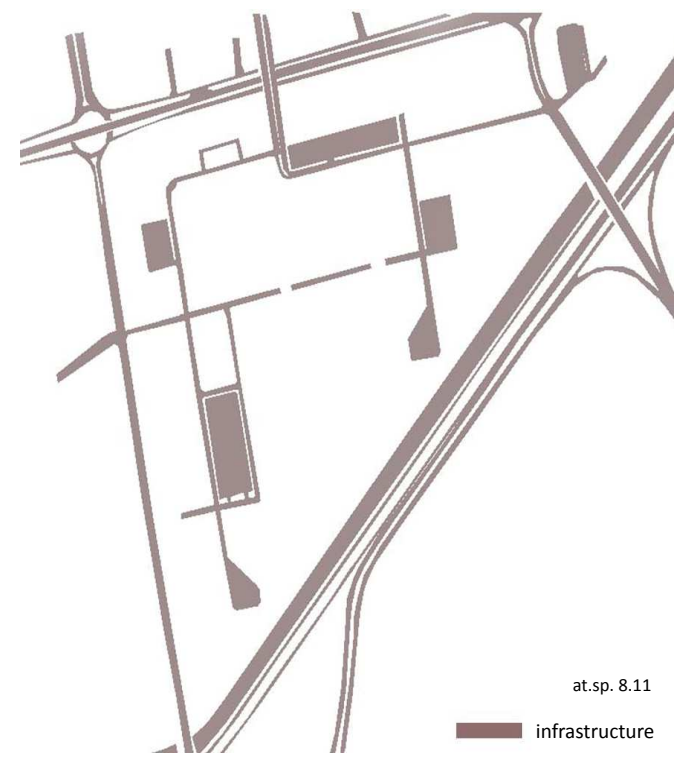
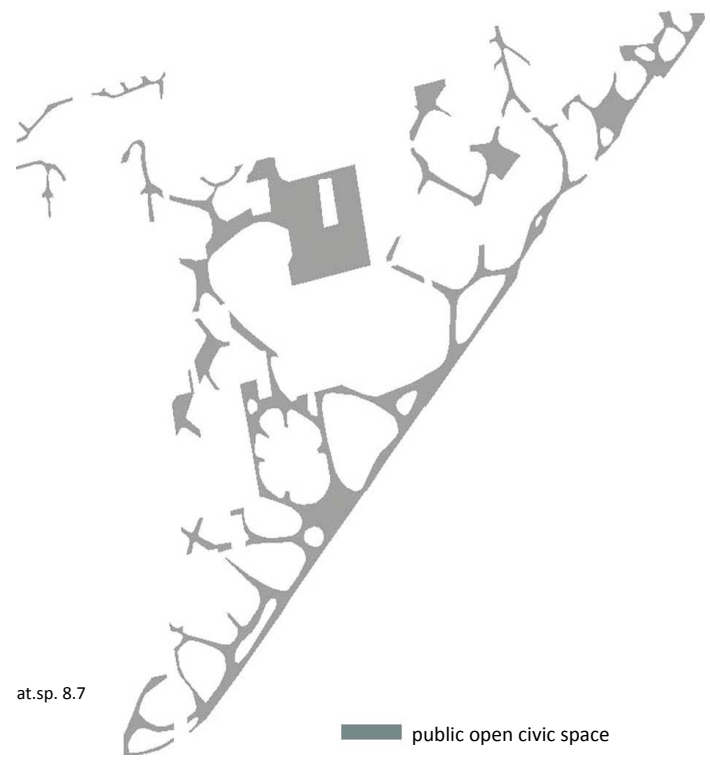
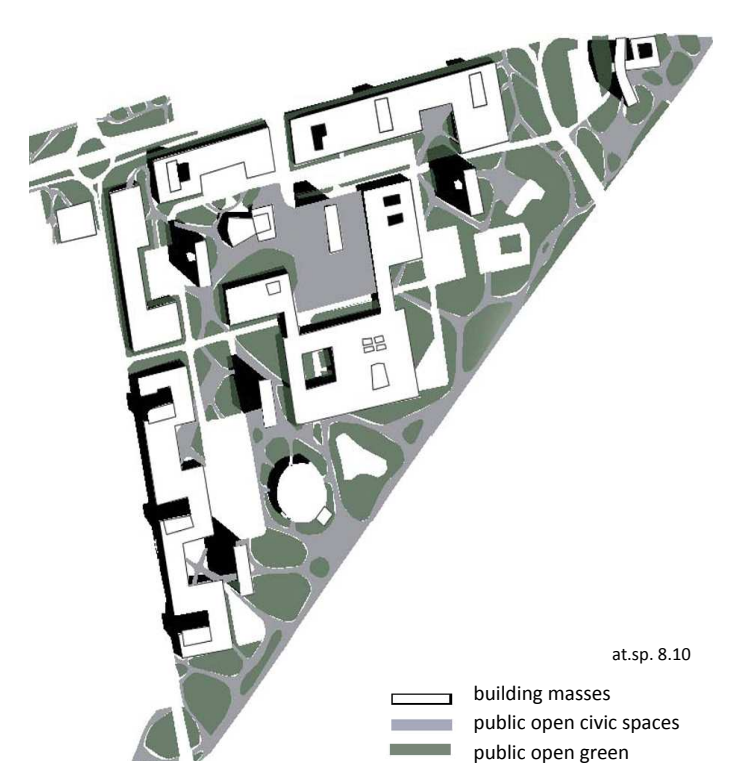
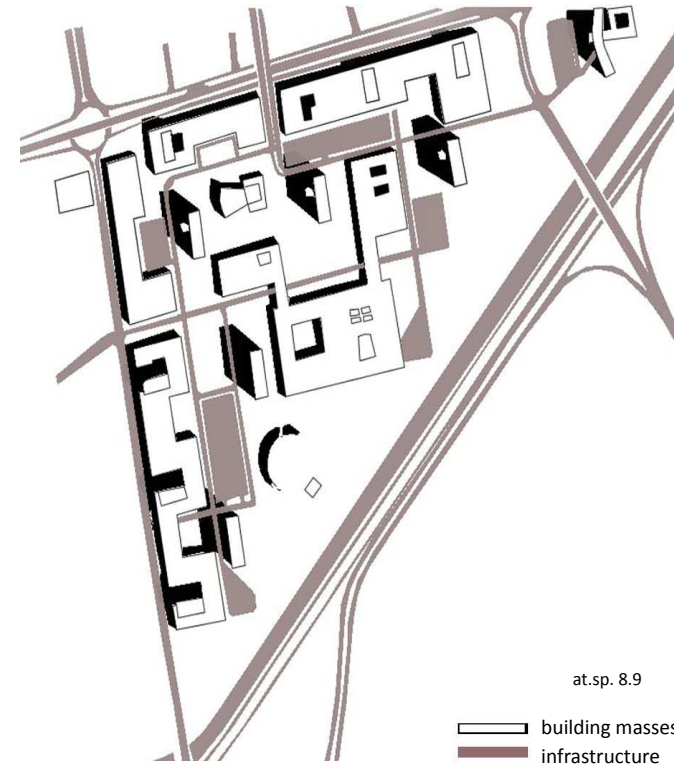
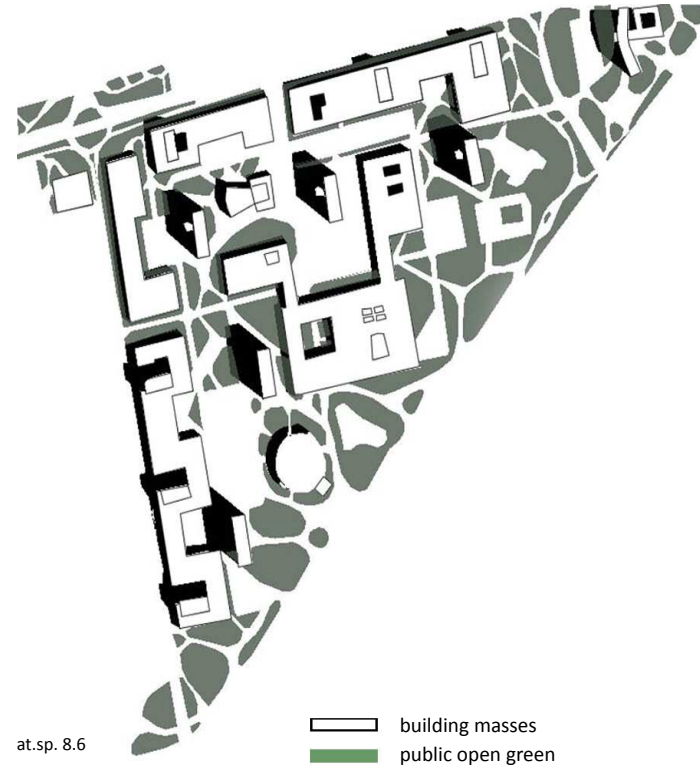
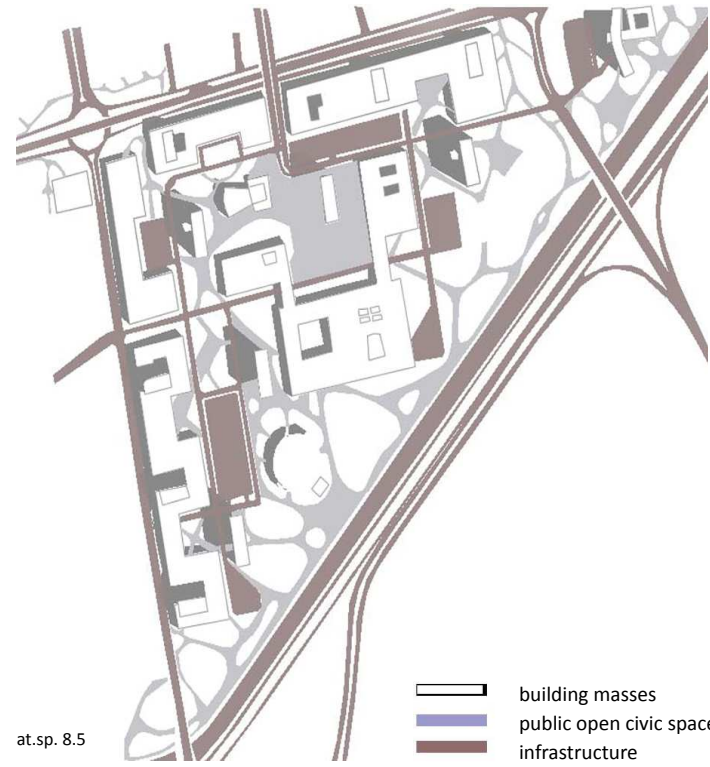
The following schemes further analyze and study the original 'project for a replanned city center', by students of Yale University, for a town population of 160,000.

"The principal elements of the Core comprise municipal buildings, an open auditorium, a municipal theater, a museum, a public library, a paved square for public meetings, and several office buildings and shops grouped around planted patios. Road access and parking is provided for every building without interfering with free movement of the pedestrian".



project reference:
Sert, J.L, et.al., 1952, op.cit.

(New Haven, U.S.A. - "project for a replanned city center")



CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.9) **Brooklyn, New York, U.S.A.** (group of students of the Pratt Institute)

The following study is a follow-up of the paper that appeared in CIAM 8 by the group of students of the Pratt Institute, working on a project for a replanned city district of Brooklyn, with a population of 150,000.

Facing the problem of Brooklyn's multiple districts of no concise plan and scattered public building use, the goal is to demonstrate the project's methodology of public use organized around the public central space, and the neighborhood's individual cores containing local facilities.

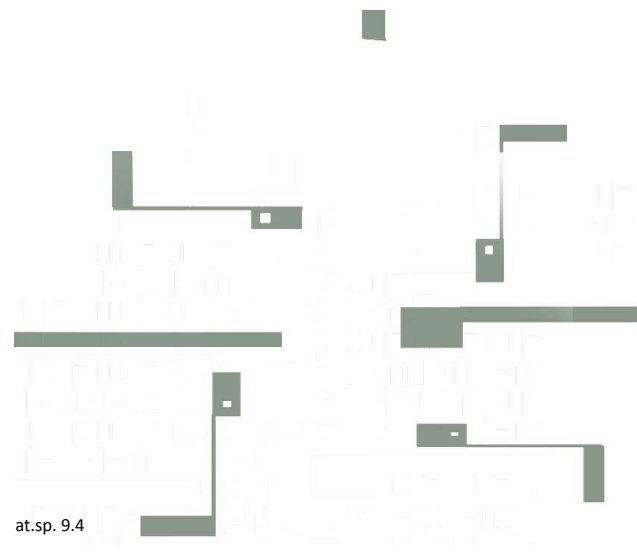
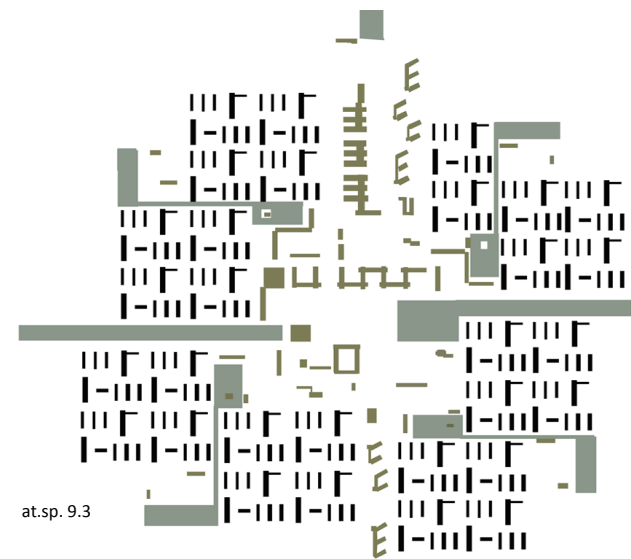
The green public open spaces serve as a geometrically connective link between the district's core, and the surrounding residential groups masses. The organization is of radial symmetry, and playfully ties together with the perimeter all of the central entertainment buildings, central library, museum, tall office building, high school and district hospital.

In this plan proposed for Brooklyn, which at that time had its buildings of various functions scattered haphazardly and in an un-planned way around the districts, the main entertainment and public use buildings are organized around the centrally located public open urban space.

This solution creates an attraction field towards the core, and the condition of more quiet and private condition in the adjacent residential groupings of buildings.

According to the analysis of the Pratt Institute student group of 1952, Brooklyn is a large city area of many districts, which could easily be divided into smaller areas in order to create the phenomenon of the sub-core within the city, where each neighborhood is autonomized and independent, with its own facilities and amenities.

The approach presented here is a modern interpretation of building mass organization, with parallel orientations and partially undefinable open spaces within the microscale of the groupings. However, it is easy to find oneself criticizing the micro-approach of these individual blocks as having no character within themselves, no real identification from the adjacent mass grouping, no significant amount of green open space, and no successful interpretation of the secured



- public open spaces
- building masses
- shopping and entertainment, public library, museum, tall office block
- public green, connected to central plaza

- building masses
- public green, connected to central plaza

- building masses
- shopping and entertainment, public library, museum, tall office block

project reference:
Sert, J.L, et.al., 1952, op.cit.

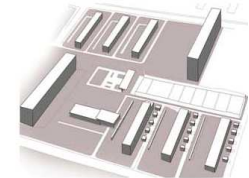
(Brooklyn, New York, U.S.A.)

The present condition however is a functional interpretation of the modern condensed crisis of overcrowded neighborhoods looking for breaths of openness, which finds a solution here. The strips of green, extending outwards by means of hopeful and anxious gestures, reach the surrounding dwellings in a surprizingly playful way, almost geometrically teasing the reality of lack of public green and natural interpretation. These areas glide through enigmatically, as if burrowing, gouging through, penetrating, or piercing the overall organization. Nonetheless, they appear, at least in plan, strong and punctual, similarly to how roots radiate from the core of a tree trunk. The strength of the design is a combination of its geometrical and clear solution in a dense situation of urban multiplication, along with the abrupting combination of a loose but rigidly functional core that itself fades into the surrounding orthogonal organization of residential districts.

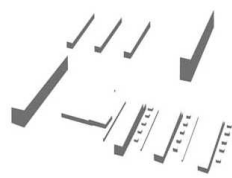
To the art critic, the plan of this solution may be the abstract representation of framed rigidity against a melting nucleus, fighting to be kept together through the establishment of precise parameters that cannot be stressed enough by recapitulating themselves.



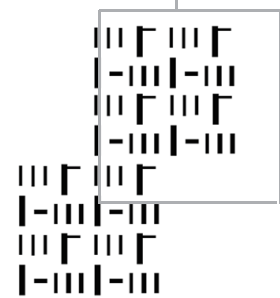
at.sp. 9.7



at.sp. 9.8



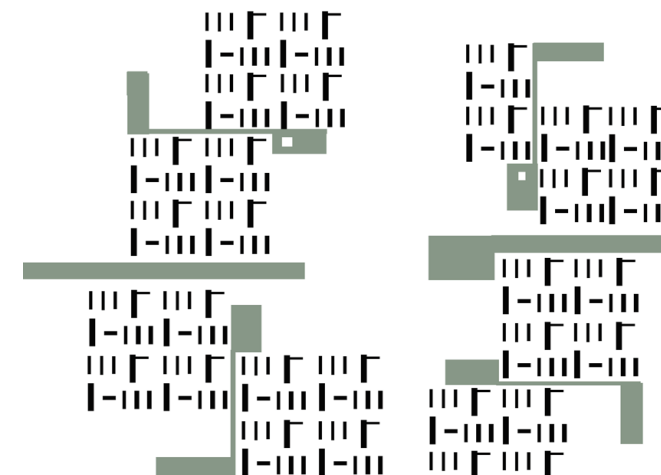
at.sp. 9.9



at.sp. 9.10

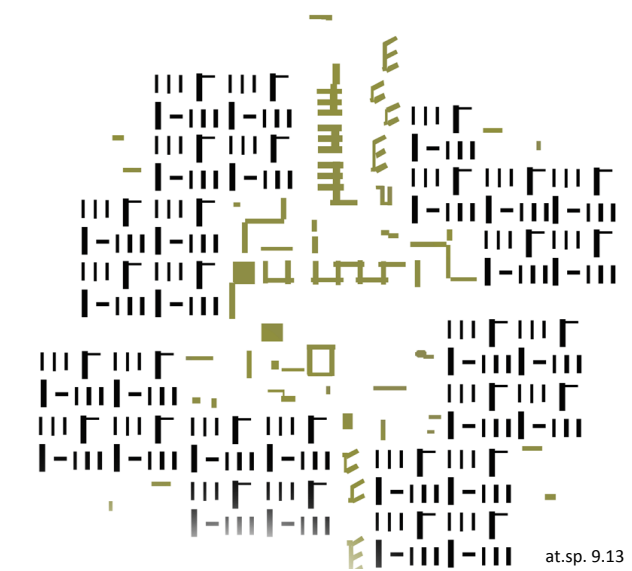


building masses



at.sp. 9.12

building masses
connective public greens



at.sp. 9.13

building masses
public buildings

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'
(3.1.10) **Tvetan, Oslo, Norway** - "a new center of several suburbs"

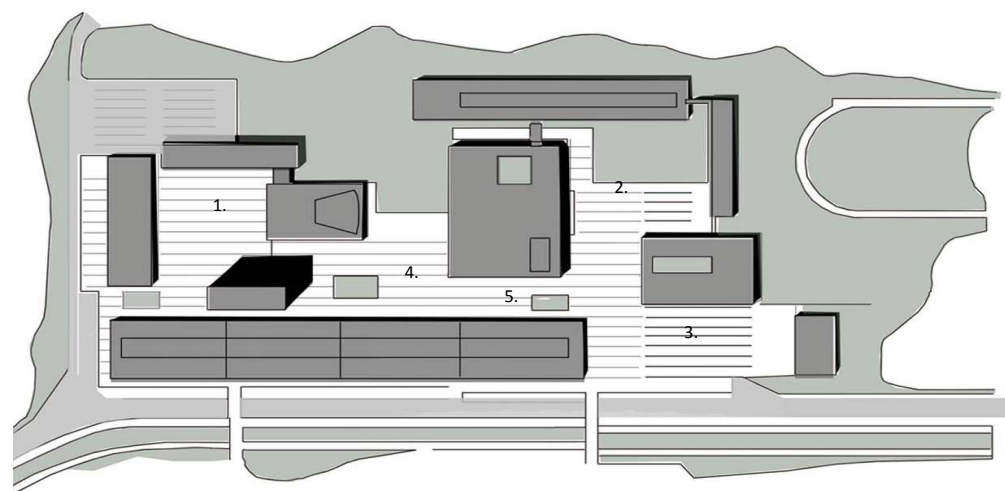
The illustrations present are a further analytical study of the proposal presented in the CIAM 8 for "a new center of several suburbs". The following drawings of the suburban core are designed for the service of 25,000 inhabitants.

One core serves three folk-school districts, each with a population of about 8,000.

"It is to be situated on the slope of a wooden hill and is planned as a pedestrian island, approached by traffic on three sides and backed, on the fourth side, by the trees of the forest. Footways will lead from the surrounding residential units through large playing fields to the pedestrian island of the Core."

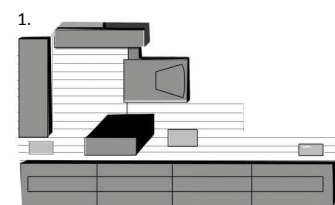
The core contains a secondary school, a swimming facility, a community hall, a cinema, a large covered market, a tall block with offices and small apartments, and a number of car parks.

The sequential schemes on the left break down the overall composition to show the modern arrangements for the creation of micro-cores within the area. This method proposes new ways of combining the rigid surface of the public ground, with the secondary green areas.

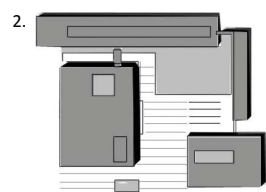


at.sp. 10.1
Core arrangement of building masses in dark grey, the public green fields in grey, and the public open plaza in white.

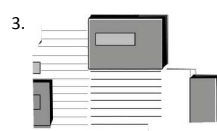
at.sp. 10.2



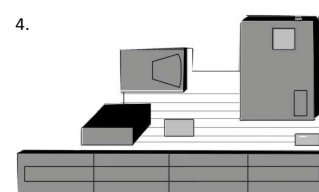
2.



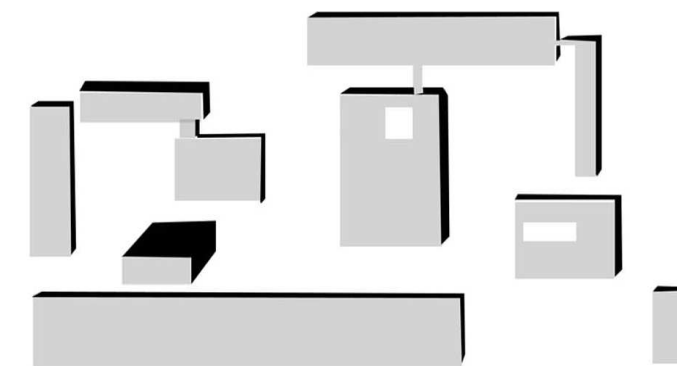
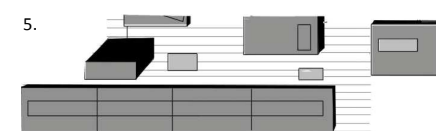
3.



4.

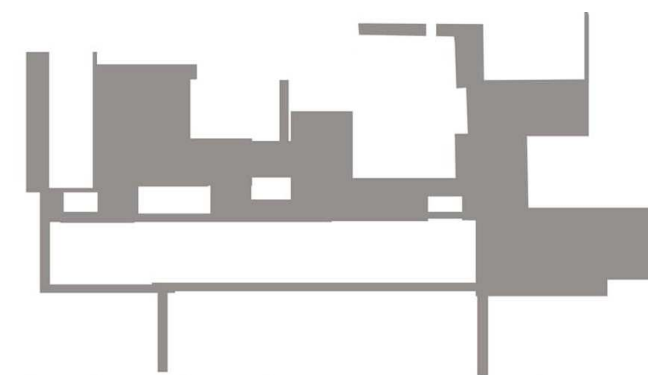


5.



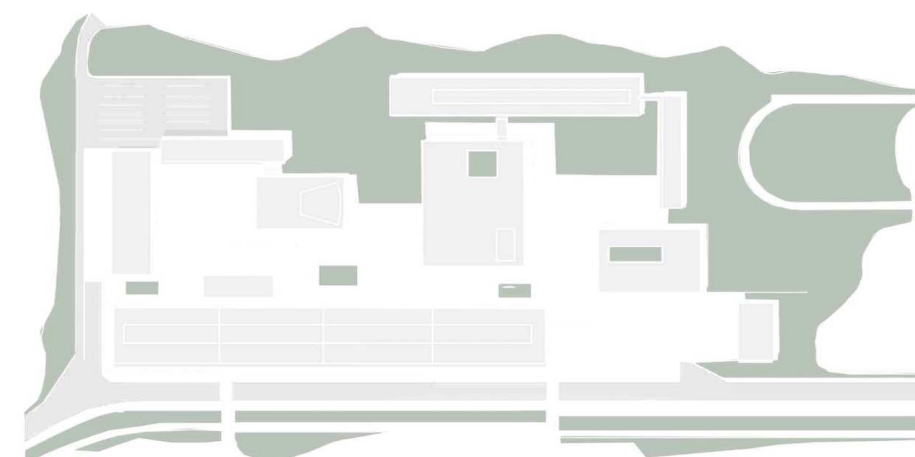
at.sp. 10.3

The buildings are arranged in an orthogonal composition to create two major enclosed areas and the remaining being secondary looser compositions of a 'blending' role and looser definable fields.



at.sp. 10.4

This scheme shows the interconnectivity of all the public spaces, which form fluid transitions and a well-thought-out plan.



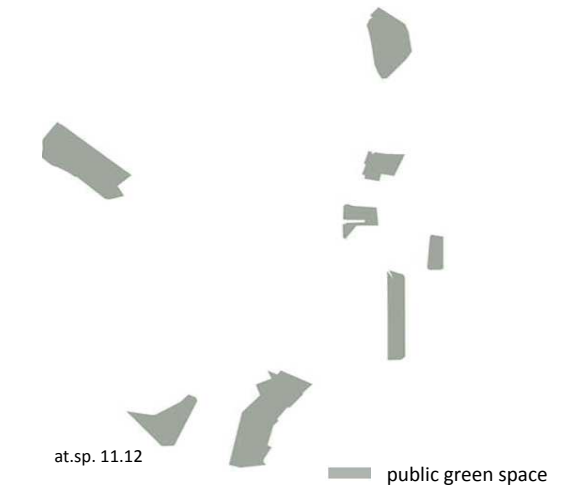
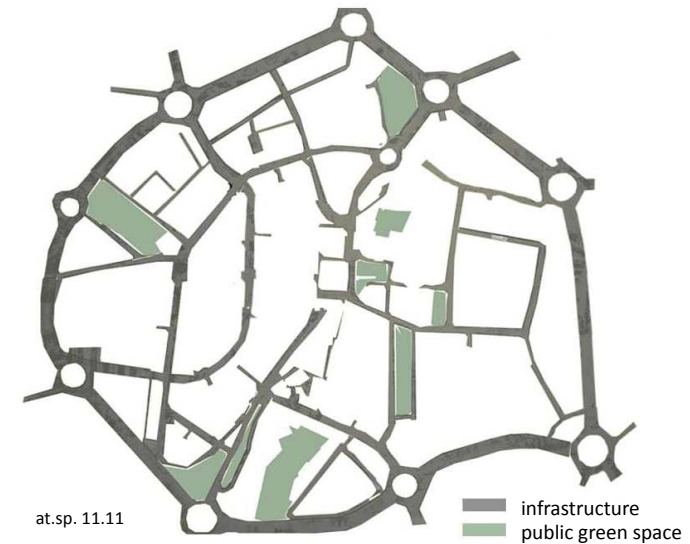
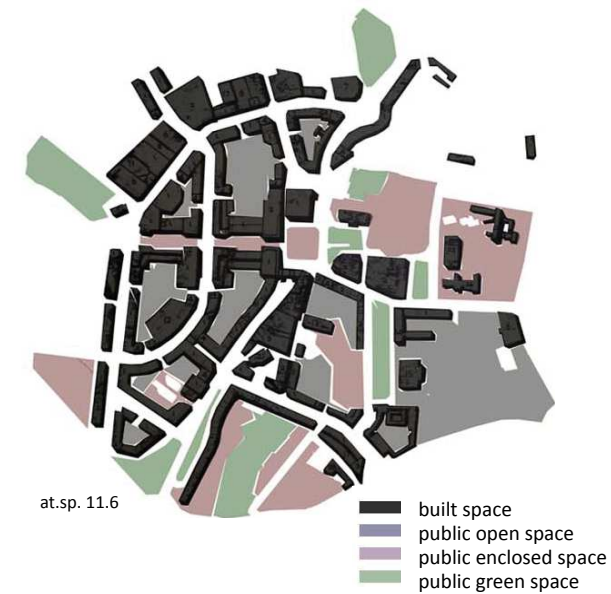
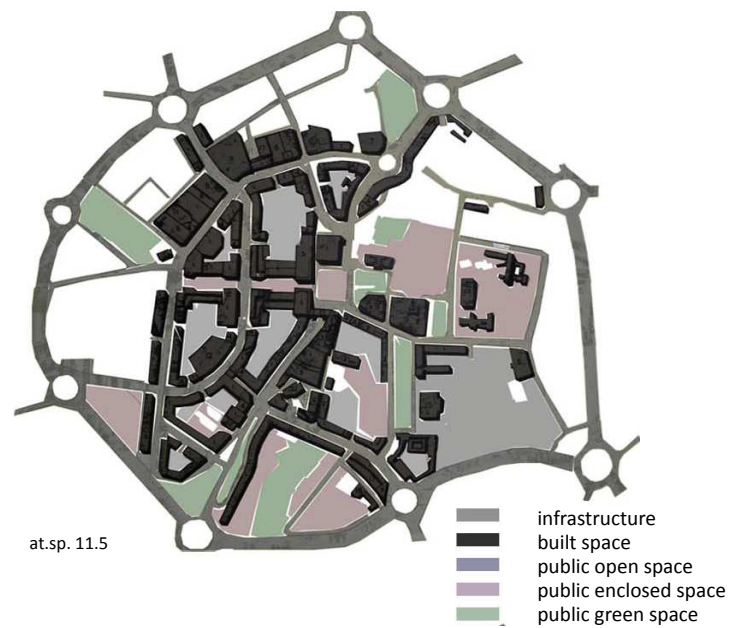
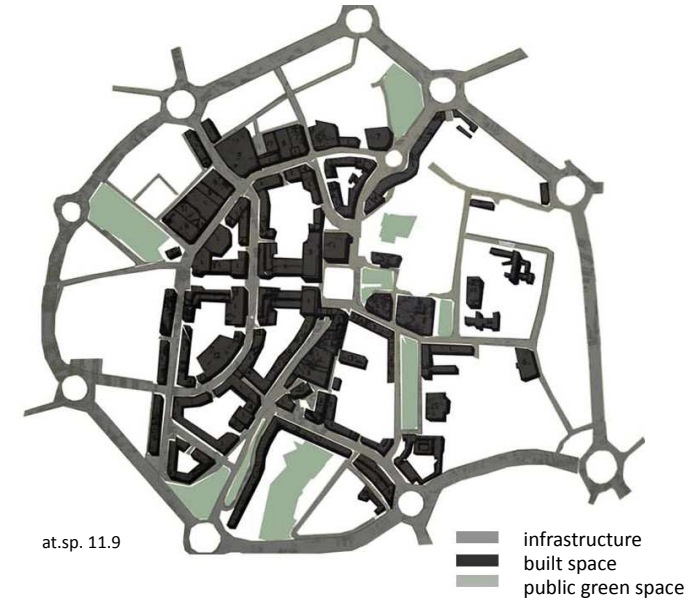
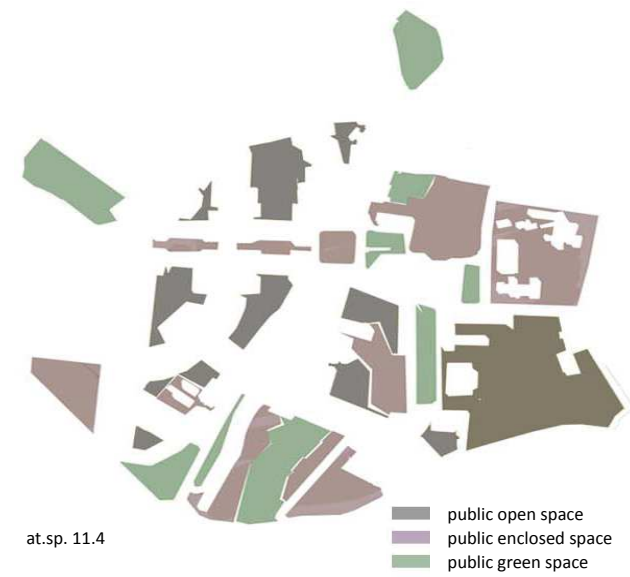
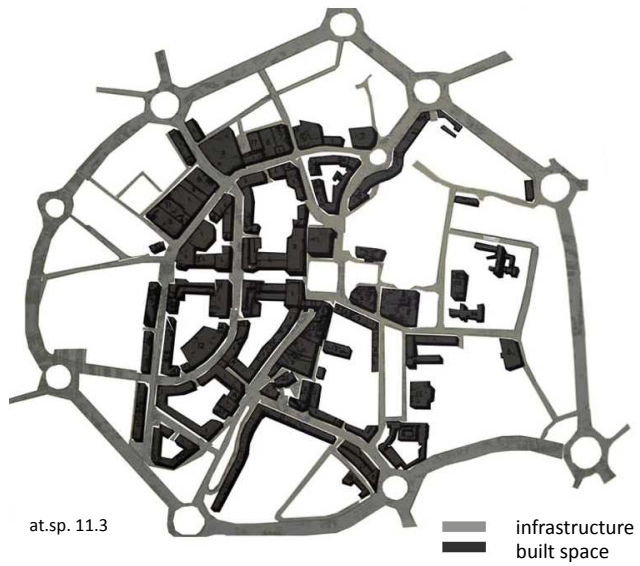
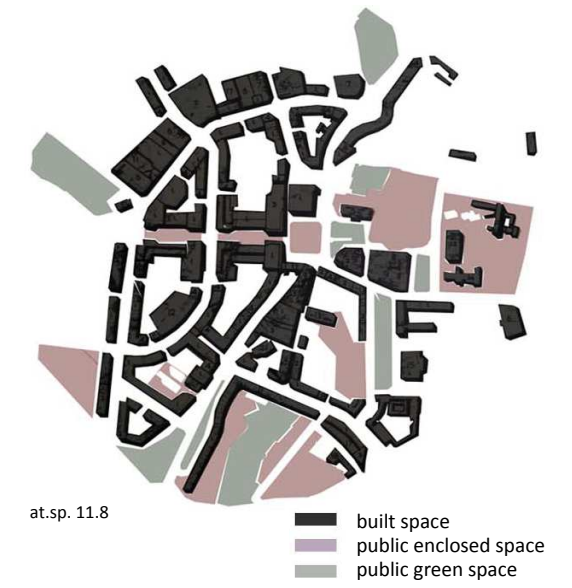
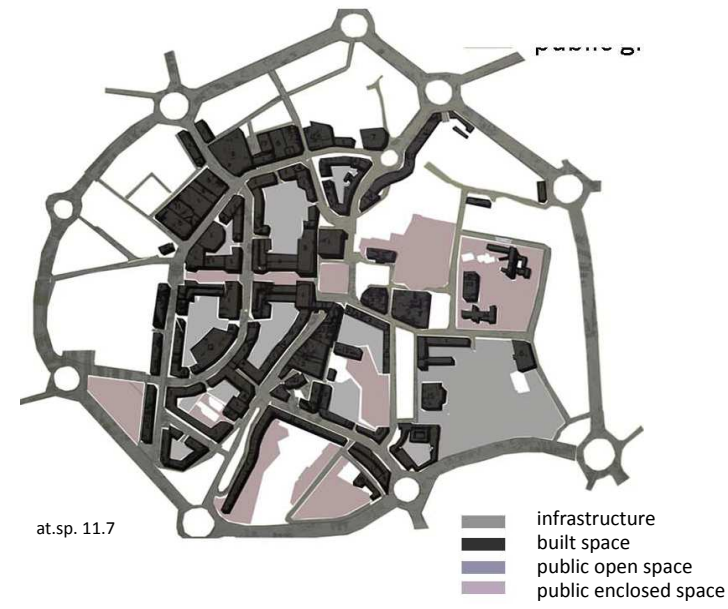
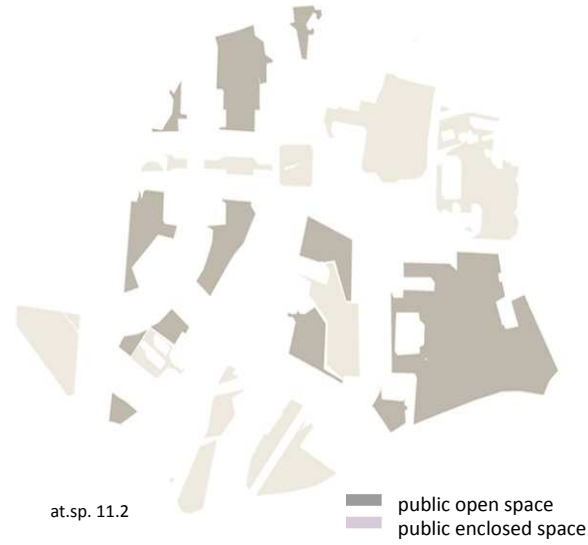
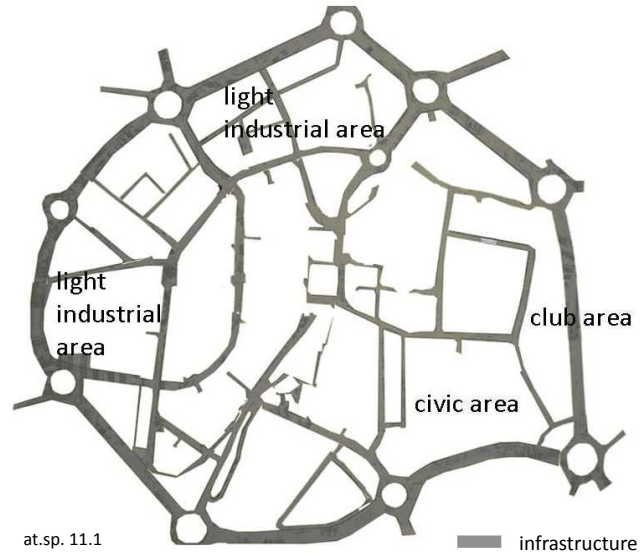
at.sp. 10.5

Public green fields are demonstrated here, showing the secondary framing that they create for the public spaces, with the building masses serving as the primary visual boundaries.

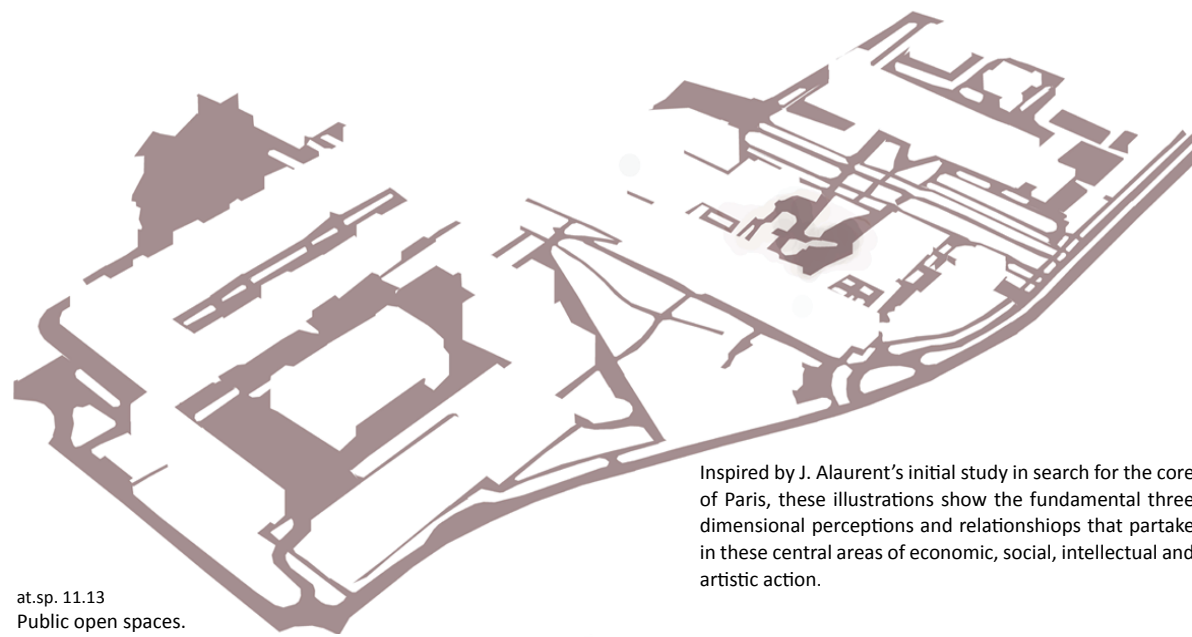
CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.11) Paris, France - "in search for the core of the city" (J.Alaurant)

The following images demonstrate the relationships and compositional layouts among the infrastructure, the built space, the green areas, the public enclosed and the public open urban spaces of the core, inspiredn by J.Alaurant's study presented in CIAM 8 of 1952.

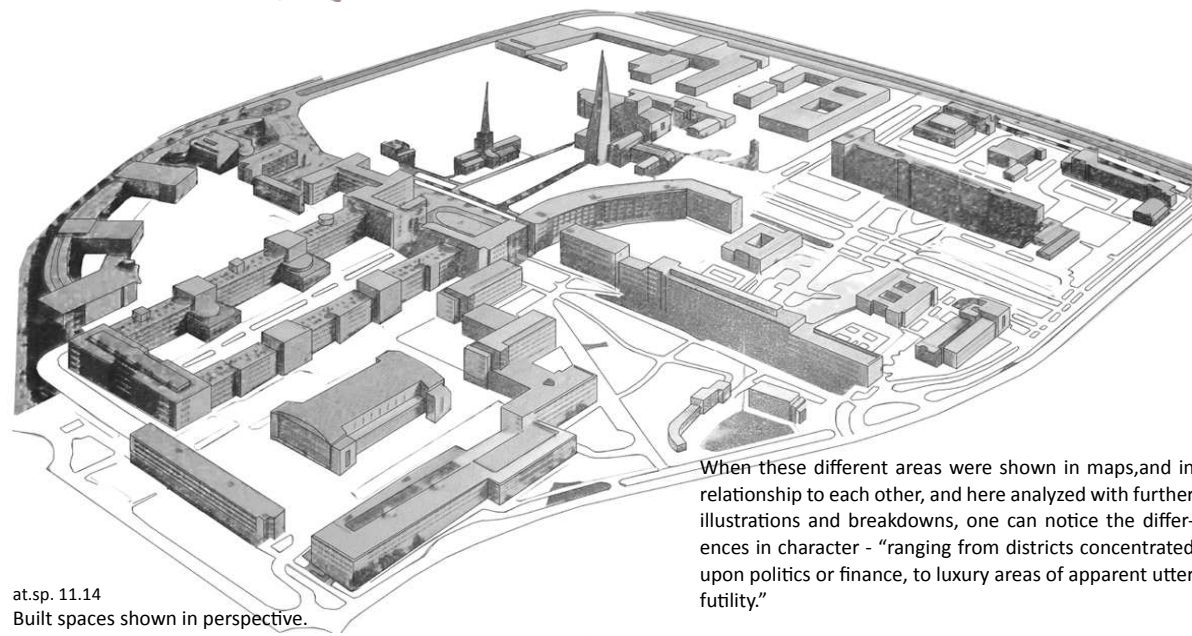


(Paris, France - "in search for the core of the city")



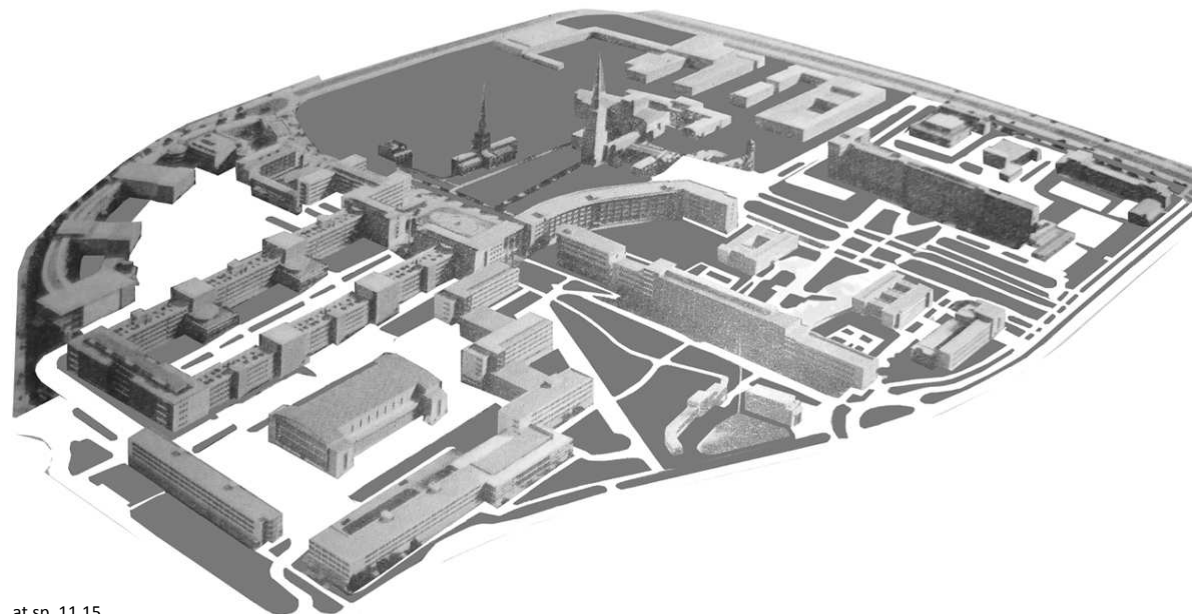
at.sp. 11.13
Public open spaces.

Inspired by J. Laurent's initial study in search for the core of Paris, these illustrations show the fundamental three dimensional perceptions and relationships that partake in these central areas of economic, social, intellectual and artistic action.

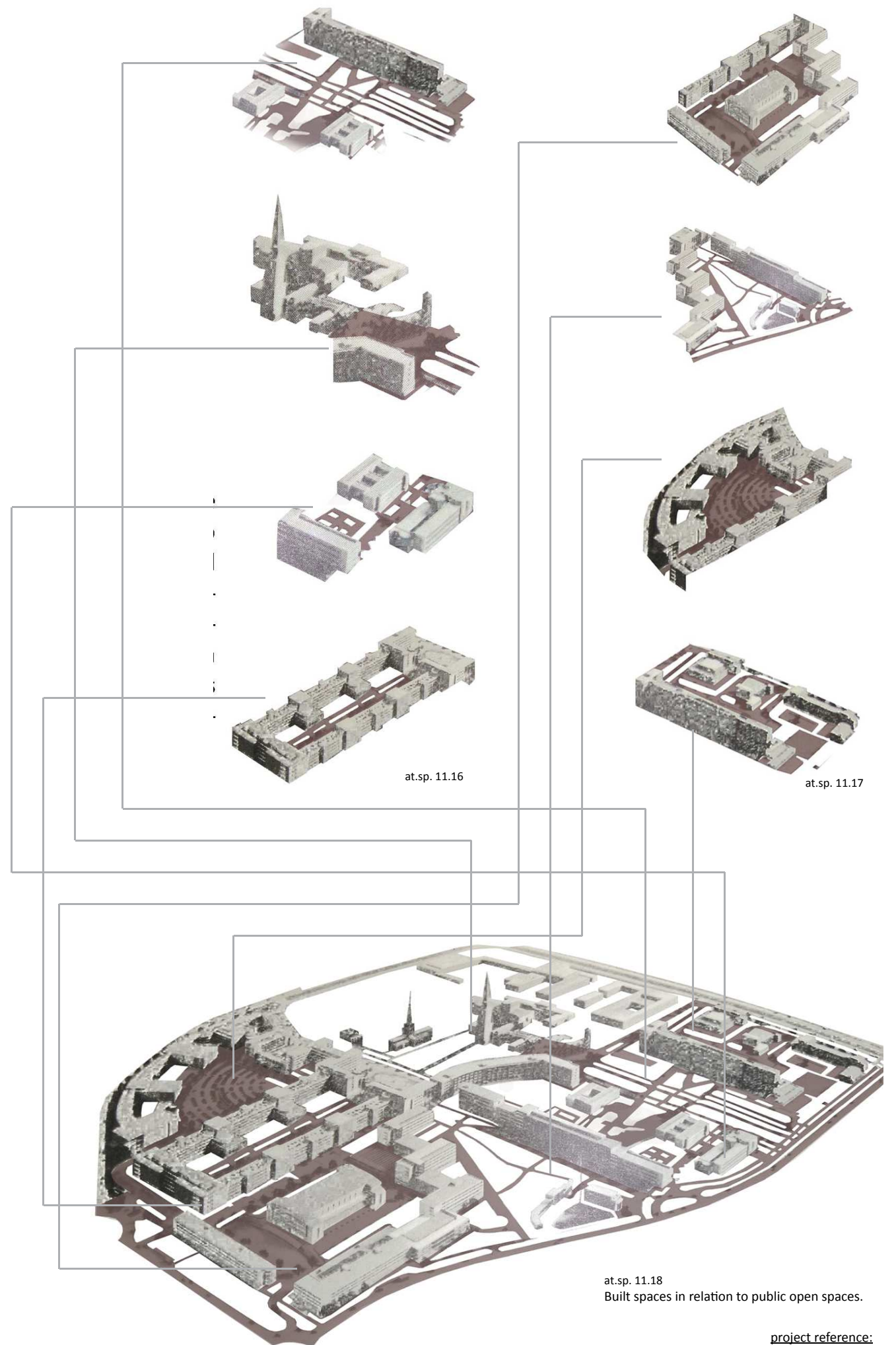


at.sp. 11.14
Built spaces shown in perspective.

When these different areas were shown in maps, and in relationship to each other, and here analyzed with further illustrations and breakdowns, one can notice the differences in character - "ranging from districts concentrated upon politics or finance, to luxury areas of apparent utter futility."



at.sp. 11.15
Built spaces in relation to public green areas.



at.sp. 11.16

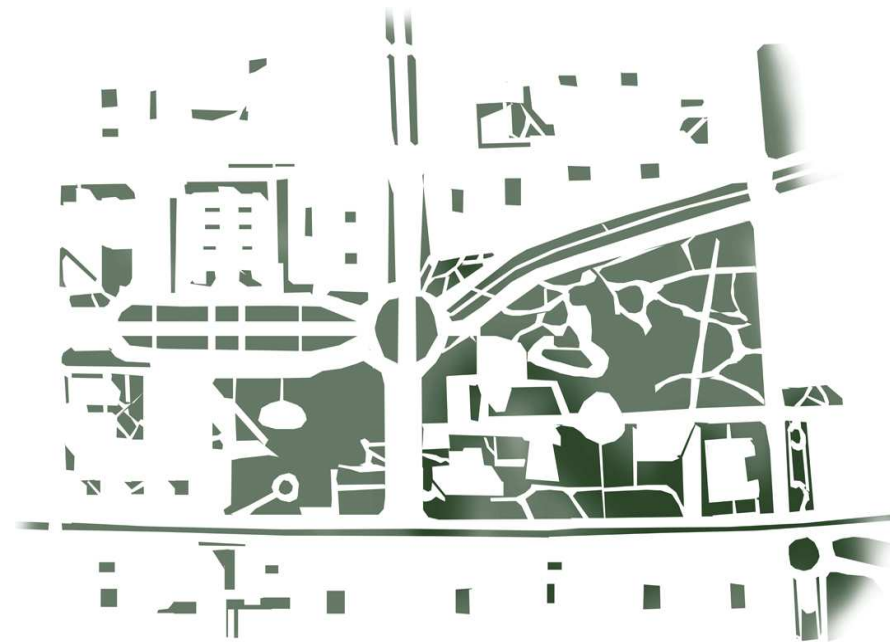
at.sp. 11.17

at.sp. 11.18
Built spaces in relation to public open spaces.

project reference:
Sert, J.L, et.al., 1952, op.cit.

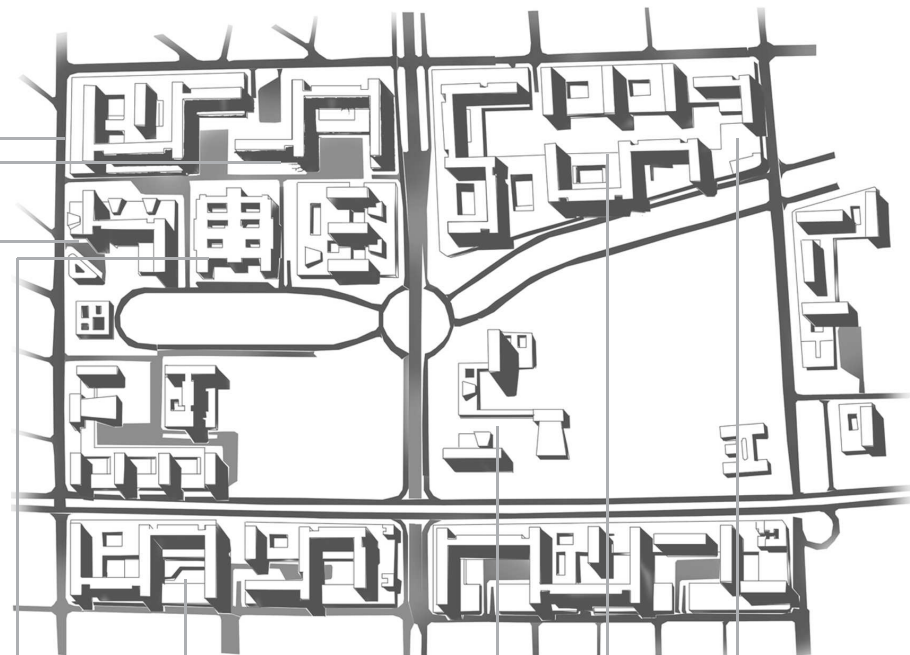
CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.12) Pilot Plan of Lima, Peru

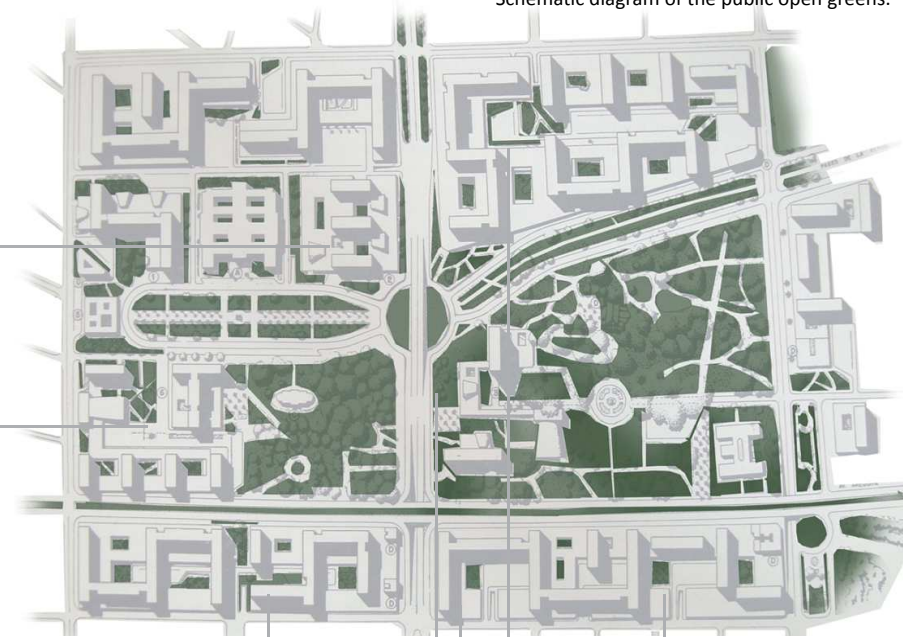


at.sp. 12.3

Schematic diagram of the public open greens.

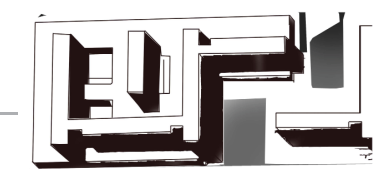


at.sp. 12.1
Schematic diagram of the infrastructure.

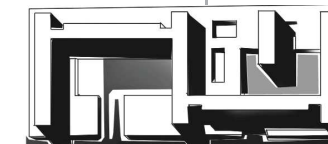
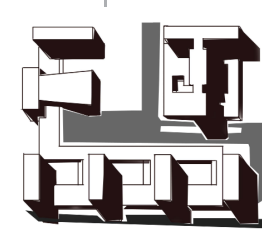
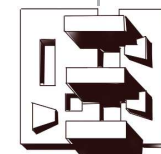
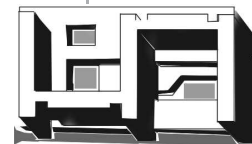
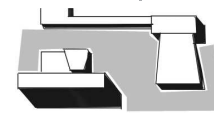
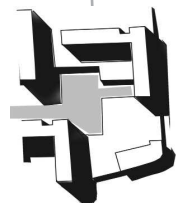
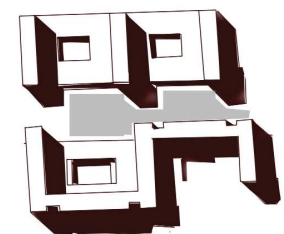
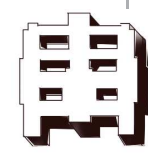
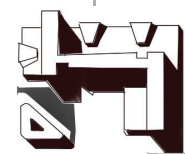
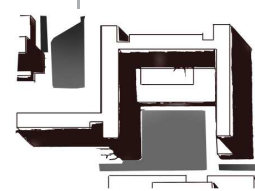


at.sp. 12.4

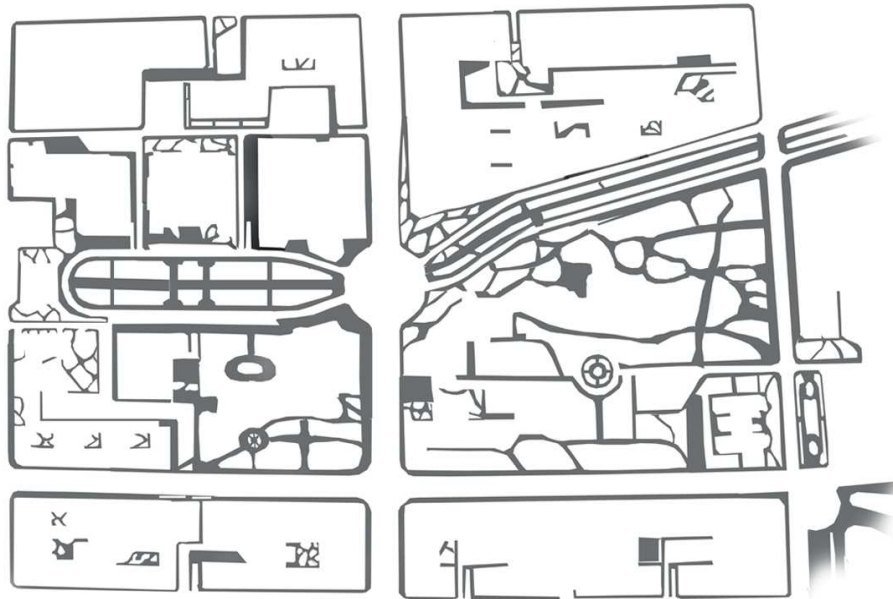
Schematic diagram of the public open greens in faded relation to the surrounding conditions (infrastructure and building masses).



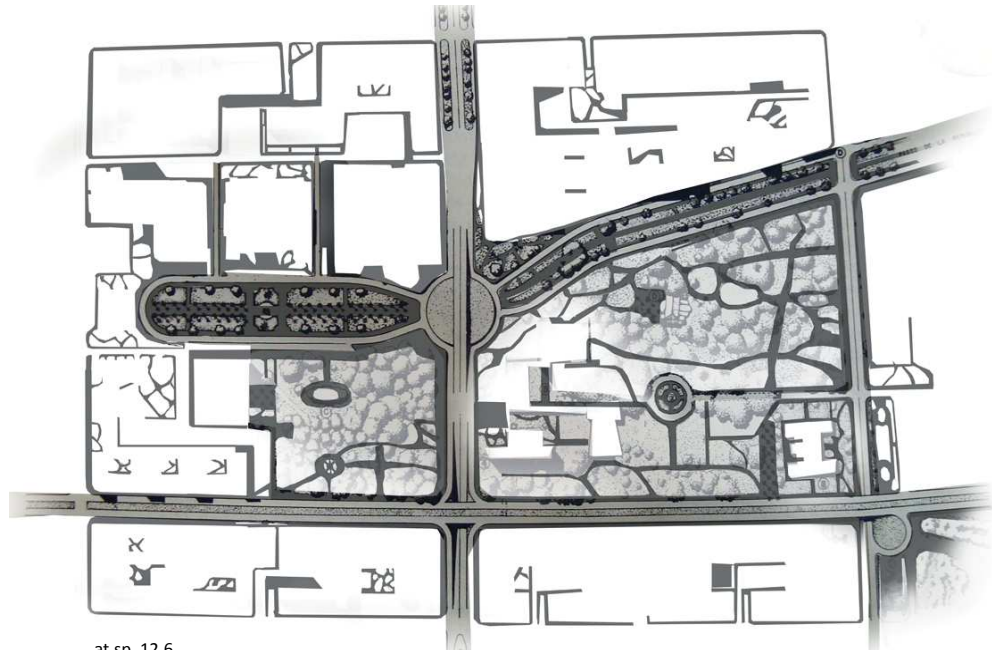
at.sp. 12.2



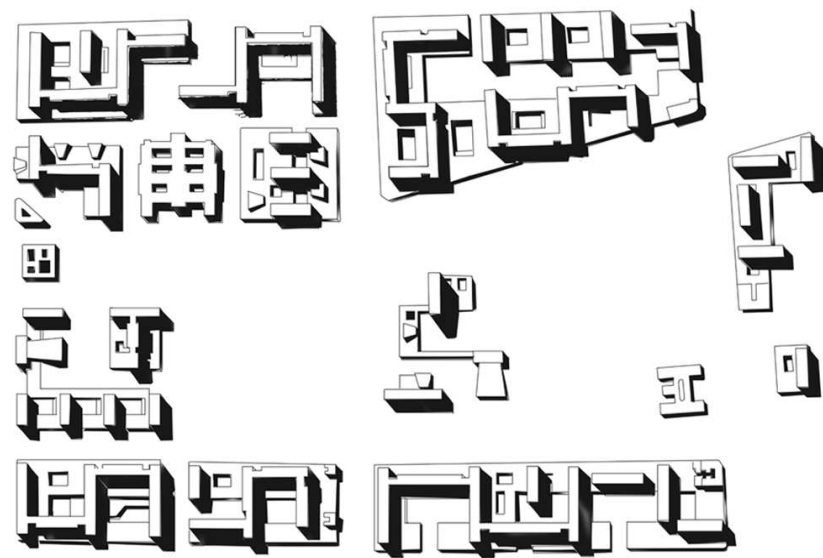
(Pilot Plan of Lima, Peru)



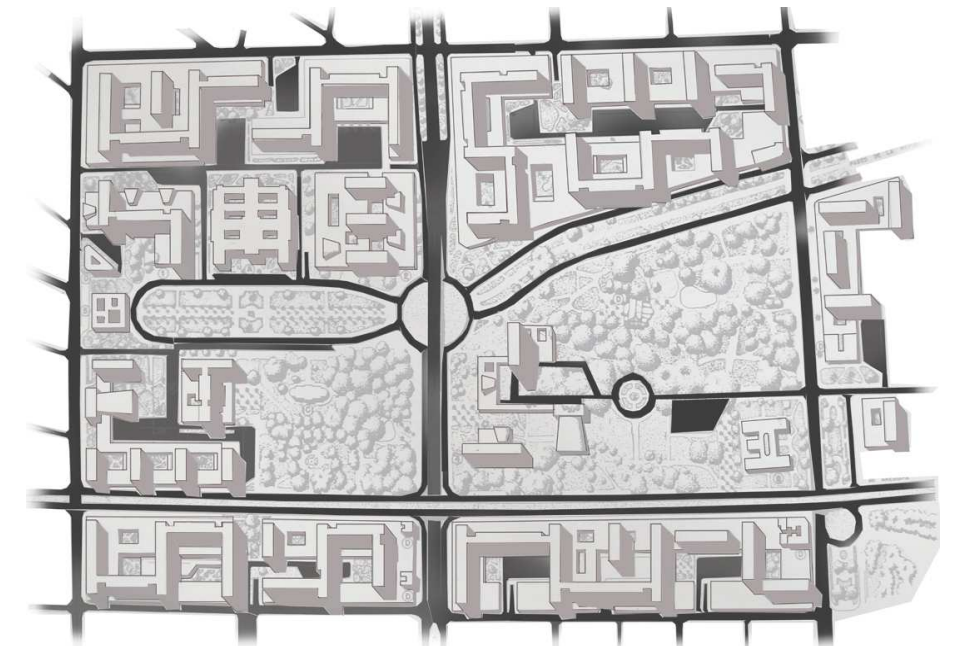
at.sp. 12.5
Schematic diagram of the infrastructure.



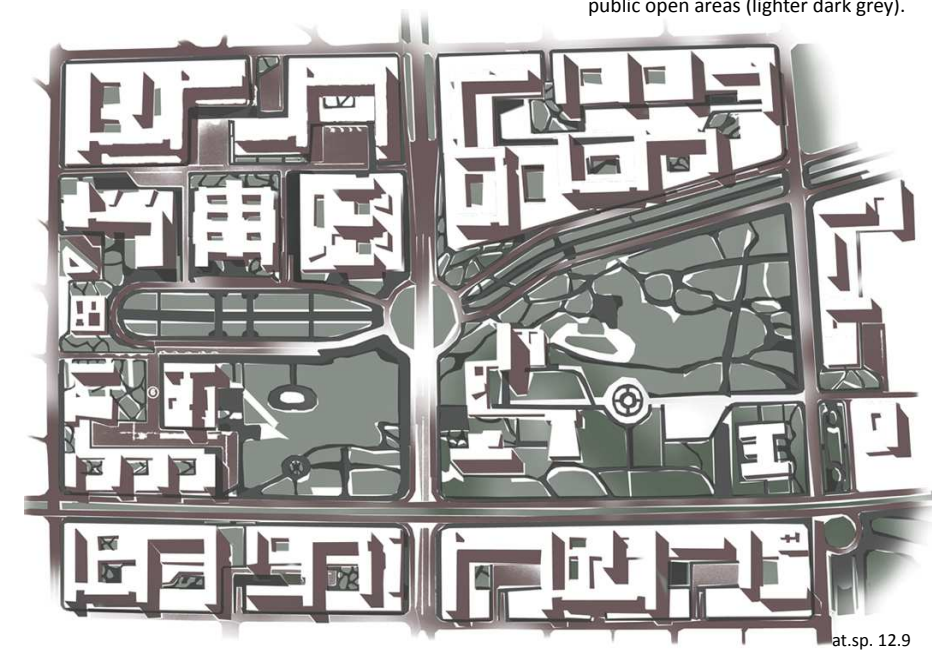
at.sp. 12.6
Schematic diagram of the infrastructure in relation to the large public green park.



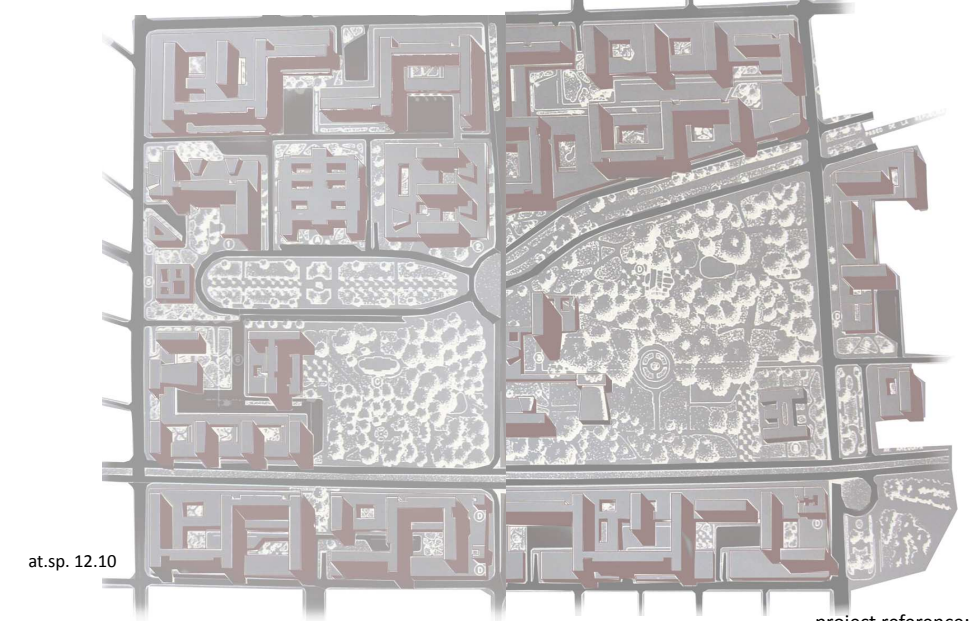
at.sp. 12.7
Schematic diagram of the building mass compositions.



at.sp. 12.8
Schematic diagram with emphasis on the infrastructure (dark grey), and relationship to the public open areas (lighter dark grey).



at.sp. 12.9
Schematic diagram of the public open greens (dark grey), in relation to the public open plazas (shaded red), with some emphasis on the public paths that connect green areas and open spaces.



at.sp. 12.10

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

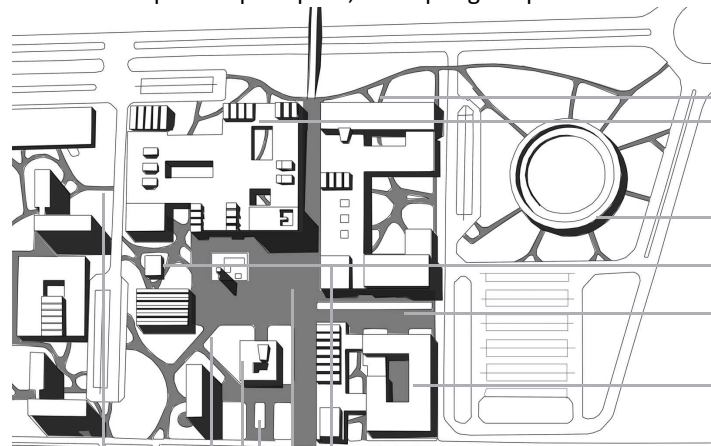
(3.1.13) Morocco, Rabat Sale - "a new satellite town" (CIAM Group of Morocco)

The following schemes are further developments of the project by the CIAM Group of Morocco, on "a new satellite town", for a population of 40,000.

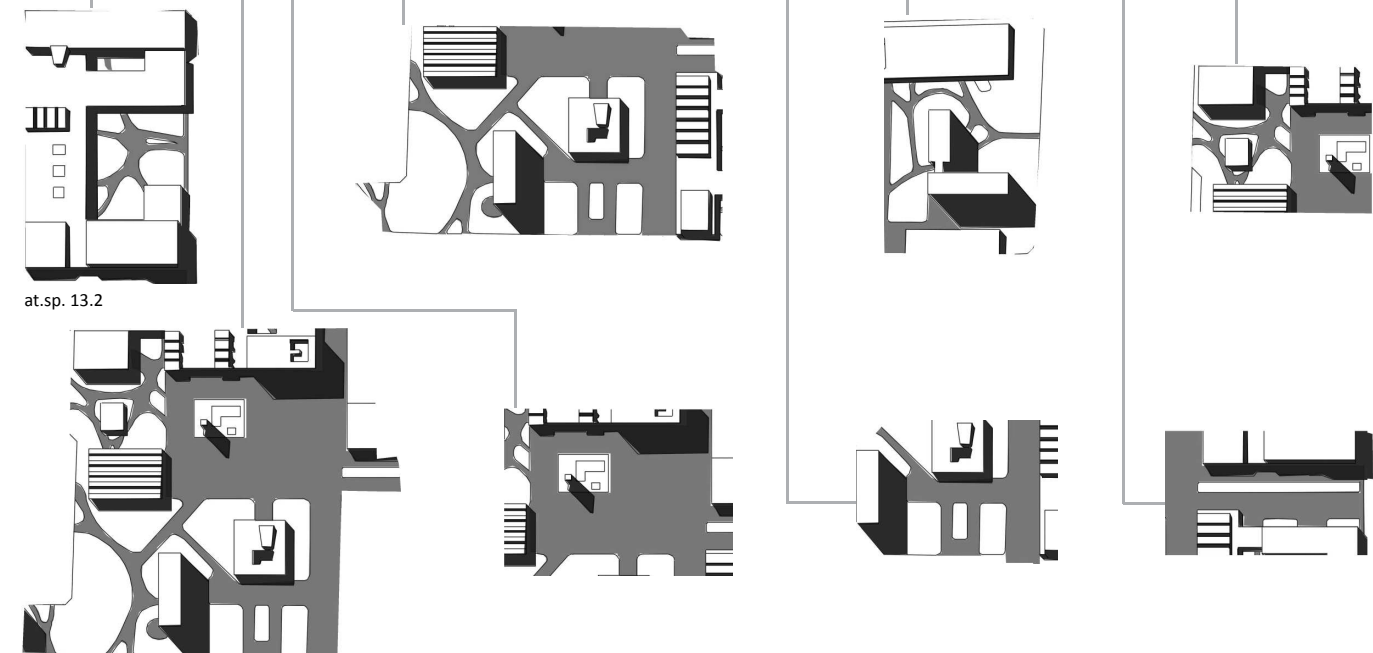
The interesting aspect of the design, is the incorporation of a large concrete slab serving as a horizontal structural frame from natural phenomena, in which public activities may take place, protected from the sun. Shops and cafes are placed underneath this 'parasole construction', with the pedestrian horizontality of the public space being contrasted by the sole vertical existence of two office buildings, also hosting a hotel and a bull ring.

Traffic is being segregated from the core's district (taking place to the south of the main road, on the maps on the right), and the circulation within happens with pedestrian walks and public spaces. To the north of the main road, is also interesting to speculate the method of naturalistic connectivities within the residential units, offering a variety of perceptual impression of the elements, which themselves vary in means of grouping and form.

These residential districts, divided into four neighborhoods, are functionally and aesthetically enhanced by the presence of a stream; a blessing in a rainles area, serving irrigation purposes. The stream also runs through the core and public open space, attempting "to provide a modern extension to an old tradition" of the stream's role.



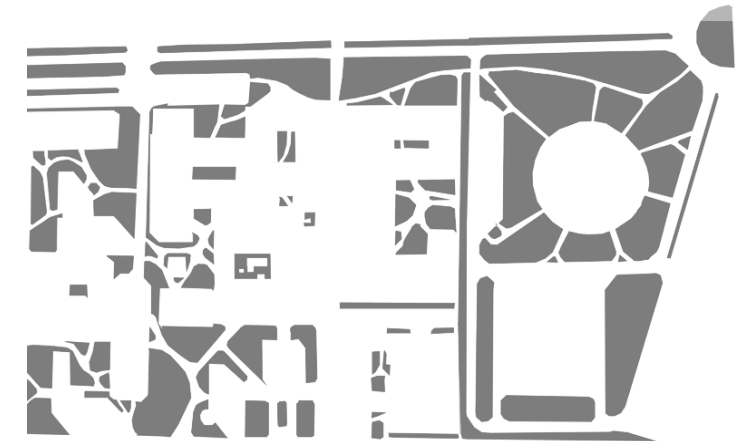
at.sp. 13.1
Building masses and the public open spaces.



at.sp. 13.2



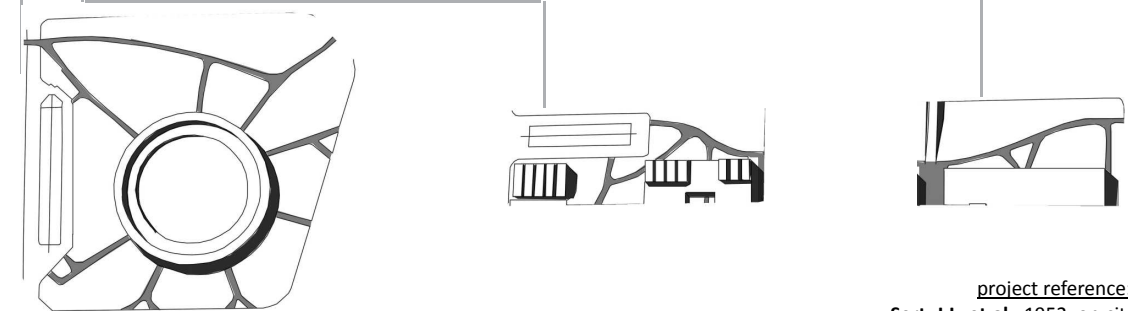
at.sp. 13.3
Standing building masses of the core.



at.sp. 13.4
Public open green spaces.

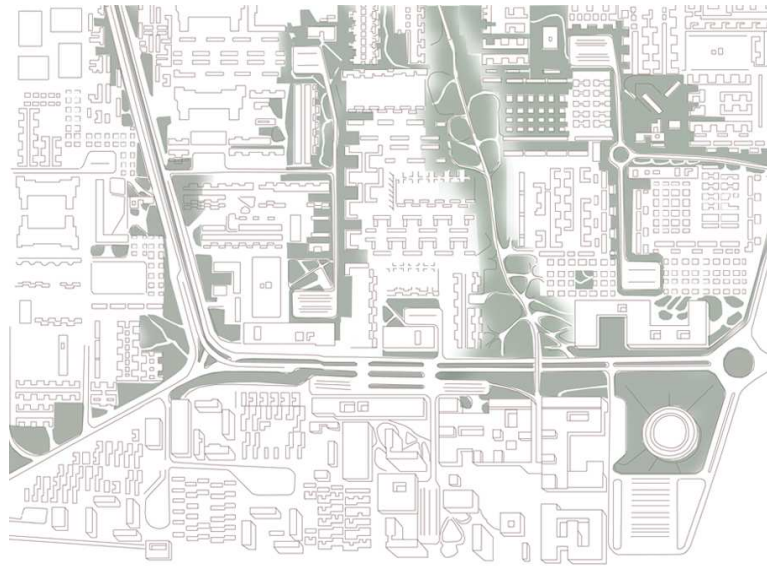


at.sp. 13.5
Public open spaces.

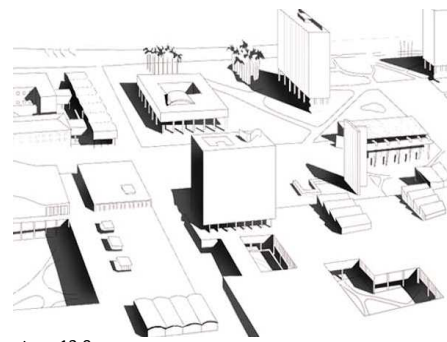


project reference:
Sert, J.L, et.al., 1952, op.cit.

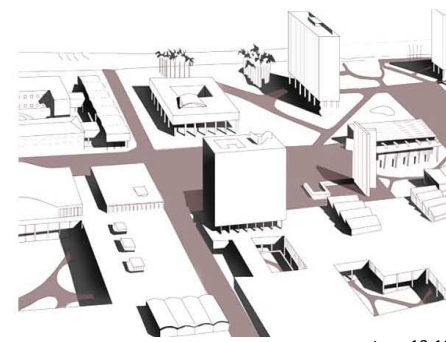
(Morocco, Rabat Sale - "a new satellite town")



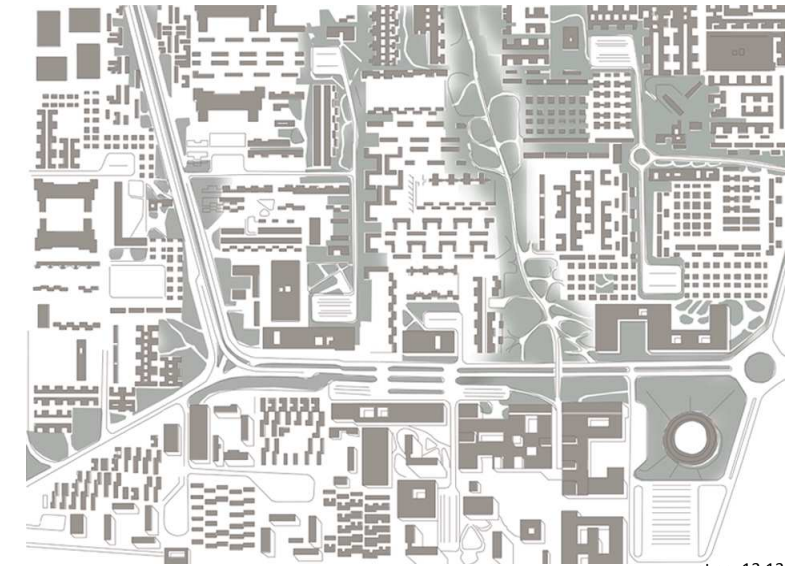
at.sp. 13.6
The public open green strips extending from the main infrastructure.



at.sp. 13.9
Three dimensional perception of the district's core.



at.sp. 13.10
Three dimensional perception of the district's core.



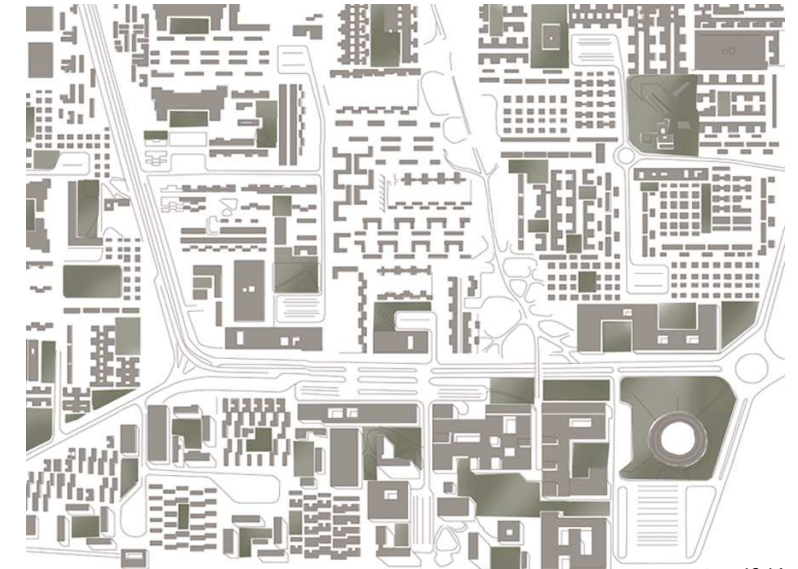
at.sp. 13.13
The green public open strips and building masses.



at.sp. 13.7
Public enclosed greens and building mass shade.



at.sp. 13.11
Public enclosed green scheme.



at.sp. 13.14
Public enclosed greens and building masses.



at.sp. 13.8
Building mass shade demonstration.



at.sp. 13.12
Public open green strips and public enclosed green.



at.sp. 13.15
Building masses.

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.14) **Stevenage, England** - "project for a residential sector of a new town"
(Students of the Architectural Association)

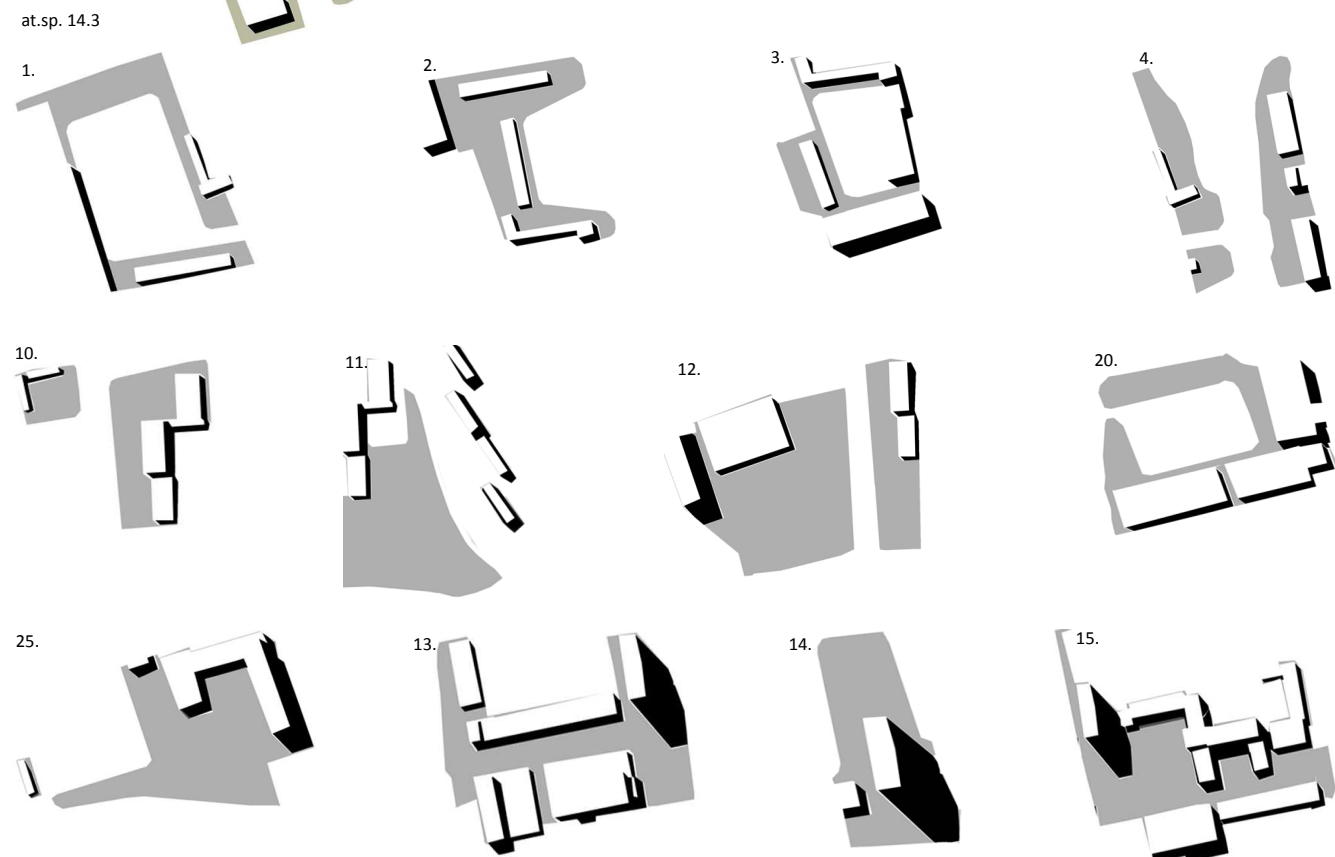
The following case study, which has been further analyzed and broken down here, was proposed by the Students of the Architectural Association in the CIAM 8 congress, as a "project for a residential sector of a new town", for a population of 60,000.

The main aim was the projection of amenities within walking distance for the residents, with the whole community conceived as one entity. The central core is linked to the industrial part of the district, and the sub-cores function as attraction poles for the daily and immediate needs of the people.

The schemes shown here, demonstrate the detailed organization of the sub-cores within the community, where a variety of relationships and public space perceptual formations take place. These peripheral cores contrast the rigidity of the central piece (shown and analyzed on the opposite page), which is suitable, considering the hierarchy of formality and public activity concentration.



at.sp. 14.1
This scheme highlights the public open urban spaces serving as secondary public gathering poles, and the study aims to draw a visual comparison to the structural trunk.



at.sp. 14.3

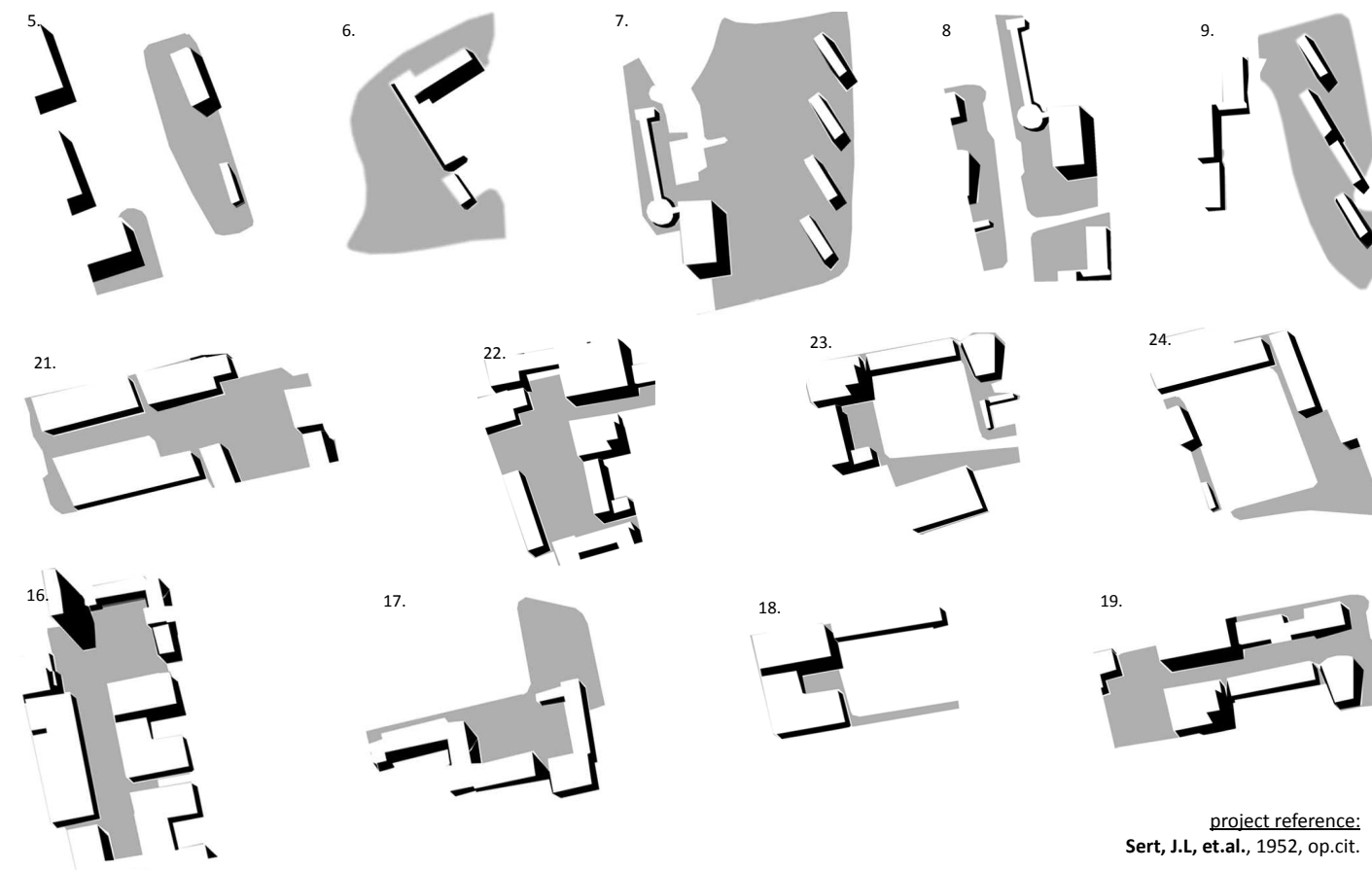
The improvement which has been made with this scheme project proposal, in comparison to the previous existing conditions of the district, is that the town was reduced to half its size, making the areas more accessible, and each having an individual centrally functioning core.

The scheme here shows the organization of this district's center, which is arranged around a linear open space, that opens up to other adjacent spaces, similar to a tree branching out in a rectilinear, but yet irregular manner.

The residential units offer a variety of choice between spatial perceptions and arrangements of building masses, ranging between high storey apartments (some thirteen and twenty storey high) and single story units at eight to an acre, grouped around small greens.

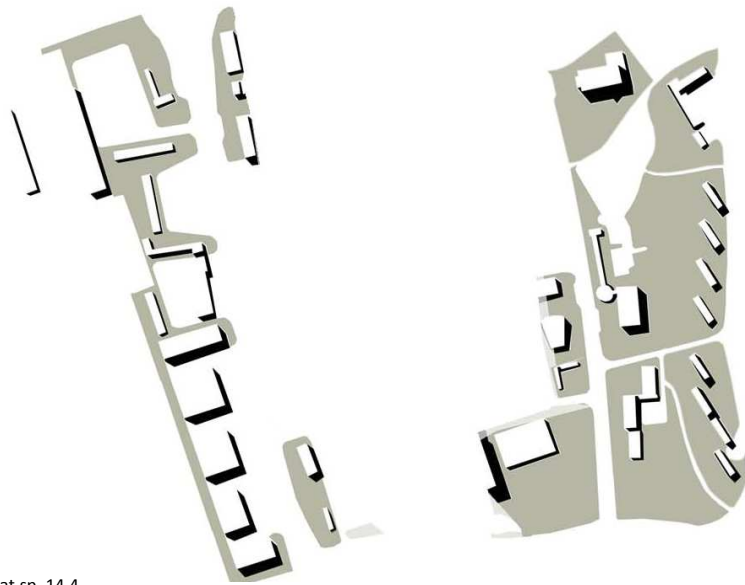


at.sp. 14.2
This scheme highlights the public open urban spaces of the main central structure of the overall layout. Here the spaces are more orthogonally formal, with one main *orientational mark* of a high rise - a gesture typical of the modern movement. However, the surrounding spaces are controlled, unlike the modern condition of the large undefined void surrounding a taller structure.

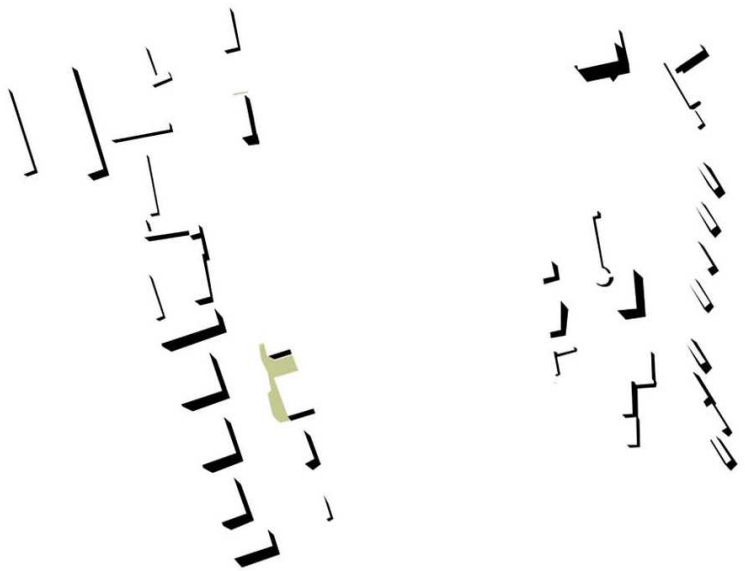


project reference:
Sert, J.L, et.al., 1952, op.cit.

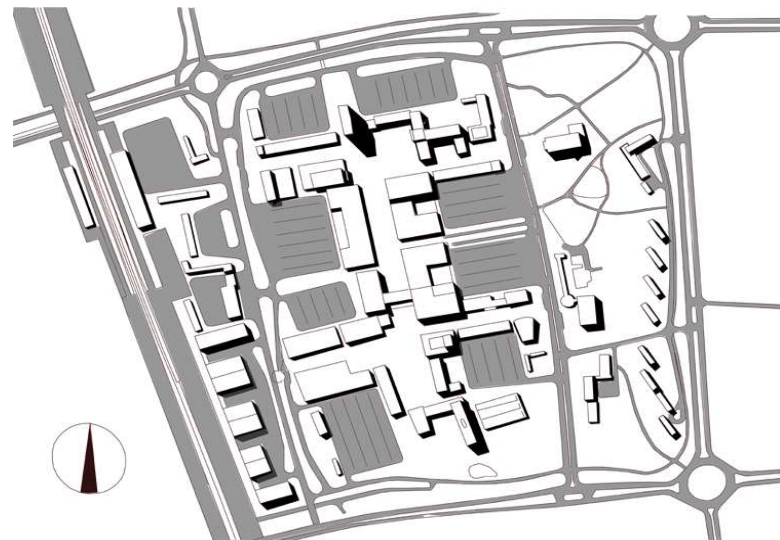
(Stevenage, England - "project for a residential sector of a new town")



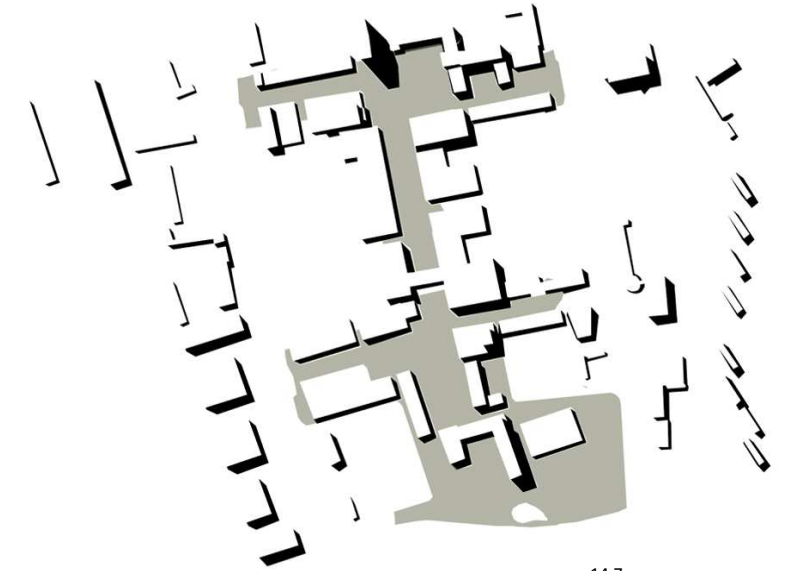
at.sp. 14.4
The public open spaces formed by the framing of the building masses



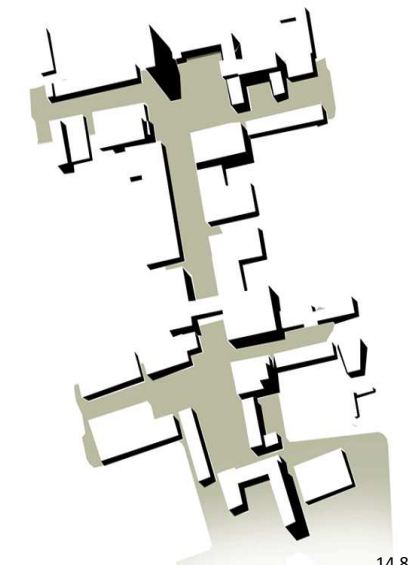
at.sp. 14.5
The building masses of the district's sub-cores.



at.sp. 14.6
Infrastructure



14.7
The building masses forming the enclosed public open space of the central spine



14.8



14.9
The public open urban spaces of the main spinal district piece.

project reference:
Sert, J.L, et.al., 1952, op.cit.

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.15) **Stevenage, England** - "plan for a new town" (Gordon Stephenson)

This "plan for a new town", was presented by Gordon Stephenson et al at the CIAM 8 congress, and what follows is a more analytical interpretation, to study the compositional solutions of the public space in relation to the adjacent building masses and the public green.

The design falls outside of every traditional norm, with an abstract placement and formation of building 'framings' around the void, and public attraction fields that are playful and undetermined unless one could possibly experience the situation at first hand, or know exactly every functional use of each building mass and the poles of public attraction. This looks like an experimental composition for its time, which would logically and expectedly require testing and adjustment.

