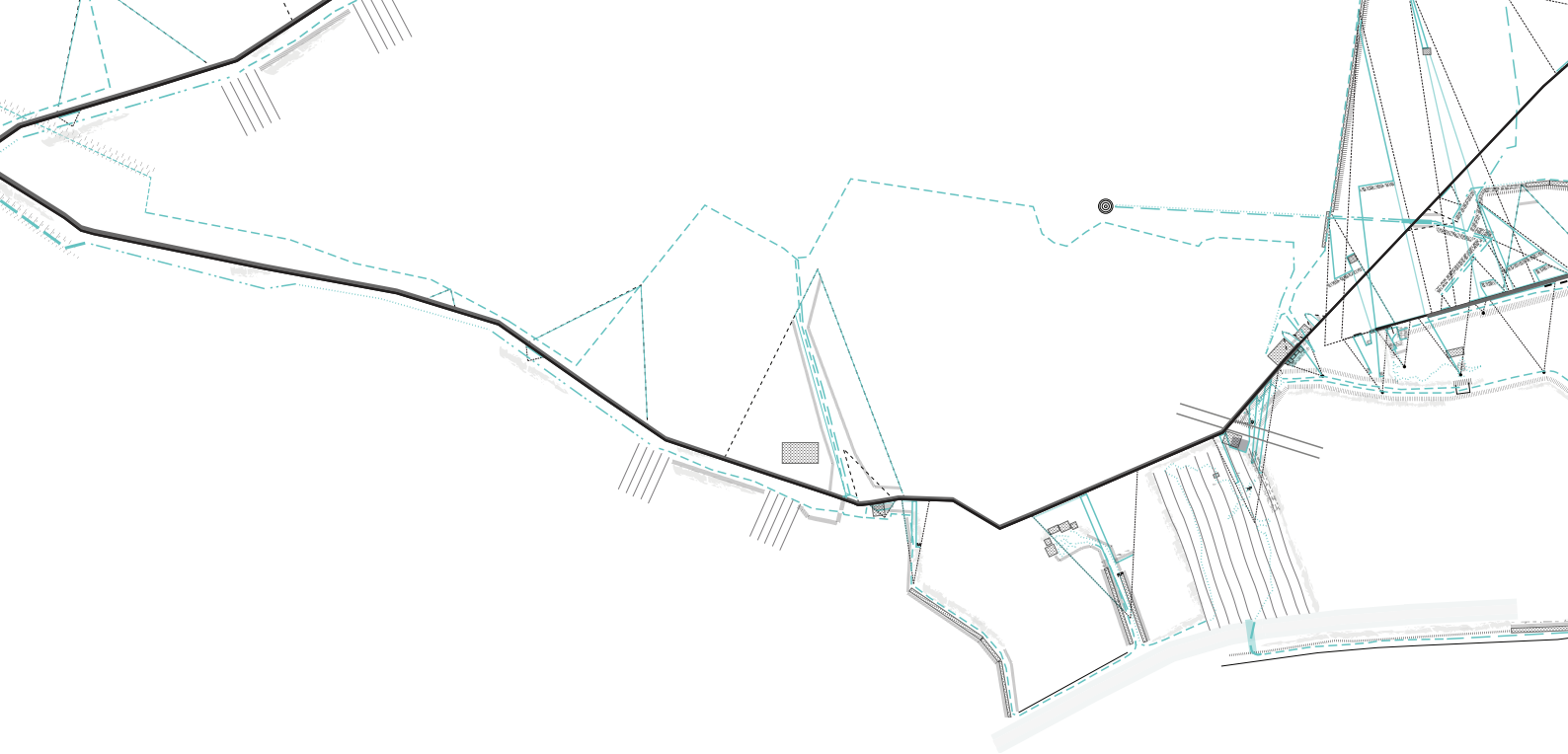
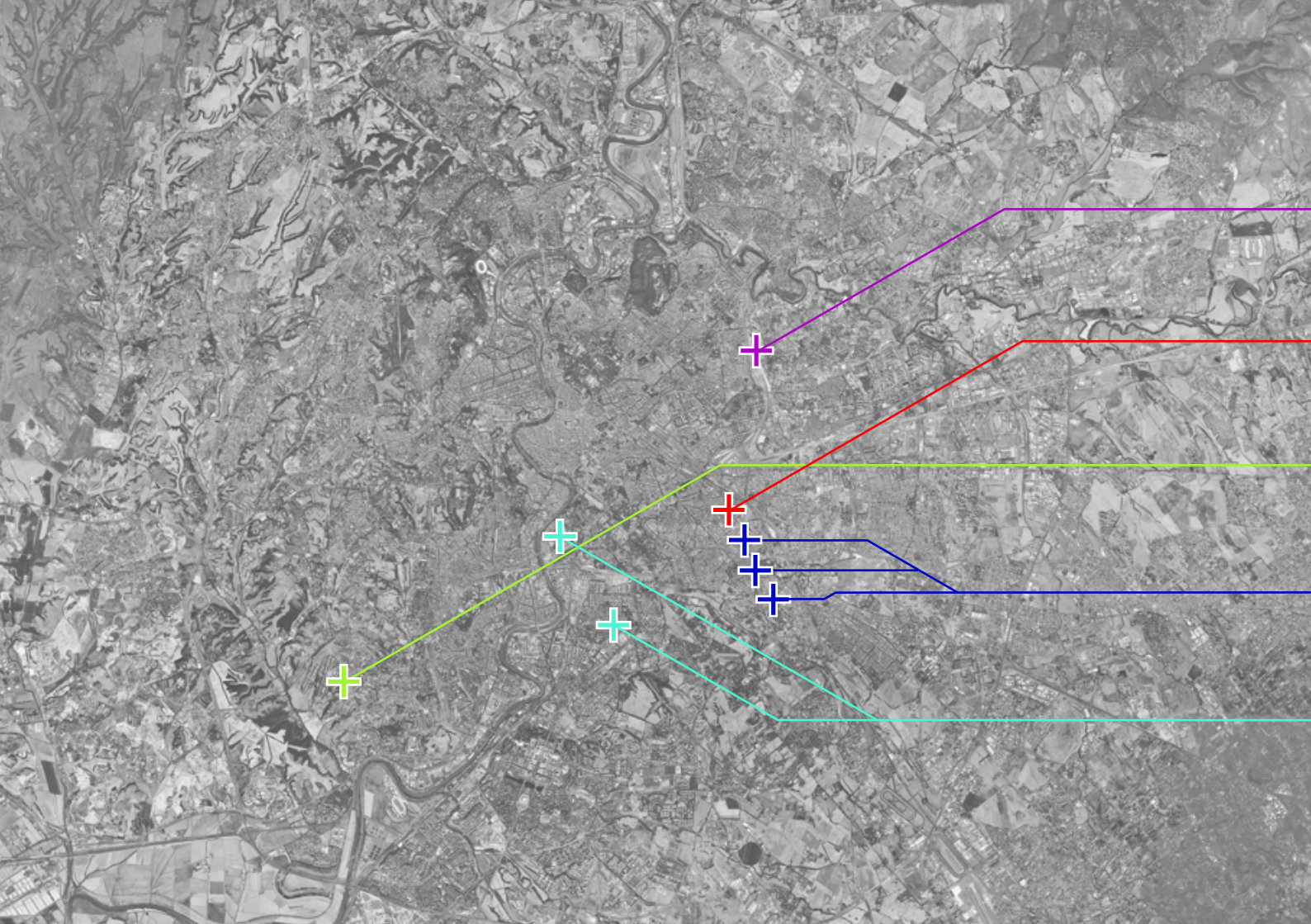


Rome Periphery

Studio **Border Conditions** *2010-11* TU Delft

0.1
content



0.2
Participants





Tutors

Marc Schoonderbeek
Henriette Bier

Students

Karolina Konecka, *Poland*
Irina Niculescu, *Romania*
Miguel Setas, *Portugal*
Cho Tung Wu, *Hong Kong*
Luigi Grosso , *Italy*

Studio Border Conditions, Msc3
Faculty of Architecture
Delft University of Technology
February 2011

Working Method

The first part of the studio, investigation and mapping on Rome peripheries, has been set up in three phases. Across the tree phases, students have been asked to develop both individual and collective investigation at the same time, along two distinct but interwoven paths, that occasionally inform one each other. In the first phase, along with some informative maps about the City, its historic development and contemporary dynamics, each candidate defined and presented an individual problem statement/ topic/research interest around the concept of periphery in Rome. Since this first phase took place in Delft with no preliminary research in situ, all investigations had been based on various sorts of free-source information, such as digital cartography, satellite and street-view images, previous researches, writings, legends and movies. The second phase consist in the workshop/excursion in Rome, lasted approximately tree weeks. From the head-quarter of Via della Giuliana, the group scattered around the most remote areas of the City during numerous walks, urban experiment and night mapping sessions. Francesco Careri and Roma_3 faculty of architecture have been involved in the project, providing working spaces and expertise. The results of these investigation_ maps, pictures and videos for the most, have been selected and processed back in Delft during the last working phase, and constituted the corpus of direct information on which group maps, individual mapping projects and relative theoretical frameworks have been developed.

While focusing on the particular aspect of periphery_ or on peripheral aspect in Rome, the idea of a blurred definition of periphery start rising, one which was vague

1.0
introduction

and indecisive exactly for the multiplicity of interpretation that this concept can assume in contemporary city. It is out of this ap¬parently uncontrollable and actually misunderstood notion of marginal/undefined that new concepts of space arise. The aim of these researches was indeed to speculates on the potential of these urban patches where the undetermined still leaves room for interpretation. An interpretation that is trans¬formed into a strategy through a precise process of mapping. In this way, subjective experience of the city is translated into an architectural discourse. The practice of mapping provides the opportunity to extract and reassemble conventional concepts into spatial ones by shifting the perception of the viewer. It is a translation tool of the everyday language of the city into the complex and sometimes cryptic vocabulary of architecture, and appeals to the pragmatics of language in order to construct new vocabularies.