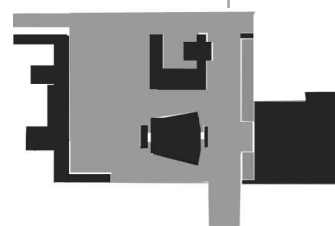
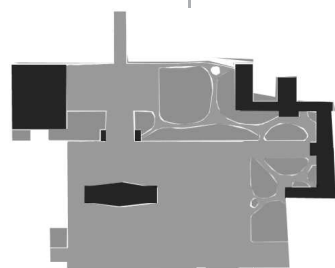
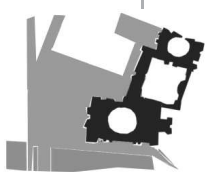
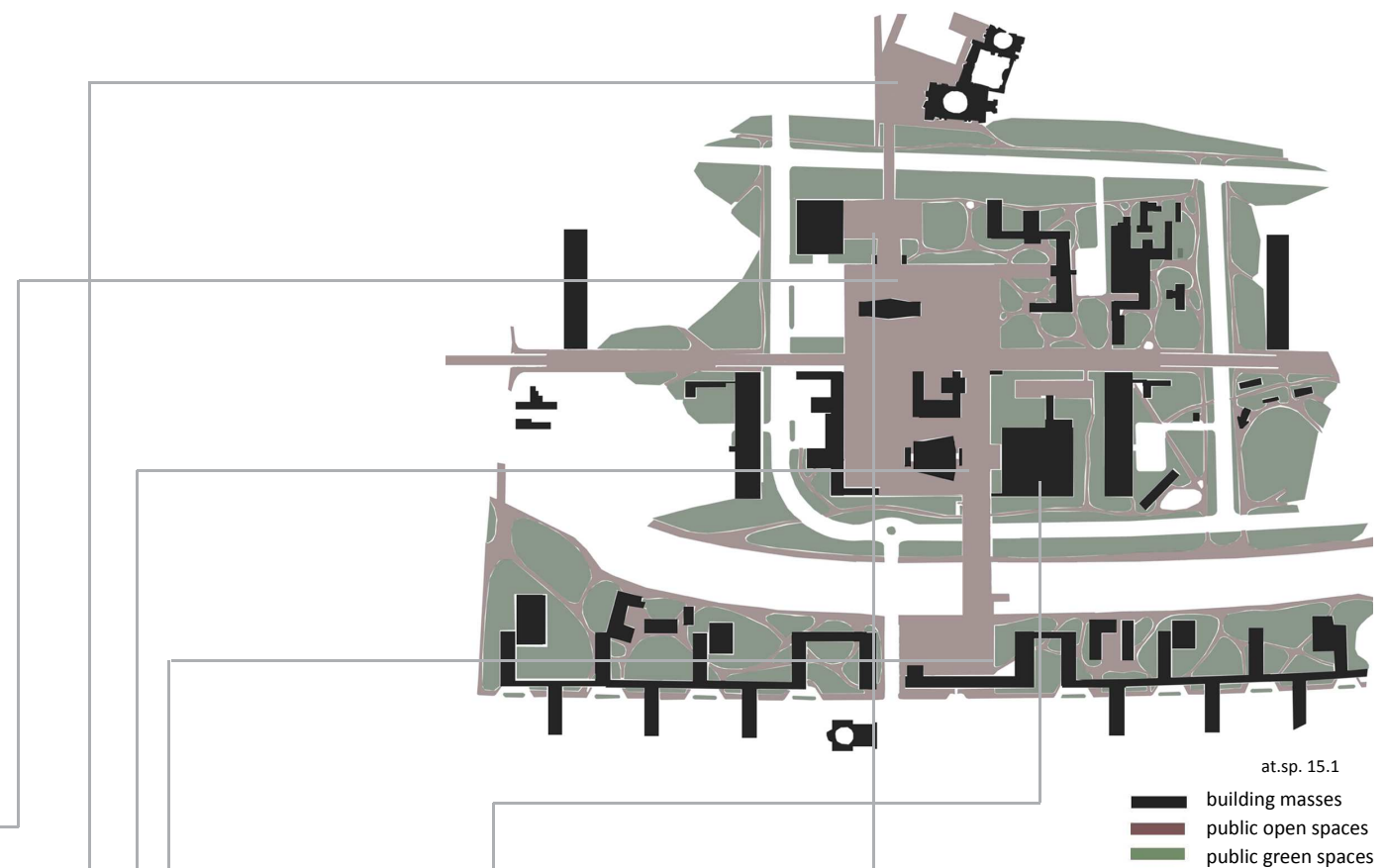
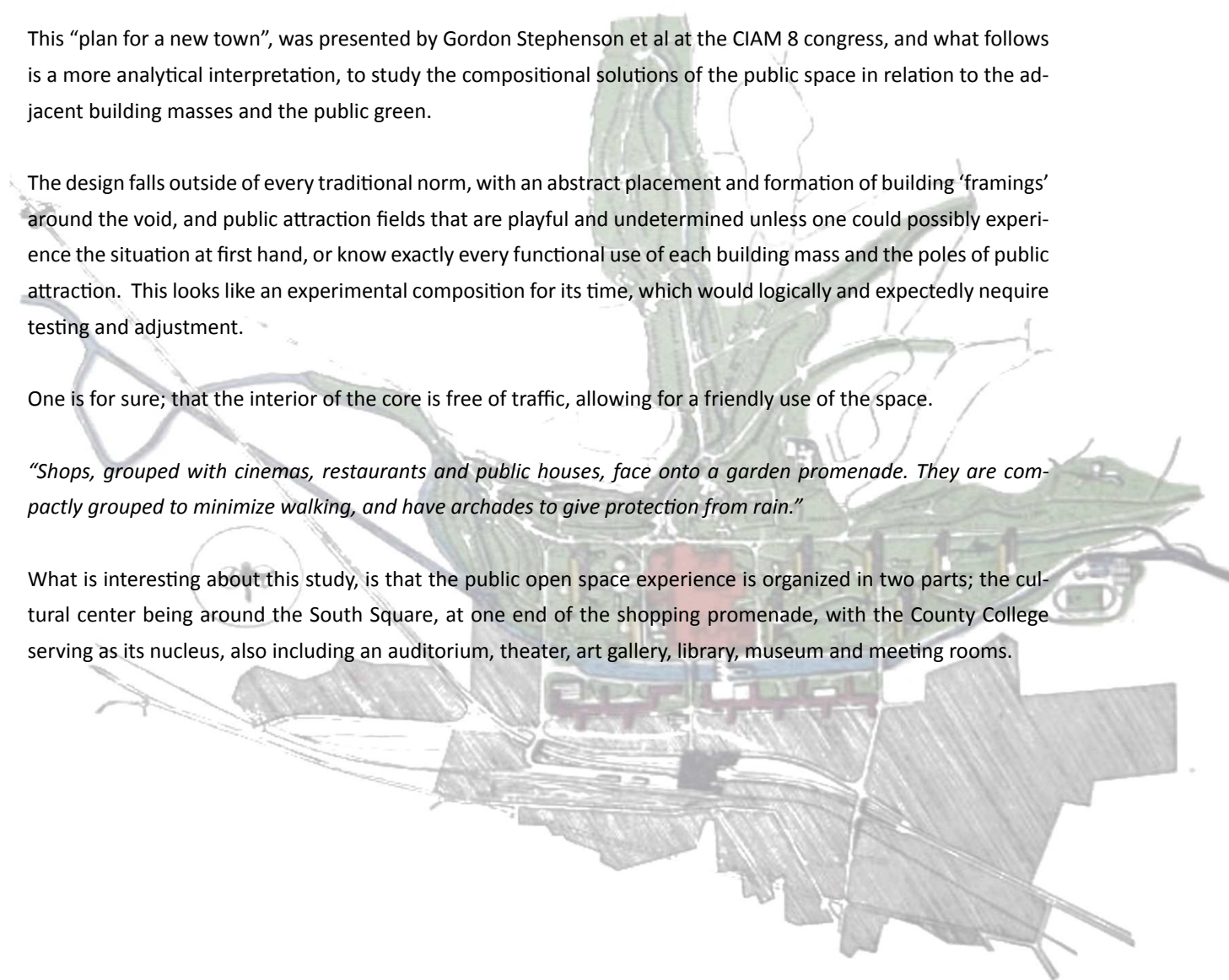
One is for sure; that the interior of the core is free of traffic, allowing for a friendly use of the space.

"Shops, grouped with cinemas, restaurants and public houses, face onto a garden promenade. They are compactly grouped to minimize walking, and have archades to give protection from rain."

What is interesting about this study, is that the public open space experience is organized in two parts; the cultural center being around the South Square, at one end of the shopping promenade, with the County College serving as its nucleus, also including an auditorium, theater, art gallery, library, museum and meeting rooms.

The North Square hosts the administrative center, which somewhat takes the role of the old agora or forum, where public gatherings are intended to take place. This composition includes a set of office spaces and administrative buildings

To the east of the North Square, are a swimming pool, a park, restaurants, an outdoor theater, and facilities for public open events of entertainment.

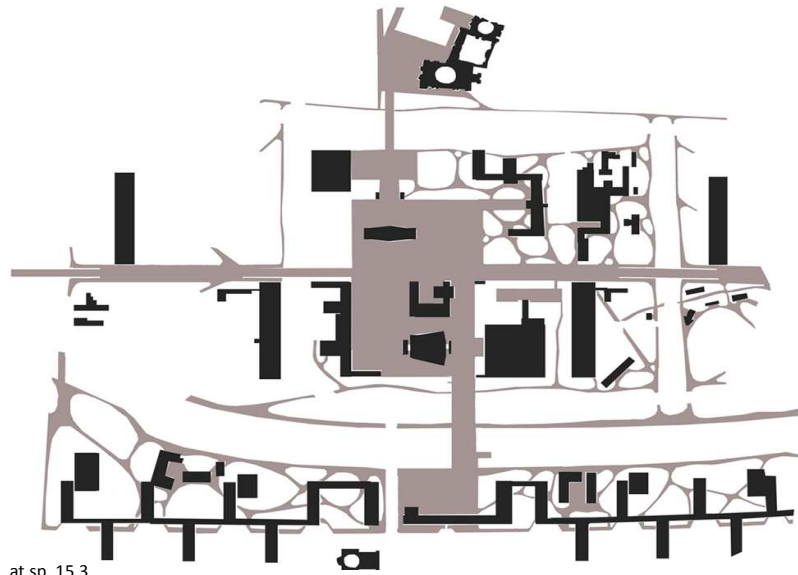


at.sp. 15.2

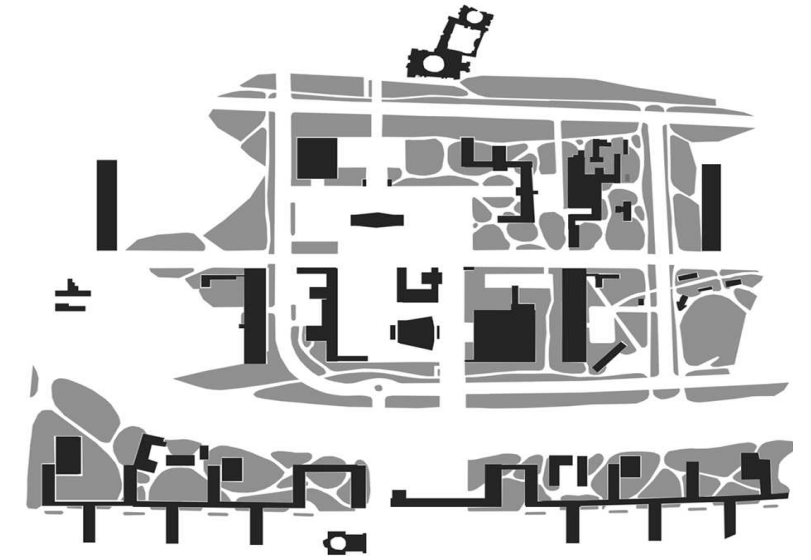
project reference:

Sert, J.L, et.al., 1952, op.cit.

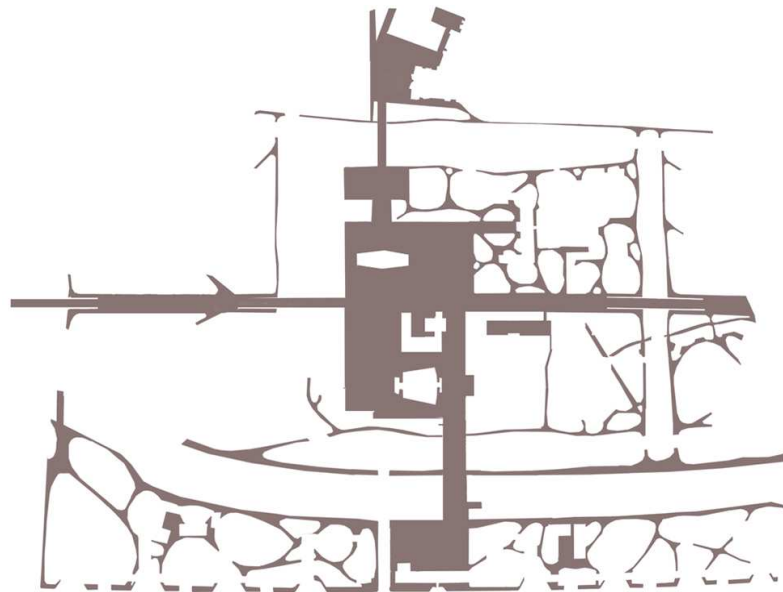
(Stevenage, England - "plan for a new town")



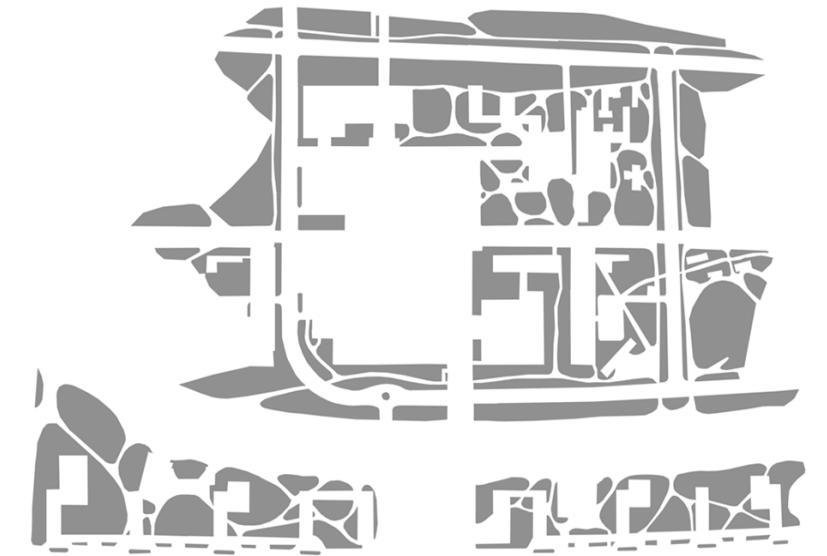
at.sp. 15.3 Building masses of the core, shown in relationship to the public open urban space, illustrated in lighter shade.



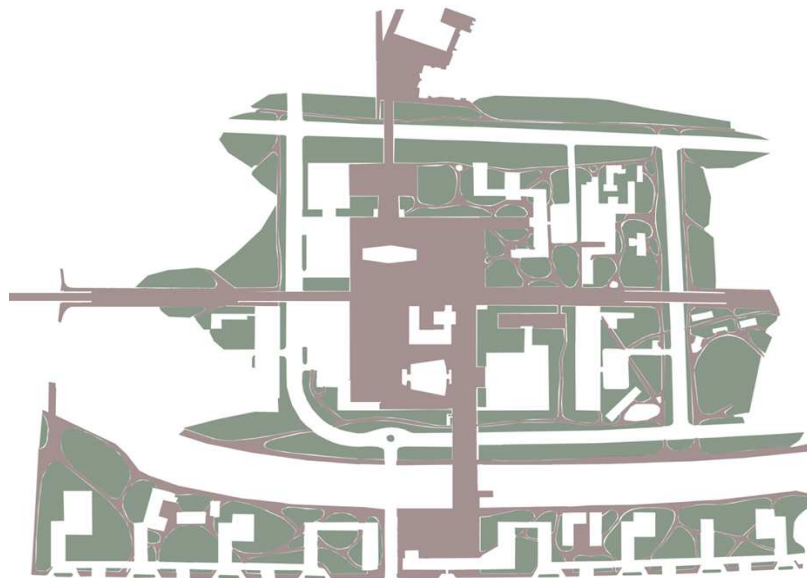
at.sp. 15.5 Building masses of the core, shown in relationship to the public green areas, shown in lighter shade.



at.sp. 15.4 The public open spaces



at.sp. 15.6 The public green spaces.



at.sp. 15.5 public open spaces shown in relationship to the open green



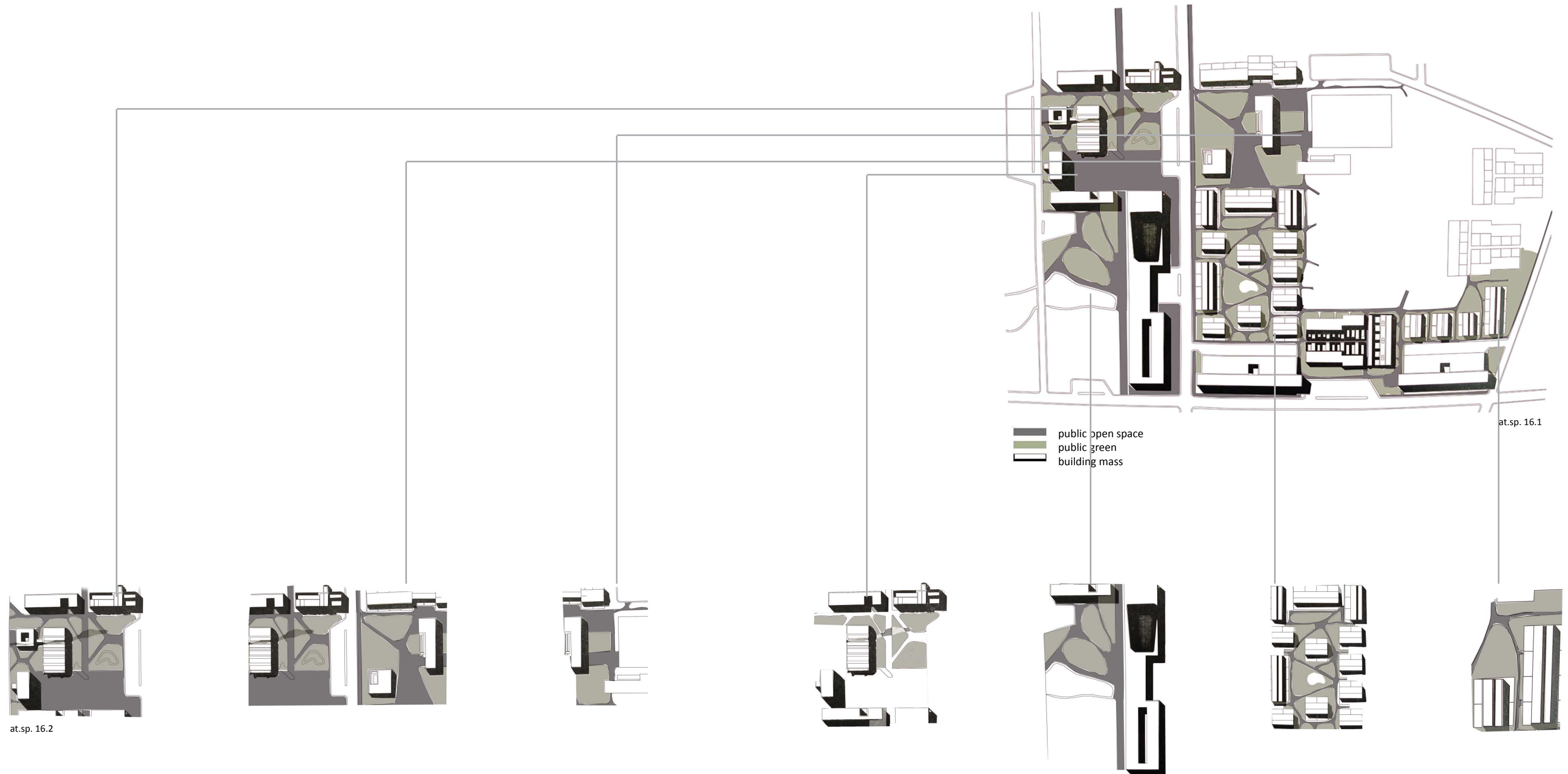
at.sp. 15.7 Building masses.

CIAM 8 meeting , Hoddesdon 1951 - 'The heart of the city'

(3.1.16) Tumaco, Pacific coast of Colombia - "new trends will affect the core" (Paul Lester Wiener)

In his article "New trends will affect the core", Paul Lester Wiener of New York writes about the plan proposal of Tumaco, a small island port on the pacific coast of Colombia, where cultural, commercial, and recreational buildings have been grouped together in reference to the human scale.

Paul Lester Wiener notes: "The investigation of the 'Core of Cities' is testimony of the search for broader cultural interpretations. The present preoccupation to interrelate the free arts within the 'Core of Cities' raises CIAM's work to the moral and cultural responsibility which the new era demands."

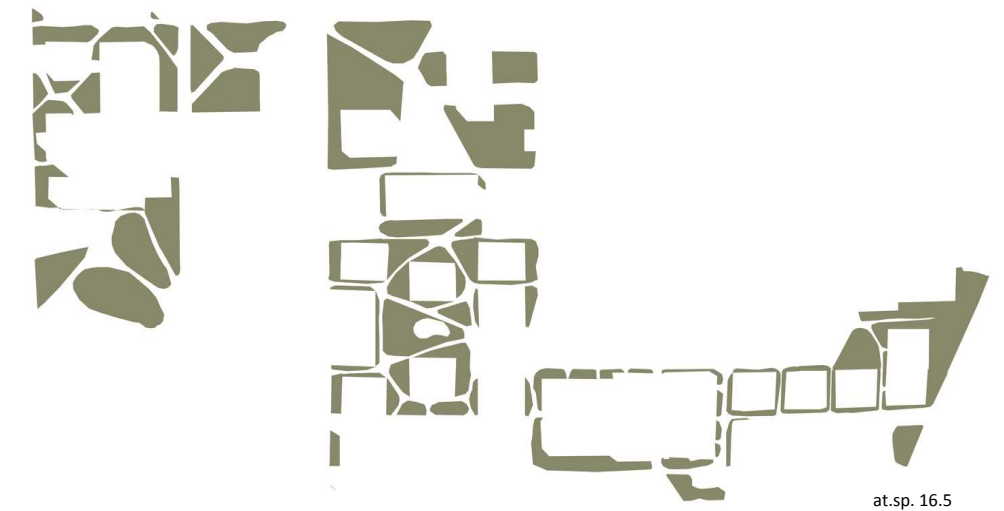


(Tumaco, Pacific coast of Colombia - "new trends will affect the core")



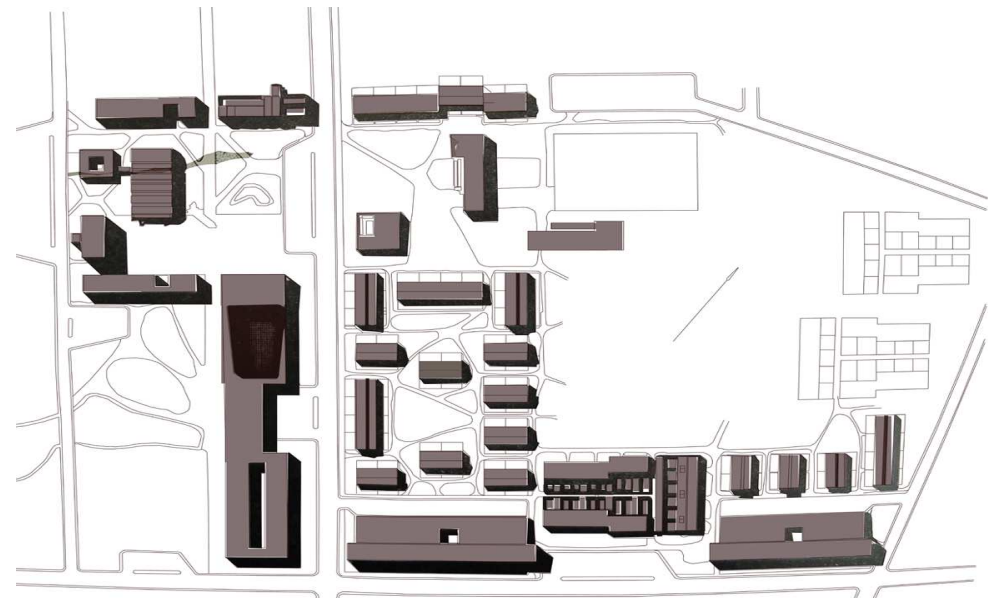
at.sp. 16.3

public green



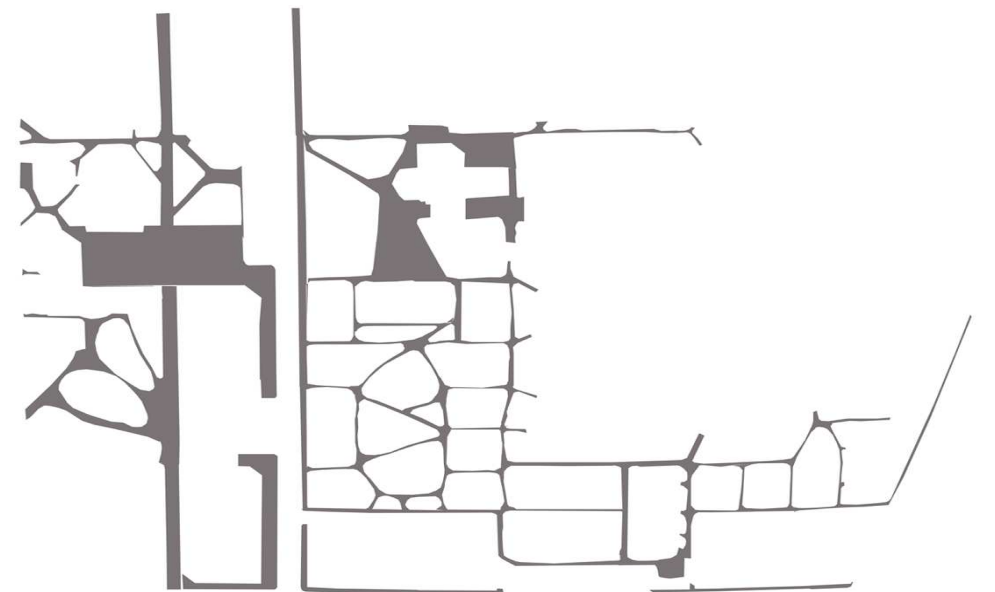
public green

at.sp. 16.5



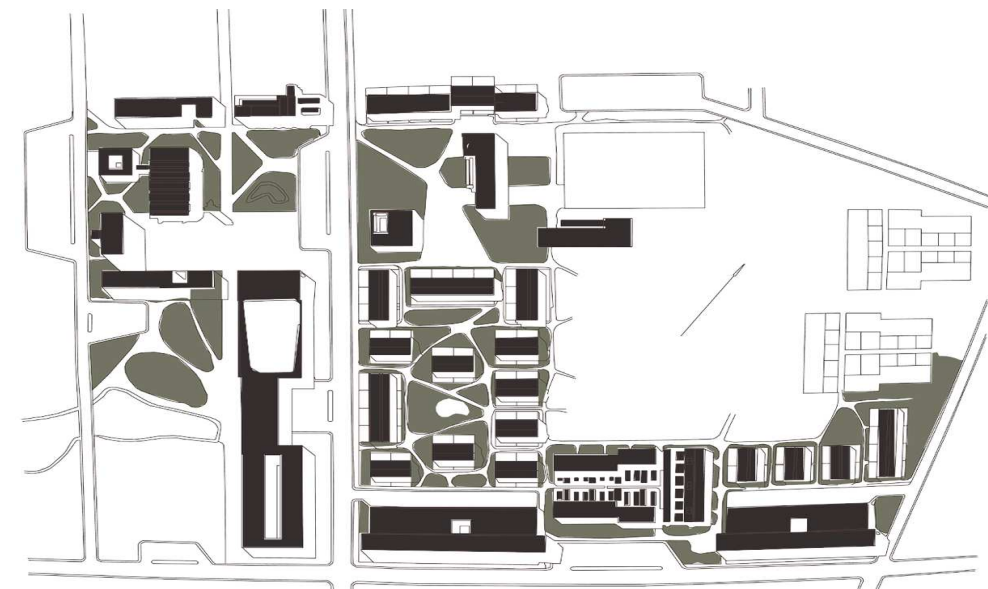
at.sp. 16.4

building mass



public open space

at.sp. 16.6



at.sp. 16.5

building mass
public green

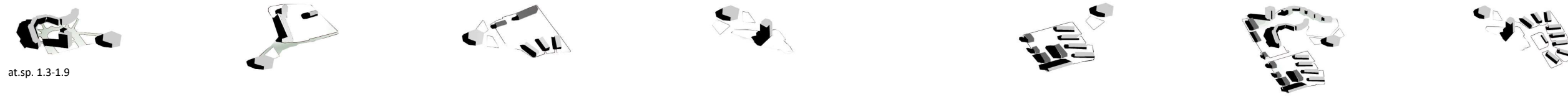


public open space
public green

at.sp. 16.7

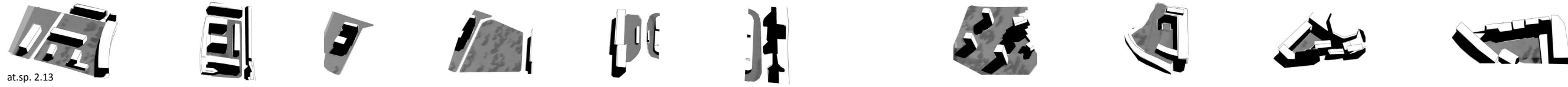
project reference:
Sert, J.L, et.al., 1952, op.cit.

Bastle, Switzerland; 'a new city neighborhood' (O.Senn et al)



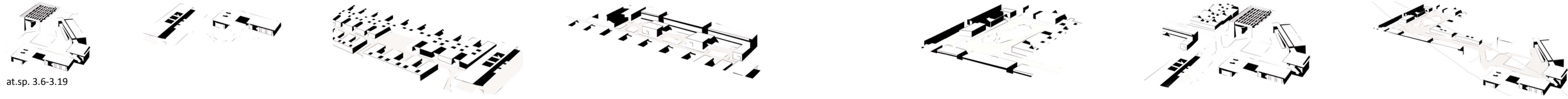
at.sp. 1.3-1.9

Bastle, Switzerland; 'a new center for an old city' (O.Senn et al)



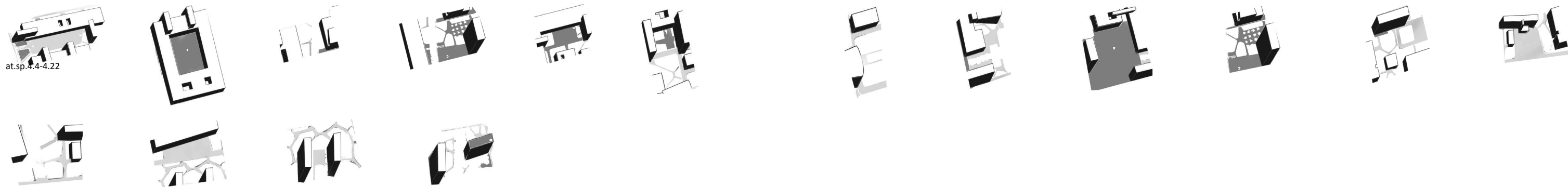
at.sp. 2.13

Chimbote, Peru; (P.L. Wiener and J.L.Sert with the Oficina Nacional de Planeamiento y Urbanismo)



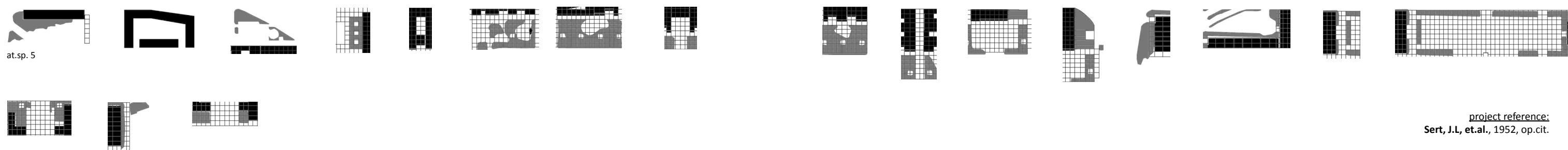
at.sp. 3.6-3.19

California; Civic Center



at.sp. 4.4-4.22

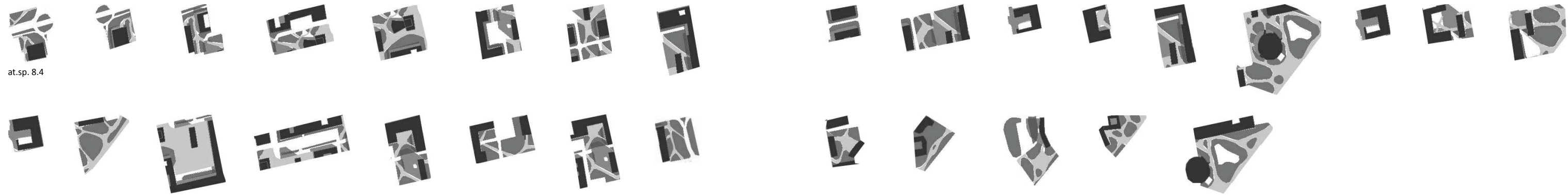
Loussanne, Switzerland; "a new center for an old city"



at.sp. 5

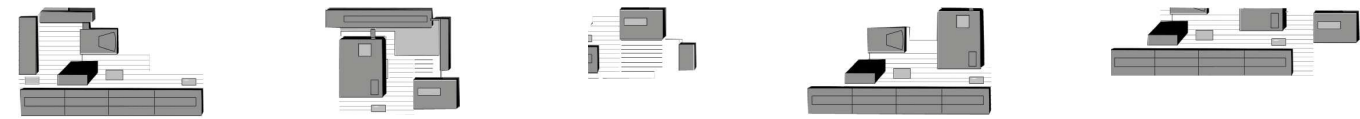
project reference:
Sert, J.L, et.al., 1952, op.cit.

New Haven, U.S.A. (students of Yale University)



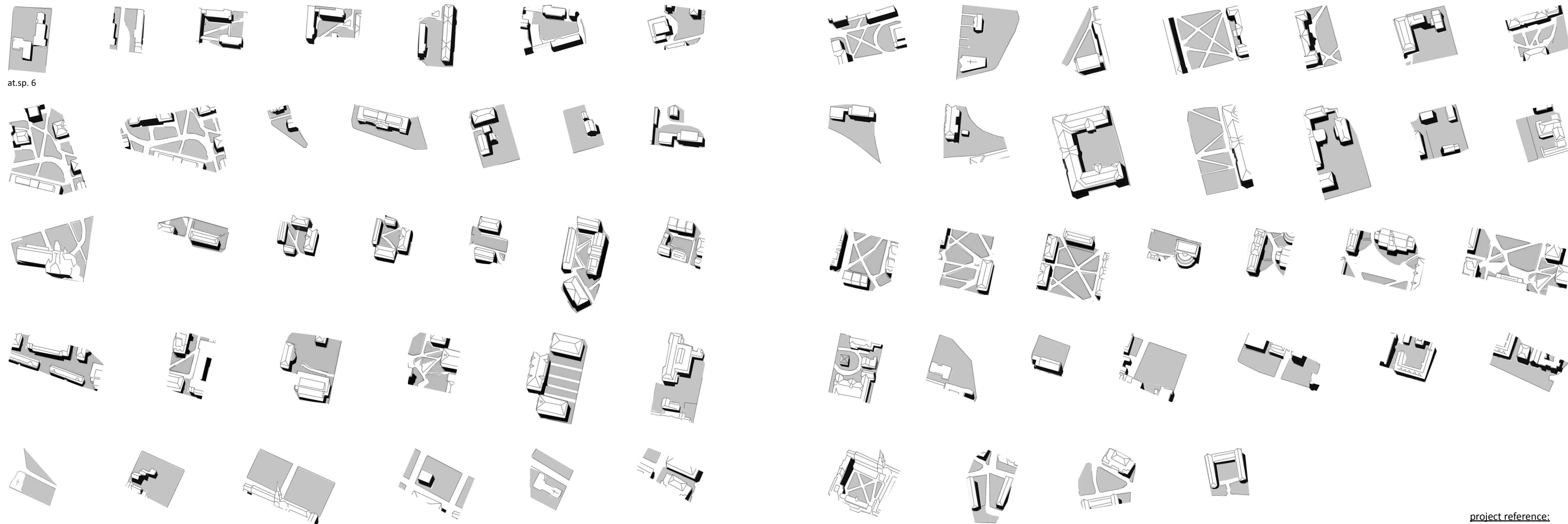
at.sp. 8.4

Tvetan, Oslo, Norway; "a new center of several suburbs"



at.sp.10.2

Massachusetts; Graduate Center at Harvard campus (Walter Gropius)



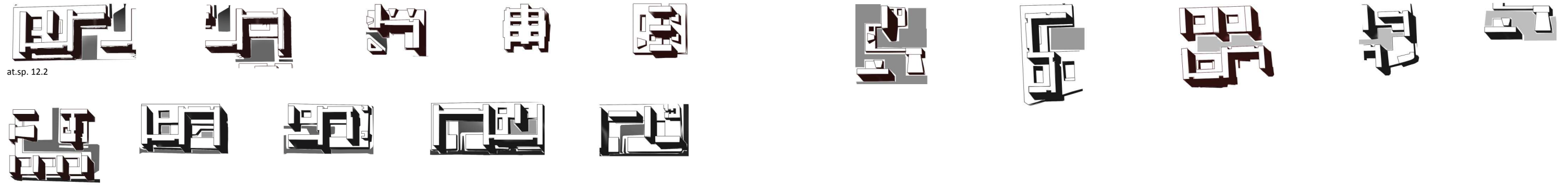
at.sp. 6

Paris, France; "in search for the core of a city" (J.Alaurant)



at.sp. 11.16-11.17

Lima, Peru; Pilot Plan (P.S.Wiener and J.L.Sert with Oficina Nacional de Planeamiento y Urbanismo)



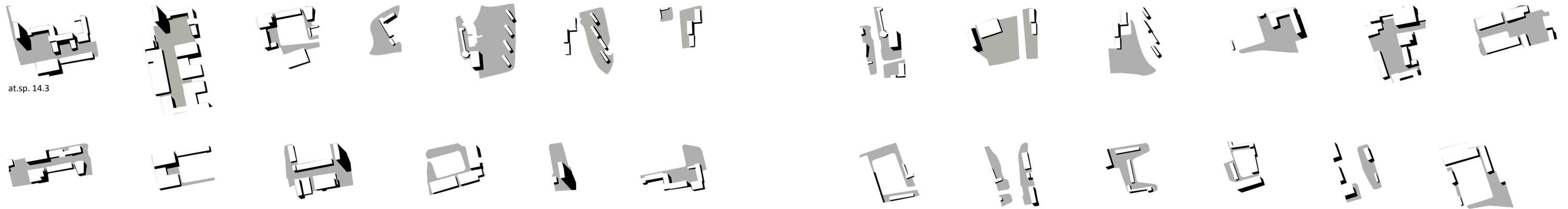
at.sp. 12.2

Rabat Sale, Morocco; "a new satellite town"



at.sp. 13.2

Stevenage, England; "a project for a residential sector of a new town" (Students of the Architectural Association)



at.sp. 14.3

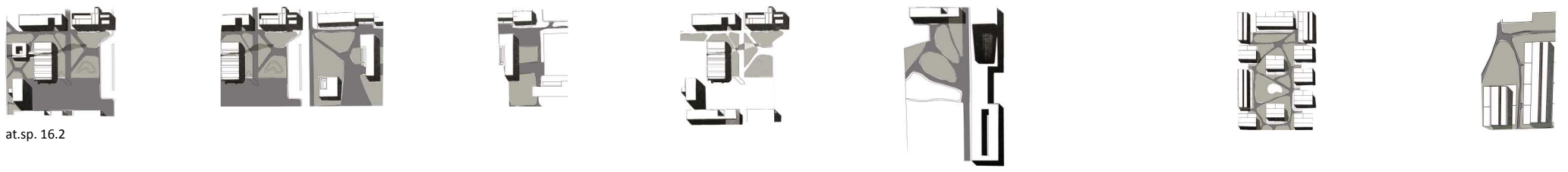
project reference:
Sert, J.L, et.al., 1952, op.cit.

Stevenage, England; "plan for a new town" (Gordon Stephenson et al)



at.sp. 15.2

Tumaco, Pacific coast of Colombia; "new trends will affect the core" (Paul Lester Wiener of New York)

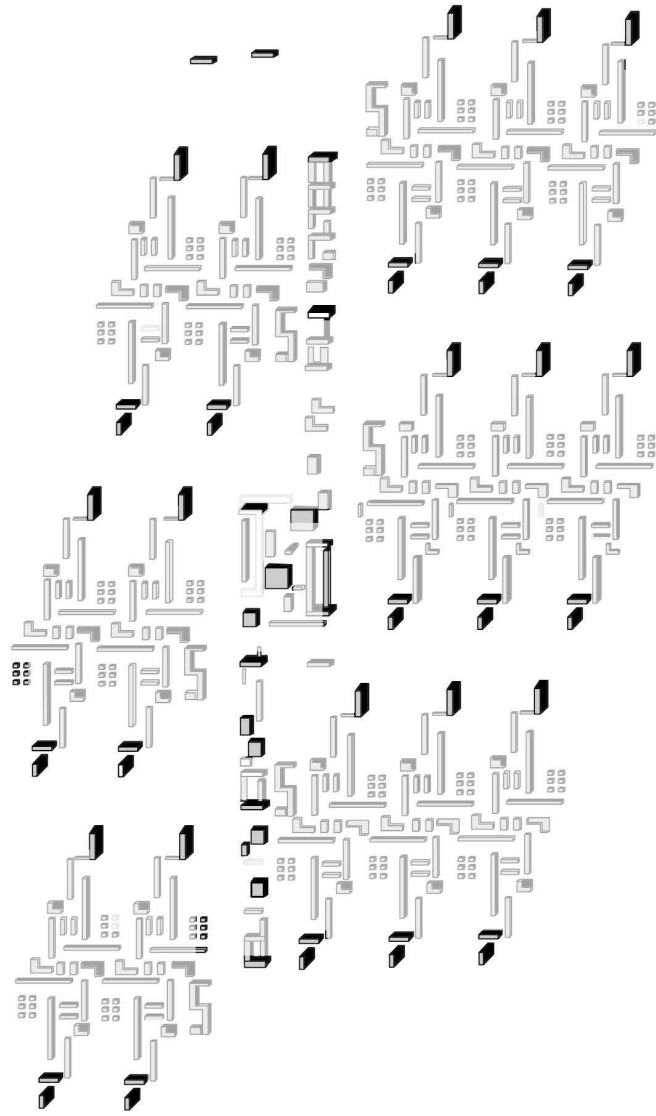


at.sp. 16.2

Team X meeting Otterlo 1959 - 'The end of CIAM'

(3.3.1) Kennemerland regional plan, 1957-59 (Van den Broek and Bakema)

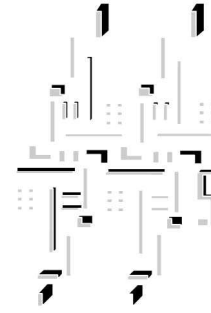
keyword links: layers (2.3), structure (2.5), concept/theme (2.7), orientation/path (2.10)



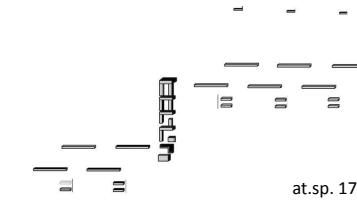
at.sp. 17.1 More relevant to the public open urban space analysis of the suburban situation, these schemes help to see the treatment of Team X and their evolutionary steps in the situation of the *urban periphery*. Due to the low value of the landscape, the result is a composition of linearity and uniformity of scale.



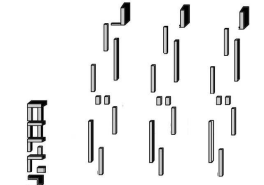
at.sp. 17.2 The main *structure* of the public open urban space organization, demonstrating successive centers and openly dynamically patterned building masses. The open space *framing* techniques are also crucial, offering a relation between the individual dwellings and the city as a totality (*concept/theme*; relationship between architecture and urban design).



at.sp. 17.4 Public 'regional' *structure*.



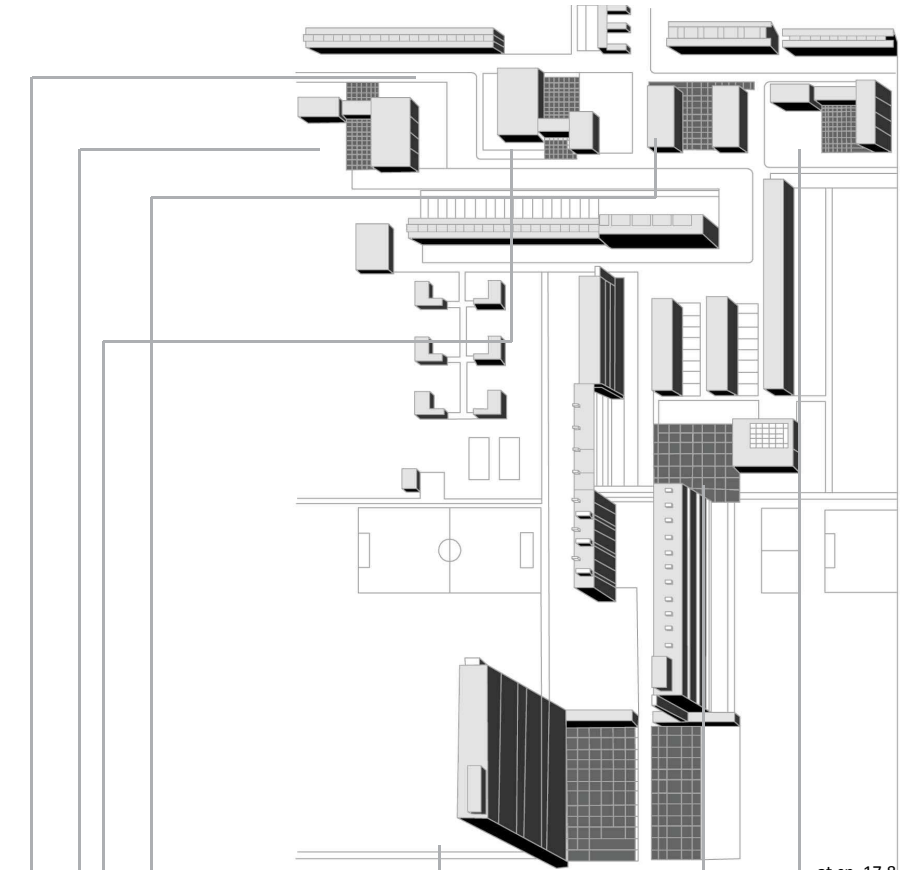
at.sp. 17.5 *Horizontal orientation*.



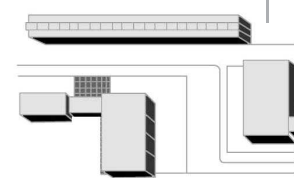
at.sp. 17.6 *Vertical orientation*.



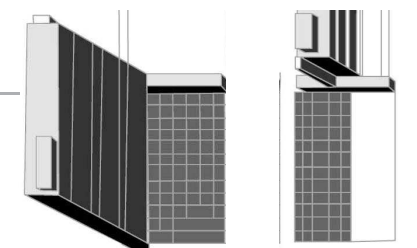
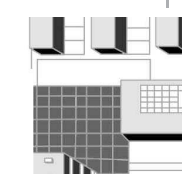
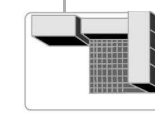
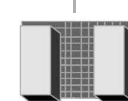
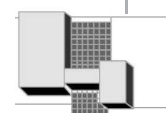
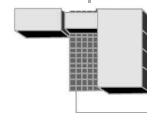
at.sp. 17.7 The core of the *structure*, organizing the whole pattern.



at.sp. 17.8 In this scheme one can see the organization of the public open urban spaces in totality, within a small neighborhood unit.



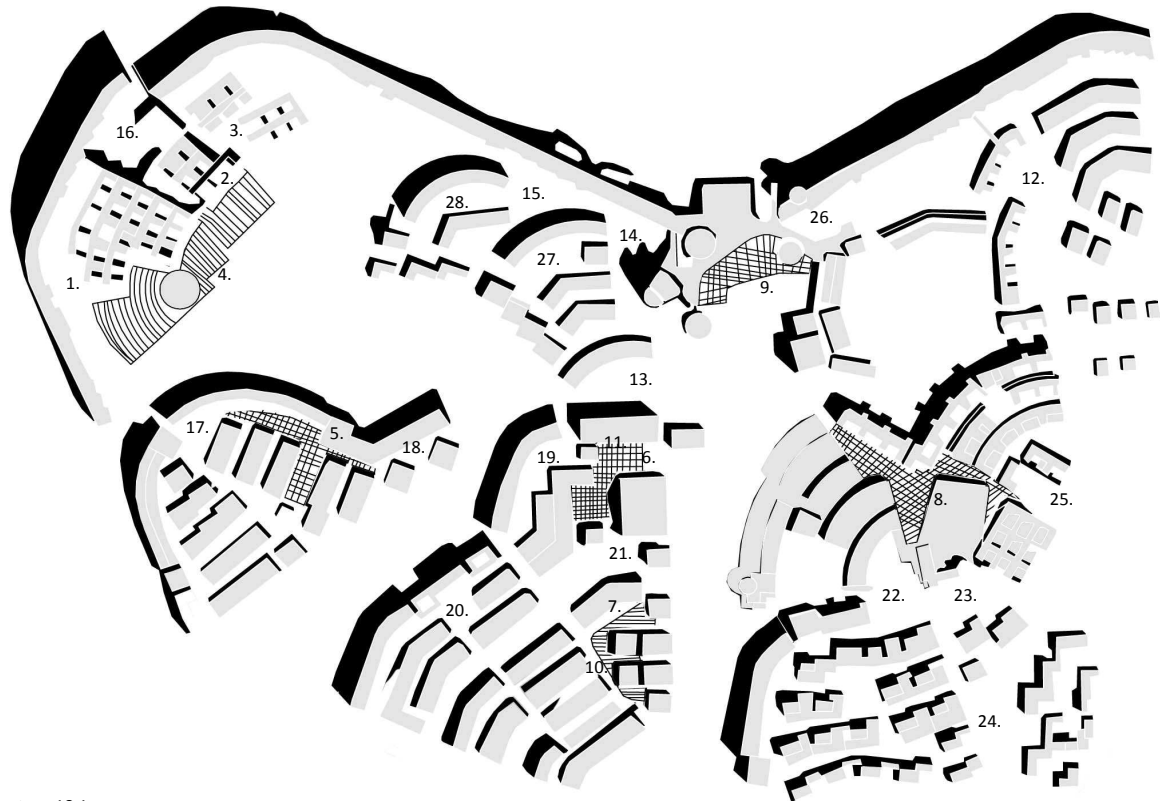
at.sp. 17.3



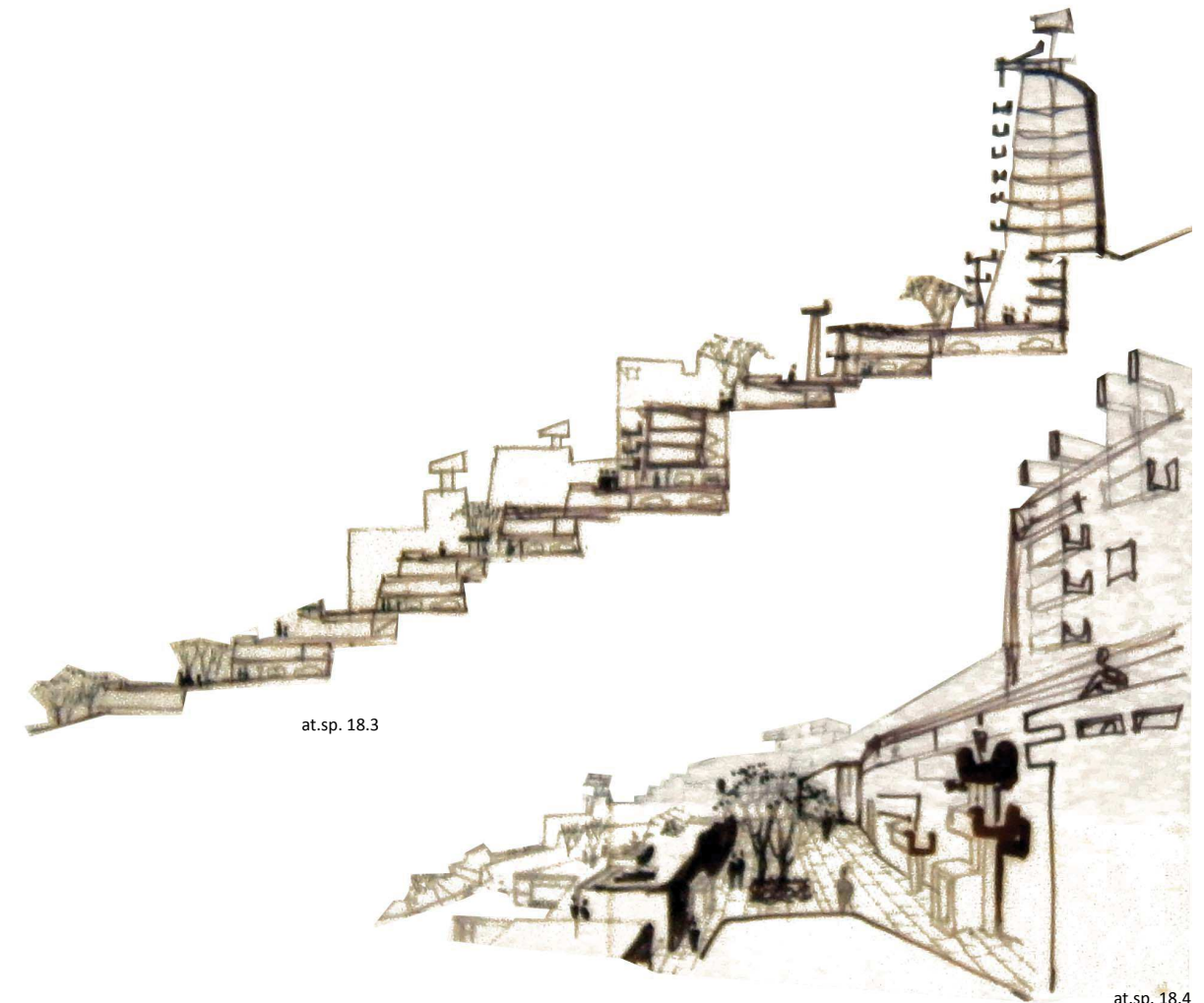
project reference: Sert, J.L, et.al., 1952, op.cit.

Team X meeting Otterlo 1959 - 'The end of CIAM'
(3.3.2) Ecological Arctic Town, 1958 (Ralph Erskine)

keyword links: layers (2.3), field/relationships (2.6), ground (2.8), orientation/path (2.10)



at.sp. 18.1
Master plan of the composition, showing in grid-pattern the placement of the public open spaces, being formed by various techniques of perceptual approach. The variation is of particular interest, broken down below (at.sp.18.2) as unlike in the CIAM 8 city core compositional attempts of patterns that held the same motif, here one finds a *diversity of situations* in one single plan.

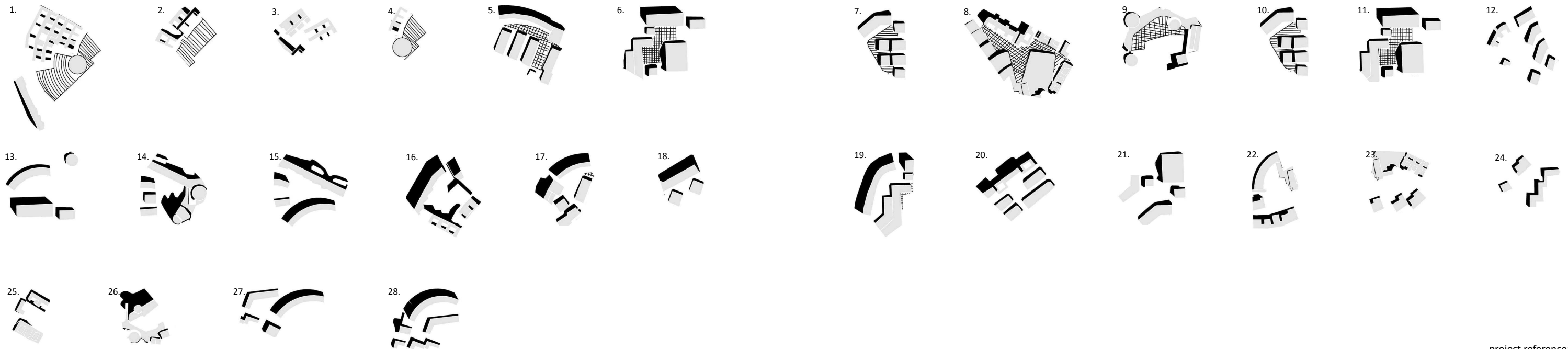


at.sp. 18.3

at.sp. 18.4

Sketches of sections, showing the intensity of *vertical layering* and use of the *ground*, to create *fields* of perceptual *orientation* through the feeling of elevation and *relationship* to the surroundings.

at.sp. 18.2



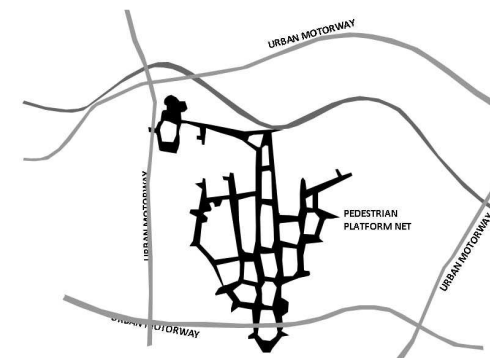
project reference:

Woods, Candillis Josic, *Team 10; 1953-81; in search of a utopia of the present*, NAI Publishers, Rotterdam: 2005, pp. 74-75.

Team X meeting Otterlo 1959 - 'end of CIAM'

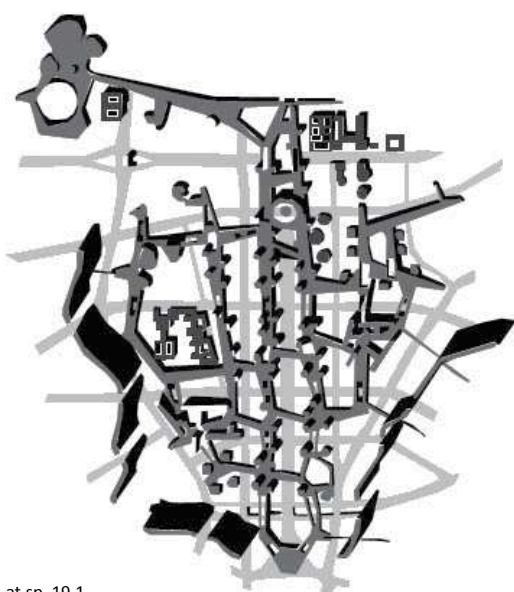
(3.3.3) Hauptstadt Berlin competition, 1957-58 (Alison and Peter Smithson)

keyword links: layers (2.3), infrastructure (2.4.1) concept/theme (2.7), orientation/path (2.10), heritage (4.1)



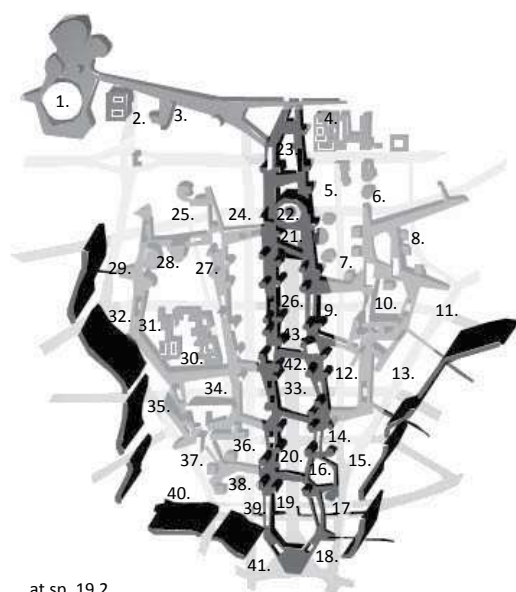
at.sp. 19.3

The proposed *infrastructure* suggests new ways of perception of the public spaces, in the form of platforms of viewing from, creating "an open aesthetic". (Team 10, 2005)



at.sp. 19.1

The total plan of the Hauptstadt Berlin scheme. The design's main design confrontation was the realization of a public core of a bombed-ravaged city, in pursuit of effective connections and urban patterns. Opposing CIAM 8's demonstrations of divisive public open urban spaces, this project suggests a network of connective spaces of contemporary urban functions.



at.sp. 19.2

Compositional orientation and evidence of the STEM structure.



at.sp. 19.4

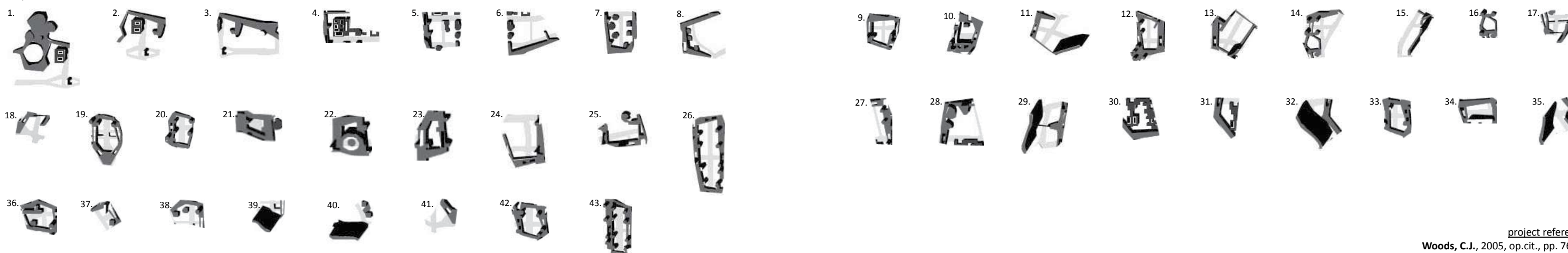
The organization of the compositional whole, demonstrating the shape formations of the STEM, where "spaces are 'revaluated by a special counter-geometry'". (Team 10, 2005)



at.sp. 19.5

Layering scheme of the *STEM* concept in relation to the existing buildings, figuratively showing the effort to integrate the existing *historical remnants* into the new modern design, using patterns "moulded around existing features". (Team 10, 2005)

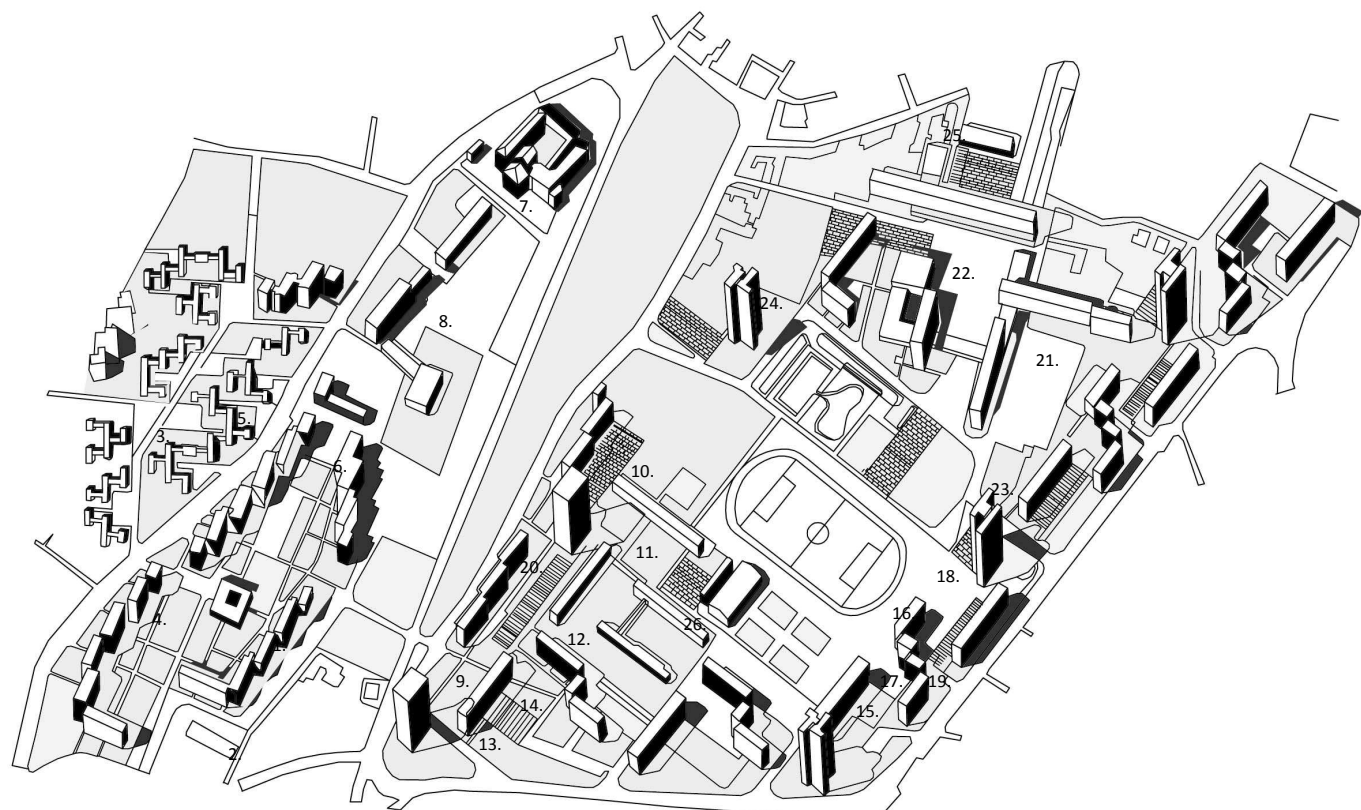
at.sp. 19.3



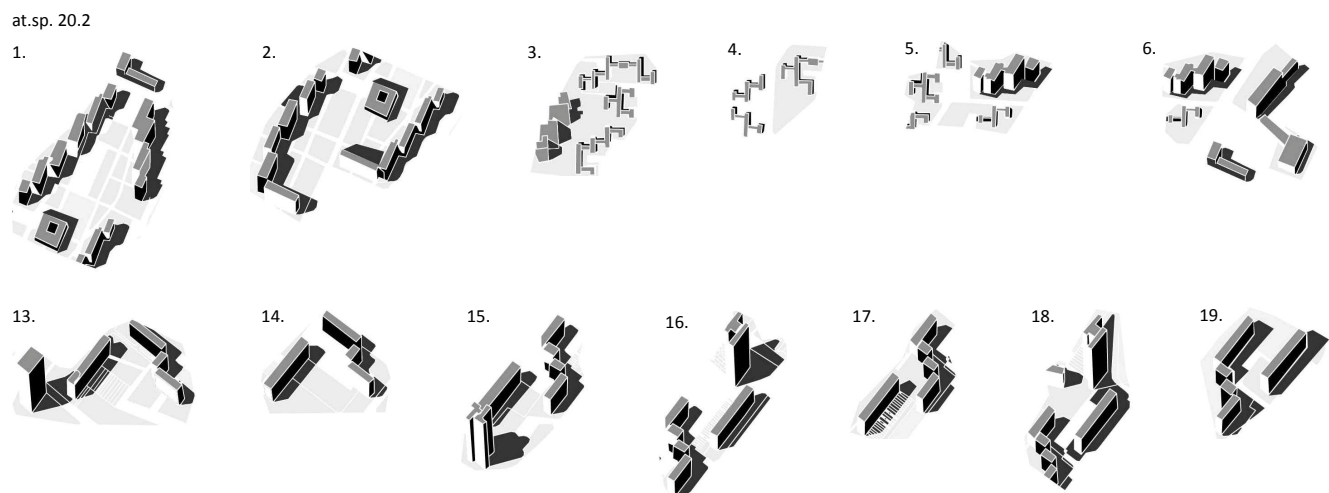
Team X meeting Bagnols-sur Cèse 1960; 'Against Formulae, against formalism'

(3.3.4) Bagnols-sur Cèse urban extension, 1956-61, (Candilis-Josic-Woods)

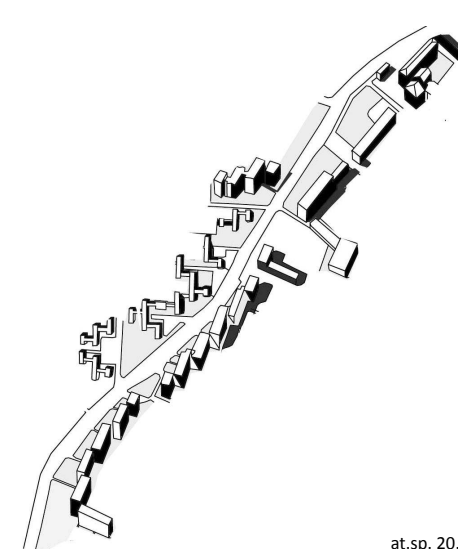
keyword links: **infrastructure** (2.4.1), **concept/theme** (2.7), **orientation/path** (2.10)



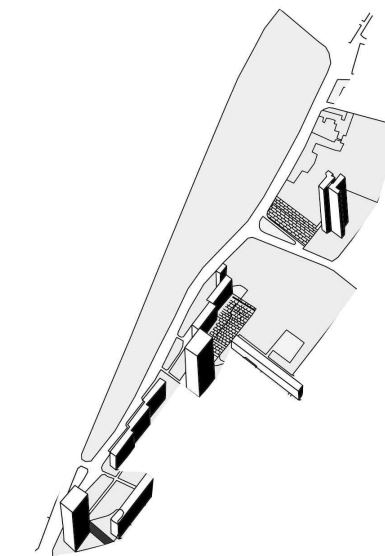
at.sp. 20.1
 Master plan scheme of the Bagnols-sur Cèse urban extension, with the public open urban spaces highlighted in light grey. Project motto (**theme**): 'Bagnols: Moderne et Classique'. This **conceptual motto** hints the logic behind the design of the public open urban spaces, which are a combination of the enclosed and secured traditional plaza, and the borrowing of the modern public open space of a partly undefined void, surrounding a tall building. The combination of the classical and modern tendencies of open space, becomes very evident in the breaking down of the open spaces, demonstrated in atlas spread number 20.2 (at.sp.20.2).



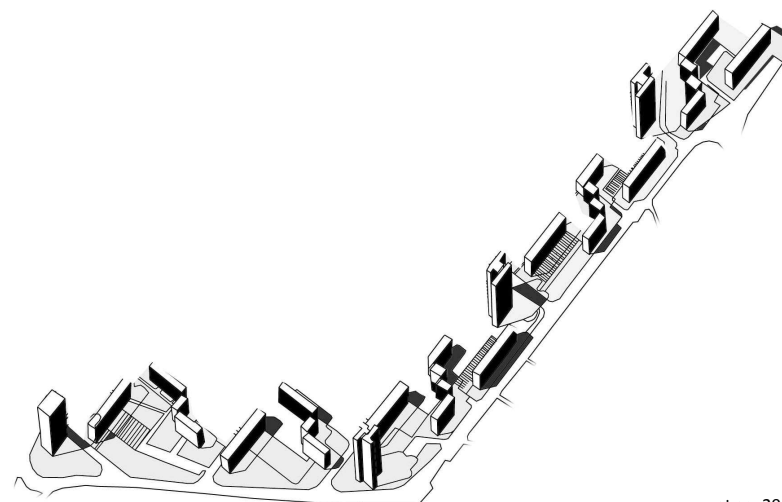
at.sp. 20.2



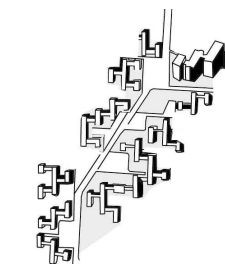
at.sp. 20.3
 Public open urban spaces in relation to the **infrastructure**. On the south-eastern pattern of linear organization of buildings, one notices the default wall-protection, blocking the view and connection to the street. Where such a method is not applied, larger public open spaces are used, to create a desired distance to the car movements.



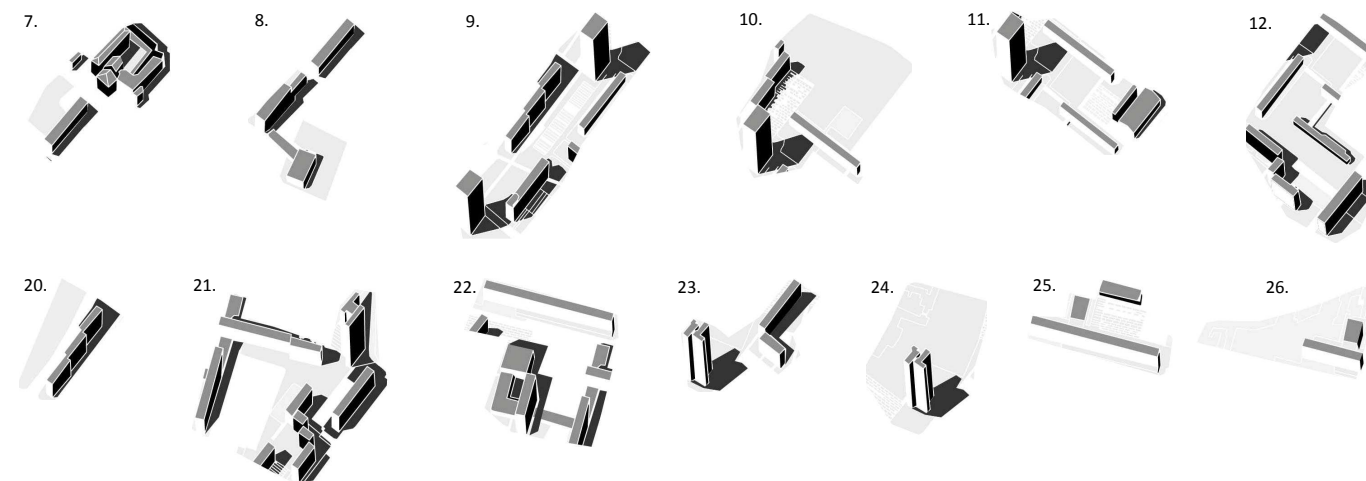
at.sp. 20.4
 Another interesting relationship to the infrastructure, with the **orientational punctures** of tall buildings, surrounded by larger public areas - a key characteristic of the modern movement public space evolution.



at.sp. 20.5
 The infrastructure here seems more like a standpoint of a perceptual sequence of public open urban sceneries, articulated by tall buildings and being semi-enclosed. The result is an interesting hybridization of the suburban phenomenon of linear and fast speed mobility through car, but parallel to the existence of sequential public 'shelterings', which are not dead ends, but trespassing spaces of **visual hints**.



at.sp. 20.6
 When the infrastructure becomes less heavy, the public open urban spaces surrounding the residential units of this scheme become more intimate, enclosed, secured, and less threatened by traffic. Due to the similarity of patterns, one notices the articulation of heavier building mass as means of **orientation** to the north-east, accompanied by a larger (main) plaza.



project reference:
 Woods, C.J., 2005, op.cit., pp. 86-87.

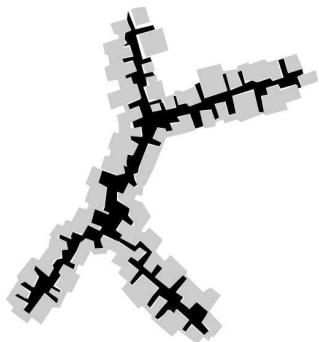
Team X meeting London 1961 - 'The aim of Team 10'

(3.3.5) Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies 1961-62 (Candilis-Josic-Woods)

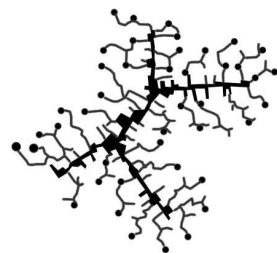
keyword links: **infrastructure** (2.4.1), **structure** (2.5), **ground** (2.8), **articulation** (2.9), **orientation/path** (2.10)



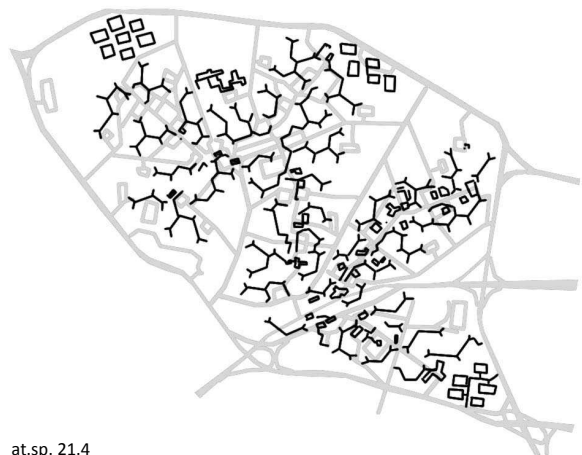
at.sp. 21.1 In a three-dimensional and massing-scheme, this diagram shows the overall impression of the perceptual form intentions of the open spaces. Candilis-Josic-Woods, once again, experiments with the logic of the STEM structure as **conceptual organization**, **orientation**, and **structural means**, going deep into the concept of the *emergence of form from the ground*.



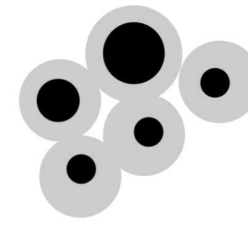
at.sp. 21.2 Pedestrian zone schematic image - the STEM system. "[...] intervals at which public functions are spaced along the stem determine the rhythm and the structure of further urban developments." (Team 10, 2005)



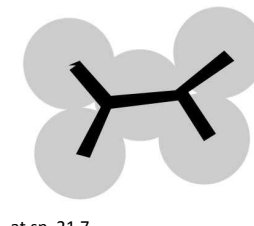
at.sp. 21.3 Pedestrian zones and high rise buildings - **salience** and **orientation** techniques along the public open circulation stem **paths**.



at.sp. 21.4 The stem in relation to the infrastructure. What is interesting here is the organic impression of pedestrian public circulation within the stem, in contrast to the rediscovery of the **linear city center street** as the basic structure for the infrastructural city plan.



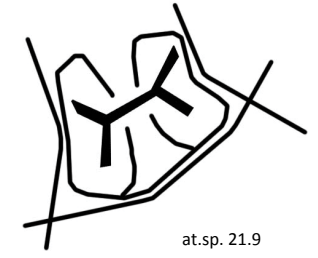
at.sp. 21.6 Schematic interpretations of the STEM structure in relation to the public open urban spaces. The goal is to include within the public units all commercial, cultural, educational, leisure, roads, walkways and services.



at.sp. 21.7



at.sp. 21.8

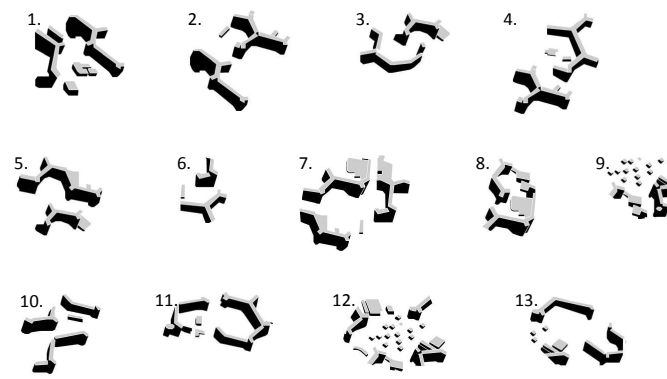


at.sp. 21.9



at.sp. 21.10 Conceptual interpretation in section, showing the scale of the surrounding masses of the public open urban space within.

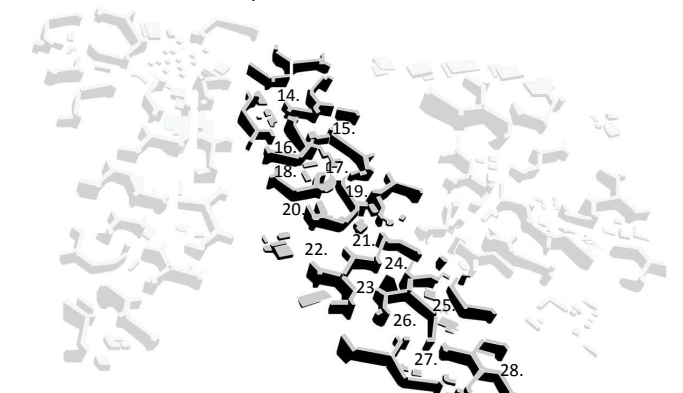
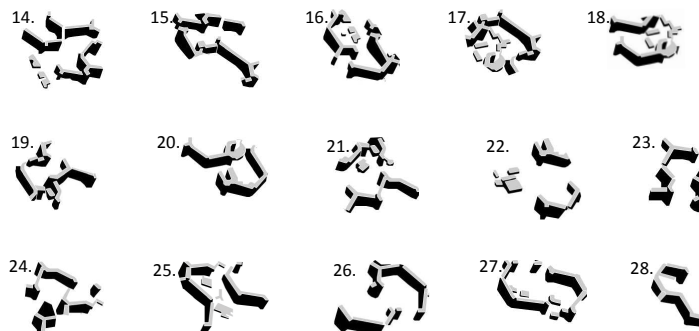
at.sp. 21.10



at.sp. 21.11

Analytical breakdown demonstration of the left stem.

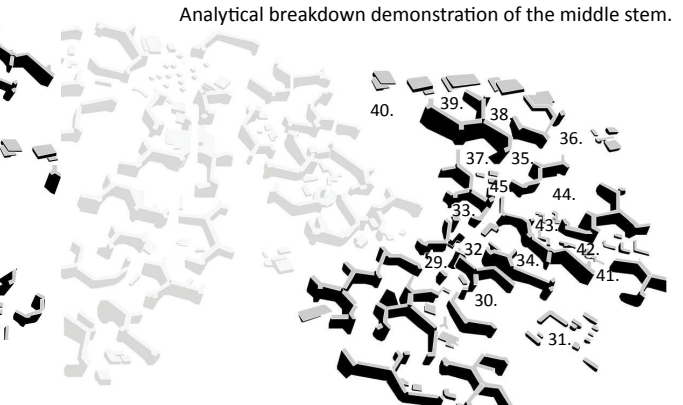
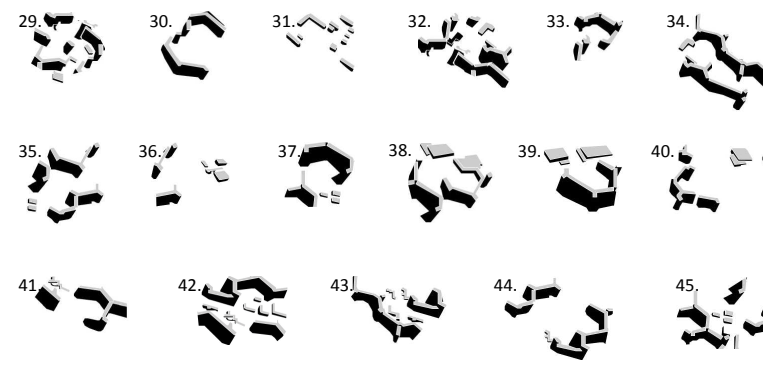
at.sp. 21.12



at.sp. 21.13

Analytical breakdown demonstration of the middle stem.

at.sp. 21.14



at.sp. 21.15

Analytical breakdown demonstration of the right stem.



at.sp. 21.5

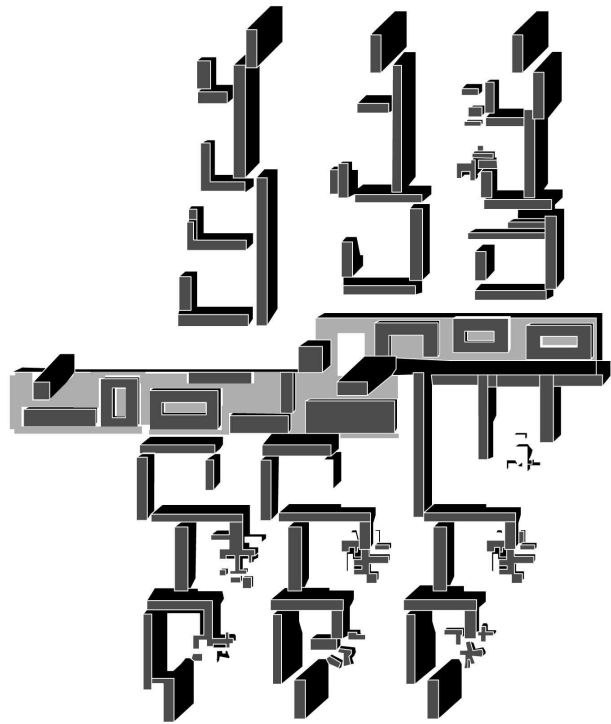
Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'

(3.3.6) Buikslotermeer urban study, Amsterdam, 1962-63 (Van den Broek, Bakema and Aldo van Eyck), alternative to final plan

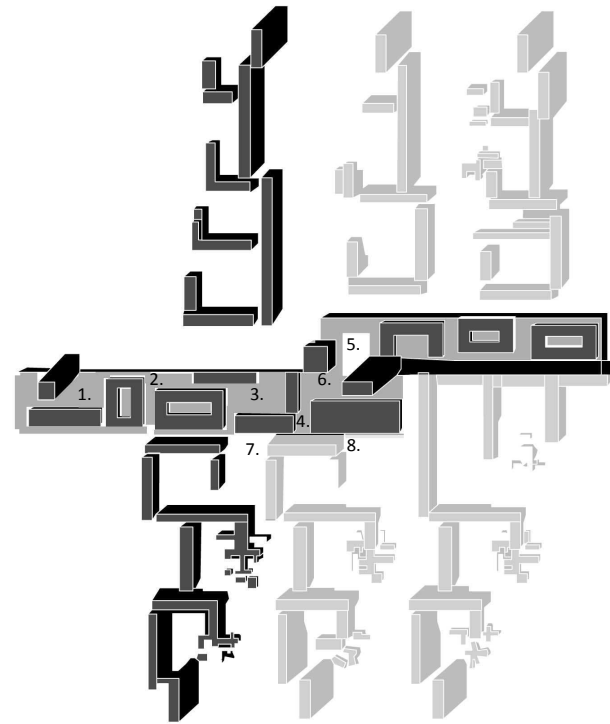
Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'

Buikslotermeer urban study, Amsterdam, 1962-63 (Van den Broek, Bakema and Aldo van Eyck), final plan

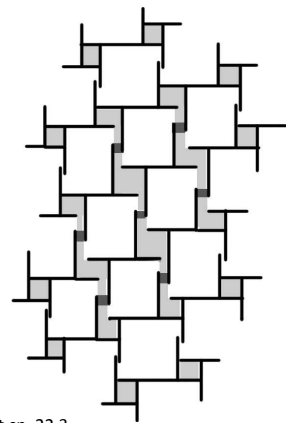
keyword links: signs/meanings (1.3), infrastructure (2.4.1), structure/framing (2.5)



at.sp. 22.1

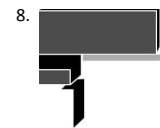
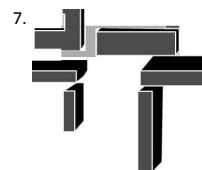
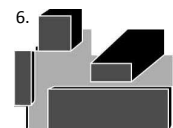
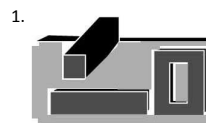


at.sp. 22.2
Articulation scheme of the **structure** of public open space organization.

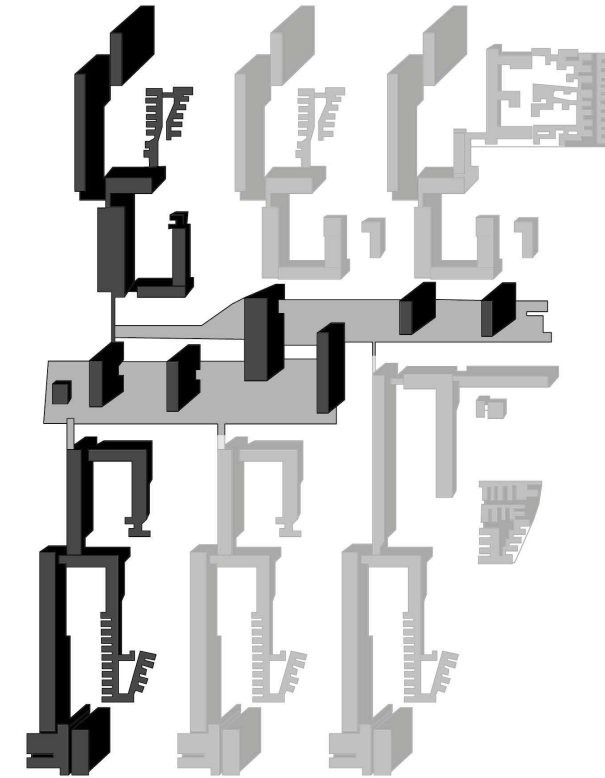
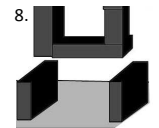
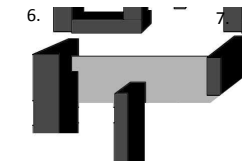
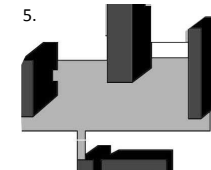
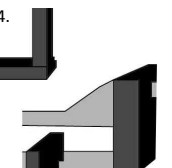
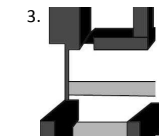
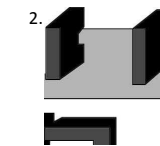
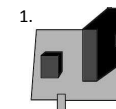


at.sp. 22.3
Framing of the public open spaces

at.sp. 22.4

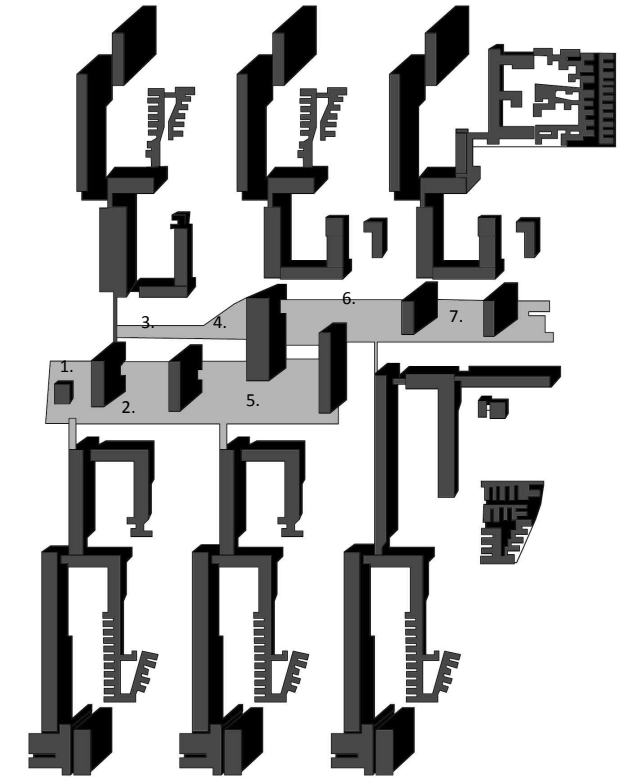


at.sp. 22.7



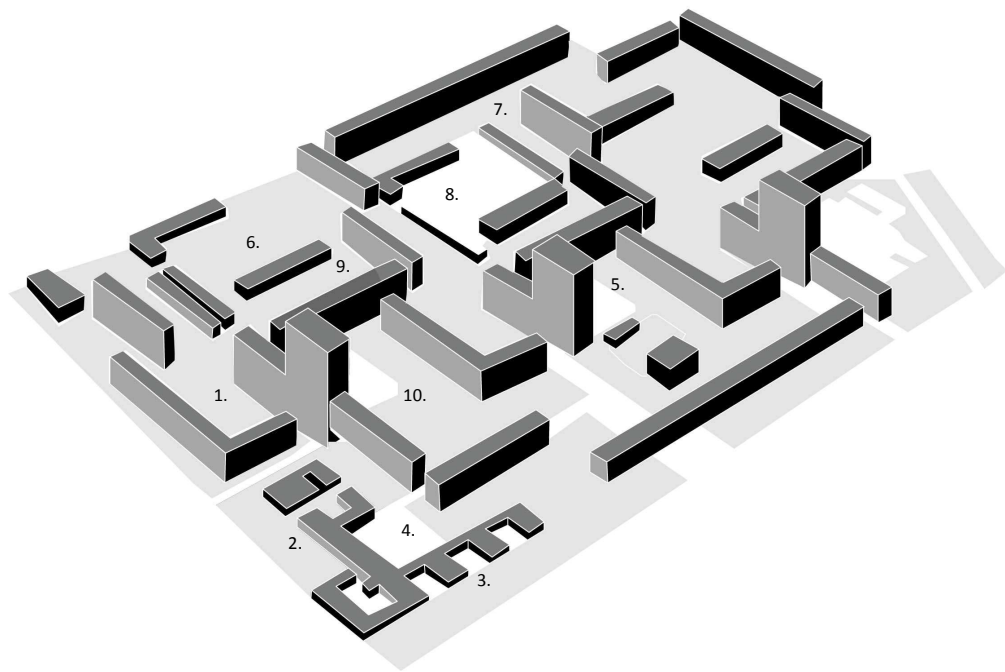
at.sp. 22.5

Articulation scheme of the **structure** of public open space organization.



at.sp. 22.6

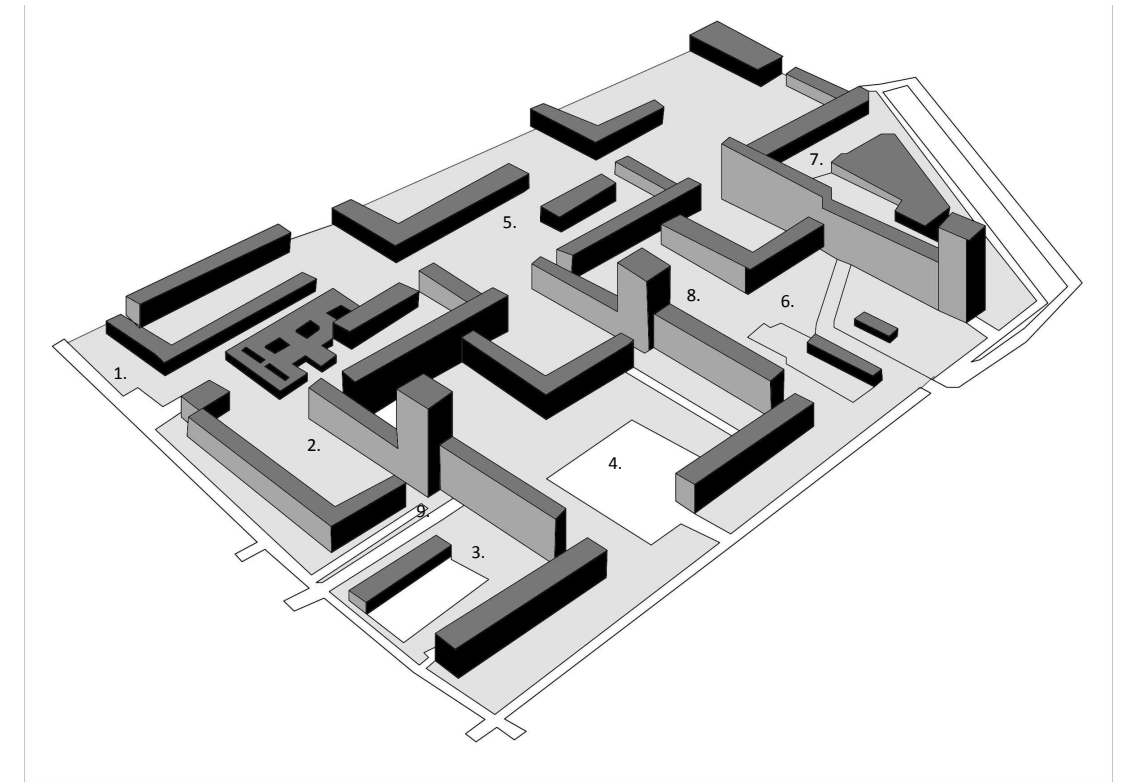
(Buikslotermeer urban study, Amsterdam, 1962-63), alternative to final model



at.sp. 22.7

What is interesting about the organizations of these schematic layouts, is the use of regular centrifugal patterns of relations, drawing a connection to the *semiotic organization* for the definition of different sizes and characters.

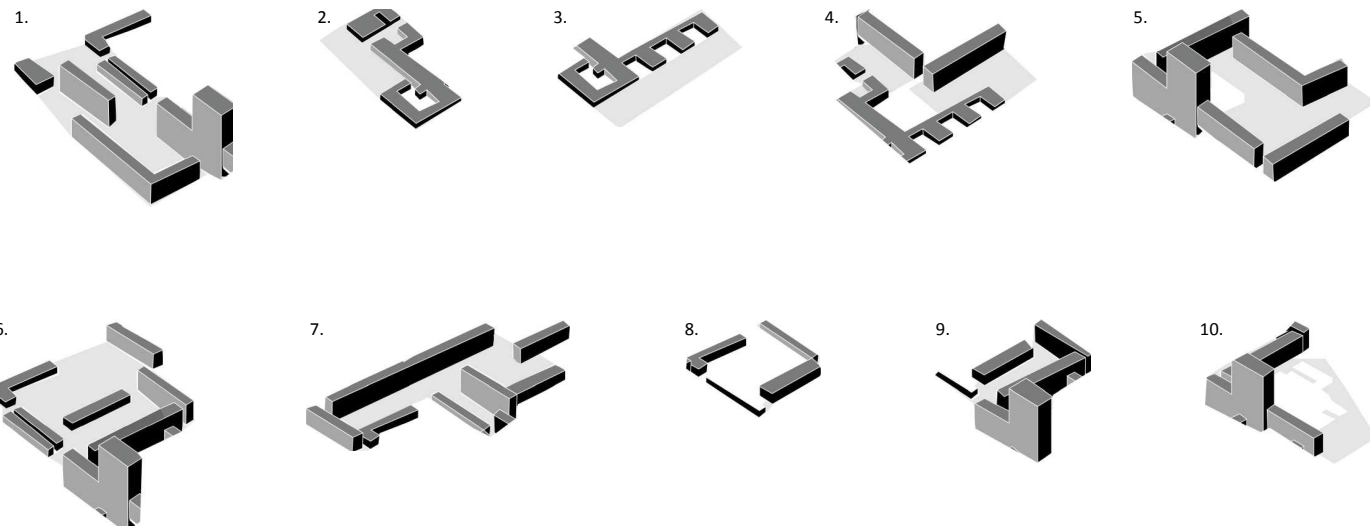
(Buikslotermeer urban study, Amsterdam, 1962-63), final model



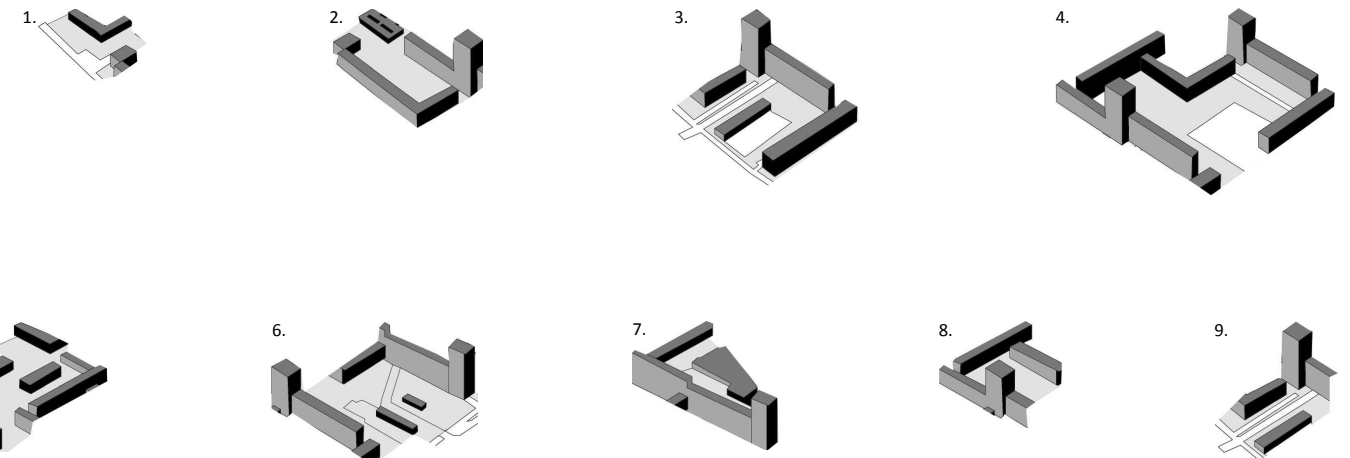
at.sp. 22.9

The layout of the schemes is based on structure which follows certain orthogonal patterns, drawing all the amenity concentration towards the central core, creating a *general structure* for the public spaces.

at.sp. 22.8



at.sp. 22.10

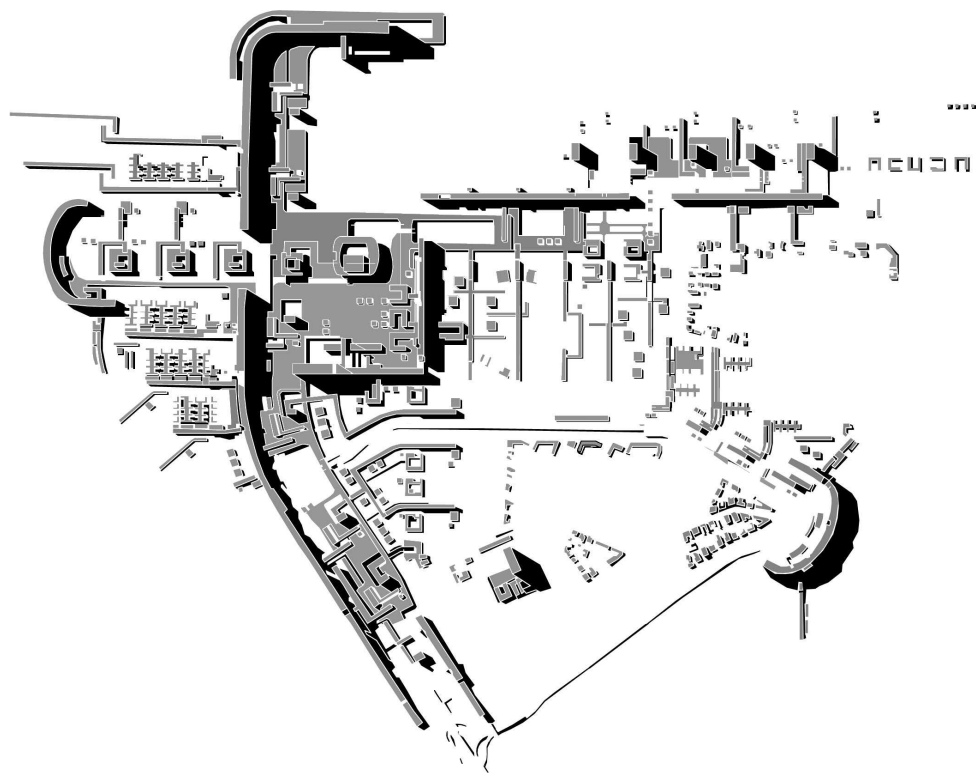


project reference:

Woods, C.J., 2005, op.cit., pp. 116-117.