Maps are parallel worlds, rich and powerful out of their own specific properties, producers of new and other spaces, of alter¬native and unprecedented geographies. Maps and cartographic practices are perhaps more correctly rendered as heterotopic projects, dealing with or seeking or suggesting counter-worlds, other territories, new spaces. Contemporary geography and car¬tography knows that maps create space, that maps generate the territory, that maps produce or generate the real.

BB3, Pavilion no. 12 vol. 1

1.1
Picture selection


CITOFONI
NON
FUNZIONANO


KENZO
RENATO BALESTRA
BOTTEGA VENETA
LEONARD
HILA SCHON
MOSCHINO
GIANFRANCO FERRE
FENDI
VALENTINO
PIERRE CARDIN
angelo maranti

7 weeks

31 Aug 2010

pre-**Rome**

Theoretical preparation

Rome's investigation from top-down perspective

The strategy for investigation on site

P1

Presentation

2.0
groupwork

3 weeks

12 Oct 2010

5 weeks

6 Nov 2010

17 Dec 2010

Rome!

pre-Rome

On-site work

Investigation in a real condition

Confroting the strategy with our findings

Collecting data

Revision and implemention of the research strategy

Final group map

Selection and representation of the collected data

Presentation of implemented strategy and our findings

Map Production

P2

Presentation

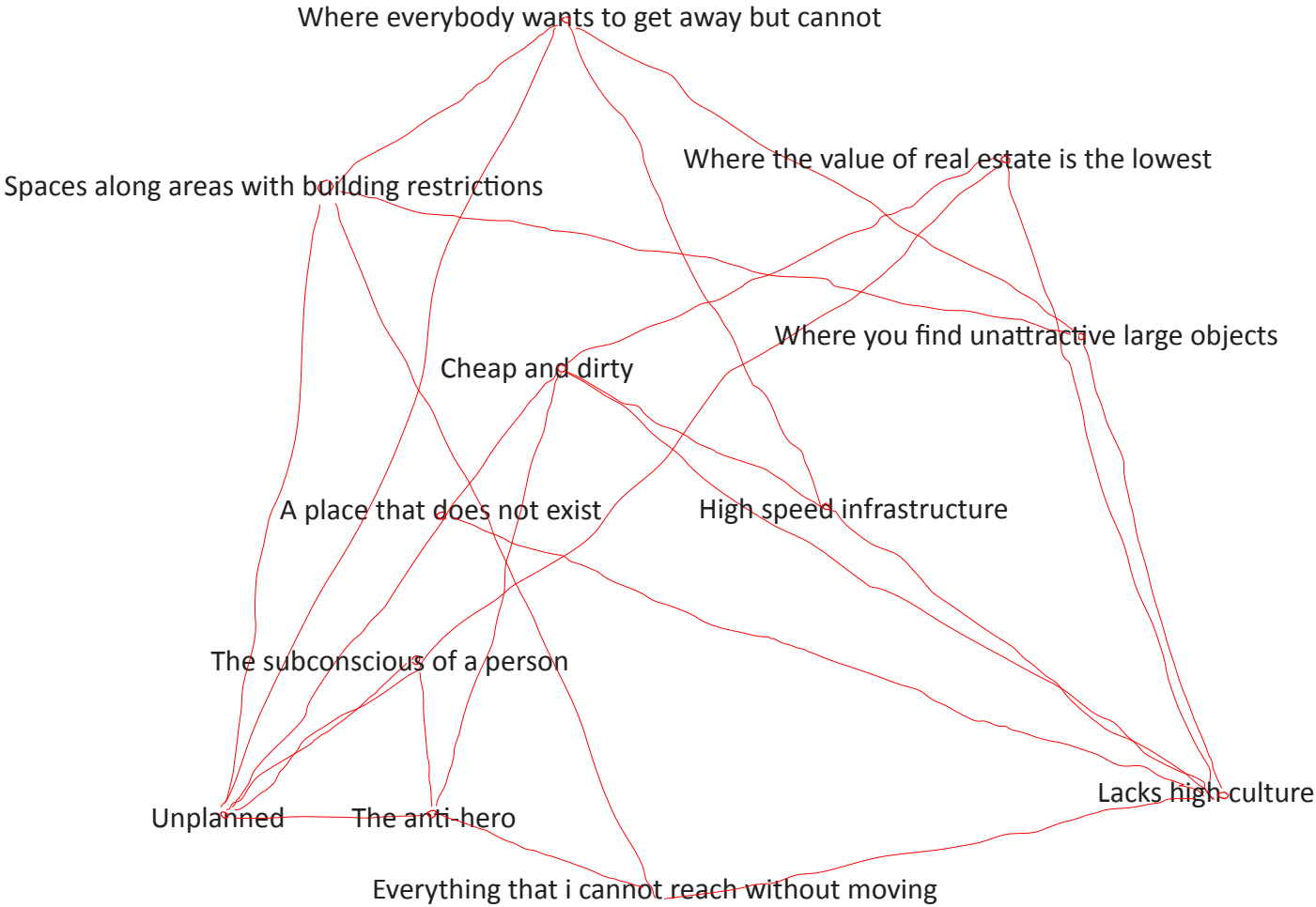

LUIGI AND JOE
MORPHOLOGY OF
TO REPRESENT:

2.1

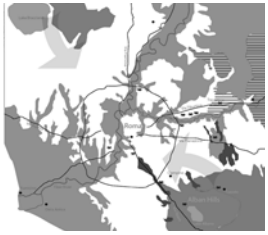
pre-rome

Pre - Rome Investigation

The work of nine students in the studio started with seven weeks of theoretical preparation at TUDelft .
As a departure point for our research, we tried to define what actually the periphery in Rome means.
In order to achieve it we approached the periphery from different points of view. First, we attempted to describe what the periphery means to us, how in functions in common consciousness, what are the issues we consider talking about the periphery. It resulted in a set of phrases that described the periphery in an evaluative manner, however, none of them could provide a precise and objective definition of the periphery.
The next step was to examine the periphery from a top-down perspective through various aspects such as territory, administrative divisions, urban tissue, economy, distribution of functions, density, population, empty and green areas etc. In each case we ended up with another definition and place for the periphery.
Our conclusion from both investigations was that it is impossible to provide one unequivocal definition periphery, as well as mark its precise location. The periphery is a relative concept , always dependent on what we understand as a center.
Acknowledging the variety of ways to determine it, we prepared the strategies for investigating the periphery in Rome: 'The Synthesis Path',' The Game Map' and 'The ParkourMap'.


Where everybody wants to get away but cannot
Where the value of real estate is the lowest
Spaces along areas with building restrictions
Where you find unattractive large objects
Cheap and dirty
A place that does not exist
High speed infrastructure
The subconscious of a person
Lacks high culture
Unplanned
The anti-hero
Everything that i cannot reach without moving

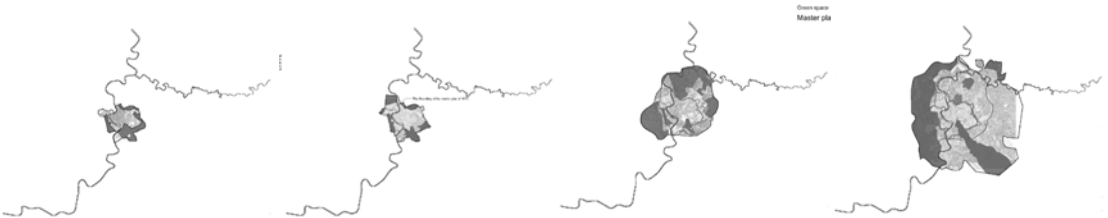
Rome Periphery Definitions



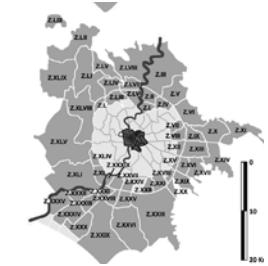
terrain configuration

public transportation means

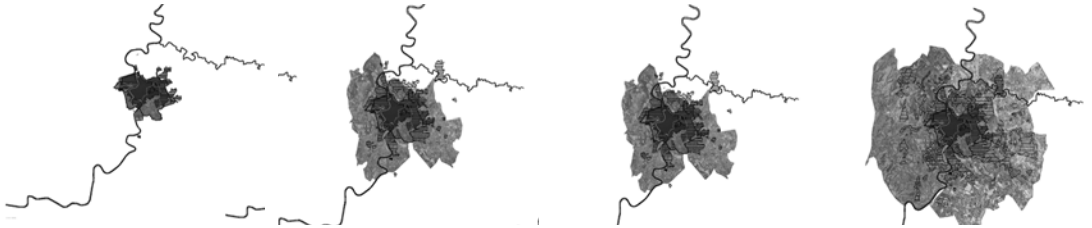
economic centers



green space historical development



administrative division



urban tissue historical development

Rome Strategy Maps

Synthesis Map

Subject:

Edge

Identity / Network

Cinematic / Mapping /movie

Transitions

Psychogeography

Networks

Networks / overlapping

"By-product" spaces

Speedscape

Narrativity

Landscape:

Infrastructure

Generic/ Local

Via Appie (Road)