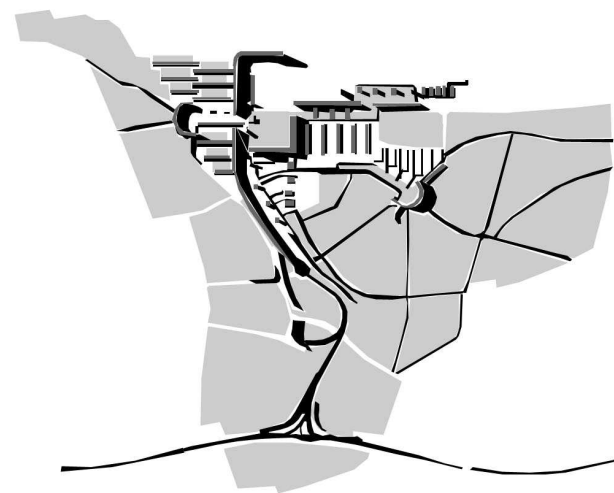
Team X meeting Urbino 1966 - 'Team 10 in crisis: to move or to stay?'

(3.3.7) Tel Aviv city center, 1962 (Van den Broek and Bakema)

keyword links: **layers** (2.3), **infrastructure** (2.4.1), **structure** (2.5.1), **field** (2.6), **ground** (2.8), **salience/articulation** (2.9)

at.sp. 23.1

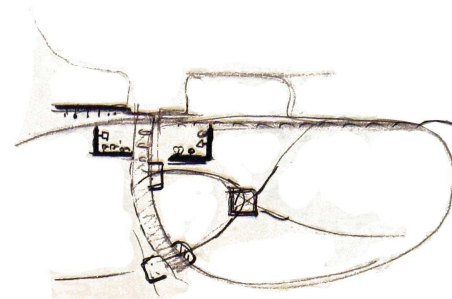
The main concentration of this project by Van den Broek and Bakema, is the consideration of the **infrastructure**, and its relationship to the public core zones, in pursuit of **'energy lines'** (**field definitions**), **visual transitions** and a **flexible structure**. "A city must have both an obvious structure that can be grasped immediately and also a potential structure which will allow one gradually to construct a more complex and comprehensive picture". (*Team 10*, 2005)



at.sp. 23.2

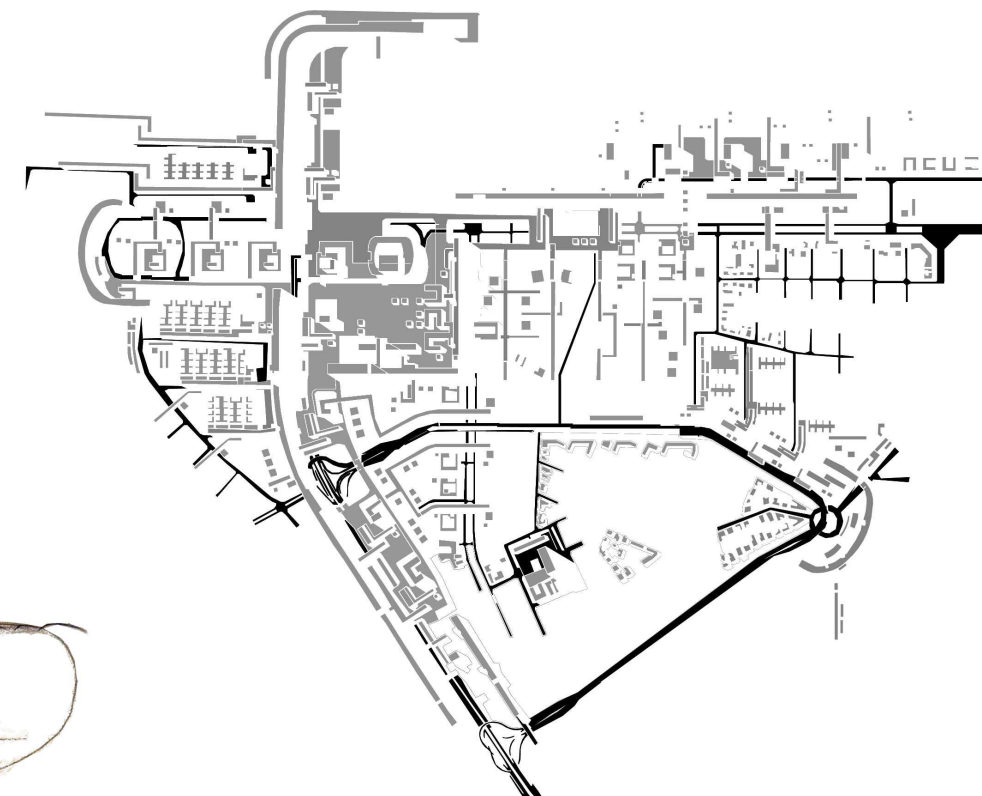
A layering scheme of existing and new interventions. The new core flourishes around the intersection of the coastal road with the main road coming from the hinterland, using the natural indentation of the coastline to form the main **structural pattern** of the central core zone. Furthermore, the pedestrian flow is moved around two **historical cores**.

The scheme becomes three dimensional and organically alive by the elevation of the central zone running parallel to the main roads, functionally connected to adjacent activities, with an extensive network of pedestrian decks, creating **vertical layers** of food-circulation, roads and parked cars.



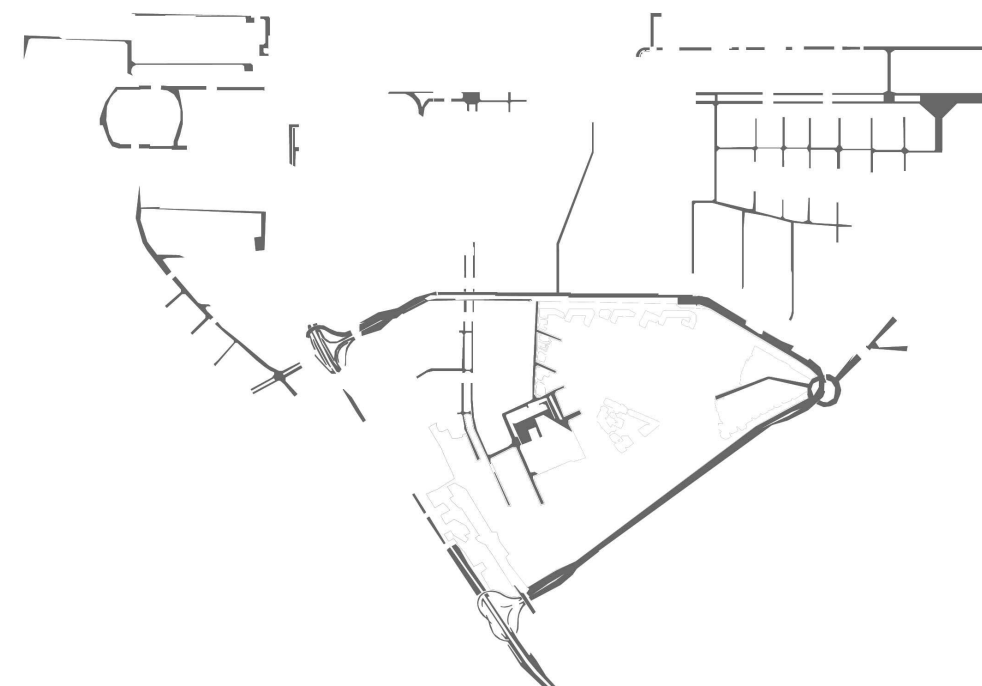
at.sp. 23.3

A conceptual sketch of the **infrastructural connections** in relation to the major public open spaces.



at.sp. 23.4

This scheme shows the infrastructural patterns of organization, demonstrating Bakema's typified way of thinking about the relation between the road structure and the shape of the city, hinting to the **infrastructural associations** with the public open urban spaces.



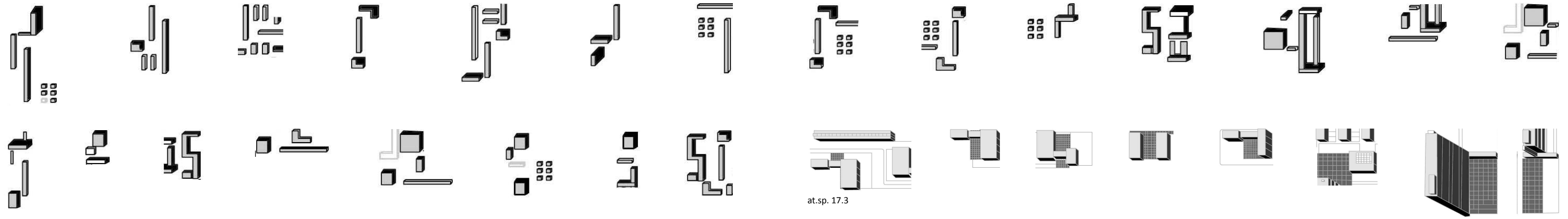
at.sp. 23.5

This conceptual sketch shows the infrastructural connections and patterns, where roads and rivers are characterized as **'energy lines'**, creating different kinds of **field perceptions** for the open public environment. "The space radiating from these energy lines is designed on planned levels so that the city core is recognisable from its informative silhouette". (*Team 10*, 2005)

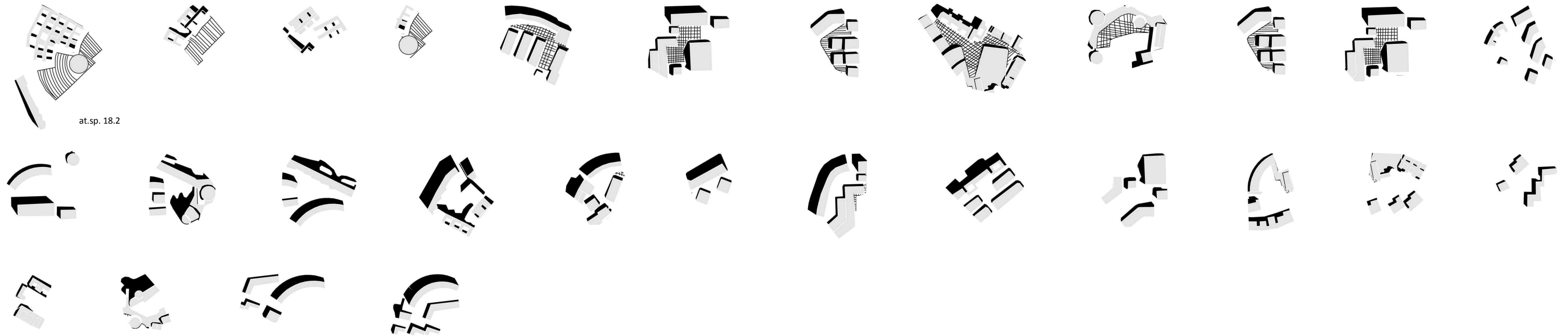
project reference:

Woods, C.J., 2005, op.cit., pp. 144-147.

Team X meeting Otterlo 1959 - 'The end of CIAM'
Kennemerland regional plan, 1957-59 (Van den Broek and Bakema)



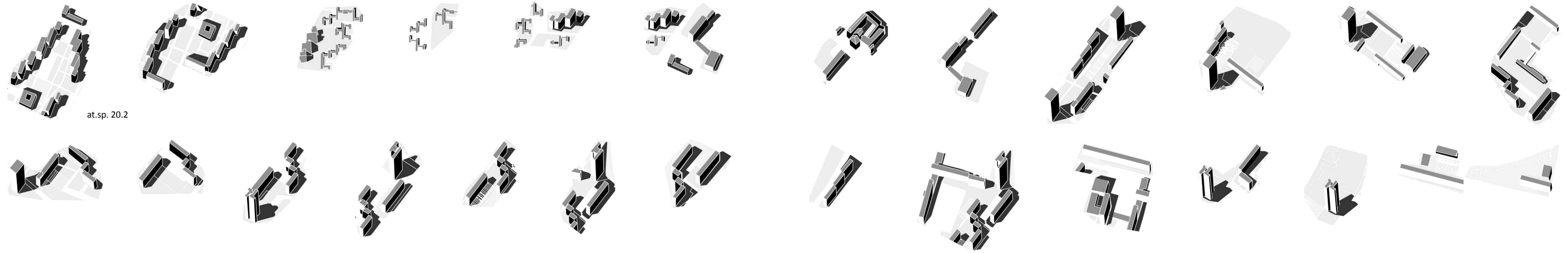
Team X meeting Otterlo 1959 - 'The end of CIAM'
Ecological Arctic Town, 1958 (Ralph Erskine)



Team X meeting Otterlo 1959 - 'end of CIAM'
Hauptstadt Berlin competition, 1957-58 (Alison and Peter Smithson)

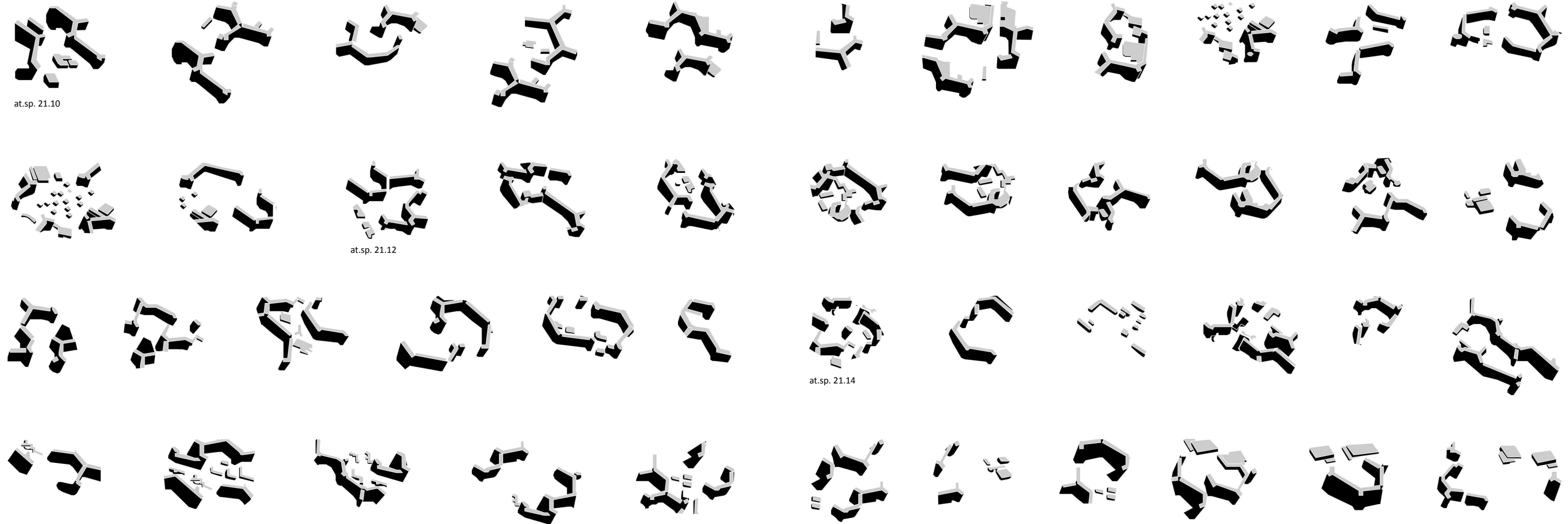


Team X meeting Bagnols-sur Cèse 1960; 'Against Formulae, against formalism'
Bagnols-sur Cèse urban extension, 1956-61, (Candilis-Josic-Woods)



at.sp. 20.2

Team X meeting London 1961 - 'The aim of Team 10'
Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies 1961-62 (Candilis-Josic-Woods)

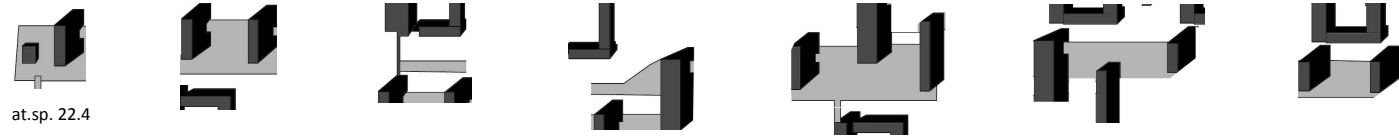


at.sp. 21.10

at.sp. 21.12

at.sp. 21.14

Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'
Buikslotermeer urban study, Amsterdam, 1962-63 (Van den Broek, Bakema and Aldo van Eyck)



at.sp. 22.4

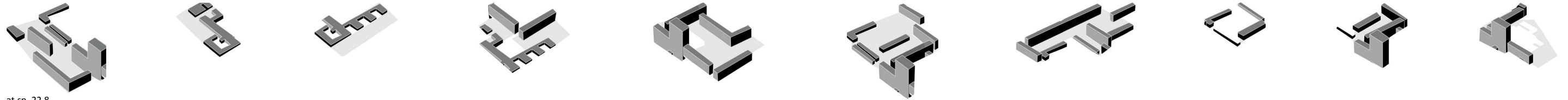
Bakem and Stokla, analysis from models of preparatory studies for Buikslotermeer, plan 1.



at.sp. 22.7

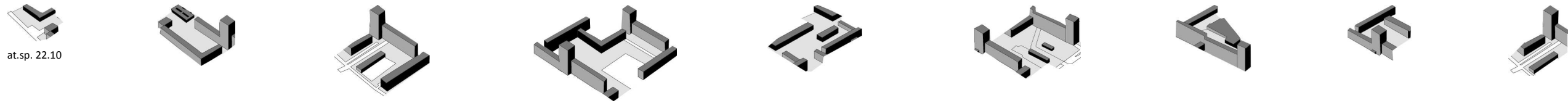
Bakem and Stokla, analysis from models of preparatory studies for Buikslotermeer, plan 2.

Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'
Buikslotermeer urban study, Amsterdam, 1962-63 (Bakema Aldo van Eyck and Stokla), alternative to final model



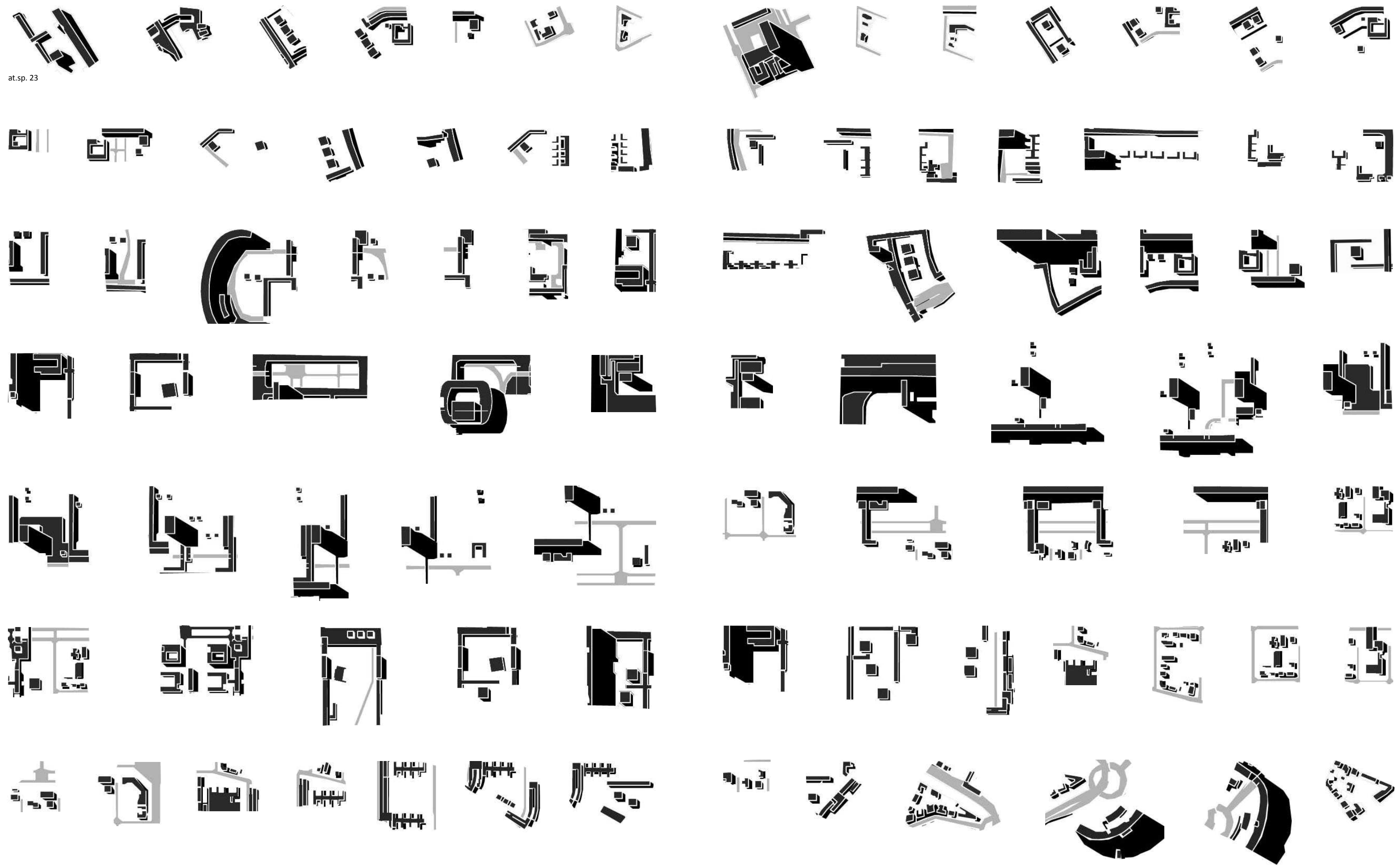
at.sp. 22.8

Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'
Buikslotermeer urban study, Amsterdam, 1962-63 (Bakema and Stokla), final model



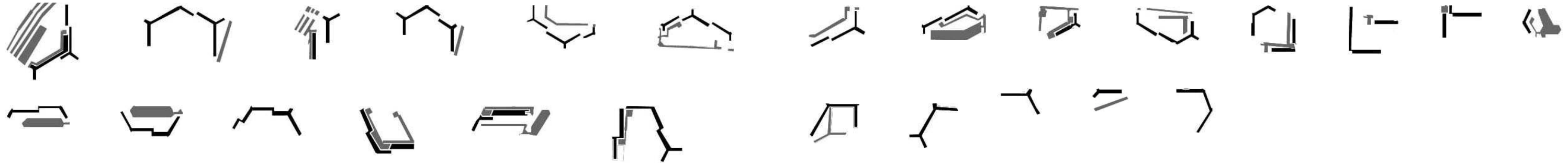
at.sp. 22.10

Team X meeting Urbino 1966 - 'Team 10 in crisis: to move or to stay?'
Tel Aviv city center, 1962 (Van den Broek and Bakema)

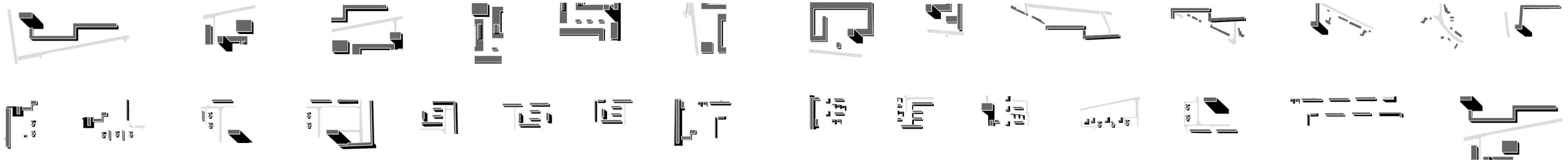


at.sp. 23

Team X meeting Toulouse-Le Mirail 1971 - 'Questioning the welfare state'
Toulouse-Le Mirail urban extension, 1961-71 (Candilis-Josic-Woods)



Team X meeting Toulouse-Le Mirail 1971 - 'Questioning the welfare state'
t'Hooft housing estate, Eindhoven 1962-72 (Van den Broek and Bakema)



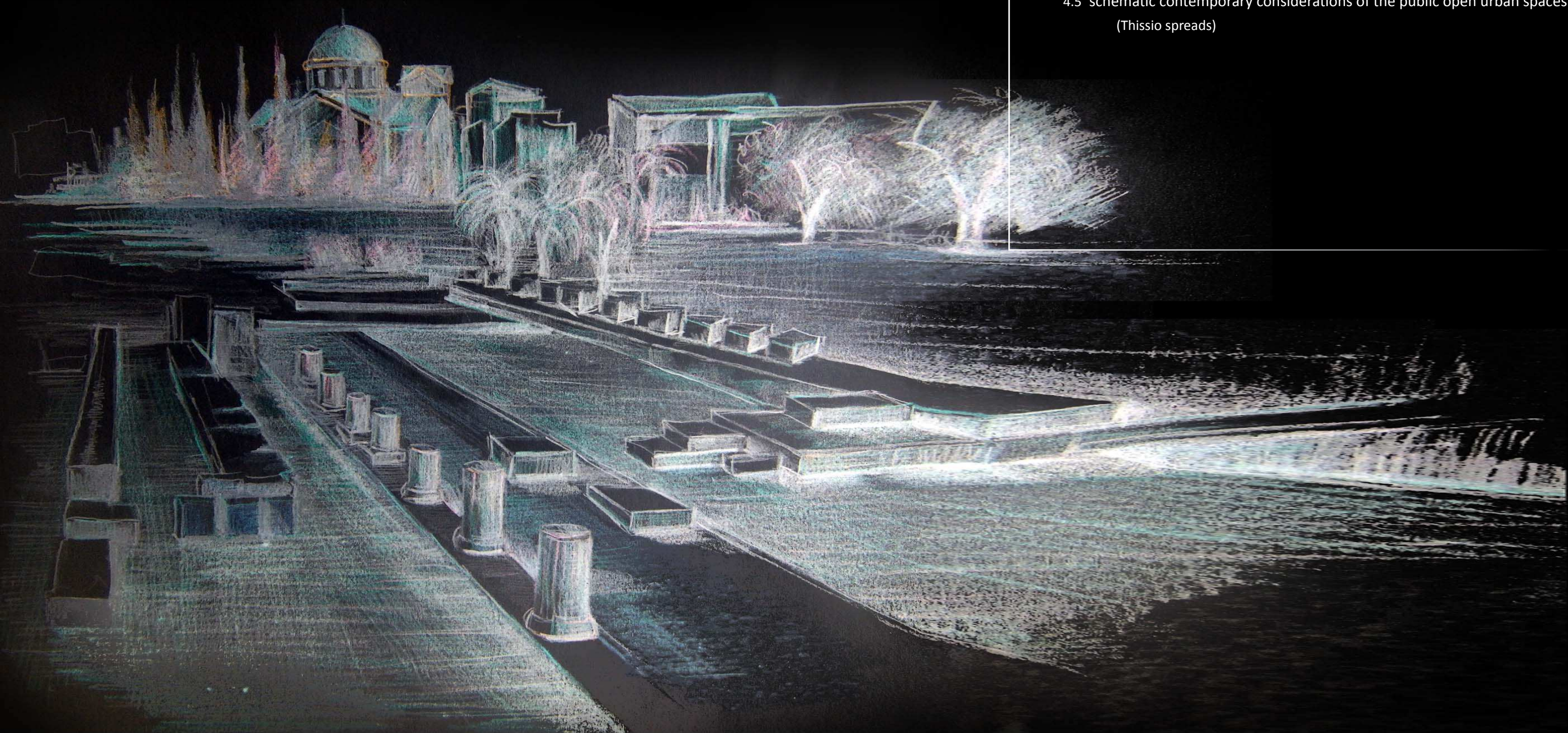
Team X meeting Berlin 1973 - 'The matrix meeting'
Rimini urban plan 1970-72 (Giancarlo de Carlo)



chapter four

contemporary design and heritage considerations

- 4.1 considering architectural interventions in historically significant public open urban spaces
- 4.2 contemporary civic art gestures
- 4.3 schematic contemporary considerations of the public open urban spaces on Milan's *rings*
(Milan spreads)
- 4.4 schematic contemporary considerations of the public open urban spaces on Milan's *Naviglio*
(Naviglio spreads)
- 4.5 schematic contemporary considerations of the public open urban spaces of Thissio in Athens
(Thissio spreads)



4.1 considering architectural interventions in historically significant public open urban spaces

Historical spaces of momentousness, sometimes categorized in the preservation categories of World Heritage Sites, are spatial *compositions* of memory and urban identification, of adorning affiliation and reference to the past. They are spaces that *represent* the cultural, technological and even spiritual mindset of people of certain times, and extract themes that fall into the categories of virtual, temporal or mobile times, spaces and existences. It may be argued that historical spaces express important evolutionary moments of humanity, expressed in an almost virtual, three-dimensional manner, exposing levels of artistic or literary brilliance of man at one point in time. When this combat with memory and virtual reality takes place in public open urban spaces, the question rises whether it is equally important to act similarly in pursuit of three dimensional excursions into *perceiving* the present and future, taking place inside the same historical public open urban space. In doing so, the visual *education* does not only hold significance towards the past, but also references the present reality and future aspirations, as it is important not to worship the ancestral accomplishments exclusively, but also to find ways for processions that are innovative means of human representation.

Imperative in this consideration is Françoise Choay's point of view on the heritage concept of the civic space, on which she speaks in her paper "Questioning the heritage concept; a polemic anthology".¹ Choay speculates the meaning of *heritage* in its spatial acceptance, beyond the objects that are encompassed in it, from the anthropological point of view, similar to how she studies the concept of *anthropopolis* (versus *technopolis*) in her *Utopies et réalités*,² where *anthropopolis* corresponds to the culturalist perception of the public open urban space. This idea associates itself to the spoken existence of the public civic space holding the role of a backdrop against which human life unfolds; this relationship has been theoretically evident through architectural research studies on the civic places, and has been evidently visible in cases of cities of the past, along with contemporary historically preserved spaces. However, in the contemporary environment of purely modernistic and undefined approaches, or in places of periodized hybridizations, this relationship is not as clear.

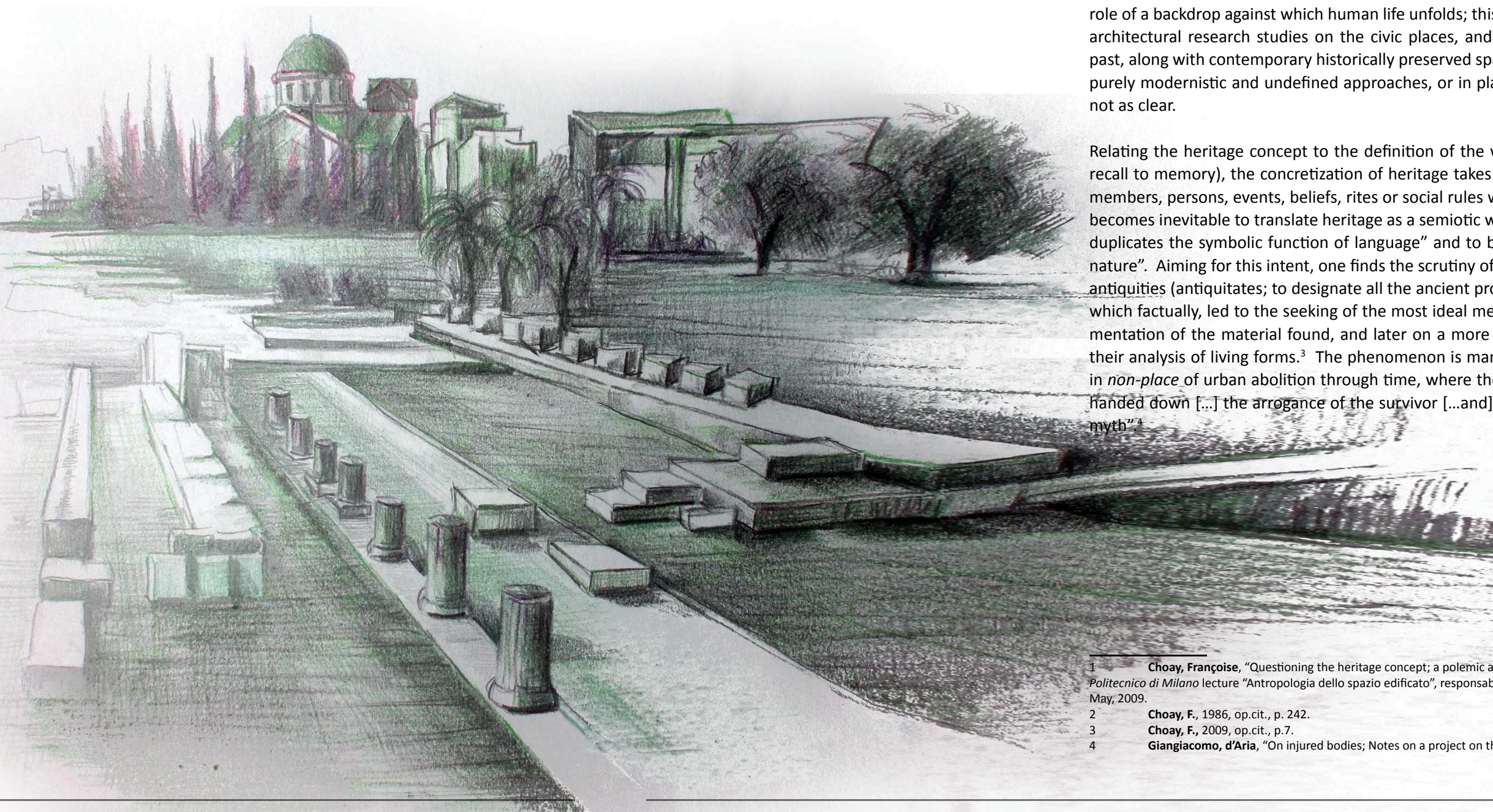
Relating the heritage concept to the definition of the word monument (derived from *monere*; to alert, to recall to memory), the concretization of heritage takes the form of living, organic and effective memory of members, persons, events, beliefs, rites or social rules which are components of its identity. It consequently becomes inevitable to translate heritage as a semiotic way to express multiple things, or as Choay puts it, "it duplicates the symbolic function of language" and to bring together "the dual temporality of humans and nature". Aiming for this intent, one finds the scrutiny of the historic monument linked to the examination of antiquities (antiquitates; to designate all the ancient productions such as language, customs and traditions), which factually, led to the seeking of the most ideal methods of civic space creation, an iconographic documentation of the material found, and later on a more epistemological linkage to the natural sciences and their analysis of living forms.³ The phenomenon is manifested in the scattered ruins of historical towns, or in *non-place* of urban abolition through time, where the scene documents "a concentration of ancient pain handed down [...] the arrogance of the survivor [...] and] a displacement in time which transforms them into myth".⁴

¹ Choay, Françoise, "Questioning the heritage concept; a polemic anthology" ("Le patrimoine en question anthologie; pour un combat"), Politecnico di Milano lecture "Antropologia dello spazio edificato", responsabile prof. Alessandro Balducci, Ernesto d'Alfonso, Iaria Valente, 20-22 May, 2009.

² Choay, F., 1986, op.cit., p. 242.

³ Choay, F., 2009, op.cit., p.7.

⁴ Giangiacomo, d'Aria, "On injured bodies; Notes on a project on the Valanidi and Mili fumare", p.2.



The contemporary interventions into the existing heritage public open urban spaces, is a sensitive issue, as there is the debate of preservation and non-intervention versus the advocacy of construction progressivism and interventionism – a debate that starts with Ruskin's sentiment that "restoration is the worst form of destruction that a building can possibly suffer"¹ and Viollet-le-Duc's surmise that "restoring an edifice ... means restoring it to a complete state that may never have existed".² Regarding the historic public open urban space itself, which is surely affected by its surrounding and enclosing edifices, it is interesting to study some interventions and deliberate the change that becomes inhibited in the concepts described in this thesis (and mentioned below), regarding theme, frame, structure, etc.

However, the use of the keywords that have been thoroughly expanded throughout this thesis, become stronger when used in rhythms of patterned sense and organic fluidity through thought and time, as also mentioned by Christopher Alexander; "It is a process which brings order out of nothing but ourselves; it cannot be attained, but it will happen of its own accord, if we will only let it".³ This is especially a challenge within the expanding city of a historically important node such as the city of Milan for example, with a very strong central core and more confound surroundings. The city, in an effort to keep up with European and global upgrading, development, and technological standards, easily loses the meaning of a valid pattern that unifies the scattered pieces of significance. Alexander's explanation of the pattern is what establishes a city as alive, time by time, proven that every place is given its character by certain patterns of events that keep occurring at that point of time, while governed by certain geometric structures in space. Converting this into a scientific metaphor of logic, patterns are the atoms and molecules from which buildings and towns are made, and should be remembered in the acts of interventions through historical importance.

Such kind of an artful consideration, in order to be technically correct and comprehensive, must draw its roots into history, especially when trying to tackle a philosophical problem and propose a new solution, as Ernst Gombrich would suggest. This brings us to the conceptual design of Antonio di Pietro Averlino (better known as *Filarete*, meaning in Greek "lover of virtue"), the Italian Renaissance architect, sculptor and architectural theorist, who designed the ideal city of Sforzinda (reference related to [project spread no. 3](#), chapter five) basing its design on keywords of *sign*, *allegory*, *archetype*, *conflict* and *monarchy*. More specifically, it follows the radial symmetry of the eight point star, prone to representing an ancient magic sign, where the circular shape is divided into compartments, each of which containing a Virtue and the corresponding Vice, or even the allegory of uncertainties of Fortune (shown in the Middle Ages as a wheel). The circular choice of the urban plan represents the archetype of the humanist city of the High Renaissance, hinting to the perfect

1 Ruskin, John, "The lamp of memory", in *The Seven Lamps of Architecture*, section XVIII, 1849, cf.infra Anthologie p.1.

2 Viollet-le-Duc, Eugène, *Dictionnaire raisonné de l'architecture française*, Libraires – Imprimeries reunites, T.VIII, Paris: 1868, p.14.

3 Alexander, Christopher W., *The Timeless Way of Building*, Oxford University Press, New York: 1979, p. ix.

Figure 4.1: A mosaic of city-expansion for the western part of Milan, highlighting city limits, and different uses, in an effort to reach to public open urban space conclusions in relation to the proposed site of the EXPO 2015 area, on the north-west end.

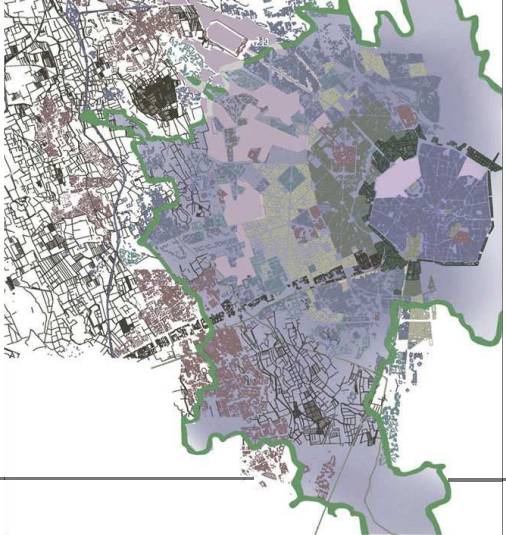


Figure 4.2: A mental analysis of a deeper over-layering of city-structure evolution, showing in light blue the expansion of the built space, in relation to the dark blue infrastructural radiation. The concentration of this study falls on the direction of Milan's Naviglio strip (also look at [Naviglio spreads](#) of the same chapter)



form that a society¹ should hold, which obviously conflicts reality-issues of despotism and monarchy.²

The design of Filarete is a typical example of the city designed as an iconology of ideals and morals; where the images and the form of the whole become an allegory, a means of symbolism, and a representation of the "invisible world of ideas". The image becomes part of the history of representation, and what is yielded to the receivers of this imaging, is a **psychology of perception**, not only of the designer, but of the likenesses, tastes and moral awareness and beliefs, proposing what Gombrich would call, "categories of expression" (a term referring to various stylistic devices and traditions in parallel with psychological effects). The city of Filarete is an important mention due to the influence that this theorist and designer had to many constructions of medieval cities, and to the type of ideology that took place, affecting the development of environmental perception, and the patterns of spaces that we see today.

But as much artful and geometrically sophisticated that an urban plan may be, the conditions of modern urban expansion and the phenomenon of sprawl often 'disorganize' the standards of the traditional city, in a tendency to change the hierarchical radii of the urban structures, in an unplanned and uncongenial manner. Project spread 3.28 and the images below show the expansion of the public places of Milan and its important 'voids', in the north-western direction of the city, which is perhaps crucial in examining the relationships that these public spaces hold in accordance to our site of interest. The diagrams aim at representing not only the rigidity of the system of Milan, along which the public activities and open spaces remain neutral (with the function of public parks, and accompanying gardens/piazas to important buildings), but also the relationship of this rigidity to the 'looseness' of the composition as the range from the center increases, with the establishment of more grand and modern units of urban public settlements (stadium, cemetery, Fiera Campionaria, Hippodrome, EXPO 2015), some of which represent the more 'unconventional' activities. Perhaps the task of designing outside the rigidity of the rings is more arduous, because the aim to also create some logical continuation of structure for the city is a difficult and convoluted task. However, the creation of civic art is just as hard within the traditional rigid setting, as the typological styles may easily come in conflict with the original perceptual concepts, which may still be unknown. Thus, the city as a whole becomes a **mosaic** (refer to [project spreads no. 3a-3g](#), chapter five) of missing pieces, where the task of 'filling in the gaps' to create a complete work of *civic art*, becomes the task of each architect, who undertakes a city's commission.

More absolute in the attitude of distinction is Kevin Lynch, stressing imageability and independence from practical functionality, as well as the will of meaning and symbolization.³ His theory of constructing **mental maps** inspires art proposed as a sort of grid, made up by reference points, independent from aesthetic or ideological evaluations within the city. In this case, a web of associations overlapping an urban tissue by means of an artistic project creates an important base for appropriation of a place. Taking this further in 1981 with this book *Good City Form*, Lynch proposes a model based more on perceptual motivation of the city rather than political or economic reasoning, by establishing descriptions of urban civic art through his "normative models"⁴ of the *cosmic model*, the *practical model* and the *organic model*, hence describing more tightly the relationship between the history of urban form and the reasoning behind it.

This research aims at presenting a methodological way of breaking down syntactic spatial concepts of public open urban space, for envisioning architectural interventions that will harmoniously fit into existing historical urban compositions. In the contemporary world of loss of references, a loss of ground, and an ever yet desire to represent, the goal is to suggest and interpret syntactic considerations of importance through project case studies. Faced with the reality of contemporary condition and 'the death of God', the goal perhaps touches open a means of modern enlightenment, relevant to secular theism, and hoping to discover possibilities of an absolute reality, in which the construction of public open urban spaces and the art that goes within them,

1 Kostof, Spiro, *The City Assembled: The Elements of Urban Form Through History*, London, Thames and Hudson Ltd.: 1991.

2 Alighieri, Dante, *De Monarchia*, c.1312.

3 Lynch, K., 1970, op.cit.

4 Lynch, Kevin, *A Theory of Good City Form*, The MIT Press, Cambridge: 1981.

will be concretized on the basis of universal rationality, similarly to the views of Friedrich Nietzsche's philosophical considerations of modernism and the exhaustion of something that still inspires.¹

These will suggest contemporary ways of composition, perception and representation, in reference to existing ones. Some of the syntactic spatial concepts that are studied, include; theme, framing, structure, field, salience, articulation, orientation, visual paths, and layers. The study demonstrates this on a couple of historically important spaces, and conceptually explains and illustrates methods of new architectural interventions. This method supports a systematic philosophy of human culture speculation that also Ernst Cassirer speaks about, where the contemplation of individual parts of a three dimensional space gather their meaning solely from the place in which they stand – their historical context, evolution and meaning – “a system in which the content and significance of each form would be characterized by the richness and specific quality of the relations and concatenations in which it stands with other spiritual energies and ultimately with totality.”²

The concluding result provides a better understanding for the fluid intervention of new architectural elements inside public open urban spaces, as our existence in the contemporary world calls for new stylistic elements in the field of vision, of a specific theme. The different styles and chronological executions, when sharing a common internal structure of elements and more essential aspects of visual reality, may blend harmoniously, and introduce new fields of intellectual continuity in the history of architectural creation and conceptual innovation of paradigmatic times.

With the above reactions, analogies and thoughts, we can only stress the complexity of the morphological theory behind urban analysis and design. Guya Bertelli, in her article “Description and interpretation of the architectonic, urban and environmental forms; Theories and Techniques”³ rightly stresses three important solutions to help with the awareness of these complex situations; The knowledge of historical data, the surveys and analysis of the elements that compose the area, and finally direct acquaintance with the site. To the mention of ‘composition’ of design, one does not simply speak for the sake of artistic improvisation, innovation and imagination, but furthermore, a multivalent process of multiple steps and interpretations that lead to the final and most difficult passage of: defining a master plan, studying the constructive and structural system, and studying details.

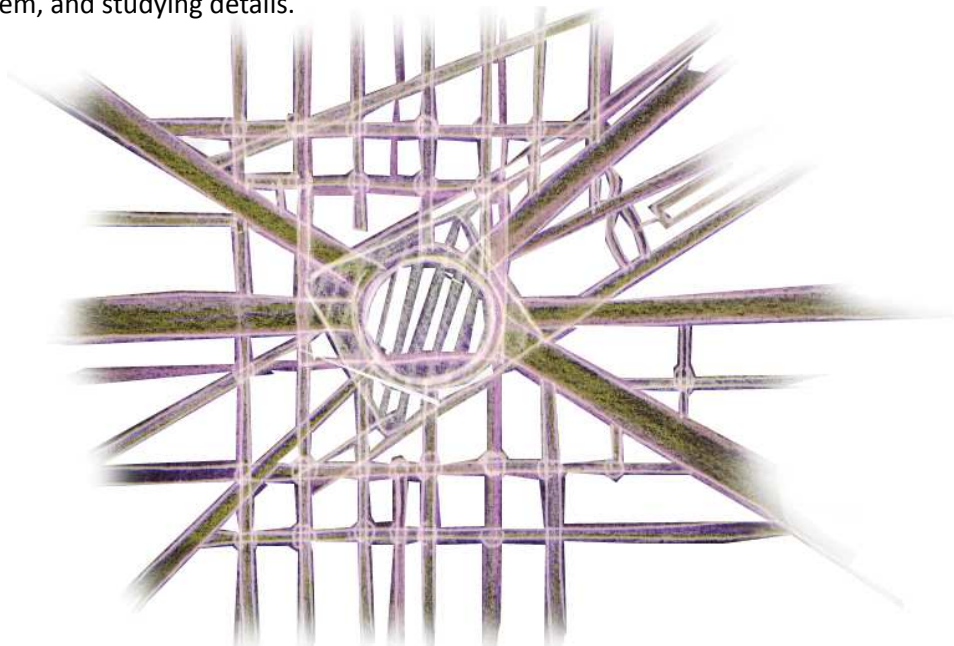


Figure 4.3: A sketch of over-layerings, applied on the Placa de les Glories Catalanes. What is studied here is the horizontal layering of pre-existent traces (section 4.1.1) taking place at the location, in an effort to sketch out the perceptual sequence of memory. (project spread no. 2, chapter five)

1 Solá-Morales, I., et.al., 1997, op.cit., p.59.
2 Cassirer, E., 1955, op.cit., p. 82.
3 Bertelli, G., 2009, op.cit..

4.1.1 ‘figures’ of the transcript; ruins, signs, traces

Ruins, signs and traces, are not only elements to be considered in the analysis of the morphology of a map, but also elements that play a great role in the creation of a certain atmosphere, in certain location. As the creation of a certain “locus” is the result of many synthetic elements and figures that make a unified conceptual whole, it is important to study and analyze what makes a place feel like an identifiable and resonating environment, and how the elements of the urban space make the inhabitants feel at ‘home’. As Edmund Gustav Albrecht Husserl talks about structures of consciousness, he implies that the phenomena which appear are acts of consciousness, and objects of systematic reflection and analysis. In fact, he believed that phenomenology could provide firm basis for all human knowledge, including scientific knowledge, and could establish philosophy as a “rigorous science”. Taking this further by a German theorist who studied Husserl's philosophy, Martin Heidegger, stated that all investigations of being have historically focused on particular entities and their properties, or have treated being itself as an entity, or substance, with properties. He firmly supported the importance of psychology in the study of urban spaces and environments of existential importance, which explains his doctoral thesis in *psychologism*; a field where psychology is considered to play a central role in grounding or explaining some other non-psychological type of fact or law.

Which brings us to Christian Norberg-Schulz, the Norwegian architect, architectural historian and theorist, who deals with the phenomenology of place. What is important about Schulz's claims on the public “locus”, particularly in his book *Genius Loci: Towards a Phenomenology of Architecture*, that relates to the exploration of ‘ruins, signs and traces’ of professor Bertelli's theory, is the concept of “dwelling”. Although dwelling was a word initially analyzed by Martin Heidegger as “a thing that gathers world”, Christian Norberg-Schulz uses the concept to analyze the meaning further, always giving full credit to the borrowed thought processes and analysis of his primary reference author, Heidegger. Schulz, therefore, explains that a dwelling is an ‘*existential foothold*’; a place where man can **orient** himself, where he can identify himself with an environment, where the ‘locus’ becomes something more than just a ‘shelter’, and where it is composed by spaces where life occurs as ‘places’, in the true sense of the word. In his book, he writes that in order for a man to ‘dwell’ in a space, he must locate himself in space and expose to a certain environmental character. “The two psychological functions involved, may be called “**orientation**” and “**identification**”.”¹ In other words, in order for a man to feel at home with his environment, he must be able to recognize fundamental traces of his surroundings, and also be able to identify what he sees by certain signs, and recognizable elements.

Ruins introduce a different dimension with time, and connect the past with the present; one may refer to an architect's intimate association with a site as knowledge that holds ruins of the past, converting a contemporary situation to a past memory and offering a sense of orientation and identification on the site. Without a certain **ruin**, there would be no memory, and nothing to help the urbanite identify in the location. Ruins are concrete environmental properties that create semiotic relationships in architectural designs.²

The traces of a public open urban space are the ‘*schemata*’ that come up in the architect's mind, because of the pavement that he sees. A different interpretation may be that the trace is not the single element of an object alone, but that the semiotic object alone provides the ‘clue’ of the schemata, or figures and shapes that make up the larger composition of the space. The object within the space that represents the ruin, restores the meaning and identity of each part of the larger space, and although it is a ‘static’ figure, it traces the route of a larger, ‘dynamic principle’. Such traces not only help acquaint with the surroundings, but also develop perceptual schemata which determine all future experiences. Again, as Schulz says in *Genius Loci*, “The schemata comprise universal structures which are inter-human, as well as locally determined and culturally conditioned structures. Evidently every human being has to possess schemata of orientation as well as identification”.³

1 Norberg-Schulz, C., 1991, op.cit., p. 19.
2 Norberg-Schulz, C., 1991, op.cit., p.21.
3 Norberg-Schulz, C., 1991, op.cit.

Finally, looking at the pavement as a 'sign', one may come to the conclusion that the pavement comprises a sign because it creates a verbal expression; a symbol, that creates a point of reference as a geometric sign of point, line, or surface. A sign on the larger scale of an urban design should be something which shouts from a distance, and creates symbolism without further questioning and cryptographic meanings. But in the case of a demolished city where little of identity is left, a sign may be something as little as a pavement; a hierarchical tree in a plaza; a boulder; a bench.

In the case of a historical public open urban space analysis, it is important to study the various elements and visual identification to its deeper roots, in order to establish and maintain continuity in the urban identity of a historical space. Similarly to the reference on memory, cultural memory and *genetic memory*,¹ it is vital to analyze layers of different kinds of meanings, in order to lay out the foundation of our work for any kind of future redevelopment. All this includes the knowledge which consists of references, physical objects and elements, the events occurring in the space and memorized in time, and the deep marks that sign the land of the history.

The example of Barcelona ([project spread no. 2](#), chapter five) brings forward the situation of a historical and metropolitan city consisting of layers of renewed cities that "... followed one another, that were born and died over time". In pursuit of intervention inside a major public open urban space, one must look for the signs of the Barrio Gotico, the perfect quadrilateral of the Royal Square, the open spaces of the more recent city, the Casco antiguo, the expansions of the Raval, Poble Nou and Barceloneta, the new Museum of Contemporary Art (MACBA) by Richard Meier, the S. Caterina Market by Miralles-Tagliabue, the new Rambla of Raval, to name perhaps the most important ones, of subjective consideration. And moving on with history, the later projects of the Miro park, Calle Arago, calle Enric Granados, calle Llanca e Marina, and the projects for the redesign of the Gran Via and the Paseos of Gracia and Sant Joan.

One may also relate the use of existing traces to the formation of the type 3 plazas ([glossary: greek squares - types; type 3](#)) that took place in Greece during the nineteenth century, with the modification or redesign of town hearts after the independence from the war, using and following the traces of the existing site, or even some approaches of garden philosophies similar to those mentioned earlier in the thesis by Marc Auge and Bernard Lassus.

Auge, in his theoretical research, does not call today's condition an 'identity crisis', but rather, an 'alterity crisis; the inability to think the other, which in turn makes identity hard to think.'² This goes hand in hand with Bernard Lassus' garden philosophy of creating landscape environmental awareness that defines a form of 'cultural reading' and 'construction of the mind'. For Lassus, attention to the interactive nature of the landscape underlies all projects; he approaches each site with the intention of using a variety of opportunities to challenge what is present, and embellish the experience of the surroundings in a mindful way, hence his saying that "form is not primary; it is induced from the articulation of intention". His intentions are similar to the landscaper Gilles Clemente, whose concepts dwell inside the boundaries of 'agreeable perception' and cultural structures, and similar to the masterly cultural forms of Luis Barragan and his compositions of Mexican awareness.

The above examinations propose social bonds between the landscape terrain of environmental figures, and the inhabitants' cultural traces, forming correspondences of perceptual affiliation and public references to each composition's past. The keywords extracted remain close to "memory" and "collective representation", and propose figurative intentions of public and private compositions that withhold meaningful existences.

¹ Bertelli, G., 2009, op.cit..

² Rocca, Alessandro, "Planetary Gardens: The landscape architecture of Gilles Clement", Basel [etc], Birkhäuser: c2008.



Figure 4.4: Study sketch analysis (also look at [project spread no. 2](#), chapter five), which shows the different layers of Barcelona, of the renewed cities, in a manner that brings forth the territorial framing, boundaries, and the pre-existence of structural ruins and traces of the past.

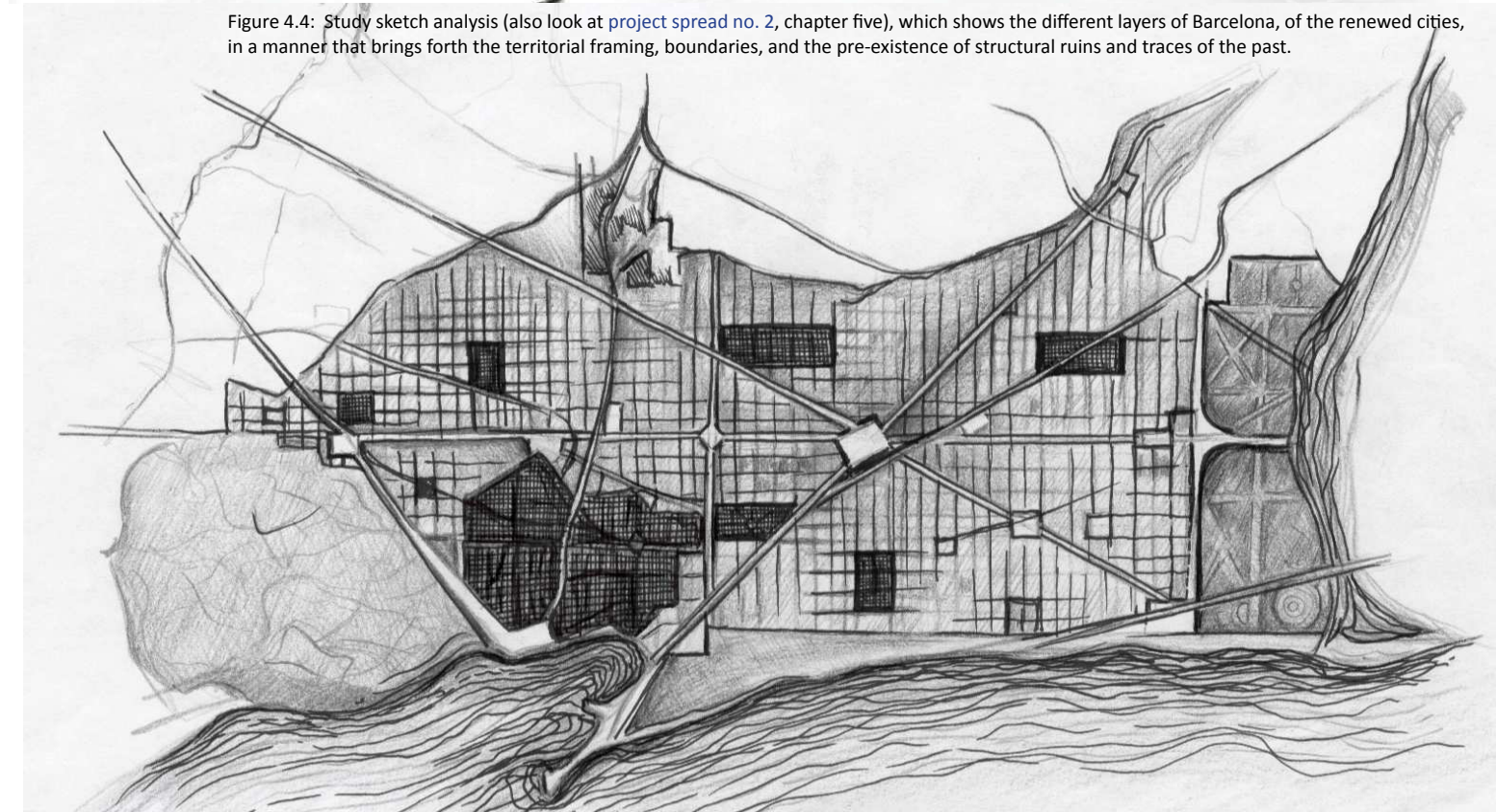


Figure 4.5: A sketch of the historical map of Barcelona, used in further studies ([project spread no. 2](#), chapter five) in the thesis, highlighting the origin of organizational 'ruins and traces' of the city, in an effort to comprehend in a deep way the significance, location and formation of the primary public open urban spaces.

4.2 contemporary civic art gestures

The vast difference between the design of the public open urban space of modernity and that of the contemporary urban space, is in the degrees of ambiguity and structured framework that takes place. Architects, in most cases, strongly concerned in this period about the cultural and emotional effects of their compositional works, tend to interpret and intervene with more 'structured' and 'enclosed' solutions, striving for a better psychology of security and belonging, and rediscovering the value of definition through contemporary means.¹ (glossary: *contemporary civic space*)

Today, the definitions of the public open urban space are pretty much similar for all European countries that are free democracies, so their civic spaces are perceived the same way, and strive for the same essentialities of comfortable visual pleasure, security, and perhaps some degree of bound reference to the historical continuity of a place. The European Commission of 2000 which demonstrated an overview of the square in cities of Spain, France, Greece, Italy and Poland and their perceptual and syntactical direction, concludes on the aims for the public open urban space in the contemporary society, where the "square is a void and it is only the use that is made of it that gives it meaning and shape. This is why the borders [**framing**] that delineate it are important as well as the architecture defining its profile [**structure**]. However, the square is not the only site defined by a particular use, symbolic or festive. A successful square is a place for exchange, but also a collective and shared space where conflicts can take place."² [**concept, theme**]

Going deeper, László Moholy-Nagy and Gyorgy Kepes added the post-war theoretical approaches into the design of the public open space, that our vision of the topos can be changed as we further refine our visual means of interpretation. Kepes calls these 'images', which would create a new kind of landscape of biological 'social equilibrium'. This kind of approach distances itself from the associations to CIAM post-war points of view, and approaches more the contemporary need for perceptual innovation, offering new ground for spatial perception interpretations and issues of visual comfort and psychological security.³

Traditional spaces in the contemporary city become disarrayed with essentialities, and the networked system of open spaces seems to become more functional, with a more open and accessible layout (going in parallel with the extending and spreading properties of the contemporary cities). Also, given the fact of an ever changing society, of multi-cultural interactions and rapid shifts, the need of more generalized and conceptually neutral environments are needed, which are structured around the logic of a network or infrastructural system that is pedestrian friendly, to retain the quality of urban existence. As Aldo Aymonino states in the introduction of *Contemporary Public Spaces; Un-volumetric Architecture*, "there has been a shift from communal public space to open space".⁴ The space that we inhabit when scrolling randomly in the city, or in between business affairs, has no longer the functions that it used to hold in the traditional sense, when people spend countless hours chatting with familiar faces, partaking in political intercourses or practicing the motto of 'il dolce di far niente'.⁵ Despite the fact that all these sound appealing, the reality of the modern city has shifted to much more rapid tempos.

In fact, the role of the civic space is that of a cultural art-piece where one can experience openness, the lack of suffocating city-density, the experience with the sky, a feeling of urban safety, and the awareness of other people, partaking in a common civic life. The aesthetics and careful layout of such spaces is what will ensure the quality of those moments of the urbanite, who will take a few minutes or hours to be outside in an environment that seem like an urban home, but will also constantly display new kinds of attractions.

These alternating attractions merge into life with the incorporation of natural elements that change through

¹ Pesce, G.; Barré, F.; Boudon, F.; Ferreri, M.; Hambye, D.; Miotto-Muret, L.; Muret, J.P.; Peterson, S.K.; Rosner, A.; Sartogo, P. (Editors), "Space and Anti-Space", introduction to Peterson, Steven K., Harvard Architecture Review: 1980, p.89.

² Miotto, L., 2000, op.cit., p.123.

³ Mumford, Eric, *Defining Urban Design; CIAM Architects and the Formation of a Discipline, 1937-69*, Eric Mumford: 2009, pp.25,27.

⁴ Aymonino, A., 2006, op.cit., p.18.

⁵ 'the pleasure of doing nothing'

seasons, or with the rotary exhibitions of public art, or with the fusion of public commercial, cultural or political activities, or with the incorporation of temporary structures. Kevin Lynch says it best in his *Wasting Away* written in 1984 (published in 1990), states that “the landscape changes by accumulating residues of history”.¹

Ignasi de Sola Morales, with his ‘logic of the limit’ suggestion for the execution of open space interventions, opened a new door to the innovative thinking and the differentiation of approach for the treatment of the public open urban space.

One example is architect’s E.Bru Vall d’Hebron Park in Barcelona, which treats the open space differently than a park or square. Furthermore, other contemporary architects such as Rem Koolhaas, Jean Nouvel, Hans Kollhoff, Josep Lluís Mateo, Herzog de Meuron and others, seem to be influenced by de Sola Morales’ design considerations, basing the structure of their designs on the concept of the data of experience, relying on a more “amorphous structure of the modern city than of some metaphysical truth in the crystallized historical centers of those cities”.²

Aldo Aymonino suggests three main considerations for the design of the contemporary public open urban spaces that are indeed very interesting and enlightening in the frequent confusion that exists, concerning one’s approach. Firstly, he suggests the consideration of the space’s location, in order to create interferences and cohesions among the different elements that take place, such as technique, street furniture, restoration, environment, landscape, etc. The goal is to be systemic, and not simply to produce “objects of mere design”. Secondly, he favors intensity over density, continuity over permanence, and “marking out metaphorical thresholds whose value lies wholly in the relationships with the surroundings”. The third point concerns the semiotic relationship between the public space and its users.³ Going with this further, in the book *Contemporary Public Space; Un-volumetric Architecture*, he breaks down the main public space syntax in categories of; surfaces, the vertical, enclosures, design, shelters, environment, earthworks, figures, technology, and events. This becomes an interesting framework for the study of the contemporary space, but is different than the aim of this thesis in the matter that it suggests very cross-cultural and diverse complex solutions, rather than suggest a methodology of key element considerations that deal with the sense of security and orientation in space. However, many of the solutions, which range from the traditional public space to the landscape, to the hosting of cultural artistic events and the design of infrastructures to well thought-out gardens, provide tools for our understanding in this analysis.

The Greek history of the urban square, up through the modern movement and until today, has been of an intense public nature because of the original **concept and theme** of democratic tradition. Furthermore, it is also linked to the understanding of the site and the knowledge of the place (the extraction of the **civic space layers**). This is evident in the creation of different squares (ex. Plane Tree Square, Navplio, Aristotelous, and their view of the landscape), their system of two or three squares, and the keeping of a space’s local roots, despite Greece’s dramatic transformation during the 1960s. The contemporary construction of public open urban spaces in a country with strong background and still a rich variety of landscape terrain, remains a challenge, as the investigation for new syntactic interpretations are constantly under experimentation and scrutiny. Challenges fall along the lines of character, scale, physical space and ecological factors, while elements of avoidance include “imitation, false naturalism, the insertion of falsely decorative elements, statues, or false works of art, urban equipment, or illumination that trivializes the space, elements that are inappropriate for the site and the particularities of the project.”⁴

4.2.1 facing *nostalgia* and *regression*

Typological changes are imagery shifts of points of view, become hard to accept by conservative and regressive approaches. These kinds of reactions are natural to exist in every era, as it is the nature of humans to remember the past and feel safe in it. The modern movement created a different point of view for the urban habitat in the public open urban spaces, as suddenly, the scale became augmented, and the criticism of unsecured and alienated environments took a toll, characterizing them as unpleasant, gigantic in scale, procrustean in feeling, and having no human content. The criticism typified the modern civic spaces as in the midst of high-rises, surrounded by uninfected and totally diffuse space. In many cases, as described by Vincent van Rossem, a residential high-rise in the middle of such an environment, was thought to be qualitative only when surrounded by rich cultural facilities, something which is never the case in the outer suburbs. This dilemma of qualitative evaluation, very vividly expressed in the debates of CIAM, is generally divided between two periods; the pre-war and post-war, where the former deals with the rational and the scientific points of views, and the latter with a more sensitive approach of the re-evaluation of priorities for a more pedestrian urban environment. But even here, both perspectives of reason and emotion are being criticized, as the pre-war ideals of the ‘functional city’ (1927) of ‘dwelling’, ‘work’, ‘recreation’, and ‘transportation’ exhibit an absurd simplification of the situation, while the post-war ‘heart of the city’ (Hoddesdon, 1951; CIAM 8) ideal of ‘historical datum’, urbanistic, architectural, cultural and social values, are said to be impossible to be designed, as they should naturally evolve historically.¹

Françoise Choay, again in her *Utopies et réalités*, also explores the dichotomy of nostalgia versus progressivism, through an analytical battle between the past and the future. Choay also clarifies the influential figures of these two opposing perspectives of civic space, with a set of political and social philosophies of Owen, Fourier, Considérant, Proudhon, Ruskin and Morris, pulling the trends towards the nostalgia of the past, versus the “genuine utopias” of the nineteenth century of Cabet, Richardson and Morris. She speculates two disputing types of spatial projections of the future city (one nostalgically assimilating and the other genuinely imaginative), which she refers to as ‘models’, intended “to emphasize both the exemplary value of the constructs proposed and their quality of reproducibility.”²

However, as the size and tempo of the city are changing in an uncontrollable and unstable manner, the general needs for social gathering, imagery aesthetics, consumption spaces and recreational areas, remain constants. As soon as a variable changes, and especially one that affects the typology and morphology of space by a great degree, the solution cannot possibly remain the same. Regressive points of views start to take place with the dawn of modernity. Camillo Sitte (1889) was one of the first to realize that he should make heard what he didn’t like, and expresses his feelings that modern architects should find inspiration in the period of the historical civic creations; “like Hellenistic and Roman antiquity, and much more so than the gothic age had to conceive large plans for immediate realization, very much to the slow, almost vegetable, growth of civic building during the Middle Ages.”³ For Sitte, the medieval public space was full of charm and its syntactic language differed to the repetitive and monotonous solutions of symmetrical and orthogonal public spaces of his time. The perceptual beliefs of his pure culturalist models of the historic era, evolved into the garden city phenomenon, faithfully followed by Raymond Unwin (1909), especially while dealing with the organization of the heart of small suburban towns, and ensuring individuality and variety in the interior space of the city. To Françoise Choay, this interconnection and relevance to cultural understanding, (“culturalist urbanism”), betrays a certain kind of neurotic tendencies, where one runs away from adaptation, and filghts

1 **Lynch, Kevin**, *Wasting Away – An Exploration of Waste: What It Is, How It Happens, Why We Fear It, How to Do It Well*, ed. Southworth, Michael, Random House, Inc.:1991 (orig. 1990).

2 **Simeoforidis, Y.**, 1993, op.cit., pp.321-327.

3 **Ayamonino, A.**, 2006, op.cit., p.21.

4 **Ananiadou-Tzimopoulou, M.**, et.al., 2000, op.cit., pp.113-115.

1 **Van Rossem, Vincent**, *Civil Art: Urban Space as Architectural Task; Rob Krier in the Hague: The Resident*, NAI Publishers: 1996, pp.14-15, 18-19.

2 **Choay, F.**, 1986, op.cit.

3 **Hegemann, W; Peets, E.**, 1992, op.cit., pp.15-17.

from a dispute with an intolerable present.¹ Which brings no surprise that these types of viewpoints which originated from Sitte, were not short of opponents, as theorists such as Giedien called Sitte a “troubadour” for wanting to regress towards the medieval civic center forms, while Le Corbusier describes the situation as “the cult of the donkey-path” , originating in Germany.

Other similar points of views included Marcel Poëte (1931) who was also characterized as nostalgic, stressing his negative view for motorized traffic. His characteristic saying “to understand a town, it is necessary to know its inhabitants; a town, like a square, ought to be a reflection of the soul” signifies the need for deeper interpretation and analysis of the surroundings, for profound interventions. Raymond Unwin (1909) also had a similar perspective, wanting to create contemporary centers with the same intensity of life as that of the centers of antiquity. This feeling of nostalgia for public open spaces became especially evident in writings of the 1940s, 50s, and 60s, expressing the city’s loss of social, ideological and cultural values, and an impending crisis in western civilization.² And also Lewis Mumford (1961), who sadly approached the new civic spaces as “centers evolving towards hypertrophic and undifferentiated megalopolises.”³

A number of architectural critics have condemned the doings of the modern architectural approaches towards the design of the public open space. One example is Rob Krier, who in his work *Urban Space* of 1975, expresses his disappointment of the modern urban square awaiting rediscovery, and the fact that no contemporary public space has resembled the qualities of the Grande Place in Brussels, the Place Stanislas in Nancy, the Piazza del Campo in Siena, the Place Vendome and the Place des Vosges in Paris, the Plaza Mayor in Madris, the Plaza Real in Barcelona, etc.⁴ His views are dedicative to Camillo Sitte’s traditional and conservative overture, and to the Italian piazza philosophies, also holding a romantically Marxist approach, bringing forth a highly regressive attitude. With prototypes in his minds similar to the attributes of the roman forum, he believes in the multifunctional character of the urban square, for hosting commercial, residential and other meaningful functions. This point of view is actually identical to CIAM’s views on the Core of the City, but perhaps what Krier is more critical about towards the modern movement propositions, is the form, scaling and proportions of the emergence of urban spaces; actions which in the foreword, Colin Rowe classifies as “bad gestures/propositions”, and as “terribly dangerous and ever so far from home”, describing the era as a “fiesta of destruction” and the period as a “counter wave of disgust”.⁵

While absolutism in opinion rarely achieves true justice, Krier criticizes modern public open urban spaces one by one; the detached housing units of Le Corbusier in his Fruges estate (1925) and ‘Plan Voisin’, paying little attention to the urban voids created in a high density urban setting. His point of view seems to study all the open spaces of the historical and medieval cultures and draw conclusions on relationships, spatial forms, spatial orientations and approaches. Concluding his critical attributions with two sketches that show the shortcomings of modern public open urban space design, he criticizes the fragmentary space that lacks orientation and qualitative differences, along with the spatial crisis of no meaningful activity and no proper pedestrian movement.⁶

However, his approach is very restrictive, and cannot apply to any given environment, as any urban situation is highly complicated, and its design must always become influenced by its contemporary condition of cultural multi-diversity and virtual thoughts, along with the expansion and complication of city structures across the globe. The belief that the qualitative idea of the urban space has been lost, is factually invalid, and Aldo Aymonino states it best:

“.. there exists – and how! – a scenery design of the contemporary city (that of commerce, tourism, systems, pervasive in its aesthetic manifestations and well-organized in its political and social modalities. The only difference with respect to the previous one is that it is carried out in fragments that are joined together a posteriori, instead of proposing an overall design ex ante.”¹

Nevertheless, some contemporary problems of the public open urban space today which retain open and unprotected plans, undergo some cruelties in the nature of lack of maintenance and vandalism, which raises the question of whether we should look into our recent past, in order to create the ultimate goal of secure civic environments. As mentioned above, such regression may not be possible, due to the shifting of multiple variables within the urban reality. “The ‘new city’ will probably be slow to reveal itself simply because it is continually changing”.²

The sole solution is nothing but observation and analysis of tools, experimentation of stylistic freedom, and formation of conclusions with all of the information that we gather in the end.

1 Choay, F., 1986, op.cit., pp. 251, 254.

2 Dimenberg, Edward, *Film Noir and the Spaces of Modernity*, Cambridge Mass.-London, Harvard University Press: 2004, p.109.

3 Miotto, L., Muret, J., 2000, op.cit., p.15..

4 Krier, R., 1979, op.cit., p.19.

5 Rowe, C., 1979, op.cit., pp.8-9.

6 Krier, R., 1979, op.cit., pp.74-81.

1 Aymonino, A., 2006, op.cit., p.19.

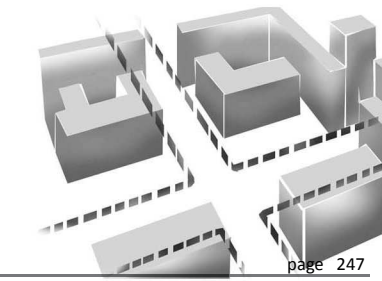
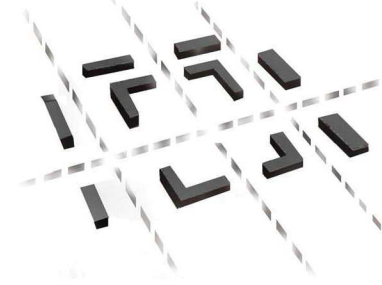
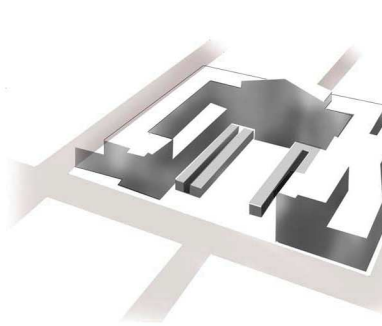
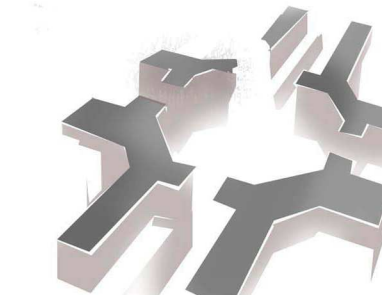
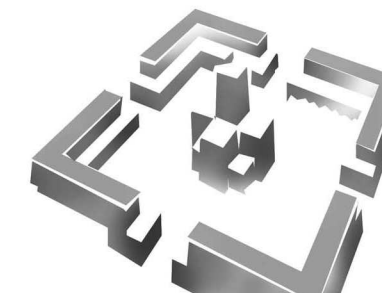
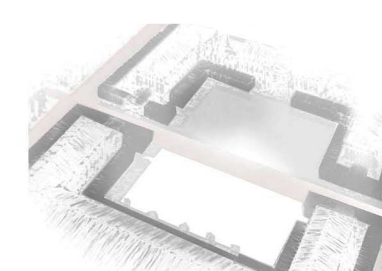
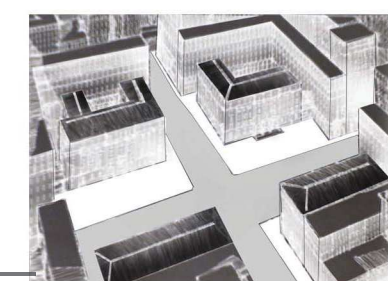
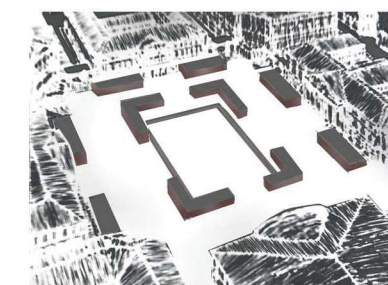
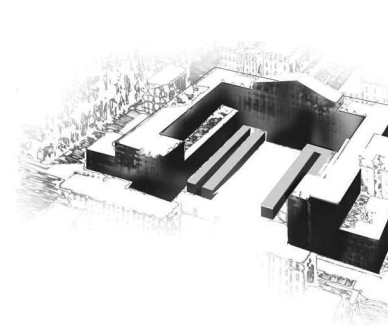
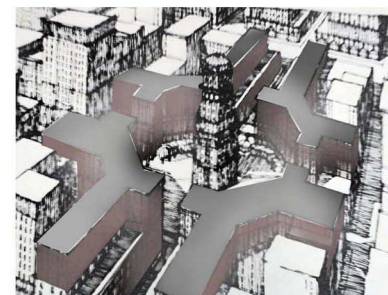
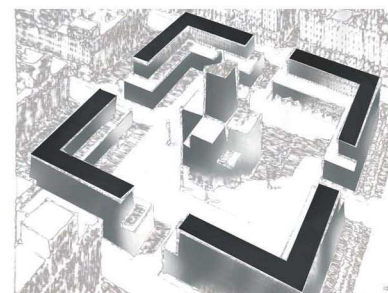
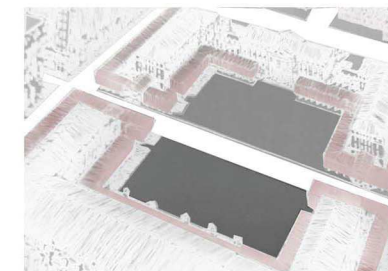
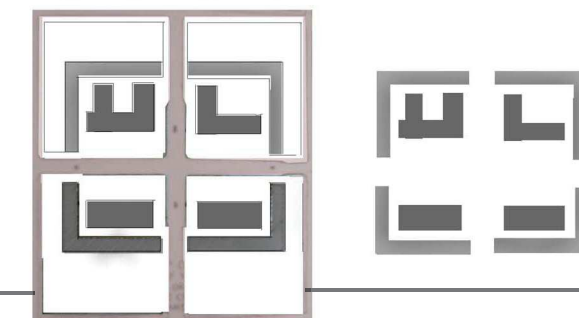
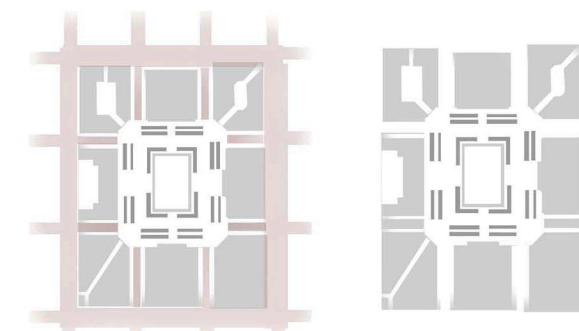
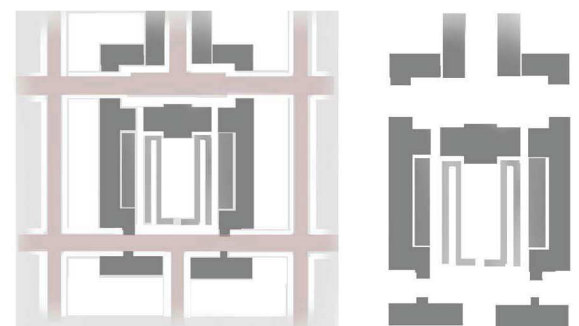
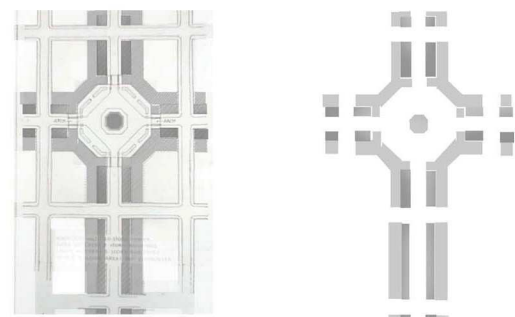
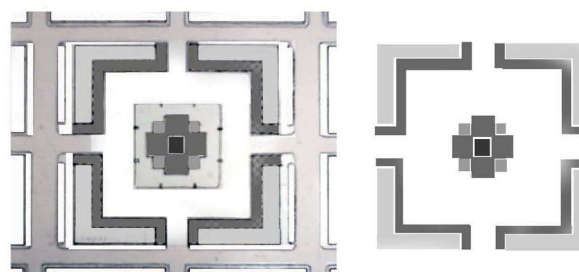
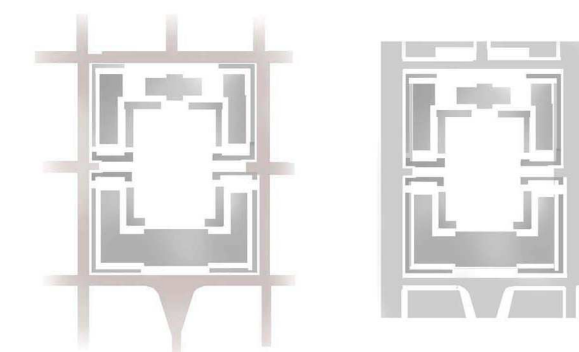
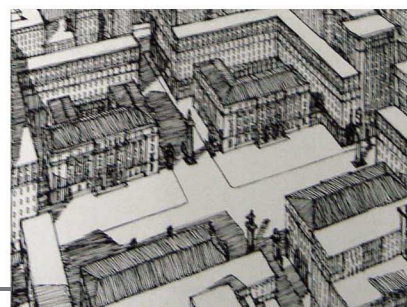
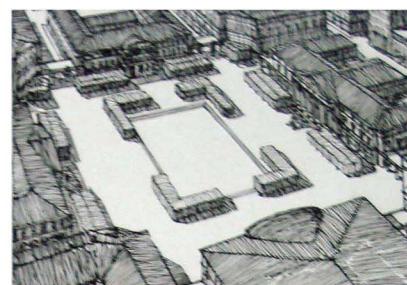
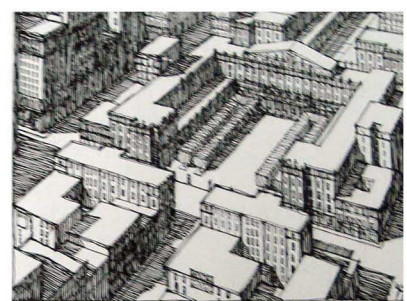
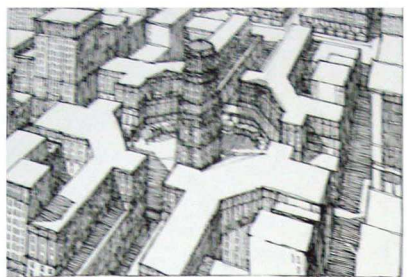
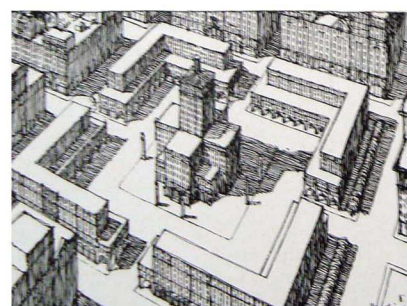
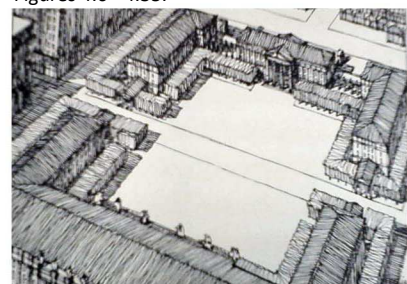
2 Aymonino, A., 2006, op.cit.

The following examples are schematic analysis' from Franz Herding's sketches found in Werner Hegemann's *The American Vitruvius*¹, and demonstrate an analytical interpretation of the nostalgic and regressive executions of the American civic plans of the time. As also described in the reference, the public open urban spaces intend to form small oblong forecourt plazas that bring to the memory or to the knowledgeable cognition of the civic urbanite, the image of the old secured square of an 'ideal' town. This intention is evident in Hegemann's writings, who describes the aim of the layout to hide the left-over corner blocks that were a result of unplanned and unconsidered urban evolution, in a design result of illusionary utopia taking place at the open space.

This intention can be concluded even further, when reading about the desire to hide the buildings from behind by making the open space structural framework composed by tall enough buildings to conceal the adjacent environment.

The schematic diagrams shown here illustrate the means of structural framework, highlight the pedestrian fields of flow that are intended to take place, and find high resemblance to a traditional manner and regressive approach in relation to a surrounding city wanting to evolve perhaps differently.

Figures 4.6 - 4.35.



1 Hegemann, W., Peets, E., 1992, op.cit., p. 149.

Figure 4.36.



4.3 schematic contemporary considerations of the public open urban spaces on Milan's rings

The diagrams on the top, from left to right, show the morphological characteristics of Milan and its western expansion in relation to the built construction; the location of the open voids that are green in means of general character discription; and the isolation of the built forms expanding into the outskirts of the city. The study helps to get a primary conception of the open space in relation to the density of the built form, and the potential for successful primary and secondary public open urban space development.

Figure 4.37.

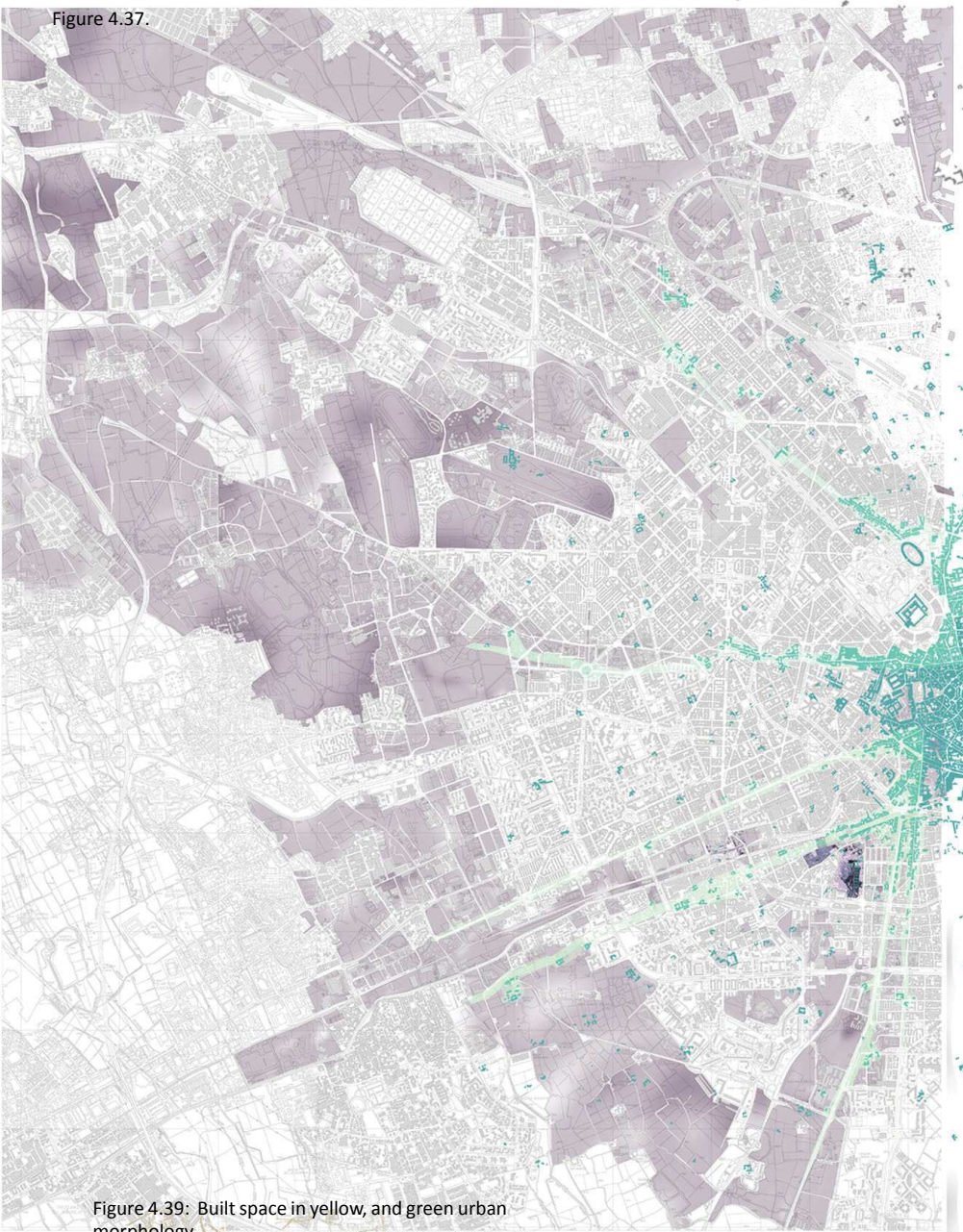


Figure 4.38.

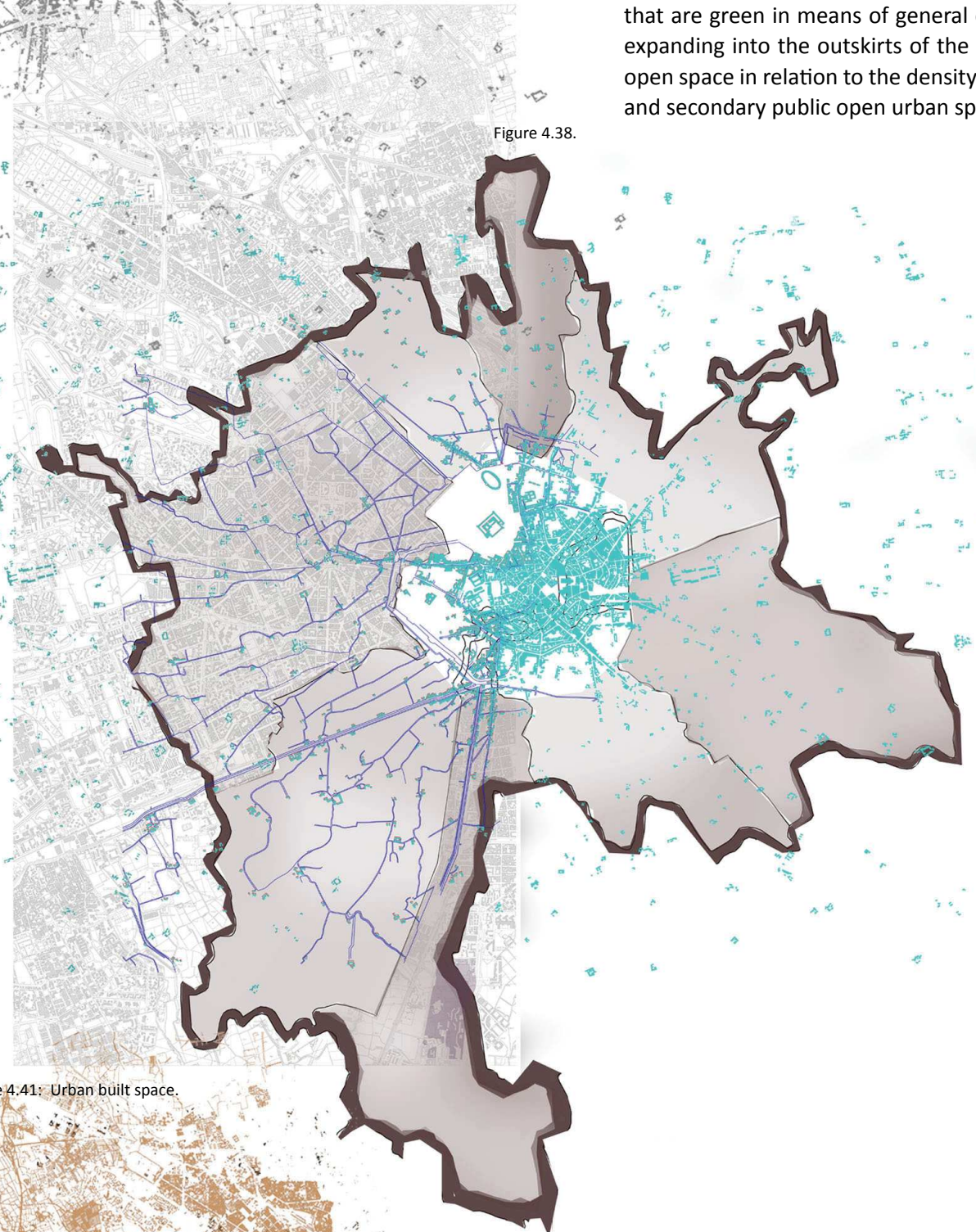


Figure 4.39: Built space in yellow, and green urban morphology.

Figure 4.40: The open urban green voids.

Figure 4.41: Urban built space.

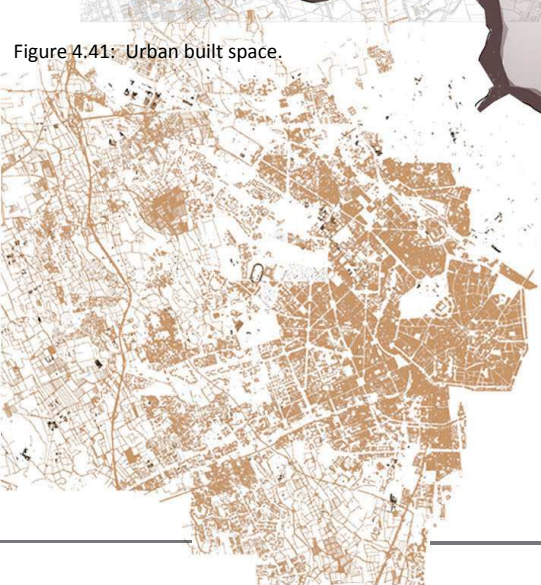
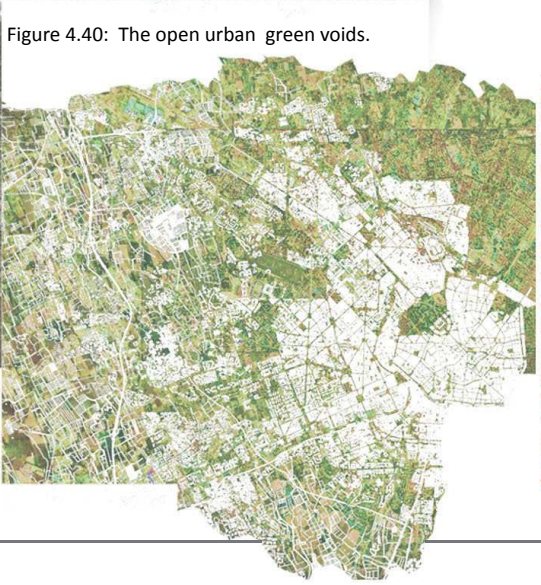
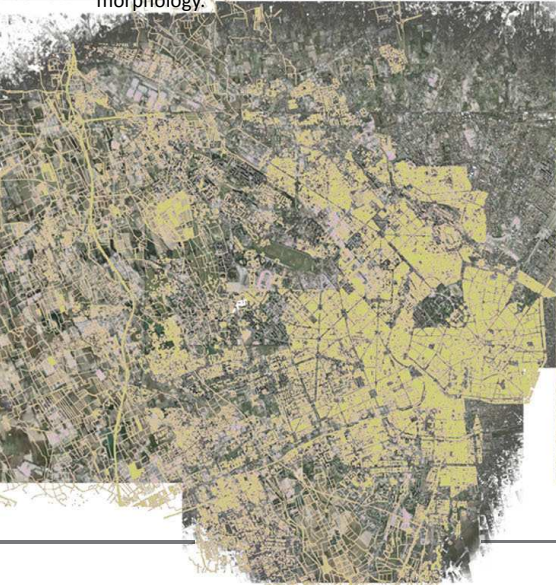


Figure 4.42.



Figure 4.43.

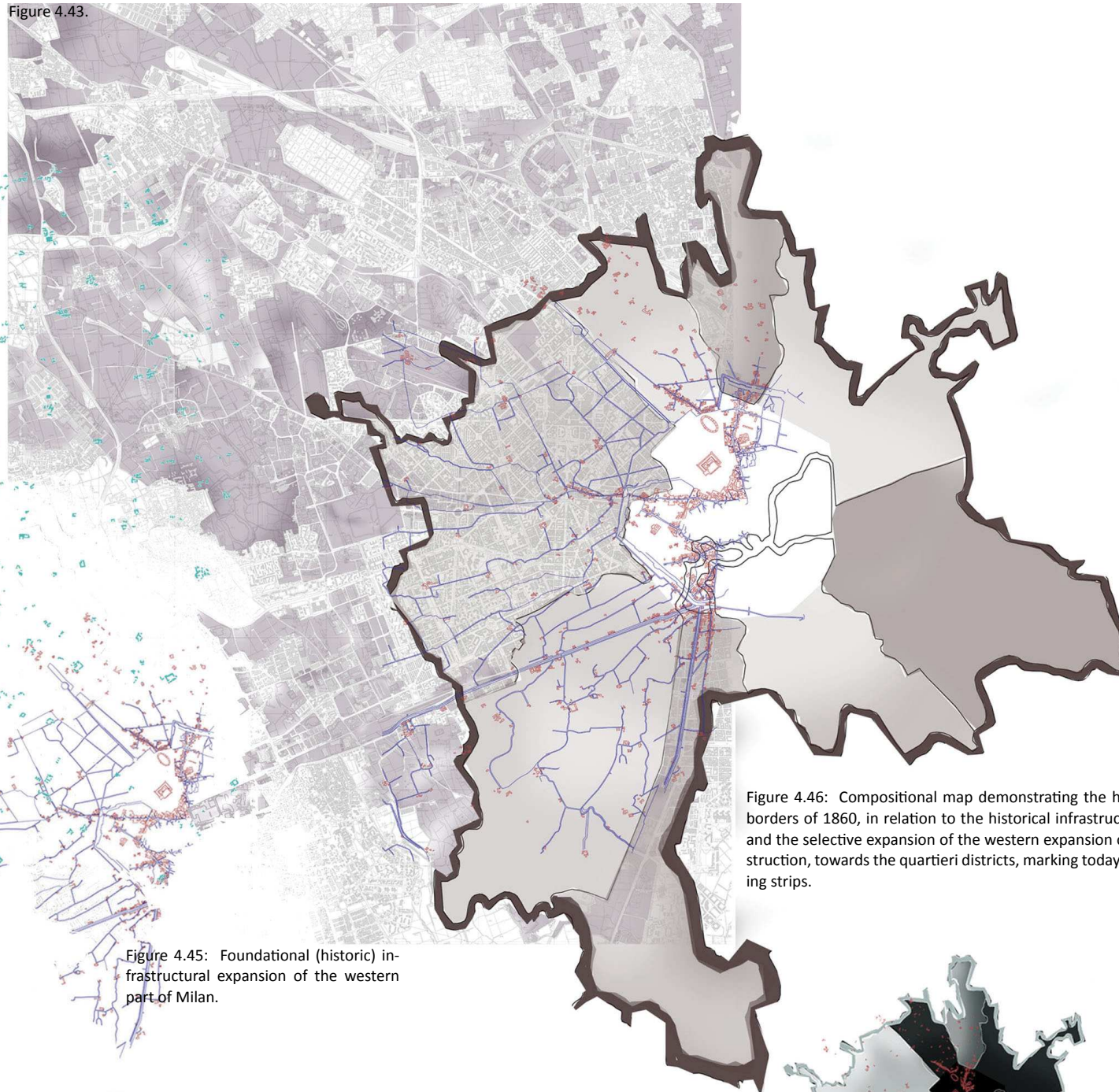
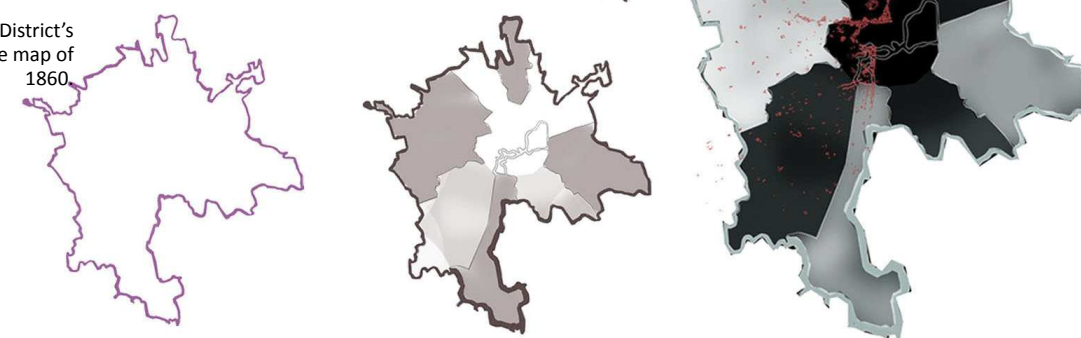


Figure 4.44: Building construction expansions, locating the main evolution of the quartieri districts, in relation to foundational infrastructural network of western Milan, with emphasis on the strip of Naviglio and secondary concentration on western expansion and its intersectional nodes to the outer ring

Figure 4.45: Foundational (historic) infrastructural expansion of the western part of Milan.