Transitions

cemetery / road / industrial

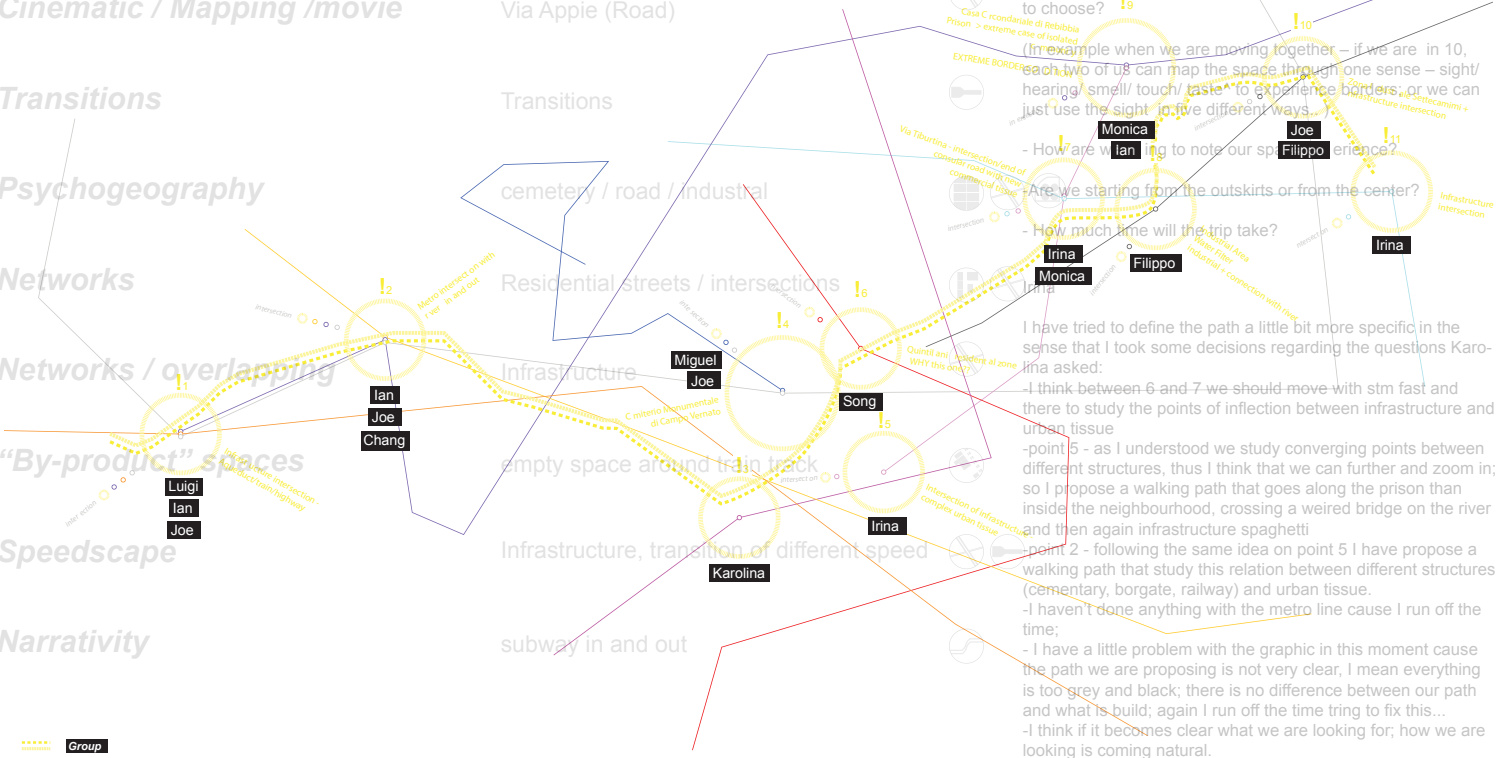
Residential streets / intersections

Infrastructure

empty space around train tracks

Infrastructure, transition of different speed

subway in and out



QUESTIONS karol

-How long is the path?

-How r we going to map certain segments of the path?

- By what means are we going to move? (walk/metro/train/car/bus/vespa/bike)

- Where are we going to move together? Where are we going to split?

- If we move together what methods of mapping are we going to choose?

(In example when we are moving together – if we are in 10, each two of us can map the space through one sense – sight/ hearing/ smell/ touch/ taste - to experience borders; or we can just use the sight to five different ways.

- How are we going to note our spatial experience?

- Are we starting from the outskirts or from the center?

- How much time will the trip take?

Irina

I have tried to define the path a little bit more specific in the sense that I took some decisions regarding the questions Karolina asked:

-I think between 6 and 7 we should move with stm fast and there to study the points of inflection between infrastructure and urban tissue

-point 5 - as I understood we study converging points between different structures, thus I think that we can further and zoom in; so I propose a walking path that goes along the prison than inside the neighbourhood, crossing a weired bridge on the river and then again infrastructure spaghetti

-point 2 - following the same idea on point 5 I have propose a walking path that study this relation between different structures (cementary, borgate, railway) and urban tissue.

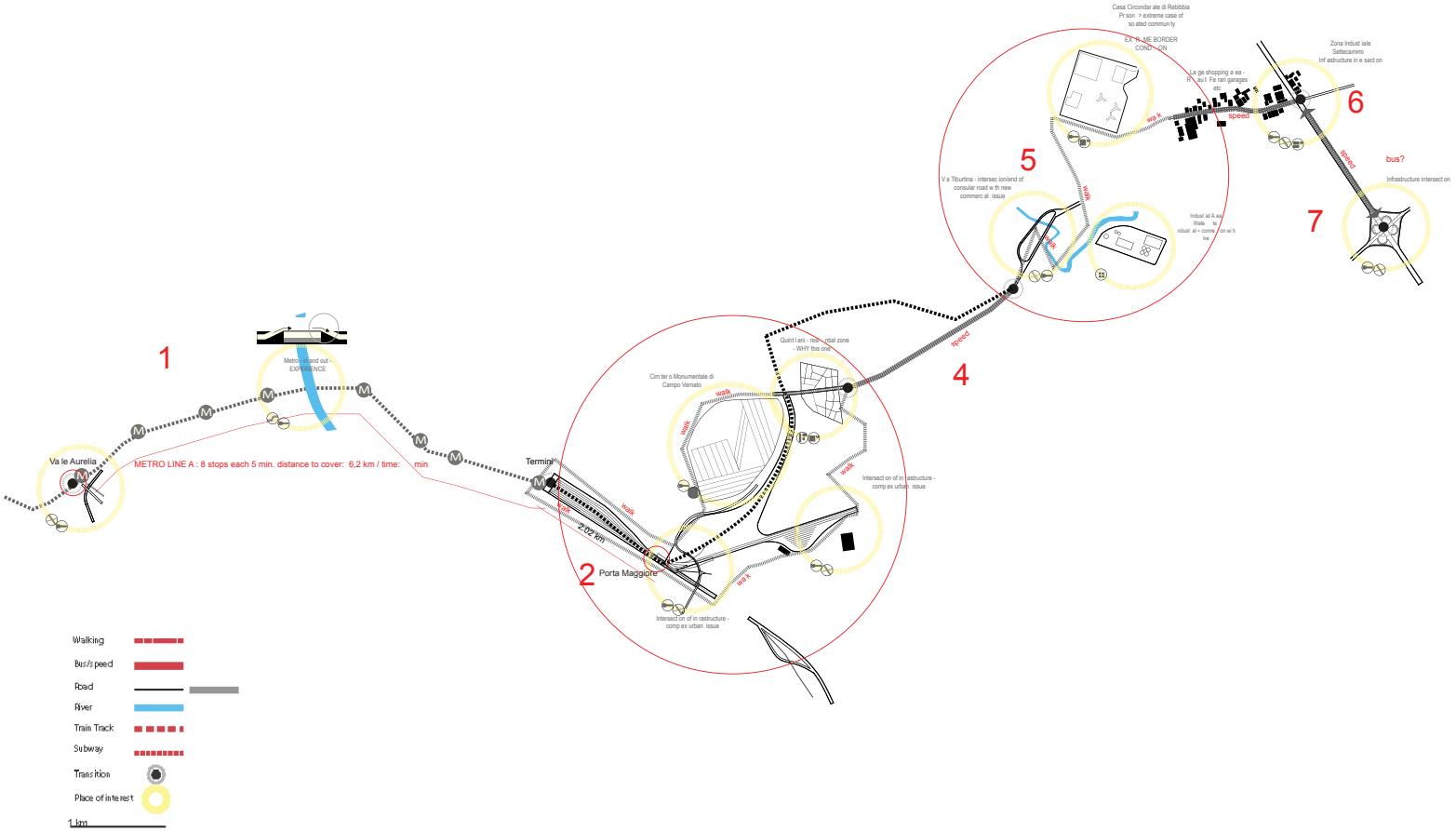
-I haven't done anything with the metro line cause I run off the time;

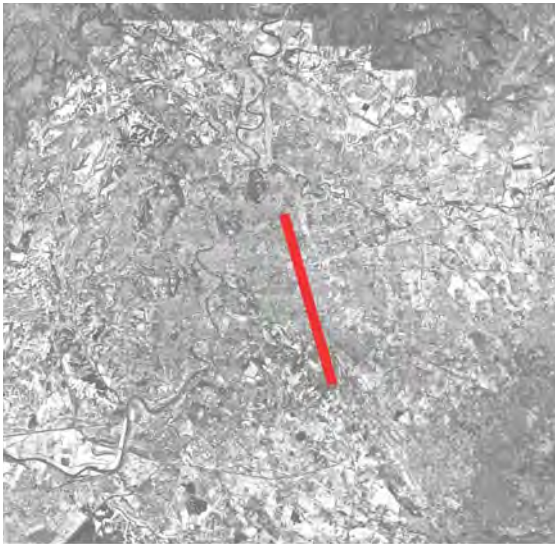
- I have a little problem with the graphic in this moment cause the path we are proposing is not very clear, I mean everything is too grey and black; there is no difference between our path and what is build; again I run off the time tring to fix this...

-I think if it becomes clear what we are looking for; how we are looking is coming natural.

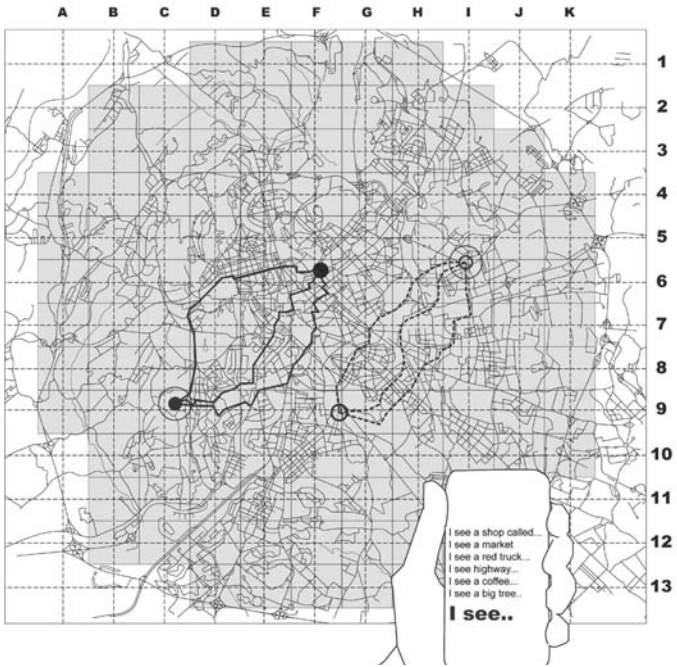
Rome Strategy Maps

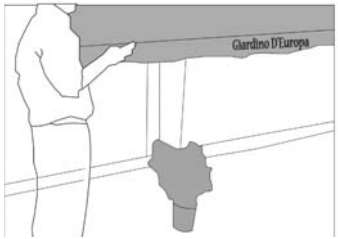
Synthesis map

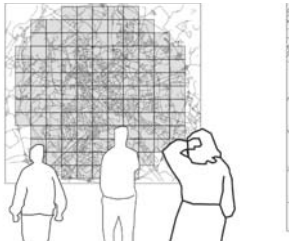




Parcour Map







Game Map


TUBI CUCINE BAGN

2.2
r o m e


STOP


NON TOCCATE I FILI
PERICOLO DI MORTE

Rome Investigation

During the three week excursion to Rome we continued investigation on the periphery in a real condition confronting our strategy with new findings.

The research strategy on site was revised and changed its focus. In the end we decided to analyze one path following the Roman aqueduct as a line leading from the historic center of Rome to un-urbanized outskirts. This would let us to observe changing spatial conditions while moving outside from the center and note where we can find the periphery. Since periphery may be defined inter alia as the outermost boundary of an area 1, we tried to search for this boundary in one specific condition of the aqueduct. Moreover, the aqueduct has been itself a strong physical border within the city which implicated the emergence of the peculiar spatial phenomena along it, like the intersections of different city structures, the divisions in urban tissue, the 'edge-type' urbanization.

In order to explore these peripheral conditions occurring along the aqueduct, we prepared a certain set of rules for the actual documentation (dividing ourselves into four groups, following the aqueduct as close as possible, no crossing on the other side of the aqueduct, taking pictures in a specific manner) Two groups started the walk in the center and two in the outskirts, so that at the certain point they would meet.

The result of the group work was a subjective map of our walk exploring the periphery from bottom-up perspective of passers-by. We were interested in how the periphery may be observed from the position of everyday city-dweller and how he may experience it in the particular spatial condition. The final group map is a representation of the borders we encountered on our way by marking the physical and visual accessibility of the aqueduct with more focus on a multi layered character of visual one. The aqueduct became a pretext to explore and represent our subjective experience of Rome periphery. The examined case study unveiled the complexity and irregularity of peripheral condition in Rome.

1 Collins English Dictionary – Complete and Unabridged © HarperCollins Publishers 2003

THE RULES OF THE INVESTIGATION

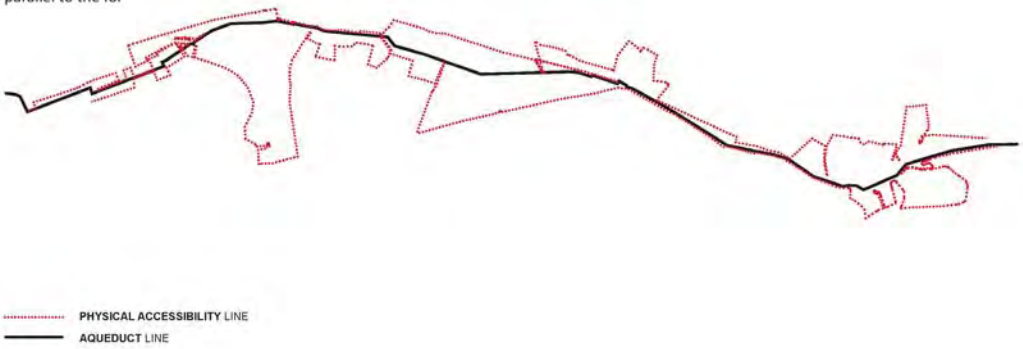
1. Divide in four groups.

2. Each investigates a different side of the aqueduct. Two start in the north, two in the south.

3. Follow the aqueduct as close as possible

4. Do not cross the aqueduct

5. Take photos perpendicularly to the aqueduct and parallel to the followed path.



2.3
post-rome

Rome Investigation

Aqueduct Study

We see the spatial phenomenon of **crossing** between the aqueduct and a road

Different **intersections** between the aqueduct and the railway

A house built in front of the aqueduct, creating **layers** and **blockings**

The aqueduct as an **edge** defines different program, below we see industrial area and residential area

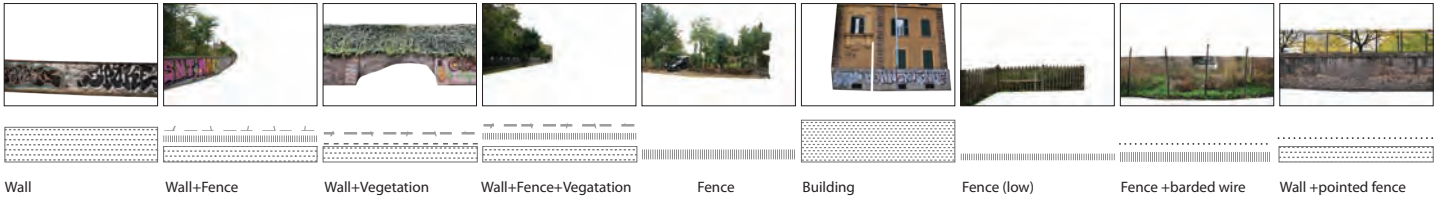
Two building as a **framing** let us see upper part of the aqueduct

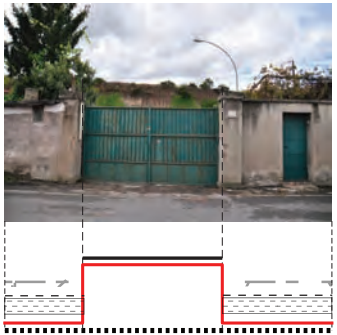
The aqueduct as a cut divides residential area to be different **Urban pattern**

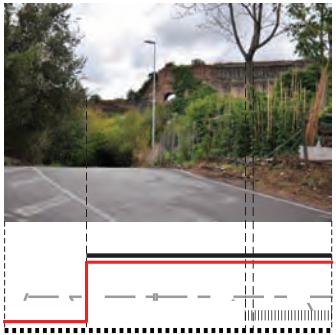
Two walls defined **Physical accessibility**, and attaching to the aqueduct, part of the aqueduct can be seen to define the **visual accessibility**

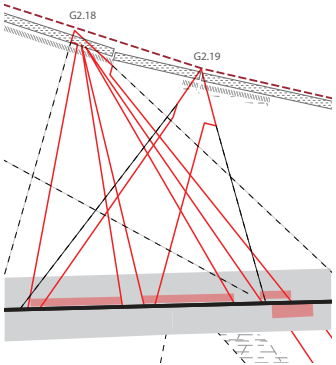
A rail blocking us to walk to the aqueduct the we just see the upper part of the aqueduct

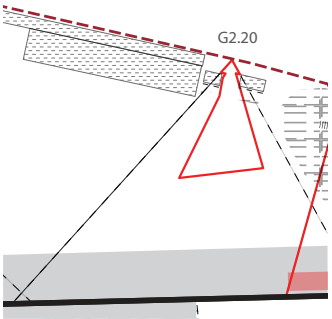
Legend:

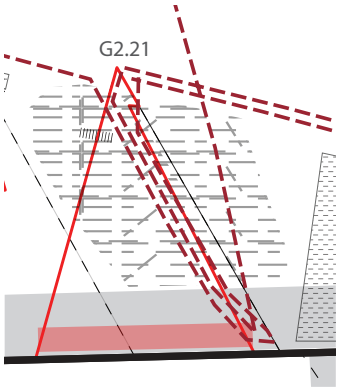


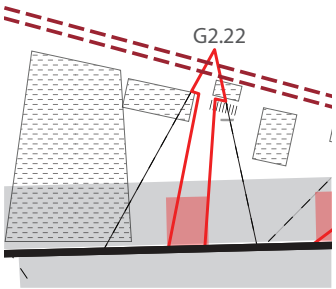




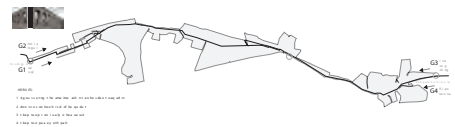

G2.18
G2.19

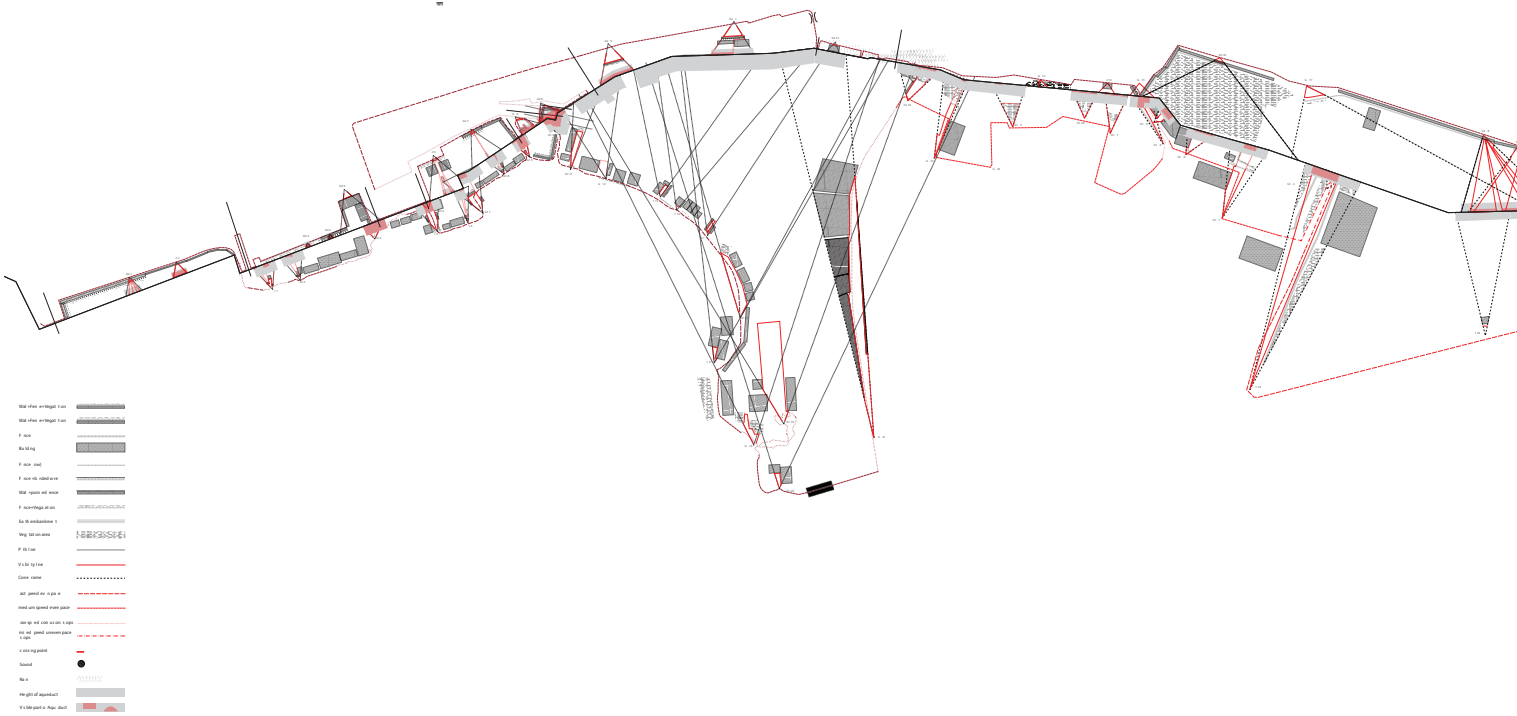

G2.20

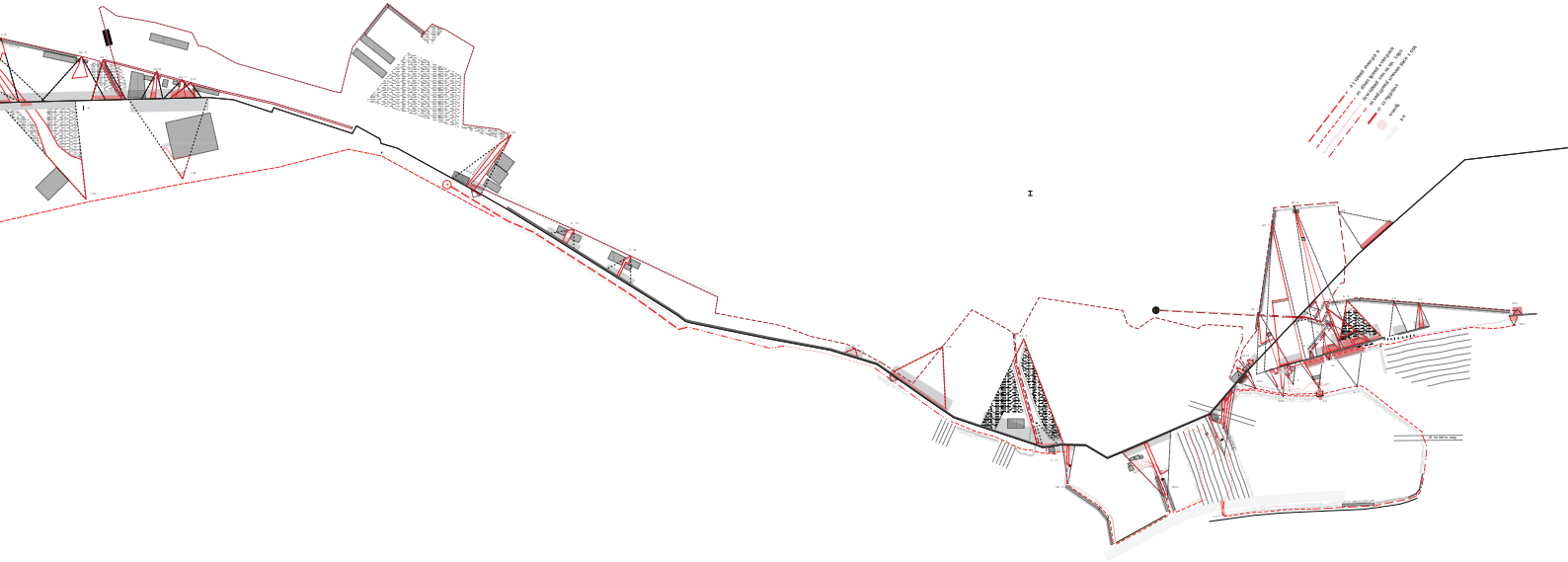

G2.21


G2.22

Aqueduct map







3.0
individual works

3.1

By-product Spaces.

Karolina Konecka,
Poland.


BLOF
ABERE

Essay Content

1. Introduction

The essay investigates Rome periphery as *by-product spaces*. What are the *by-product spaces* in Rome? What is the reason to look at periphery from perspective of production and how is this production understood? What actually constitute the 'by-product' space? And finally, what kind of spatial information can be extracted from the *by-product spaces* and translated into constructing specific spatial relationships?

In order to answer to above-stated questions, first, I will try to find out, what the periphery in Rome is. Next, I will explain the concept of by-product spaces and I will attempt to establish the way, how the by-product spaces refer to the existing concepts of *Dead Zones*[1] and *Terrain Vague*[2] used in literature to describe similar spatial phenomena. Further, I will try to identify the nature and the characteristics of by-product spaces and explain the mapping methods used in my research to examine particular case study. At the end, the essay will discuss the challenge for the further design derived from by-product spaces investigations.

2. Periphery is everywhere. In a search for a common denominator.

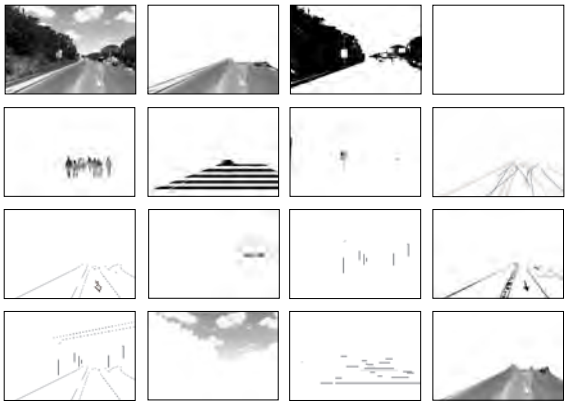
The research started from defining, what the periphery in Rome is and where it can be located. The available[3] definitions are very general and consider periphery as the *external boundary of an area* or *the outermost part of any space*. However, they reveal that the concept of periphery depends on an *area* or a *space* by which it is determined.

First investigation aimed to indicate, how the limit between the center and the periphery in Rome can be found. By using the digital maps and the street view pictures I analyzed the sequence of street profiles along Via Cassia, one of the longest Roman streets, moving from the center to the un-urbanized outskirts. The investigation shows, how the street profiles were changing according to their distance from the city center with regard to different spatial aspects such as proportions of a street section, presence of greenery and open spaces along the road, density and type of adjacent buildings, appropriation of spaces next to the roadway, presence of the sidewalks, type of the sidewalks, orientation of the building facades toward the street, presence of advertisements and billboards etc. The question was, whether periphery may be indicated by the observed changes. If we look at the results, it

can be noticed that none of the aspects applied to examine the spatial existence of the periphery, designate a clear border between it and the center. Its potential indicators appeared in different places along the street regardless to their distance from the city center and their deployment seemed to be random.