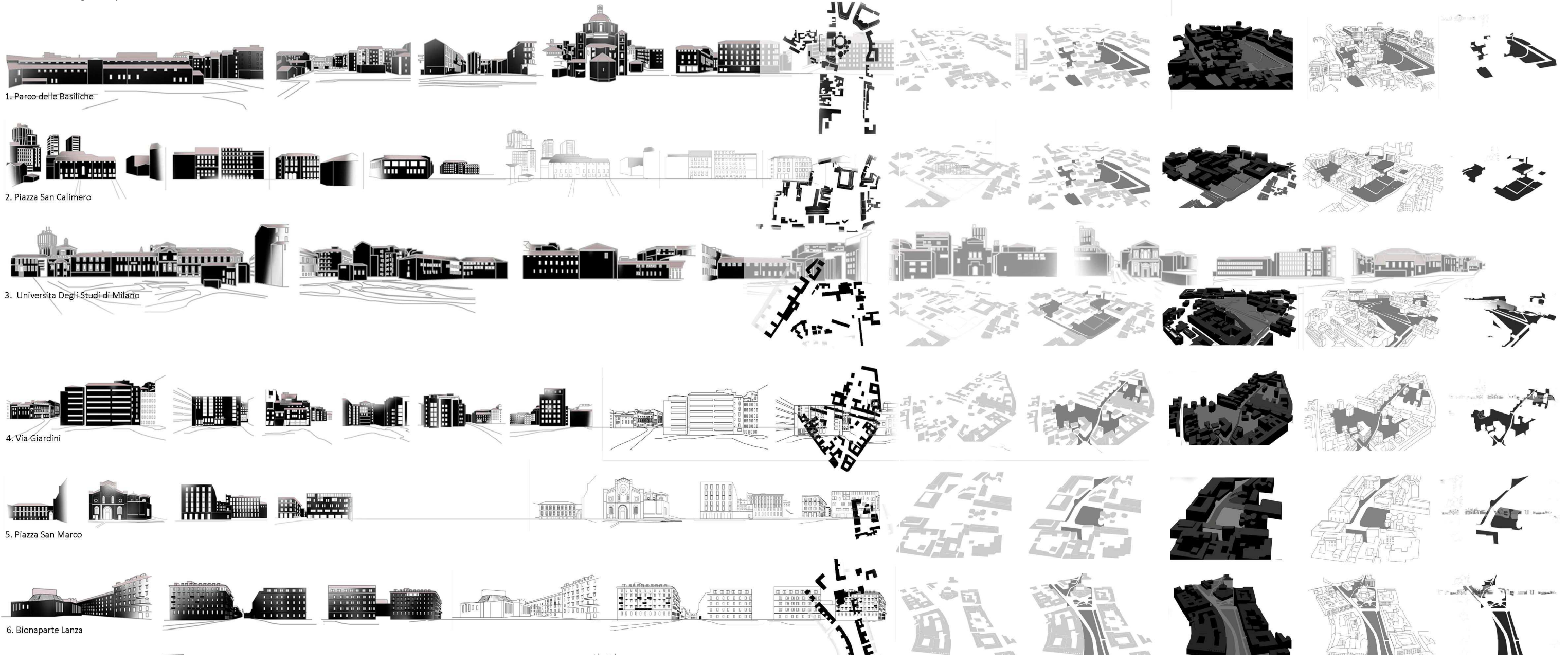
Figure 4.46: Compositional map demonstrating the historical district borders of 1860, in relation to the historical infrastructural expansion and the selective expansion of the western expansion of the built construction, towards the quartieri districts, marking today's main expanding strips.

Figures 4.47 - 4.49: District's city borders, from the map of 1860

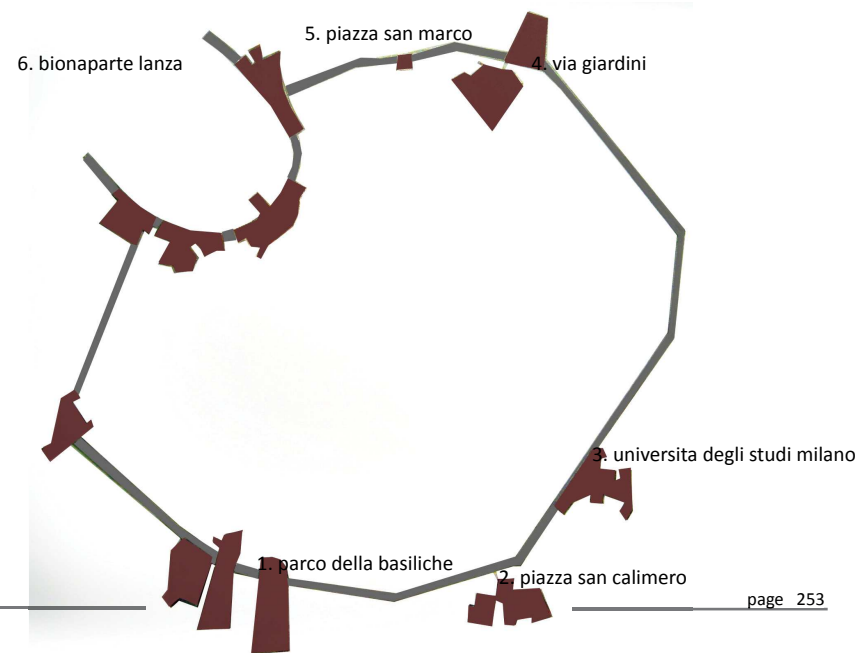
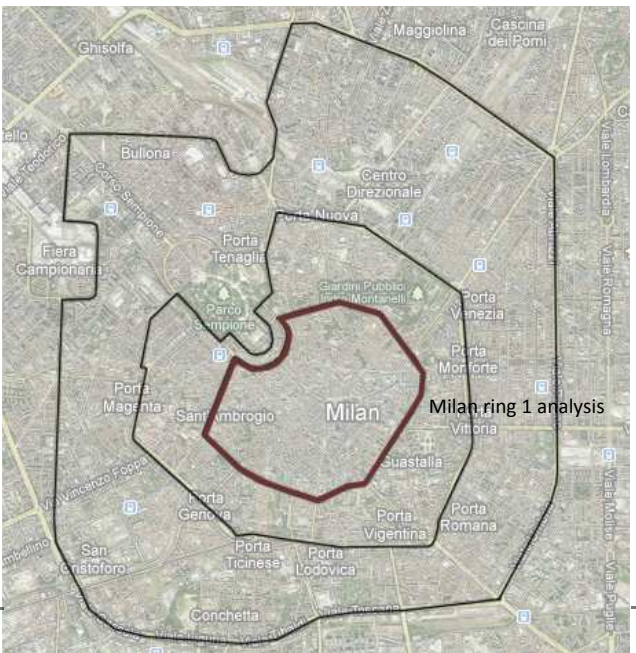


The historical development of the city's expansion, in parallel with the 1850 research of the city's planned district borders, brings forth the logical layering of Milan's urban location of nodal concentration, which itself gives hints for the successful and rational incorporation of public open urban spaces in areas of morphological, built and voidal intersections. Enhanced by the city's radial character of network expansion and central concentration, defined by the urban rings, the strips that expand into the suburbs are a graphic interpretation of the contemporary phenomenon of urban sprawl and global expansion. The aim of this study becomes not only a research of the syntactic formations of the public open urban spaces that occur in intersectional or denser areas, but also a search for the potential future location of strategic design of new urban cores, primary in reference to the strips, and secondary in reference to the hierarchy of the urban rings.

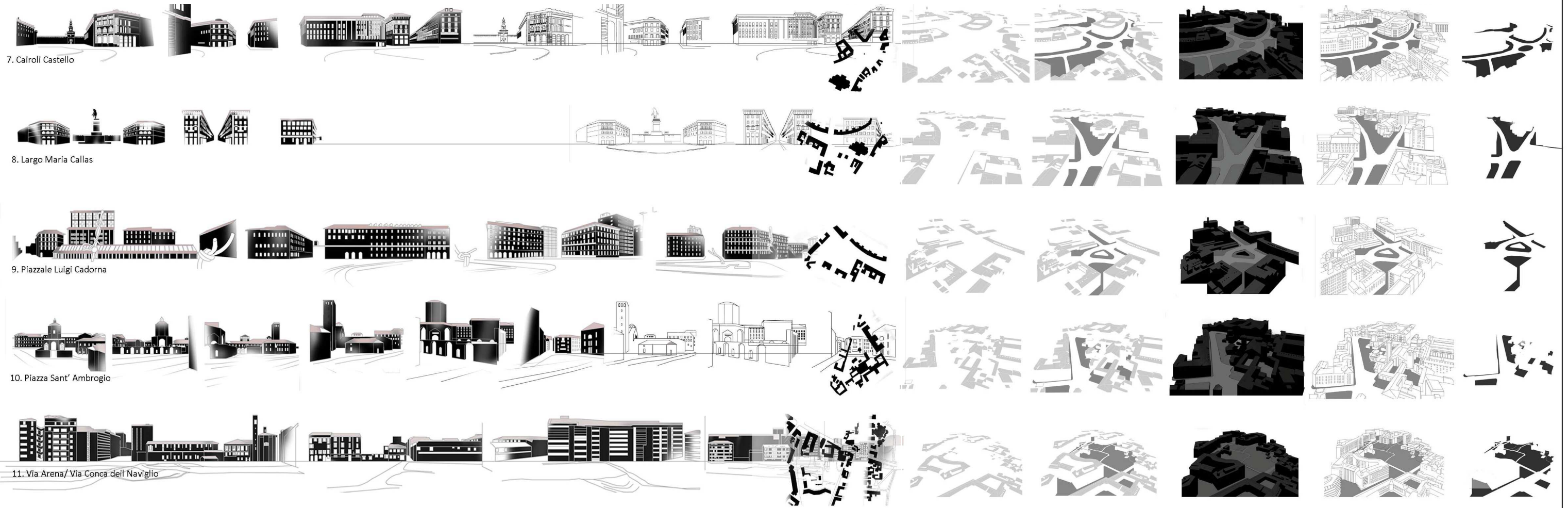
Milan ring 1 - spread a



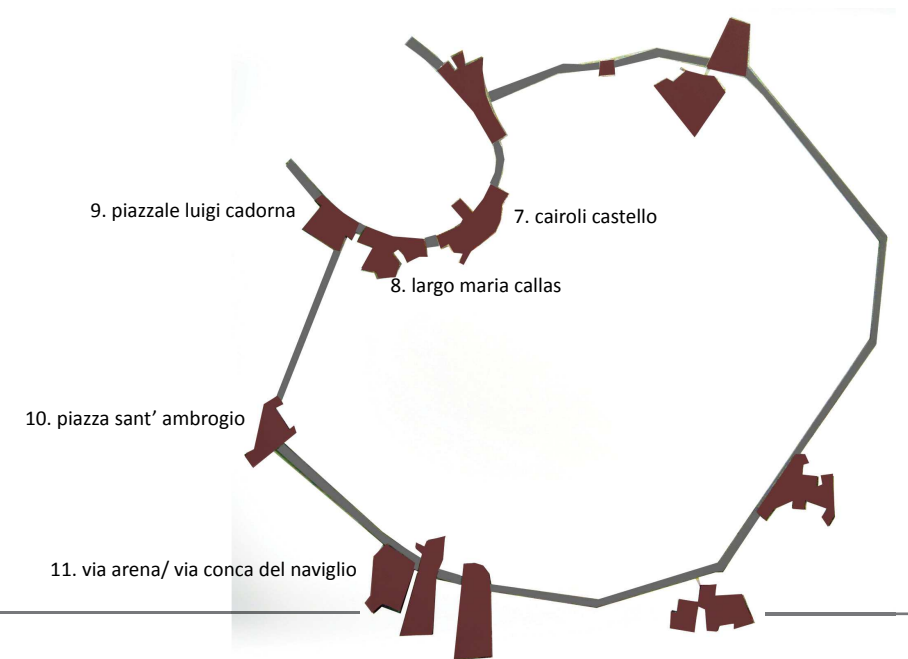
chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's rings



Milan ring 1 - spread b



chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's rings



Milan ring 2 - spread a

1. Piazza 24 Maggio (Porta Ticinese)

2. Porta Lodovica

3. Piazza del Tricolore

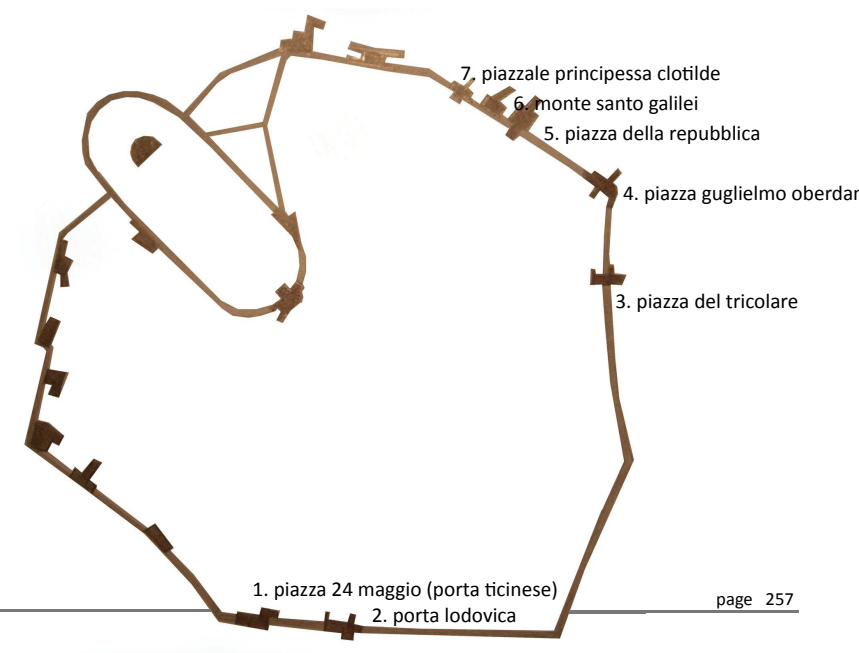
4. Piazza Guglielmo Oberdan

5. Piazza della Repubblica

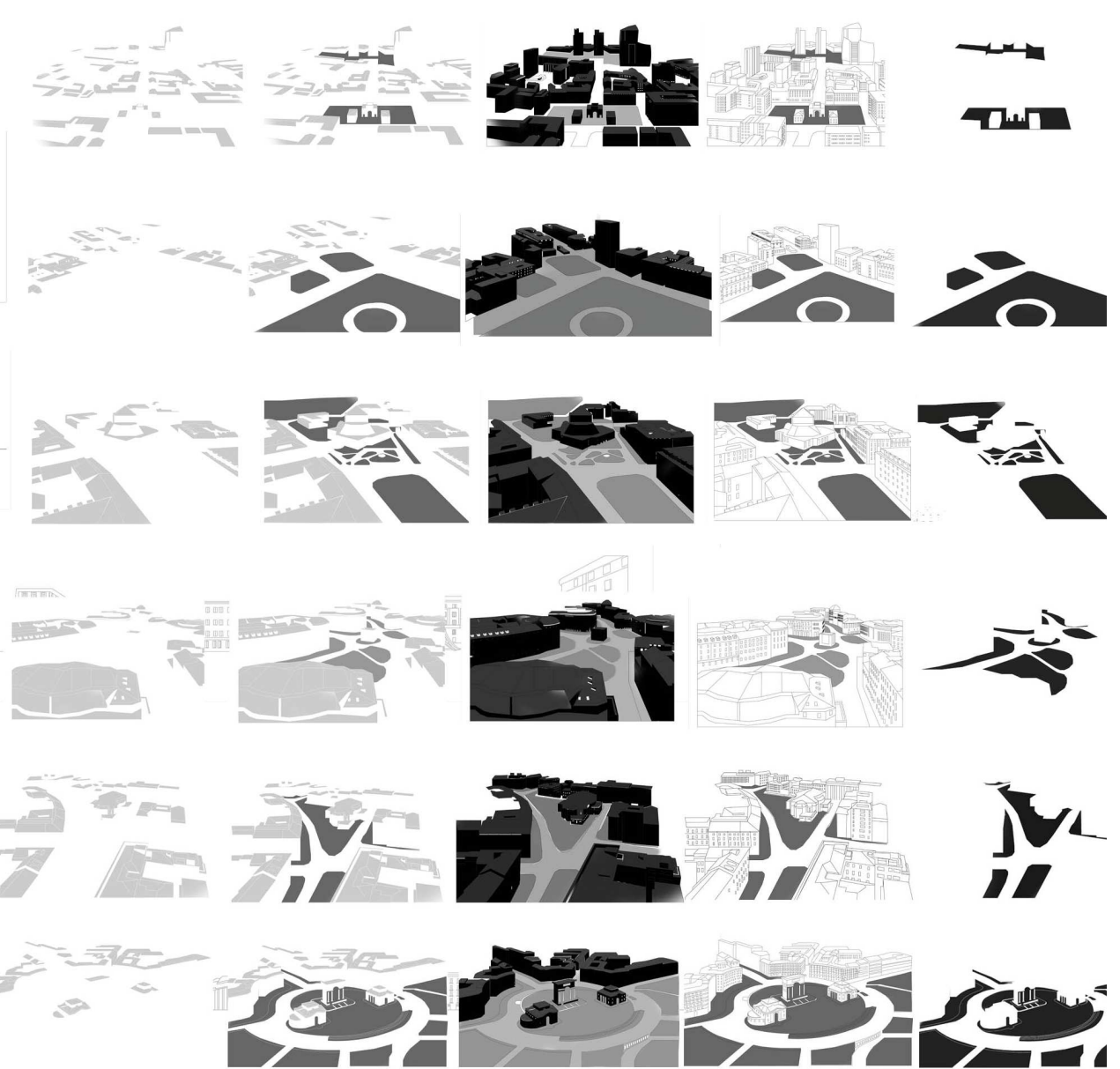
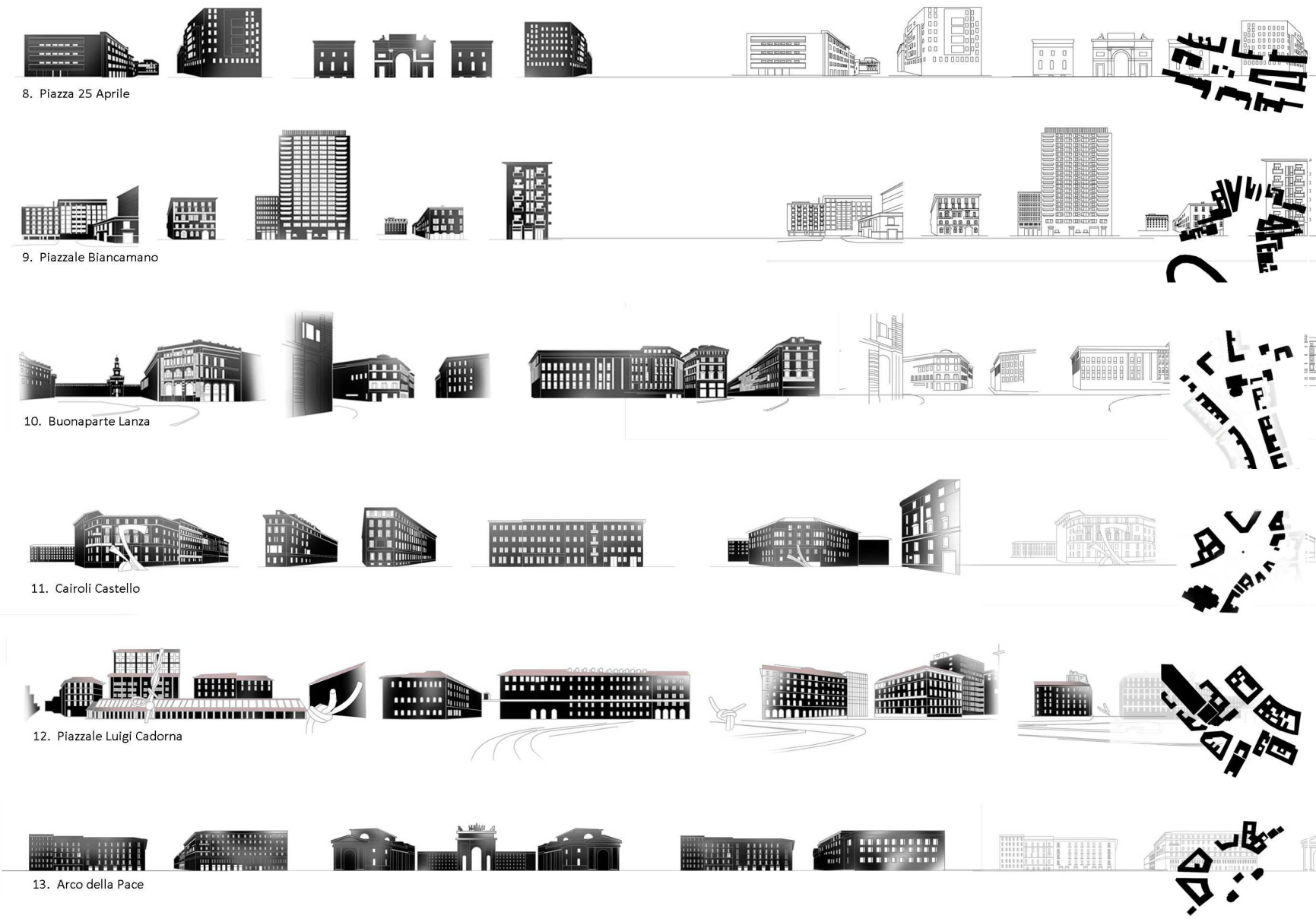
6. Monte Santo Galilei

7. Piazzale Principessa Clotilde

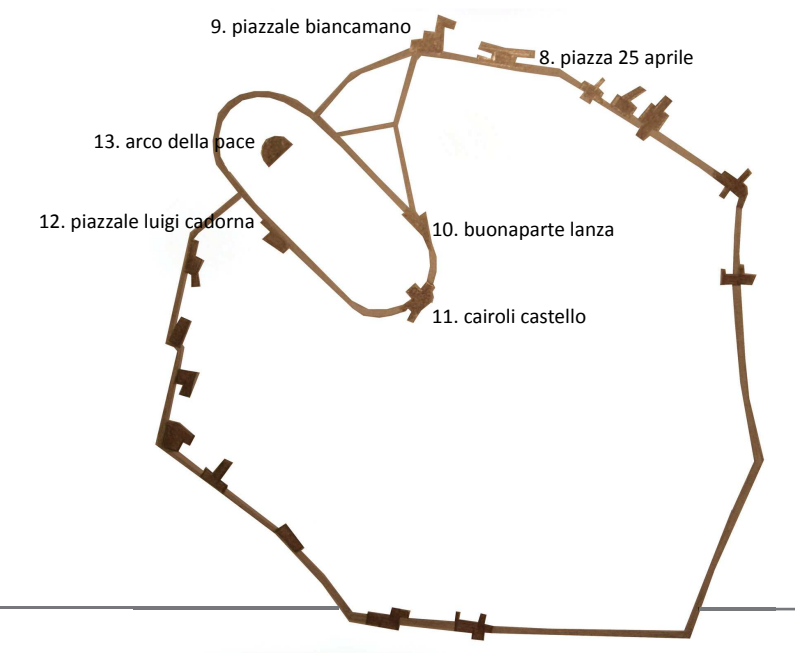
chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's rings



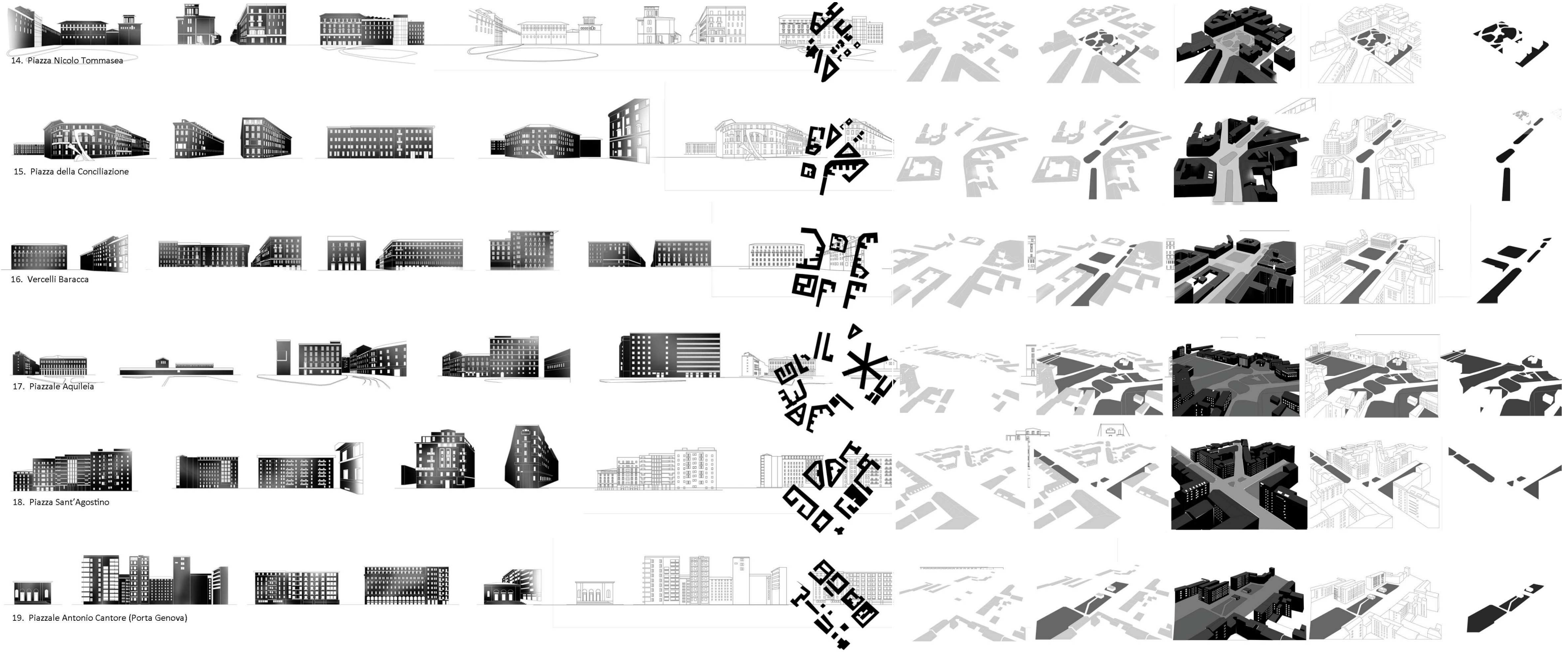
Milan ring 2 - spread b



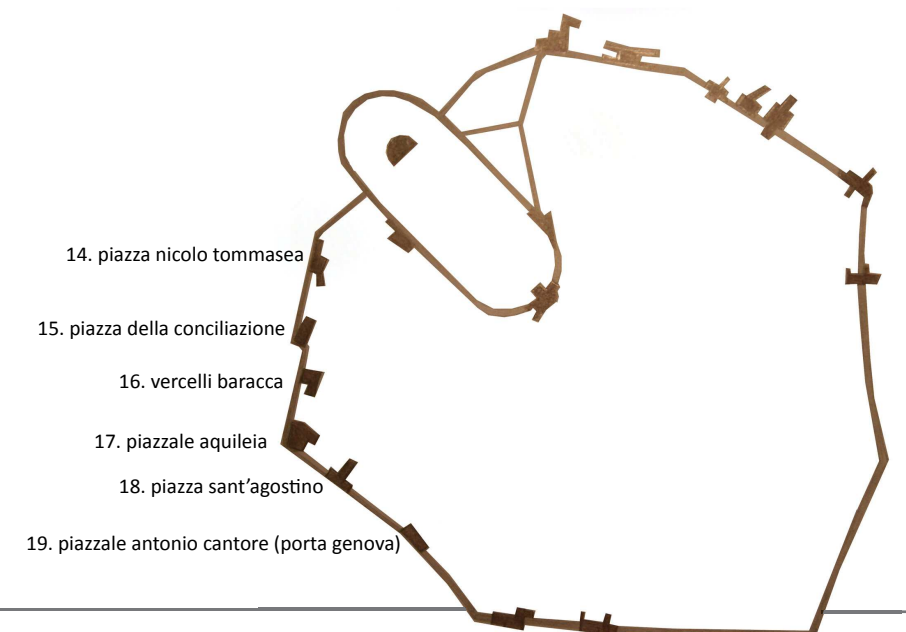
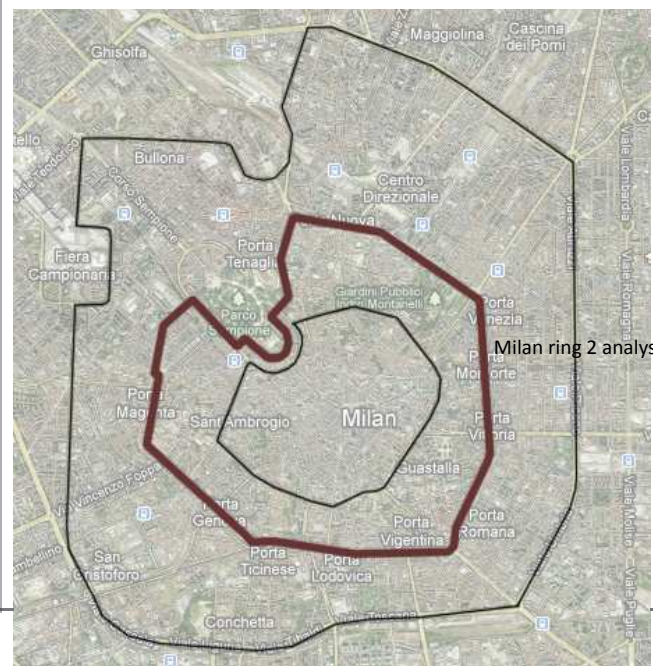
chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's rings



Milan ring 2 - spread c



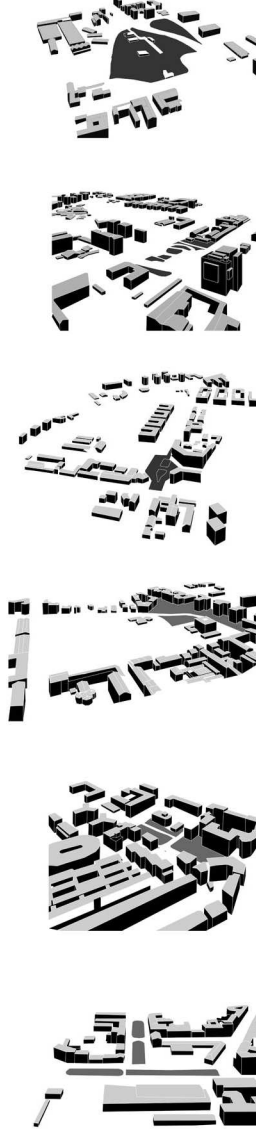
chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's rings



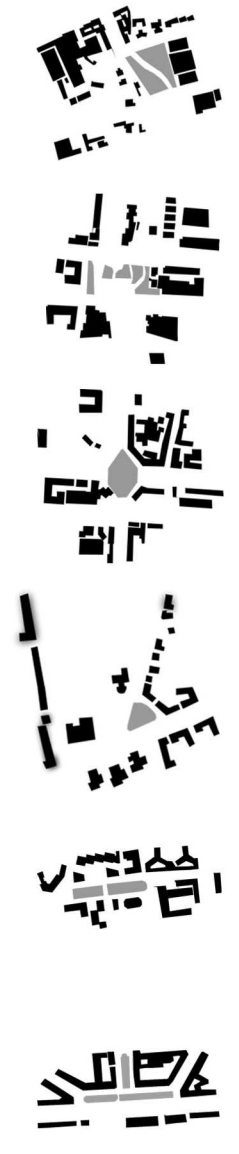
Milan ring 3 - spread a

- 1. Piazzale della Milizie
- 2. Largo Antonio e Alberto Ascari (Romolo)
- 3. Piazza Serafino Belfanti
- 4. Piazza Bibbiena
- 5. Piazza Angelo Sraffa
- 6. Piazza Trento

Perspectives of framing and field



Plan of framing and field



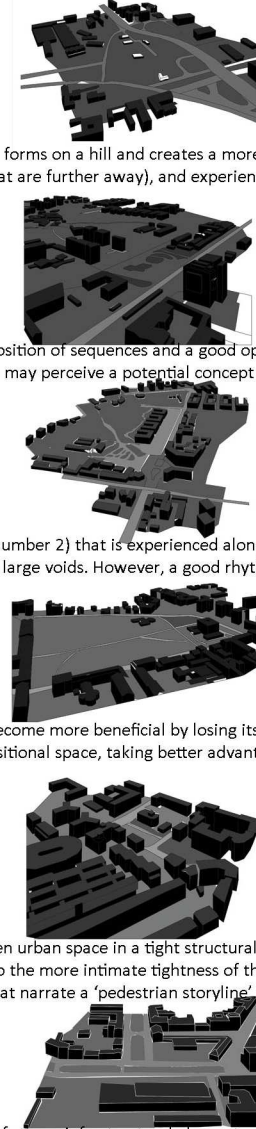
The structure of composition



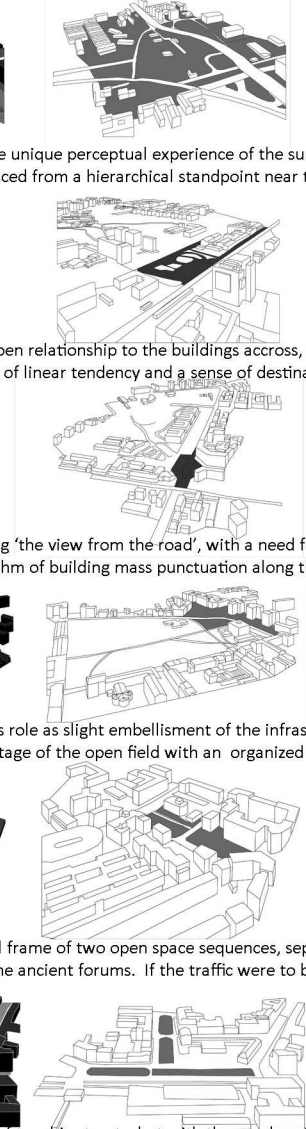
Public spaces and relationships to structural composition



Structure and fields of openness



Fields of openness and perceptual orientation



Form of space



Piazzale della Milizie (1) is governed by the strong infrastructural road that forms on a hill and creates a more unique perceptual experience of the surrounding public open urban spaces, visually realized from a distance (for the ones that are further away), and experienced from a hierarchical standpoint near the street.

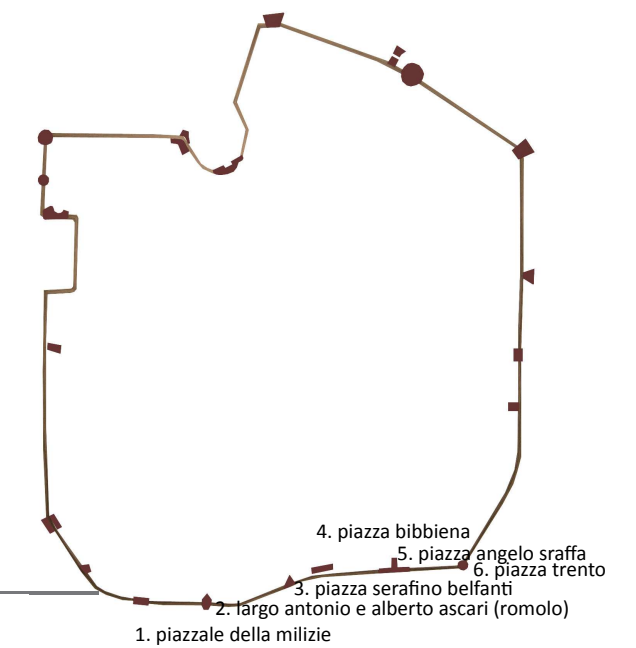
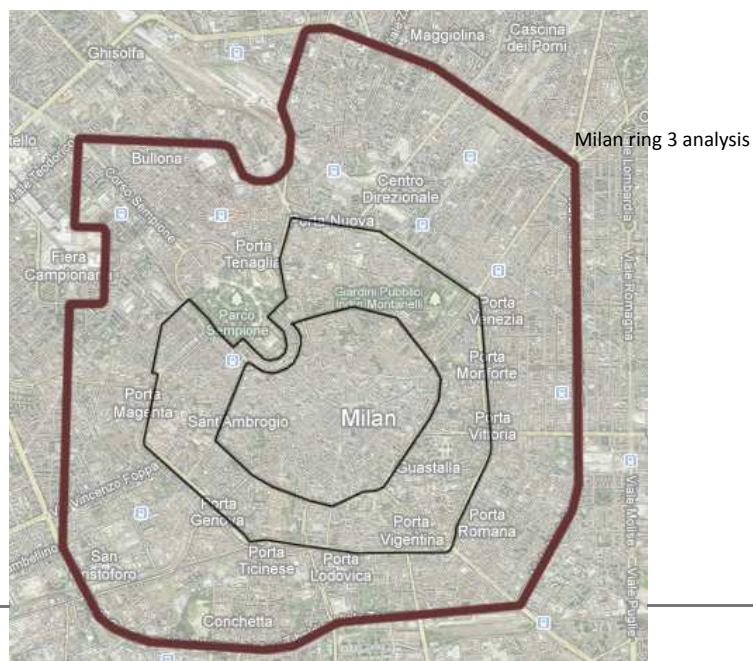
Largo Antonio e Alberto Ascari (2) at station Romolo has a potential composition of sequences and a good open relationship to the buildings across, experienced linearly and parallel to the infrastructure, from which standpoint one may perceive a potential concept of linear tendency and a sense of destination.

Piazza Serafino Belfanti (3) is another public open urban space (similar to number 2) that is experienced along 'the view from the road', with a need for stronger conceptual and identifiable elements to discern it from the surrounding large voids. However, a good rhythm of building mass punctuation along the piazza, serves the potential purposes.

Piazza Bibbiena (4), with a lurking position overlooking a large park, may become more beneficial by losing its role as slight embellishment of the infrastructural crossing, and rather playing the role of a park's entrance or pedestrian transitional space, taking better advantage of the open field with an organized structure.

Piazza Angelo Sraffa (Largo Beethoven) (5), for an advantageous public open urban space in a tight structural frame of two open space sequences, separated by strong infrastructure. The situation may perceptually somewhat relate to the more intimate tightness of the ancient forums. If the traffic were to become less heavy, there could be good possibility of sequential open civic spaces that narrate a 'pedestrian storyline'.

Piazza Trento (6). Here rises the challenge of the open space in the midst of strong infrastructural elements of two big streets, but with the good positioning of building framing, adjacent to massings of similar scale, to offer a good open perceptual impression of the surroundings. However, due to heavy traffic, perhaps rises the need for some sort of framing elements to block the pedestrians from the streets. An appropriate concept for such case could be **division and split**.



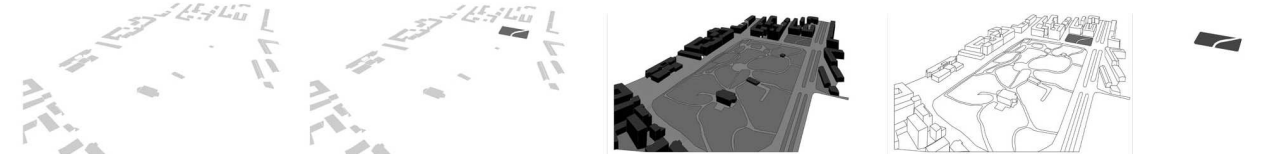
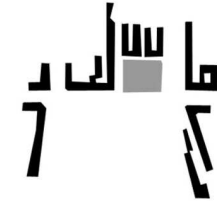
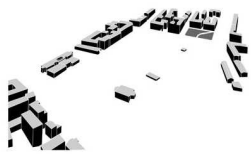
Milan ring 3 - spread b

7. Piazzale Lodi



Piazza Lodi (7) is a typical 'rotonda piazza' where the form of the plaza is favoring the cars rather than the pedestrians. With an open perceptual 'gap' on the foreground of the analysis images, the space creates a sense of 'fear' for the urbanite, lacking a point of harbour.

8. Piazza Emilia



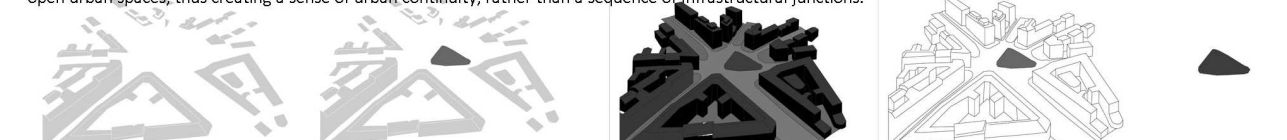
Piazza Emilia (8) is a good potential for a conceptual linkage between the park and the piazza. The opportunity is a large field of civic pleasure, marked by a sequence of regular framing building masses.

9. Piazzale Dateo



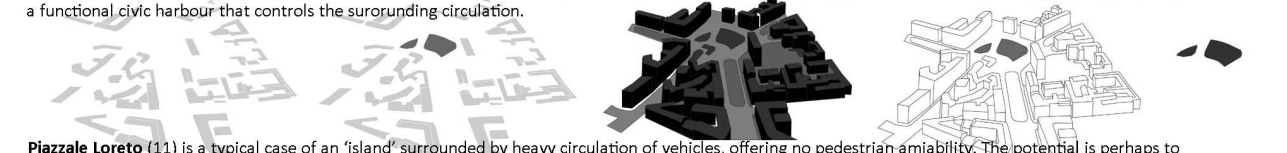
Piazzale Dateo (9). What is interesting is the sense of a 'rambla' on the main axis going towards the right background vanishing point, but yet the experience one following that path becomes less safe at the intersection. It would be interesting to see the 'rambla' continue further, and connect with the proximal public open urban spaces, thus creating a sense of urban continuity, rather than a sequence of infrastructural junctions.

10. Piazza Graziadio Isaia Ascoli



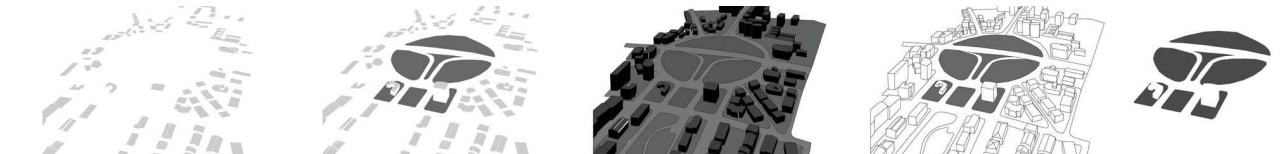
Piazza Graziadio Isaia Ascoli (10) has some interesting corner-architecture for orientational landmarks, which is needed, considering the number of streets intersecting the node. The public space however, offers more of a landscape aesthetic that follows by default the form of the surrounding geometry, rather than a functional civic harbour that controls the surrounding circulation.

11. Piazzale Loreto



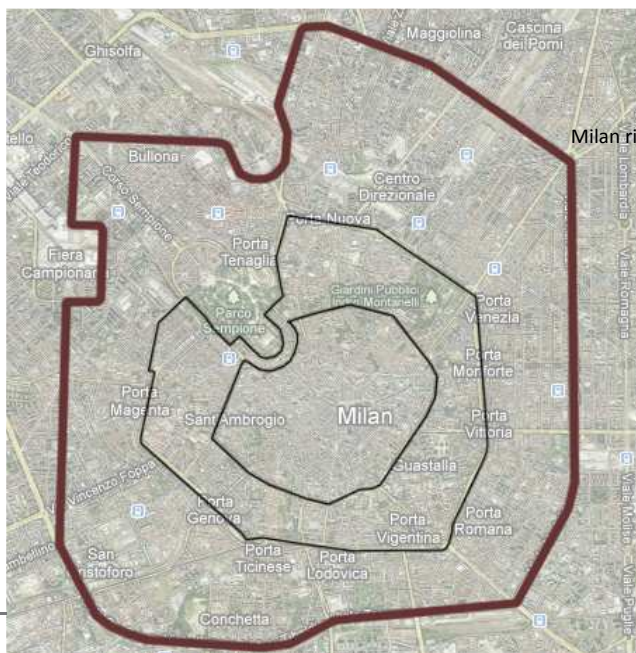
Piazzale Loreto (11) is a typical case of an 'island' surrounded by heavy circulation of vehicles, offering no pedestrian amiability. The potential is perhaps to create some over-the-ground activity, to view form above the direction of the shopping streets, rather than go underneath and become disoriented.

12. Piazza Carbonari

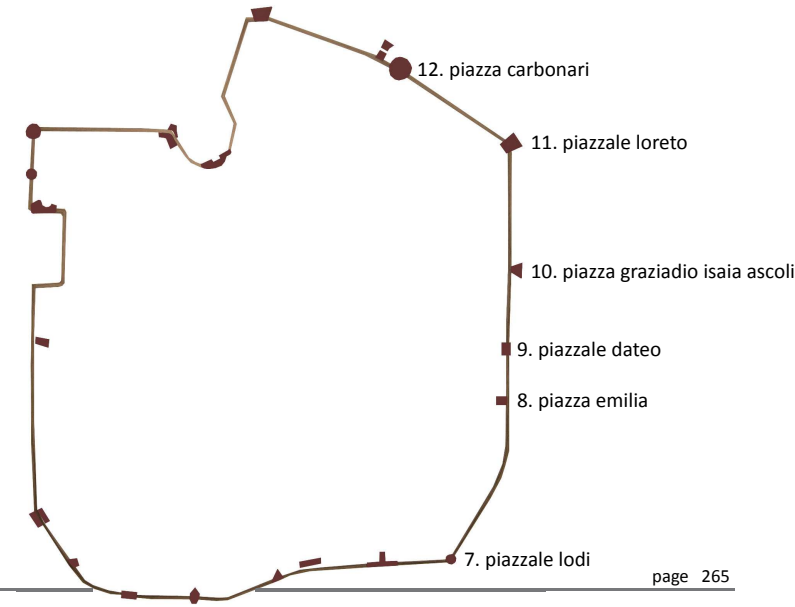


Piazza Carbonari (12) is a plaza created in the midst of a large junction of streets, for the sake of visual embellishment and landscape accessibility, rather than for accessibility, despite the few activities that it offers. However it creates some interesting linkages to adjacent axis' of green voids, that have the potential of an interesting open space sequence.

chapter 4: contemporary design and heritage considerations, schematic contemporary considerations of the public open urban spaces on Milan's rings



Milan ring 3 analysis



Milan ring 3 - spread c

13. Piazzale Giuseppe Massari

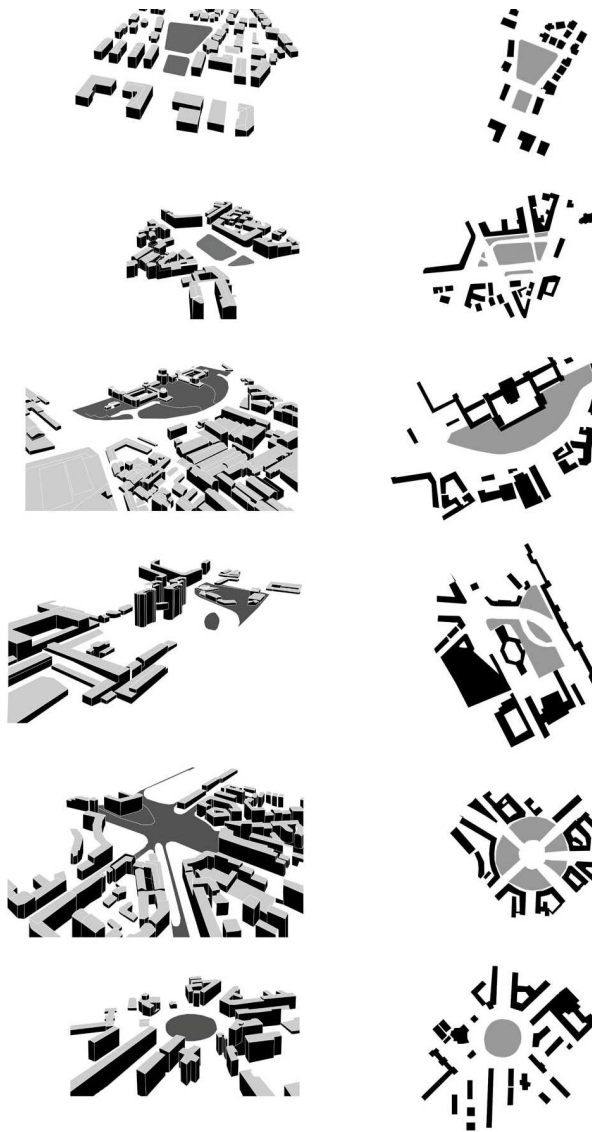
14. Piazzale Carlo Maciachini

15. Piazzale Cimitero Monumentale

16. Piazza Coriolano

17. Piazza Firenze

18. Piazzale Damiano Chiesa



Piazzale Giuseppe Massari (13) is at a nice location adjacent to the one side of the main street (rather than intersected in the middle of it), and shows the potential for creating a sequence of overlooking public places to unite the surrounding building units. Supported by a rhythmic sequence of buildings, it offers potential for 'urban protection'. At the moment, it is easily overlooked due to its lack of strong theme.

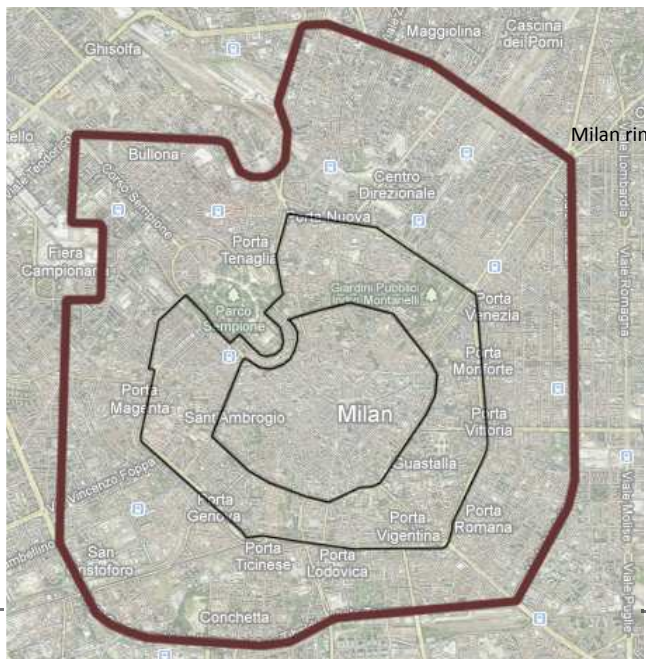
Piazzale Carlo Maciachini (14), an acrimonious plaza with an awkward composition of 'open voids' and streets overshadowing each other, lacks a sense of direction, threatened by vehicles. If purely pedestrian, the space would be an interesting configuration of civic framing, with much work to be done on visual pleasure and civic art elements.

Piazzale Cimitero Monumentale (15). Opposed by the overabundance of the facing city, the composition of the cemetery against the new construction, intermixed with old rising elements, creates an overly interesting civic experience. The semi-circled plaza shape encompasses a feeling of protection towards the memorable past, emulating the form of a *whomb* and celebrating the deceased that are withheld in *memory*.

Piazza Coriolano (16) is a nice plaza adjacent to the Cimitero Monumentale, across a modern composition of high rises, creating a very intimate perception of the opposition between memory and present. With a gentle curve of the infrastructure, slowing down the traffic, the surrounding framing shapes offer variability and potential for further civic art installations.

Piazza Firenze (17) is a nice plaza adjacent to the Cimitero Monumentale, across a modern composition of high rises, creating a very intimate perception of the opposition between memory and present. With a gentle curve of the infrastructure, slowing down the traffic, the surrounding framing shapes offer variability and potential for further civic art installations.

Piazzale Damiano Chiesa (18) is another typical *rotonda plaza*, lacking urban civic character, pedestrian safety and accessibility. The architectural elements defining the boundaries of the open space lack orientational character, and one is easily questioning the path he came from.

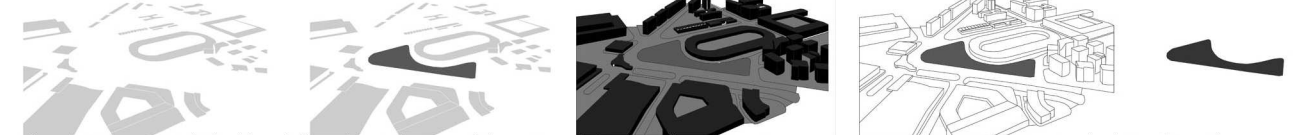


Milan ring 3 analysis



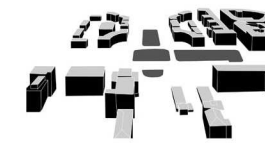
Milan ring 3 - spread d

19. Piazzale Carlo Magno



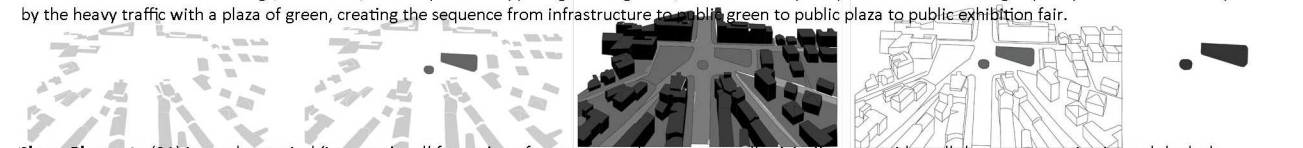
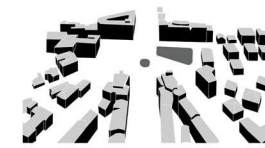
Piazzale Carlo Magno (19), although fenced in at the time of the writing of this thesis for construction purposes, seems to create a nice visual relationship with the adjacent stadium, connecting to the grounds of the Fiera. The architectural objects framing the space offer variety and visual play.

20. Piazzale Giulio Cesare



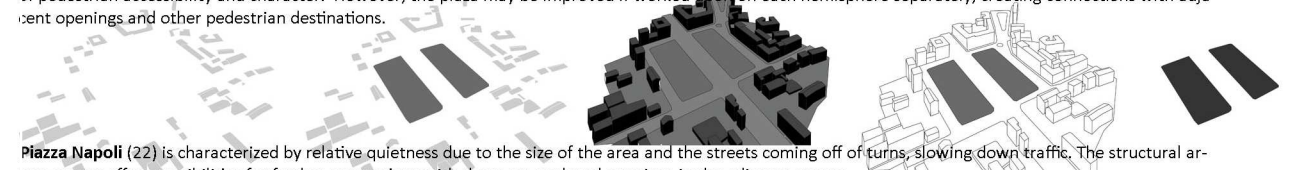
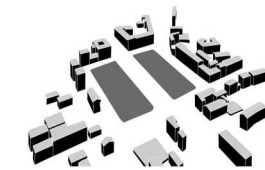
Piazzale Giulio Cesare (20) is a good example of a public open urban space taking advantage of the surrounding openness, perceptually giving visual access to works of art of the Fiera buildings, a fountain, and sculpture on opposing building roofs, on the vertical perceptual horizon. The large open space is divided nicely by the heavy traffic with a plaza of green, creating the sequence from infrastructure to public green to public plaza to public exhibition fair.

21. Piazza Piemonte



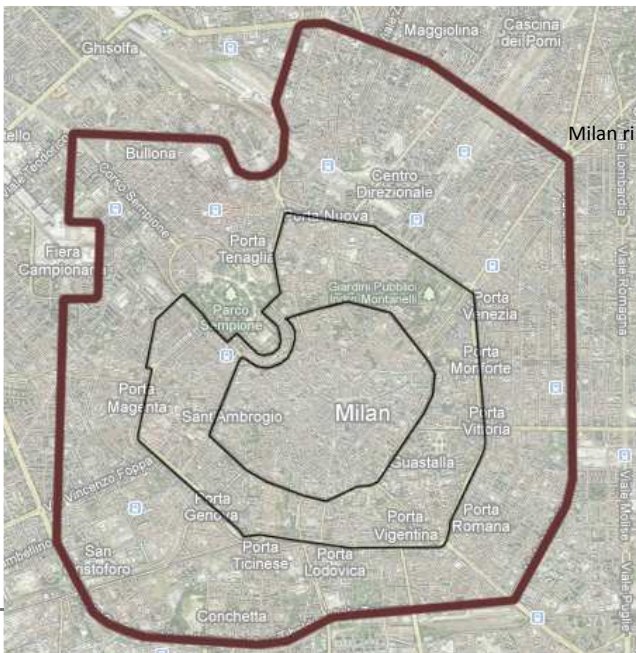
Piazza Piemonte (21) is another typical 'intersectional' formation of open spaces that are not really civic, if one considers all the streets coming in, and the lack of pedestrian accessibility and character. However, the plaza may be improved if worked upon on each hemisphere separately, creating connections with adjacent openings and other pedestrian destinations.

22. Piazza Napoli

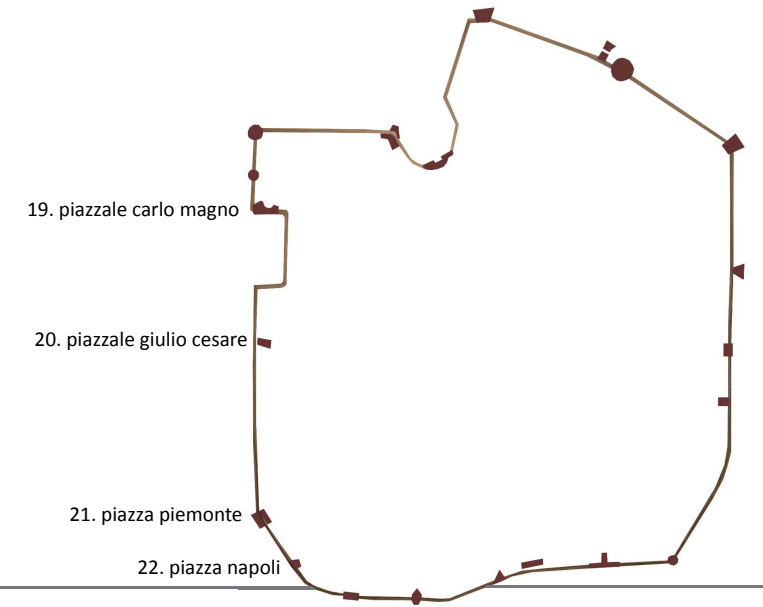


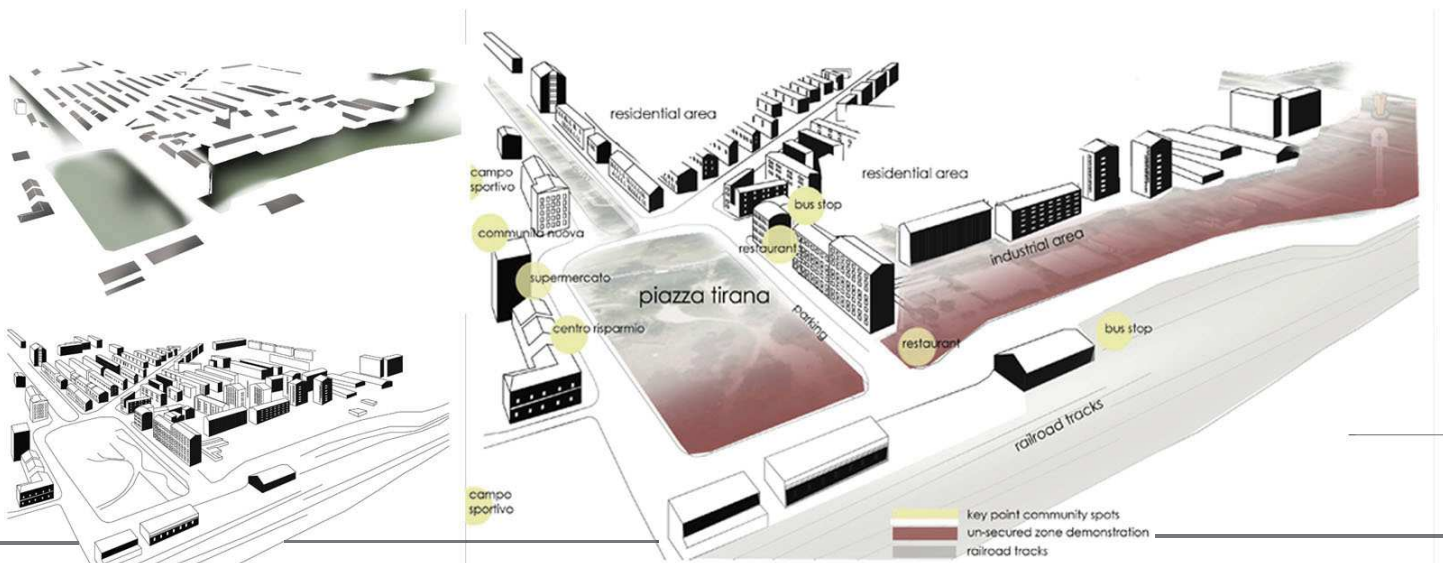
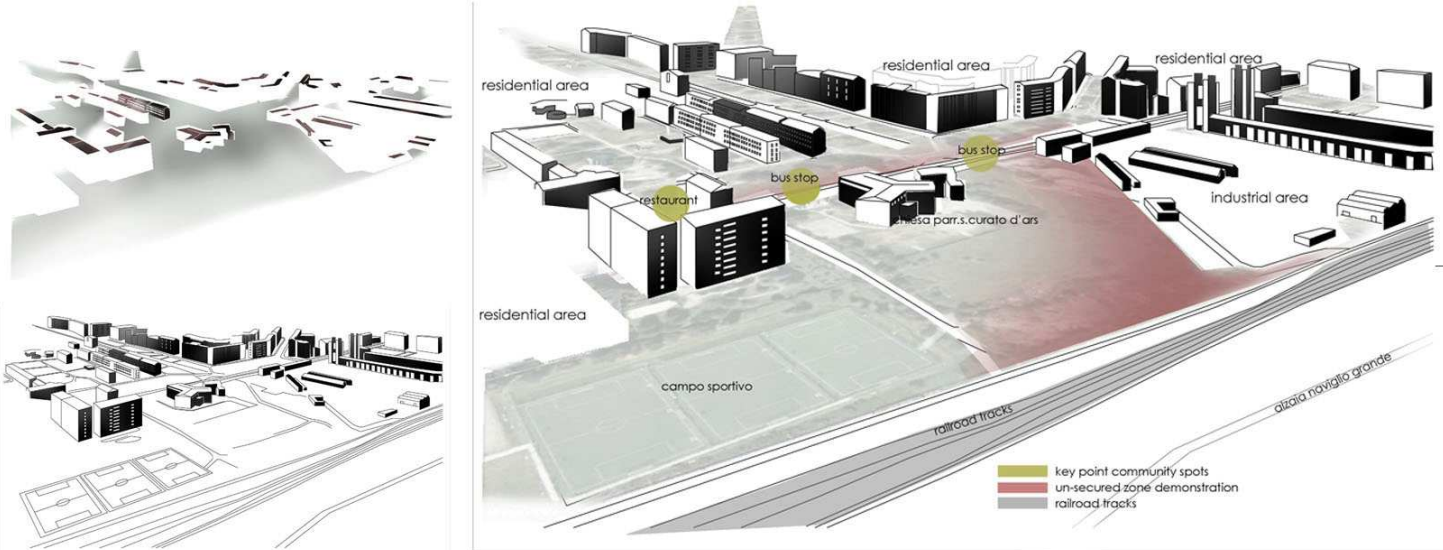
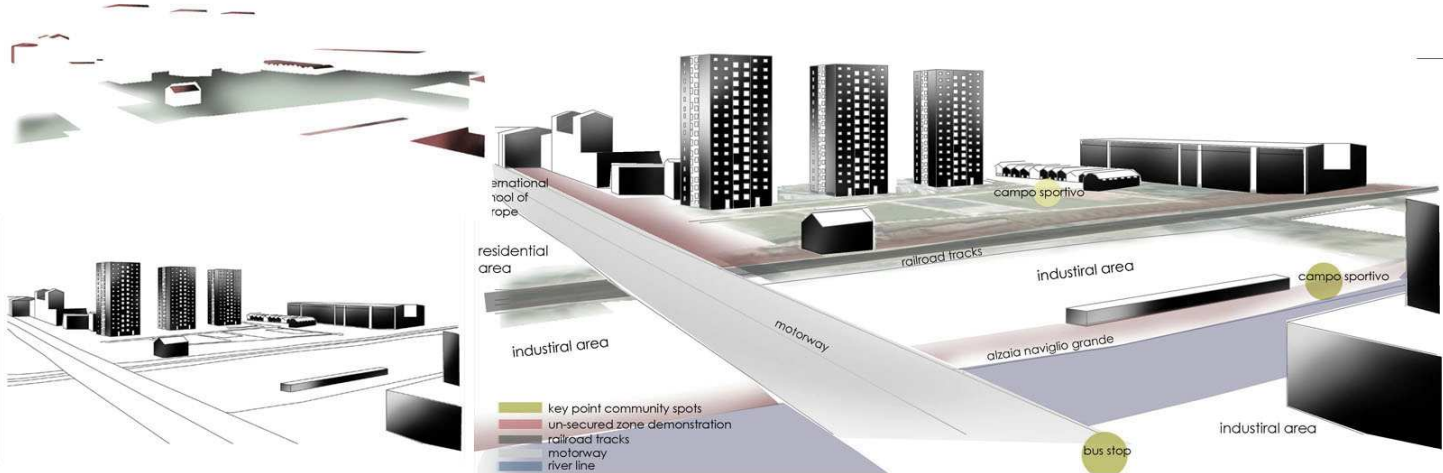
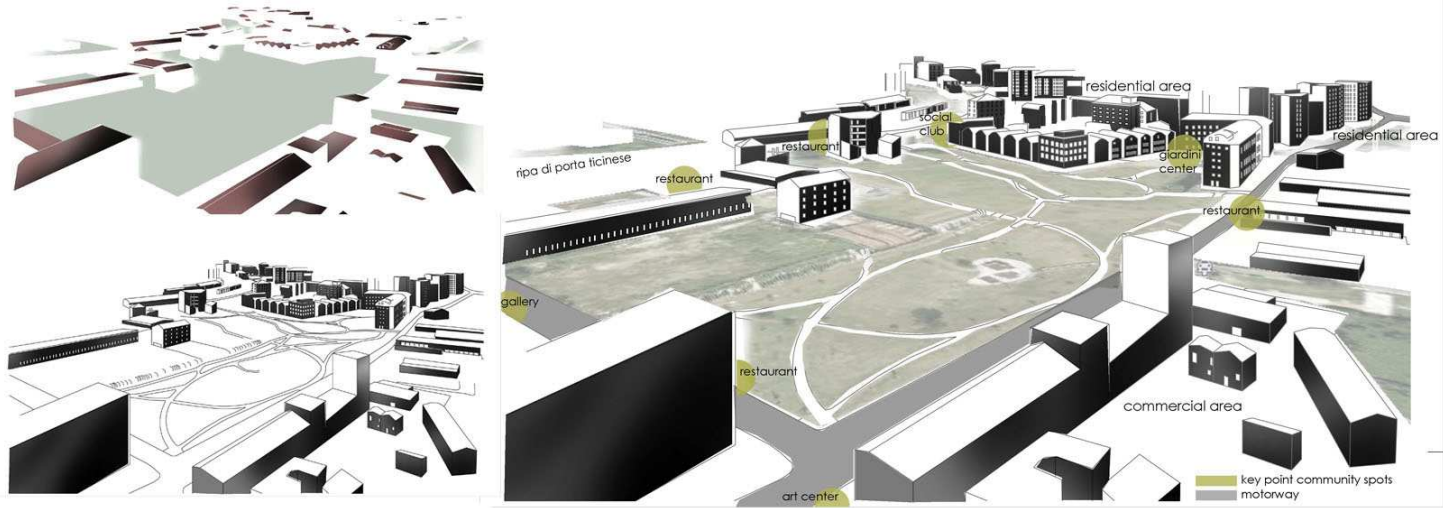
Piazza Napoli (22) is characterized by relative quietness due to the size of the area and the streets coming off of turns, slowing down traffic. The structural arrangement offers possibilities for further connections with the more enclosed openings in the adjacent spaces.

chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's rings



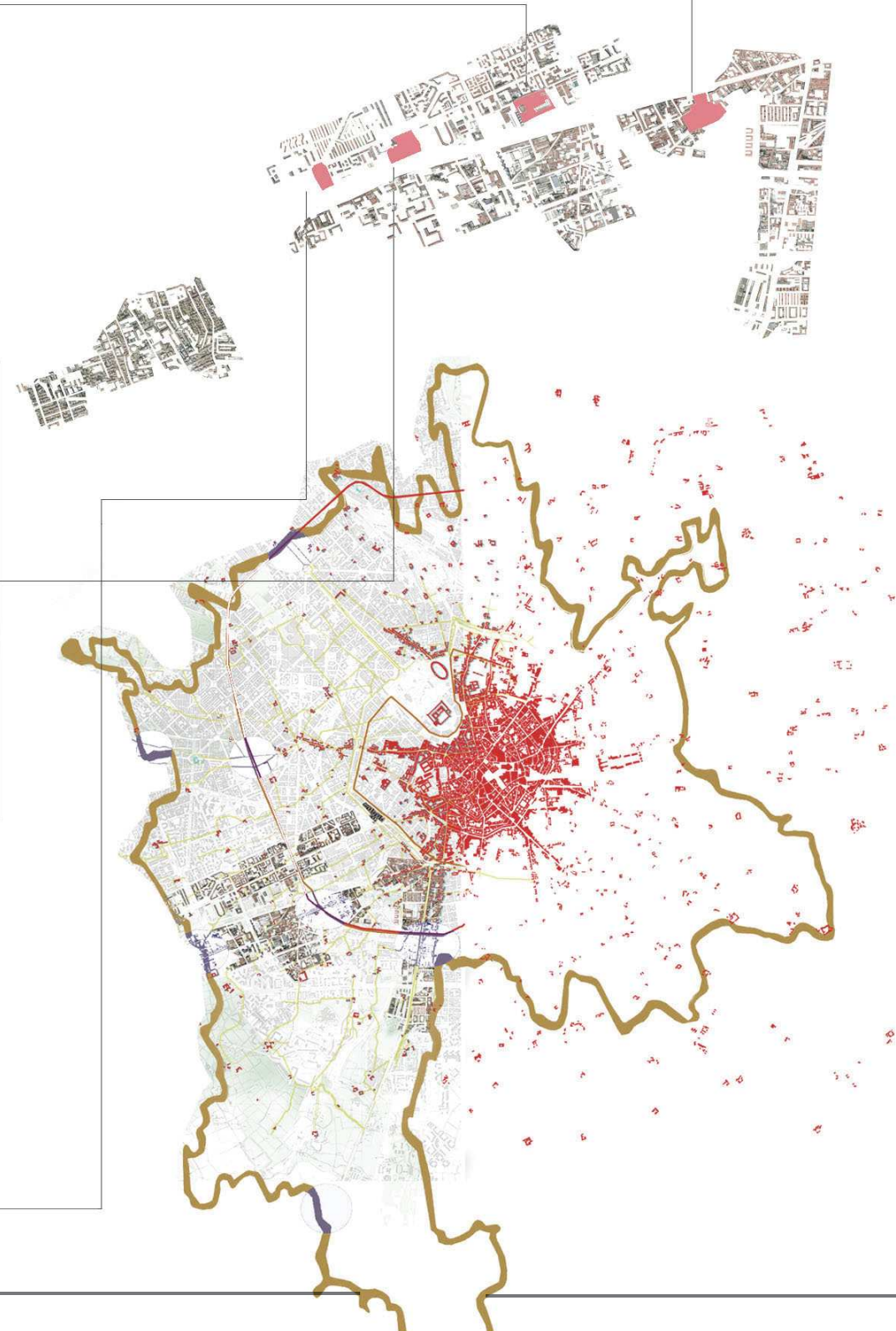
Milan ring 3 analysis





4.4 schematic contemporary considerations of the public open urban spaces on Milan's Naviglio Strip

This short study aims to study the perceptual characteristics, forms and degrees of security of the open spaces along the strip of the Naviglio, which mark the axis for a series of recreational activities and residential groups of quarters. As many of these secondary urban voids of Milan are not a result of a planned design and methodological strategic action, the aim is to contemplate, in perspective view, the nodal points (marked in yellow), which aid for the interpretation of a secure public open urban space, with the unsecured zones marked with a red highlight. The diagrams also strive to create a syntactic interpretation of the structural framings and fields of density and liveliness that occur, in order to schematically demonstrate the functional characteristics that may contribute to the vibrant civic use of each site, in reference to the typology of the surrounding habitation.



chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces on Milan's Naviglio Strip



Piazza Tirana, along the Naviglio strip of Milan, is studied here in an effort to demonstrate some of the syntactic characteristics of its location and layout, in the midst of a typologically varied situations of open unsecured spaces and an effort to create a sense of protection and secondary public open civic enclosure. What is interesting is the conglomeration of residential units in a pattern of organized layout, offering orientational guidance to the urban wanderer, in contrast to the more scattered interstitial situation that takes place inside the transit spaces between public space and habitable units. This is evident in the section below as well, efficiently showing the vertical organization of the building masses and the differences of scale. After the discussion of the thesis on some of the keywords, it is important to start realizing the potential of such an environment for a qualitative public open urban space, where a variation of structural boundaries take place, offering a diversity of perceptual impressions.

Typology of building mass on the north-western boundary of the piazza.



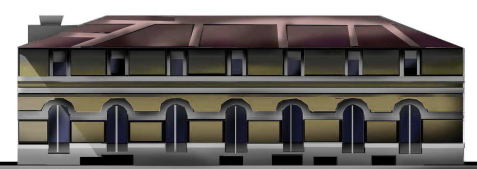
Typology of building mass on the south-western boundary of the piazza.



Typology of building mass on the north-eastern boundary of the piazza.



Typology of building mass on the norther boundary of the piazza.





4.5 schematic contemporary considerations of the public open urban spaces of Thissio in Athens

The temple of Hephaestus and Athena, built between 450 and 4430 BC, is a model of classical architecture of Dorian order. The church is surrounded by a peristyle with thirty four columns, of which six belong to each shorter, and thirteen to each longer side. Certain structural features link Hephaestus' building to the architecture of the temple of Poseidon in Sounion.

The temple of Hephaestus and Athena, built between 450 and 440 BC Dorian is a model of classical architecture. The church consists of nave and the narthex opisthodomos surrounded by a peristyle with 34 columns, of which six belong to the close and 13 on the long sides. Certain structural features linking the architecture of the volcano with the temple of Poseidon at Sounion. The themes of the sculptural decoration of the church comes in front of the mythological cycle of feats of Hercules and Theseus on the long sides. A battle of the Greeks under the supervision of a god adorns the frieze pronaos, while a Centauromachy is the issue of Frieze opisthodomos.

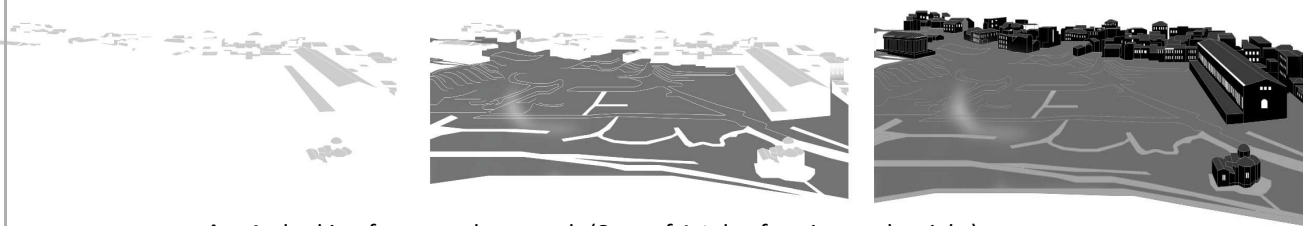
In ancient times the temple was framed by an artistically designed garden around it. In large clay pot excavated around three sides of the church were planted low trees and shrubs, showing the abundance of water in the region and the interest in landscaping. Even by modern plant breeding is oriented to the ancient vegetation.

The 7th Thissio century converted into a Christian church dedicated to Saint George and in this transformation is due both to preservation of the ancient monument today (it was housed). In contrast, apart from the domed roof of the nave, the doors to the side walls and opisthodomos not nothing left from the old church. Because the period of Ottoman rule prohibited the operation of the church, except only the anniversary of the saint's name day, the Athenians called him "Saint George Akamatis".

Today, the Temple of Hephaestus is a historical landmark in the area of the Thissio public open urban space circulation that at times seems unreachable, surrounded by fences and natural barriers. The following is a syntactic study of the open spaces, primarily from a plan's point of view, to study the possibilities of accessibility and linkages to the surrounding historical monuments.

The perceptual sketches enhance the understanding of the keywords studied in the thesis, for the evaluation of the open urban spaces.

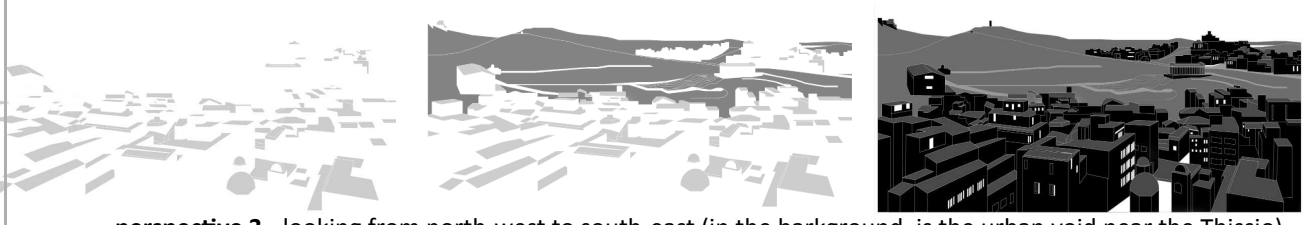




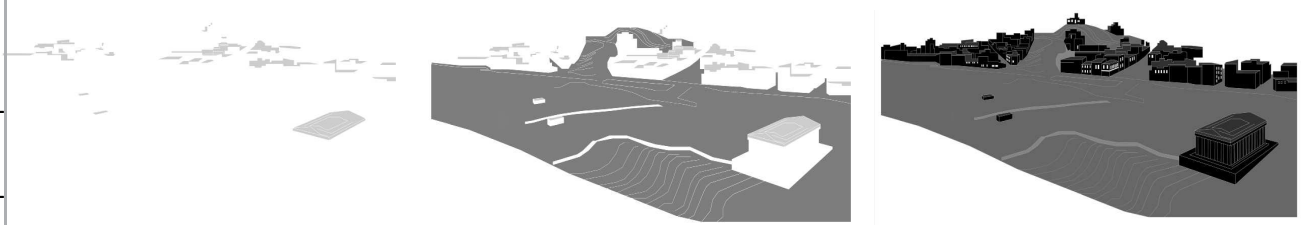
perspective 1 - looking from south to north (Stoa of Attalos framing to the right)



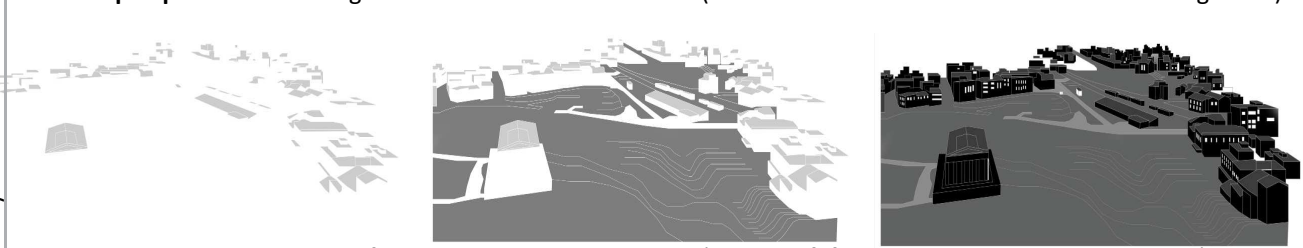
perspective 2 - looking from south-east to north-west



perspective 3 - looking from north-west to south-east (in the background, is the urban void near the Thissio)



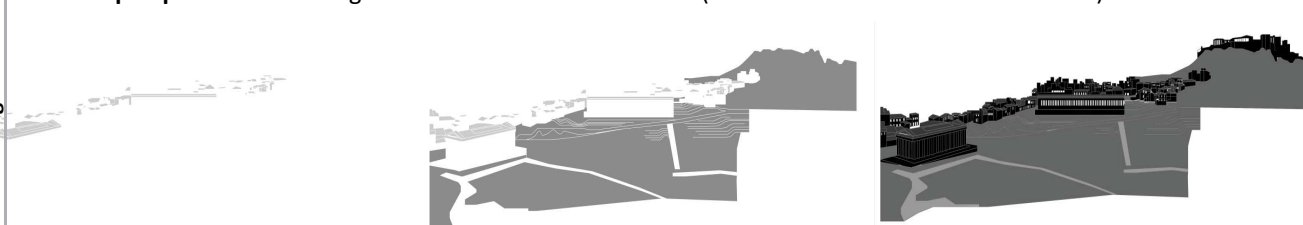
perspective 4 - looking from north-east to south-west (an orientational hill with a church in the background)



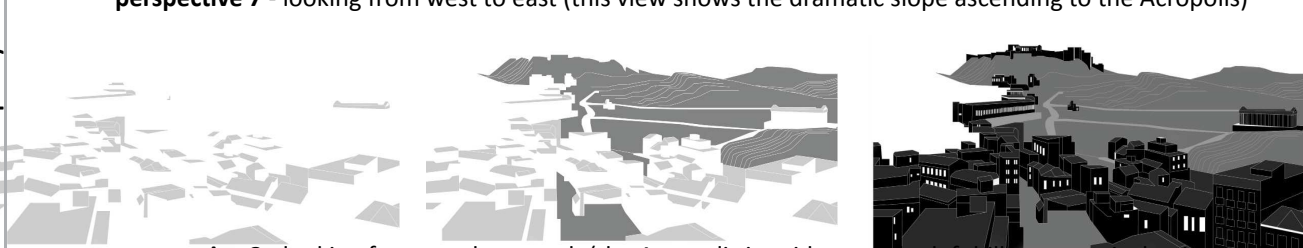
perspective 5 - looking from south-east to north-west (Temple of Ifestos across Thissio metro station)



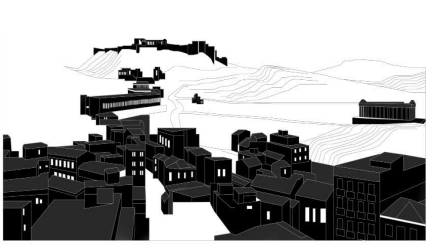
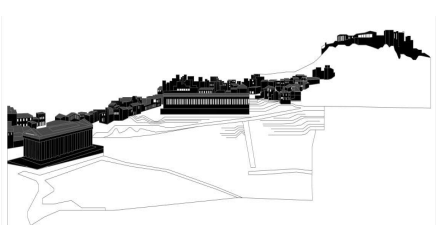
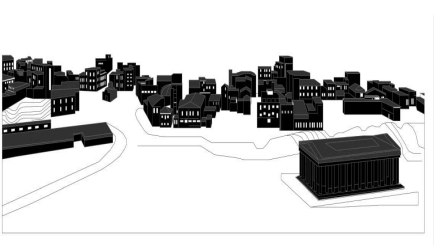
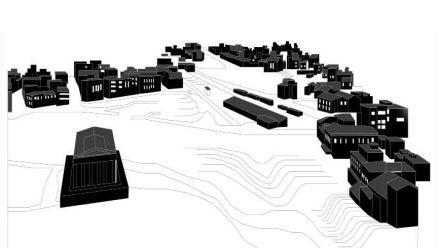
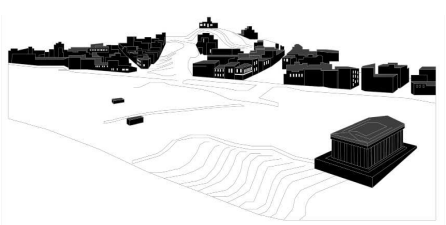
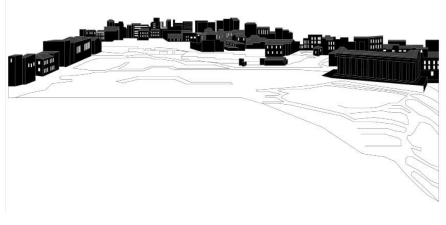
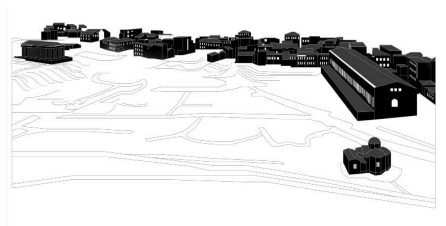
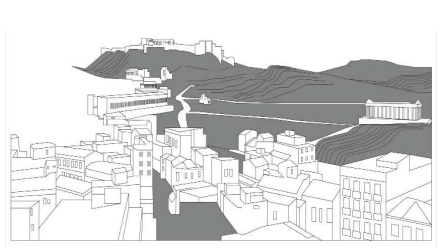
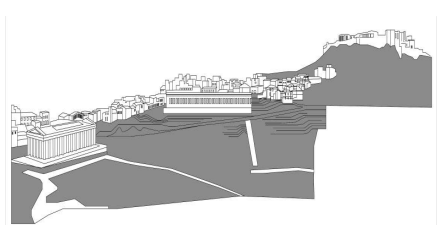
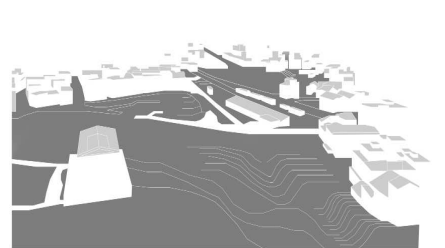
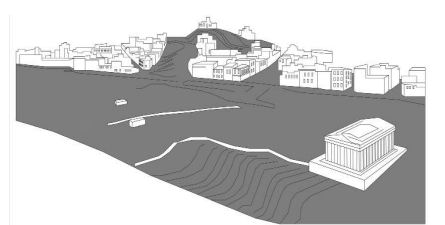
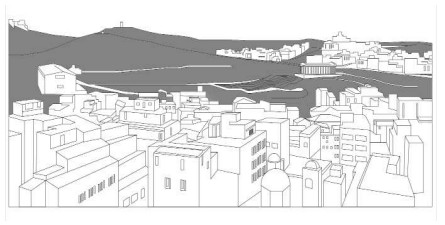
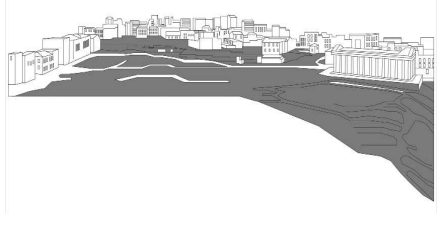
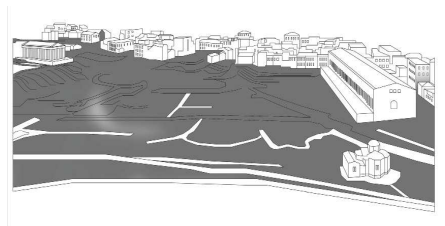
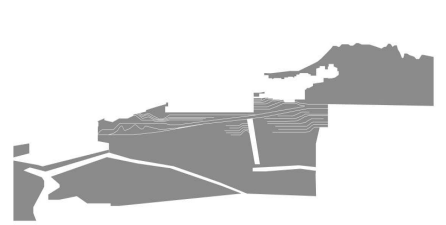
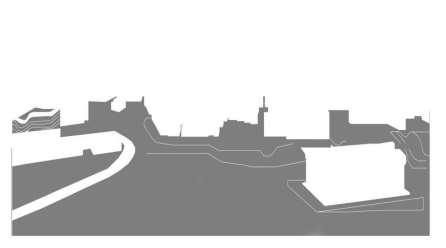
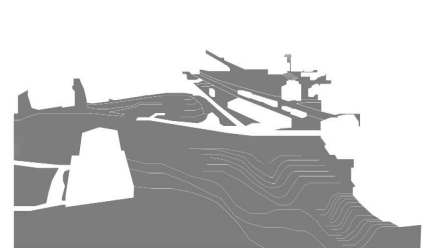
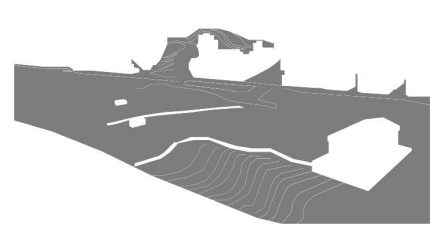
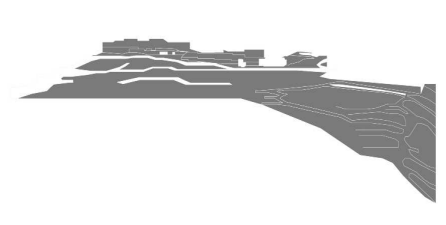
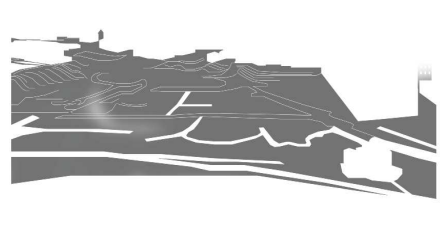
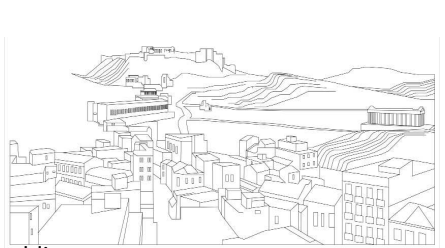
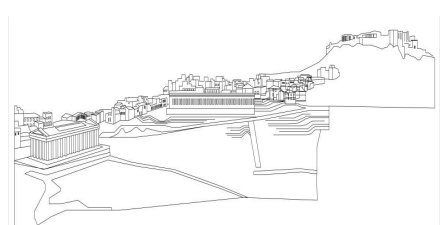
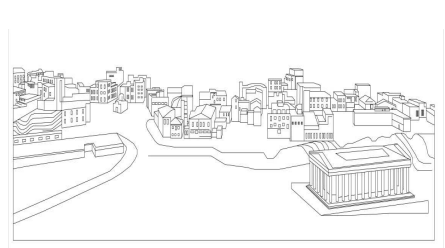
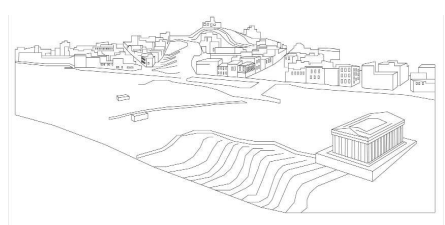
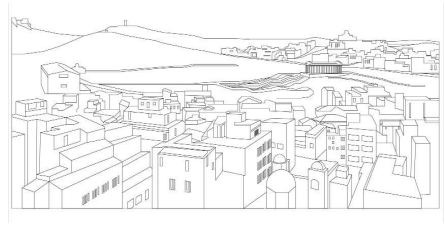
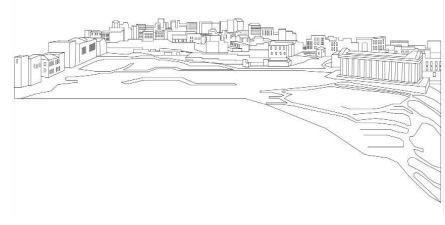
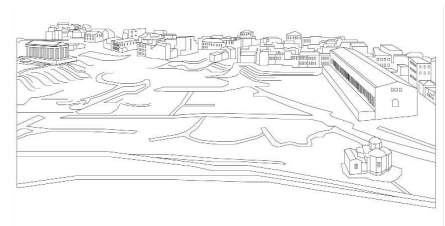
perspective 6 - looking from south-west to north-east (the Thissio metro station on the left)

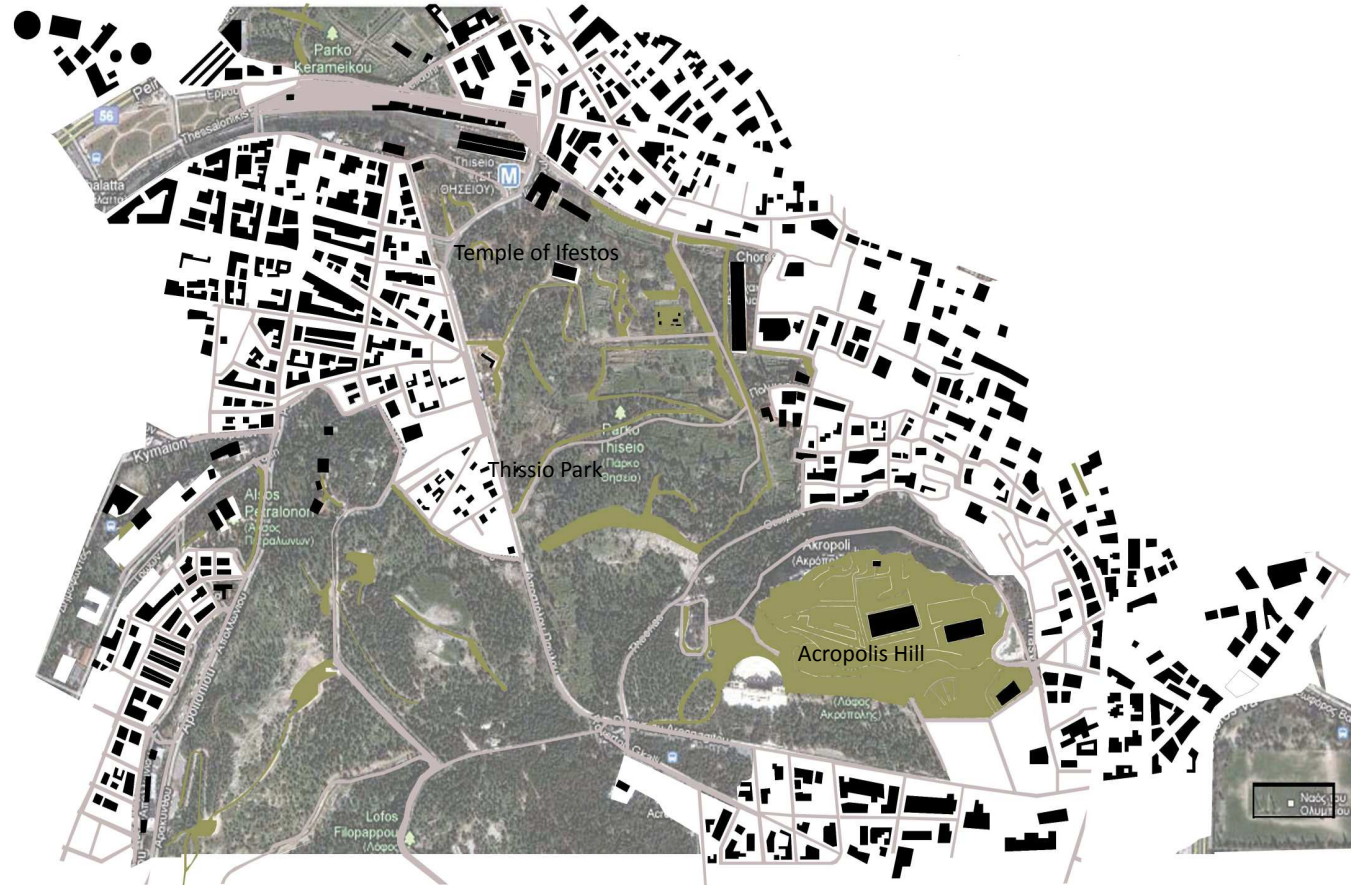


perspective 7 - looking from west to east (this view shows the dramatic slope ascending to the Acropolis)



perspective 8 - looking from north to south (the Acropolis is evident on the left hill, as an arrival point, and the public open space on the foreground introduces a field of movement to enter the site)





Thissio study plan 1
The background morphological features with the infrastructure, built space and characteristic public open space paths. The diagram shows a great dynamic of opportunity to take advantage of the currently relatively unapproachable Temple of Ifestos.



Thissio study plan 3
A more composite diagram showing the relationship between the built space (black), the infrastructure (light purple) and key public open urban space connections and areas (light brown). The built spaces embody the historical spaces of potential interventions, and both the built structure orientations and orientation of the infrastructure help to grasp hints of the poles to be chosen on the perimeter of the Thissio Park.



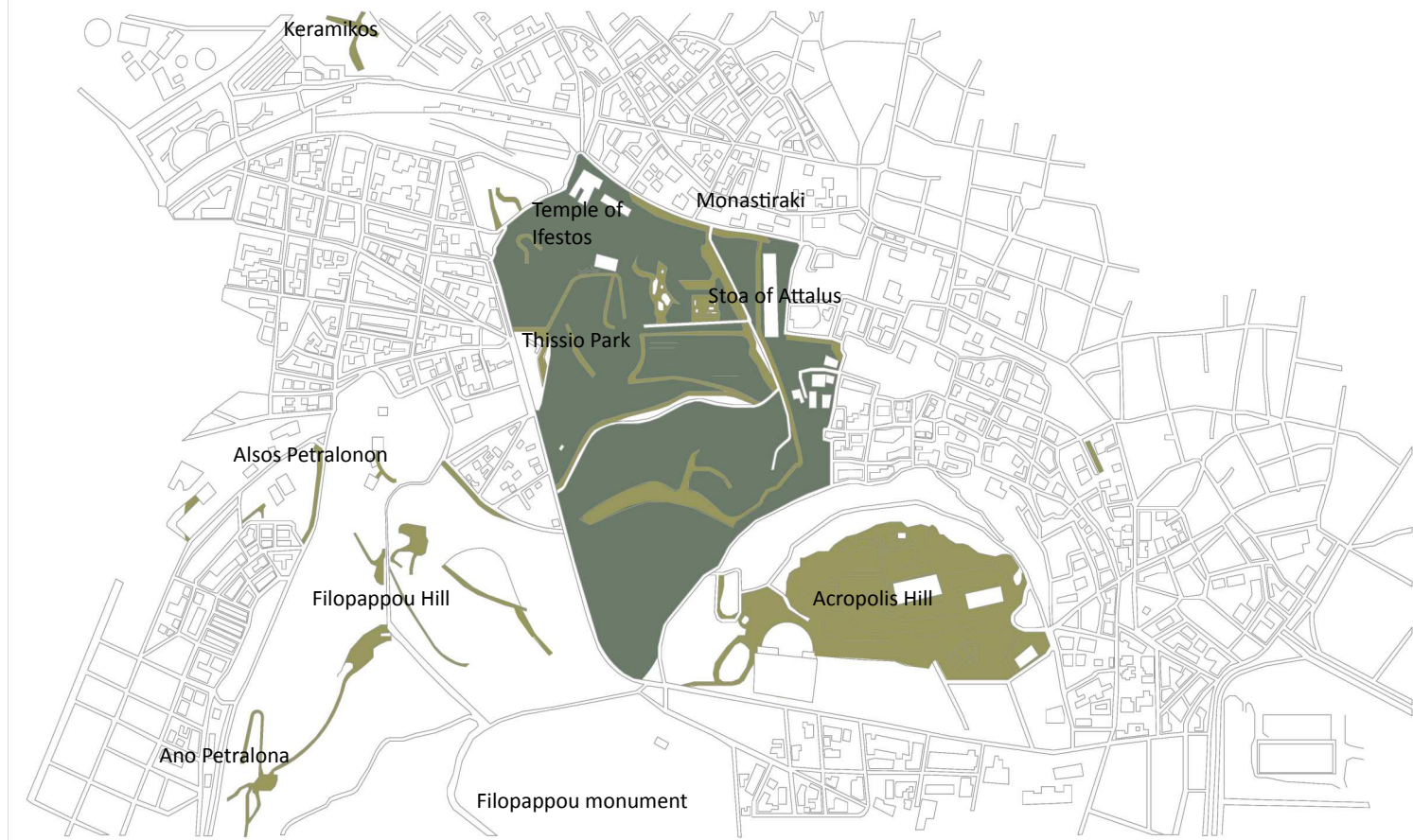
Thissio study plan 2
The built space surrounding the area of interest shows the density on the north-western side, and the looseness of construction moving downwards.



Thissio study plan 4
What stands out here is the perimeteric enclosure around the Thissio Park that defines the outline of the built space on the north-wester side of the park, and the public path that curves towards the Acropolis Hill.



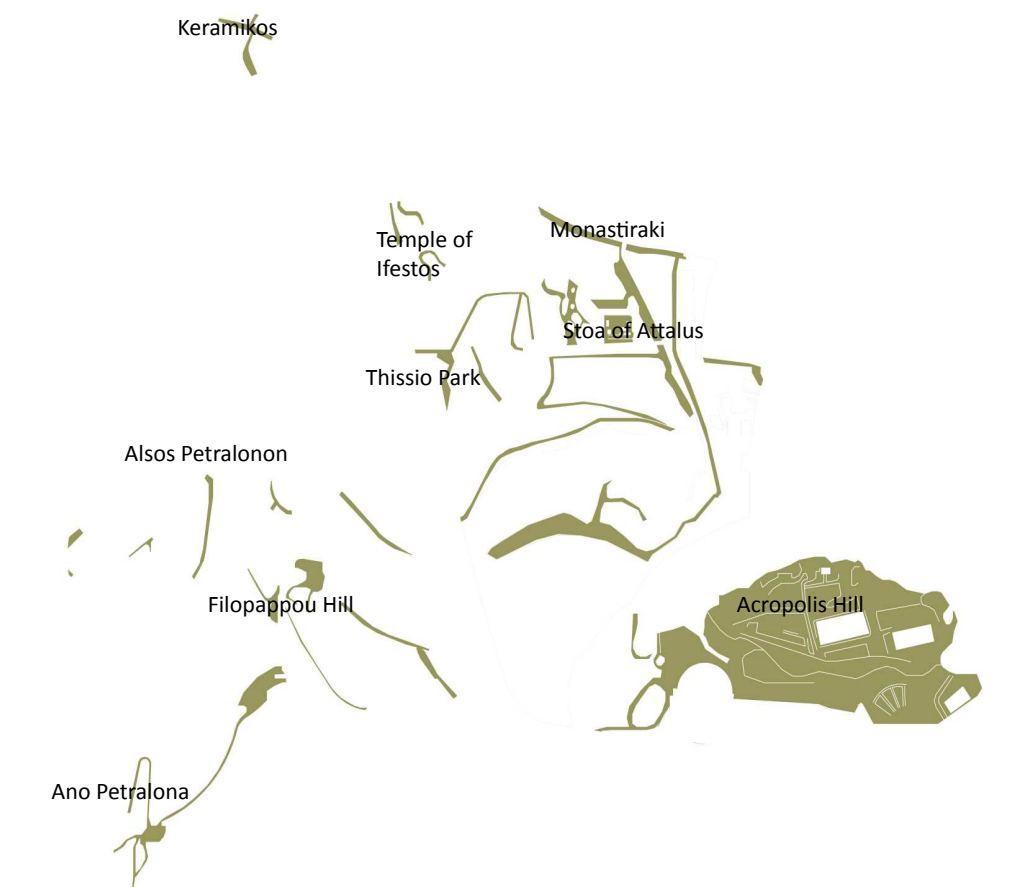
Thissio study plan 5
 This diagram shows the scattered existence of the Temple of Olympus Dios, the Parthenon, the Stoa of Attalus, the Temple of Ifestos and also the Thissio Metro stop. Although their positioning shows a profound planning, the connections are weak.



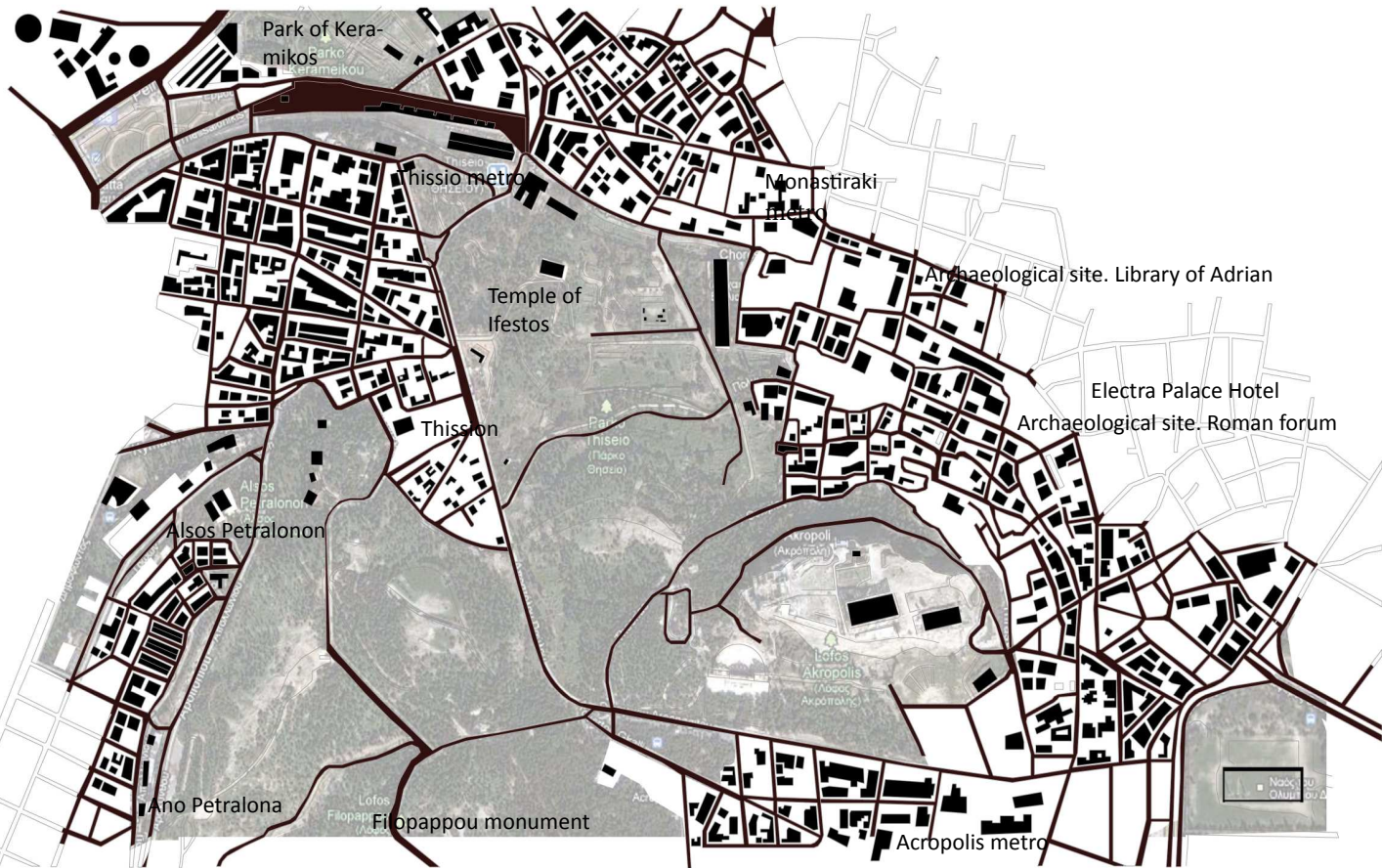
Thissio study plan 7
 The area of the Thissio park is a critical one, surrounded by public pedestrian historical points of the Acropolis, the old paths of Filopappou Hill and the Alsos of Petralona, the Thissio Park ruins themselves, and the park of Keramikos.



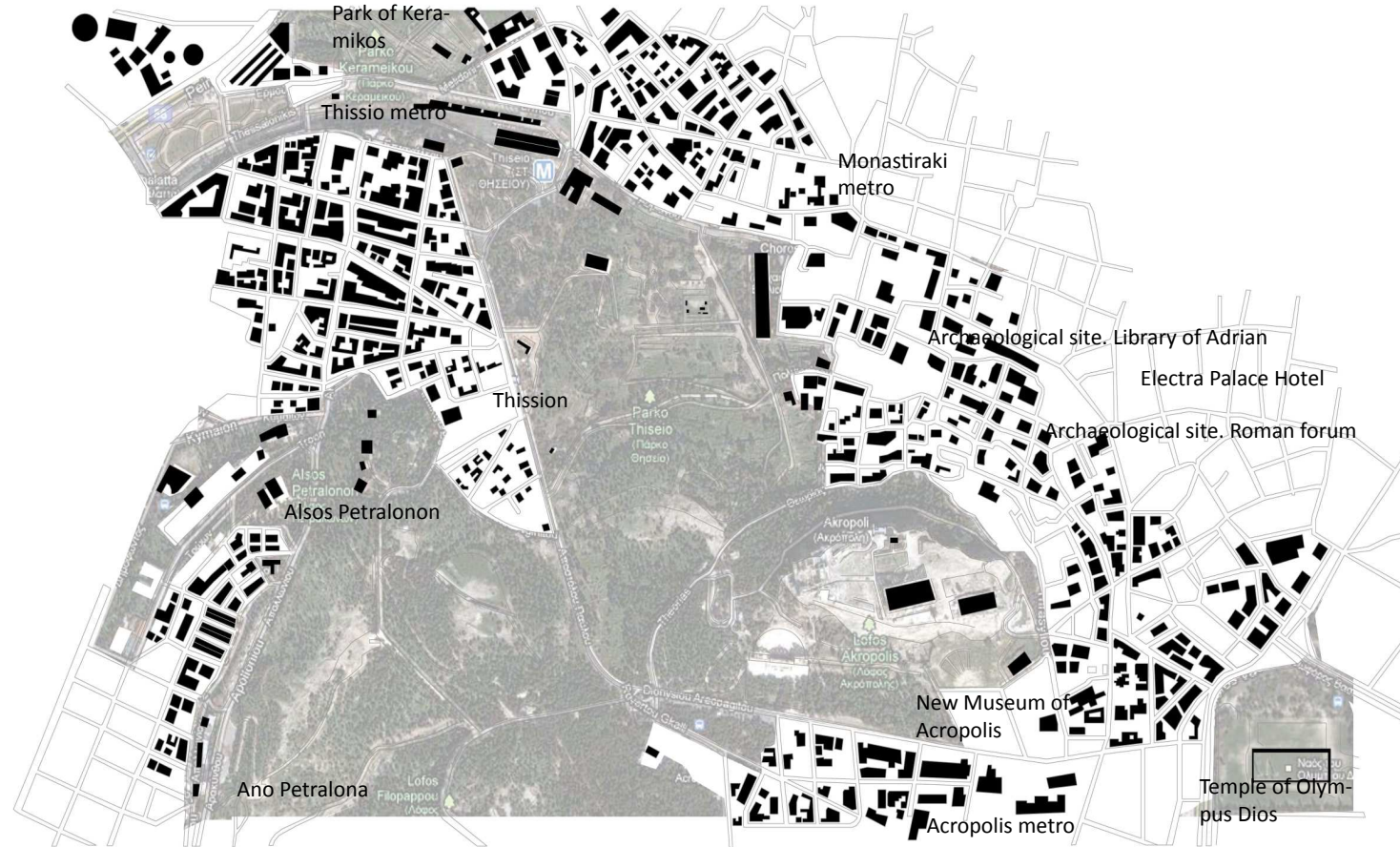
Thissio study plan 6
 The subtractive nature of this diagram emphasizes the lack of significant public connectivity between the key historical attraction points. The goal becomes to find syntactic reasons and tools in order to connect and relate.



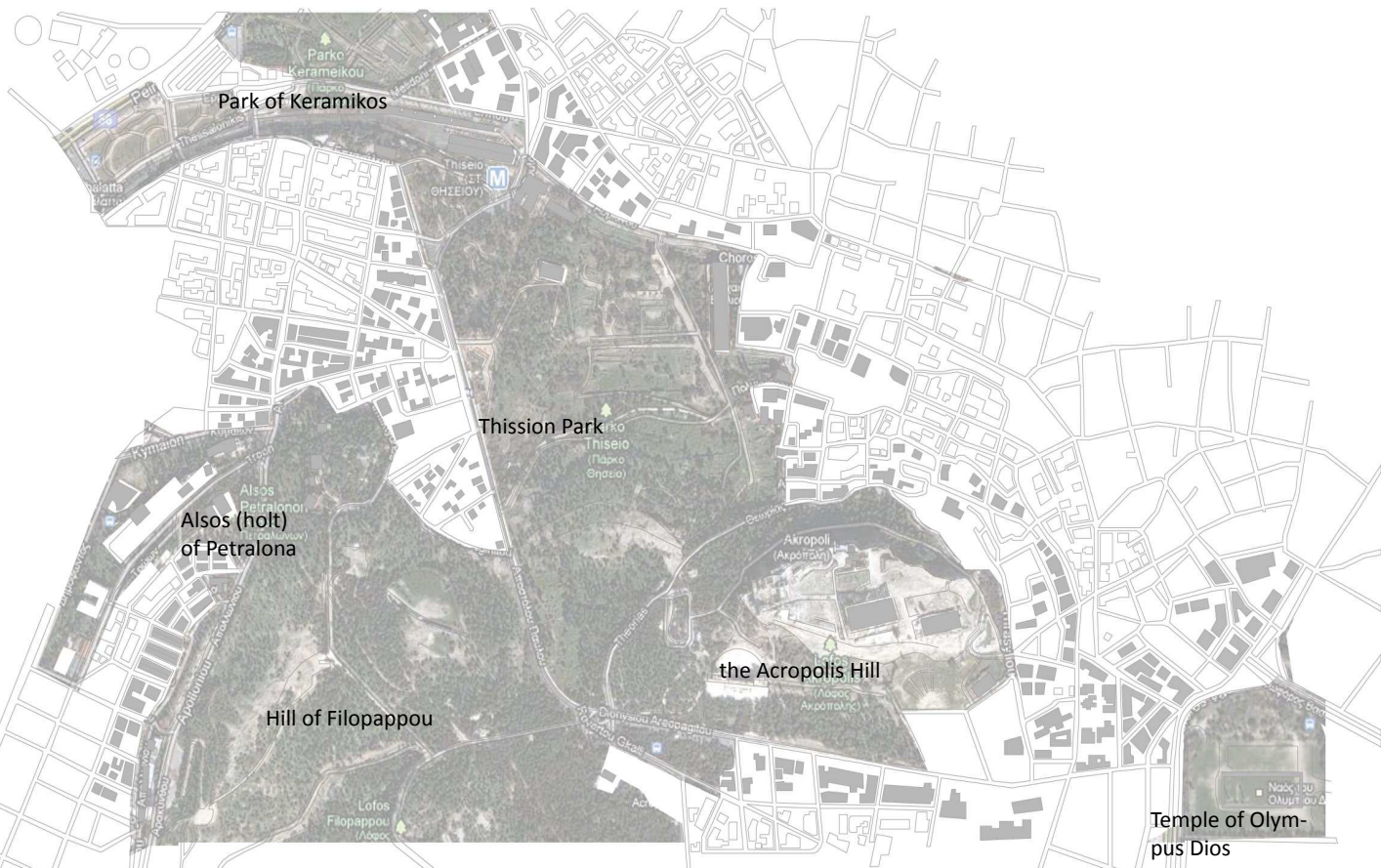
Thissio study plan 8. The public open areas of the site, tha hold an orientational importance of a path or a hill (the importance of the ground).



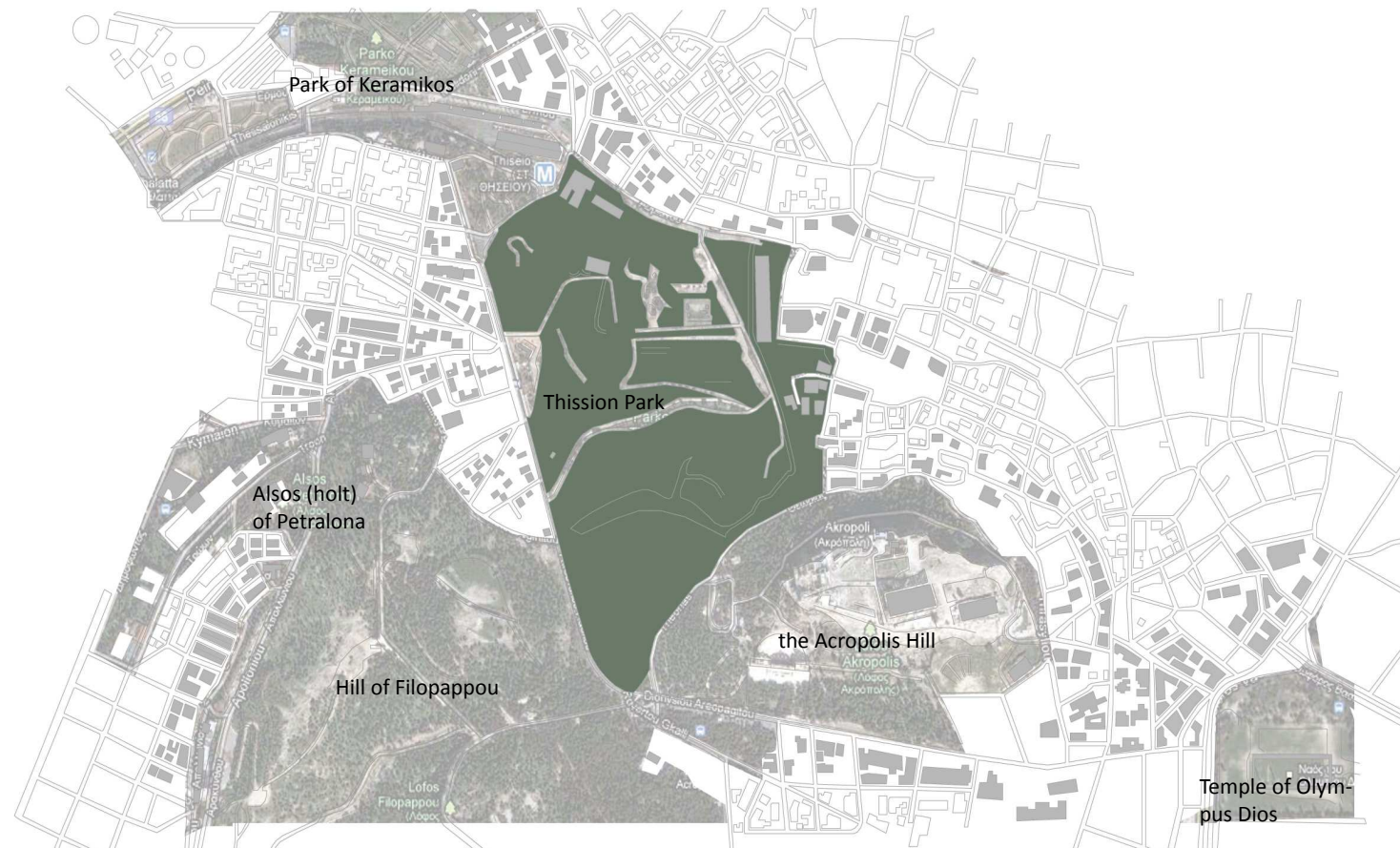
Thissio study plan 9



Thissio study plan 11



Thissio study plan 10



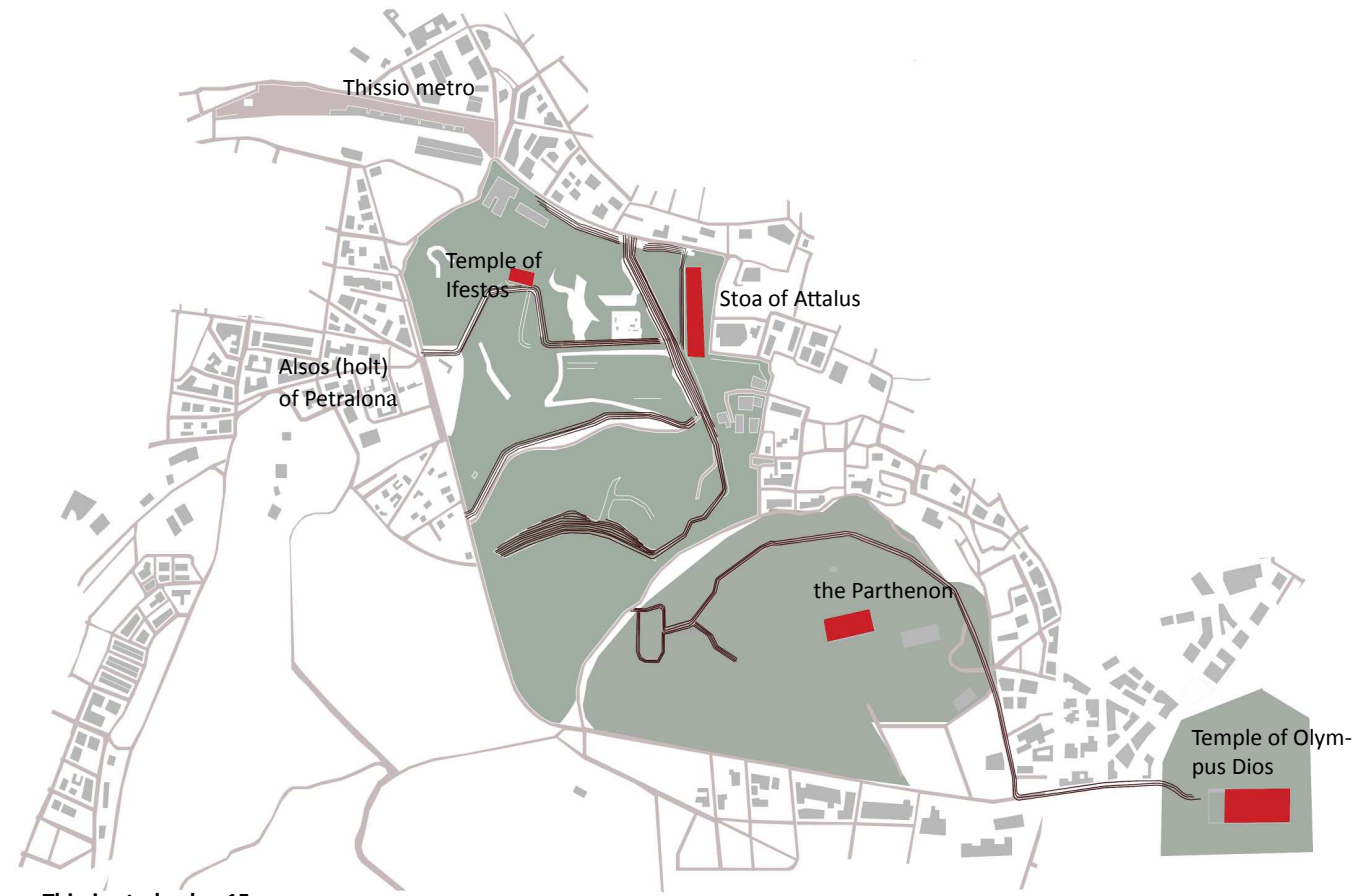
Thissio study plan 12



Thissio study plan 13

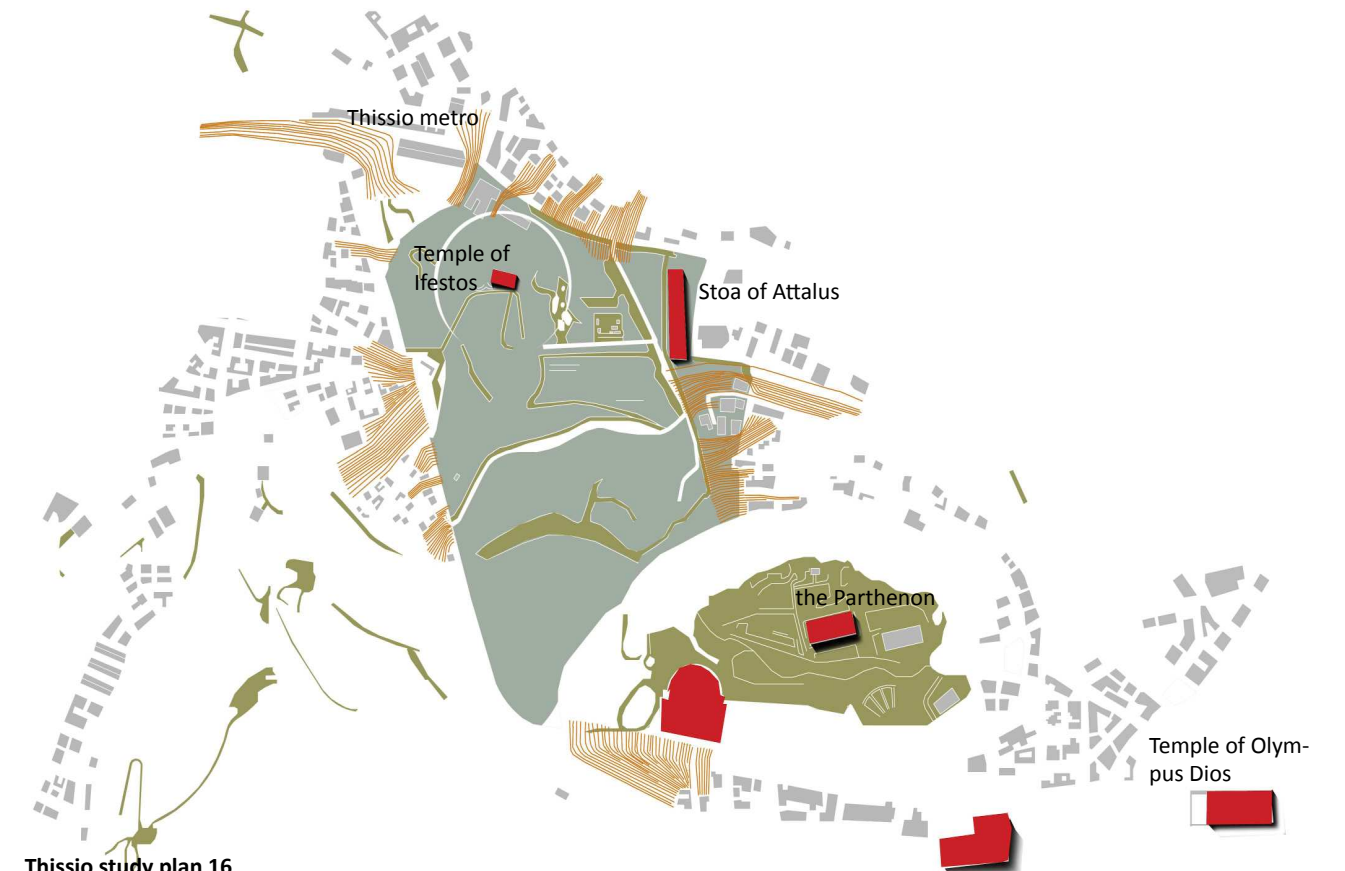


Thissio study plan 14



Thissio study plan 15

The key monumental figures shown in red, are illustrated to stand in contrast and in relationship to the 'abandoned' existing paths shown in interrupted dark red lines. Concentrating especially on the Temple of Ifestos, one evidently sees the lack of connection from the Thissio metro and the surrounding pedestrian paths to this monumental manifest, which although visible from those streets, is completely inaccessible.



Thissio study plan 16

The orange lines propose the attraction points of fields of open space, that also become concentration poles for the potential entrance spot for the Thissio Park. Improving the existing condition of non-accessibility from the Thissio metro and surrounding pedestrian movement, it seems a good solution to create 'stitches' at those spots where the built space creates some air in the field.

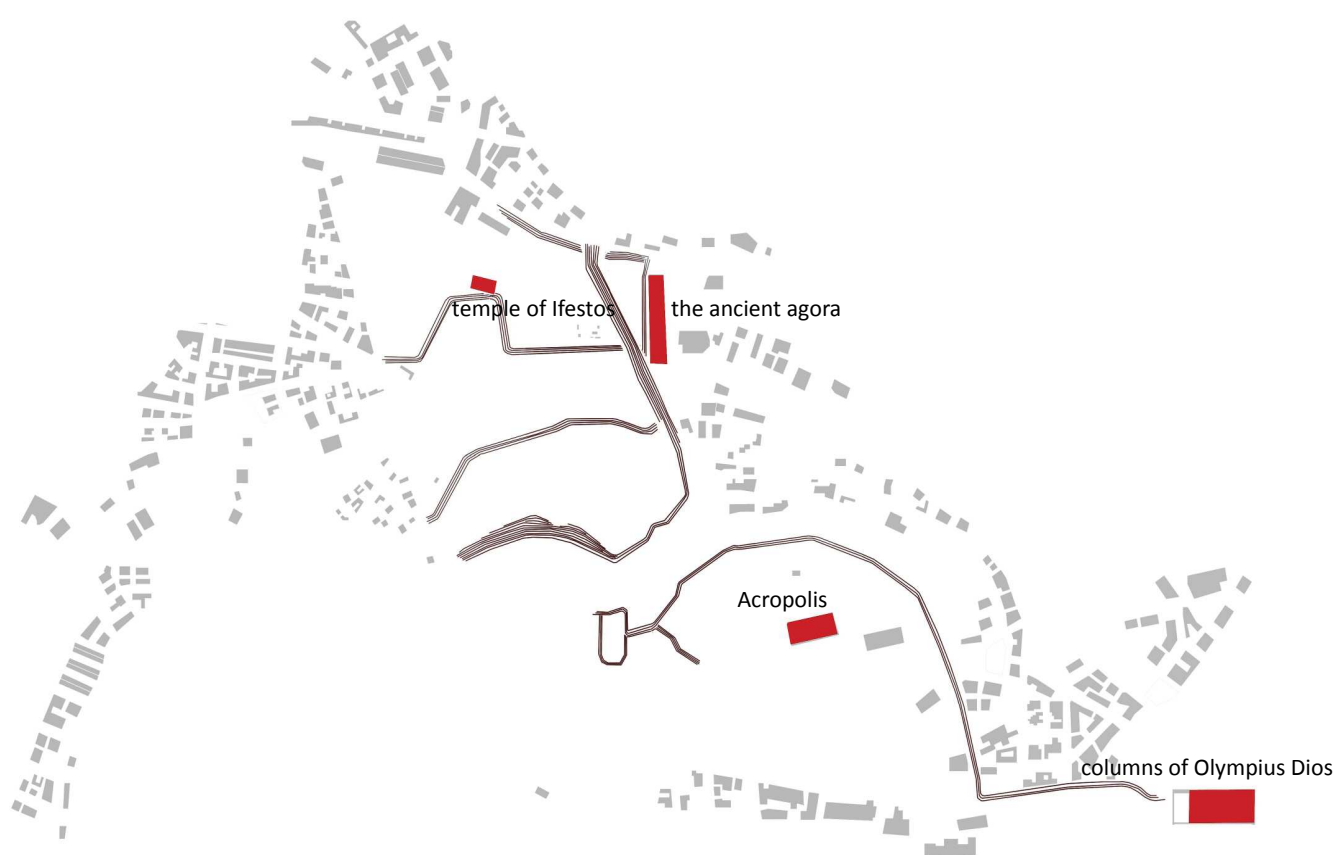
chapter 4: contemporary design and heritage considerations; schematic contemporary considerations of the public open urban spaces of Thissio in Athens



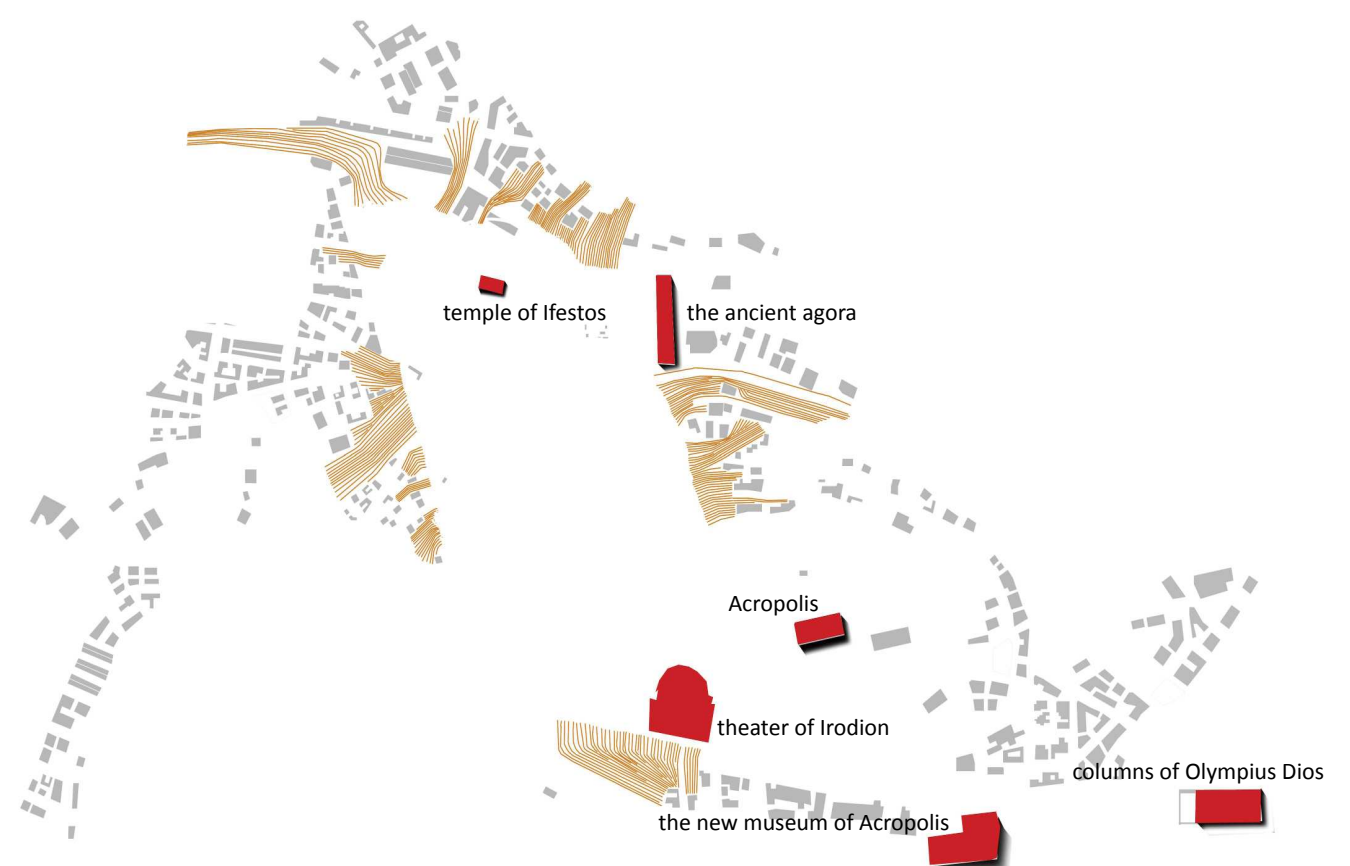
Thissio study plan 17. The lines in light orange demonstrate the fields of penetration and linkage from the contemporary reality of the city, to the historical areas of the park of Thissio, and the hill of the Acropolis. In green, are shown the open areas of circulation and orientational importance.



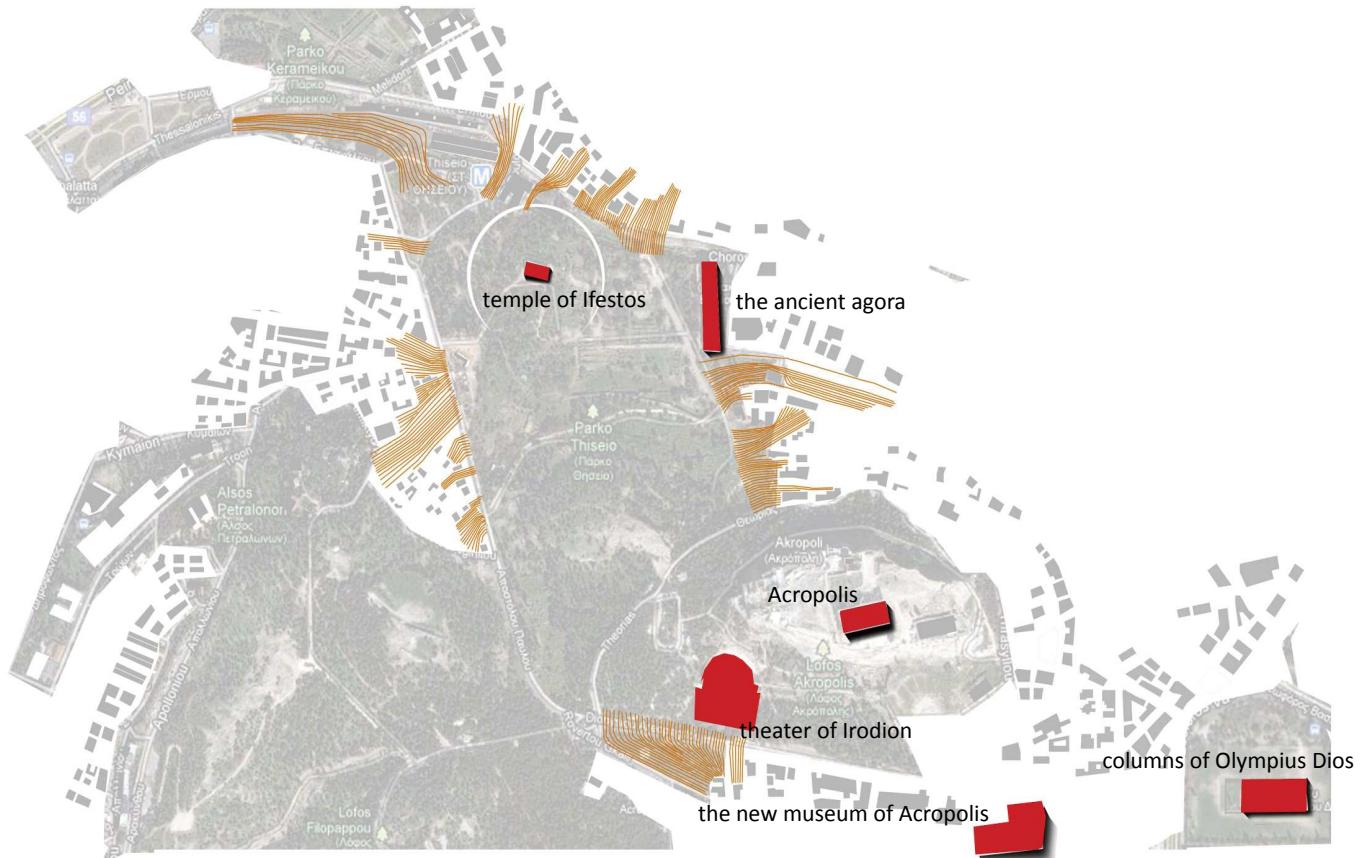
Thissio study plan 19. (Similar to the Thissio study plan 17, without the outline of the city.)



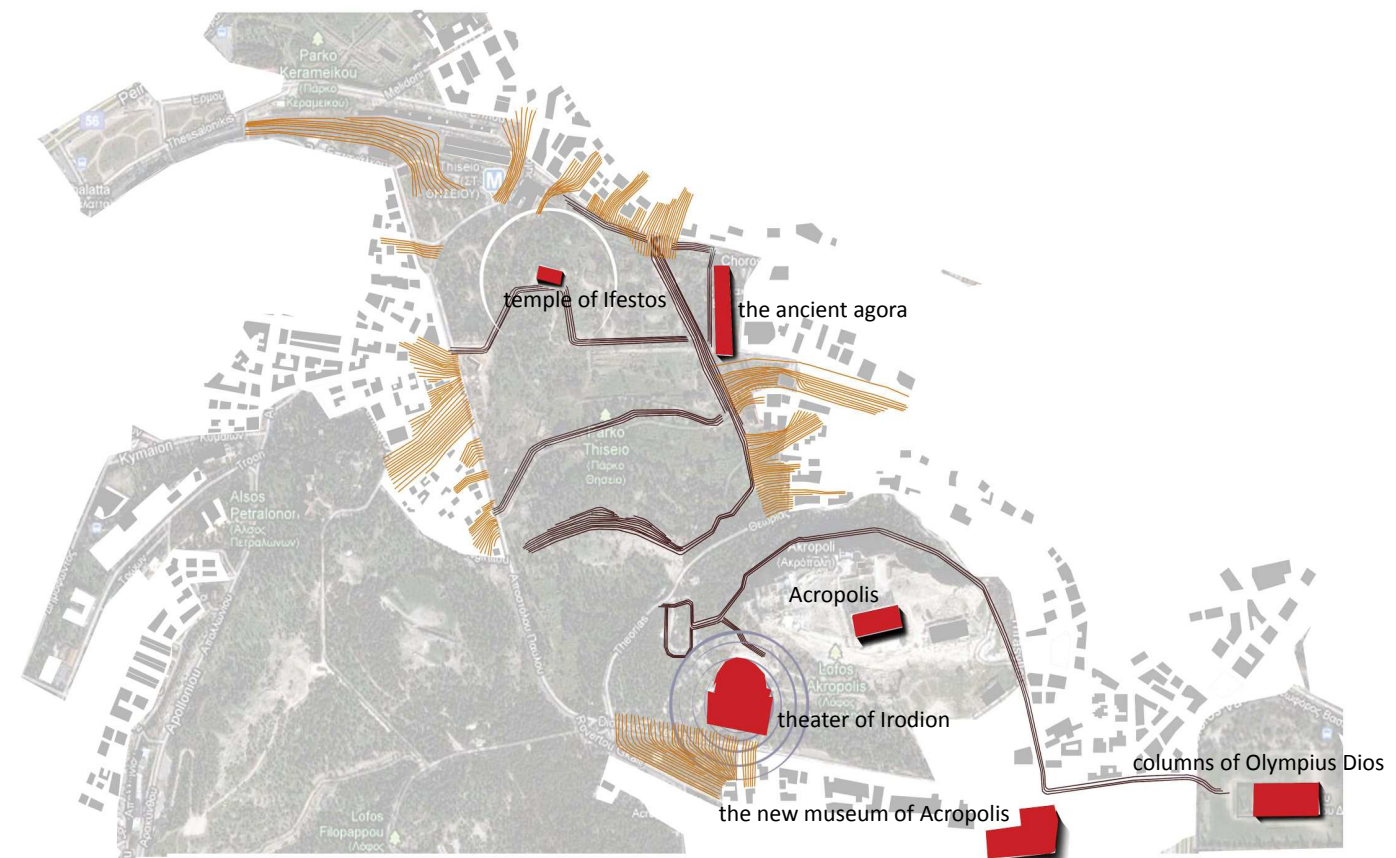
Thissio study plan 18. The interior public open urban paths connecting the historical topos of memory, in relation to the built structures that create connections to the area.



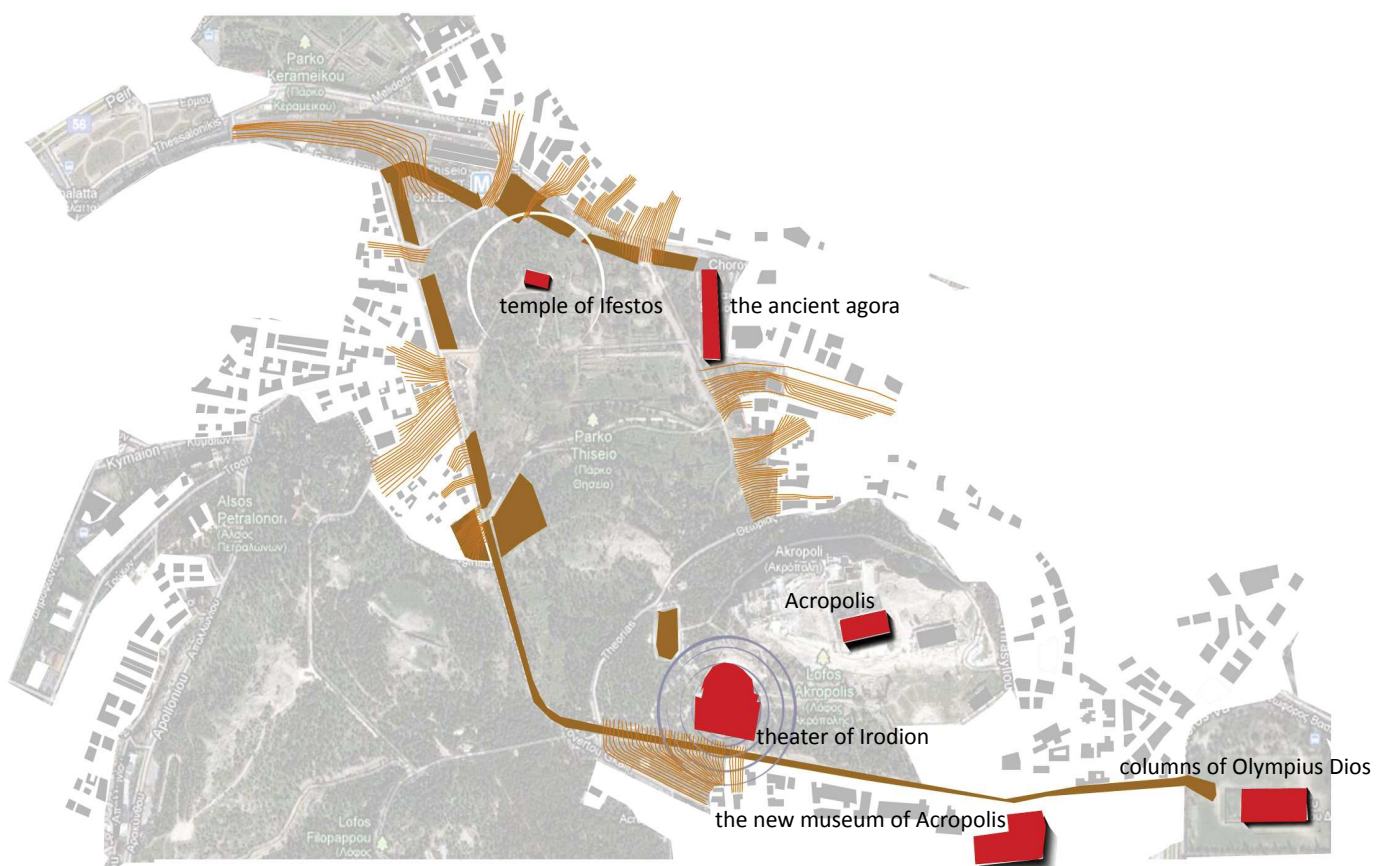
Thissio study plan 20. The historical urban attraction points (along with the new museum of Acropolis), in relation to the built space relevant to the open urban voids that lead to the public open urban spaces of the Thissio and Plaka area.



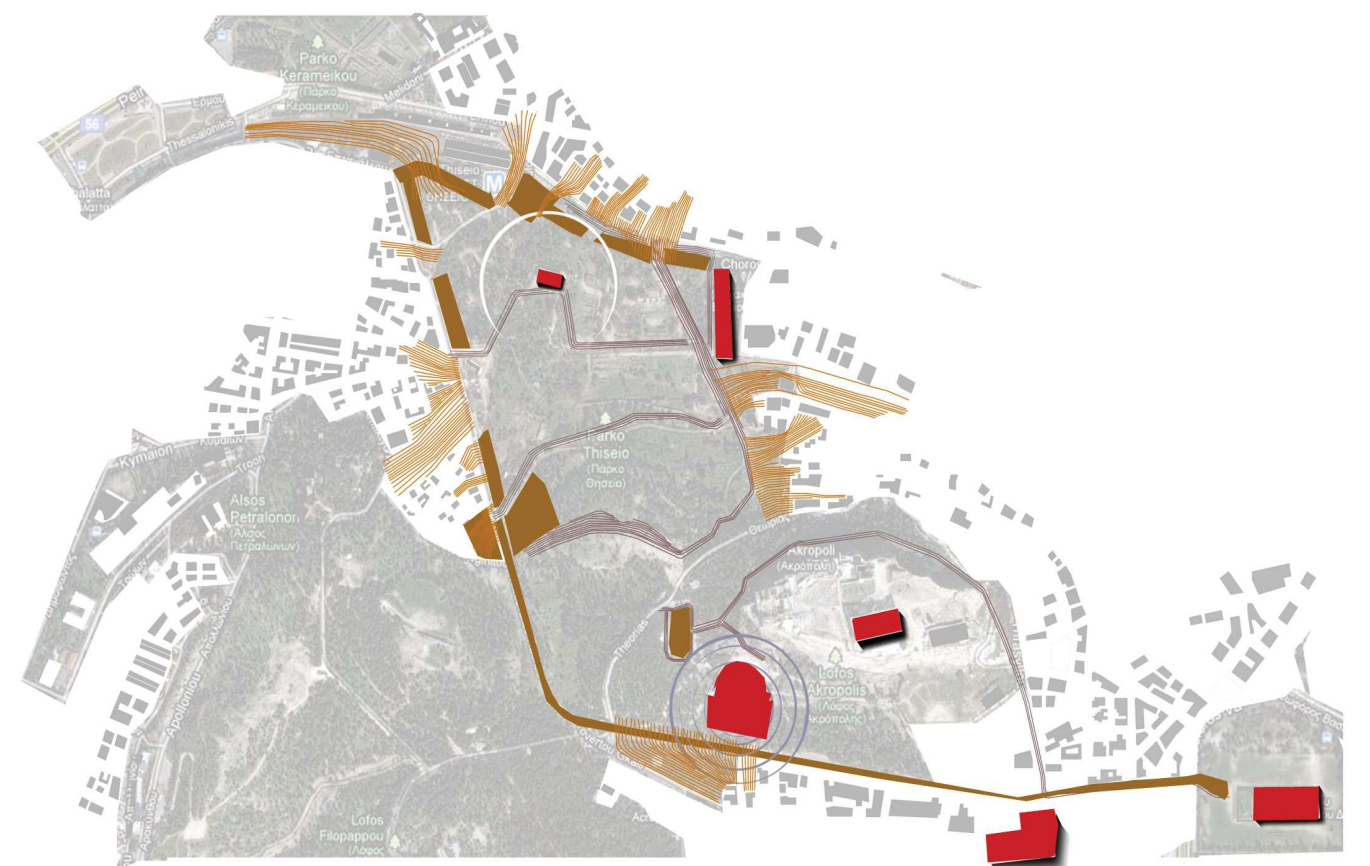
Thissio study plan 21. The diagram above, highlighting in red the main landmarks, demonstrates the public open voids (in light orange), that create a referring association to the attraction entities.



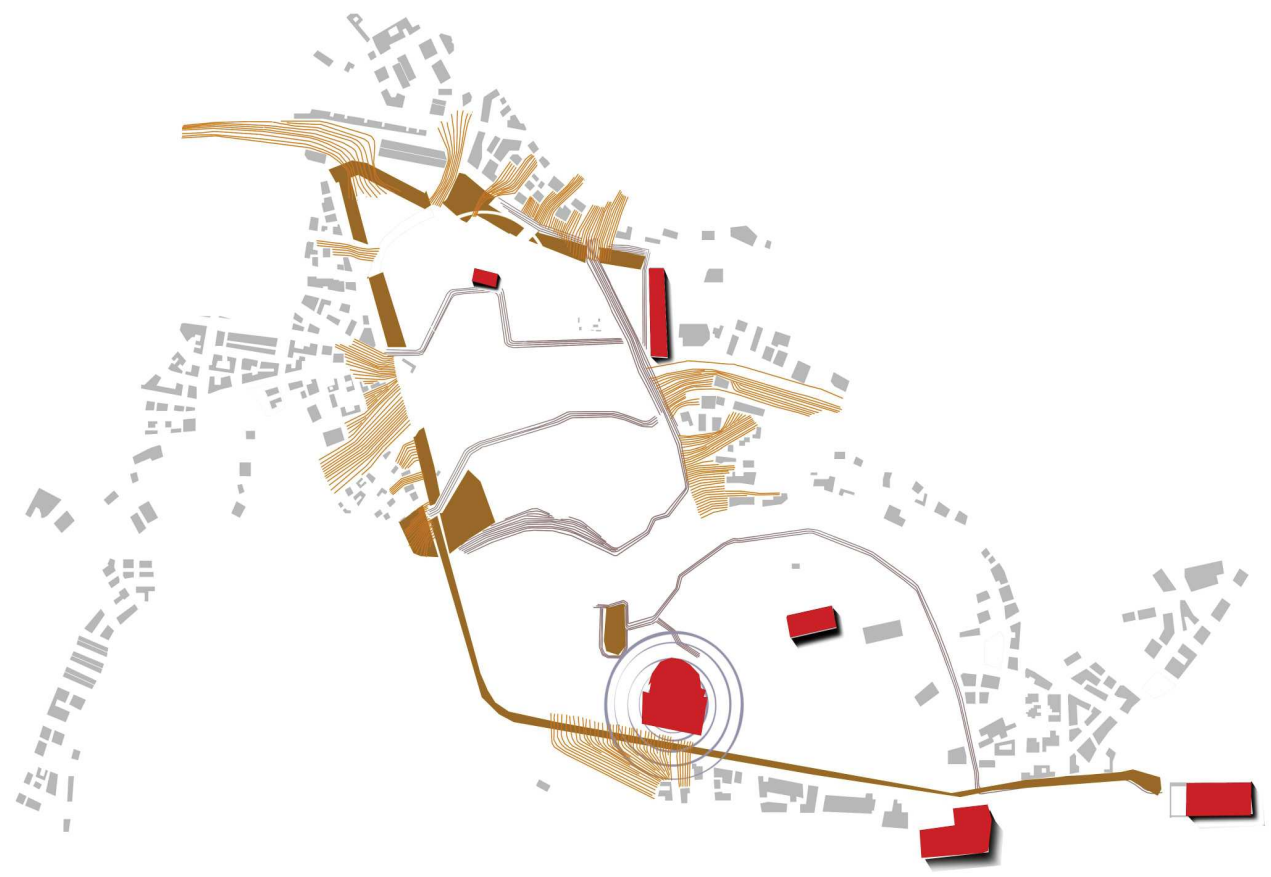
Thissio study plan 23. The main historical attraction points (along with the new museum of Acropolis), in reference to the existing interior paths/connections, and the study of the *entering fields* of urban voids (in light orange).



Thissio study plan 22: Here is shown the peripheral connectivity of the landmarks surrounding the Thissio area, primarily creating link-ages between the columns of Olympius Dios on the east, the new museum of Acropolis moving west, the Irodion theater, and the temple of Ifestos in the area of Plaka (the ancient agora). Although the orientational and path marks here seem evident, they are hardly articulated in reality.



Thissio study plan 24. The study here demonstrates the potential connectivities and fields of attraction (light orange) going inside the ancient area of the agora (Plaka), around the temple of Ifestos, in relation to the existing interior paths. The unapproachability of the temple of Ifestos from the north pedestrian and busy area of the Plaka neighborhood, is evident, raising the potential of an improved public open urban space.



Thissio study plan 25



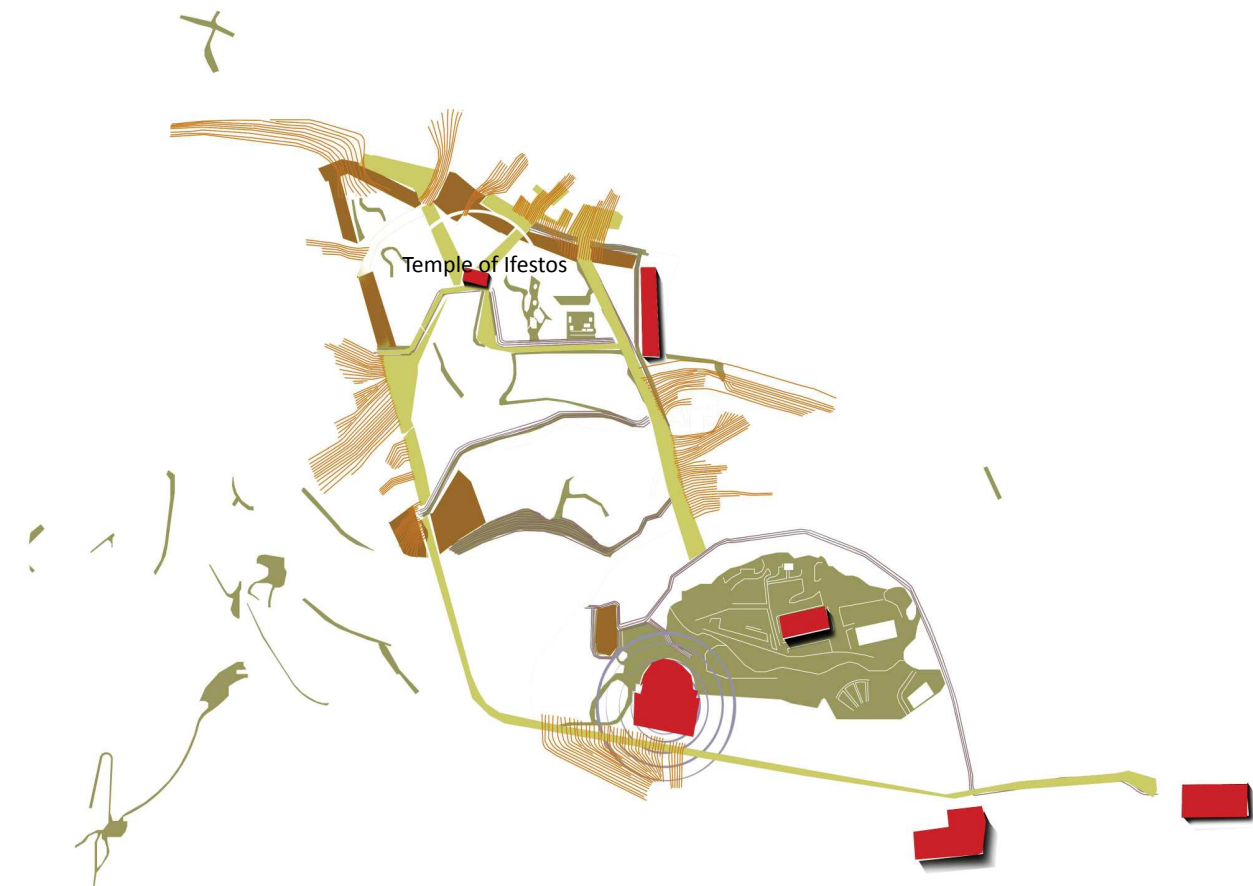
Thissio study plan 27



Thissio study plan 26



Thissio study plan 28



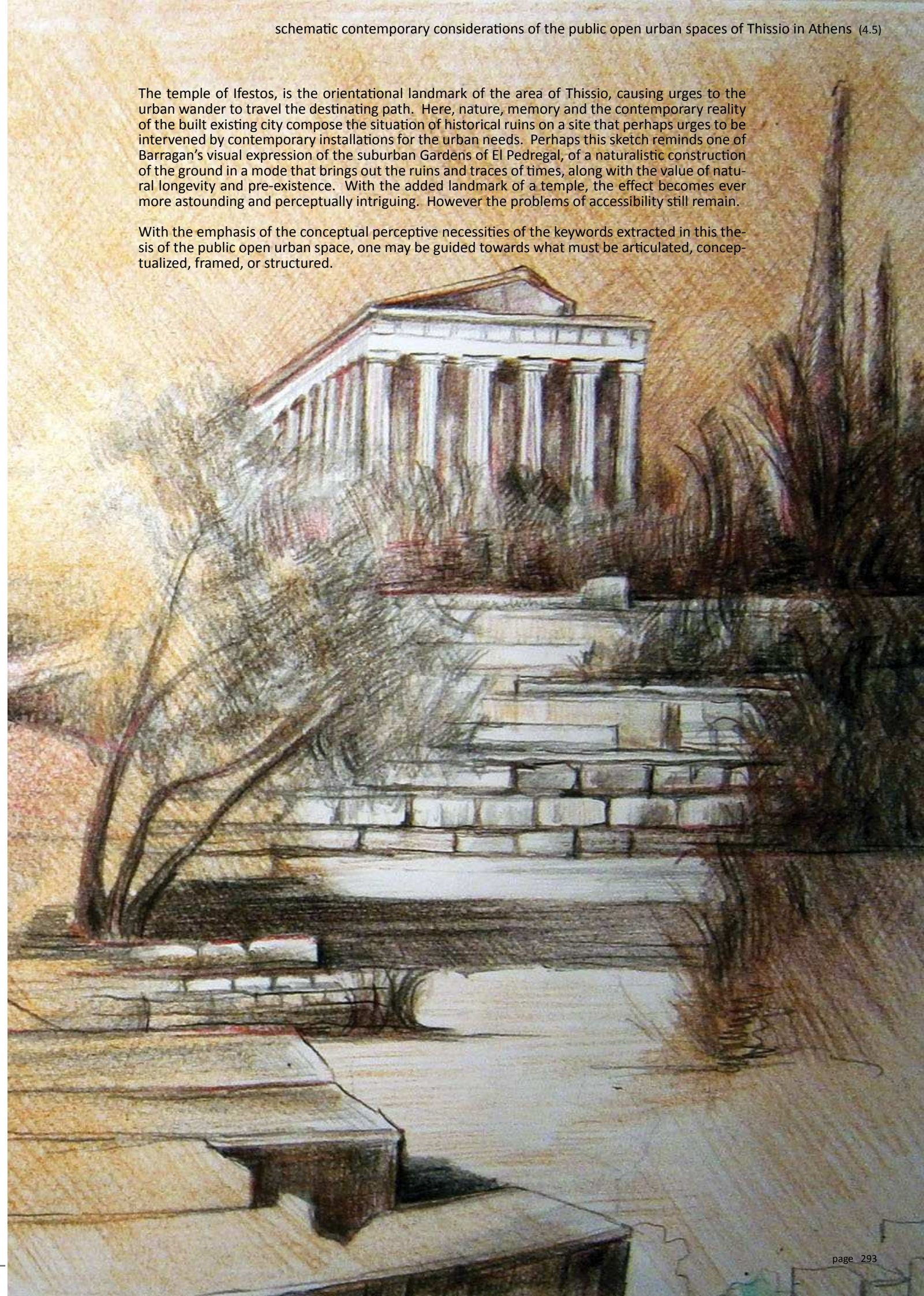
Thissio study plan 29: The diagram here shows the penetration points in yellow, that create the possibility of a creation of pedestrian fields, to access the key historical sites. The temple of Ifestos, is the main point of orientation in this study, and the goal remains to access it from a variety of reference directions that face the problem of an unapproachable vision. This condition, although mysterious, causing the emotion of anticipation and wonder, also causes disturbance to the anxious visitor, accompanied by a feeling of discrete alienation.



Thissio study plan 30: Here, the above study is enhanced further with the additional demonstration of the built forms that cause a direct affect to the penetration inside the historical area. From this compositional layout of analysis, one may decide with more ease on the creation of higher density pedestrian fields towards the main public open urban spaces of interest.

The temple of Ifestos, is the orientational landmark of the area of Thissio, causing urges to the urban wander to travel the destinating path. Here, nature, memory and the contemporary reality of the built existing city compose the situation of historical ruins on a site that perhaps urges to be intervened by contemporary installations for the urban needs. Perhaps this sketch reminds one of Barragan's visual expression of the suburban Gardens of El Pedregal, of a naturalistic construction of the ground in a mode that brings out the ruins and traces of times, along with the value of natural longevity and pre-existence. With the added landmark of a temple, the effect becomes ever more astounding and perceptually intriguing. However the problems of accessibility still remain.

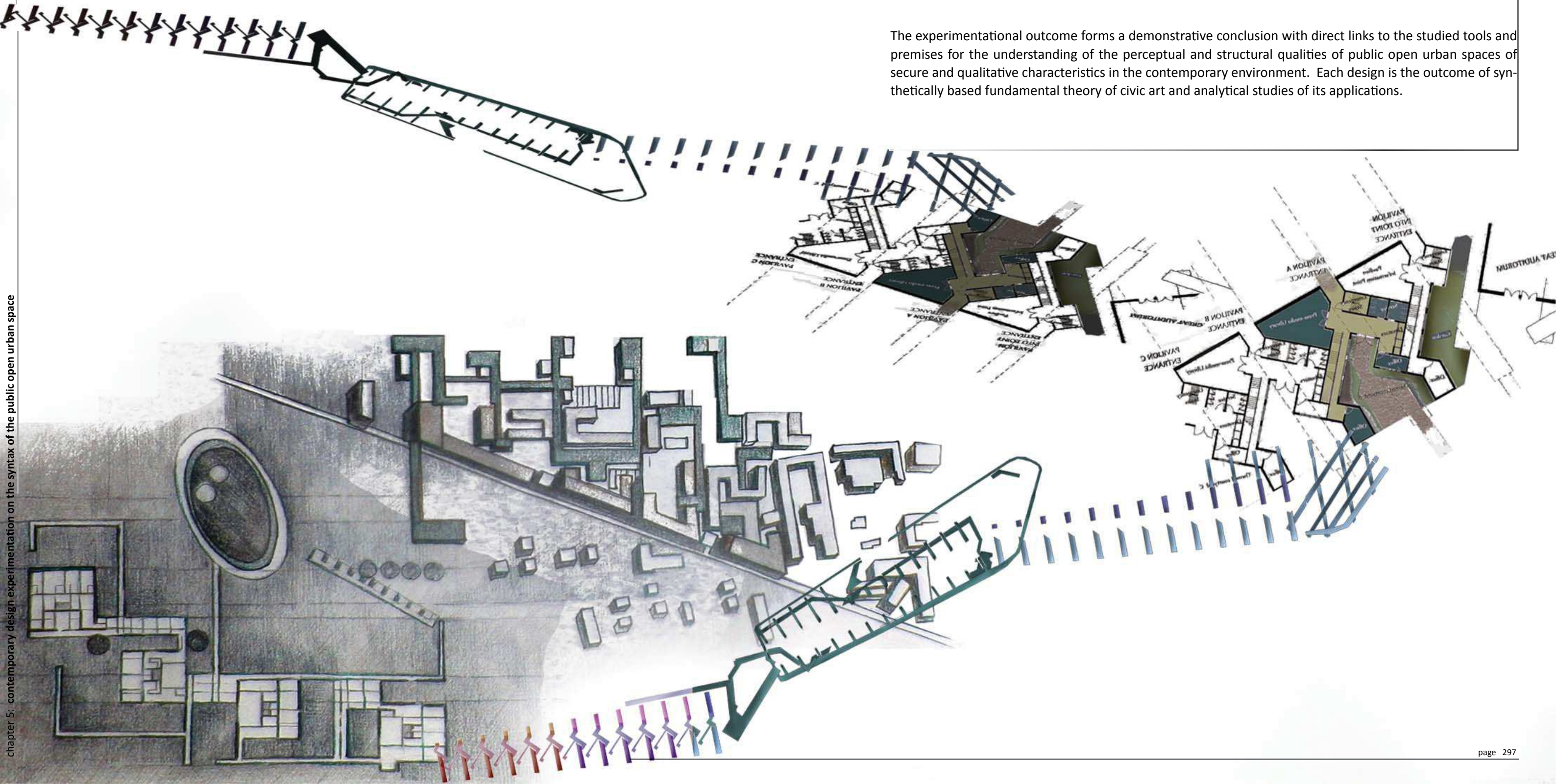
With the emphasis of the conceptual perceptive necessities of the keywords extracted in this thesis of the public open urban space, one may be guided towards what must be articulated, conceptualized, framed, or structured.



The following, third and **experimental part** of the thesis, is the demonstration of contemporary public open urban space solutions that took place during four workshop investigations, in which many of the theoretical considerations of this thesis were elaborated through practical effectiveness. The projects involve:

- project spreads 1a - 1e: A synthesis of public open urban spaces in the peripheral area of area Trucca in Bergamo
- project spreads 2a - 2d: A combination of an architectural synthesis of cultural pavilions with sequences of public open urban spaces taking the form of a 'mosaic of cultures', in the center of Milan, and
- project spreads 3a - 3e: A sustainable public open urban space design on the international trade fair grounds of Thessaloniki in Greece.

The experimental outcome forms a demonstrative conclusion with direct links to the studied tools and premises for the understanding of the perceptual and structural qualities of public open urban spaces of secure and qualitative characteristics in the contemporary environment. Each design is the outcome of synthetically based fundamental theory of civic art and analytical studies of its applications.



chapter 5: contemporary design experimentation on the syntax of the public open urban space

5.1 Urban limits and intervals for the definition of public open urban spaces in Area Trucca, Bergamo

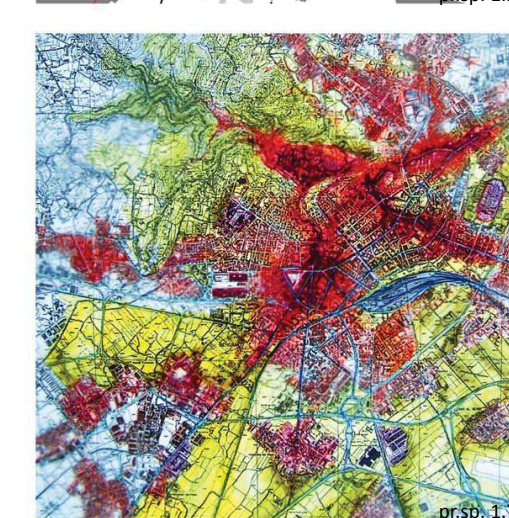
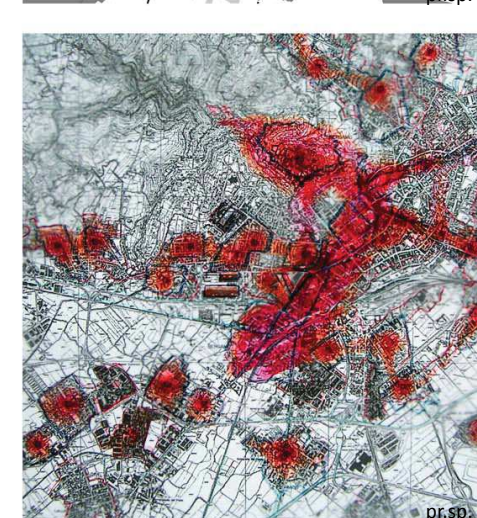
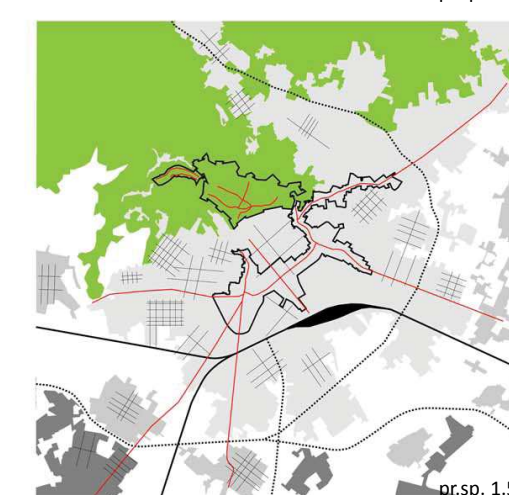
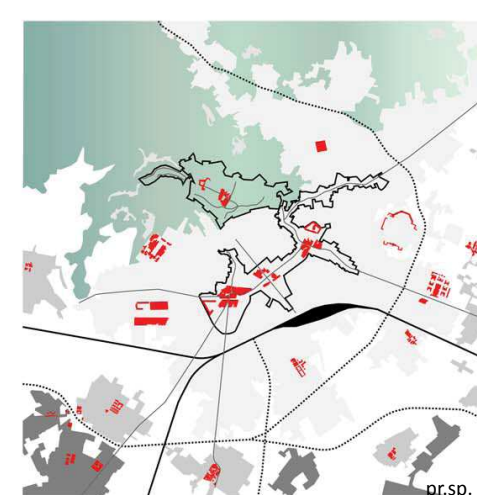
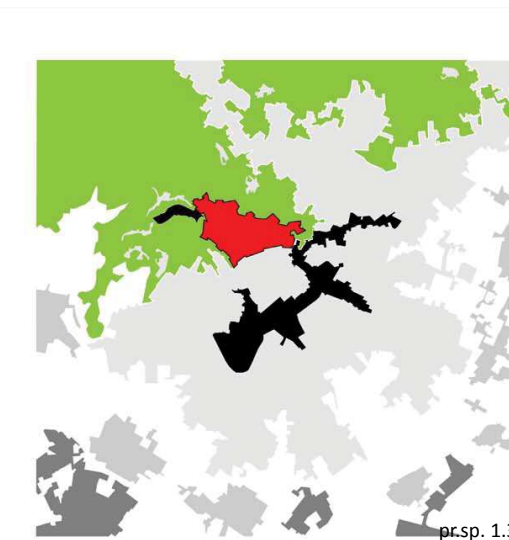
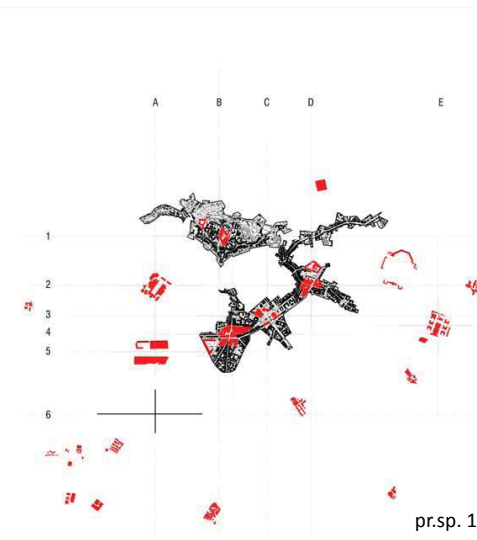
(Workshop group: Jun Ho Chen, Andrea Cristelli, Davide Ferrari, Stefanie Leontiadis, Igor Noev, Giuseppe Santacroce)

(Tutors: Cassandra Cozza, Francesca Schepis)

International Phd Summer School, Bergamo 2009 - 'Projects, strategies and research for the contemporary city'

In the midst of the urban problem of defining a series of public open urban spaces on the boundary and challenging peripheral void of the lower city of Bergamo, the project workshop touches upon topics of the public space that are discussed in this thesis. The experimentation includes syntactical solutions that relate to the problems of modernity and partly refer to the burst of the CIAM 8 movement of articulating city cores. Through the analysis of this paradigmatic journey of CIAM 8 through Team 10 and all their relevant projects referring to the problem of the public open urban space, one finds recapitulating challenges and solutions that struggle to fight the predicament of *insecurity* in the urban periphery. Some solutions demonstrated here follow the trends and syntactic patterns of themes discussed.

Concentrating on themes of positional values, urban facts, public elements and spaces of living, the conceptual theme of the project immediately tries to make reference to the *historical essence* of the city of Bergamo in relationship to the countryside and consolidated voids in question. Through the use of *paths, matrices* and *perceptual studies* of the *vertical layers* of the city from the periphery, the aim is to interpret the open void as an expanding element of the suburb that through construction and the use of *framing and structural visual characteristics and themes*, retains its direct relationship to the urban life.



- TEMI**
 - valori posizionali
 - fasti urbani
 - elementi portanti
 - spazi pubblici
 - spazi dell'abitare
- FIGURE URBANE**
 - città alta
 - borghi storici
 - parco dei colli
 - campagna
 - area consolidata
 - vuoto
 - aree industriali e dismesse
- INFRASTRUTTURE**
 - strada ferrata
 - scalo ferroviario
 - percorsi
 - matrici
 - circonvallazione
 - viabilità carrabile
- KEY DENSITY POINTS**
 - espansione
 - dilatazione
 - costruzione
 - forma del vuoto
- DIAGRAMMI TERMICI**
 - città costruita
 - parco agricolo
 - vita urbana

POLITECNICO DI MILANO
 Dipartimento di Architettura e Pianificazione
 Dottorato di Ricerca in Progettazione Architettonica e Urbana

COMUNE DI BERGAMO
 Assessorato all'Urbanistica

Bergamo - Urban Center - July 6-18, 2009
 International PhD Summer School
 Progetti, strategie, ricerche per la città contemporanea

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TUTORS
 CASSANDRA COZZA
 FRANCESCA SCHEPIS

chapter 5 contemporary design experimentation on the syntax of the public open urban space

(Urban limits and intervals for the definition of public open urban spaces in Area Trucca, Bergamo)

The following images present an analysis of the project's area, and also a photographic series of imagery that analyzes the perceptual characteristics, looking for *relationships and meanings, affiliations to the ground*, and points of reference for means of *orientation* and wider possibilities of *articulation* on the larger scale.

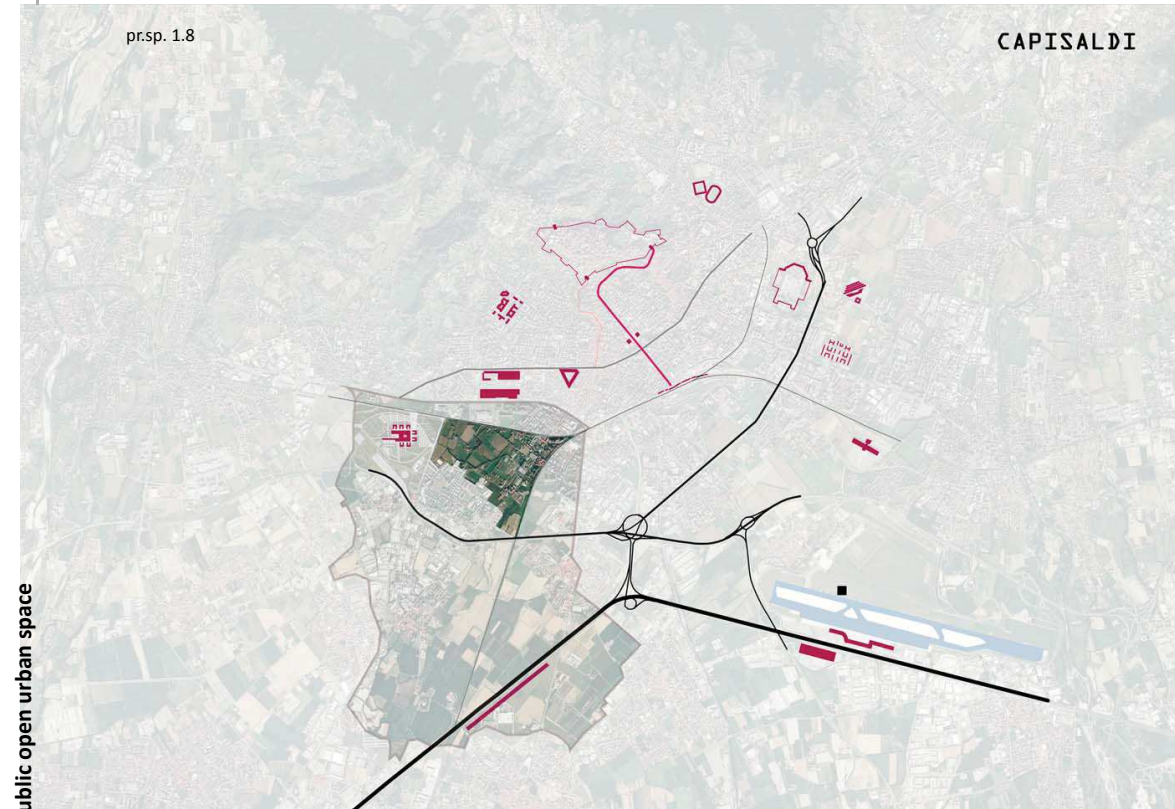
This analysis draws close reference to section 2.4 of the thesis, on *information availability* and *open space minimalism* considerations, where also the role of the infrastructure is considered.

In summary, and in reference to the area of the project, this study considers;

- the urban margins as a form of *geographical framing*
- the topographical *'logic of the limit'*
- the railway and the *relationship* of the potential public open urban spaces to the *infrastructure*, and
- the availability of information in *relationship* to the new hospital, the new station, the road and the perceptual linkage to the visibility of the higher city and its historical significance.

The *theme* suggested gradually is that of *fragmented living*, with visual semiotic relationships to the surrounding strong landscape, including domestic greenhouses, selective neighborhoods and via Moroni.

chapter 5: contemporary design experimentation on the syntax of the public open urban space



AREA DI PROGETTO

- marginie urbano
- ferrovia
- sistema del nuovo ospedale
- nuova stazione
- autostrada
- abitato frammentato
- aree industriali
- relazione con città alta
- stanza urbana

RILIEVO FOTOGRAFICO

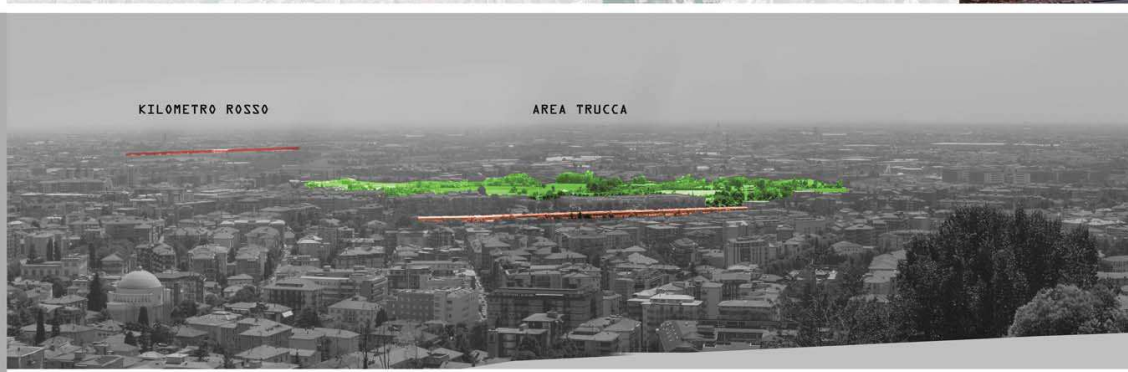
- la roggia
- l'ospedale
- il rapporto visivo con il centro storico
- serre domestiche
- il quartiere degli sposi
- via Moroni

MEMORIA VERDE

- cintura verde
- 1° grado di cintura "naturale"
- 2° grado di cintura "artificiale"
- spazi aperti in città alta
- stanze verdi principali

L'AREA DELLA TRUCCA

- comparazione fisica tra gli spazi
- rapporto visivo tra area trucca - kilometro rosso
- relazione tra fatti urbani



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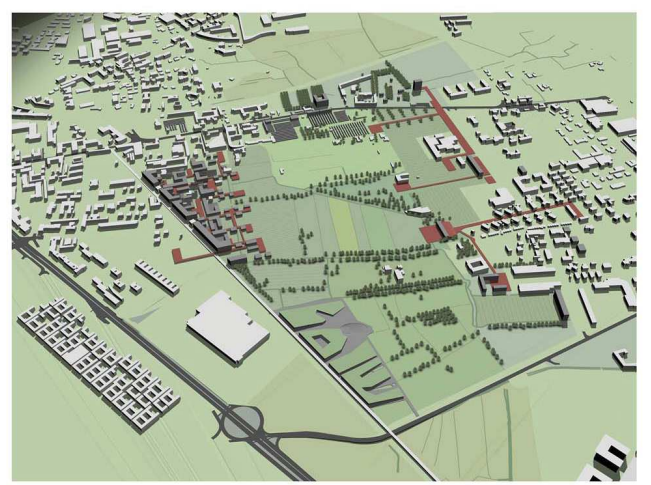
JUN HO CHEN
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 GIUSEPPE SANTACROCE
 STEFANIE LEONTIADIS

TUTORS
 CASSANDRA COZZA
 FRANCESCA SCHEPIS

(Urban limits and intervals for the definition of public open urban spaces in Area Trucca, Bergamo)



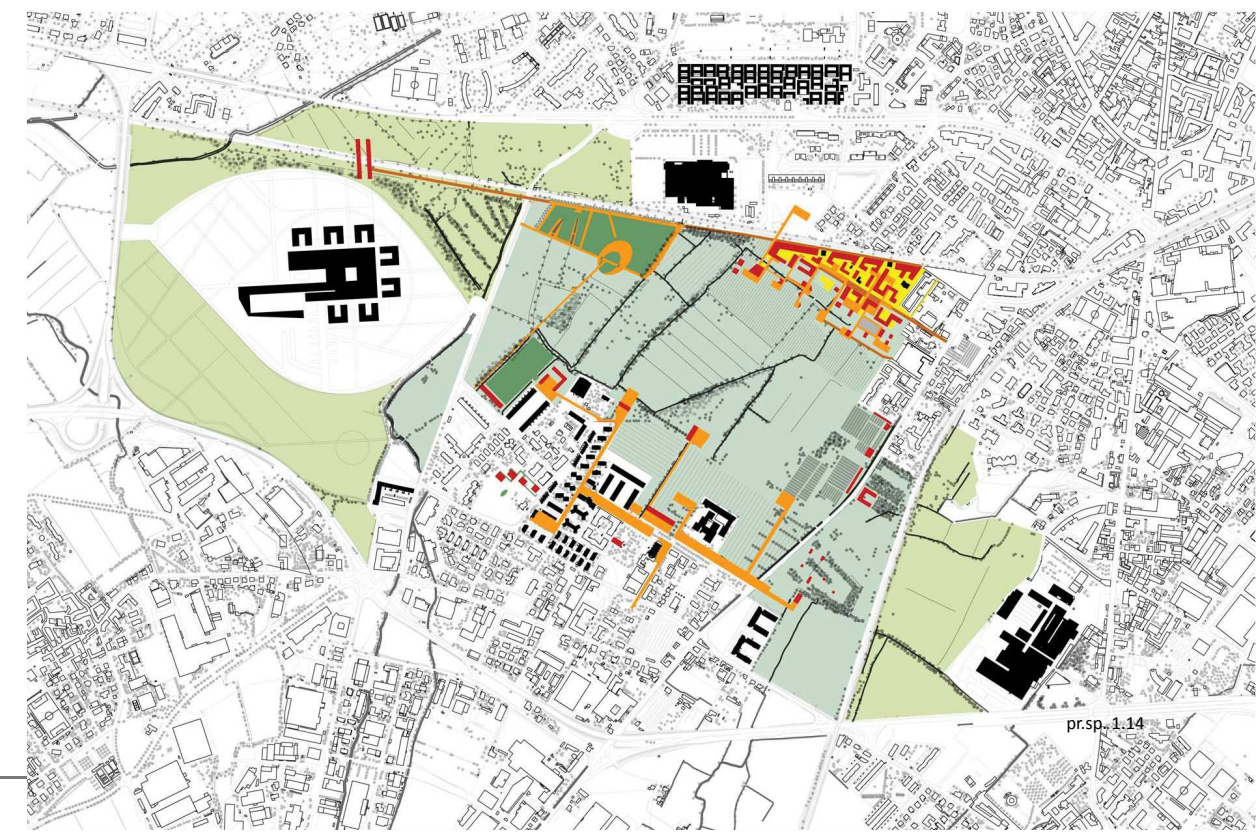
chapter 5: contemporary design experimentation on the syntax of the public open urban space



pr.sp. 1.12

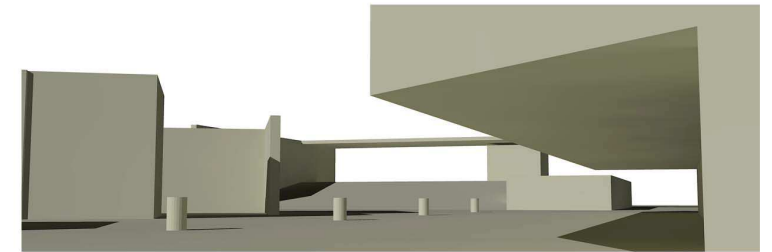
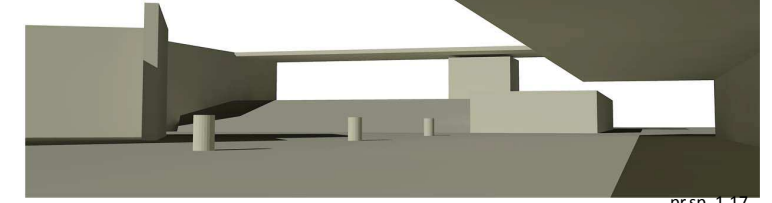
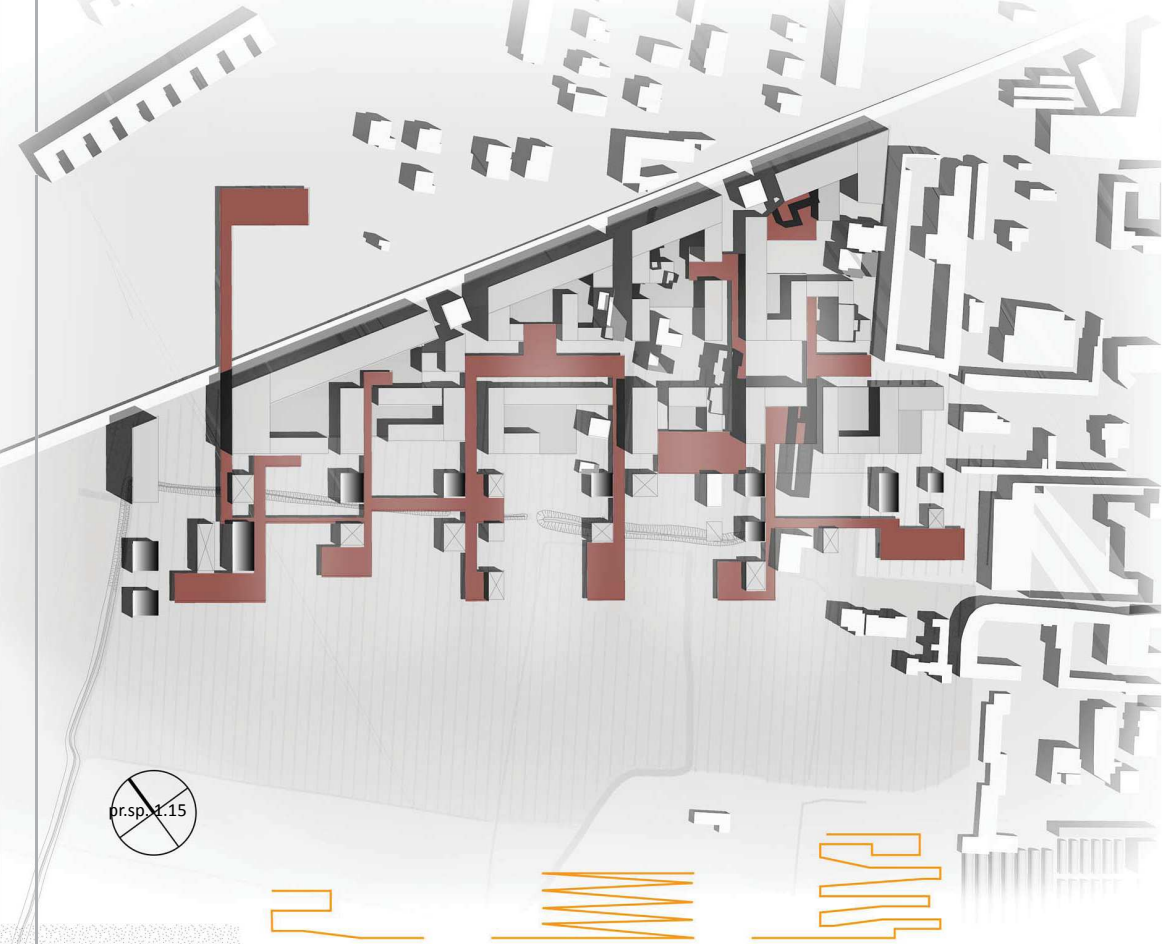
pr.sp. 1.13

PARCO DELLA CULTURA MASTERPLAN 1:10.000



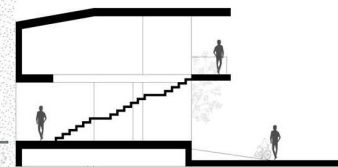
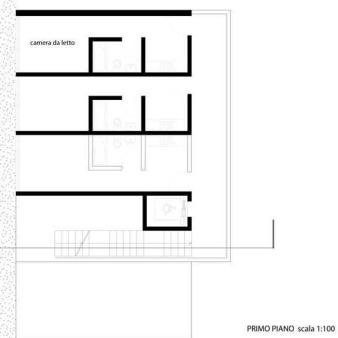
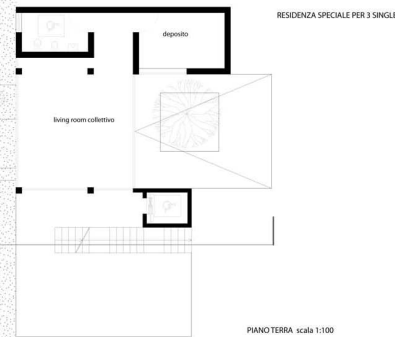
pr.sp. 1.14

(Urban limits and intervals for the definition of public open urban spaces in Area Trucca, Bergamo)



VILLAGGIO GIOVANI SPOSI
SISTEMA DEGLI SPAZI PUBBLICI

chapter 5: contemporary design experimentation on the syntax of the public open urban space



pr.sp. 1.16

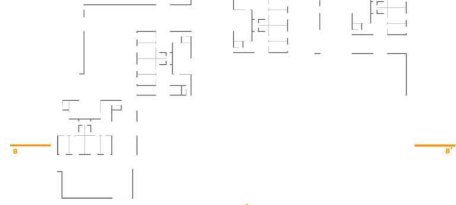


- NUOVO SPAZIO CIVICO
- NUOVE RESIDENZE SPECIALI
- NUOVO DISEGNO DEI SUOLI

pr.sp. 1.19

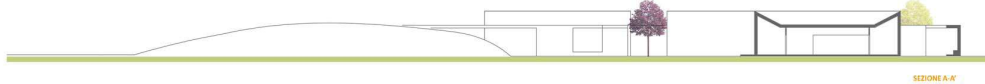
(Urban limits and intervals for the definition of public open urban spaces in Area Trucca, Bergamo)

The composition of the project includes a smaller scale residential unit for students and professors of short stay accommodation, linking to the theme of an ever-changing peripheral boundary of the city situation and the urge for movement, expansion, dillation, and penetration. Borrowing the forms of the public open urban spaces of *leaking*, these small dwellings 'leak' into each other, with the incorporation of shared open spaces of a privatized nature, and the large common public open urban space, which takes the artistic form of the *'spazio espositivo'* (seen on the page across of the same spread). This element of repeating shapes and figures almost takes the characteristics of a land art approach, while using the ground for forming patterns of relationships and meanings.



pr.sp. 1.20

Here in section is shown the elevated mass of the artistic ground figure of the public open space, offering an effect of *'arte povera'* and *ground minimalism* to this peripheral dwelling, where residency is intertwined with public pedestrian circulation, and direct affiliation to the land. The consideration of the human scale is of crucial importance, referring to Walter Gropius' theoretical considerations of "The Human Scale" article of the CIAM 8 congress (1952), which also involves the problem of public interaction and city dwelling taking place at the same time.



SEZIONE A-A'

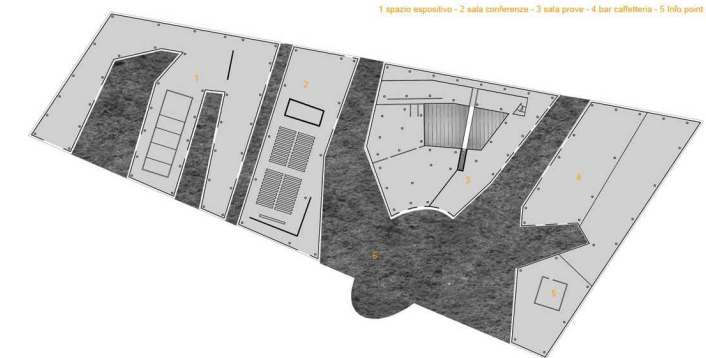
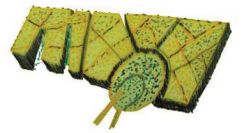
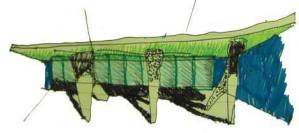


SEZIONE B-B'

pr.sp. 1.21



pr.sp. 1.22



1 spazio espositivo - 2 sala conferenze - 3 sala prove - 4 bar caffetteria - 5 telo piovra - 6 teatro

pr.sp. 1.23



pr.sp. 1.24

5.2 Civic Art as a Mosaic of Cultures, Milan - (Stefanie Leontiadis)

Politecnico di Milano Phd Workshop, Milan 2010 - 'The city as a mosaic of cultures' (prof. Cino Zucchi)

The goal of this workshop project is to analyze the surrounding landscape and structure of its composition, while creating the structure of the design on the site of the future EXPO 2015, composed by twelve pavilions, each representing a different country. The program also includes the design of a greater auditorium building, with a great emphasis on the conceptual design of the **open public spaces** that tie together all elements, meanwhile gathering their structural logic from the existing morphological characteristics and syntactic analysis (i.e. formation of rules) of the surrounding urban analytical approach.

The site, falling on the perimeter of a greater 'open public ring', illustrated below, represents for our purposes, the continuation of a mosaic of open public spaces, forming dwellings for the Milanese citizen or visitor. With the majority of the Milan city center being that of more traditional architectural design, the challenge is in composing a modern architectural synthesis of open public spaces, which draw a structural basis from the surrounding morphology and system of urban compositions. Dealing with a synthetic, and yet repetitious structure (which is the consecutive twelve pavilions, each serving the same function as the adjacent one), the goal is to create open public spaces that are based on a **unified structural logic**, but each forming a **variety of perceptual impressions** due to the strategic positioning of the surrounding elements. This will hopefully create a directional circulation, continuing the greater circulation establishment of the greater city structure, providing ease of **orientation**; its key directional components being the climax toward the greater auditorium object, and the vanishing direction toward the potential developments of the other open spaces (on the eastern direction of the site).

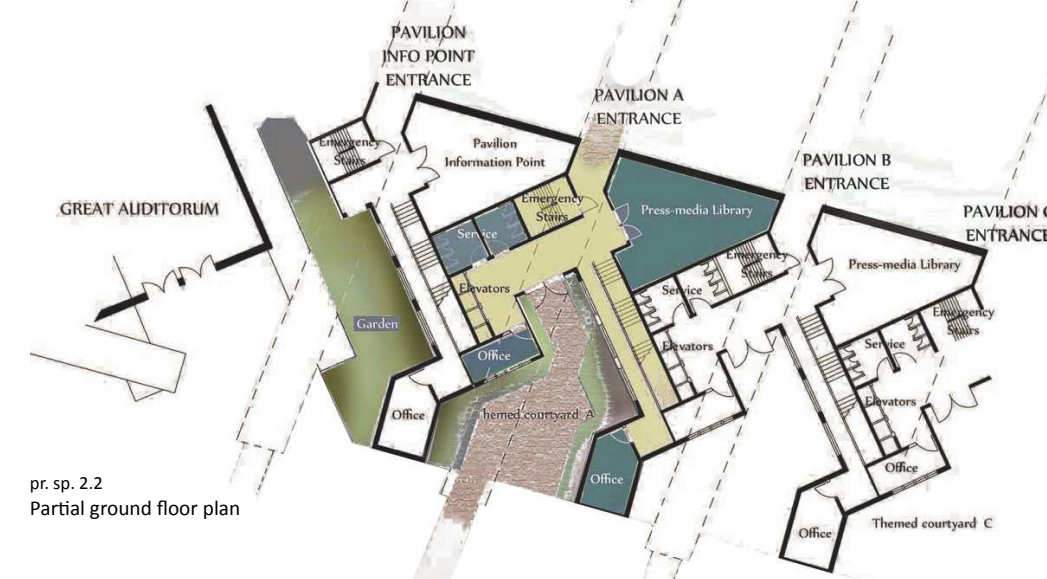
The **theme** and **concept** (in a sentence), deals with the analysis, design and establishment of rules and definitions of 'civic art', in order to bring together, in a structured way, this 'Mosaic of Cultures'.

Keywords:

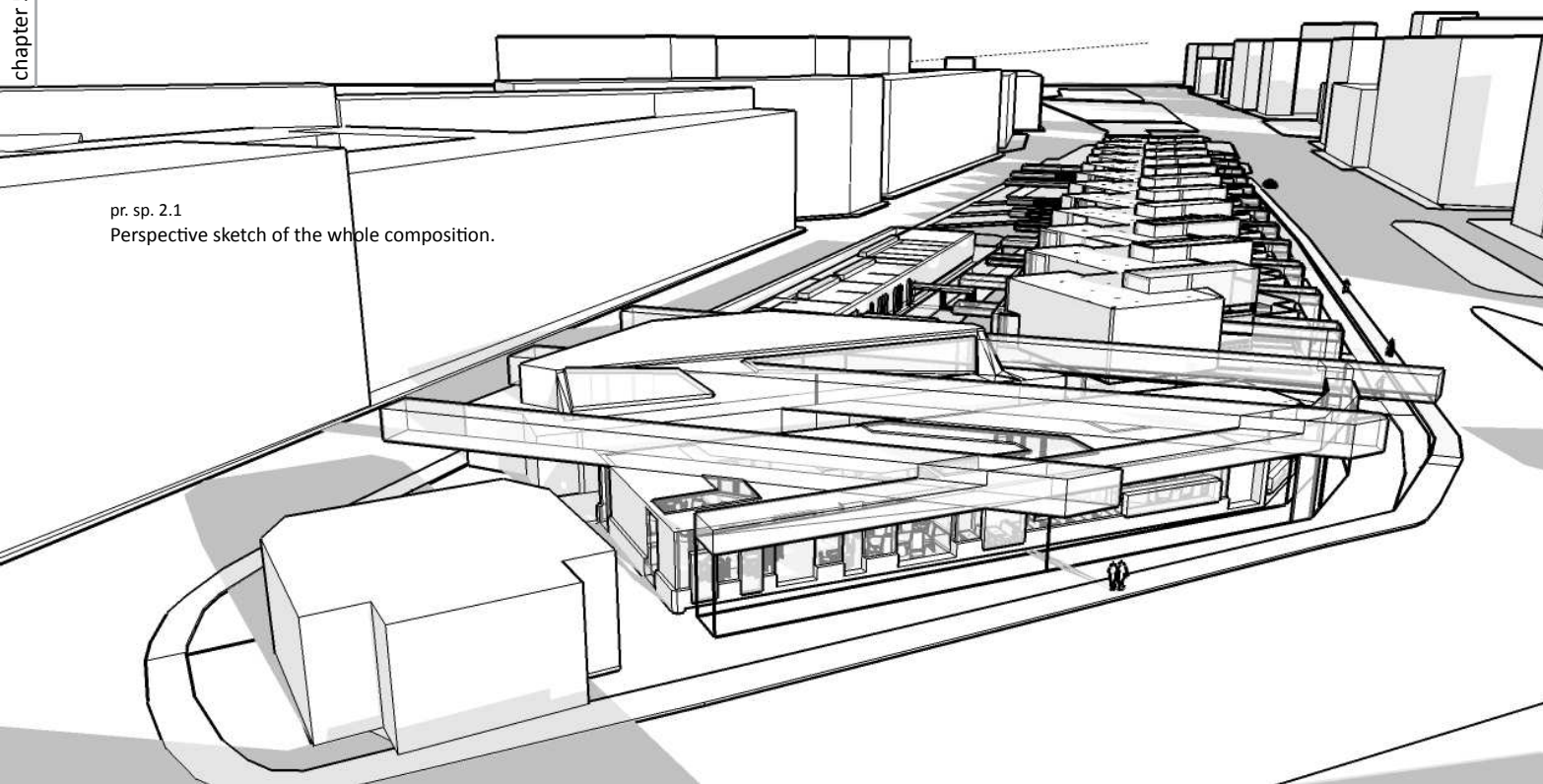
Civic Art, mosaic, syntax, orientation, perceptual fields, mental sets, cerebral structure, dwellings, tension, repulsion, emergence, mimesis

The design of the exterior and interior public open urban spaces express a situation of **emergence** in relationship to the surrounding building masses, and among the spaces within the compositional layout. One space blends into the other, under a common **structural orientation** that borrows the **directional paths** of perceptual imagery and memory from the surrounding situation.