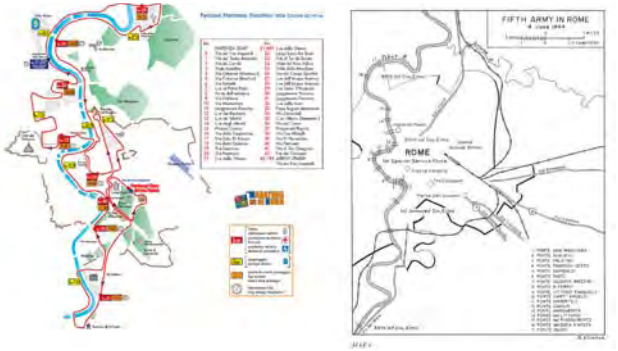
Moreover, defining the periphery by one these aspects would mark the borders in the another areas than the other one.

One image analysis on Rome periphery



In the next step, the investigation was limited to one spatial condition (the one image analysis) in order to find as many ways as possible to define the periphery for this particular situation. The exercise proved that there can be many types of the periphery in one place, according to the point of reference one may take and they may be considered in various scales.

Maps of Rome Marathon 2002 and Map of army forces in 1944



Furthermore, the periphery can be also temporal by being strictly limited to a certain period of time. It may be even marked out in such a way; for instance Rome Marathon Map, where the area for runners becomes the center and all what is outside it is the periphery or the map of army forces movements in Rome in 1943, when the concentration points of the army decided, where Rome center and periphery was at the moment. The above-mentioned considerations led to the claim

that the periphery is actually everywhere and it can be defined in a countless number of ways. The way of how we consider it, always relates to a point of taken reference in space and time one may take.
Since the concept of the periphery is always relative to the point of reference by which it is defined, what can be a common denominator that would enable to determine periphery with respect to its above-mentioned characteristics, namely, the different scales, temporality, irregularity in its spatial emergence? The question remains open.

3. Dead Zones and Terrain Vague. Describing the periphery .

Dead Zones or Terrain Vague are some of contemporary concepts that refer to the issue of periphery and its unequivocal character. What do they stand for and to what are the places they describe?

Left-over Spaces. Dead- Zones. Wastelands. Derelict Areas. No man's land. Urban voids. Terrain vague. Free Spaces. Empty Spaces. Residuum. [4]

G. Doron enumerates the various concepts addressed in the present architectural and urban discourse intended to label specific spaces in the city that have been overlooked by city planning.[5] He gives examples of the real places to which the labels refer to: *disused harbours and train yards, abandoned barracks, closed mining sites or industrial areas, abandoned neighbourhoods, empty lots, spaces at the edge of highways and under bridge etc.* Exploring the relation between these 'left-over' spaces and urban planners' approach, Doron notices the problem with providing both a precise definition of such spaces as well as their exact location in the built environment of the city. Somehow they slip out from the typical categorizations of urban planning.
What is common for the above-mentioned terms used in the contemporary discourse, is that they mostly contain evaluative connotation in their meaning suggesting that these spaces that are either left-behind or that something should be done about them.

Ignasi Sola Morales discussing *Terrain Vague* also addresses to the issue of the periphery. He refers it to the *empty, abandoned, urban spaces in which a series of occurrences have taken place*, which have gained much interest among the photographers and filmmakers. The Spanish philosopher focuses on an ambiguous meaning of these places as empty, yet available - the relation

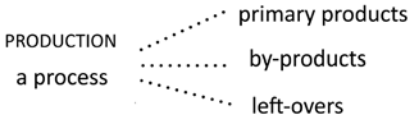
between the lack and the potential. He underlines the equivocal condition of Terrain Vague, which is *internal to the city, yet external to its everyday use.* Sola-Morales even calls these areas**: *a**lternative, strange spaces, strangers to the productive efficiency of the city*[6] *(- left outside the city's effective circuits and productive structure.)* The question appears: what is this productive efficiency of the city? What does city's productive structure stand for?

4. Production and By-Product

In order to be able to talk about these issues, it is worth to explain, how the concept of production refers to the city and its structure. Production has many faces, it can be considered in terms of economics, manufacturing, social science, Marxist theory, ecology, entertainment etc. In economics, production is described *as all those activities that have to do with the creation of commodities, by imparting to raw materials utility, added value, or the ability to satisfy human wants*. [7]

The concept of production has gained on its meaning along with the Industrial Revolution and evolved into mass-production t*he manufacture of goods in large quantities, using standardized designs and assembly-line techniques*[8]*.* The emergence of mass – production had a huge impact on Modernity and changes of modern cities in all respects. The spatial effects of these processes such as growth of the cities, followed by extending distances between their parts, emergence of vast infrastructure areas, transportation arteries, mono-functional districts, zoning has changed scale and organization of the cities. Manfredo Tafuri, from Marxist perspective introduces '*the laws of production'* as a *'part of a new universe of conventions'* of Modernity. He discusses modern architecture as a *'programming and planned reorganization of building production and of the **city as a productive mechanism'*** [9]

Production regardless to its specific context, is a process, which generates products, residues and by-products. If the city is produced as according to Tafuri and if the peripheral areas are left beyond this productive structure of the city , following Sola –Morales, how is it



possible to define periphery in terms of production?

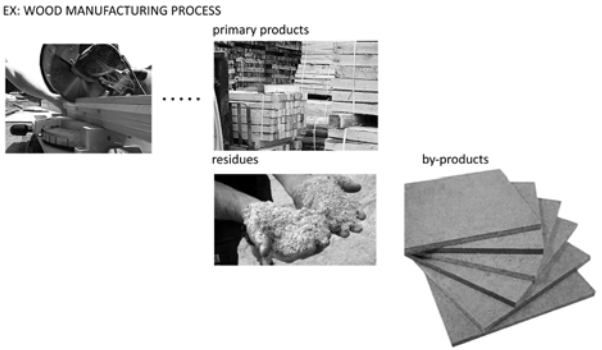
What if the periphery is a by-product of the city?
- the unintentional, secondary space of the city that emerges during the planned development of the city's built structures and its infrastructure systems - Is the periphery a by-product or is it a residue?

Defining a by-product.

By- product is something produced in the process of making something else; a secondary or incidental product or result of a manufacturing process [10]

When plants produce carbohydrates by photosynthesis, oxygen is released as a by-product. Asphalt and paraffin are by-products of the process of refining crude oil into gasoline. [11]

The definition of by-product reveals one important characteristic and may constitute the reason for using this term in a spatially related research. The asphalt, paraffin or oxygen could be a waste, residues. Yet, as soon as we find the use for them, they gain another meaning; in many cases becoming more valuable than the primary products aimed to be achieved in a specific process. Assigning new meaning to the object can also implicate its physical transformation, for instance when we consider an ordinary example of wood manufacturing, sawdust compressed into MDF panels become a by-product. To relate by-product term to a spatial condition the both aspects of use and space's transformation are important. If space is also a by-product, what does it constitute?



5. By- product in terms of social space

For Lefebvre the concept of *production* has become too narrowed down in its meaning and reduced only to its

economical sense while it contains a great multiplicity of works and variety of forms (p.69).
Lefebvre states that besides goods and services, space in general and the space of the city is also produced. *Humanity, which is to say social practice, creates works and produces things.(…) Consider the case of a city - a space is fashioned, shaped and invested by social activities during a finite historical period.* The production of space is under constant change as society, which produces spaces is also affected by them. *Space is never produced in the sense that a kilogram of sugar or a yard of cloth is produced. Nor is it an aggregate of the places or locations of such products as sugar, wheat or cloth. (…)[Space] is at once precondition and a result of social superstructures* [social institutions]' *Social spaces interpenetrate one another and/or superimpose themselves upon one another.'* [12]

Lefebvre distinguishes spaces produced by *domination* that facilitate state power and are expressed by government regulations and city planning (exchange value) and spaces produced by *appropriation* to satisfy human needs (use value).[13] The first ones refer to a product and it 'is inherently violent', while the other ones are related to everyday life- what Lefebvre calls 'works'. However, the relationship between 'works' and 'products' is not unequivocally constituted.

Looking from Lefebvre's perspective on space in the city, the production of the primary spaces of *domination* generate residues which may be transformed by human activity into by-products. If all spaces of the city organized by government and city planning are products, the spaces which are beyond the primary ones and are appropriated may be perceived as by-products.

Therefore,
by-product spaces are these spaces in the city that emerge in the course of producing primary spaces (organized by city planning apparatus) and are constituted by their appropriation- informal spatial practices of assigning them new meanings and/or uses that affect their spatial condition in a certain period of time. They appear in spatial limits designated by primary 'product space's.

6. Appropriation and transgression

Why does appropriation is so important in constituting by-product spaces?

Lefebvre defines appropriation as a *spatial practice in which nature has been modified in order to satisfy and expand human needs and possibilities. 14* Appropriating simultaneously links to taking possession of a place or assigning a purpose to it. Appropriation happens through activities.

The meaning of trangression refers to the act of 'exceeding limits' . Transgression of space relates to appropriative activities and it is indicated by using a space specifically in the way it was not meant to be used. Flemish architect, Wim Cuyvers in the dialogue with Zeynep Celik , the Turkish historian of architecture, adds that transgression, *is not about erasing society's rules; it is very much about accepting them.'* [15]

For Doron, *The transgression of the public or private space is mainly achieved by changing the uses of places, and by changing their design.* [16] Therefore, transgression happens through appropriation. However, the concepts are not the same, appropriation focuses more on making use of a space, while transgression stresses the interaction with a limit.