Diminishing the scale in relation to the adjacent structures, the environment becomes one of a secured urban dwelling in which one may wander from inside to outside, through **transitions of themes** and experiences, not only in the horizontal direction, but also in the vertical. The creation of visual layering becomes evident as one wanders on the site. Continuing with this theme, the hosting of a different country within the pavilions captures a trespassing character, vertically and diagonally continuing upwards, in an effort to **overlap** the impression of thematic continuity, contrary to the vertical logic. This expresses the differentiation but continuity of a structural whole, where *the urban traveler faces perceptual illusions of what might be, and what is*. This is a theme often evident in the contemporary city, and is thoroughly expressed in this workshop design.



pr. sp. 2.2
Partial ground floor plan



pr. sp. 2.1
Perspective sketch of the whole composition.



pr. sp. 2.3
Perspective sketch of the whole composition.

(Civic Art as a Mosaic of Cultures, Milan)

project spread 2.4: Study of the forms and orientations of the surrounding paths and districts, in order to grasp a better understanding of the field forces (levels of repulsion and attraction) that take place. This supports the studies that Arnheim makes in his book *The Dynamics of Architectural Form*, where the conceptual building morphologies are used in order to extract directional fields.

project spread 2.5, 2.6: Model study of the directional orientations of the environment, derived from a map similar to the figure above.

These images, not only provide a mental map of the environment to support the behavior of the city, but also provide feedback for the understanding of urban activities that come from identifying certain pattern behaviors. In understanding the composition of commonly held urban images, we speculate important variables of the vicinity and grasp the nature of social experience that might take place in the context of our design. The goal is perhaps similar to that of painting, where a kind of illusion is desired with the contemplation between form and content; we borrow from the conceptual forms of the surroundings, in order to create a new kind of content – a more modern one. In the effort to create this type of civic art, where the public open environment starts embodying aspects of fine arts (of compositional tricks and illusionary concepts), one might argue on the purity of design, similarly to how Plato objected upon the sacrifices of illusion, and might have strongly criticized those few artists who discovered new effects to increase illusion and lifelikeness, such as Myron, Phidias, Zeuxis and Apelles.¹

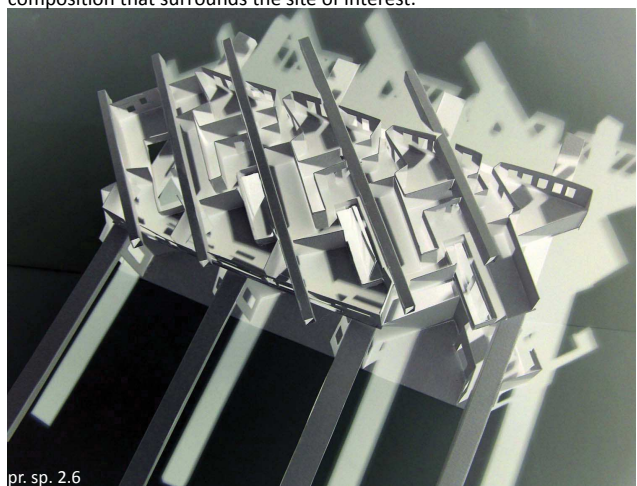
¹ Gombrich, E.H., 2000, op.cit., p.141.



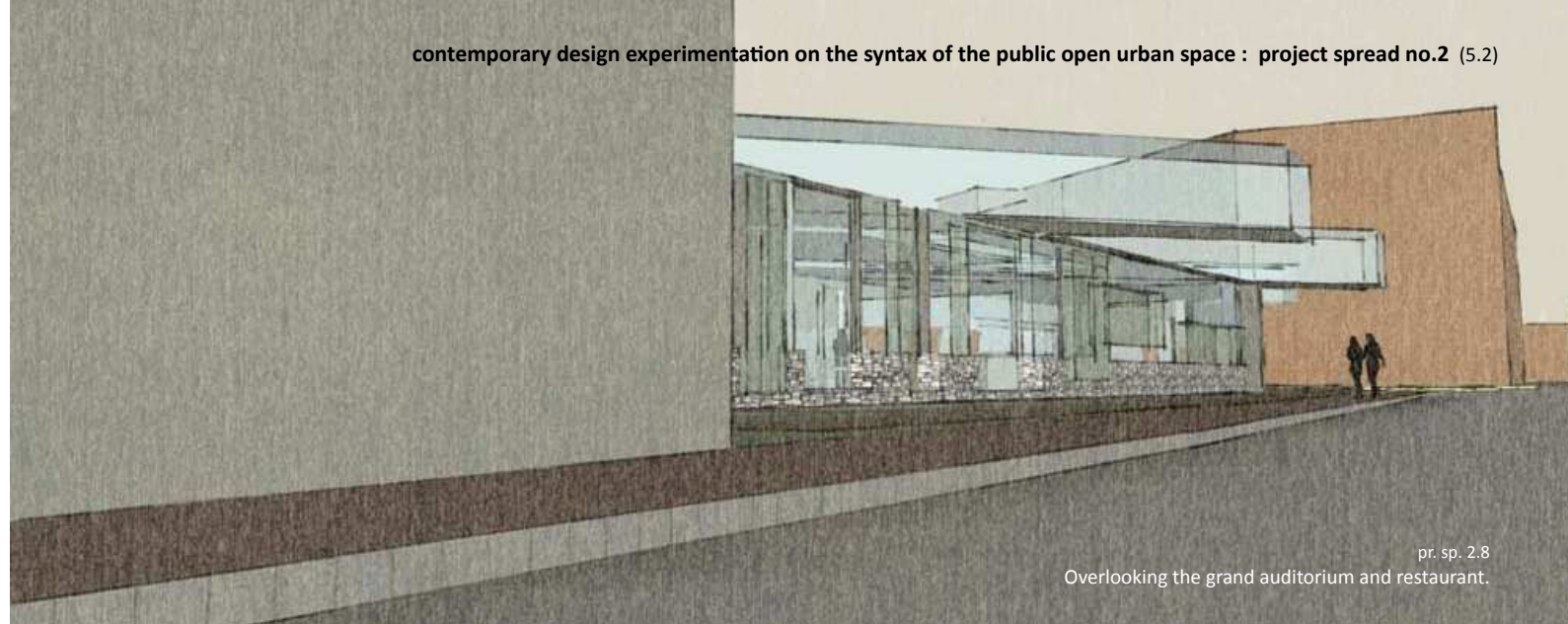
pr. sp. 2.4
Study of the forms and orientations of the surrounding paths and districts



pr. sp. 2.5
A closer look at the directional orientations and nature of composition that surrounds the site of interest.



pr. sp. 2.6
A three-dimensional model studies of the pavilion composition.



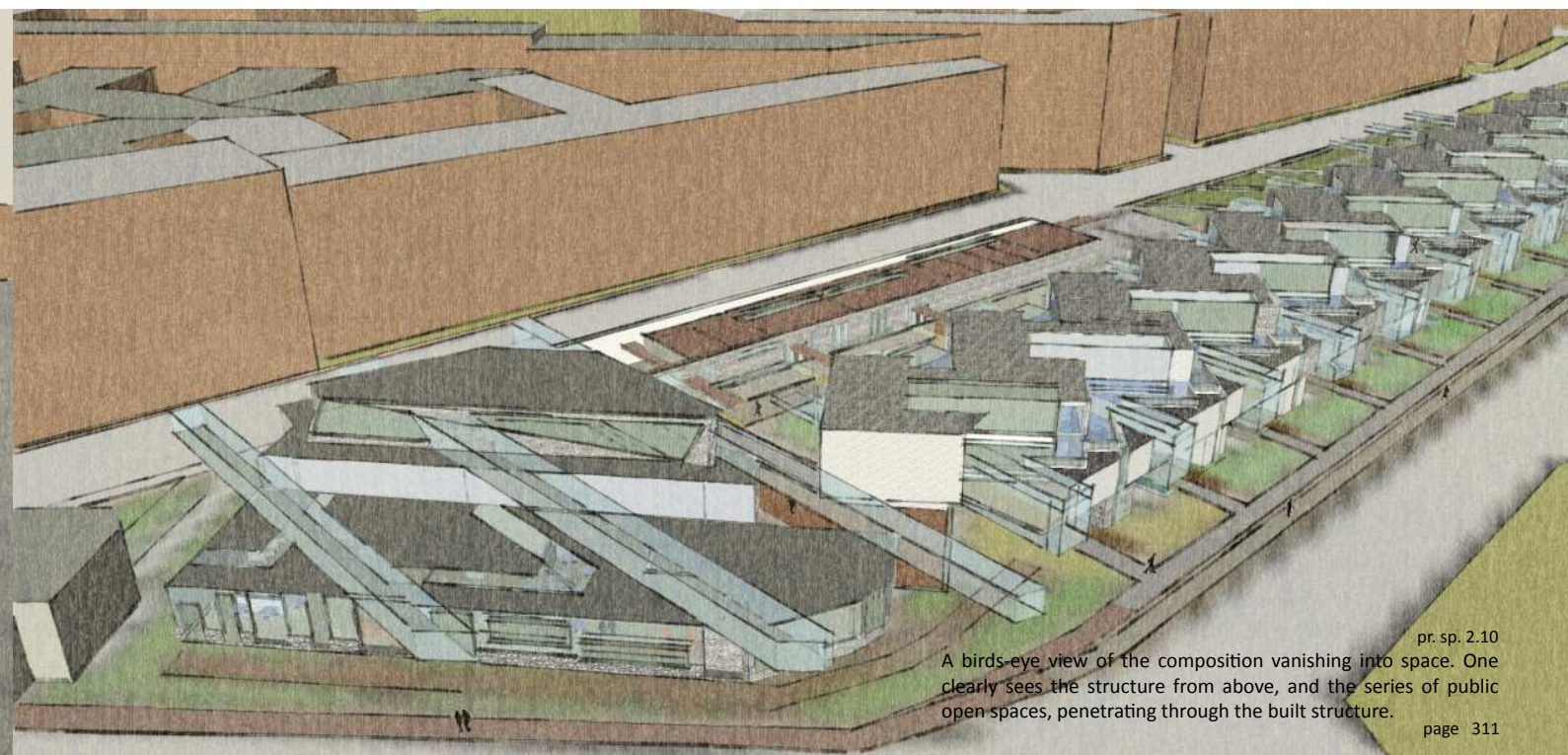
pr. sp. 2.8
Overlooking the grand auditorium and restaurant.



pr. sp. 2.9
Perspective view from the South-West.



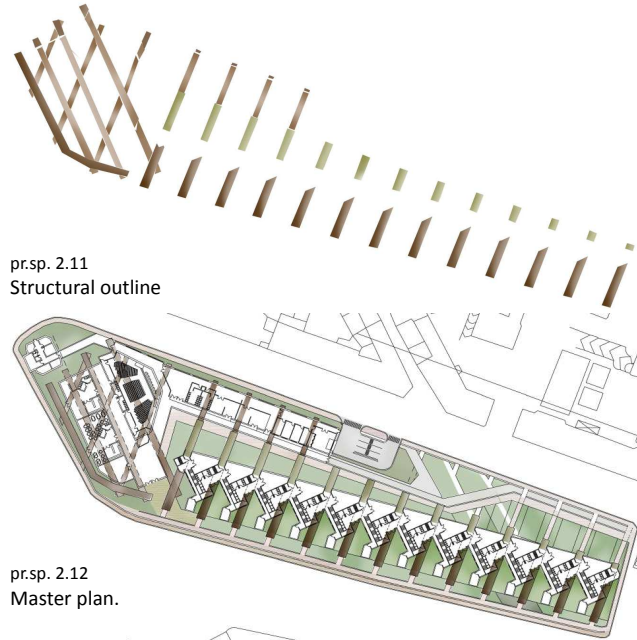
pr. sp. 2.7
Perspective view showing the main exterior path parallel to the series of public open urban spaces of the pavilions.



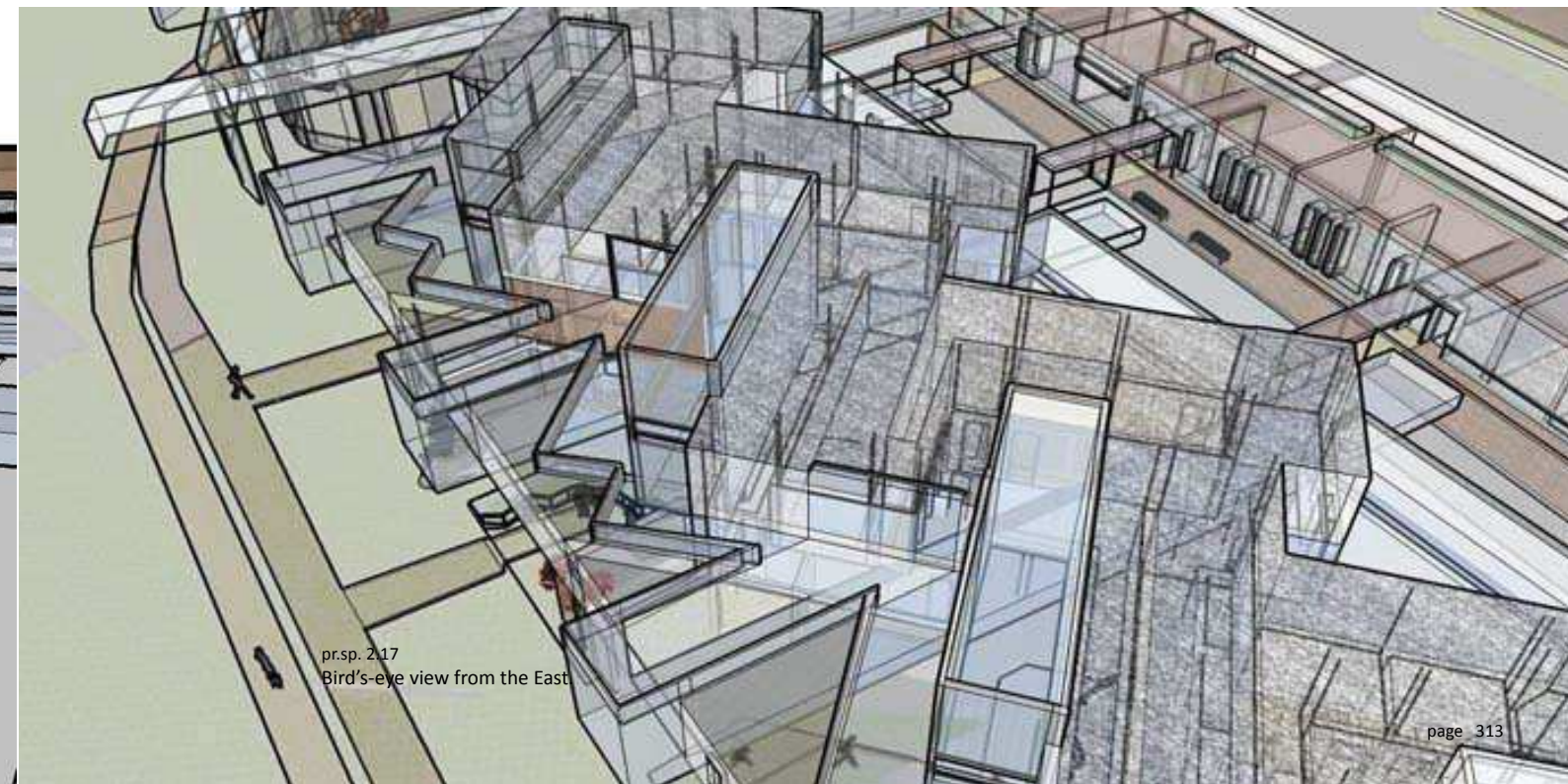
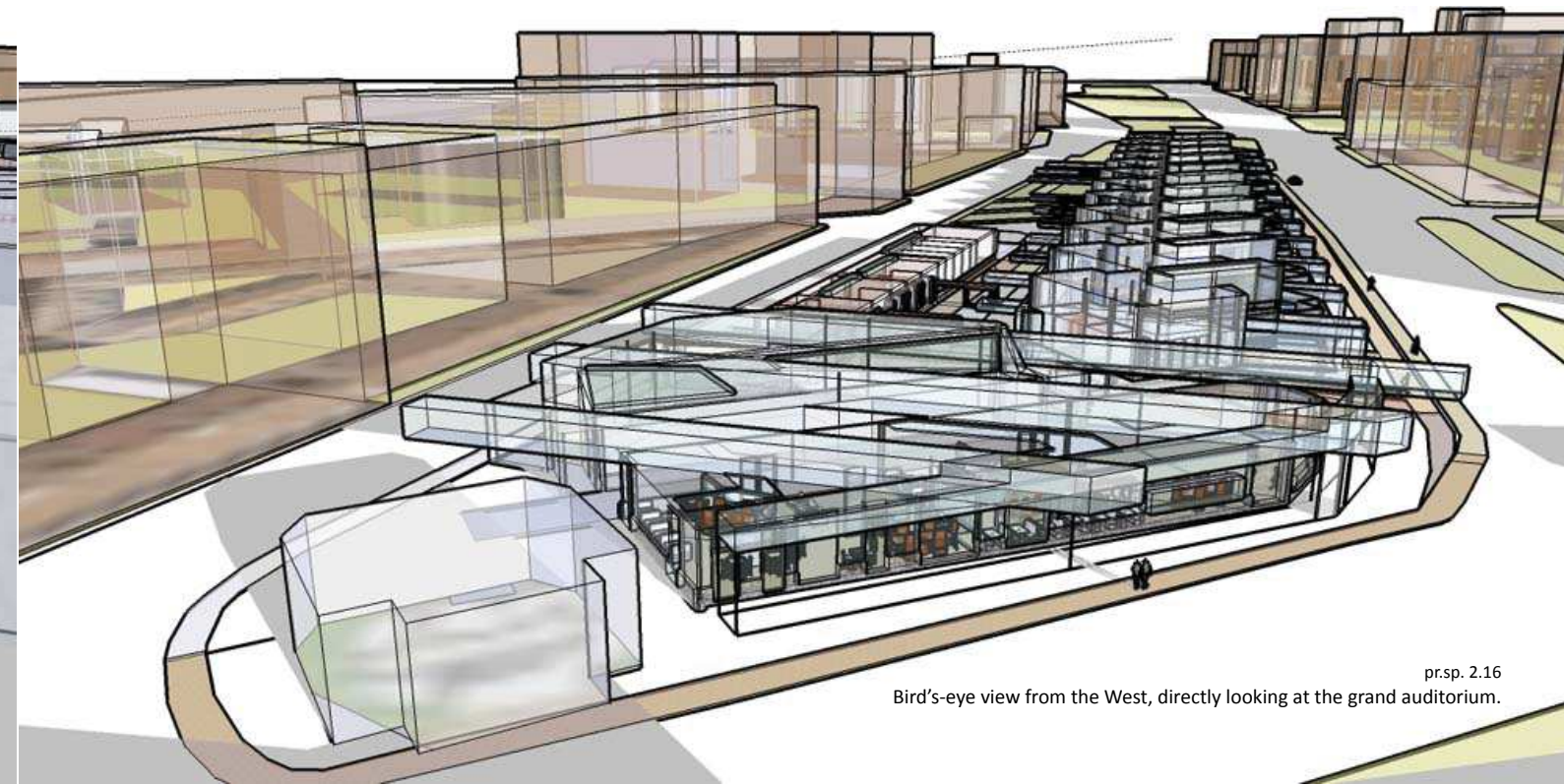
pr. sp. 2.10
A birds-eye view of the composition vanishing into space. One clearly sees the structure from above, and the series of public open spaces, penetrating through the built structure.

(Civic Art as a Mosaic of Cultures, Milan)

Project spread 2.12: The design teaches the visitor to particularize, to articulate, and to make distinction where before there was only an undifferentiated mass. It brings forth a questionable level of expectation as to what comes next, as the exterior scenery constantly changes in volume and hierarchy, providing continuing waves of visual fulfillment, right guesses, and wrong moves, as the entry into the second level will bring the anticipating viewer diagonally into the adjacent pavilion of the next nation. There is a constant playfulness of 'mental sets'.

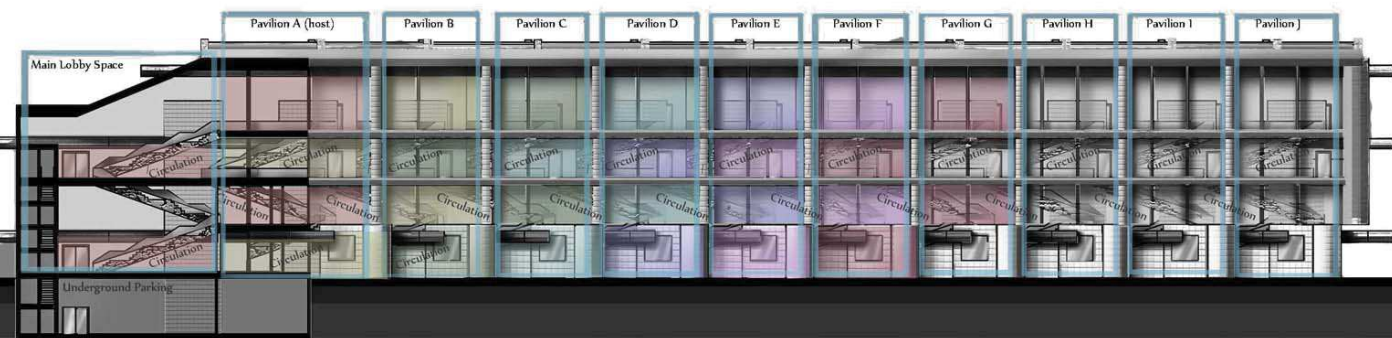


chapter 5: contemporary design experimentation on the syntax of the public open urban space

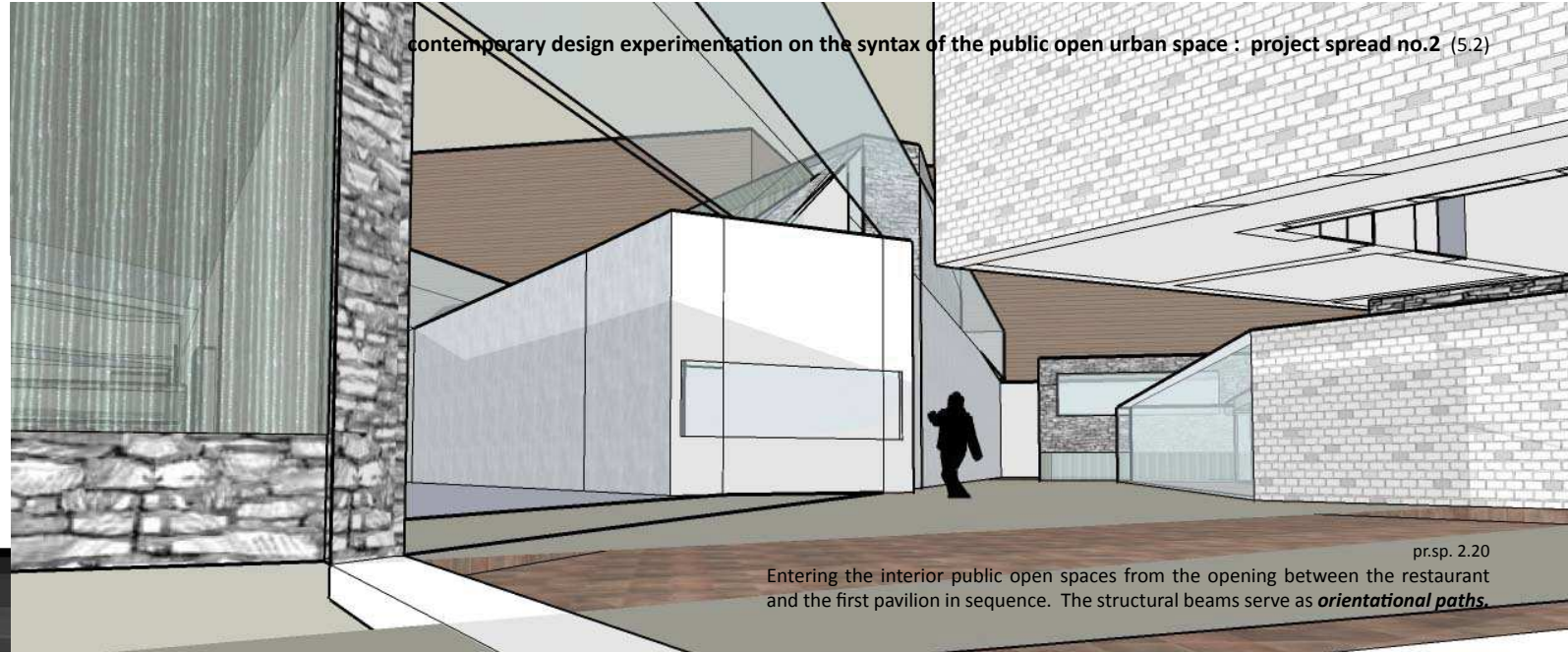


(Civic Art as a Mosaic of Cultures, Milan)

The images here also show the interchanging of materials, coinciding with the diagonality of the vertical circulation shown in section.



pr.sp. 2.18 Longitudinal section.



pr.sp. 2.20 Entering the interior public open spaces from the opening between the restaurant and the first pavilion in sequence. The structural beams serve as orientational paths.

chapter 5: contemporary design experimentation on the syntax of the public open urban space



pr.sp. 2.18 View from the East side of the road



pr.sp. 2.21 View from the East, overlooking the opening between the restaurant and the first pavilion in sequence.



pr.sp. 2.19 View from the West, taking a glimpse at some of the public gardens.



pr.sp. 2.22 View from the East side of the road.

(Civic Art as a Mosaic of Cultures, Milan)

In essence, the whole composition of the design is an investigation of the relationship between closed and open public spaces. The goal is to create paths and types of orientation that will guide the visitor through a 'theme' (or concept), but the interpretation of each may be unique, thanks to the rigidity of the system. These studies are interesting to investigate parallel to Alhazen's distinctions of the differences between sense, knowledge and inference, leading to different kinds of perceptions. This allows the chance of experiencing the pieces of 'mosaic' architecture, in an unexpected way, which soon becomes predictable, once the structure of the building is solved within one's mindset. This cross-experience is slightly hinted from the outside elevations, which show a cross-alteration of materials, further elaborated below through perspective images of the three dimensional model.

Functioning along the *orienting lines* of the master plan and the *structure* demonstrated in the above analytical images, parallel to the extraction of a concept from the surrounding projecting lines of ring and radial organizations, the design aims at demonstrating a constant concept: Trespassing the building on the ground floor gives the experience of beginning from one pavilion's themed courtyard, and exiting inside the interior system's main public space (or vice versa), while given the choice to enter the press-media libraries inside, or ascend toward the first level.



pr.sp. 2.25
View of the enclosed public open urban space, showing the connectivities, links and perceptual paths.

chapter 5: contemporary design experimentation on the syntax of the public open urban space



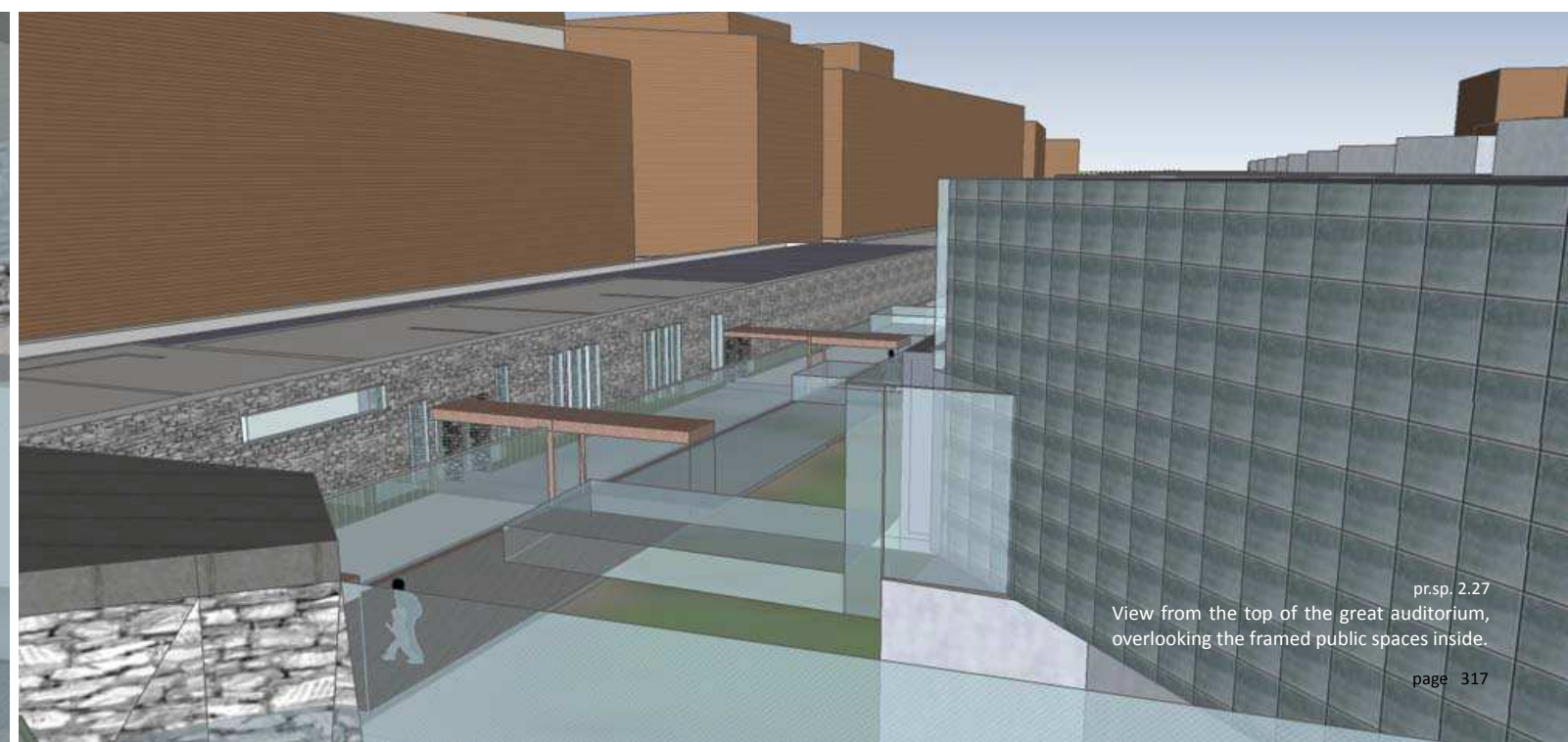
pr.sp. 2.23
View of the enclosed public open urban space, showing the connectivities, links and perceptual paths.



pr.sp. 2.26
View of the public open urban space, showing the connectivities, links and perceptual paths.



pr.sp. 2.24
View of the enclosed public open urban space, showing the connectivities, links and perceptual paths.



pr.sp. 2.27
View from the top of the great auditorium, overlooking the framed public spaces inside.

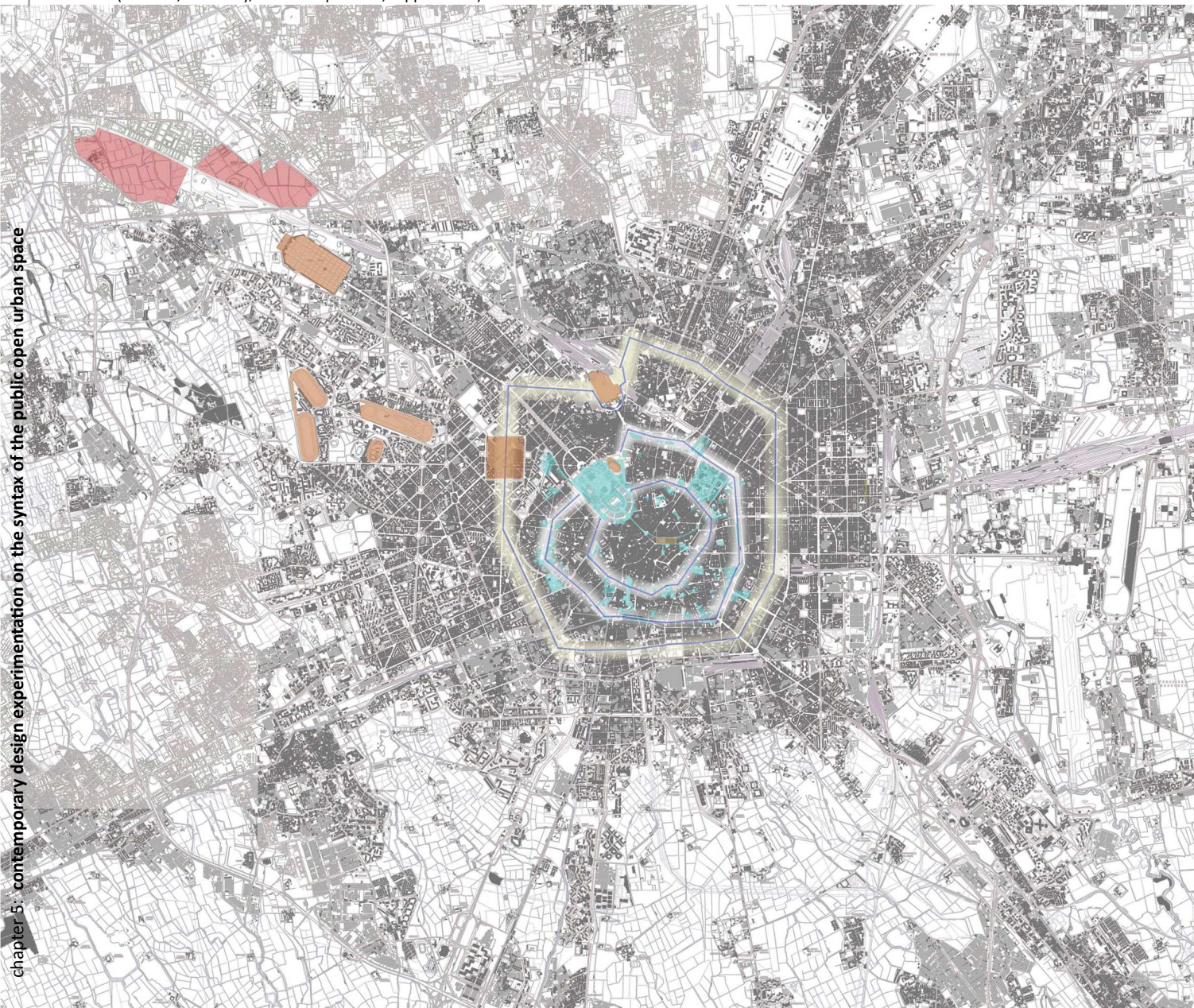
(Civic Art as a Mosaic of Cultures, Milan)

(additional material relating to the theory)

Project spread 2.28: The Milan rings in relation to the public open spaces in blue, and public activities of particular activities in orange (stadium, cemetery, Fiera Campionaria, Hippodrome). The diagrams aim at representing the rigidity of the system in blue, where the public activities remain neutral in the form of parks and 'squares', where the looseness of the composition becomes more obvious with the increase of range from the center and the establishment of further, more 'unconventional' activities.

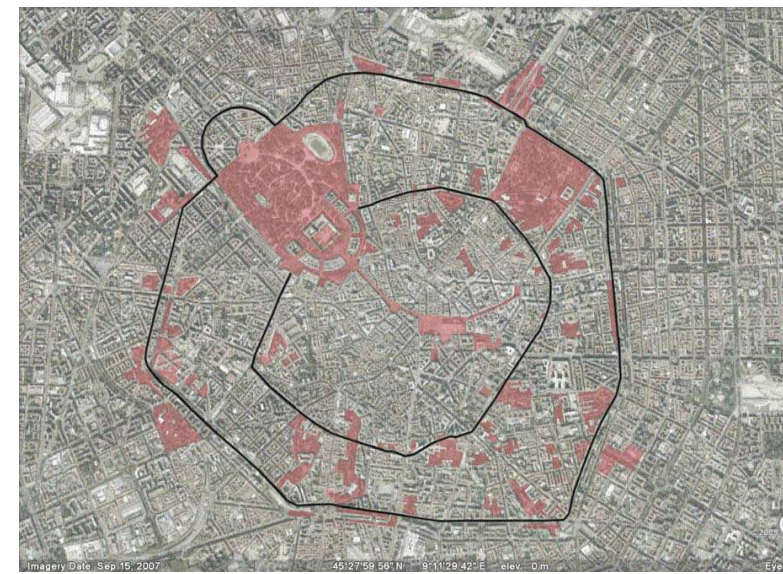
Project spread 2.29: Location of public open spaces along the major rings of Milan, in relationship to the current center of the Piazza Duomo. The spotted locations are parks, piazzas and in some cases, loosely designed green areas/voids. Demonstrated here is the mosaic of the public open spaces of the two inner rings of Milan, expressing the linguistic syntax of the inner city. This is an important diagram for understanding the general traditional rules that set a hierarchy of open spaces for the creation of an *orienting* sense and *infrastructural logic*, on the grander scale. This mosaic map not only shows the basic degree of the public spaces that take place along the rings, but also gives a directional orientation toward the logic of the city, tracing its roots further back to the conceptions of 'perfect shapes' and radial symmetry.

pr.sp. 2.28
The Milan rings in relation to the public open spaces and public activities of a particular function (stadium, cemetery, Fiera Campionaria, Hippodrome).

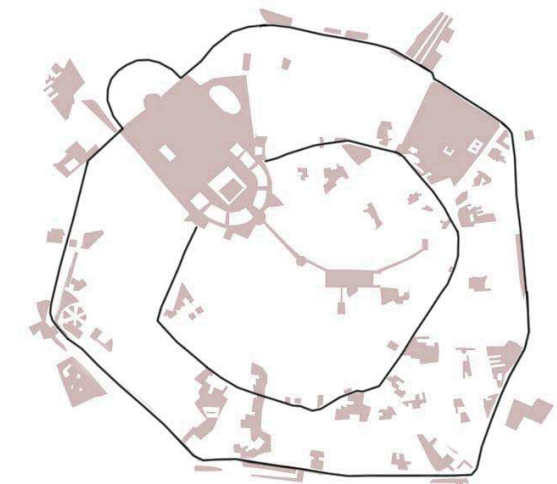


Project spread 2.30: Diagram of Milan's central public open spaces and infrastructural rings. Here, we distinguish a kind of civic art that is in the form of 'hidden patterns' ('hidden' in the sense that the civilian, randomly positioned in an open space will not become fully aware of this pattern). These create a concept; a syntactic structure that will provide guidance for space-forming decisions, in order to maintain the clear coherency of organization and city-structure.

Project spread 2.31, 2.32: For Schulz, a 'dwelling' is an exposure to a certain environmental stimulus that will involve both psychological functions of 'orientation' and 'identification'. In order for a public open urban space to be said to follow psychological functions of orientation and identification, one must be able to recognize fundamental traces of his surroundings, and identify recognizable elements. These images show examples of dwellings on the relevant rings of Milan, that fall along the defined structure of the city, demonstrating good examples of open public spaces that are in comfortable relations with the surrounding objects; these spaces, when experienced, have a sense of 'belonging', forming contours and irregularities falling away from 'impeccable symmetry' that Camillo Sitte criticizes.



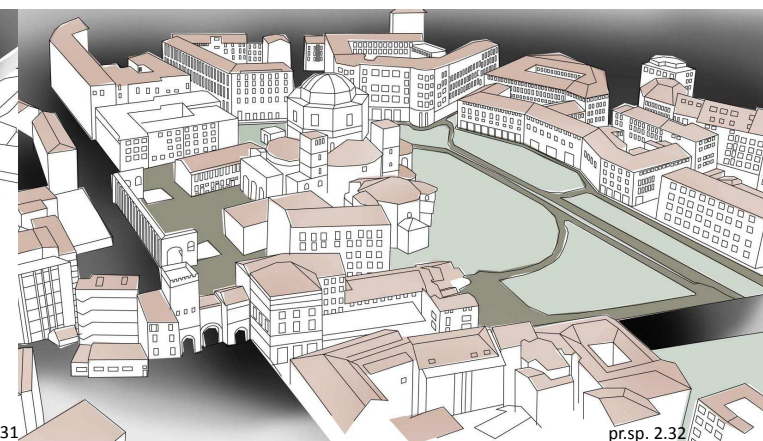
pr.sp. 2.29
Location of public open spaces along the major rings of Milan, in relation to the current center of the Piazza Duomo. The spotted locations are parks, piazzas and in some cases, loosely designed green areas/voids.



pr.sp. 2.30
Diagram of Milan's central public open spaces and infrastructural rings.



pr.sp. 2.31
Irregular but efficient example of a public open space along the inner ring of Milan.



pr.sp. 2.32
Irregular but efficient example of a public open space along the inner ring of Milan.

chapter 5: contemporary design experimentation on the syntax of the public open urban space

(Civic Art as a Mosaic of Cultures, Milan)

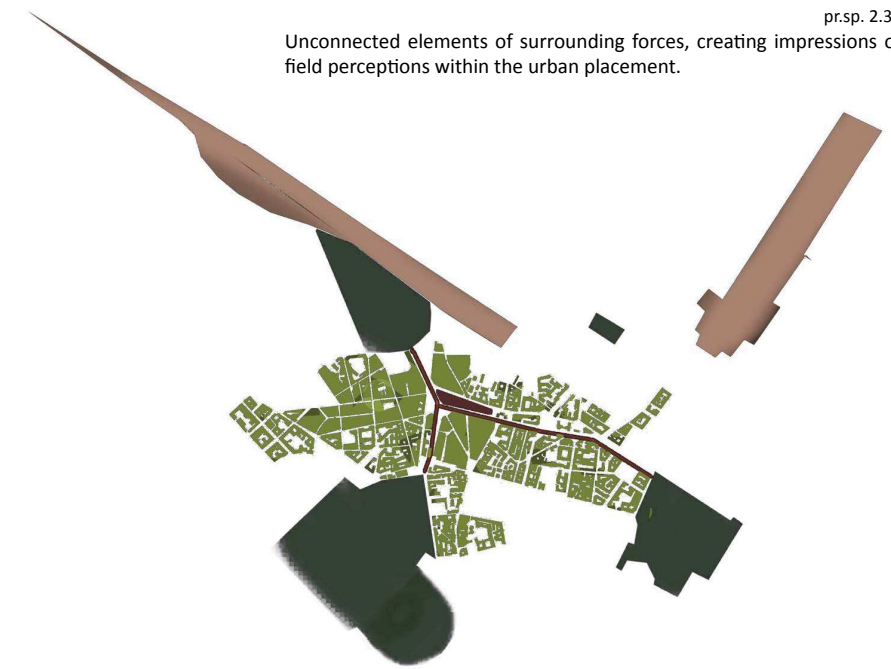
(additional material relating to the theory)

Project spread 2.33, 2.34: Key infrastructural and large neighboring elements that make the site of interest one of strong *field perceptions*. This is important in examining the different forces that take place around the site, which may create the kind of tension or repulsion that is crucial for the establishment of new relationships. As Ignasi de Sola-Morales explains in his *Differences*, unconnected positions and situations are just as important in the establishment of forms and relationships in the urban and architectural compositions. This investigation of unconnected positions comes hand in hand with the decomposing speculative manner of the Roland Barthes model of de-structuring the urban text into units, distributed in formal classes and seeking to find rules of combination and transformation.

pr.sp. 2.33
Unconnected elements of surrounding forces, creating impressions of field perceptions within the urban placement.



pr.sp. 2.34
Unconnected elements of surrounding forces, creating impressions of field perceptions within the urban placement.



chapter 5: contemporary design experimentation on the syntax of the public open urban space

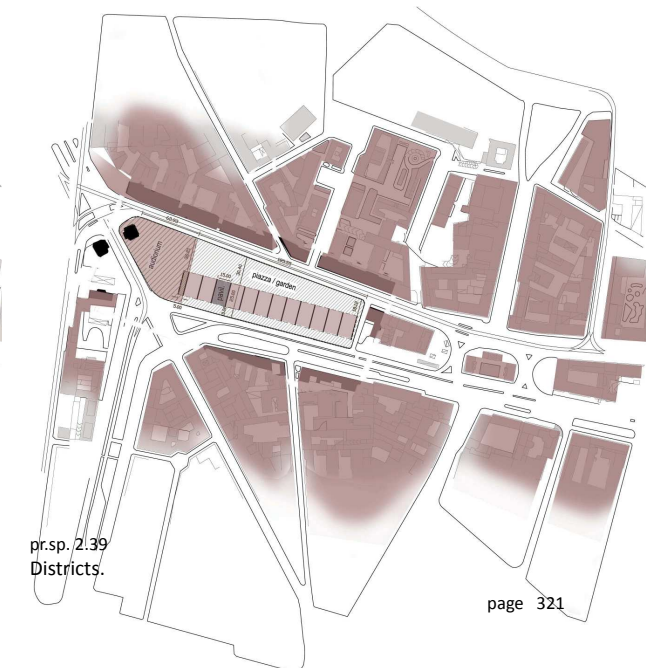
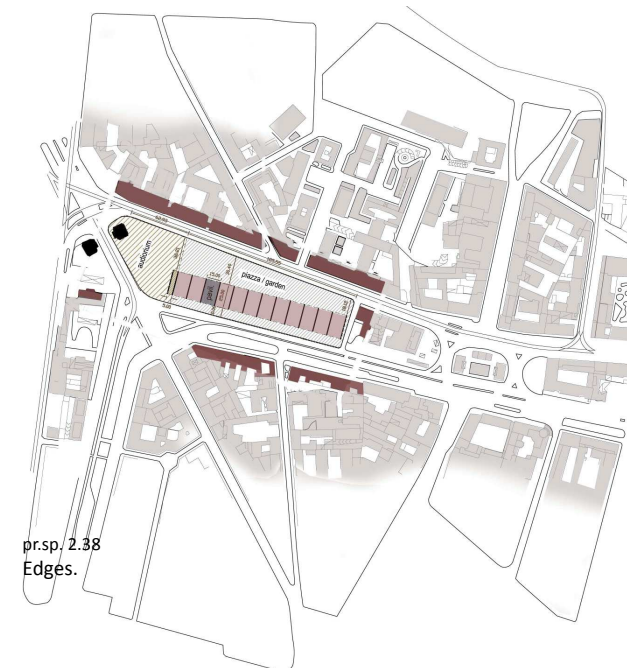
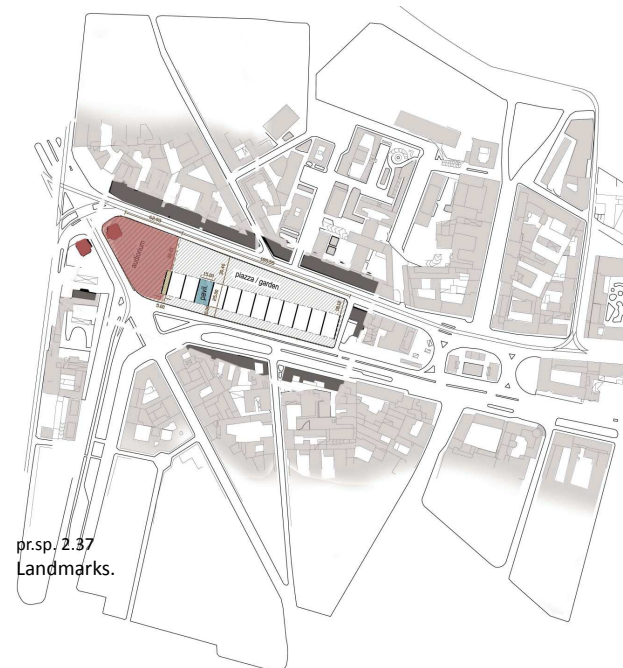
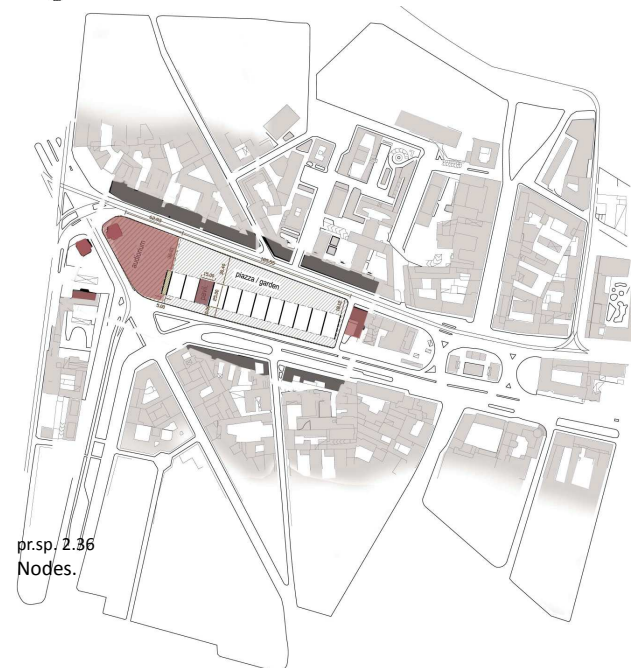
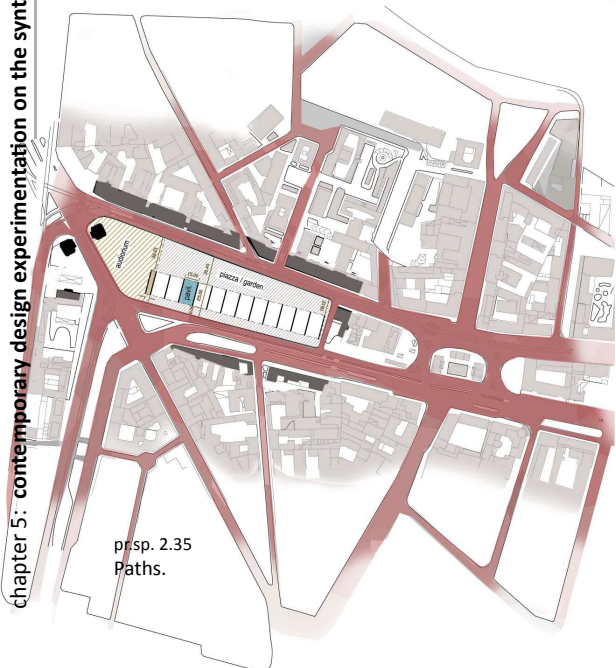
pr.sp. 2.35
Paths.

pr.sp. 2.36
Nodes.

pr.sp. 2.37
Landmarks.

pr.sp. 2.38
Edges.

pr.sp. 2.39
Districts.



5.3 Artificial Nature as Artful Information in the Public Open Urban Space, Thessaloniki

(Workshop group: Gauri Avasak, Stefanie Leontiadis, Despina Pippa, Maria Pachi, Charalampos Kazas, Anna Papadopoulou, Petros Lazaridis, Asini Chatzivasiliou, Myrto Lambrou, Ourania Tzala, Milica Stojanovic)
(Workshop leaders: George Hargreaves, Io Karydi, Hargreaves Associates UK)
(Workshop consultant: Vasilis Maroulas, ARUP, UK)

**ECOWEEK, Thessaloniki 2011 - 'Urban communities and green architecture'.
International Conference and Workshops for Architecture & Design.**

An emerging ecologic corridor for the city of Thessaloniki - Site Analysis 1

Considerations:

- study of emergence of characteristic linkages between activity and spatial patterns in human settlements. Such linkages, when repeated over time, form islands of local order structuring the larger patterns of global, ecological, and economic flows.
- Creating layers of meaning for current production
- Understanding the sense of shifting, and the changing of urban morphologies
- Studying the new or uniform recombinations and hybridizations of the city structure.
- Considering Christopher Girot's three main forces of 'degeneration', 'permanence' and 'transformation', for a new understanding ("Vision in Motion; Representing Landscape in Time" in The Landscape Urbanism Reader.)

The main goal of this study is to study the historical maps and urban organization of the city in order to find sequences of development, as guidelines for the natural characteristics of the city of Thessaoniki, and the emphasis of green infrastructure and public open urban space sequences. As the phasing and developmental sequences of urban thinking should fall along the lines of 'seeding', 'infrastructure', 'programming' and 'adaptation', it seems crucial to extract images of layerings and hierarchical urban configurations as reference points for flexible strategies. As Colin Rowe suggests, the priority of urban configurations should be according to the landscape.

The aim of this project is to facilitate a set of short term transformation-scenarios that aim at the requalification of the public open urban space of the ITF (International Trade Fair) grounds and at the emergence of a sustainable landscape. The first goal is to address a 'Green Engine' for the city of Thessaloniki. The second goal is the formation of the missing link - an 'Ecologic Corridor' of a functional and operative green link - which, together with the adjacent green spaces, can deliver the connection between city and sea, offering recreation activities and a network of pedestrian, bicycle and water paths.

Methodology:

The approach is based on the concept that a contemporary public open urban space can deliver and activate change through an innovative design that challenges convention, proposes invention and embraces experimentation. The methodology focuses on the requalification of the urban space and promotes the emergence of a Sustainable Landscape.

Design solutions:

The design focuses on the three interconnected systems that will deliver integrated sustainability of water / vegetation / energy production / food production. The phasing progresses in three stages: coexistence, transformation and adaptation, allowing for a combination of programmatic uses that include a diversity of fields that maintain and promote a high-level of ecological performances.

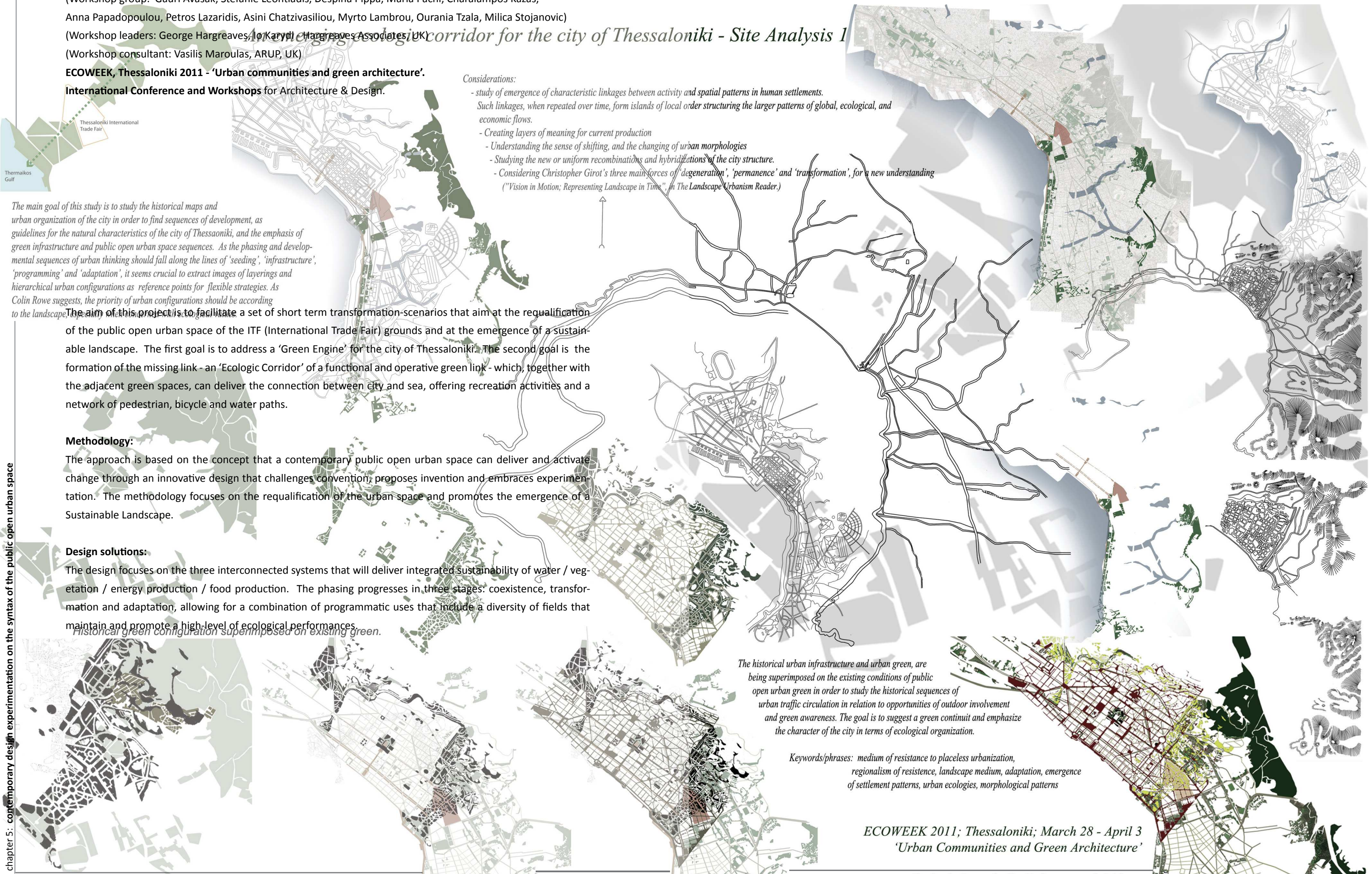
Historical green configuration superimposed on existing green.

The historical urban infrastructure and urban green, are being superimposed on the existing conditions of public open urban green in order to study the historical sequences of urban traffic circulation in relation to opportunities of outdoor involvement and green awareness. The goal is to suggest a green continuum and emphasize the character of the city in terms of ecological organization.

Keywords/phrases: medium of resistance to placeless urbanization, regionalism of resistance, landscape medium, adaptation, emergence of settlement patterns, urban ecologies, morphological patterns

*ECOWEEK 2011; Thessaloniki; March 28 - April 3
'Urban Communities and Green Architecture'*

Stefanie Leontiadis, Politecnico di Milano



(Artificial Nature as Artful Information in the Public Open Urban Space, Thessaloniki)

An emerging ecologic corridor for the city of Thessaloniki - Site Analysis 2

Studying the landscape: the hybridization of natural and cultural systems on an interconnected scale. This study aims to study the existing conditions of urban morphologies as a means to reconciling modernity to place, understanding rhizomatic roots, and expanding the ecological growth of the city of Thessaloniki. The analysis provides the foundation of design processes, strategies and network flows. Taking into consideration the articulation of complexity of the whole, the goal is to contemplate the contemporary means of visual thinking, and create significant 'spaces in between' as moving picture frames (fixed frames and vistas).

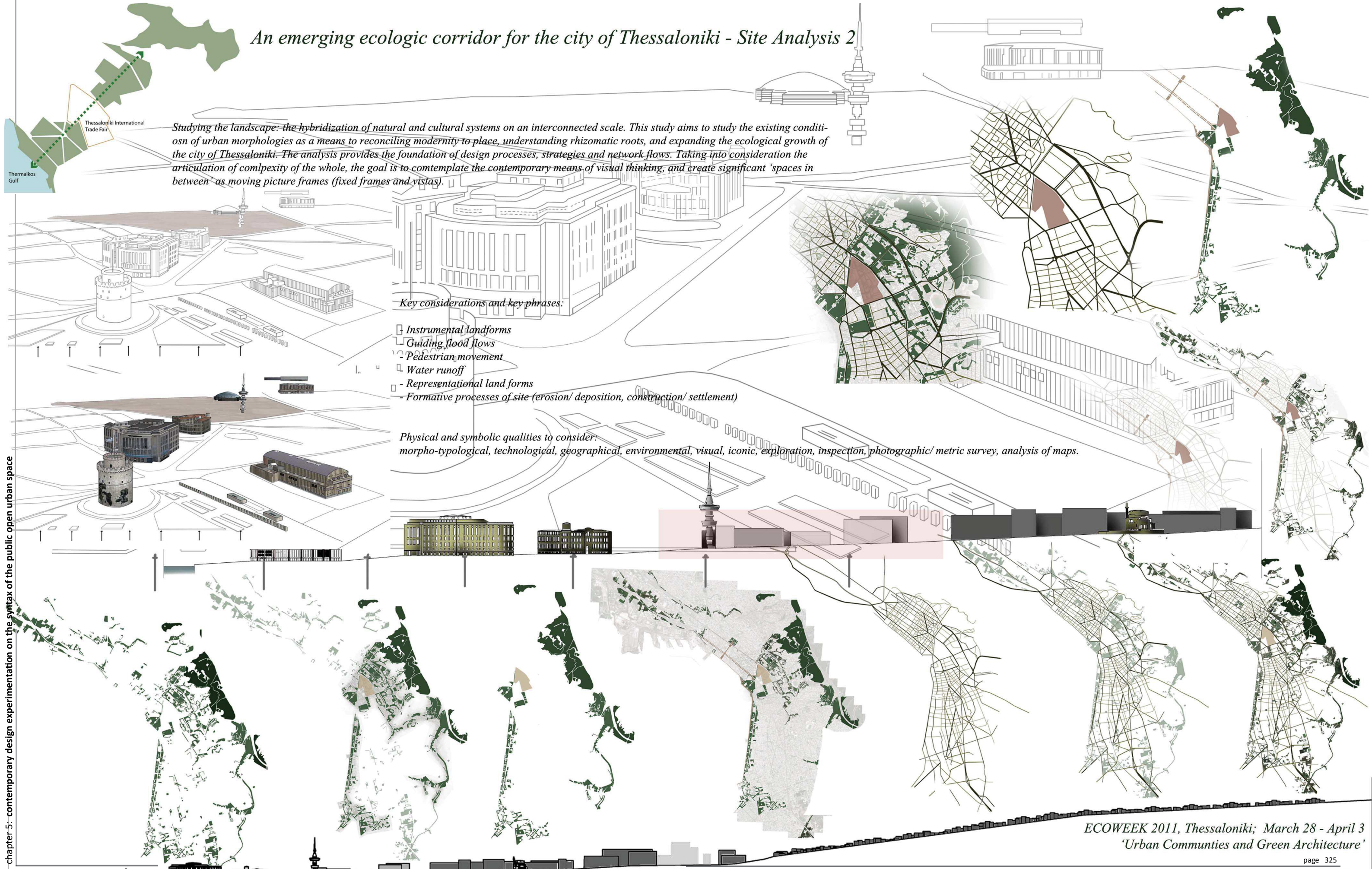
Key considerations and key phrases:

- Instrumental landforms
- Guiding flood flows
- Pedestrian movement
- Water runoff
- Representational land forms
- Formative processes of site (erosion/ deposition, construction/ settlement)

Physical and symbolic qualities to consider:

morpho-typological, technological, geographical, environmental, visual, iconic, exploration, inspection, photographic/ metric survey, analysis of maps.

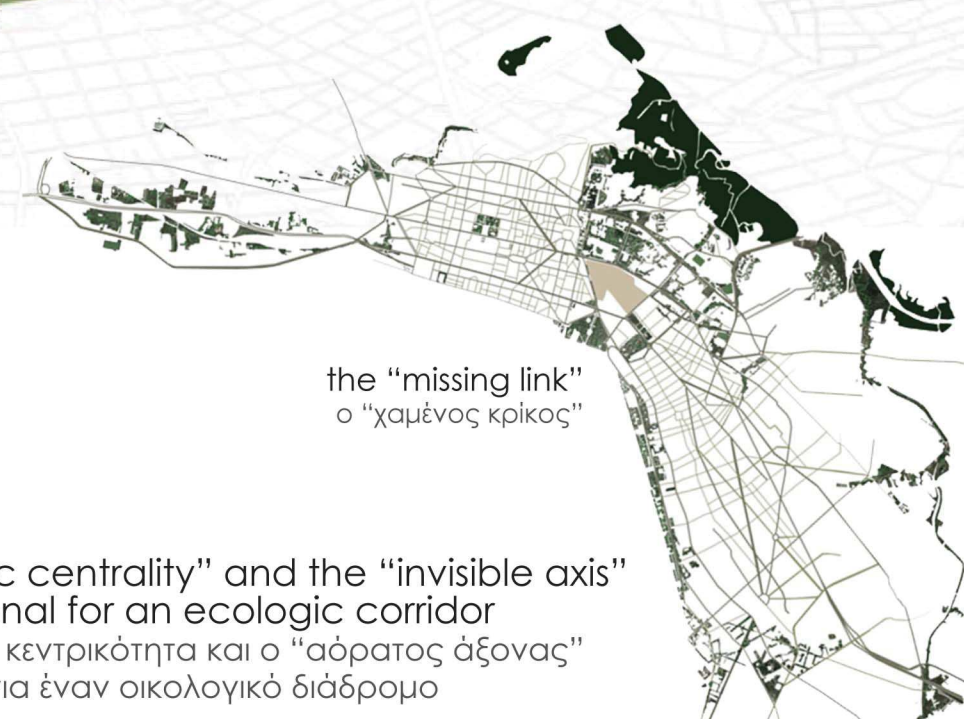
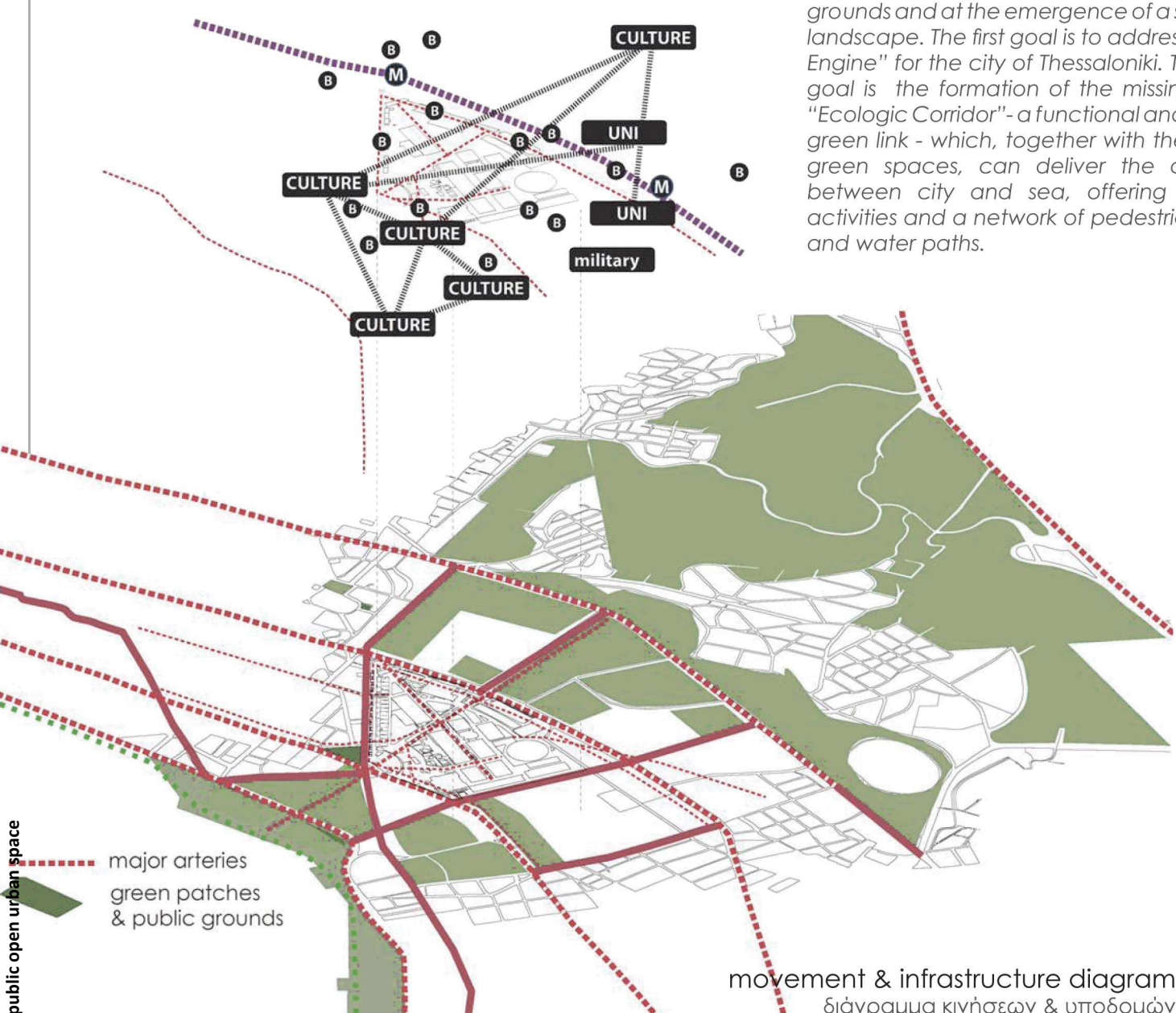
chapter 5: contemporary design experimentation on the syntax of the public open urban space



(Artificial Nature as Artful Information in the Public Open Urban Space, Thessaloniki)

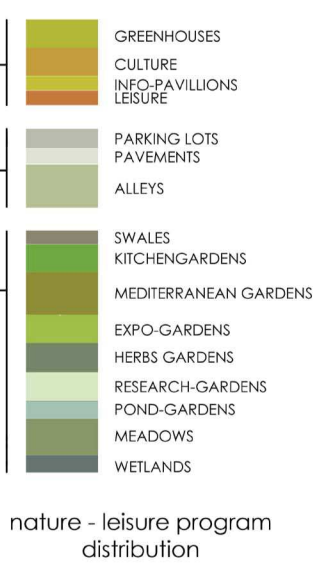
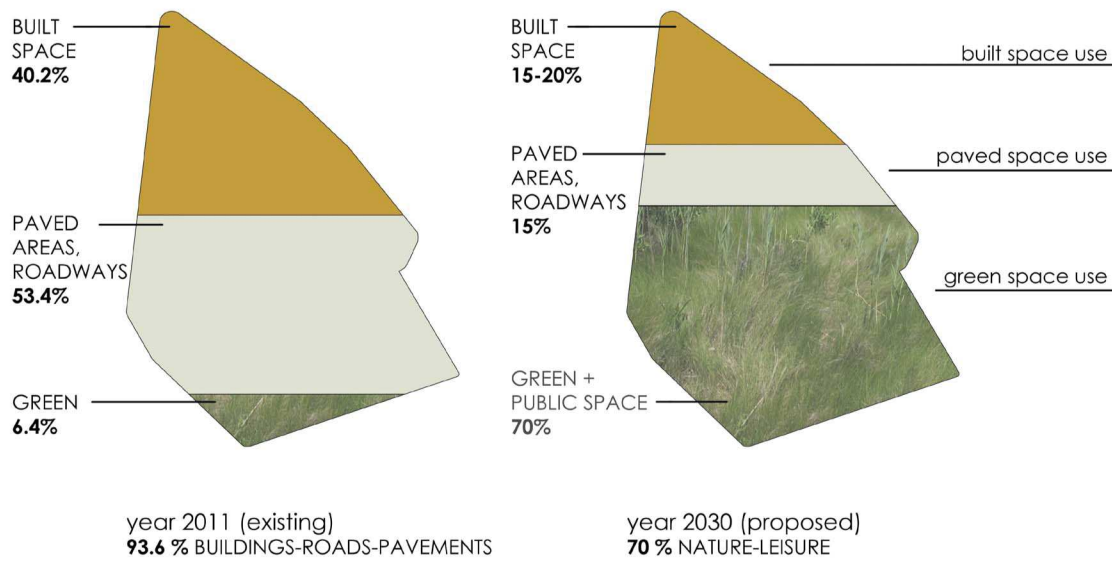
DESIGN APPROACH

The aim is to facilitate a set of short term transformation-scenarios that aim at the requalification of the open space of the ITF grounds and at the emergence of a sustainable landscape. The first goal is to address a "Green Engine" for the city of Thessaloniki. The second goal is the formation of the missing link - an "Ecologic Corridor"- a functional and operative green link - which, together with the adjacent green spaces, can deliver the connection between city and sea, offering recreation activities and a network of pedestrian, bicycle and water paths.

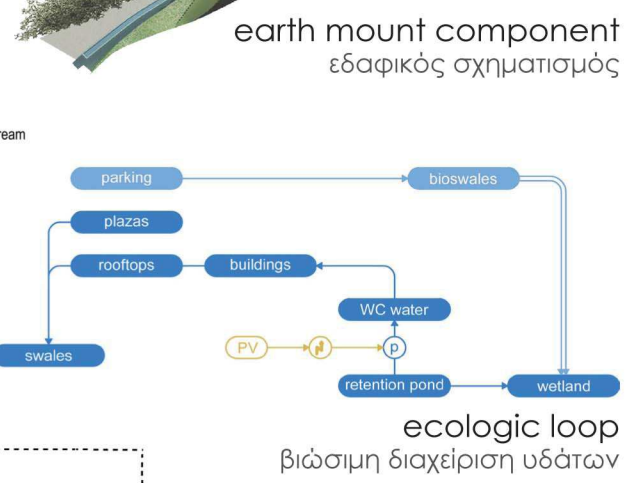
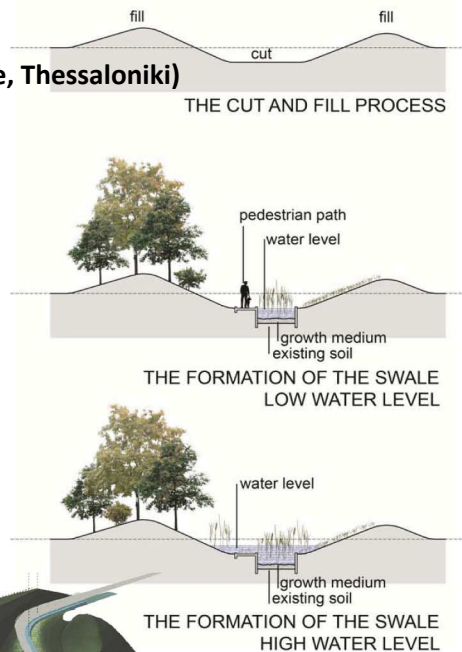
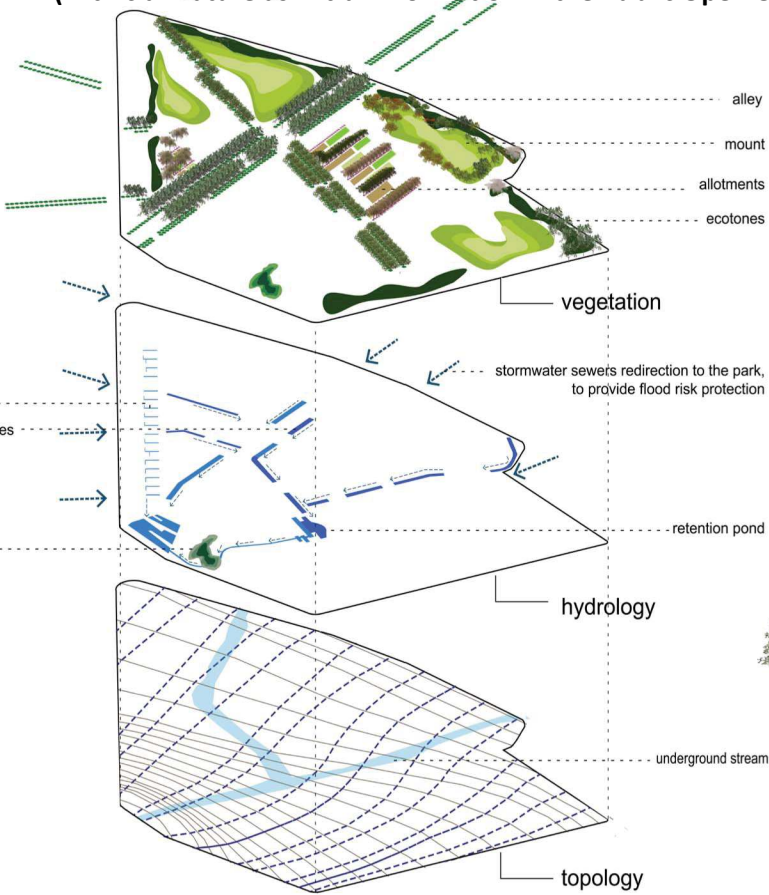


"eclectic centrality" and the "invisible axis"
the rationale for an ecologic corridor
"εκλεκτική κεντρικότητα και ο "αόρατος άξονας"
η λογική για έναν οικολογικό διάδρομο

chapter 5: contemporary design experimentation on the syntax of the public open urban space



(Artificial Nature as Artful Information in the Public Open Urban Space, Thessaloniki)



METHODOLOGY

Our approach is based on the concept that a contemporary park can deliver and activate change through an innovative design that challenges convention, proposes invention and embraces experimentation. The methodology focuses on the requalification of the urban space and promotes the emergence of a Sustainable Landscape.

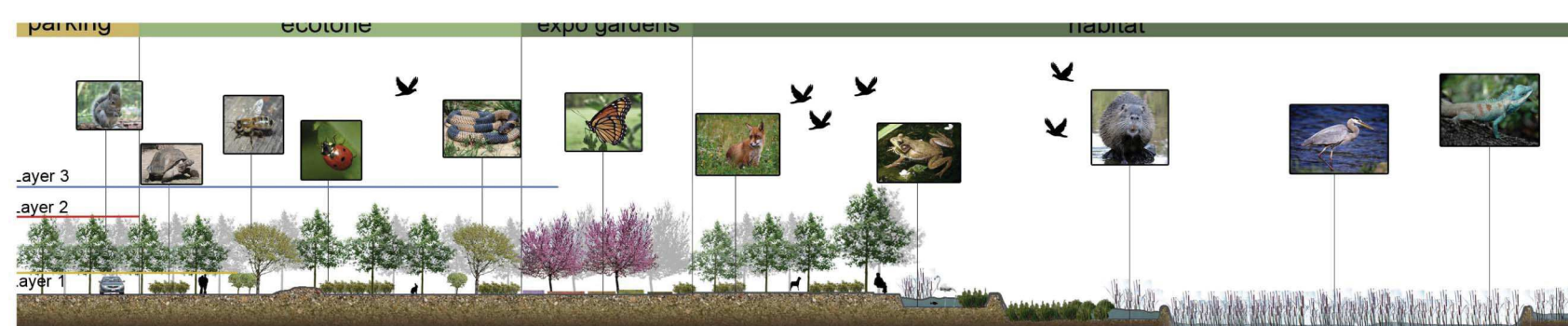


masterplan
σχέδιο γενικής οργάνωσης

three interconnected systems
τρία διασυνδεδεμένα συστήματα



diverse vegetation
ποικιλία βλάστησης



landscape typologies that introduce ecotones
τυπολογίες τοπίου που εισάγουν οικο-τόνους

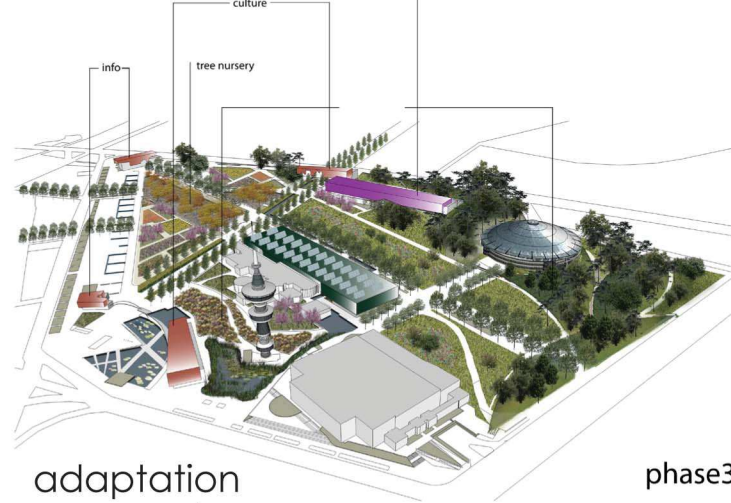
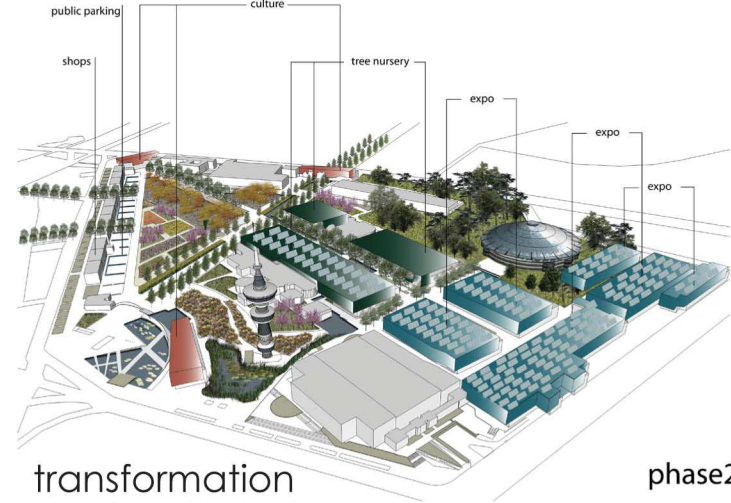
habitat preserve
συντήρηση φυσικού περιβάλλοντος

chapter 5: contemporary design experimentation on the syntax of the public open urban space

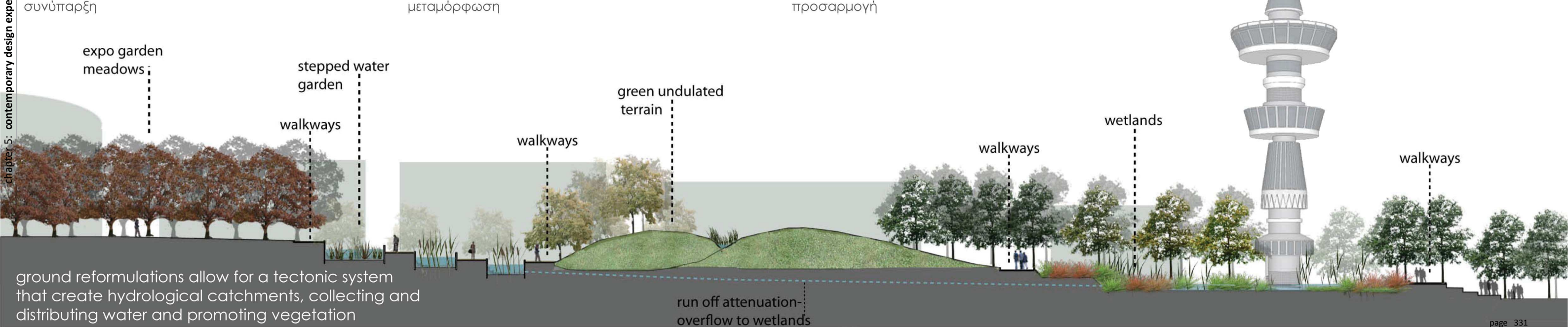
(Artificial Nature as Artful Information in the Public Open Urban Space, Thessaloniki)



phasing and gradual emergence
σταδιακή μεταμόρφωση σε φάσεις



DESIGN SOLUTIONS
Our design is focused on the three interconnected systems that will deliver integrated sustainability: water / vegetation / energy production / food production. The phasing progresses in three stages: coexistence, transformation and adaptation will allow for a combination of programmatic uses that include a diversity of fields that maintain and promote a high-level of ecological performances.



chapter 5: contemporary design experimentation on the syntax of the public open urban space



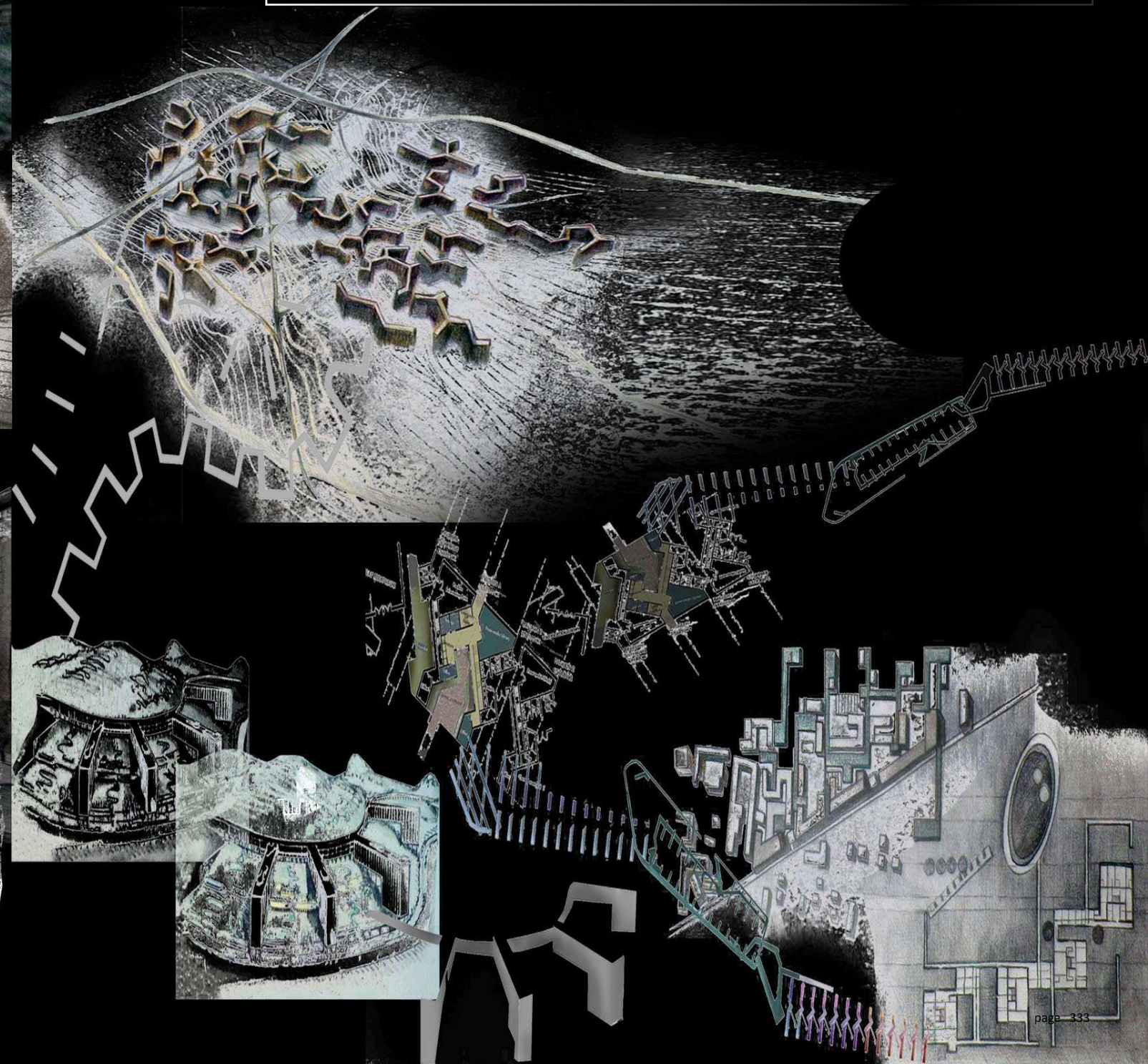
chapter six

results

6.1 conclusions and results

6.2 atlas archive spreads - visual synopsis

6.3 thesis glossary



6.1 conclusions

With the pre-mentioned considerations of ways of forming a syntax for the contemporary public open urban space, the problem of perceptual organization and security becomes more concise and understandable. With the definition of parameters of evaluation, it is easier to distinguish and evaluate the situation of bound spaces, where someone feels comfortable, safe, protected, or restricted and smothered, versus the impressions of an unbound space, where someone may feel free, vulnerable and exposed. The syntactic coherence that finds its roots in the traditional investigations and attempts to find place in the contemporary environment falls in the categories mentioned, which may in sequence provide significant aid for the diagrammatic representation of existing situations and solutions for the provision of public security, from the visual perceptive point of view.

The keyword of **layering** (applying to horizontal, vertical and multi-dimensional layering), holds close association to the emergence of semiotic revelations, intentions and primary structures of the open space and direct surroundings, creating a cognitive apparatus of progressive intentions. These layers provide conceptual sequences, historical affiliations, vertical relationships to the horizontality of the ground (mainly through sections), and even a multi-dimensional perception of the open space through the consideration of functional changes that directly affect the syntax of the composition. These syntactic references also apply to the analytical interpretations of the suburban cores, which seek relationships to the surrounding conditions, the natural environment, the ambiguity of the void, and the affiliation to the denser heart of the main city.

The keyword of **information availability** refers to the acquired messages of the urban traveller in reference to the spatial codes and evolution of the inclusive information, taking place along the urban path of movement. This type of information refers to cultural and stylistic evolution of the urban space and its deeper meaning. The perception of the urban spaces from the point of view of the infrastructure takes an interesting role here as well, studying the interconnectibility of different public open urban spaces on one hand, and on the other hand the visual perceptions from a faster moving experience from the point of view of the automobile, storing in the subconscious memory series of photographic snapshots.

The keywords of **structure** and **framing** involve the creative fusion of architectural elements surrounding a public open urban space. The analysis here looks upon the built modifications in terms of morphologies and structures, along with the evolution of theme that takes place, in order to express the sense of desired enclosures and emotions of security. The keyword of structure further investigates the possibility of cerebral

perceptual structures of space, of a non-volumetric character, where 'patterns of knowledge' merge in a semiotic way, perhaps emitted from origins of other forms of interpretation (biological, anthropological, etc), describing an internal structure. Framing, on the other hand, refers more to the visual interpretation of barriers, boundaries, edges and horizons. These form what Gyorgy Kepes calls a 'language of vision' with the surrounding elements, in an effort to compose perceptual harmonies.

The keyword of **field** comprises the consideration of compositional forces that influence and intersect each other in pursuit of perceptual fields, similar to Paolo Portoghesi's deliberations. These may be expressed as psychological gradients, concentration of energy fields, degrees of tension and repulsion, directionality, irregularity and distribution of densities, emergence, and evaluation of distances between entities.

The keywords of **concept** and **theme** provide an elaboration of the sense of belonging and thematic references in a public open urban space, in pursuit of meaning of a particular, individual code of field organization.

The keyword of **ground** embraces the promotion of the architecturally spatial relation to man's natural understanding, hybridizing the natural material with the artificial, in an effort to transcend symbolic qualities for perceptual understanding.

The keywords of **salience** and **articulation** ascribe to the enunciation of various forms of hierarchy within an open space that might be directly related to the site, or perceived from a distance. This phenomenon might also relate to invisible coordinates, spatial axis, and a compositional reference to visual balance and a comfortable expression of horizontal and verticals in a more complex system of intersecting axis.

The keywords of **orientation** and **path** deal with the main element of identification within a public open urban space, punctuating the fundamental traces of the surroundings in a sequential manner. This aids in a clear perceptual image for emotional security and visual memory, forming a sense of orientation each time. The orienting elements of a space may become associated to Cartesian coordinates, to the structure of a space, identification of the elements, the relationship between verticals and horizontal, and the function of time.



The CIAM generation of construction of the open space, had its primary concern concentrated around the isolated perception of public interaction and a remoteness from the infrastructural conditions for deeper inner understanding of the locus of a place, unbound from the interference of modern machine and the industrial memory of that time. In a way, the intention becomes nostalgic and regressive however, it goes hand in hand with the speculative philosophical considerations of the correct perception of urban environments and creation of security, where the human spirit may become isolated inside the fundamental syntactic elements of construction of the city, and extricating meanings and existential definitions. (see section 1.2, on *public space perception as an artistic means*).

The Heart of the City symposium in Hoddesdon of 1951, was the modern definition of an organized research for the re-establishment of a semiotic syntactic repertoire for the public open urban space, and it becomes very interesting to study the sequence of experimentations. Primarily concerned with the organization of typologies and socio-cultural characteristics (see atlas spread no.16, on Tumaco in the Pacific coast of Colombia), accompanied with the considerations of scale with Walter Gropius' essay of the conference on *The Human Scale*, the solutions correlate to the conception of space as a sign and clue to cultural society as an iconic code according to the writings of Umberto Eco (see section 1.3.1 on *relationships and meanings*), serving a purely cultural context for the formation of structural models of the public open space.

However, cognitive psychology and geography also come into place, with the specific approaches to the designs according also to their geographical relationship to the more dense city. In fact, most of the examples face the problem of the syntactic establishment of public open urban space in more suburban parts of the city of secondary importance, in an effort to create new areas of public extra-curricular activities and organized social interaction. Faced with the inevitable condition of the expanding city, this might be classified as an ongoing type of problem present that may find solutions with a wide diversity of approaches. Here, the solutions presented, fall very closely along the lines of the theoretical considerations of section 2.1.3 on *perceptual security on bound and unbound spaces*; with the bonding of spaces and the establishment of relationships between objects and voids, elements are being aligned into groups with shared dispositions using tools such as bonding icons, hybridization, classification or framing. The enactment of strong physical boundaries during the CIAM 1951 experimentations of the open spaces, give a new value to the syntactic substance of *framing*.

In a concluding manner, the syntactic solutions for the successful implementation of public open urban spaces during the CIAM 8 meeting in Hoddesdon, included the following considerations:

- The use of a single orienting element and its relationship to a variety of adjacent public open space configurations, that are either more traditionally structured (Chimbote in Peru, atlas spread no.3 and Graduate Center at Harvard campus in Massachusetts, atlas spread no.6, Tumaco in the Pacific coast of Colombia, atlas spread no.16) or influenced by the modern configurations of the open void and space penetration overruling the built space (New Bastle in Switzerland, atlas spread no.1; New Haven in U.S.A., atlas spread no.8; Brooklyn in New York, atlas spread no.9).
- The implementation of obsolete buildings into a syntactic composition where typological spaces of shopping, hotel, office and entertainment interventions 'fill-in-the gaps'. (New Bastle in Switzerland, atlas spread no.1; Bastle in Switzerland, atlas spread no.2; Morocco, in Rabat Sale, atlas spread no.13; Stevenage in England, atlas spread no.15).
- An experimentation of various evident forms in the same conglomeration of inter-connected public open urban spaces, where the orientation becomes evident due to a strong differentiation of framing, rather than a strong opposition of building heights, volumetric elements and building typology. (New Bastle in Switzerland, atlas spread no.1; Civic Center in California, atlas spread no.4; New Haven in U.S.A., atlas spread no.8; Stevenage in England, atlas spread no.14; atlas spread no.15).

- The use of a syntactic free-flowing public open space axis, which interconnects to secondary open spaces. This axis, sometimes more evident than others, reflects to a perceptual orientation, that draws its roots to the traditional linear path of the forums and plaza processions, but with the modern influence of increased penetration and an 'open plan'. This solution further solves the problem of multiple scattered districts evolving in an ever-growing city, resolved by a concise plan (Chimbote in Peru, atlas spread no.3; Brooklyn in New York, atlas spread no.9; Tvetan in Oslo, Norway, atlas spread no.10; Morocco in Rabat Sale, atlas spread no.13; Stevenage in England, atlas spread no.14; atlas spread no.15).

- The consideration of the role of the infrastructure in relation to the public open urban space. (examples of New Bastle in Switzerland, atlas spread no.1; Chimbote in Peru, atlas spread no.3; Civic Center in California, atlas spread no.4; Coventry in England, atlas spread no.5; New Haven in U.S.A, atlas spread no.8; Brooklyn in New York, atlas spread no.9; Morocco in Rabat Sale, atlas spread no.13; Stevenage in England, atlas spread no.14).

- The consideration of the human scale, emphasized by Walter Gropius, in an effort to return to the more traditional perceptual appreciation of the open space that took place in the more traditional setting of respect to human proportions. This point of view creates a backtrack in an effort for a transitional paradigm of the open space, where the compositions become not as dispersed as those of the modern movement, but rather more rectilinear, less strewed and friendlier to the human scale. (Graduate Center at Harvard campus in Massachusetts, atlas spread no.6; New Haven in U.S.A., atlas spread no.8; Tumaco at the Pacific coast of Colombia, atlas spread no.16).

- The use of layering by means of vertical slab implementation of different levels, or by means of preservation of historical or pre-existing elements. (New Bastle in Switzerland, atlas spread no.1; Lusanne in Switzerland, atlas spread no.7; Morocco in Rabat Sale, atlas spread no.13). This resolution seems as a continuation to Jacques Gubler's writings on the impressions of sequences, named in empirical phenomenology as operational research, further clearing up cultural forms and space organizations in terms of the 'semiology of dwelling'. (Also see section 1.3.3. on *semiotics of the ground*, and glossary on *phenomenology > existential phenomenology*).

Although CIAM 8 solutions in 1951 succeeded in forming several structural interpretations to frame the urban void of the modern industrial phenomenon, with a concentration on spatial types of uses, organized fields of accessibility and circulation, and the sense of orientation, articulation and path, the problem of the definition of strong conceptual themes was never fully solved. With the further elaborations of Team X studies however, the public open urban space became more ambitious in terms of creating perceptual memories with strong themes and deeper semiotic significance and conceptual layerings. Especially the latter, creates more rudimentary ground details, where every project is a new design invention that at the same time transforms the ground, or finds deeper relationships to it, very similar to the mentioning of Aldo van Eyck's playgrounds (section 1.3.3. on *semiotics of the ground*).

On the keyword of **infrastructure**:

- Alison and Peter Smithson's *Hauptstadt Berlin competition* of 1957-58 (atlas spread no.19), where the proposed infrastructure suggests new ways of perception of the public spaces in the form of platforms of viewing from, creating the perception of an 'open aesthetic'.
- Additionally, Candilis-Josic-Woods' *Bagnols-sur Cèse* urban extension of 1956-61 (atlas spread no.20), also expresses a good syntactical framework of infrastructural relations, almost relating to the medieval perception of the open spaces from the street, as synapses of visual images while travelling across the city. Also here, the infrastructure takes a similar role, where one experiences through linear patterns, perceptual sequences of public urban sceneries and open spaces as *visual hints*.
- Candilis-Josic-Woods goes further on the infrastructural study with her *Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies* of 1961-62 (atlas spread no.21), where the concept of the stem configuration is placed against a peripheral infrastructural system. This solution gives the organic impression of pedestrian public circulation within the stem in contrast to the rediscovery of the linear street as the basic structure of the city's street plan.
- The infrastructural associations of Van den Broek and Bakema's *Tel Aviv city center* of 1962 (atlas spread no.23), shows innovative methods of infrastructural patterns of organization, demonstrating Bakema's typified way of drawing relationships between the road structure and the shape of the city in reference to the public open urban spaces.

On the keyword of **layers**; *spatial composition and meaning*:

- Van den Broek and Bakema's *Kennemerland regional plan*, 1957-59 (atlas spread no.17), where the horizontal layers take place in the form of cognitive structural organizations of framing techniques for the different centers, and conceptual formations that relate to the city as a totality.
- Ralph Erskine's *Ecological Arctic Town*, 1958 (atlas spread no.18), where the use of vertical layering is evident in at.sp.18.4 through the use of the inclined ground.
- Alison and Peter Smithson's *Hauptstadt Berlin competition*, 1957-58 (atlas spread no.19), where the plan of the bomb-ravaged city is layered beneath the new scheme of public connections, showing off existing historical remnants in the new modern design.
- Van den Broek and Bakema's *Tel Aviv city center*, 1962 (atlas spread no.23), where the scheme of public open urban spaces becomes three dimensional and organically alive by elevating the central zone of pedestrian decking, creating vertical layers of food-circulation, roads and parked cars.

On the keywords of **structure**, **framing**, and the **'logic of the limit'**:

- Van den Broek and Bakema's *Kennemerland regional plan*, 1957-59 (atlas spread no.17), with the use of successive centers and openly dynamically patterned building masses, to form the foundation and organization of the public open urban space patterns.
- Candilis-Josic-Woods' *Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies*, 1961-62 (atlas spread no.21), where the STEM system once again forms her structural means of organization. The goal is to use the structure also in micro scale analysis, in order to organize within all the commercial, cultural, educational, leisure and service activities, along with walkways.
- Van den Broek, Bakema and Aldo van Eyck, *Buikslotermeer urban study, Amsterdam*, 1962-63 (atlas spread no.22), where the plan uses a horizontal axis of stem-like organization, in an inorganic configuration. The structural theme, of orthogonal patterns, draws all the amenity concentration towards the central core.
- Van den Broek and Bakema's *Tel Aviv city center*, 1962 (atlas spread no.23), where the attempt becomes one of a flexible structure, ruled by the 'energy lines', as described in Team 10; in search of a utopia of the present; "A city must have both an obvious structure that can be grasped immediately and also a potential structure which will allow one gradually to construct a more complex and comprehensive picture".

On the keyword of **field**; *perception and relationships*:

- Ralph Erskine's *Ecological Arctic Town*, 1958 (atlas spread no.18), where fields of perceptual orientation take place in a more vertical manner, though the use of the ground.
- Van den Broek and Bakema's *Tel Aviv city center*, 1962 (atlas spread no.23), where the work refers to the pursuit of 'energy lines' (or field definitions, going parallel to the descriptions of this thesis), through the relationships between the infrastructure and the public core zones. The schemes are planned so that the radiating space in between becomes recognizable in reference to its 'informative silhouette'.