Tschumi points out architects and theorists often discuss about the rules of architecture, but rarely considering the transgression of these rules. He focuses on transgression as a phenomenon - It does not deconstruct any code or rule of space or architecture, but it *introduces new articulations between inside and outside, between concept and experience*. [17] The by-product spaces are constructed by human appropriative activities in certain spatial conditions, they are manifestations of transgressive human behavior.

As the research focuses especially on by-product spaces that emerge around primary spaces produced by the city's infrastructure (in ex. railway tracks, highway viaducts) as they generate spaces adjacent to them, namely, spaces of an unclear status of use or ownership. In such condition different social groups (usually under-privileged, for instance, homeless or squatters) claim their right to this land and transform it into by-products. These spaces appear to be particularly interesting as their appropriation happens more frequently and is more advanced in terms of space's transformation than it happens in the spaces of clearly defined character. As G. Doron states *The squatters, the prostitutes, the participants in public sex, the ravers, the protesters of 'Reclaim the Streets', the creators of community gardens,*

the streets vendors and nature transform the architecture that already exists much more radically than the common user of the public space or the built environment. [18]

7. Characterizing by-product spaces

By- product spaces are mediating.

The mediating character of by-product spaces, revealed in a relationship between the spatial limits of space and the activities taking place in it, seems to be the most interesting of their features. Spatial practices that constitute by-product spaces do not transform physical space drastically, in example they do not demolish it, instead they create a dialogue with the primary constraints of the space, mostly by small changes of adding new elements and rearranging the. By –product spaces are never completely established, thus still open for further transformation.

By- product spaces are temporal.

Temporality is one of a major issues of by-product spaces. Due to the fact that they are dependent on human activity, they also rely on time. Short term activities, body actions can create a by- product space, as well as it can be a fully arranged structure, such as homeless shelter. Therefore, we can distinguish visible by-product spaces – having physical structure and invisible ones, which may be indicated by some traces like stickers, posters, graffiti, rubbish, empty bottles, furniture, sleeping bags etc., yet not necessary.

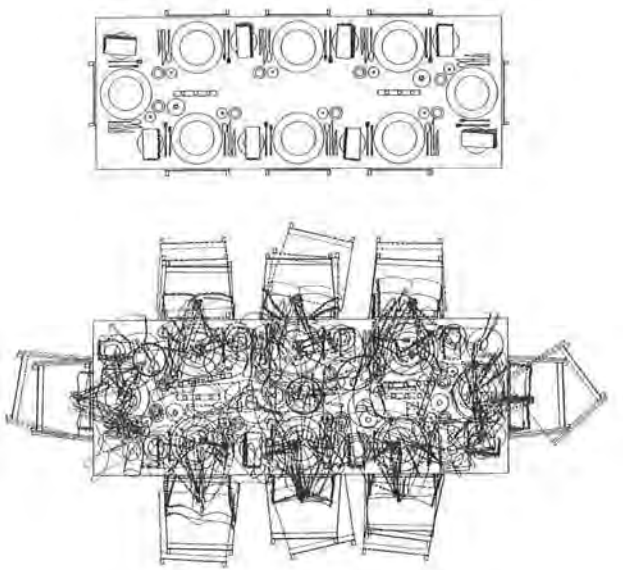
By-product spaces differs in terms of various time spans related to uses: part of a day/week/month, intensity - number of people , frequency - everyday, once/twice a week, time frame- 1 hour/ 5 minutes, etc.

By- product spaces are fuzzy.

Fuzzy refers to the way of organization in by-product spaces. 'Fuzzy logic is a way of doing science without math. (...)It 's just common sense.' [19] We can notice that there is a certain logic and order in by-product spaces, however it is not clear to define its rules.

By- product spaces are efficient

One of these unclear rules can be a certain efficiency of by-product spaces. Efficiency is the ratio of the output



Growing disorder on a table during a meal, in Salazar J.; Gausa M. *Singular Housing*, Actar, Barcelona 1999

to the input in any system, in other words it is the way of achieving the best results with the least effort. By-product spaces can be considered as efficient, as mostly they are created with the very basic means and minimal effort and still manage the serve it purpose, whether it concerns a shelter arranged from garbage materials or a covered spot for observation and drinks.

By-product spaces are in a human dimension.

Koolhaas talking about *Junkspace* of airports, shopping malls or theme parks, notices *'we built more than all previous generation together, but somehow we do not register on the same scales'* [20] Since 19th century Industrialization, cities' structures have been operating on scales that are not adequate to a human – in sense of human perception capabilities and physical dimensions.

By-product spaces are places, where spatial practices bring back the human dimension to the city. Their scale always refers to human perspective, yet it depends on the purpose they hold. Thus, the sizes of by-product spaces may differ, in example from the collection of ads on the column to the whole built structure of homeless shelters or selling stall. However, by-product spaces due to way of emergence inherently operate in human scale.

What the map cuts up, the story cuts across.' [21]

8. Dead Zones, Terrain Vague and By-Products

As the concept of by-product spaces has been explained, it is important to position it in relation to the

ideas of Dead Zone or Terrain Vague mentioned at the beginning of the essay. What differs by-product spaces from Dead Zones?

The most important difference between *by-product spaces* and *Dead Zones* is that each of the concepts is framed in completely different way. *By-product spaces* approach the periphery from the perspective of production of city, and especially social production of space. Gil Doron starts his investigation on Dead Zone through the examination of particular areas in the city labeled as Dead Zones and defining their unclear character.

Doron, writing about *Dead Zones* questions the current terminology used to name such spaces. At the same time he claims that Dead Zones are actually impossible to be unequivocally defined. He addresses this problem to their transgressive character in terms of both the changeability of location and the way they have been created.

Further, the writer explains the 'Dead Zone' as an area that '*appears' as not having and use (any more)'* and confronts this notion with the real spaces –indicating that there are, in fact, activities and uses existing in *Dead Zone*s. Nevertheless, the author does not make a clear distinction between the character of Dead Zones in terms of use - whether all of these spaces are in use by 'marginal communities' or not.

Doron also underlines the time-related character: *Dead Zones appear in any part of the urban fabric, when this part is temporarily (hours,days, months or years) not in use.* [22] The distinction between formal and informal uses in the city does not seem to be completely established. Next, the author relates the emergence of Dead Zones to *the strategies of suspension.* However, when explaining what suspension means *(disinvestment, urban design, of ellipsis which leaves intentional gaps in the urban fabric, wars, the strategy of history, concealment, etc.)* [23], he moves quite freely between the exact and the abstract meanings of the words, which makes this explanation difficult for evaluation. The idea of the Dead Zones is presented by a collection of notions and observations.

As mentioned before, the concept of *by product spaces* in not the same with what Doron describes as 'Dead Zone'. By-product spaces are clearly constituted by uses – informal activities taking place in them, while in the Dead Zones informal uses may appear, but not

necessary.

Another major distinction between the two concepts is the scale, in which there are defined and the approach that follows it. By-product spaces are created in human scale- as they are result of appropriative informal activities. They start from bottom-up perspective and can be identified and located from this approach. Dead Zones instead often refer to large size areas and operate in urban scale of the city. The concept is being approach from top-down perspective in the scale of city map. On the other hand informal uses that Doron as well addresses to Dead Zones. The same top-down issue of approaching the periphery concerns Terrain Vague. Although both of the concepts, mention informal activity in the investigated areas, they do not use it to designate the periphery spatially in an unequivocal way.

By-product spaces as well as Dead Zones are temporal, yet in case of by-products temporality is strictly dependent on the time span and character of a specific activity. In Dead Zones temporality refers to both the strategies of suspension related to the city planning and temporal uses, which make Dead Zones difficult to be position in time.

To summarize, we can say that by-product spaces refer to the areas of informal uses, while Terrain Vague and Dead Zone consider the places that remain abandoned and empty, and in which informal activity may appear. They are tied up to the top-down perspective and large scale investigations.

If we try to look at the three concepts from the perspective of space production which is under constant change, we can claim that Terrain Vague and Dead

Zone consist of both by-products and residues, and especially of residues that used to be city's products(i. e. abandoned harbours or railway tracks).

Therefore, in terms of spatial existence ,the by-product spaces may appear in Dead Zones (also partially or temporality), yet not every or contains a by-product space and not every by-product space has to be located in the Dead Zone.

Concluding, the concept of the by-product spaces does not embrace all the areas of the city that can be interpreted as peripheral, however it allows to address

such problematic issues of the periphery, such as temporality, randomness, changes of scales. Moreover, by-product spaces deal with a very specific aspect of the reusing the city, transforming it from bottom-up perspective.

9. A challenge for a contemporary deign

'It is impossible to see what products are going to be. That is why a solid information architecture based on encouraging and managing diversity, as opposed to containing diversity, has become so important.' [24]

IBM advertisement in Exit 5, 1999 in Gausa, M. (Ed.): Metapolis. Dictionary of Advanced Architecture, Actar, 2003

Steve Telleen, focuses his research on using of the web as a medium in developing intranet strategies, therefore, mentioning *solid information architecture,* he rather refers to virtual web structures.

Nevertheless, the quoted sentence seems also to be relevant to real architecture in its basic sense of built form of environment, and can be reconsidered in terms of searching new design approaches in architecture.

As we cannot predict what future buildings are going to be like and to what kind of demands the new architecture will need to respond, we no longer can design spaces in the buildings adjusted to the present uses. The design based on functional program seems not to be relevant anymore, as the program may changed very fast or the future uses are simply unknown.