On the keywords of **concept** and **theme**:

- Van den Broek and Bakema's *Kennemerland regional plan*, 1957-59 (atlas spread no.17), where with the use of framing techniques, is formed a dynamic relationship between individual dwellings and the city as a totality.
- Alison and Peter Smithson's *Hauptstadt Berlin competition*, 1957-58 (atlas spread no.19), who introduce the STEM concept, in which 'spaces are revalidated by a special counter-geometry'.
- Candilis-Josic-Woods' *Bagnols-sur Cèse urban extension* of 1956-61 (atlas spread no.20), where the overall theme of 'Bagnols: Moderne et Classique' is introduced with the execution of a combination of the enclosed and secured traditional plaza of the Camillo Sitte descriptions, and the borrowing of the modern public open space of a partly undefined void, surrounding taller buildings.

On the keyword of **ground**:

- Ralph Erskine's *Ecological Arctic Town*, 1958 (atlas spread no.18), where the inclination of the ground plays an important role for the establishment of vertical conceptual sequences and fields of perceptual orientation.
- Candilis-Josic-Woods' *Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies*, 1961-62 (atlas spread no.21), where the project expresses an emergence of public open city form from the ground.
- Van den Broek and Bakema's *Tel Aviv city center*, 1962 (atlas spread no.23), where the natural indentation of the coastline is used to form the main framing pattern of the central public open urban zone. It is interesting also to see the incorporation of the river lines along with the infrastructure, to form a number of 'energy lines' for public interaction.

On the keywords of **salience** and **articulation**:

- Candilis-Josic-Woods' *Bagnols-sur Cèse urban extension* of 1956-61 (atlas spread no.20), where due to the similarity of patterns, one notices the articulation of heavier or taller building masses as orienting devices.
- Candilis-Josic-Woods' *Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies*, 1961-62 (atlas spread no.21), where one is oriented within the smaller public open urban space units through the articulation of spaces with high rise buildings and pedestrian paths.
- Van den Broek and Bakema's *Tel Aviv city center*, 1962 (atlas spread no.23), where the articulation of spaces is highlighted through a coastline border, historical implementation a strong infrastructural gesture.

On the keywords of **orientation** and **path**:

- Van den Broek and Bakema's *Kennemerland regional plan*, 1957-59 (atlas spread no.17), where the use of main axis according to the orienting characteristics of the foundational patterns, both vertical and horizontal, contribute to the organization of the scheme. On the smaller scale, evident in the atlas spreads 17.8 and 18.9, one sees the maintenance of scale for the majority of the public open spaces, contrasted to the hierarchical element of the taller building mass, emphasizing the sense of path and direction.
- Ralph Erskine's *Ecological Arctic Town*, 1958 (atlas spread no.18), where orientation takes place through the visual possibilities of the inclined ground.
- Alison and Peter Smithson's *Hauptstadt Berlin competition*, 1957-58 (atlas spread no.19), where the basic central structure of the STEM concept is used for purposes of central-axis orientation, in addition to the taller peripheral structures that orient one in the network of connective spaces of the urban functions.
- Candilis-Josic-Woods' *Bagnols-sur Cèse urban extension* of 1956-61 (atlas spread no.20), where one is oriented by the change of building typology and scale.

- Candilis-Josic-Woods' *Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies*, 1961-62 (atlas spread no.21), where the sense of orientation becomes more virtual, as it exists within the conceptual structure of the STEM system. However, looking at the individual spatial compositions (at.sp.21.2, 21.3), one may see the creation of strong orienting patterns through pedestrian zones that orient one through high rise buildings and paths.

On the consideration of heritage for the syntactic formational logic of the public open urban space, the attempts of implementation and conservation of memory take place shyly during the modern movement.

In the speculations of the design solutions of CIAM 8 in Hoddesdon, we study the preservation of the old city monuments of Lusanne in Switzerland for example (atlas spread no.7), with the preservation of the existing warehouses that lied twelve meters below the level of the surrounding streets. The new plan keeps the morphological characteristics, creating a memory of urban sequence and flow of relationships and meanings within the city.

Also in the Pilot Plan of Lima project in Peru (atlas spread no.12), one sees the unification of old and new structures interconnected with public open urban voids and the implementation of concrete slabs or vaults on posts, along with pedestrian archades between shopping facades, to enhance the quality of circulation within.

Moving on to members of the Team 10 era, Alison and Peter Smithson's project for the *Hauptstadt Berlin competition*, 1957-58 (atlas spread no.19) is one example, demonstrating the figurative effort to integrate the existing historical remnants into the new modern design, using patterns that are contrived around the existing features.

In the public open urban space analysis of a historically involved city such as Milan, the approach has been a figure-ground analysis in reference to the keyword interpretations of frameworks, paths, orientation and information availability, along with the extraction of conceptual and thematic sequences, on the first visual level of interpretation. This analysis relates closely to the theoretical considerations on the security of the public open space (also see section 2.1.3 on *perceptual security on bound and unbound spaces*), where the binding of spaces may be the relationship between the figure and the ground of the pictorial space representation and intimate experience that takes place. This conclusion is in reference to Rudolf Arnheim's speculations of the degree of security being related to the breathing space of the surrounding architecture. The analysis of Milan's rings extracts levels of security within those environments and along these lines of research, defining perceptual structures, visual boundaries, and vectors of compositional values. Furthermore, it is an evaluation study of density, energy, tension with the surrounding elements, and an interpretation of shape and certain levels of character. The conclusions may lead one to start categorizing towards the definition of spaces of mobilization, expanded spaces, fragmented spaces, or spaces that start to lose a defined center.

The analysis and evaluations of relationships and meanings in the Thissio of Athens spreads, is a good example to relate to the ground as an expression of sculptural means (see section 1.4), where the strong morphological features take leadership in reference to the visual fields. The solutions might very well even relate to conceptual investigations of land art and new expressionism of the public open urban space, finding syntactic methods of a self-organizing system where each particle is affected by its behavior and its deeper semiotic significance. In fact, when looking at the drawings surrounding the perceptual impressions of the area of the Thissio park, Jacques Gubler's speculations of consideration of a) the ground and its relationship to the subsoil, b) the ground and its realization, c) the ground as starting point for the architectural project, may be ideally executed.

Not so similarly, the flat morphology of the public open urban spaces of the Milan rings might not find such strong relevance to the concept of the ground interpretation as a general outlook, however it becomes appropriate with more specific examples such as Piazzale della Millizie (Milan ring 3. 1) and Piazza Carbonari (Milan ring 3.12). In the first example, one faces the situation of a heavy infrastructural challenge elevated on a hill and overlooking surrounding visual levels of cityscape, while in the second example, one experiences a less morphologically varied ground surface, but still with the desired variation of design perceptive sequences and interesting linkages for the definition of relationships among open spaces.

Due to the historical importance of the public open urban spaces of Milan, in terms of city longevity and preservation of building typology and 'atmospheric outlook', and also due to the privilege of the existence of natural elements in many situations of the public open urban spaces, the solutions could be inspired by the thought of ecological perseverance with the blend of nature and culture in the definition of the open space, similar to Dimitris Pikionis' outlook for the contemporary situation of landscapes of historical importance. (Also see section 1.4, on *the ground as an expression of sculptural means*).

Moreover, the implementation of art installations in means of semiotic relationships with the surroundings (see section 1.7 on *art installations; combinations of elements*) may reinforce the memory of the public open urban spaces around the rings of Milan, offering permanence of impressions similar to linguistic signs, and strong articulation means. This inevitably causes a temporality in time, offering variations of civic themes. A good example of the implementation of sculptural features in a more remote open space of the third ring study of Milan, is Piazzale Giulio Cesare (Milan ring 3.20), which along its perceptual visual access to the new Fiera buildings, also embodies a fountain and vertically displaced sculptural elements on roofs, creating perceptual impressions on multiple visual levels (also see section 2.3.2 on *vertical layering*). The situation of Piazzale Giulio Cesare, with its ongoing architectural and artistic constructions, also affiliates the theoretical considerations of section 1.7.3 on *related relationships; relating theme, but standing alone* – which Umberto Eco classifies as 'semantic codes' within the open space and urban architectural compositions, with denotative and connotative meanings and relationships. Here, with the incorporation of sculptural features even on rooftops, the primary semantic functions find place also in multi-dimensional layers (see section 2.3.3 on *multi-dimensional layers*), where the perception of the open space penetrates the superficiality of primary visual impressions, and the immaterial artistic atmosphere merges with the material actuality of reality. With such an example, visualization, interpretation and symbolization (see section 2.1.1 on *origins of perceptual civic expression*) all take place at once, similar to Christian Norberg-Schulz's theoretical concretizations in reference to what exists, which is the foundation of the analytical study present, to articulate existing syntactic situations, scrutinize upon them, and use fundamental keywords of interpretation.

A further step for the concretization of this analysis and that looks upon future work, might be the research analysis of the purpose of construction of each public open urban space, which might have been the result of a conscious design act, or of an outcome of a clearing of a field (*glossary: alan*) that initially forms an amorphous empty space. Going further, and as a result of the considerations of section 2.1.1 on the *origins of perceptual civic expression*, it becomes crucial on the syntactic considerations of the keyword interpretations and executions, to understand how each square got created; whether the square created the surrounding

neighborhood or vice versa, and what kind of significance the public open space holds to the surrounding residents. This helps clarify between the organic or spontaneous formation of the civic space, establish a degree of geometric rigor, and offer new interpretations of urban coherence and order.

With the experimentation of contemporary public open urban space solutions in various workshops throughout the thesis, many of the theoretical considerations grasp a practical effectiveness.

The **project in Bergamo** (project spread no.1 of chapter five), faces the typical problem of the beginning of the nineteenth century where the situation has been brought away from the traditional center of the city, pulled away from prototypes and tradition, and seeking to find new vocabularies of expression of a semi-suburban character. Using analytical perceptual shots of the surround imagery of the topography, forming perspective snapshots of the surrounding experience, and forming visual sections of orientation, one is enforced through this project to appreciate the role of the ground not only in direct context to the site, but also related to the far visible surroundings. Strong conceptual and thematic considerations emerge from such a phenomenon, related to fragmented living – a concept which may carry on to the exact location to be designed. Furthermore, the project of *urban limits and intervals for the definition of public open urban spaces in area Trucca, Bergamo*, favors a strong minimalist approach that supports the theories of section 1.5.3 on minimalism and open space; desert or vacuum art, along with Vittorio Gregotti's nihilistic attitude of 'minimum displacement' and 'minimum essential design' in the midst of a conceptual vacuum.

Project in Milan of spread no.2 on *civic art as a mosaic of cultures*, relates to the 'performative' considerations of the thesis found in section 1.6 on 'performative' public space and street art, in a cultural conglomeration of pavilions, that may very well related to the cultural experimentation of the public open urban spaces of the 1951 symposium by CIAM. The result is a hybridized cultural condition that involves a strong architectural feature, and the public space becomes both open and enclosed, in an interchanging and playful configuration. This theme teams up with the contemporary situation of diversity and ever-changing situations of voids and enclosure, solving the problems of abandonment and de-used open spaces – a solution to Graham Shane's suggestion of adaptability to the ever-changing cities of multi-centered, heterotopic and mixed-use situations.

Some of the representational three-dimensional images go deeper into the perceptual theoretical considerations of a secured vision in reference to the wire-frame perception (also see section 2.1.4 on wire-frame civic space perception), where vertical layering takes place (also see section 2.3.2 on *vertical layers*, similar to John Beckmann's reference to the merging of invisible layers).

In the **project of Thessaloniki** of the emerging ecologic corridor for the city of Thessaloniki on *artificial nature as artful information in the public open urban space* (project spread no.3), lies the impression of the memory of naturalism inside the technological urban reality, and the everlasting urge to keep in touch with the perception of the landscape as an artistic and atmospheric local characteristic of the public open urban space. This condition, evident in almost every city, with the implementation of parks and natural elements, creates a category of public open space that becomes specific to the direct association of the open space with the ground, and the achievement of an urban playground that connects organicism with rigid structuralism (also refer to section 1.2.1). The project has much in common with Bernard Lassus' theoretical considerations of 'carefully developed tales', to form new methods of urban artistic visual depictions inside the city, Barragan's desire to use existing landscape as inspiration of the syntactic vocabulary of design, or Gilles Clemente's point of view of an 'agreeable perception', with the structural elements serving as background figures to the abstract simplicity of the terrain and natural elements within the city. In some ways, this solution of a public open urban space, with a combination of ecological considerations, sculptural embodiments, architectural preservation of existing features and an embellishment of the urban void, may relate to the land art and earthworks theoretical considerations of section 1.5 (on *land art and earthworks*), where the solution may not be architecture, or garden design, sculpture, or an abandoned vacuumed place, but a new emergence of relationships in a culturally artificial human existence.

In the contemporary world of loss of references, a loss of ground, and an ever yet desire to represent, rises the goal of interpretation and syntactic considerations of importance through project case studies. Faced with the reality of contemporary condition and 'the death of God', the aim perhaps touches upon a means of modern enlightenment, relevant to secular theism, and hoping to discover possibilities of an absolute reality, in which the construction of public open urban spaces and the art that goes within them, will be concretized on the basis of universal rationality, similarly to the views of Friedrich Nietzsche's philosophical considerations of modernism and the exhaustion of something that still inspires.¹

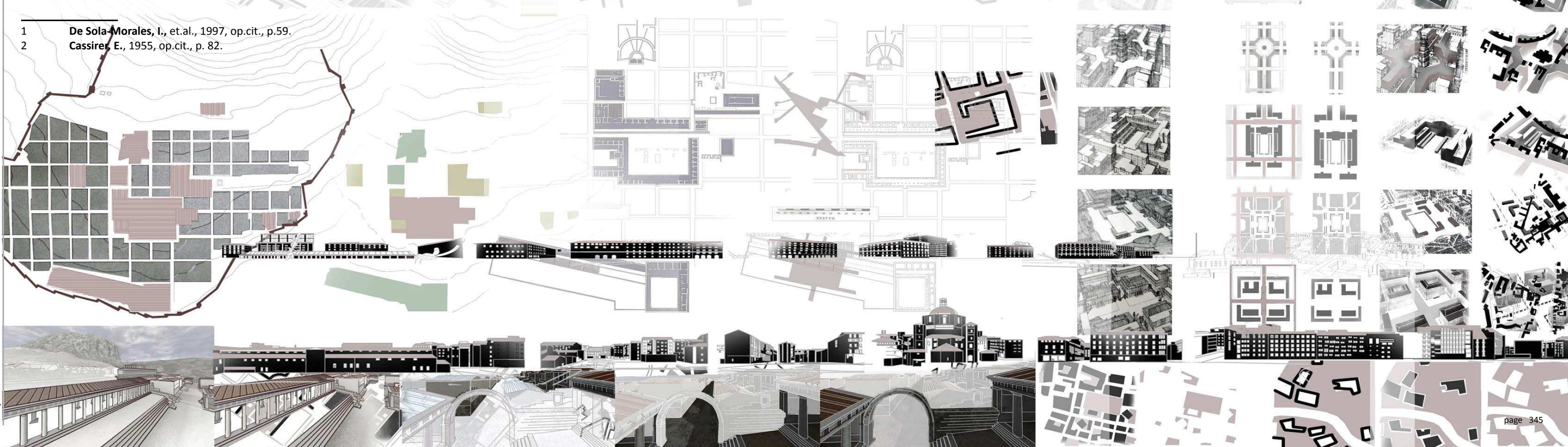
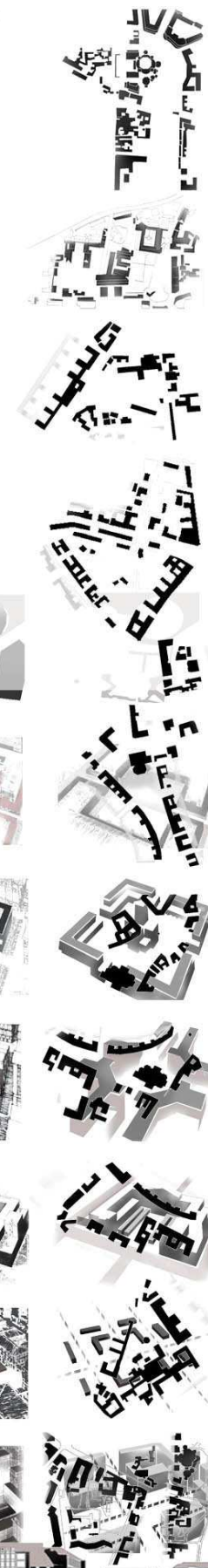
This method supports a systematic philosophy of human culture speculation that also Ernst Cassirer speaks about, where the contemplation of individual parts of a three dimensional space gather their meaning solely from the place in which they stand – their historical context, evolution and meaning – "a system in which the content and significance of each form would be characterized by the richness and specific quality of the relations and concatenations in which it stands with other spiritual energies and ultimately with totality."²

1 De Sola Morales, I., et.al., 1997, op.cit., p.59.
 2 Cassirer, E., 1955, op.cit., p. 82.

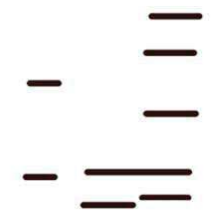
6.2 atlas archive spreads - visual synopsis

The following section is a visual illustration summary and reference source of the syntactic considerations that took place in the thesis. The atlas archive spreads serve as a visual synopsis and include:

- no.1: The Agora of Priene - ancient Greece 346
- no.2: The Roman Forum 348
- no.3: Connections of the 'picturesque' 350
- no.4: Aldo van Eyck analysis of his *minimalist* playgrounds 352
- no.5a-d: CIAM 8 - 'the heart of the city', 1951 354
- no.6a-e: Team 10, 1957-1963 362
- no.7: Nostalgia and regression - American courts 372
- no.8: The square in Europe - Spain, France, Italy, Poland, Greece 374
- no.9: Milan ring 1 - syntactic analysis of public spaces 376
- no.10a-b: Milan ring 2(a-b) - syntactic analysis of public spaces 378
- no.11a-b: Milan ring 3(a-b) - syntactic analysis of public spaces 382
- no.12: Thissio of Athens - syntactic analysis of open spaces 386

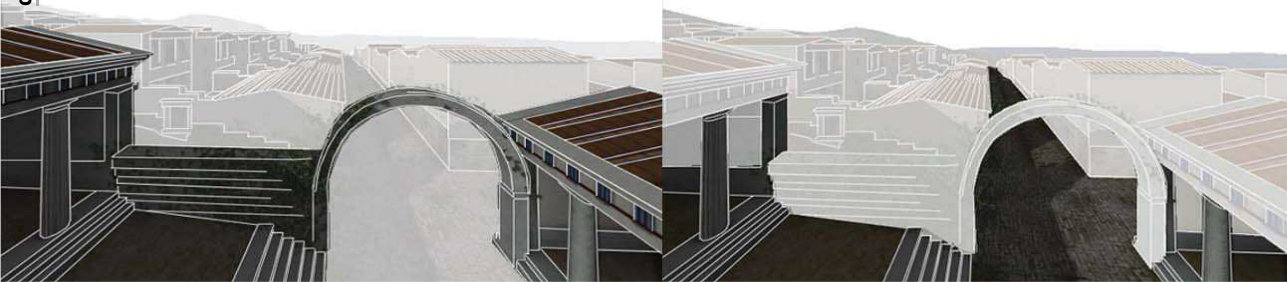


The agora of Priene - ancient Greece

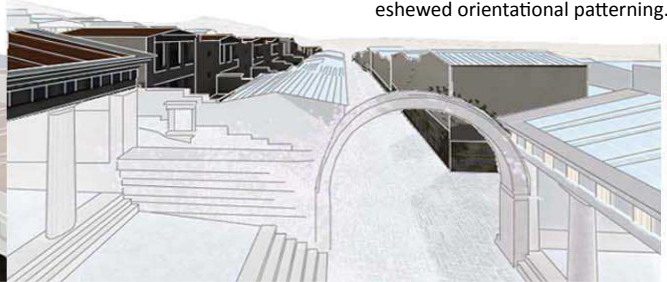


chapter six: results - atlas archive spreads; visual synopsis

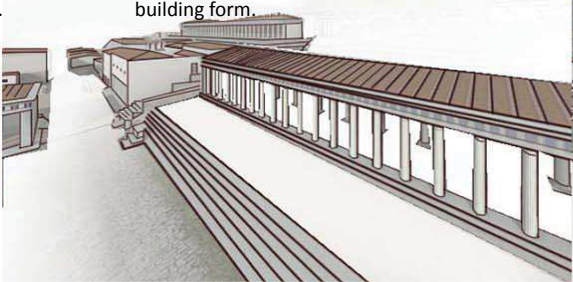
Structural framing for perspective creation of a picturesque image; impression of looking through a frame.



The syntax of the path.

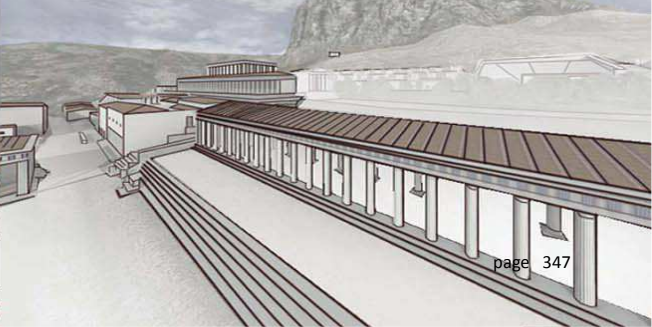


Creation of visual security boundaries to be viewed from a distanced perspective; eshewed orientational patterning.

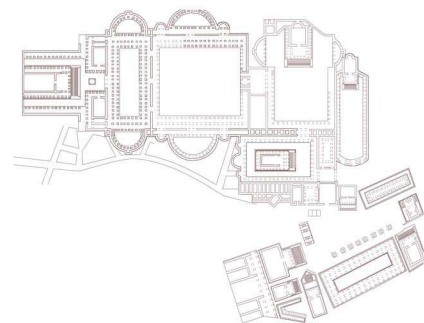


Axis of directional orientation and using projection line as concept of structural building form.

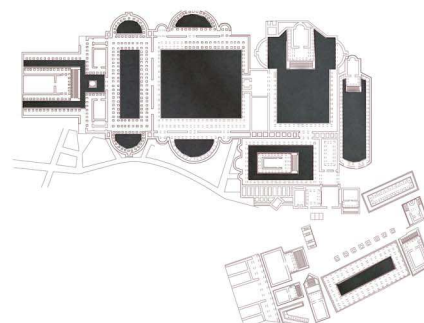
The mountain as part of the public open urban space perceptual framing.



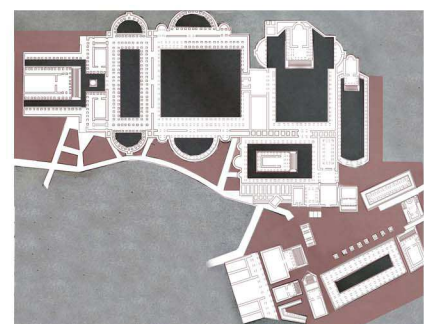
The Roman forum



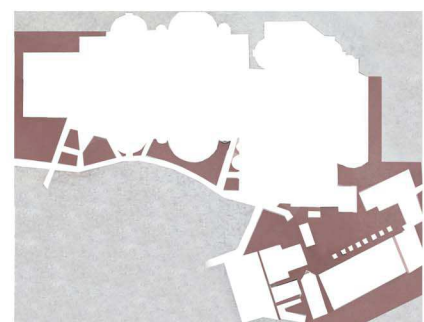
outline of a portion of the Forum Romanum



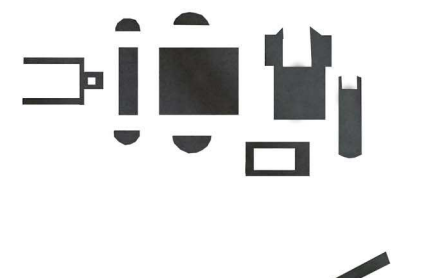
demonstration of the enclosed public civic spaces of a portion of the Forum Romanum



relationships between the enclosed civic spaces and the public open urban spaces of a portion of the Forum Romanum



a figure-ground demonstration of the bulding mass occupation in relation to the public open urban spaces



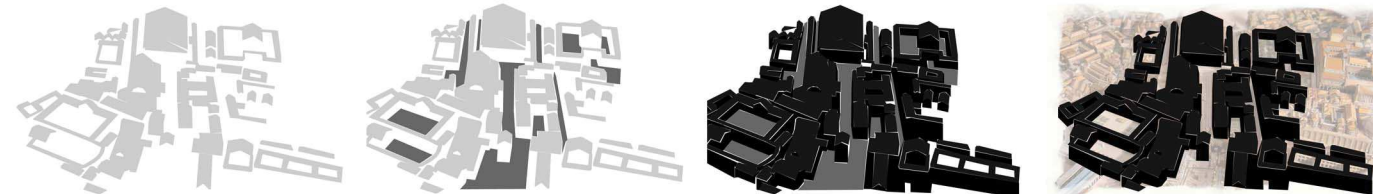
a demonstration of the isolated positioning of the enclosed public spaces - it is interesting to study the way that the open spaces (above, in red), unite them together

The structure of composition

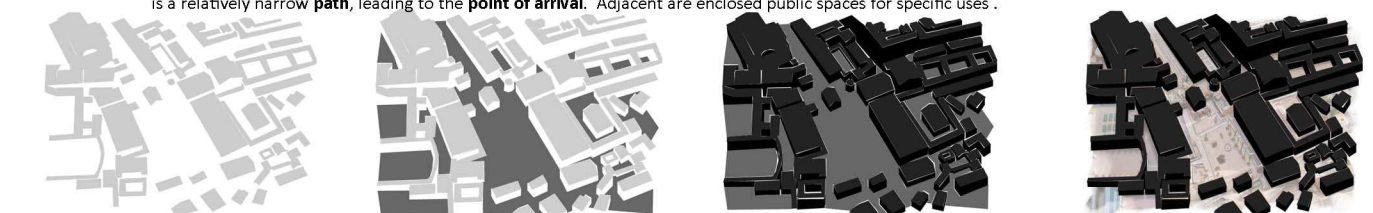
Public spaces and relationships to structural composition

Structure and fields of enclosure and openness.

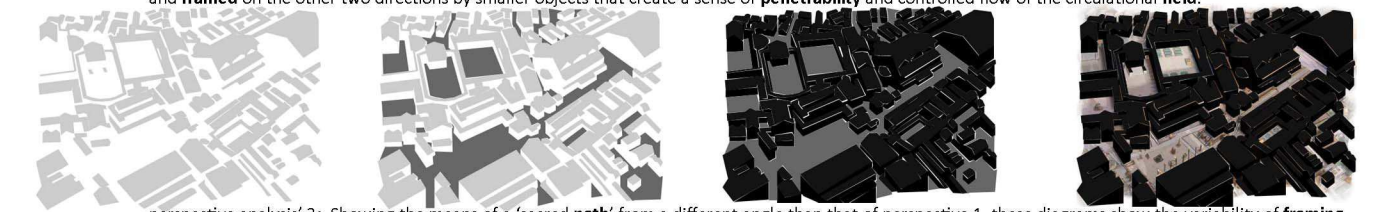
The structure in context



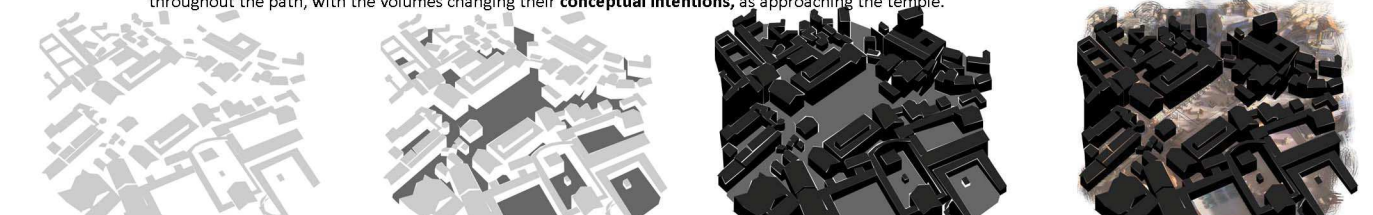
perspective analysis' 1: These diagrams demonstrate the use of an **orientational axis** for the achievement of the temple's perception as focal point. The means is a relatively narrow **path**, leading to the **point of arrival**. Adjacent are enclosed public spaces for specific uses .



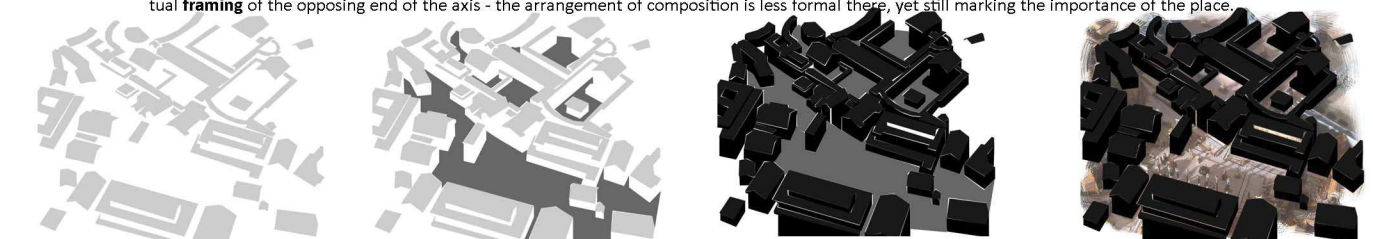
perspective analysis' 2: This public open urban space becomes perceptually conceived through two rows of building masses that come parallel to each other, and **framed** on the other two directions by smaller objects that create a sense of **penetrability** and controlled flow of the circulatory **field**.



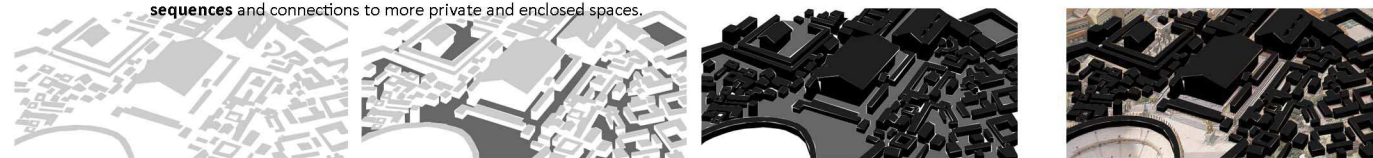
perspective analysis' 3: Showing the means of a 'sacred **path**' from a different angle than that of perspective 1, these diagrams show the variability of **framing** throughout the path, with the volumes changing their **conceptual intentions**, as approaching the temple.



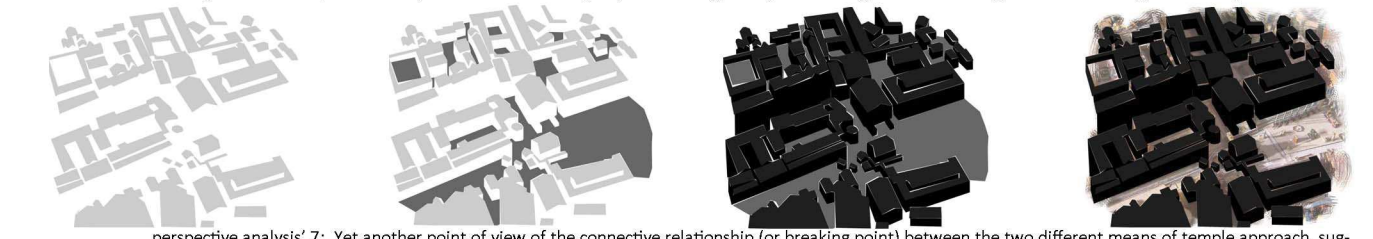
perspective analysis' 4: These series of diagrams show the **path** of the temple towards the opposite side, with a cluster of building masses initiating the perceptual **framing** of the opposing end of the axis - the arrangement of composition is less formal there, yet still marking the importance of the place.



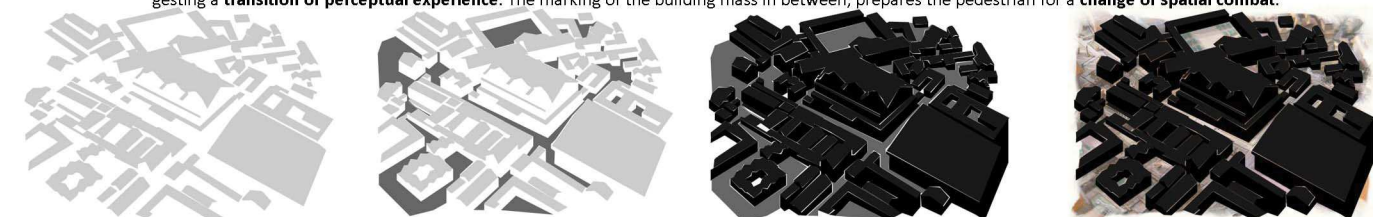
perspective analysis' 5: The above diagrams show the connection to a secondary public open urban space, further to the left. The syntactic importance of this study is an arrangement with variation of **framing**, a divergence of **conceptual** importance, and playful comprising of the **path's** direction, always creating **visual sequences** and connections to more private and enclosed spaces.



perspective analysis' 6: Here we see the other side of the temple, leading to another yet public open urban space that is the space of the outside of the theater, marking a variation of public activity and a break of the rigidity of the straight line, renditioning a different dialogue of **field-framing relationship**.

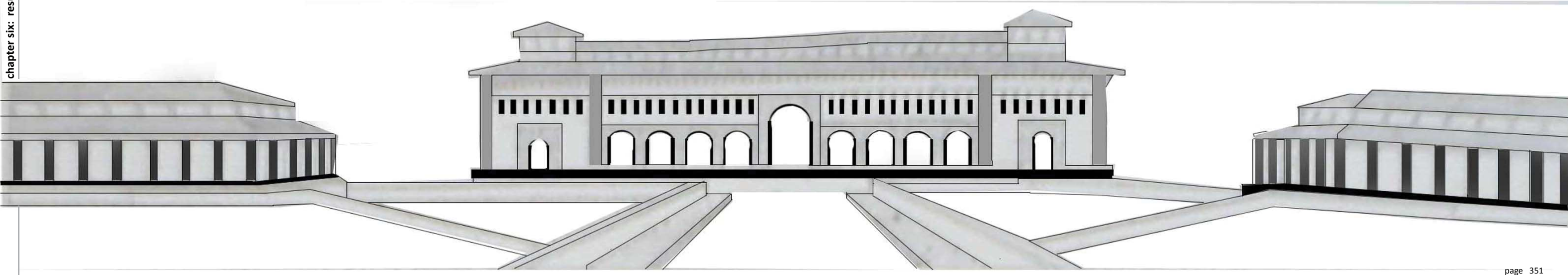
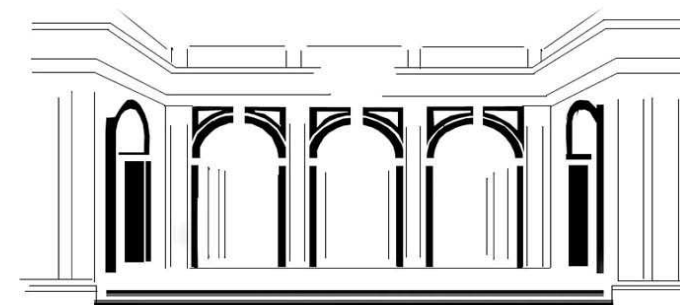
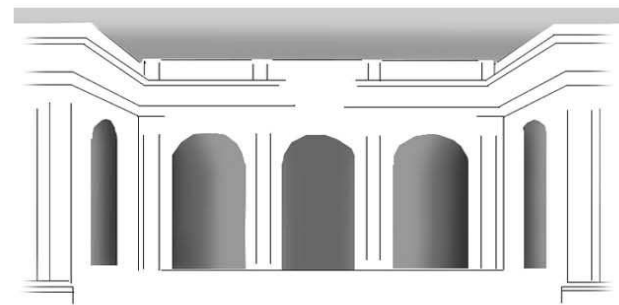
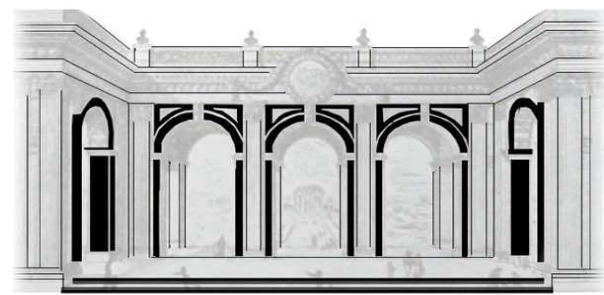
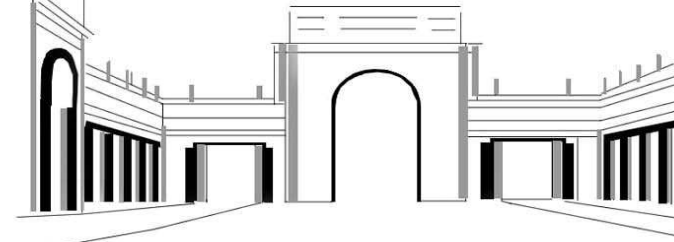
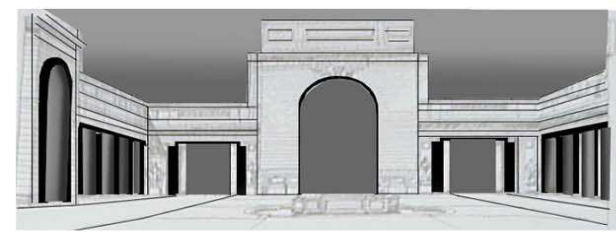
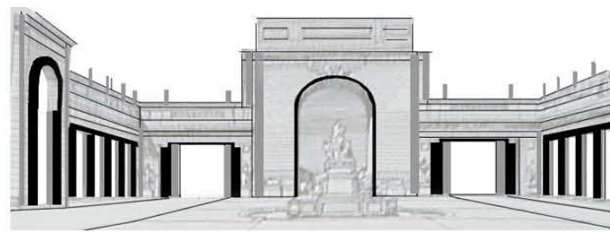
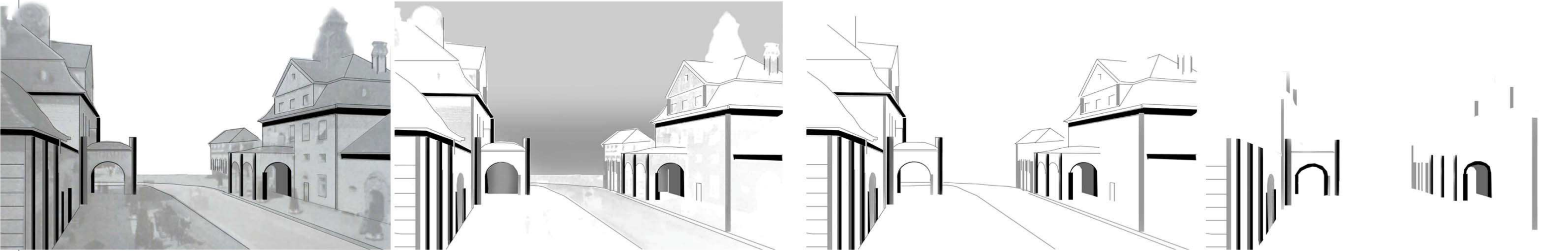


perspective analysis' 7: Yet another point of view of the connective relationship (or breaking point) between the two different means of temple approach, suggesting a **transition of perceptual experience**. The marking of the building mass in between, prepares the pedestrian for a **change of spatial combat**.



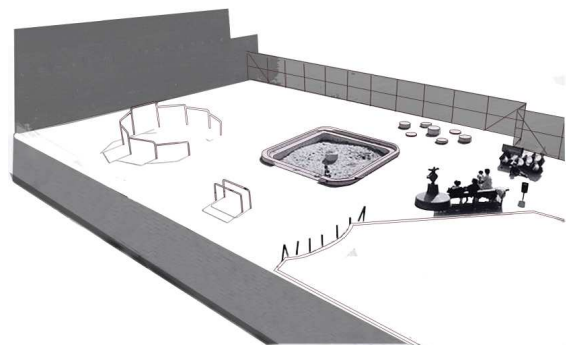
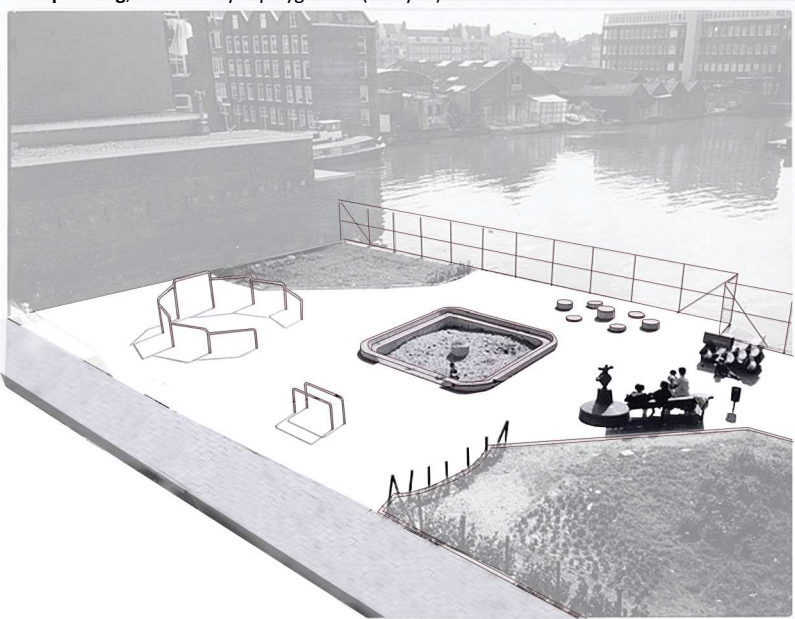
perspective analysis' 8: This point of view offers a more overall impression of the building mass compositions in relationship to the **paths** of arrival and secondary small spaces. What becomes evident here is the **perceptual intimacy** of spaces, and the value of pedestrian movement, where formality yields to **rigidity of framing** and congeniality of space yields to a more **loosened structure**.

Connections of the 'picturesque'

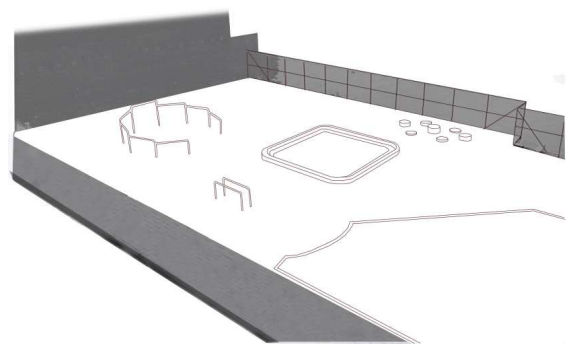


Aldo van Eyck analysis of his *minimalist playgrounds*

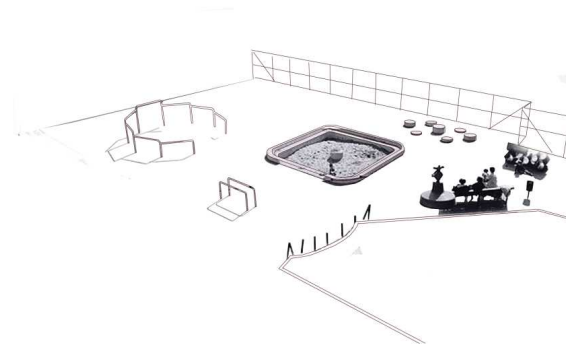
Rapenburg; Aldo van Eyck playground (analysis)



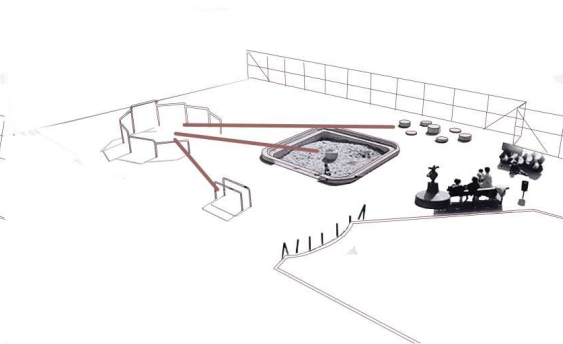
Framing component shown with scattered minimalist elements.



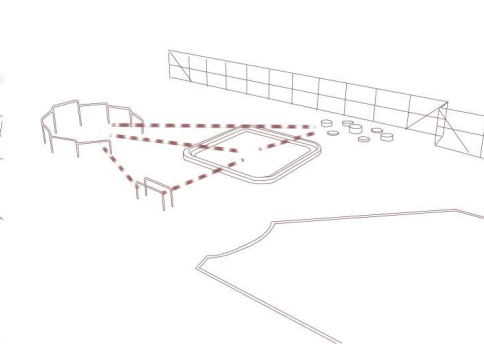
Framing structure and element outline.



Playground components.

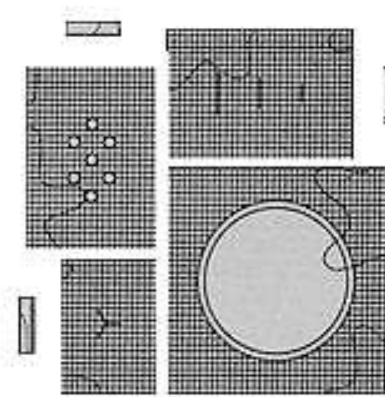
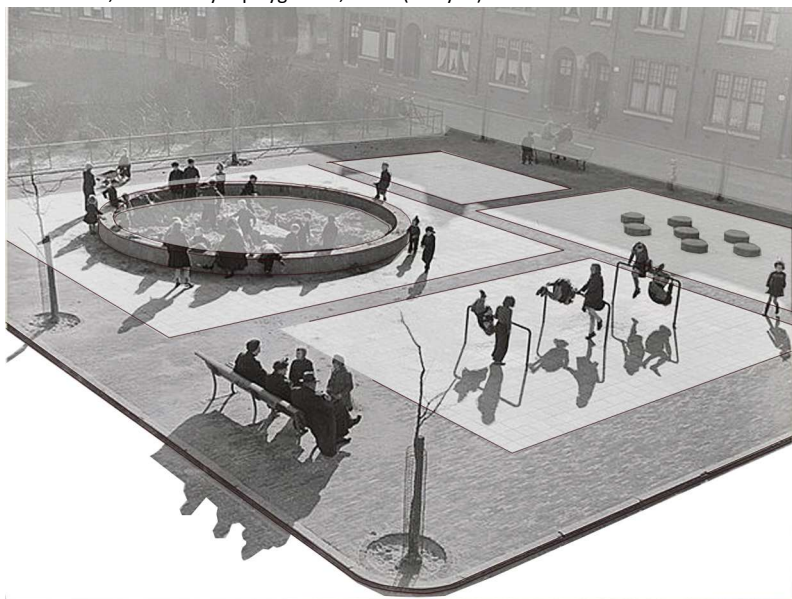


Connectivities and relationships.

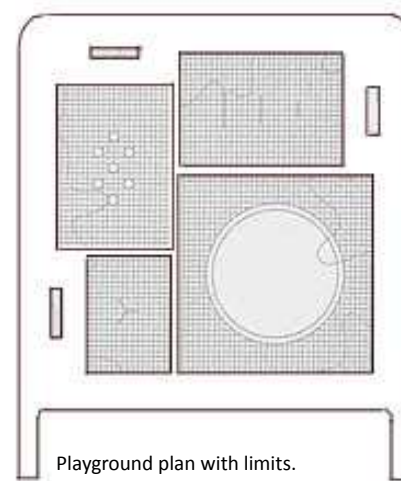


Inter-relationships and circulation.

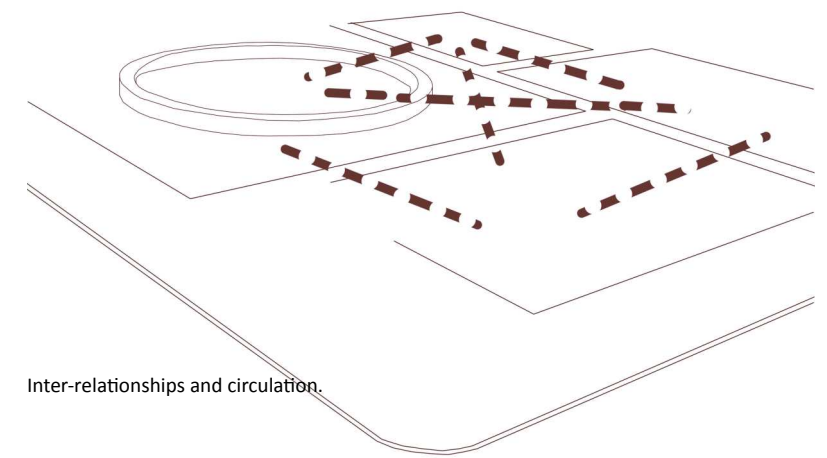
Zaanhof; Aldo van Eyck playground, 1950 (analysis)



Playground plan.

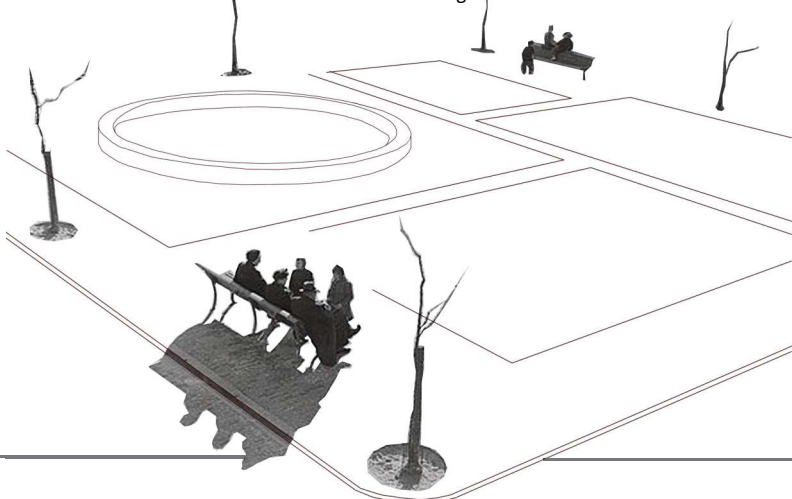


Playground plan with limits.

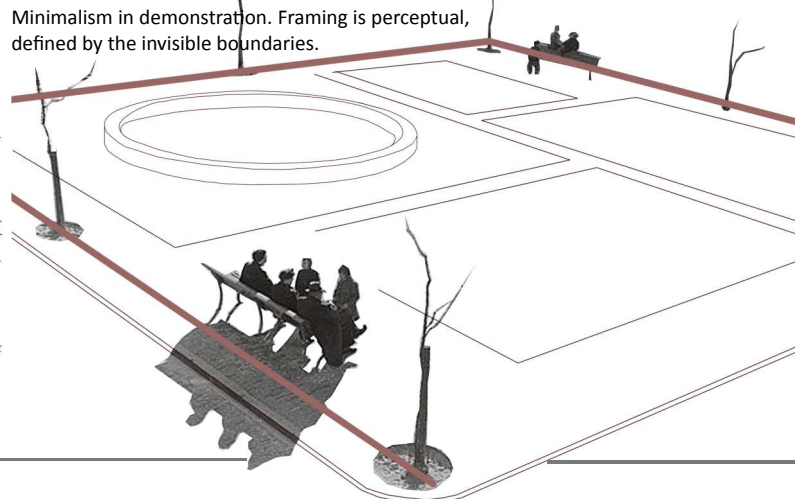


Inter-relationships and circulation.

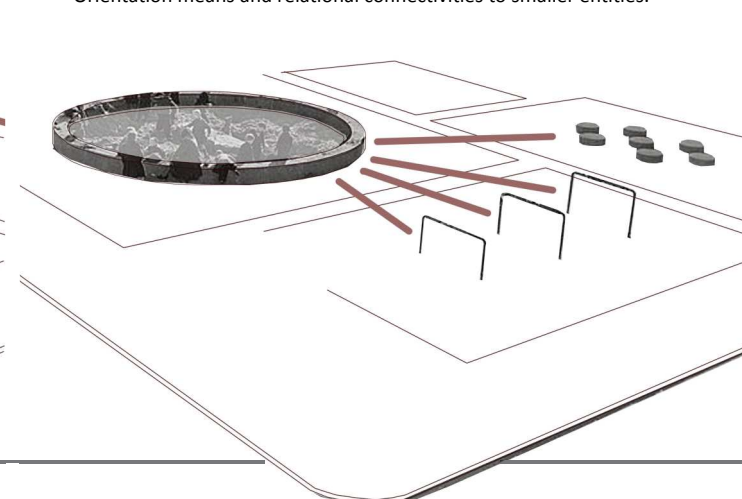
Minimalism in demonstration. Trees as orienting elements.



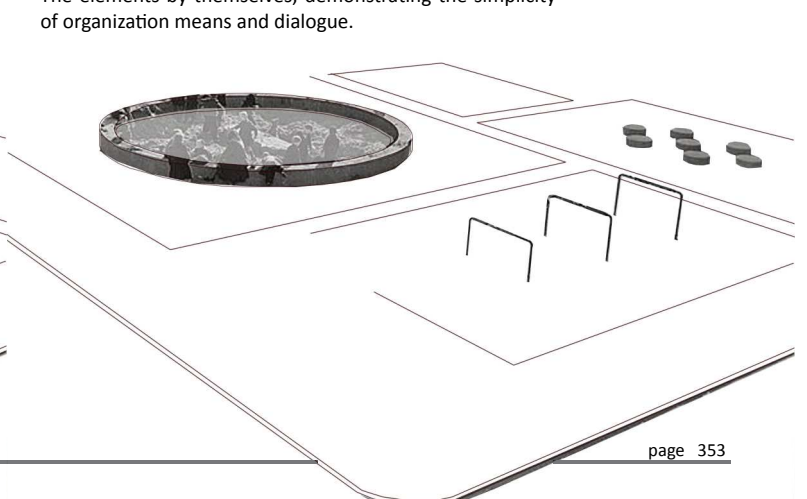
Minimalism in demonstration. Framing is perceptual, defined by the invisible boundaries.



Orientation means and relational connectivities to smaller entities.



The elements by themselves, demonstrating the simplicity of organization means and dialogue.



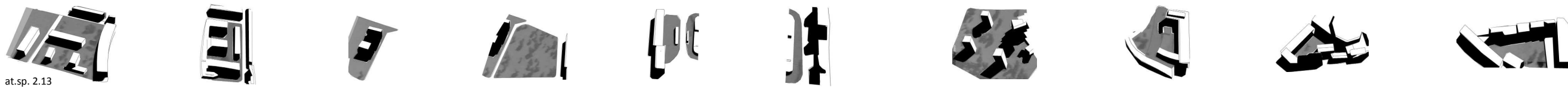
CIAM 8 - 'the heart of the city', 1951; schematic summary

Bastle, Switzerland; 'a new city neighborhood' (O.Senn et al)



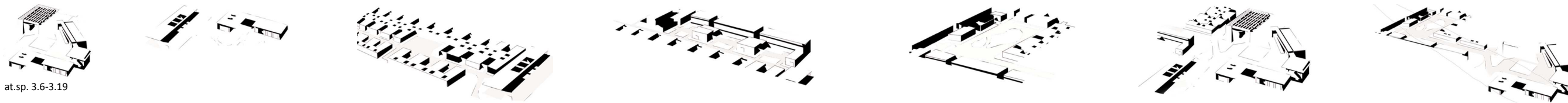
at.sp. 1.3-1.9

Bastle, Switzerland; 'a new center for an old city' (O.Senn et al)



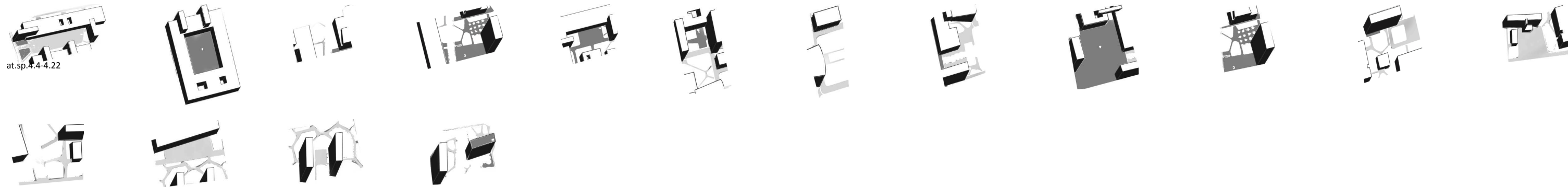
at.sp. 2.13

Chimbote, Peru; (P.L. Wiener and J.L.Sert with the Oficina Nacional de Planeamiento y Urbanismo)



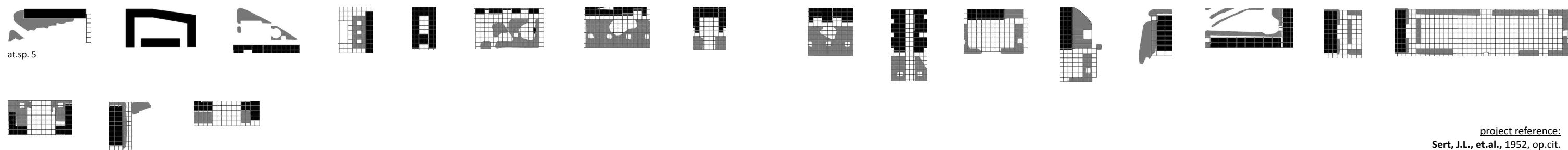
at.sp. 3.6-3.19

California; Civic Center



at.sp. 4.4-4.22

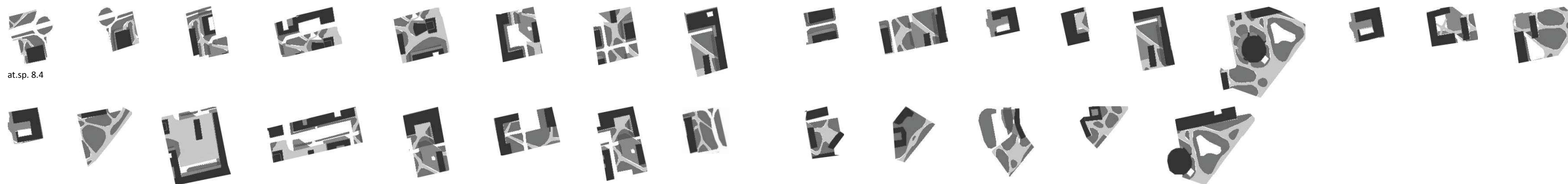
Loussanne, Switzerland; "a new center for an old city"



at.sp. 5

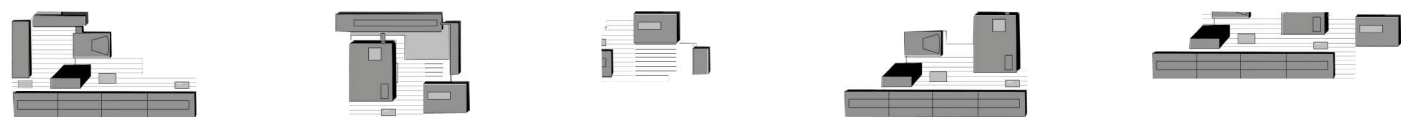
CIAM 8 - 'the heart of the city', 1951; schematic summary

New Haven, U.S.A. (students of Yale University)



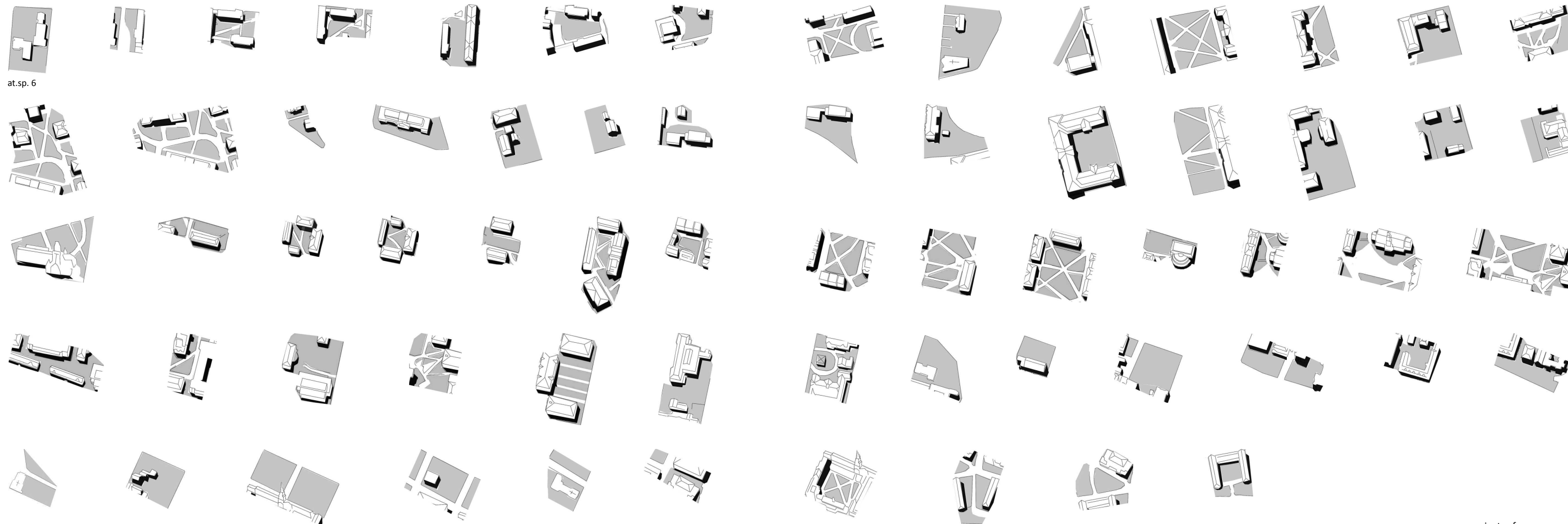
at.sp. 8.4

Tvetan, Oslo, Norway; "a new center of several suburbs"



at.sp.10.2

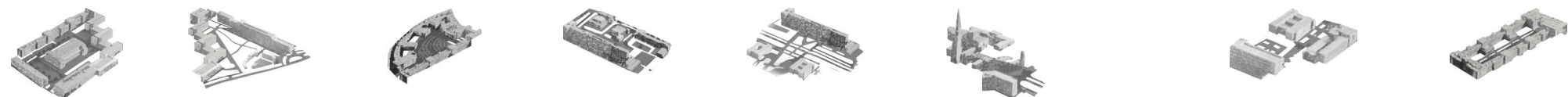
Massachusetts; Graduate Center at Harvard campus (Walter Gropius)



at.sp. 6

CIAM 8 - 'the heart of the city', 1951; schematic summary

Paris, France; "in search for the core of a city" (J.Laurent)



at.sp. 11.16-11.17

Lima, Peru; Pilot Plan (P.S.Wiener and J.L.Sert with Oficina Nacional de Planeamiento y Urbanismo)



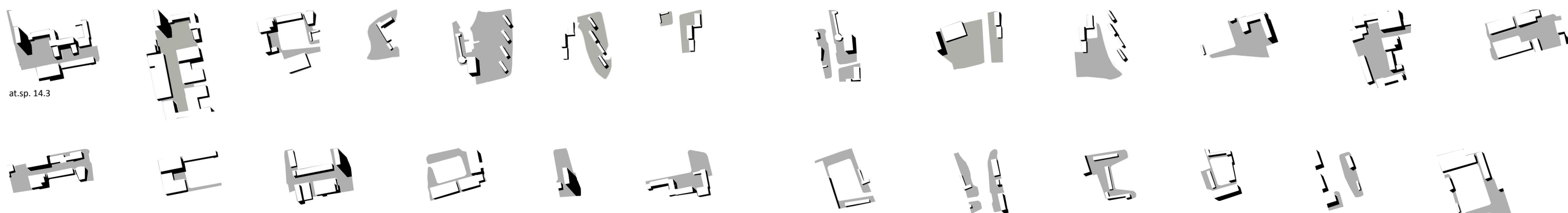
at.sp. 12.2

Rabat Sale, Morocco; "a new satellite town"



at.sp. 13.2

Stevenage, England; "a project for a residential sector of a new town" (Students of the Architectural Association)



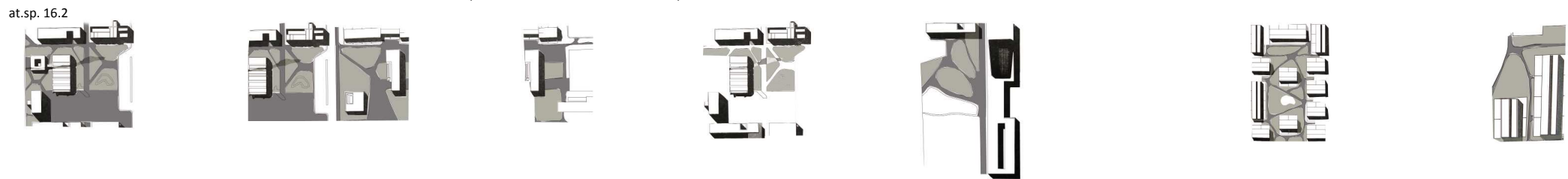
at.sp. 14.3

CIAM 8 - 'the heart of the city', 1951; schematic summary

Stevenage, England; "plan for a new town" (Gordon Stephenson et al)

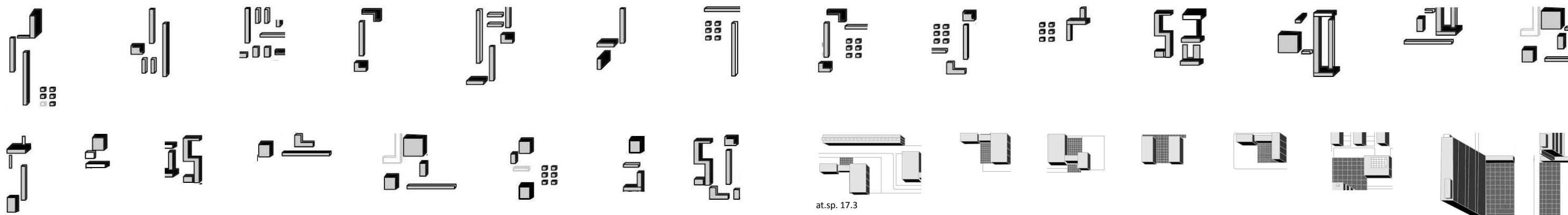


Tumaco, Pacific coast of Colombia; "new trends will affect the core" (Paul Lester Wiener of New York)

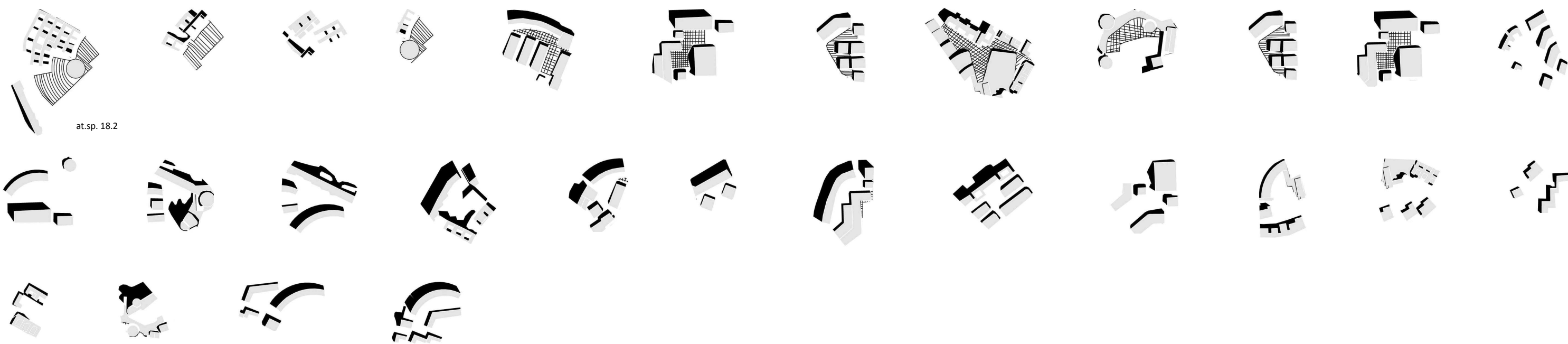


Team 10, 1957 - 1972; schematic summary

Team X meeting Otterlo 1959 - 'The end of CIAM'
Kennemerland regional plan, 1957-59 (Van den Broek and Bakema)



Team X meeting Otterlo 1959 - 'The end of CIAM'
Ecological Arctic Town, 1958 (Ralph Erskine)

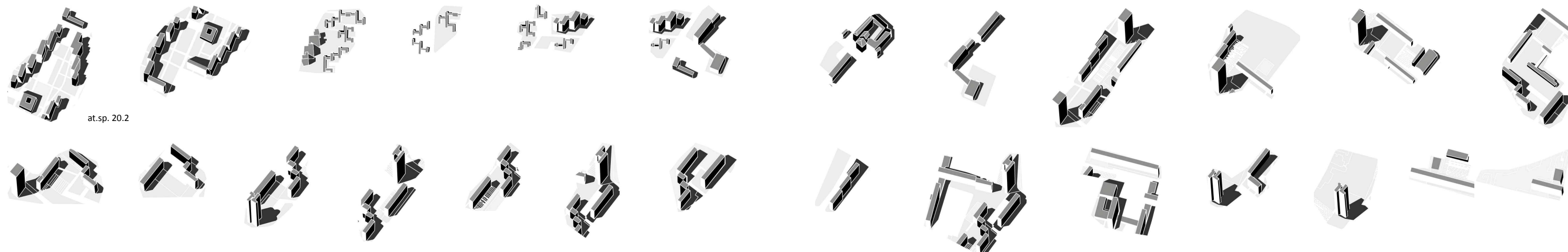


Team X meeting Otterlo 1959 - 'end of CIAM'
Hauptstadt Berlin competition, 1957-58 (Alison and Peter Smithson)

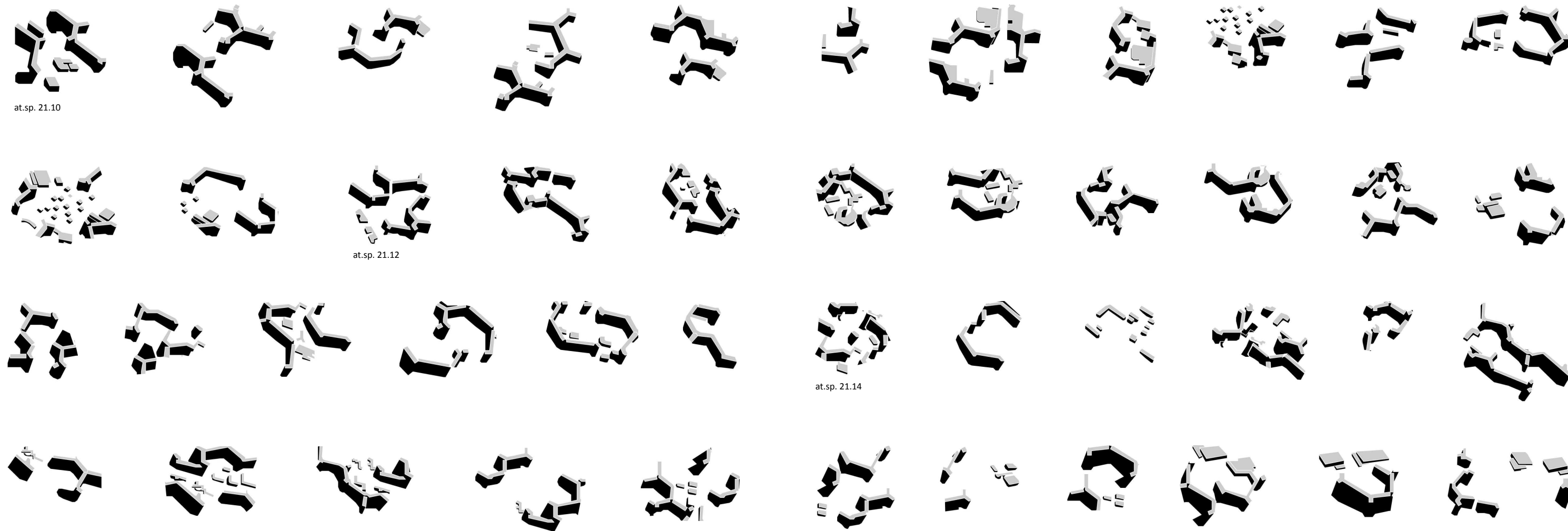


Team 10, 1957 - 1972; schematic summary

Team X meeting Bagnols-sur Cèse 1960; 'Against Formulae, against formalism'
Bagnols-sur Cèse urban extension, 1956-61, (Candilis-Josic-Woods)



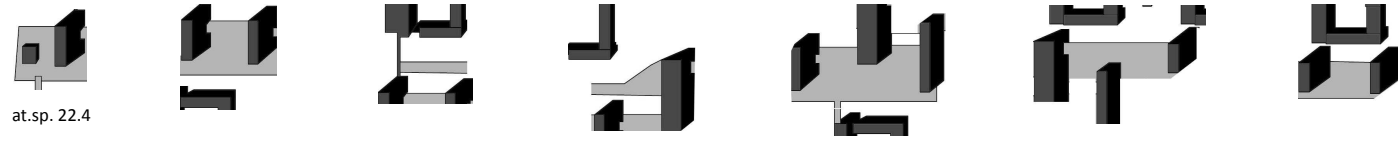
Team X meeting London 1961 - 'The aim of Team 10'
Caen Herouville, Bilbao Val d'Asua, Toulouse-Le Mirail urban studies 1961-62 (Candilis-Josic-Woods)



Team 10, 1957 - 1972; schematic summary

Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'

Buikslotermeer urban study, Amsterdam, 1962-63 (Van den Broek, Bakema and Aldo van Eyck)



at.sp. 22.4

Bakem and Stokla, analysis from models of preparatory studies for Buikslotermeer, plan 1.



at.sp. 22.7

Bakem and Stokla, analysis from models of preparatory studies for Buikslotermeer, plan 2.

Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'

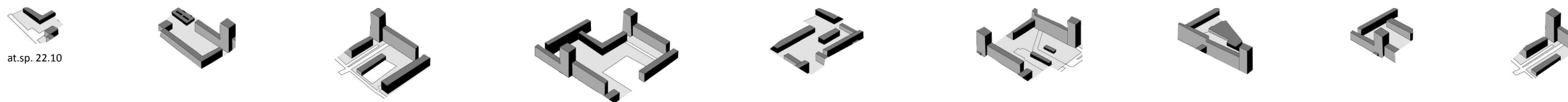
Buikslotermeer urban study, Amsterdam, 1962-63 (Bakema Aldo van Eyck and Stokla), alternative to final model



at.sp. 22.8

Team X meeting Royaumont 1962 - 'The issue of urban infrastructure'

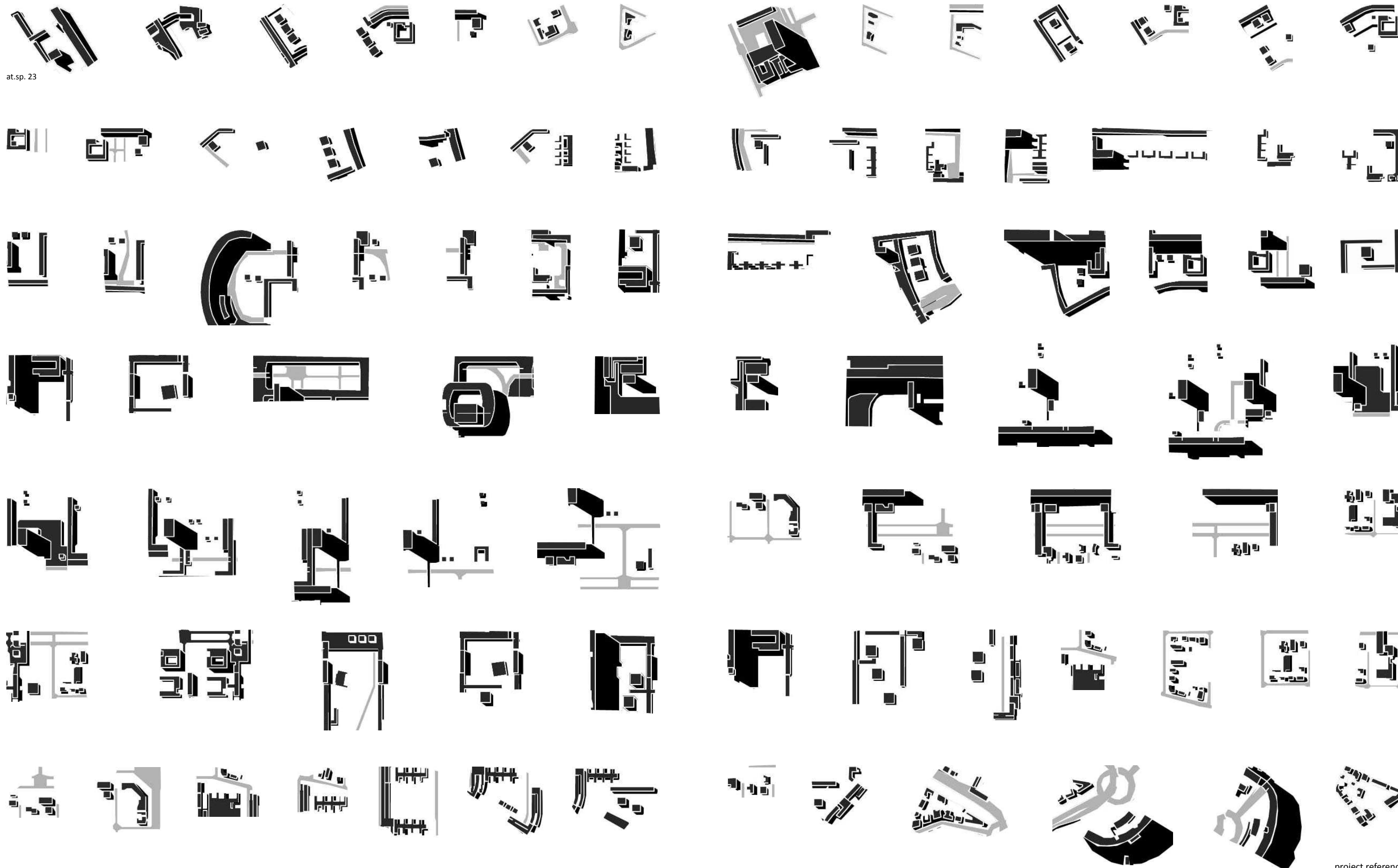
Buikslotermeer urban study, Amsterdam, 1962-63 (Bakema and Stokla), final model



at.sp. 22.10

Team 10, 1957 - 1972; schematic summary

Team X meeting Urbino 1966 - 'Team 10 in crisis: to move or to stay?'
Tel Aviv city center, 1962 (Van den Broek and Bakema)



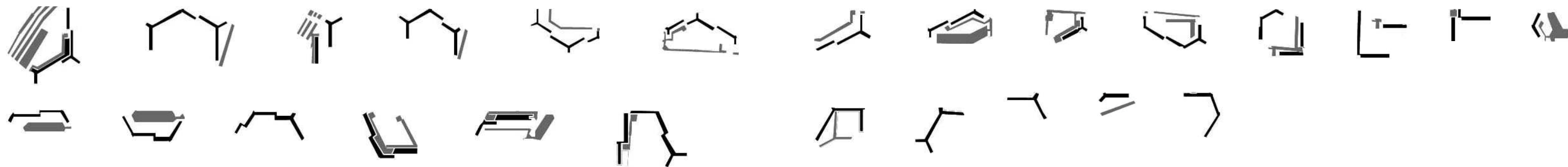
at.sp. 23

project reference:

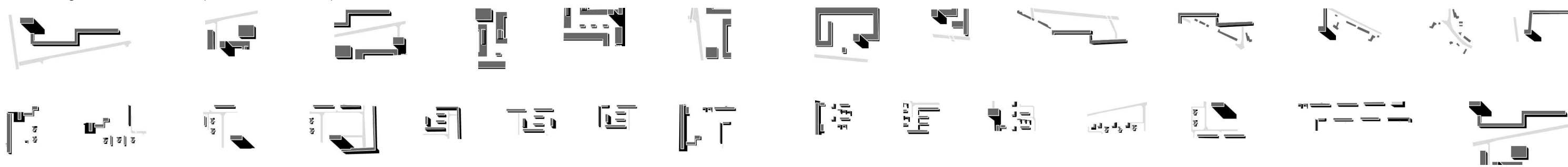
Woods, C.J., 2005, op.cit. , pp.144-147.

Team 10, 1957 - 1972; schematic summary

Team X meeting **Toulouse-Le Mirail 1971** - 'Questioning the welfare state'
Toulouse-Le Mirail urban extension, 1961-71 (Candilis-Josic-Woods)



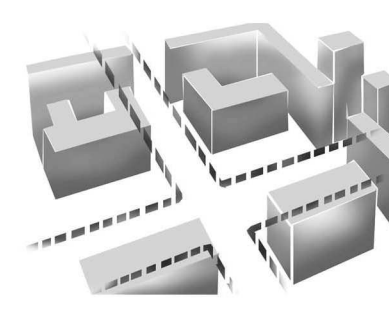
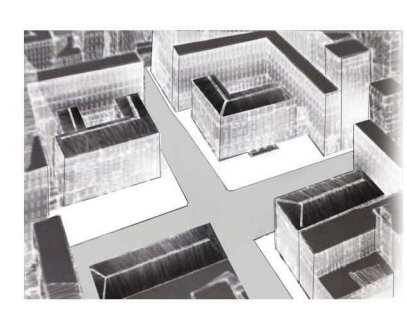
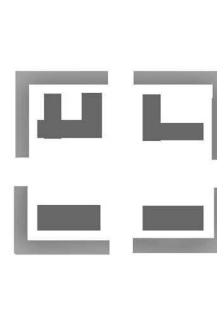
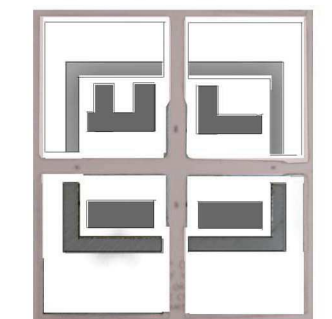
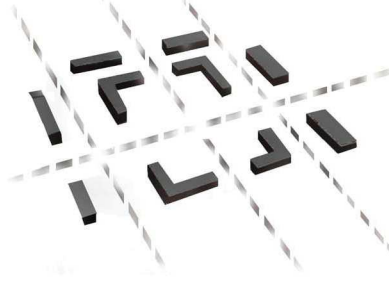
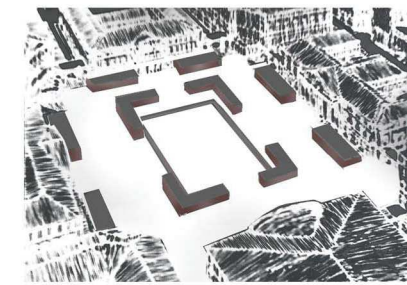
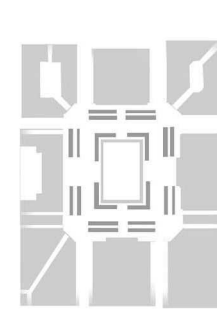
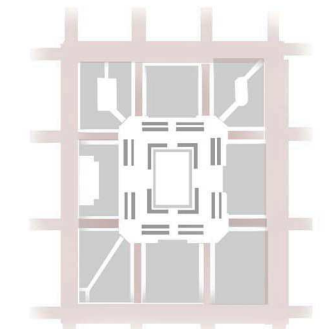
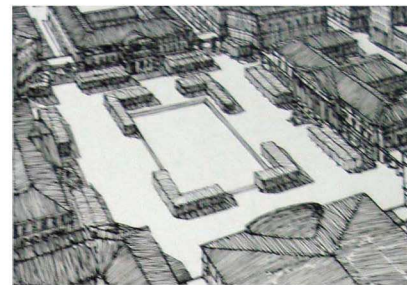
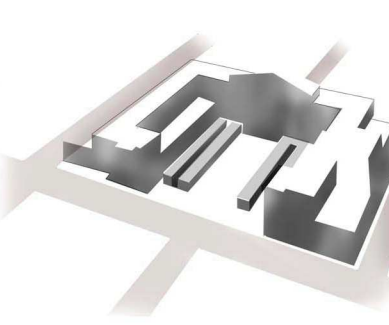
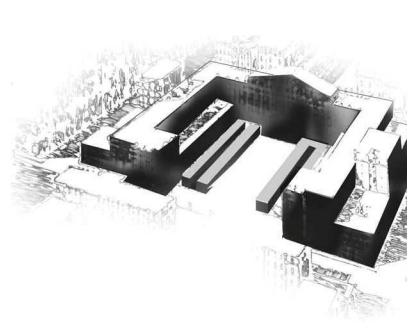
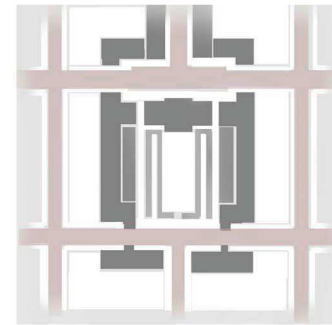
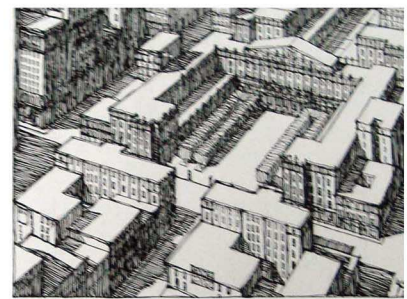
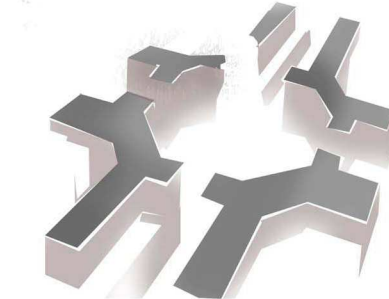
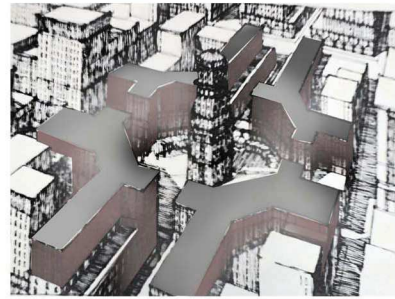
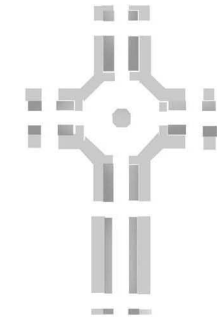
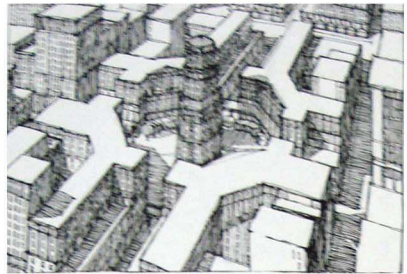
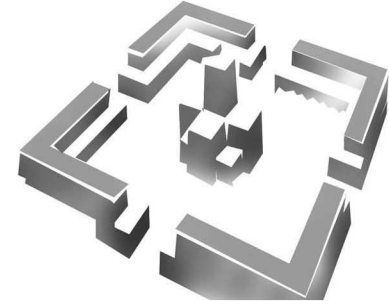
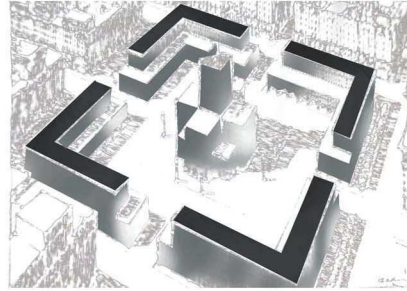
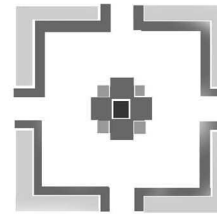
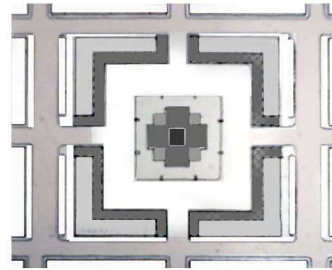
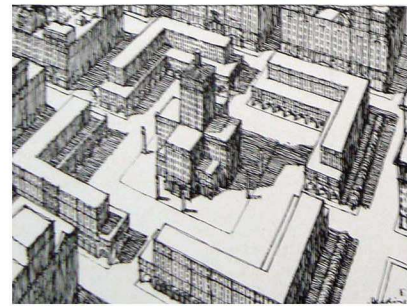
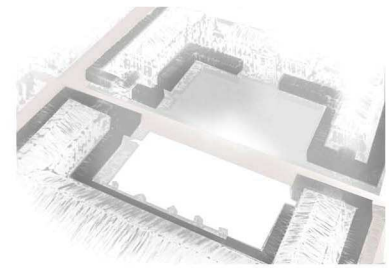
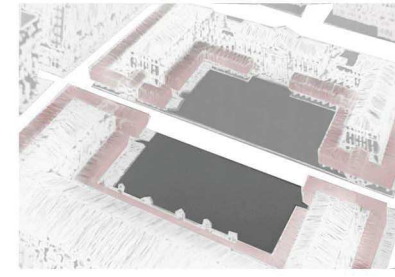
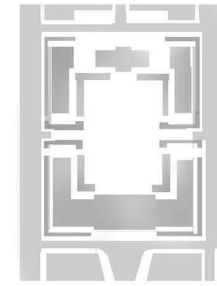
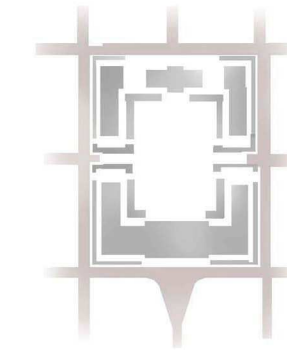
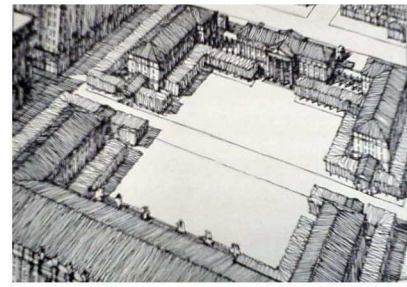
Team X meeting **Toulouse-Le Mirail 1971** - 'Questioning the welfare state'
t'Hooft housing estate, Eindhoven 1962-72 (Van den Broek and Bakema)



Team X meeting **Berlin 1973** - 'The matrix meeting'
Rimini urban plan 1970-72 (Giancarlo de Carlo)



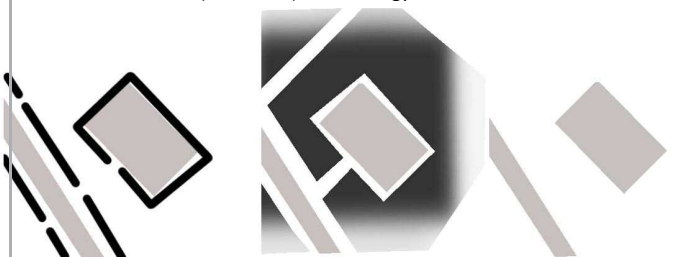
Nostalgia and regression - American courts



The square in Europe - Spain, France, Italy, Poland, Greece

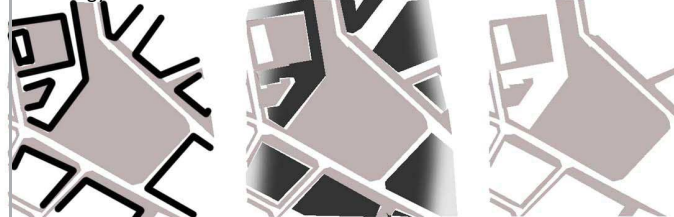
SPAIN - 'the square creates the town'

Barcelona - Placa Reial
developer: Barcelona City Council , 1948 - Daniel Molina (Barcelona);
restoration and new pavement - Federico Correa and Alfonso Mila
Associated Architects (Barcelona) - chronology: 1981 - 1984.



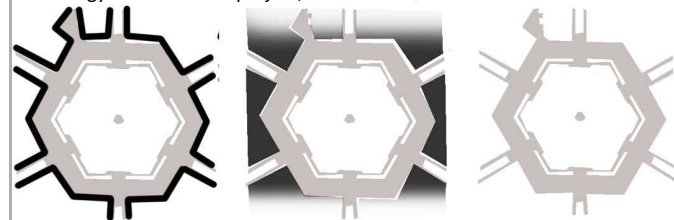
FRANCE

Lyon - Place Bahadourian
developer: City of Lyon, Urban Community of Greater Lyon
Eva Samuel Architects & Associates, Karim Helms
chronology: 1999 - 2002.



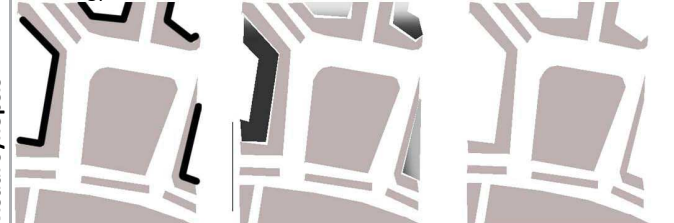
ITALY - 'the square is there because the town is there'

Palmanova - Piazza Grande
developer: City of Palmanova
Franco Mancuso (Venice)
chronology: 1997 - 1998 - project; 1998 - 1999 - realization.



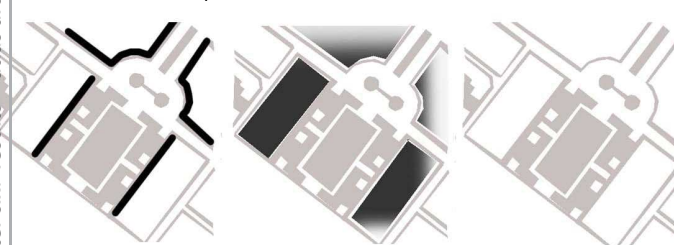
POLAND - 'the square is born with the town'

Nowa Huta - Plac Centralny
developer: City of Cracow
Tadeusz Ptaszycki, Roman Ingarden
chronology: 2004 - 2006.



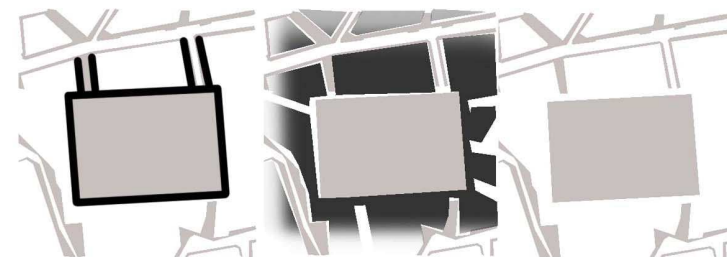
GREECE - 'the square is the outcome of cultural transformations'

Thessaloniki - Plateia Aristotelous
developer: City of Thessaloniki - organization for the cultural capto of Europe
Giannis Aikaterinaris - pedestrianization of Aristotelous axis



SPAIN

Mardid - Plaza Mayor
developer: City of Madrid , -
construction of the underground car parking
chronology: 1969.



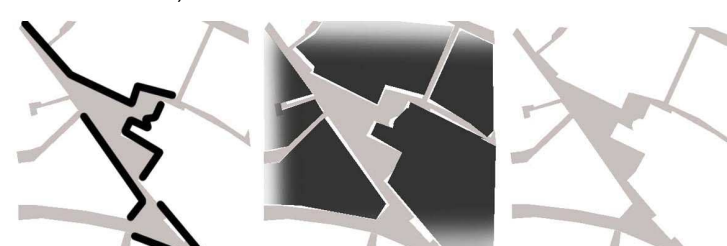
FRANCE

Montpazier - Place Cornieres
developer: City of Montpazier
society for landscape and development studies
chronology: 1979 - 1980.



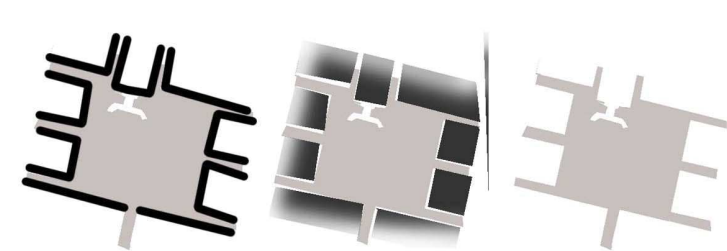
ITALY

Bologna - Piazza Santo Stefano
developer: City of Bologna
Roberto Scannavini, Nullo Bellodi.



POLAND

Zamosc - Rynek Wielki
developer: City of Zamosc
Maria Kamirisca



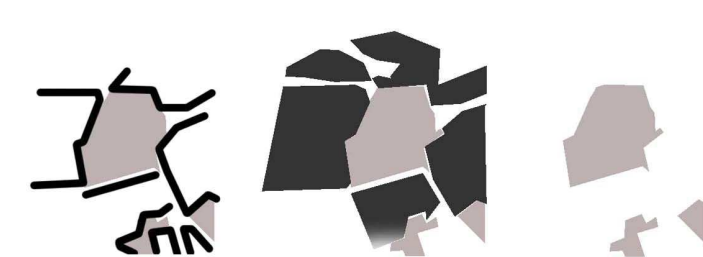
GREECE

Drama - Plateia Ayias Varvaras
developer: Ministry of urban planning, housing and environment, YXOP - public
coproration for urban development and housing, DEPOS
Maria Ananiadou Tzimopoulou; chronology: 1986.



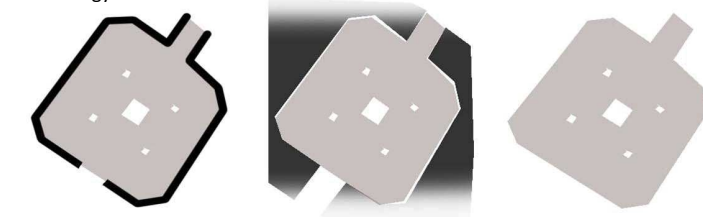
SPAIN

Mardid - Plaza Mayor
developer: City of Madrid , -
construction of the underground car parking
chronology: 1969.



FRANCE

Paris - Place Verdome
developer: City of Paris
Pierre Prunet
chronology: 1979 - 1980.



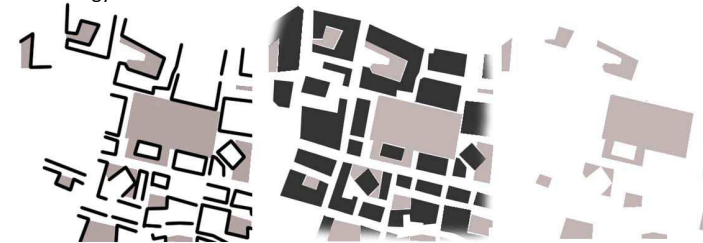
ITALY

Galliate - Piazza Vittorio Veneto
developer: City of Galliate
Antonio Lazzaretto, Maurizio Garrasi (Milano)



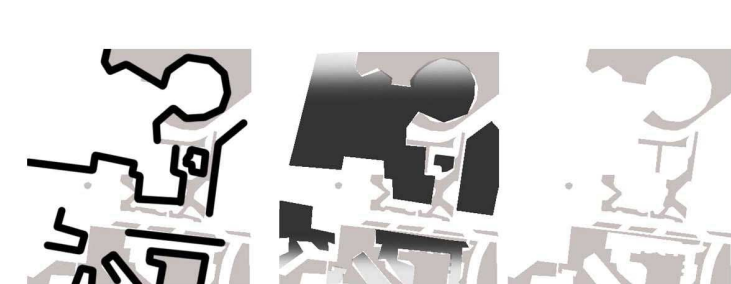
GREECE

Nafplio - Plateia Syntagmatos
developer: municipality of Nafplio
Ministry of planning, housing and environment, YXOP
chronology: 1981.



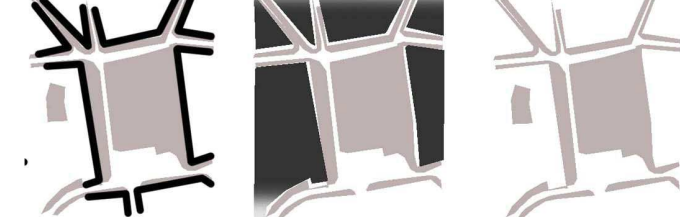
FRANCE - 'the square is the breathing space of the town'

Evry - Place de l'Agora
developer: Agglomeration Community of Central Evry, - 1975
Jean Le Couleur, 1987 - Vincent Fabre and Jean Perrottet (Paris)



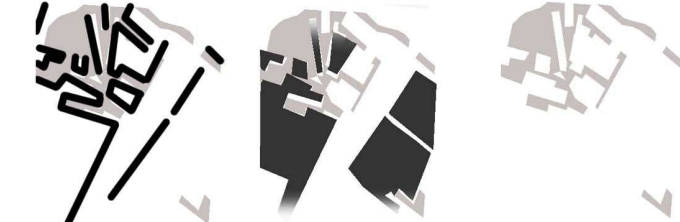
FRANCE

Toulouse - Place du Capitole
developer: City of Toulouse
division of studies and realizations of the general management of City Technical
Services; chronology: 1995.



ITALY

Mestre - Piazza Erminio Ferrettoo
developer: City of Venice
Guido Zordari (Mestre)
chronology: 1994 - project; 1995 - 1997 - realization.



GREECE

Portaria, Makrinitisa - Plateies Platanou
developer: municipalities of Portaria and Makrinitisa
Ministry of planning, housing and environment, YXOP
chronology: successive interventions, the last in 1964.

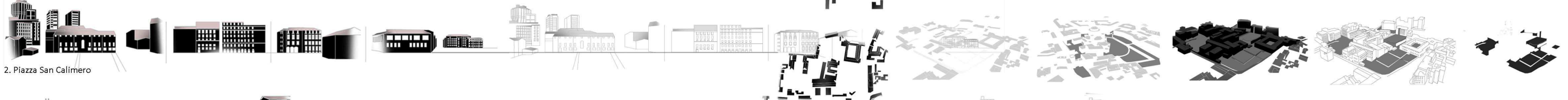


Milan ring 1 - syntactic analysis of public spaces

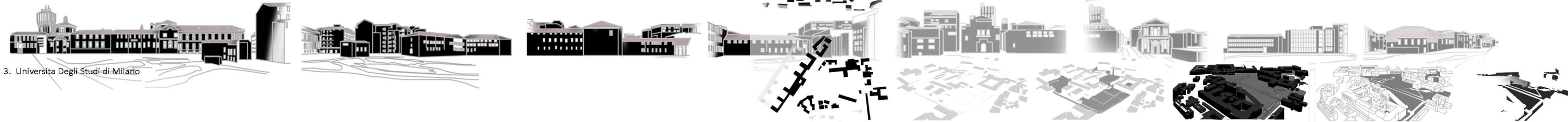
1. Parco delle Basiliche



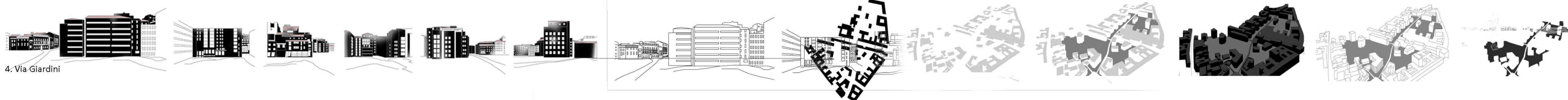
2. Piazza San Calimero



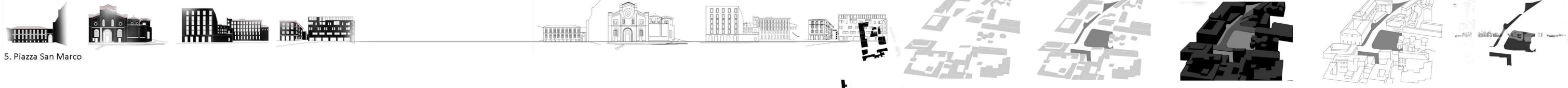
3. Università Degli Studi di Milano



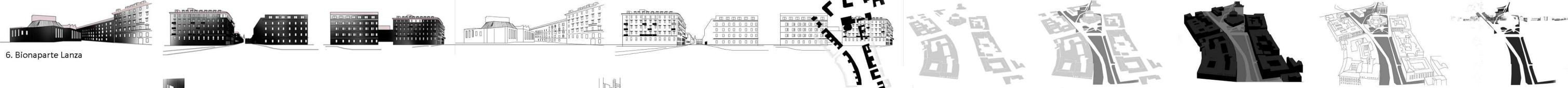
4. Via Giardini



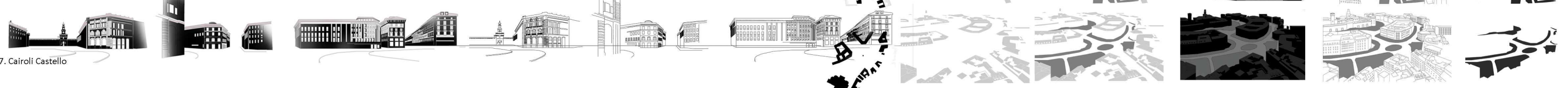
5. Piazza San Marco



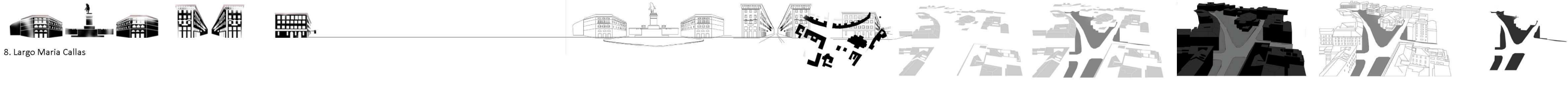
6. Bionaparte Lanza



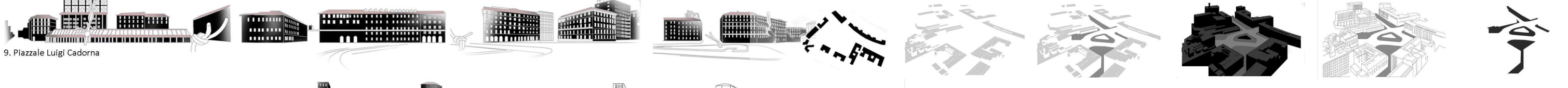
7. Cairoli Castello



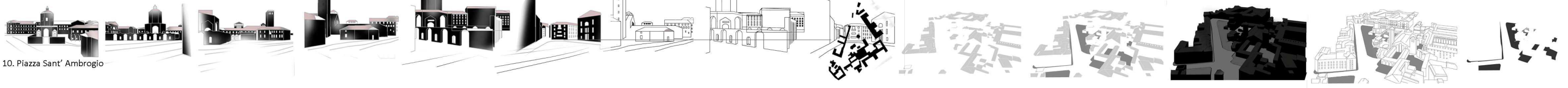
8. Largo Maria Callas



9. Piazzale Luigi Cadorna



10. Piazza Sant' Ambrogio



11. Via Arena/ Via Conca del Naviglio



Milan ring 2(a) - syntactic analysis of public spaces

1. Piazza 24 Maggio (Porta Ticinese)

2. Porta Lodovica

3. Piazza del Tricolore

4. Piazza Guglielmo Oberdan

5. Piazza della Repubblica

6. Monte Santo Galilei

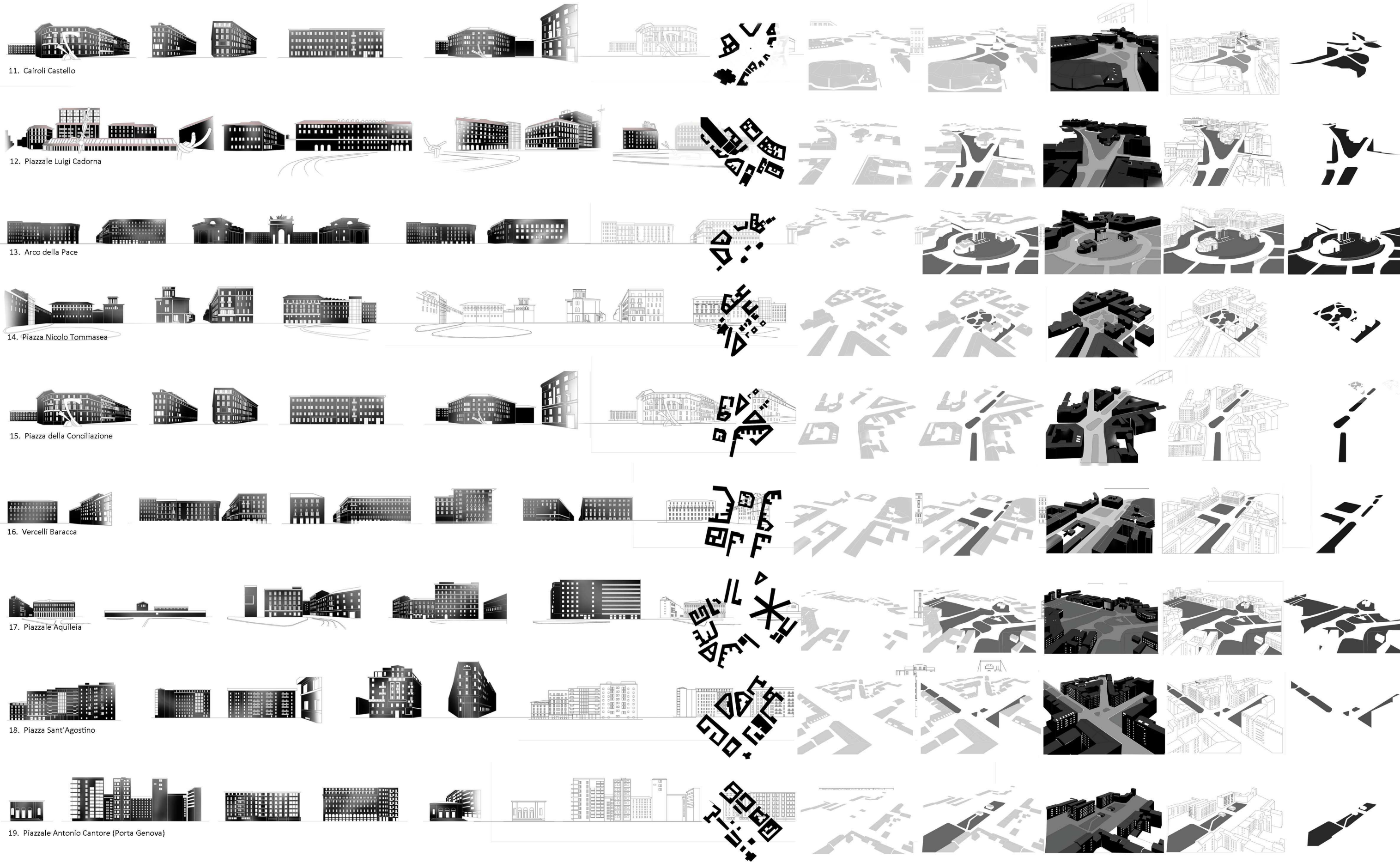
7. Piazzale Principessa Clotilde

8. Piazza 25 Aprile

9. Piazzale Biancamano

10. Buonaparte Lanza

Milan ring 2(b) - syntactic analysis of public spaces



Milan ring 3(a) - syntactic analysis of public spaces

1. Piazzale della Milizie

2. Largo Antonio e Alberto Ascari (Romolo)

3. Piazza Serafino Belfanti

4. Piazza Bibbiena

5. Piazza Angelo Sraffa

6. Piazza Trento

7. Piazzale Lodi

8. Piazza Emilia

9. Piazzale Dateo

10. Piazza Graziadio Isaia Ascoli

11. Piazzale Loreto

Perspectives of framing and field

Plan of framing and field

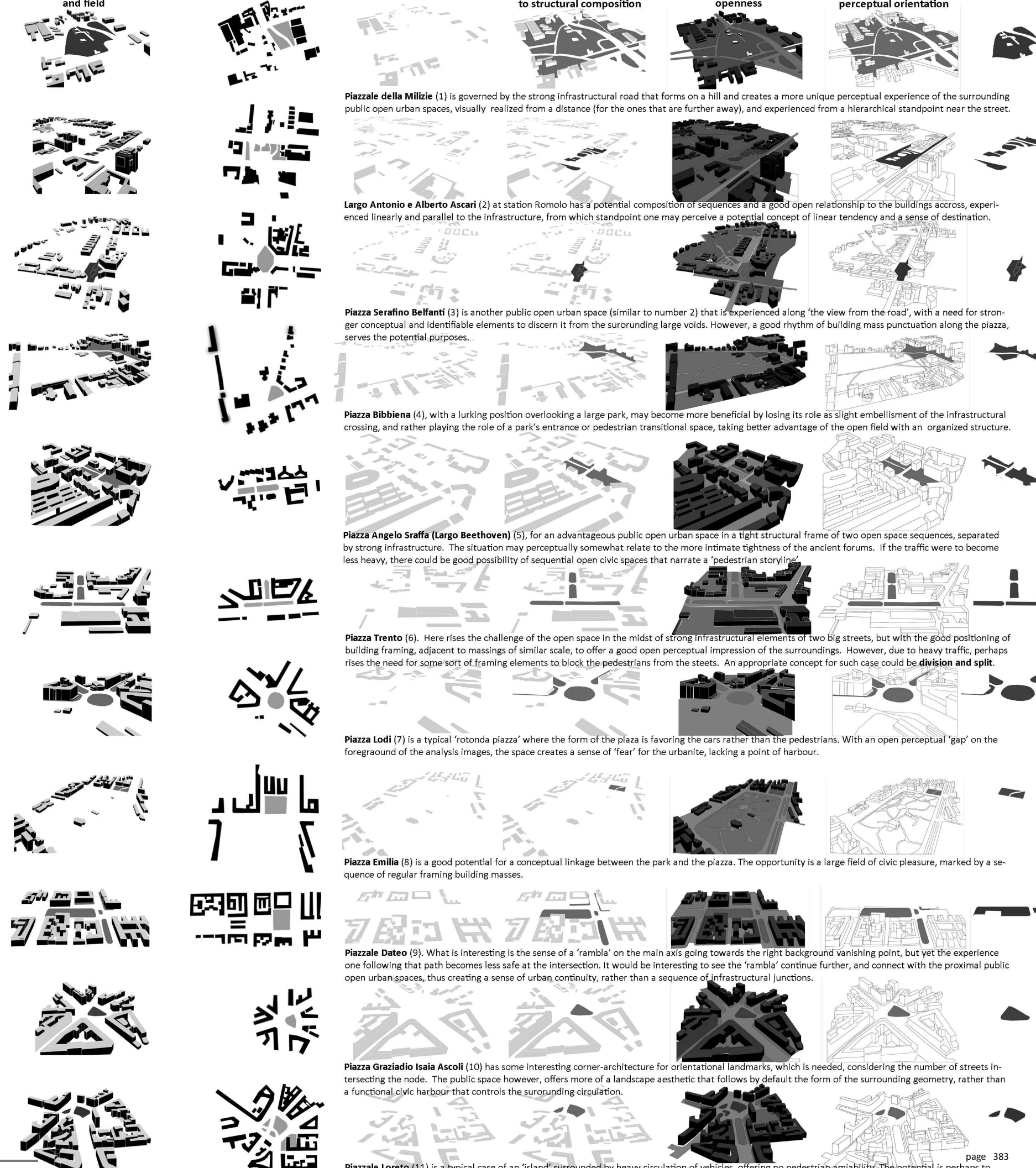
The structure of composition

Public spaces and relationships to structural composition

Structure and fields of openness

Fields of openness and perceptual orientation

Form of space



Piazzale della Milizie (1) is governed by the strong infrastructural road that forms on a hill and creates a more unique perceptual experience of the surrounding public open urban spaces, visually realized from a distance (for the ones that are further away), and experienced from a hierarchical standpoint near the street.

Largo Antonio e Alberto Ascari (2) at station Romolo has a potential composition of sequences and a good open relationship to the buildings across, experienced linearly and parallel to the infrastructure, from which standpoint one may perceive a potential concept of linear tendency and a sense of destination.

Piazza Serafino Belfanti (3) is another public open urban space (similar to number 2) that is experienced along 'the view from the road', with a need for stronger conceptual and identifiable elements to discern it from the surrounding large voids. However, a good rhythm of building mass punctuation along the piazza, serves the potential purposes.

Piazza Bibbiena (4), with a lurking position overlooking a large park, may become more beneficial by losing its role as slight embellishment of the infrastructural crossing, and rather playing the role of a park's entrance or pedestrian transitional space, taking better advantage of the open field with an organized structure.

Piazza Angelo Sraffa (Largo Beethoven) (5), for an advantageous public open urban space in a tight structural frame of two open space sequences, separated by strong infrastructure. The situation may perceptually somewhat relate to the more intimate tightness of the ancient forums. If the traffic were to become less heavy, there could be good possibility of sequential open civic spaces that narrate a 'pedestrian storyline'.

Piazza Trento (6). Here rises the challenge of the open space in the midst of strong infrastructural elements of two big streets, but with the good positioning of building framing, adjacent to massings of similar scale, to offer a good open perceptual impression of the surroundings. However, due to heavy traffic, perhaps rises the need for some sort of framing elements to block the pedestrians from the streets. An appropriate concept for such case could be **division and split**.

Piazza Lodi (7) is a typical 'rotonda piazza' where the form of the plaza is favoring the cars rather than the pedestrians. With an open perceptual 'gap' on the foreground of the analysis images, the space creates a sense of 'fear' for the urbanite, lacking a point of harbour.

Piazza Emilia (8) is a good potential for a conceptual linkage between the park and the piazza. The opportunity is a large field of civic pleasure, marked by a sequence of regular framing building masses.

Piazzale Dateo (9). What is interesting is the sense of a 'rambla' on the main axis going towards the right background vanishing point, but yet the experience one following that path becomes less safe at the intersection. It would be interesting to see the 'rambla' continue further, and connect with the proximal public open urban spaces, thus creating a sense of urban continuity, rather than a sequence of infrastructural junctions.

Piazza Graziadio Isaia Ascoli (10) has some interesting corner-architecture for orientational landmarks, which is needed, considering the number of streets intersecting the node. The public space however, offers more of a landscape aesthetic that follows by default the form of the surrounding geometry, rather than a functional civic harbour that controls the surrounding circulation.

Piazzale Loreto (11) is a typical case of an 'island' surrounded by heavy circulation of vehicles, offering no pedestrian amiability. The potential is perhaps to create some over-the-ground activity, to view form above the direction of the shopping streets, rather than go underneath and become disoriented.

Milan ring 3(b) - syntactic analysis of public spaces

12. Piazza Carbonari

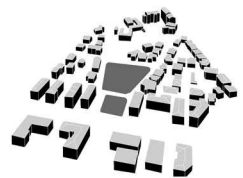
Perspectives of framing and field



Plans of framing and field



13. Piazzale Giuseppe Massari



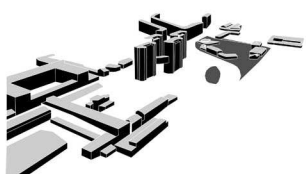
14. Piazzale Carlo Maciachini



15. Piazzale Cimitero Monumentale



16. Piazza Coriolano



17. Piazza Firenze



18. Piazzale Damiano Chiesa



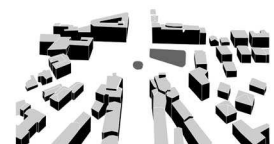
19. Piazzale Carlo Magno



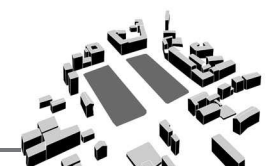
20. Piazzale Giulio Cesare



21. Piazza Piemonte



22. Piazza Napoli



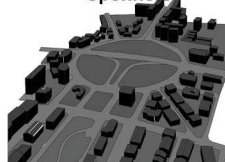
The structure of composition



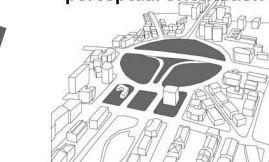
Public spaces and relationships to structural compositions



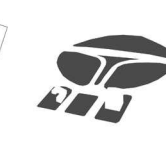
Structure and fields of openness



Fields of openness and perceptual orientation



Form of space



Piazza Carbonari (12) is a plaza created in the midst of a large junction of streets, for the sake of visual embellishment and landscape accessibility, rather than for accessibility, despite the few activities that it offers. However it creates some interesting linkages to adjacent axis' of green voids, that have the potential of an interesting open space sequence.

Piazzale Giuseppe Massari (13) is at a nice location adjacent to the one side of the main street (rather than intersected in the middle of it), and shows the potential for creating a sequence of overlooking public places to unite the surrounding building units. Supported by a rhythmic sequence of buildings, it offers potential for 'urban protection'. At the moment, it is easily overlooked due to its lack of strong theme.

Piazzale Carlo Maciachini (14), an acrimonious plaza with an awkward composition of 'open voids' and streets overshadowing each other, lacks a sense of direction, threatened by vehicles. If purely pedestrian, the space would be an interesting configuration of civic framing, with much work to be done on visual pleasure and civic art elements.

Piazzale Cimitero Monumentale (15). Opposed by the overabundance of the facing city, the composition of the cemetery against the new construction, intermixed with old rising elements, creates an overly interesting civic experience. The semi-circled plaza shape encompasses a feeling of protection towards the memorable past, emulating the form of a *whomb* and celebrating the deceased that are withheld in *memory*.

Piazza Coriolano (16) is a nice plaza adjacent to the Cimitero Monumentale, across a modern composition of high rises, creating a very intimate perception of the opposition between memory and present. With a gentle curve of the infrastructure, slowing down the traffic, the surrounding framing shapes offer variability and potential for further civic art installations.

Piazza Firenze (17) is a nice plaza adjacent to the Cimitero Monumentale, across a modern composition of high rises, creating a very intimate perception of the opposition between memory and present. With a gentle curve of the infrastructure, slowing down the traffic, the surrounding framing shapes offer variability and potential for further civic art installations.

Piazzale Damiano Chiesa (18) is another typical *rotonda plaza*, lacking urban civic character, pedestrian safety and accessibility. The architectural elements defining the boundaries of the open space lack orientational character, and one is easily questioning the path he came from.

Piazzale Carlo Magno (19), although fenced in at the time of the writing of this thesis for construction purposes, seems to create a nice visual relationship with the adjacent stadium, connecting to the grounds of the Fiera. The architectural objects framing the space offer variety and visual play.

Piazzale Giulio Cesare (20) is a good example of a public open urban space taking advantage of the surrounding openness, perceptually giving visual access to works of art of the Fiera buildings, a fountain, and sculpture on opposing building roofs, on the vertical perceptual horizon. The large open space is divided nicely by the heavy traffic with a plaza of green, creating the sequence from infrastructure to public green to public plaza to public exhibition fair.

Piazza Piemonte (21) is another typical 'intersectional' formation of open spaces that are not really civic, if one considers all the streets coming in, and the lack of pedestrian accessibility and character. However, the plaza may be improved if worked upon on each hemisphere separately, creating connections with adjacent openings and other pedestrian destinations.

Piazza Napoli (22) is characterized by relative quietness due to the size of the area and the streets coming off of turns, slowing down traffic. The structural arrangement offers possibilities for further connections with the more enclosed openings in the adjacent spaces.

Thisisio of Athens - syntactic analysis of open spaces

perspective 1 - looking from south to north (Stoa of Attalos framing to the right)

perspective 2 - looking from south-east to north-west

perspective 3 - looking from north-west to south-east (in the background, is the urban void near the Thisisio)

perspective 4 - looking from north-east to south-west (an orientational hill with a church in the background)

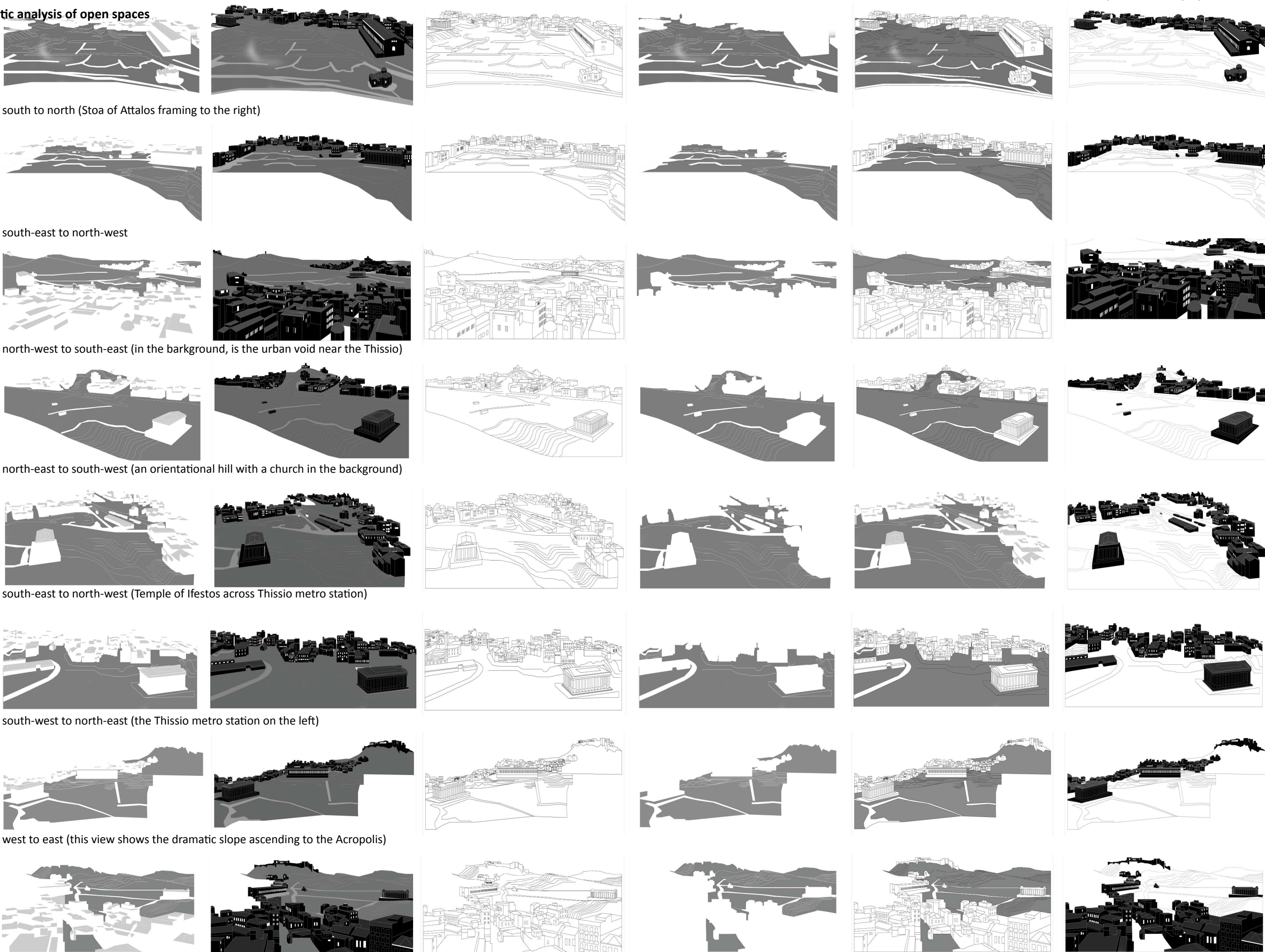
perspective 5 - looking from south-east to north-west (Temple of Ifestos across Thisisio metro station)

perspective 6 - looking from south-west to north-east (the Thisisio metro station on the left)

perspective 7 - looking from west to east (this view shows the dramatic slope ascending to the Acropolis)

perspective 8 - looking from north to south (the Acropolis is evident on the left hill, as an arrival point, and the public open space on the foreground introduces a field of movement to enter the site)

chapter six: results - atlas archive spreads; visual synopsis



6.3 atlas archive spreads - thesis glossary

The following section is a glossary of terms related to the definitions of public open urban spaces mentioned inside the main text (particularly in chapters one and two), and highlighted with blue font color. The terms, listed alphabetically, are the following:

abstract Renaissance square

agora

alan

Arnheim-oriented civic space

Baroque square

bound public open urban space

boundary

cardo and *decumanus*

carsija

Chapham

CIAM generation civic space

contemporary civic space

deconstructionist oriented civic space

De-Stijl movement of art and the open space

district squares

existentialism of the public open space

fields of public open space

figure/ground spatial analysis

formalism (aesthetic formalism)

forum romanum

framing

front lawn public space

garden city core

Gestalt-oriented civic space

Gropius (Walter) public open space treatment

Greek squares - types

Hegemann, Werner

hestia koine

Hippodamus agora

industrial revolution civic space

insecure public open urban space

land art

layers of horizontality

layers of multi-dimensionality

layers of verticality

Lynch (Kevin)-oriented civic space

mal

Medieval path

Medieval public space

mésé (Middle Street)

meydan

minimalist civic space

modern civic space

monumental Renaissance square

mpezestenia

Muslim civic spaces

nonplace

nostalgic/regressive civic space

Olmsted (Frederick Law) public space

organic Medieval square

path origins in civic space

pazar

phenomenology

pijaca

plateia

plateia/piazza/plaza and origins

plateia *alanion*

plaza 'of the sycamore'

Plaza Mayor

Portoghesi-oriented civic space

Renaissance square

Roman-era square

royal square of France

schemata

secure public open urban space

Sitte, Camillo

space gradients

Spanish framing

street art/city graffiti

suburban core

suburban gates/city gates

unbound public open urban space

uncanny public zone

un-volumetric historical civic spaces

vacuum public space

via sacra

tzarsi/tcharchi

typical French civic space incentive

typical Greek civic space incentive

typical Italian civic space incentive

typical Polish civic space incentive

typical Spanish civic space incentive

> **abstract Renaissance square** (main text ref. 2.5.1) = This syntactic expression deals two forms of interpretation, where the first one deals with the designing or redesigning of new public open urban spaces, where the site must be treated as an organic continuation of the surrounding urban fabric, with its own history and its specific way of composition (ex. Pienza Piazza Pio II, fig. g.2). The second approach opposes the medieval interpretation by making interventions that explicitly contrast the surrounding form and character of the urban fabric. (ex. for remodeling: Piazza della Libertà in Faenza, Piazza dei Signori in Verona; Piazza San Marco in Venice; ex. For demolishing old and building new: Piazza Farnese in Rome; Piazza SS. Annunziata in Florence; Piazza Ducale in Vigevano, ex. For within context of programs to expand existing cities: Piazza Ariostea in Ferrara, ex. inside cities completely designed ex novo: Palmanova (fig. g.1) and Sabbioneta). (figures g.1 - g.2)

> **agora** (main text ref. 1.6) = A place of public exchange of opinions on public and private affairs. The origins of the definition of a public open urban space, which started off as a definition of a 'square', founded itself on the combination and merging of two ancient civic space elements of the agora and the plateia.

The origin of the agora, expressed by its open public space democratic incorporation within the city, was used either for religious rituals or for political gatherings and the rendering of justice (religion and civic issues were not confused on the same site). The word, etymologically deriving from the verb ageirein meaning to meet or assemble, describes that part of the city where the citizens would exchange public affairs, deeming it a concrete expression of urban activities. Also the space for philosophical discussion, it is where the antique concept of the polis develops. This interrelation of space and urban concept and theme, coerces the civic square as a literal 'heart' for the urban reality, unlike Persian, Egyptian and Jewish cities, which reserved such urban centers for the glorification of temples and statues of the gods. In modern Greek today, the same word designates places of trade, shifting its meaning in way that a weakening of politics is being revealed, along with a mixed use of urban spaces (resembling more the evolution of civic space into the Roman forum, and on).

- form of the agora: The form of the agora begins its syntactic development in a free and spontaneous, undetermined way, similar to the conceptual framework of democracy. No set plan seems to appear, and the buildings follow the logic of an open plan, which yet remains enclosed and well oriented. Since the 5th century BC, Hippodamus of Miletus began to define a more standard and organized geometrical shape, becoming the template throughout the Hellenistic and Roman periods, characterized as an empty void of regular framing delineated by a colonnade at the back with premises used for various purposes.¹ The evolution would continue with the Hellenistic and Roman public open urban space.

¹ Miotto, L., 2000, op.cit., p.18.

- Evolution of the agora in Greece: The classical tradition of Greek antiquity, does not consider the plaza the way that we consider it in our contemporary environments. In the ancient city, the foundational civic space is the free space of the agora. Necessary for religious ceremonies and the distribution of justice from the community in archaic times, the space of the agora becomes transformed in the later classical times in order to serve the political purposes of the time, becoming a place of meeting and trade. With no clear projection lines and plan, the agora forms a regular shape in the framework of Hippodamus' ideas. The Hellenistic and Roman city acquires then an agora and forum (respectively), with a free center and roofed colonnades on the perimeter. The gallery connects small built spaces that are dedicated to various civic and private functions.

Despite the Greek etymology of the platea and the formal development of the urban plaza throughout Europe, the urban civic space as it is known, does not appear in the Greek cities not even during the period of the Eastroman-Byzantine Empire. Frankly, after the 4th century A.D. and the peaceful or violent christianing of the eastern world, the political functioning of the agora slowly begins to vanish, along with the urban space that corresponded to it. The plaza and the galleries become occupied by workshops and shops. The political power is being practiced from the palace, while the various social activities take place inside neighborhoods and religious buildings. The word agora changes its meaning to the space dedicated for commercial trade.

With the termination of the Ottoman Empire, in the 15th century, the social life in the cities develops in religious structures, separate for every national-religious community, and in the 'tzarsi' for everyone, which is the place of commercial trade that modulates as a network of commercial courses of specialized goods. A lot of the commercial streets appear roofed, while in the larger cities (Thessaloniki, Serres, Larisa, Ioannina ...) centered roofed markets appear, named 'mpezestenia'.

> **alan** (main text ref. 1.5.2) = Used in Turkish to designate an open space, a plateau between mountains, a clearing, or a field. Alana is modern Greek; to designate an amorphous and empty space (etymology from alos or aloni, which means a threshing area); numerous squares would be created in Greece during the 19th century exactly on the old threshing grounds, and they always bore this name - plateia alonion - meaning the public space of the threshing area.

> **Arnheim-oriented civic space** (main text ref. 2.1.1) = The public open urban space that considers the Rudolf Arnheim civic theories may approach the civic open environment with a perceptual conception of increasing complexity.

Figure g.1: *Abstract Renaissance*; Palmanova



Figure g.2: *Abstract Renaissance*; Pienza Piazza Pio II



> **Baroque square** (main text ref. 2.4.1) = (17th century Rome); The square as scenographic hinges from the street. With the reconstruction and redesigning of cities, came across a change in relationship between the public open urban space and the infrastructure (which will be expanded upon in more detail in a later section of this chapter), while being alloyed by pictorial space and the concept of “an analysis of sight” that Choay touches upon in her semiological speculations on urbanism. With the close interplay of the infrastructure into the civic equation, the perceptual understanding of the public space evolves into a show, where the city picks up a play dimension, and “is lived at a distance which is the exact opposite of the intimate and constraining relationship characterizing the pure systems” (of the pure historic centers). This situation exposes an abundance of semantic messages – although also from a good distance – also present in the modern city; a phenomenon which Choay describes as a *notion of synchrony as an illusion* and a *cultural diachrony within the synchrony of the calendar*.¹

The characteristic element of transformation here is the use of celebratory elements, statues, fountains and obelisks, plunked down into existing squares. (ex. Piazza Navona in Rome; Piazza Pretorio in Palermo).

This addition of compositional items within the square, although expressed the attitude and perceptual priorities of the period, also confused the symbolic values of military and aristocratic depictions versus the city of the collectivity, thus creating a more abstract and ‘indecipherable content’. This ‘unsettling’ period, with ample ornamentation and décor, pulled the roots of the urban character from its traditions, and in many cases created a crisis of civic identification and social conflicts.²

> **bound public open urban space** (main text ref. 2.1.2, 2.1.3) = Where one may feel comfortable, safe and protected.

> **boundary** (main text ref. 2.5.3) = A boundary in a public open urban space is a type of ‘framing’ (also look at framing) which aids in security. “Boundaries are the precarious products of opposing forces”³ (Rudolf Arnheim). A boundary is when two spaces are fighting for the same common contour, but no correct designing has been attempted to achieve a harmonious transition, leading towards a sense of disorientation.

- 1 Choay, F., 1986, op.cit., p. 168.
- 2 Mancuso, F., 2000, op.cit., pp.127, 131.
- 3 Arnheim, R., 1977, op.cit.

Figure g.3: *Cardo and decumanus*

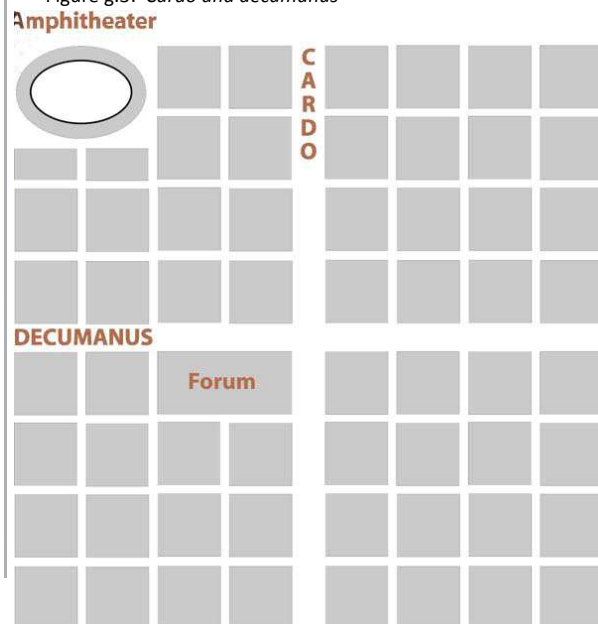
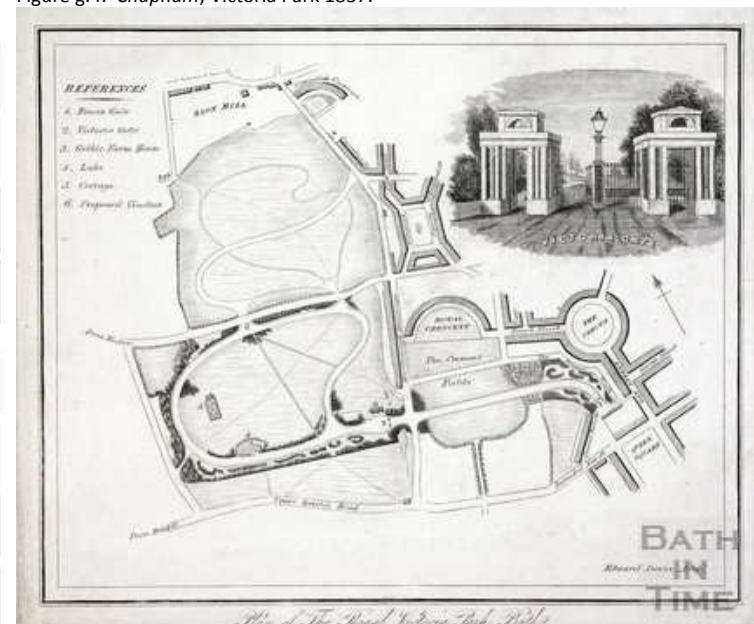


Figure g.4: *Chapham; Victoria Park 1837.*



> **cardo and decumanus** (main text ref. 2.1.1) = The two main axis of an open space in Latin, defining orientation, path and hierarchy into the composition

A decumanus was an east-west-oriented road in a Roman city, castra (military camp), *orcolonia*. The main decumanus was the Decumanus Maximus, which normally connected the Porta Praetoria (in a military camp, closest to the enemy) to the Porta Decumana (away from the enemy).

In the middle, or *groma*, the Decumanus Maximus crosses the perpendicular Cardo Maximus, the primary north-south road that was the usual main street. The Forum is normally located close to this intersection of the Decumanus Maximus and the Cardo Maximus. (online Wikipedia definition reference) (figure g.3)

> **carsija** (main text ref. 2.4.1) = In the Slavic languages (Serbian and Bulgarian). The term derives from the word car-su, translated as four roads, or four sides of an open space, or a place where people come from the four corners of the world to meet.¹

> **Chapham** (main text ref. 2.3.4) = Union of the country house, the villa, and the picturesque traditions, reinforced by the particular concerns of the Evangelical movement. This, in fact, became the fundamental goal of the suburban civic space at that time; a synthesis of the picturesque landscaped park with the picturesque village. However, this eventually led to conflict between the formal classicism Palladian style synthesis, and the organic-informal figures of the ground around it. As the finding of a new typological syntactic language for expression of the environment could not be easily found, many solutions for the public gathering in the suburban neighborhood took the forms of gardens and parks. (example: Victoria Park of 1837; ‘en exclusive Victorian paradise’ symbol of Manchester). (figures g.4 - g.6)

> **CIAM generation civic space** (main text ref. 4.1) = A tendency to treat civic space as empty space and treat whatever is left among the solidity of buildings in order to make the space seem “full”.

> **contemporary civic space** (main text ref. 3.3) = A distinct desire to incorporate the human scale and create a pleasant framework.

- 1 Dzemal, Celic, “Carsija-Cetiri toka sretanja prirode i coveka”, in *Arhitectural Urbanizam*, Beograd: 1971, pp.64-65.

Figure g.5: *Chapham; Place Royale in Dijon.*



Figure g.6: *Chapham; Plaza Mayor of Salamanca.*



> **deconstructionist oriented civic space** (main text ref. 1.7.1) = The public open urban space that considers the deconstructionist-oriented civic theories may follow the civic space philosophies of Jacques Derrida, Edmund Husserl, Martin Heidegger, Friedrich Nietzsche, and Ferdinand de Saussure.

> **De-Stijl movement of art and the open space** (main text ref. 2.2) = (“the style”) Also known as neoplasticism. A Dutch artistic movement; founded in 1917; The term De Stijl is used to refer to a body of work from 1917 to 1931 founded in the Netherlands. Also the name of a journal published by Dutch painter, designer, writer and critic Theo van Doesburg – it sought to express a new utopian ideal of spiritual harmony and order; integration of art and life. The De-Stijl of the public open urban space advocates pure abstraction and universality by reduction to essentials of form and color. The syntactic orientation elements simplify the composition to basic visual guides of vertical and horizontal directions, using the primary colors along with black and white. (figure g.7)

> **district squares** (main text ref. 2.3.4) = These types of squares were created for the development of new districts, the enlargement of the town or the linking of the area to other towns (effect and cause). Some examples include Place des Vosges in Paris, Place des Victoires or Place Vendôme. Their shape is geometrical and regular, with street openings in the middle of their sides. They varied enormously according to the town’s topographical (and economic) constraints and the built surroundings included arcades for commercial activities (eg the Place Royale in Dijon). Conceptual themes of these district squares include; some main function to display power e.g. Plaza Mayor of Olaguibel in Vitoria; magisterial urban complex to articulate and link the old and new cities; key element largely independent from surrounding urban fabric; classical interior courtyard is counterposed against the domestic external façade of the buildings that create the square; a classical solution prefigured by Churriguera’s designs for the Plaza Mayor of Salamanca (1727-1788).¹

> **existentialism of the public open space** (main text ref. 4.1) = A language of humanism, emotions, spiritual growth, authenticity and validity, which was a process of conceptual reorientation that was to gain dominance during the 1950s decade of CIAM action, in search of identity, primordial significance and urban identity. Two ‘battlefields’ of ‘young’ and ‘old’ architects debated with other, the first group led by Aldo Van Eyck,

¹ Ventós, M.R., 2000, op.cit., p.64.

Figure g.7: *De Stijl movement of art and the open space*; Wall of Café-Restaurant Aubette, Strasbourg, 1926-1928. NAI Collection / DOES AB 5209.



Giancarlo De Carlo, Ernesto Nathan Rogers and the Smithsons, and the second group led by Giedion, Walter Gropius and Le Corbusier.¹

> **fields of public open space** (main text ref. 2.6) = Spatial forces as composition of different vectors and orientational perceptions of elements within a civic space, that influence and intersect each other, creating perceptual fields. Paolo Portoghesi demonstrates this, and also Einstein speaks of such fields, categorizing both the quality of field energy and matter energy on the same level. According to Rudolf Arnheim, the field will depend on three factors; distance, load description, and potential energy. (figures g.8 - g.9)

> **figure/ground spatial analysis** (main text ref. 2.1.2, 2.2) = A type of analysis of space perception, which shows the cognitive ability to visually detach the elements in a spatial composition. This distinction is based on the keyword of contrast, achieved through lightness and darkness, texture differentiation, or demonstration of solids and hollows. The figure and ground analysis shows the creation of space between two architectural objects, emphasizing the kind of space that is intuitively created in the urban context.

> **formalism (aesthetic formalism)** (ref. 2.5.3) = The act of execution or interpretation of a public space purely in terms of its visual form, materiality and means of construction. This approach favors the interpretation of the open space in terms of color, line, shape and texture, rather than in terms of realism, context and content. The space’s background, history and layering of fundamental compositions and primary ideas is of inferior relevance for the in-depth perception and evaluation.

> **forum romanum** (ref. 1.6) = The Roman forum expressed a microcosmos of human community and interactions, defining boundaries of civic outdoor reciprocity and relationships, gathering a variety of luxuries and activities within the public arena, and masterpieces from around the world, demonstrating public art to the urban actors. The forum as the center of Rome, was a representation of the center of power of monetary legends (such as Titus), where the equilibrium of structural syntax and communicative civic interpretation took place daily and it was expressed with an orthogonal form.

No new squares were created in Italy after WWII, unlike most European cities. However, the existence of the

¹ Solá-Morales, I., et.al., 1997, op.cit., pp.44-45.

Figure g.8: *Fields of public open space*; ‘Equipublic space’ Rheotomic surface. Electric field line, equipotential surface. Magnets, attractors in public space and fields. (Design studio of graduate program at university of Belgrade)

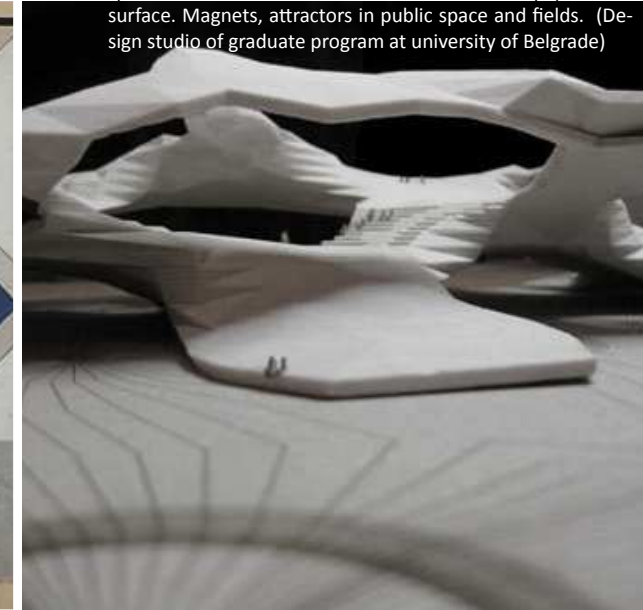


Figure g.9: *Fields of public open space*; Field as emergence (main text ref.2.6.2); Babiy Yar Memorial, Kiev, Ukraine. ‘Kokkugia’; a space that emerges from the landscape.; project studies the emergence of a space.



squares changed their functionality and tried to coexist with the increasing infrastructure, while there was an increasing effort to improve the quality of the suburbs, which were sporadically habituated and lacking an identity, which is usually the opposite of what a thoughtful public open urban space can provide. The Italian civic space has been transformed and influenced throughout time with historical stratifications, architectural developments, building restorations, street reconstructions, functional changes, urban element proliferation characterizing the space.¹ However, what gives the syntactic language of what the Italian public open urban space looks like today, is what went on during the High Medieval period, where new urban values were being compounded into the existing fabrics.

> **framing** (main text ref. 2.5.3) = The strength of the physical boundaries around a space and the impact that such physical boundaries have on social inter-action between participants within a space. (figures g.10 - g.14)

> **front lawn public space** (main text ref. 2.3.4) = The manifestation of suburban communal interaction in the American landscape emulated the characteristics of the earlier English suburban village. At this point, it is appropriate to speak and demonstrate the creation of a new kind of public space within the American suburb, which is that of the front lawn. Although private in nature, the front lawn is open to the community, and defined by a certain setback law that determines its exact depth from the street to the residence, it forms a consistent green corridor which forms perceptual axis of public direction. Although the green lawns are non-trespassible, they form an *intermediary structural frameworks* (an invisible boundary) between complete private and complete public space. Furthermore the law becomes the owner's private contribution to the picturesque imagery of the open surrounding space², which in sum, makes up for an illusion of a collective park.

> **garden city core** (main text ref. 2.3.4) = In the early 18th century, a new typological kind of public open suburban space emerged, with the discontinuity of the straight and rigid line of Italian square influence, and the development of the concept of nature as variety. The old gardens were replaced by expressions of gentle curves, and the encompassing of greenery took over the exclusive design of man-made materiality that took over primarily until then. The theme of the suburban public open space was to resemble the myth of a Golden Age in which people lived "on the fruits of the earth, peacefully, piously, and with primitive simplicity".³

1 Mancuso, F., 2000, op.cit., p.118.

2 Fishman, R., 1987, op.cit., p.147.

3 Fishman, R., 1987, op.cit., p.48.

Figure g.10: *Framing*; Piazza del Campidoglio in Rome.
Fabio Novembre

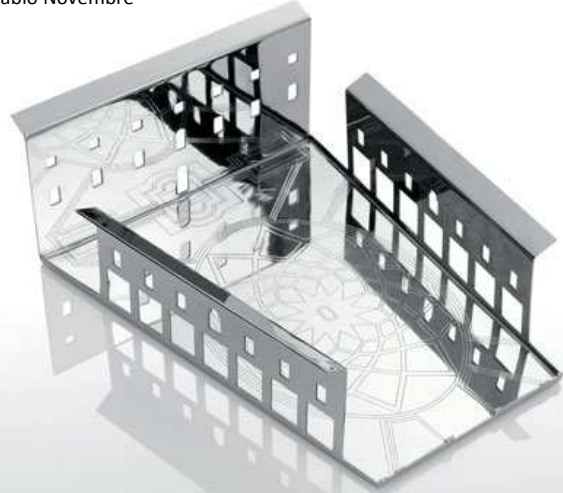


Figure g.11: *Framing*; Piazza del Mercato in Luca.
Fabio Novembre



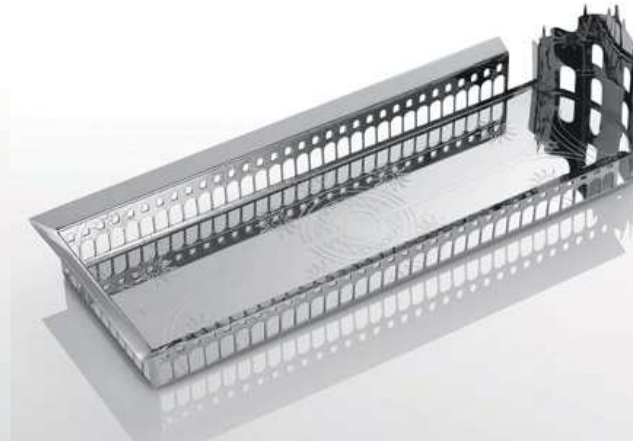
Figure g.12: *Framing*; Piazza del Annunciata in Venaria Reale.
Fabio Novembre



Figure g.13: *Framing*; Piazza della Scala in Milan.
Fabio Novembre



Figure g.14: *Framing*; Piazza Ducale in Vigevano.
Fabio Novembre



> **Gestalt-oriented civic space** (main text ref. 2.6.2) = The public open urban space that considers the Gestalt psychological theories may approach the civic open environment where the mind absorbs patterns in the most simplistic and minimalistic way. Furthermore, there is a correlation between the conscious experience and cerebral activity (psychophysical isomorphism) and also important is the 'principle of totality', which involves the global awareness of conscious experience.

> **Gropius (Walter) public open space treatment** (main text ref. 4.1) = "The most important factor in building a Core is the relation between the building masses and the enclosed open spaces".¹

> **Greek squares – types** (main text ref. 3.2)

- type 1: Plaza of the sycamore (see glossary: *plaza 'of the sycamore'*)

- type 2: 'Italian plaza in Greece': classified as a 'type 2 Greek square'. When Greece was under Venetian rule from the 12th until the 17th century, several cities developed public open urban spaces according to the Italian tradition of civic space; a formal arrangement of the square, typical of the Roman forum influence, the role of the well and water, the situation of public buildings and the cathedral dominated the perception. With the gradual decline of the invaders, the shapes become less sophisticated and planned, and buildings were simplified, unlike Italian tradition. Later with the invasion of the Ottomans, new *cultural, structural and conceptual layers* were added with the mosques and other buildings built next to the remains of previous centuries.

(example: town hall square of Corfu; Loggia dei Nobili, one of the most important Venetian buildings on the north side, originally the sitting-room of the aristocrats transformed during the 18th century into the San Giacomo Theater and later into the Town Hall; also includes Bank of Greece (1630) to the south, Catholic Church (1553) to the east, and the seat of the Venetian administration, demolished in 1931 to provide space for the two schools that still exist today. Square had an orthogonal shape until 1980 (80x40m) that gradually sloped up towards the north-south axis.

- type 3: (main text ref. 3.2) During the 19th century; plazas existing or redesigned in the towns that were modified after independence from the war (following the traces of the existing site).

1 Gropius, W., 1952, op.cit., p. 53.

- type 4: squares created ex novo in the new towns or neighborhoods according to the imperatives of Western urban planning (a new paradigm).

(Example of type 3 and 4: Lamia (small mainland city); plan of 1839 prescribed new orthogonal framework w/system of three squares; first established on the site of the old open market, second on the courtyard of demolished mosque, third on the grain threshing area.; urban square is the response proposed for the aspirations of modernization, re-conquest, and extension of the city.; "creation-construction".)

- type 5: beginning of 20th century, when contemporary international urban planning becomes a 'discipline' in itself and is implemented far from Western capitals.

Example of type 5: Aristotelous Square in Thessaloniki (new plans adopt models of the Ecole des Beaux-Arts, Italian rationalism, etc) in 1918 by French Ernest Hébrard (after fire); monumental civic center with archaeological finds and theatrical nature of the plan with background of ancient monuments. Axis with two squares; restructures city's main routes of communication; impressive mixture of uses). (figure g.15)

> **Hegemann, Werner** (main text ref. 1.3.3) = (1881- 1936); City planner, architecture critic and planner. In his *The American Vitruvius; An Architect's Handbook of Civic Art*, contributes with an extensive collection of illustrations and explanations of plaza and court designs in Europe, and also extensively speaks on the investigations of Camillo Sitte, who contributed himself widely on this topic with his *The Art of Building Cities; building according to its artistic fundamentals*.

> **hestia koine** (main text ref. 2.7) = (Greek: *εστία κοινή*) Held by the agora; the sanctified place, the center, the major element which gives meaning and in connection to which a new type of organization is given to the minor elements). The *hestia koine* is related to the conditions of functioning, and itself is connected to the various surrounding positions occupied by the citizens, whose functions and placements are reversible and systematic.¹ Vernant characterizes it as the common denominator of the polis.²

> **Hippodamus agora** (main text ref. 2.5.1) = Of a specific geometric shape (template for Hellenistic and Roman periods); regular shape bordered by a double row of columns beyond which are located smaller buildings

1 Choay, F., 1986, op.cit., p. 164.

2 Vernant, J.P., 1974, op.cit.

Figure g.15: Greek squares - types; Type 5: Aristotelous square in Thessaloniki.

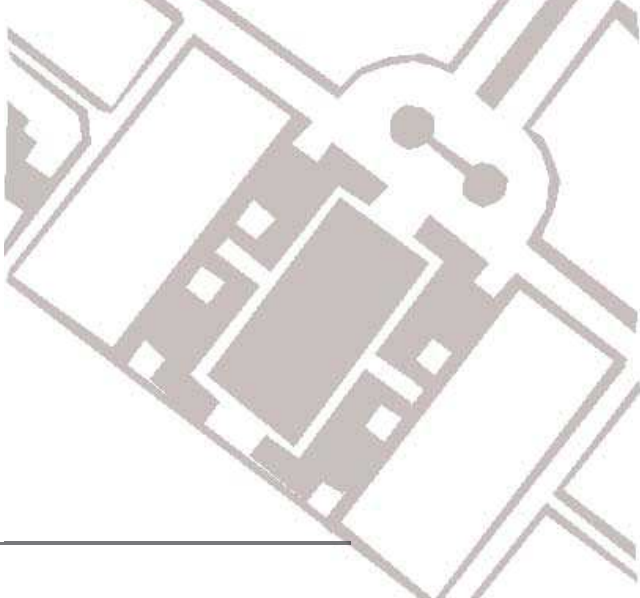
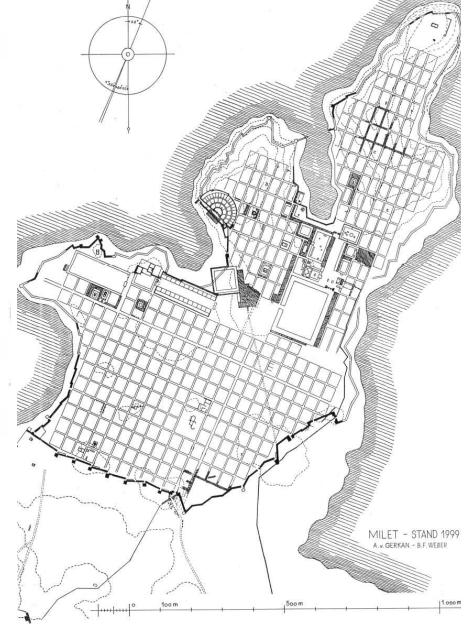
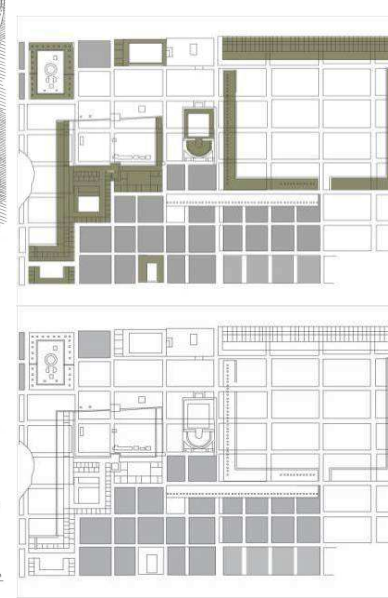


Figure g.16: Hippodamus agora; Mileto



Figures g.17-18: Hippodamus agora; Mileto (diagrams by S.Leontiadis)



destined for various uses. (figures g.16-g.18)

(In Thessaloniki, the largest European city of the Ottoman Empire, there was only one unbuilt open space in the area of the ancient hippodrome. Similar open spaces are being detected in several settlements, without them being a result of a designed intervention; nevertheless, they welcome certain 'classical' functions of the traditional plaza, such as spaces of walking, feasts, horse-sales, etc, but not as places of political aggregations.)

> **industrial revolution civic space** (main text ref. 4.1) = The functional prevailing over the aesthetic.

> **insecure public open urban space** (main text ref. 2.1.3) = A public open urban space that may either feel restricted and smothered or too vulnerable and exposed. (figure g.19) (also look **secure public open urban space**).

> **land art** (main text ref. 1.5.1) = A movement that emerged in the United States in the late 1960s and early 1970s, in which landscape and the work of art are inextricable linked. Land art is an artful public open space intervention that reveals a certain message, memory, event or reality through its figurative and morphological appearance; intends to offer immediacy in comfort, personal dialogue, and significance, and aims to create a personal relationship between the creator and the urban player.

Land art is to be understood as a protest against the perceived artificiality, plastic aesthetics and ruthless commercialization of art and architecture at the end of the 1960s in America, and the movement has spread in Europe as well, since. The creators have developed monumental landscape projects inspired by minimal art, concept art, but also modern and minimal movements such as De Stijl, cubism, minimalism and the work of Constantin Brancusi and Joseph Beuys.

> **layers of horizontality** (main text ref. 2.3.1) = These are types of syntactic layers that reveal the form transformations, the intentions, the primary structures and the revelation of a fundamental idea and/or heritage.

> **layers of multi-dimensionality** (main text ref. 2.3.2) = These are types of syntactic layers that reveal the conceptuality of the public open urban space and the diversity of interpretive lenses. Denise Scott Brown refers to this perceptual tool in terms of 'four-dimensional architecture'.

Figure g.19: Insecure public open urban space; perspective section taken along Giambellino road, in Milan (close to the Naviglio strip)



> **layers of verticality** (main text ref. 2.3.2) = These are types of syntactic layers in a civic space that reveal multiple elevations of the public open urban space.

> **Lynch (Kevin)-oriented civic space** (main text ref. 2.10) = The public open urban space that considers the Kevin Lynch civic theories may approach the civic open environment where an orderly spatial structure agrees with the corresponding visual images.

> **mal** (main text ref. 2.9) = The natural use of a hill as a point of arrival, incorporated into the design of a civic space.

> **Medieval path** (main text ref. 2.10) = A path leading straight to the basilica; the 'path of salvation'.

> **Medieval public space** (main text ref. 2.3.1) = The contemporary form of the civic plaza is attributed to the medieval period of the western world, which is a period that 'invents' the public open urban space organically connected to the city, and welcomes functions which are not destined for the buildings' interiors, but for the whole community. During that time, in the public open urban space, which sometimes took the form of designed and thought-out planning and other times not, took place religious and political ceremonies, fiestas and performances, along with people's informal daily meetings.

The collective creation of the medieval plaza is followed by the designed civic space of the Renaissance; a period which proposes the public open urban space as an expression of the geometrical considerations of a new civilization. During this time, the functional needs of the city relinquish, and the public space becomes a central urban space of a prestige issue and other subtractive codes to exhibit various leadership groups. More than often, public urban spaces represent impressive architectural compositions, similar to the Italian piazzas of the 15th and 16th century, the places royales of France, the grand'places of Flandra, or the plaza mayors of the Iberian Peninsula. (figure g.20)

> **mésé (Middle Street)** (main text ref. 2.4.1) = The main avenue of the capital, surrounded by porticos, crossing the city for several km. The mésé (a greek word that also means median) was also called plateia and agora. Otherwise known as Middle Street, it started in Constantinople, around which the economical and

commercial life was organized. The Middle, main avenue of the capital city, with galleries on both sides, trespassed the city for several kilometers. The life of the city was developing around and inside the streets and passages, with no reference to an official civic space of action. In spite of this, the first Christian centuries were marked with large religious complexes, around which large atriums and courtyards transformed the urban fabric; however, from the 10th century and onward, churches were only single small buildings, with frivolous free space.

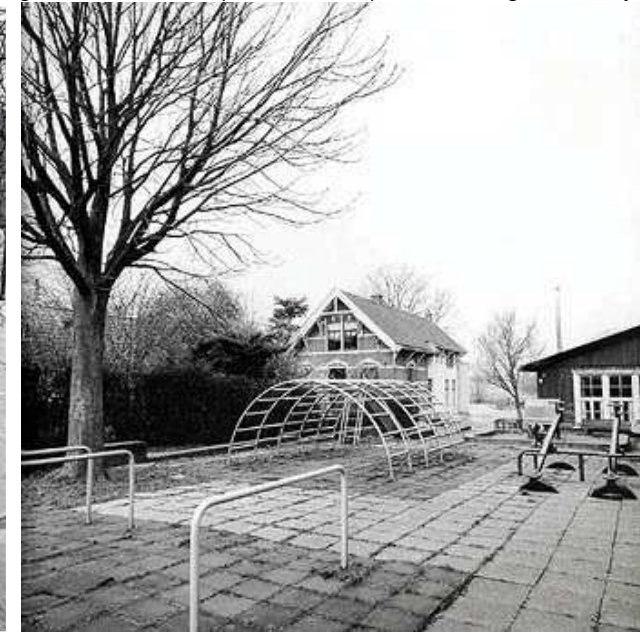
> **meydan** = Modern Turkish word for square. It has many meanings and philosophical connotations; open space, field, arena, the world around oneself, the universe. Also word alan is used; meaning open space, plateau between mountains, clearing, field. (also see *alan*)

> **minimalist civic space** (main text ref. 1.5.3) = Initiated in parallel action with conceptual art (also called ABC art, reductivism or rejective approach) and closely related to it, evolved in the 1960s with late modernism and may become closely associated to the semiotic interpretation and representation of an object or experience. For this, minimalism is crucial to study with its application to the design of the public open urban space, as the contemporary civic space is often in need in the reductive properties of its essence, in an effort to mute the overflow of information and interpret matters in a *spartan*-like formalistic dialogue. Introduced in music by John Cage, in painting by Frank Stella, art theory by Clement Greenberg, Literature by Samuel Beckett, politics by the 'Pax Americana' movement and in architecture by Norman Foster, it is effective to see how certain conceptions of it help interpret or justify the minimalist behavior of the contemporary urban space.

Minimalism is expressed by the subtractive design of open space. Aldo Van Eyck's design of playgrounds in the 1950s is characteristic of this phenomenon, with modular polycentric and non-hierarchical compositions, incremental adaptation and high consideration of the in-between and interstitial spaces, along with the urban tissue. (figures g.21-g.23)

> **modern civic space** (main text ref. 4.1) = During this period, the civic space becomes lost in the formless free space that surrounds the buildings, accompanied by a shift to a looser perceptual understanding and lack of framing. The modern civic spatial arrangement is a condition where the public open urban space seems formless and chaotic, with no defined boundaries and no set rules. Critics of the modern movement such as Rob Krier, define this phenomenon as a condition of lack of perceptual understanding with no organization, framing, structure and other rigid syntactic interpretations.

Figure g.20: Medieval public space; Campo in Siena.



Figures g.21 - g.23: Minimalist Civic Space; Bertelmanplein, 1947; Durgerdammerdijk, 1955; Dijkstraat, 1954, by Aldo van Eyck.

> **monumental Renaissance square** (main text ref. 2.7) = This type of square shows emphasis on the celebration of impressive monuments within the space, as an expression of power. (figure g.24)

> **mppezestenia** (main text ref. 1.6) = Centered roofed markets, developed in Greece and Turkey with the termination of the Ottoman Empire in the 15th century

> **Muslim civic spaces** (main text ref. 2.3) = Complexes of religious and commercial buildings, often open spaces for Muslim religious communities alone (after the Ottoman conquest in the 15th century); surrounded by galleries and colonnades, they formed the courtyard of the mosques. The layers of transformation underlining these civic spaces traces back to the agora, then the forum (where the early Christian Byzantine cathedral was built), then the large mosque would be built later on. (Note: during Byzantine and Ottoman time, the only site of urbanity and conviviality in the city was the market; it consisted of a complex of courts, open or covered alleys and small extensions, whereas the square lost all primary meaning).

> **nonplace** (main text ref. 1.5.3) = A term developed by Marc Auge; a place which leaves the individual alone and literally undone, as the administration of otherness is what allows for the definition of identity after all.

> **nostalgic/regressive civic space** (main text ref. 1.5.2) = A nostalgic approach to the design of the public open urban space that took place during the second half of the 20th century. These relevant actions become a result of a critical and nostalgic disposition that takes place as a symbol of the lost urban qualitative spirit of older times. Regressive points of views start to take place with the dawn of modernity, when the scale of public spaces became augmented, and the criticism of unsecured and alienated environments took a toll. These new modern civic spaces were characterized unpleasant, gigantic in scale, procrustean in feeling, and having no human content. The criticism typified the modern civic spaces as in the midst of high-rises, surrounded by uninfected and totally diffuse space. In many cases, as described by Vincent van Rossem, a residential high-rise in the middle of such an environment, was thought to be qualitative only when surrounded by rich cultural facilities, something which is never the case in the outer suburbs. This dilemma of qualitative evaluation, very vividly expressed in the debates of CIAM, is generally divided between two periods; the pre-war and post-war, where the former deals with the rational and the scientific points of views, and the latter with a more sensitive approach of the re-evaluation of priorities for a more pedestrian urban environment. But even here, both perspectives of reason and emotion are being criticized, as the pre-war ideals of the 'functional city' (1927) of 'dwelling', 'work', 'recreation', and 'transportation' exhibit an absurd simplification of the situation, while the post-war 'heart of the city' (Hoddesdon, 1951) ideal of 'historical datum', urbanistic, architectural, cultural and social values, are said to be impossible to be designed, as they should naturally

evolve historically.¹

Some fundamental theorists that expressed this point of view, are Camillo Sitte (1889), Raymond Unwin (1909), Marcel Poëte (1931), Lewis Mumford (1961), Rob Krier (1975), Colin Rowe (1979).

"At some moment in time there occurred a cessation of meaningful artistic production and a catastrophic decline in all sense of value. Standards of craftsmanship were abruptly terminated. Collective endeavor declined. Society became atomized and the individual alienated. Disassociation of sensibility ensued and tragic schism between feeling and thinking was the inevitable result."²

> **Olmsted (Frederick Law) public space** (main text ref. 1.5.1) = Olmsted acted widely on the grounds of suburbia, emphasizing theories about wilderness of the urban public open urban space and its civilized duty. Although civilization and organization of expression start to form some kind of structure, the application is geared more towards naturalistic settings and emulation of the wild landscape, rather than full expression of ideas undergoing inside the threads of the urban and suburban fabrics. (figure g.25)

> **organic Medieval square** (main text ref. 2.3.3) = This syntactic expression of Italian piazza's introduces new values of increasing frequency within the urban cores, with one major characteristic that the site opens to one more spaces, most of them centrally located, re-shaping the previous Roman-era settlement, and re-shaping the perspectives and forms. The organic nature of this phenomenon rises from the fact that the public open urban space initially undergoes contraction from its original Roman-era form, then gradually takes its fundamental shape, and organically expands and reshapes itself beyond the perimeter of the ancient district and commonly into a system of squares, and on the grounds of the original Roman forum. (ex. Piazza Vecchia or Piazza del Duomo, Bergamo - (figure g.26)).

One useful characteristic of the medieval public open urban square, is that it does not hold a pre-determined shape, but exactly as mentioned above on its organic nature and philosophy, it takes the shape of the expanding city form. Sometimes, when the irregularity of the topography as well is particularly distinctive, as for example the site of Siena which roller-coasters on hilly slopes, the unity that the public open urban space exhibits has surprising unity of composition and scale.³ (ex. Campo in Siena)

1 Van Rossem, V., 1996, op.cit., pp.14-15, 18-19.

2 Rowe, C., 1979, op.cit., p.7.

3 Mancuso, F., 2000, op.cit., p.122.

Figure g.24: Monumental Renaissance square; Piazza della Liberta in Faenza.



Figure g.25: Olmsted, F.L. public space; General plan for the village of Pinehurst.

Figure g.26: Organic Medieval square; Piazza Vecchia of Bergamo, Italy.



However, despite its expanding nature of increased connectivity to the surrounding site, associating the description to terms and keywords of expansion and dispersion, the medieval public open urban space holds parallel characteristics of closure (inside its surrounding walls), with “semantically charged maxi-elements” composed of a cathedral or church, a palace, and squares. And notwithstanding the variety of forms that the medieval plaza took place throughout different cities of the time, it is safe to say, as supported by Françoise Choay, that the perceptive qualities of the civic art forms of the time hold an emotional and visual relationship to the syntagmatic structure of civic organization¹ - to the *realm of everyday life*; a message of mass communication mentioned in Umberto Eco’s *La struttura assente* (also refer to Chapter Two, on the *Perception of Space*).

> **path origins in civic space** (main text ref. 2.10) = The writings by Christian Norberg Schulz on this topic of historical extrapolation of tools for the understanding of the man-made civic space, are so illuminating and useful for the initial steps of this study, that we will go further into mentioning the also historical significance of the path in the public space, which is fundamentally a concretization of the concept of time. The path, will usually lead to a point of arrival, which could either be a center, an enclosure or expressed through the natural use of a hill (Mal). For example, the Acropolis of Greece combines the use of the hill and the enclosure; some ancient compositions use the *via sacra*, leading to a center (relevant to cosmic events); while later on, the medieval urban space’s path will lead straight to the basilica, symbolizing the ‘path of salvation’. The traditional layout of the street and the square falls along this concept of path and center.² (figure g.27)

> **pazar** (main text ref. 1.6) = Similar to the meaning of the Turkish *tzarsi* or *tcharchi*. Later the Pazar became equated with outdoor markets held on the outskirts of the city.

> **phenomenology** (main text ref. 1.3.1) = The interpretation of the public open urban space on the basis of a grounded science of space representation, rather than on abstract principles of visual appreciation. Phenomenological perception deals with the intentionality of consciousness, and the subject’s willingness to establish relations with a world that is to be constructed through the mediation of the body.³

1 Choay, F., 1986, op.cit., p. 165.

2 Norberg-Schulz, C., 1991, op.cit., p. 56.

3 Solá-Morales, I., et.al., 1997, op.cit., p.52.

Figure g.27: *Path and origins in civic space*; Belvedere, by Hilderbrandt, Vienna.



- Existential Phenomenology = depending on colors, textures, lights, forms, spaces, a nascent decorativism and an opening up to the free play of experimentation. Existential phenomenology relates to brutalism, neo-Liberty, vernacularized organicism and hypertechnologism (Felix Candela, Pier Luigi Nervi, R.Buckminster Fuller).

> **pijaca** = In the Slavic languages (Serbian and Bulgarian), of Italian origin (*piazza*), means an open space without a precise shape, often divided into two parts, the upper *carsija* and the lower *carsija*. Today the word is used only as a metaphor that refers to the particular atmosphere of the Serbian bourgeois environment before modern times, enriching the partially political meaning of the square.¹

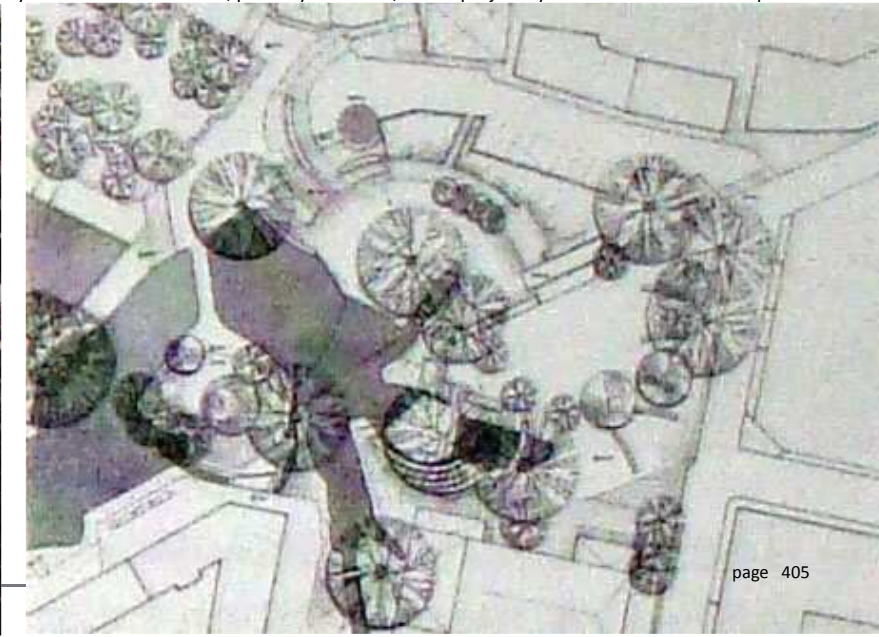
> **plateia** (ref. 1.6) = A wide road/street filled by workshops and stores, also water reservoir for city, initiated in Constantinople. It appears that the Plateia - a common heritage of the Greek and Roman antiquity – developed in the course of different routes in the European East, in the world of the Eastern Mediterranean, and in Greece more specifically. The ideas and perceptions regarding the form, role and meaning of the *plateia*, all of which got developed in the western world from the Renaissance and until the Enlightenment era, are not being scouted in the East. The royal plaza, the large open markets, the military court or the urban plaza in the new lands of the cities, does not exist. Until the 19th century, the un-built space in the urban fabric was in most cases a result of luck, or the land terrain that did not allow for construction, or could also be justified by the enlargement of the city and the embodiment of rural areas.² (figures g.28-g.29)

> **plateia/piazza/plaza and origins** (main text ref. 1.6, 2.4.1) = This concept of path and direction is relevant to the paradigmatic change that the agora took over the years, with the emergence of the plaza (*piazza*), believed to be of Greek origin, deriving from the word *platea*. The word initially appears as an adjective next to the world ‘street’, and indicates a wide street, in differentiation to a narrow one. The latin language embodies the term (*platea*), by giving it almost the same meaning. In the word’s developmental life, it will become in almost all of the European languages; place, piazza, praça, plaza, platz, plein, plads, plaç, piatta, except for English, which will take preference over the word square many centuries later, initially referring with it to any open green space in a neighborhood. The term of the square also shows preference to its identity of a

1 Ananiadou-Tzimopoulou, M., et.al., 2000, op.cit., pp.33-34.

2 Ananiadou-Tzimopoulou, M., et.al., 2000, op.cit., pp.97-99.

Figures g.28 - g.29: *Plateia*; Example of the contemporary Greek Plateia in Drama, place Ayia Varvara, 1986 - project by Maria Ananiadou-Tzimopoulou.



predetermined geometrical shape that became consecrated after many centuries of experience. Even the Slavic word *trg* for example, is connected to the word *trgoviste*, which means agora, market, old Pazar, etc.

> **plateia alanion** (main text ref. 1.5.3) = (πλατεία αλανίων) The public space of the threshing area. The etymology is from *alos* or *aloni*, which means a threshing area; numerous squares would be created in Greece during the 19th century exactly on the old threshing grounds.

> **plaza 'of the sycamore'** (main text ref. 2.9) = (πλατεία πλατάνου) Classified as a 'type 1 Greek square', this plaza is an exception from the seclusion of the classical functions of the traditional plaza. The plaza of the sycamore is a type of public open urban space that developed in some cities and villages after the ottoman dominion by Christians, who decided to move away from Turk-inhabited regions. The uniqueness of the plaza of the sycamore is in the initiation of civic public gathering from the sole existence of this tree, which was positioned next to water for its growth. Similarly to how the sycamore grew and matured, so the community slowly would start to add elements such as a church, market benches, etc, however without a predetermined image for the shape of the open space. Because of the terrain, this form of open space would often be developed on several levels, giving the impression of an open theatrical space under the sycamores, similar to what can be found on islands Ko, Andros, Syros, and cities like Ksanthi, Siatista, Edessa, Kastoria, Drama, Lidoriki, etc. (figures g.30-g.31)

> **Plaza Mayor** (main text ref. 2.5.1) = Increasingly regular shapes (rectangular or square), always with arcades, they became 'royal square' as well. In the 19th century they became 'classical' squares with the functional value of town halls and administrative buildings but almost never religious functions. These types of plazas are usually rectangular, lined with classical buildings with arcades; the introduction of the classical square became the model for modernizing the 19th century civic space and the most interesting examples of contemporary squares have their antecedents in the multiple, different-scale strategies first employed in Barcelona in the 1980s. They introduced the first large, regular and geometric space into the heart of the city; ex. Valladolid's Plaza Mayor, Castile's Plaza Mayor of Madrid, Segovia's Plaza de la Corredera in Cordoue (and Leon), Plaza Mayor of Salamanca. In these types of squares the church and town council coexist, with no need for statues or other symbols.

> **Portoghesi-oriented civic space** (main text ref. 2.6) = The public open urban space that considers the theoretical design philosophies of Paolo Portoghesi may assume a public open civic structure that implies strong direction and orientation, and becomes a part in a pattern of well-defined relations.

Figure g.30: Plaza 'of the Sycamore'; Example in Portaria; plan

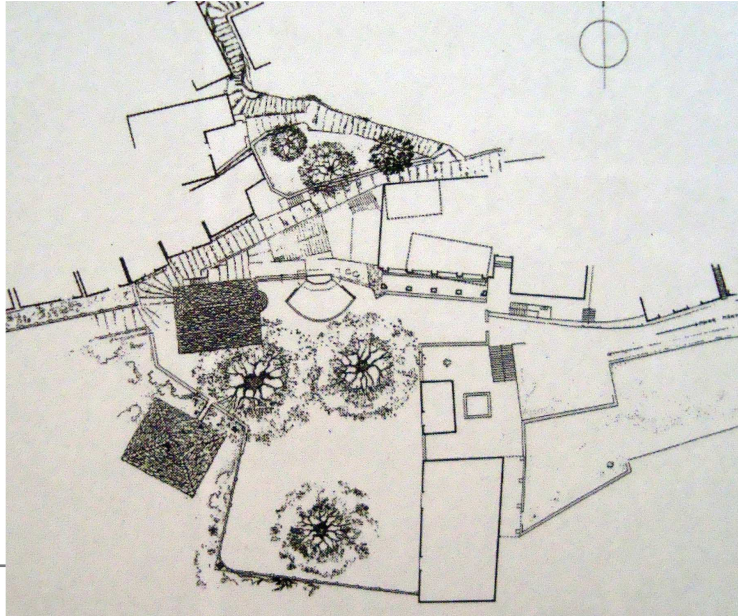


Figure g.31: Plaza 'of the Sycamore'; Example in Portaria



> **Renaissance square** (main text ref. 2.7) = A typically a monumental square. (figure g.32)

> **Roman-era square** (main text ref. 2.7) = A regular plan; square centrally located; corresponds to site of roman forum; square organically follows the establishment and development of the city and becomes transformed into a veritable system of squares; Spatial reflection of model of social organization (ex. Piazza Vecchia, or Piazza del Duomo, Bergamo)

Recurring models:

- 1 Prevalence of one of these functions; religious (piazza del duomo in Parmo, Prato, Lucca), or civil (Campo in Siena, Piazza della Signoria in Florence, Piazza Cavalli in Piacenza)
- 2 When they host both functions; Cathedral and Palace
- 3 Presence of veritable system of squares, contiguous and intimately connected; functions move fluidly from one to another, though they refer to certain specific buildings.

Systems of squares usually intersect and penetrate one another, in unusual directions, often relying on original and rather ingenious architectural and urban solutions; grading of terrain, connecting buildings in unexpected ways, clever use of urban elements, fountain, porticoes, paving and balusters.

Example where the site, despite its irregular geometric composition, displays a surprising uniformity; Campo in Siena.

> **royal square of France** = This square expresses political power at its apex. It usually contains a statue of the kind, often equestrian, in the middle; this was typical in Germany and Denmark (not in Italy or Greece). One exceptional example is the central square of the newly founded town of Zamosc, designed according to the treatises on 'ideal cities' of Italian Renaissance; also influenced by the forum of ancient Rome.

> **schemata** = Pure forms, related to 'conceptual art'. In reference to public open urban spaces, the schemata may express the relationships that are created between the architectural objects and the surrounding environment, suggesting the theme and concept of the space.

> **secure public open urban space** (main text ref. 2.1.3) = A bound or unbound public space, where one will feel respectively either comfortable, safe and protected, or free. (also refer to **bound public open space** and **unbound public open urban space**).

Figure g.32: Renaissance square; Example in Piazza SS. Annunziata in Florence.



> **Sitte, Camillo** (ref. 1.3.1, 2.1.3) = Camillo Sitte's main syntactic analysis falls in the categories of plan interpretation and line description of the boundaries and relationships between fundamental elements of the composition. He analyzes the form that the square takes from up above, the feeling of enclosure or openness, the existence of groups of squares, and the qualitative traits of irregularity. To understand the origins of this syntactic analysis, one must keep in mind the conception of the structural open space plan, planned according to an orthogonal scheme of two main axis – *cardo* and *decumanus* -, while playing with the hierarchical compositions of various quarters of the draft board, and the monumental depiction of religious buildings¹, expressing the ideals of the time.

Recurring functional models investigated are a) Prevalence of one of these functions; religious (piazza del duomo in Parma, Prato, Lucca), or civil (Campo in Siena, Piazza della Signoria in Florence, Piazza Cavalli in Piacenza), b) When they host both functions; Cathedral and Palace, c) Presence of veritable system of squares, contiguous and intimately connected; functions move fluidly from one to another, though they refer to certain specific buildings.

Systems of squares: Systems of squares usually intersect and penetrate one another, in unusual directions, often relying on original and rather ingenious architectural and urban solutions; grading of terrain, connecting buildings in unexpected ways, clever use of urban elements, fountain, porticoes, paving and balusters.

- Sitte oriented Civic Space = The public open urban space that supports the theoretical design philosophies of Camillo Sitte, incorporating a design structure of irregularity of frame, and intuition; where design is executed on the spot, and with complexity under which the definition of urban framing is set. (figures g.33-g.40)

> **space gradients** (main text ref. 2.6) = Similar to the psychological Rorschach test, space gradients relate to the psychological interpretation of public open urban space, in terms of the time necessary to become aware of a perceptual civic space experience at certain spatial points of view, as well as the cognitive responses and thoughts that are a result of a direct response. The space gradient psychological interpretation analysis deals on levels of

location, popularity, and originality, and is interpreted as a result of 'sense impression', 'imitation of nature', 'idealization', and 'abstraction'.

> **Spanish framing** (main text ref. 2.5.3) = Institutional squares closed to the surrounding traffic and that also have the four angles defined by a perfect cornice; classical squares of Northern Spain (Vitoria, Bilbao, San Sebastián) and Catalonia (Placa Reial in Barcelona). Squares with a pre-eminently commercial function tend to be more open and the covered archways extend into neighboring streets and they can visually continue the perimeter if the streets provide access in the spiral fashion, as proposed by Camillo Sitte; ex: Balaguer, Banyoles, Santa Pau and Prades. (figure g.41)

> **street art/city graffiti** (main text ref. 2.6.1) = The spontaneous or organized creation of art in the city public open spaces, as figurative expressions of the 'hidden' artists. A lot of street art is representative of the cultural problems within an urban environment, or romantic of a certain era, or rebellious, and often abstract and mysterious. The opinionative dilemma often rises between the conception of street graffiti as 'urban art' or 'urban blight'. (figure g.42)

> **suburban core** (ref. 2.3.4) = Suburbia, literally means 'beyond the city', and as noted by César Daly in 1864, it reveals the spirit and character of modern civilization when it comes to space preference, choice of surroundings and organizational ideals on the civic way of public community. Where wilderness meets the edge of the dense city, the suburban core represents the marriage between town and country, and what Frederick Law Olmsted describes as the natural tendency of people to flock together¹ when inevitable sprawl dispersal of the dense urban region begins to take place.

There can be vast differences among the suburban historical cities, the suburban northern European cities, the suburban atmospheres in different cities in the east, or the suburban situation in the United States, just to name a few examples. When speaking about a suburban core, what one deals with, is the merging of the city core and the natural landscape that surrounds the city's boundaries, hence one may face an infinite type of wilderness surrounding a specific city across the globe, making this an infinite subject to speak about. The organic properties of the uncontrolled and unsecured wilderness in nature, is an intriguing one, but in a parallel way forces intimidation, hence the need for the creation of secure and civic environments in these vulnerable and hybrid areas that are classified as suburbia.

¹ Aymard, M., 2000, op.cit., p.29.

¹ Fishman, R., 1987, op.cit., pp.5, 10.

Figure g.33: Sitte, C.; Parma - focusing on the concept of **enclosure**.

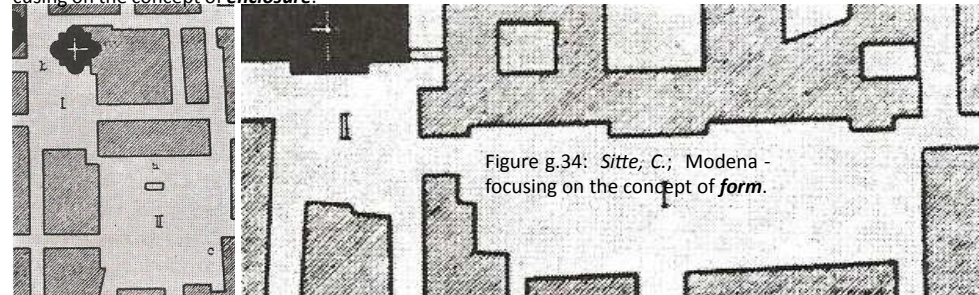


Figure g.34: Sitte, C.; Modena - focusing on the concept of **form**.

Figure g.37: Sitte, C.; Verona, Piazza del Plebiscito - focusing on the concept of **irregularity**.

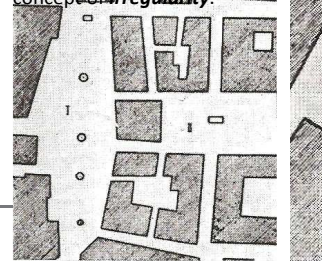


Figure g.38: Sitte, C.; Ulm, Piazza del Plebiscito - focusing on **northern** design.

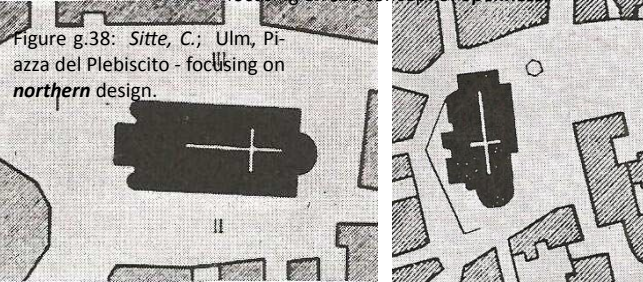


Figure g.39: Sitte, Camillo; Autun - focusing on the concept of **openness**.

Figure g.36: Sitte, C.; Naples, Piazza del Plebiscito - focusing on an **improved modern** design.

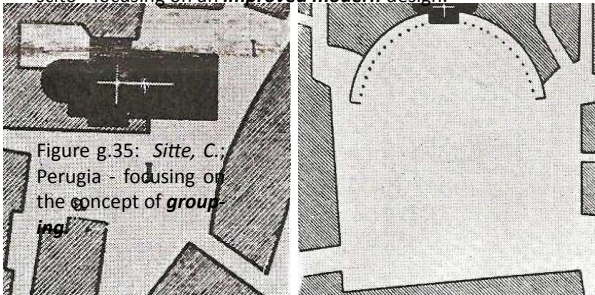


Figure g.35: Sitte, C.; Perugia - focusing on the concept of **grouping**.

Figure g.40: Sitte, Camillo; Autun - focusing on the concept of **principles**.

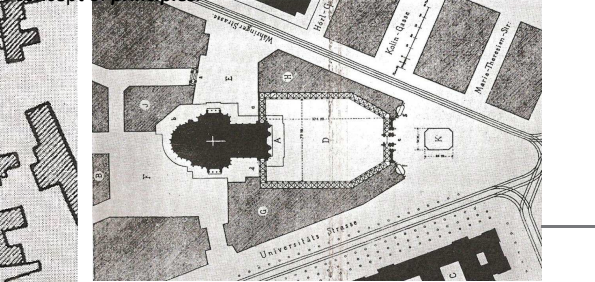


Figure g.41: **Spanish framing**; Piazza Vittoria.



Figure g.42: **Street Graffiti**; 19th century NoLIT building in New York.



The ironic fact of the suburban 'square', which consequently would embody some more naturalistic and organic structural features, as it moved away from the rigidity of the city and approached free forms of the scattered rural reality, is its strong influence by the re-emergence of Italian rectangular or square piazza, brought back by Inigo Jones, and emphasizing "order, space, and commodiousness in a disorderly city". The result was the design of Covent Garden for the Earl of Bedford in 1630 and the continuing of formalistic layouts of suburban public civic spaces that were mastered by the elite by 1720 and 1730.¹

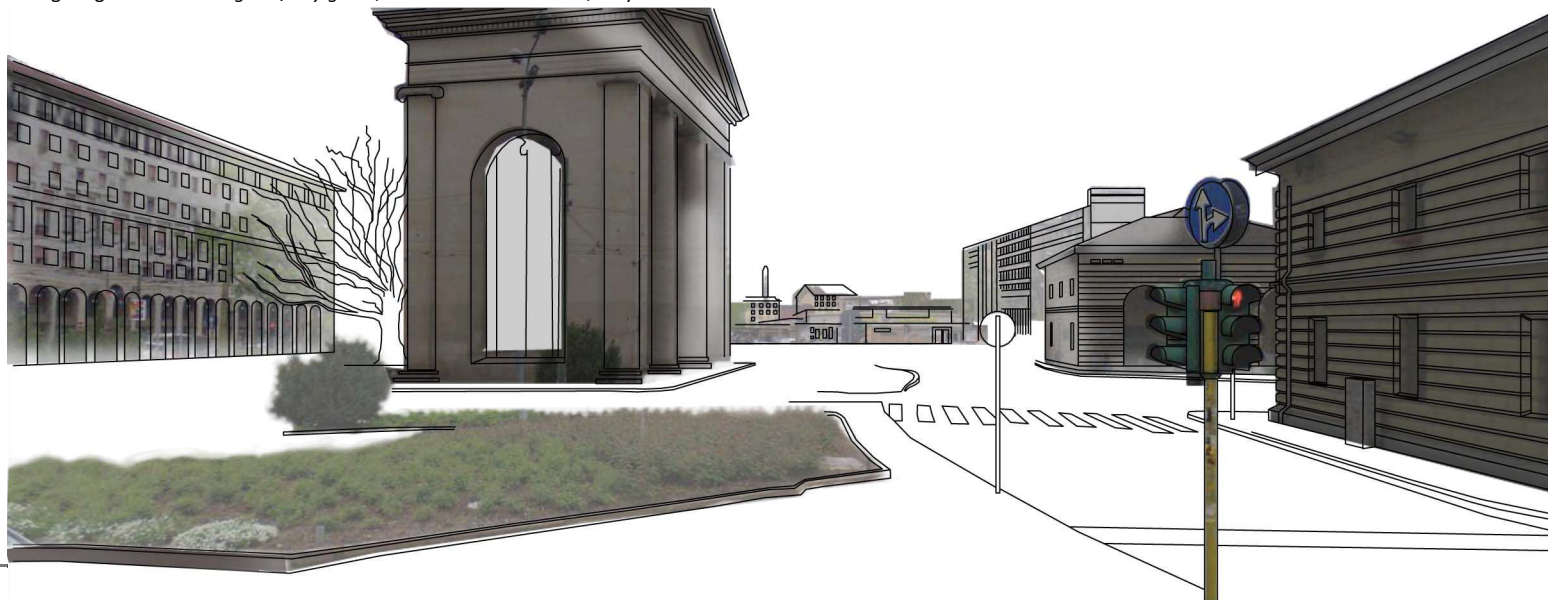
Some key characteristics of the suburban core are:

- **merging** of civic core and natural landscape
- **re-emergence** of the orthogonal square
- city gates as once on city **boundaries** (secondary urban cores)
- concept of **nature as variety** (examples: John Nash's Village (1824), Victoria Park, Manchester (1837), Olmsted's Riverside (1868), Clarence Stein and Henry Wright's Radburn, New Jersey, (1928)
- **intermediary structural framework** of american suburban front lawns
- interactive nature of the landscape (Bernard Lassus; '**cultural reading**' and '**construction of the mind**')
- **memory** and **collective representation** (Luis Barragan and Gilles Clemente)
- public syndrome of the **non-place**
- 'uncanny' zones; zones of disturbance; **interstitial spaces**, urban voids, desolate areas

> **suburban gates/city gates** (main text ref. 2.3.4) = The suburban gate is kind of a suburban public open urban space that evolved historically while the city was still growing, and although today it might seem that such place is not topographically on the suburbs, as it once used to be. This is evident in the old gates of cities (show examples of the Milan gates), train terminals and stations, which once disfigured the 'outskirts' of the cities in a perhaps positive way. (Today, this situation may also take place, with the remote placement of airports and new stations of TGV trains, creating a strikingly different situation of the 19th century decisions to place such functions near the gates of the city. Inevitably, this decision-making forms a vast amount of 'empty' zones, or non-places, which create problems that will be stated further down). The formation of these 'secondary' urban cores, created a new generation of squares, similar to the ones built by the Dominicans and the Franciscans in the 13th century (ex?), offering an urban civic center to the immigrants of that period. These also include the ones created for the animation of places which fell on the grounds of the city's expansion, such as the Piazza Santa Croce in Florence or the various campi of the sestieri of Venice. A number of these public spaces were transformed over time in order to acquire the characteristics of a city's center, similar to the

1 Fishman, R., 1987, op.cit., pp.23-24.

Figure g.43: Suburban gates/City gates; Porta Ticinese in Milan, Italy.



characteristics of the 'real' center in the core. However, as their intentions, structural foundations and energy fields were different at their birth, they retain a dissimilar character, and withhold the identity of a secondary core; "they were not born as centers, they became centers."¹ (figure g.43)

> **tzarsi/ tcharchi** (Turkish) (main text ref. 1.6, 2.4.1) = Describes the marketplace as the only public place resembling a square. The word derives from the Persian word *cihar suk* (four roads), which in the 15th century indicated an open or covered road bordered by two rows of shops, with or without a rectangular square (with four sides) and shops.² The *tcharchi* was the place of commercial trade that modulates as a network of commercial courses of specialized goods, developed in Greece and Turkey with the termination of the Ottoman Empire in the 15th century. (figure g.44)

> **typical French civic space incentive** = The typical French core holds the notion that the 'square is the breathing space of town'.

> **typical Greek civic space incentive** = The typical Spanish core holds the notion that the 'square is the outcome of cultural transformations'. (figure g.45)

> **typical Italian civic space incentive** = The typical French core holds the notion that the 'square is there because the town is there'.

> **typical Polish civic space incentive** = The typical French core holds the notion that the 'square is born with the town'.

> **typical Spanish civic space incentive** (main text ref. 1.6) = The typical Spanish core holds the notion that the 'square creates the town'.

1 Aymard, M., 2000, op.cit., pp.27-28.

2 Osman, Ergin N., "Carsi", in *Islam Ansiklopedisi*, Istanbul: 1949, p.360.

Figure g.44: Tzarsi/ Tcharchi

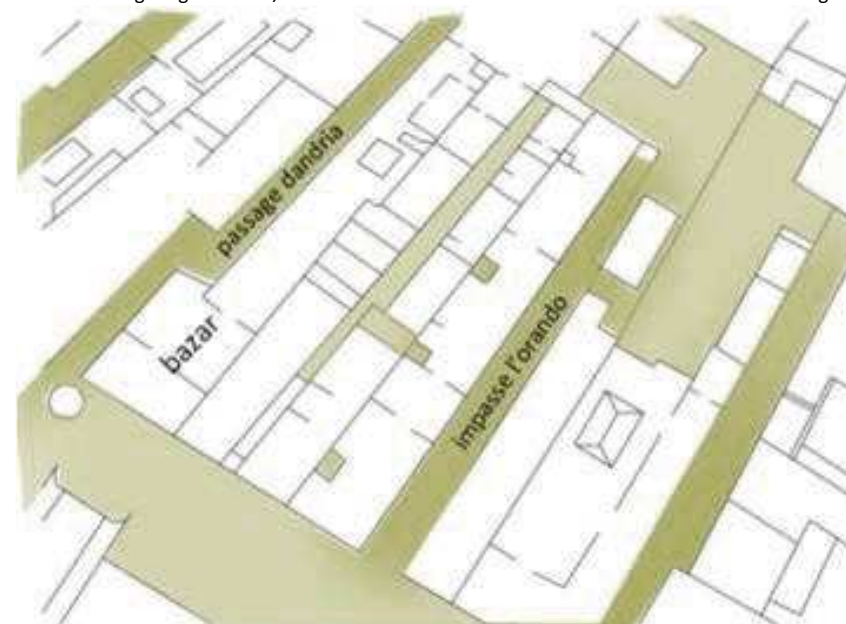
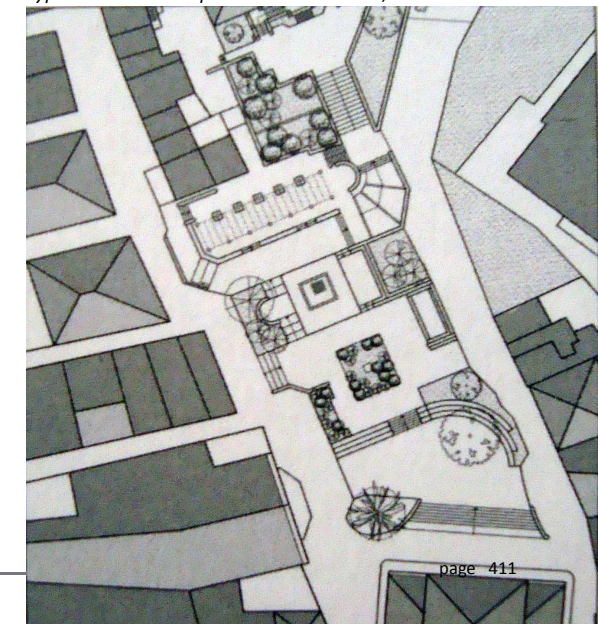


Figure g.45: Typical Greek Civic Space Incentive. Corfu, Place della Mairie.



> **unbound public open urban space** (main text ref. 2.1.2, 2.1.3) = A secure public open urban space where one may feel free.

> **uncanny public zone** (main text ref. 1.5.3) = (suburban) A term defined by Yorgos Simeoforidis; places that because of the expansion of suburban districts, have been singularized as zones of disturbance, interstitial spaces, urban voids, or desolate areas.

> **un-volumetric historical civic spaces** (main text ref. 2.1.1) = Some public spaces of antiquity, seem to hold the characteristics of an open and transparent plan, with multiple openings and free circulations, including Stonehenge, the urban porticoes of the Greeks and Romans, some of the “Barchesse” of Palladio’s villas, Bernini’s colonnades for St.Peter’s and Jai Singh’s astronomical observatories in Jaipur and Delhi. However, these hold differences compared to the contemporary un-volumetric spatial compositions that we speak of today, which is more relevant to the hybridized nature of elements, and the multi-functionality of their forms inside of a civic environment. (figures g.46-g.47)

> **vacuum public space** (main text ref. 1.3.4, 1.5.3) = Suburban public open urban spaces are the primary attraction poles of the condition of open spaces that are classified as vacuum places, due to their multi-typological condition of buildings, and their loss of identity, struggling on the boundaries of cultural identity of the primary city core, and the rural situation of the outskirts. Marc Auge, an anthropologist of the over-modern, speaks of the above conditions of the contemporary world, where human awareness is being limited to the spaces that we live in, struggling around identity, with the exacerbated forms of nationalism and the intolerance of immigrants that we see in the urban environment.

> **via sacra** (main text ref. 2.10) = The ‘holy path’, leading to a monumental landmark, and going through a public open civic space of cosmic events. This compositional element was evident in the Greek agora of Athens, leading to the hill of the Parthenon. But also in the Roman forum, the via sacra was the main street, leading from the top of the Capitoline Hill, through some of the most important religious sites of the Forum, up to the Colosseum.

Figure g.46: *Un-volumetric historical civic spaces*. Ancient roman Petronii portico at Thuburbo Maius



Figure g.47: *Un-volumetric historical civic spaces*. South portico of the agora in Philippi.



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