Containing the diversity of forms following certain functions as an aim for contemporary architecture in this context, appears rather as an obstacle for flexible design rather well- addressed task. The focus for contemporary architecture seems to shift from, what is *containing diversity* of forms to how to create architectural form that will *manage* and *encourage diversity* of uses.

Can unpredictable future uses be addressed in a present architectural form?

Bary Le Va, the American artist from 60's attempts to discuss the relation between unpredictable future and unfinished form in his sculptures. His fascination focuses

on studying the 'evidence- ' as 'what remains of actions and events'. Le Va in his work aims to *"eliminate sculpture as a finished, totally resolved object. To eliminate a sense of wholeness and concentrate on parts, fragments, incomplete activities and structures.* ***To emphasize transitional stages of an activity or many activities with no foreseen end."*** [25] Is it possible to think in a similar way about architecture and its form?

The Japanese architect, Sou Fujimoto approaches the issue of architectural form from another perspective. He provides the concept of *'a nest'* and *'a cave'* as *two embryonic states of architecture,* however he also considers them in terms of human activity as a way of using a space:

'A nest' is a place for people that is very well prepared, everything is assembled and very functional, meanwhile the 'cave' is just a raw space, which people need to explore and find their own comfort within. This is a situation where people can use space creatively. I prefer something like the cave-like-unintentional space. Something that is in between nature and artifact - formless form. [26]

Endnotes

[1] Doron, G.: 'The Dead Zone and the Architecture of Transgression', City, vol. 4: 2, 2000, p. 247

[2] Sola-Morales, I. de: 'Terrain Vague', Anyplace, Cambridge, MA : The MIT Press, 1995 p.45

[3] "Periphery". Collins English Dictionary, 2003; The American Heritage Dictionary of the English Language , 2009; Wikipedia

[4] Doron, G.: 'The Dead Zone and the Architecture of Transgression', City, vol. 4: 2, 2000, p. 247

[5] Doron, G.: 'The Dead Zone and the Architecture of Transgression', City, vol. 4: 2, 2000, p. 248

[6] Sola-Morales, I.de: 'Terrain Vague', Anyplace, Cambridge, MA : The MIT Press, 1995, p.45

[7] "Production". The Columbia Electronic Encyclopedia, 2007

[8] "Mass production". The American Heritage Dictionary of the English Language, 2009

[9] Tafuri, M.: 'Architecture and Utopia', MA: MIT Press, Cambridge, 1976, p.100

[10] "By-product". Collins English Dictionary, Harper Collins Publishers, 2003

[11] "By-Product". The American Heritage Science Dictionary, Houghton Mifflin Company, 2005

[12] Lefebvre, H. : 'The Production of Space', Blackwell Publishers Inc, Massachusetts, 1991, p.82

[13] Molotoch, H.: 'The Space of Lefebvre', Theory and Society 22, 1993

[14] Lefebvre, H.: 'The Production of Space', Blackwell Publishers Inc, Massachusetts 1991, p.85

[15] Lagae, J.: "Reading Public Space in the (Non-Western) City A Dialogue Between Zeynep Celik and Wim Cuyvers." Oase 69

[16] Doron, Gil M. 'The Dead Zone and the Architecture of Transgression', City, vol. 4: 2, 2000, p.252

[17] Tschumi, B. Architecture and Transgression in Tschumi, B.:' Architecture and disjunction' MIT Press, Cambridge 1996 , p. 79

[18] Doron, Gil M. 'The Dead Zone and the Architecture of Transgression', City, 4: 2, 2000, p.251

[19] KOSKO, Bart, „Fuzzy Thinker", Wired 3.02, 1995 in Gausa, M. (Ed.): Metapolis. Dictionary of Advanced Architecture: City, Technology and Society in the Information Age , Actar, 2003

[20] Koolhaas, R. : Junkspace in Koolhaas, R. (Ed.) : Content, Taschen, 2004, p.162

[21] Certeau, M. de: 'The Practice of Everyday Life', University of California Press, 1992, Preface

[22] Doron, Gil M. 'The Dead Zone and the Architecture of Transgression', City, 4: 2, 2000, p.257

[23] Doron, Gil M. 'The Dead Zone and the Architecture of Transgression', City, 4: 2, 2000, p.260

[24] Steven Telleen, Intranet Partners in "product" in Gausa, M. (Ed.): Metapolis. Dictionary of Advanced Architecture: City, Technology and Society in the Information Age , Actar, 2003

[25] Bary Le Va quoted in the description of his exhibition : 'Sculptures and Drawings 1966 — 2009 (Part I)' at Nolan Judin, Berlin 2009

[26] Sou Fujimoto in the interview for deginboom.com, Tokyo Oct 31st, 2008 <http://www.designboom.com/eng/interview/sou_fujimoto.html>

Literature

Abdou Maliq,S.: *At the Frontier of the Urban Periphery;* Sarai Reader: Frontiers, 462, 2007

De Certeau, M: *The practice of everyday life*, University of California Press, 1988

Doron, Gil M. 'The Dead Zone and the Architecture of Transgression', City, 4: 2, 2000

Gausa, M. (Ed.): *Metapolis. Dictionary of Advanced Architecture: City, Technology and Society in the Information Age* , Actar 2003

Guillen, M. F.: ' The Taylorized Beauty of The Mechanical', Princeton University Press, Princeton, 2006

Foucault, M. (1997) 'A Preface to Transgression', in D.F. Bouchard (ed.) *Language, Counter-Memory, Practice*. Oxford: Basil Blackwell.

Lagae, J.: “Reading Public Space in the (Non-Western) City A Dialogue Between Zeynep Celik and Wim Cuyvers.” Oase 69

Koolhaas, R. (Ed.): Content, Taschen, 2004

Molotoch, H.: The Space of Lefebvre, Theory and Society 22, 1993

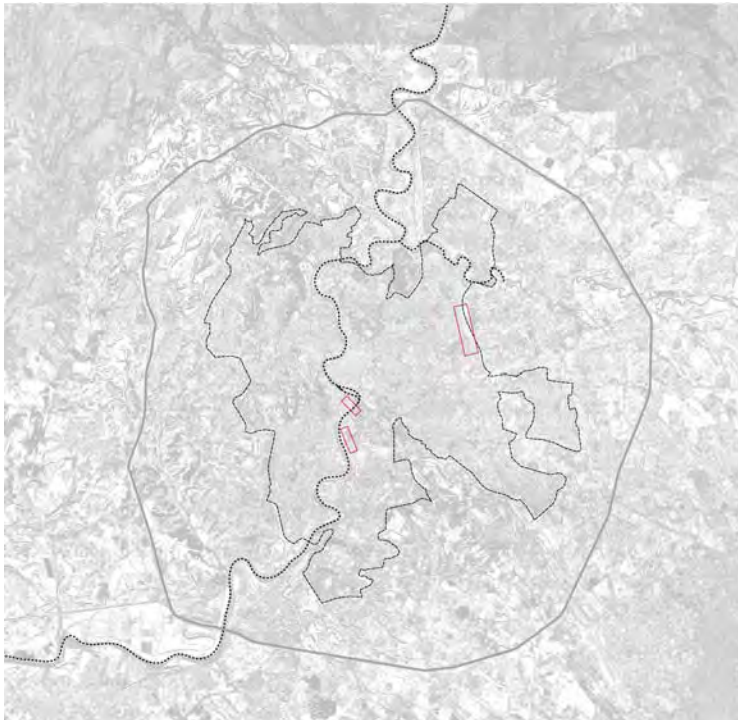
Sennett, R. (1990) *The Conscience of the Eye: The Design and Social Life of Cities*, London, Boston: Faber and Faber.

Sola-Morales, Ignasi de: ‘Terrain Vague’ I, Anyplace, Cambridge, MA : The MIT Press, 1995, p.45Lefebvre, H. : The Production of Space’, Blackwell Publishers Inc, Massachusetts 1991

Tafuri, M. : Architecture and Utopia, MA: MIT Press, Cambridge, 1976

Tschumi, B. Architecture and Transgression in Tschumi, B.:’ Architecture and disjunction’ MIT Press, Cambridge, 1996

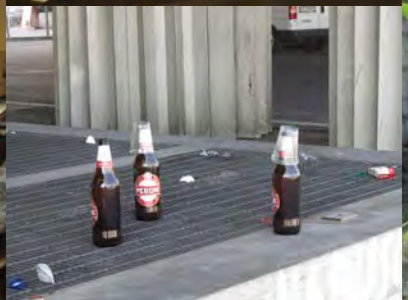
Walker, S.: Gordon Matta-Clark: *Drawing on Architecture*, Grey Room, No. 18 (Winter, 2004), The MIT Press, pp. 108-131



1. On-site investigations

The research will be described in two phases, the first one refers to the on-site exploration that consist of collecting data and approaching the topic of by-product spaces from many perspectives. The second phase refers to the interpretation of collected data through maps and models.

The methods of the investigation consisted of photographic and drawing documentation of the places identified as the 'by-products' in order to unveil and explore their spatial features.
The exploration involved issues like adding human dimension, scale and size, efficiency, spatial mediations, temporality.



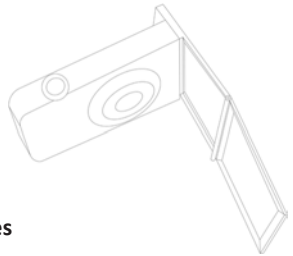

HYDROGEN


SABATO 2
AMETISTA


SUPERMEGA
STRACKS

Mirror Pictures - Imaginary Walls

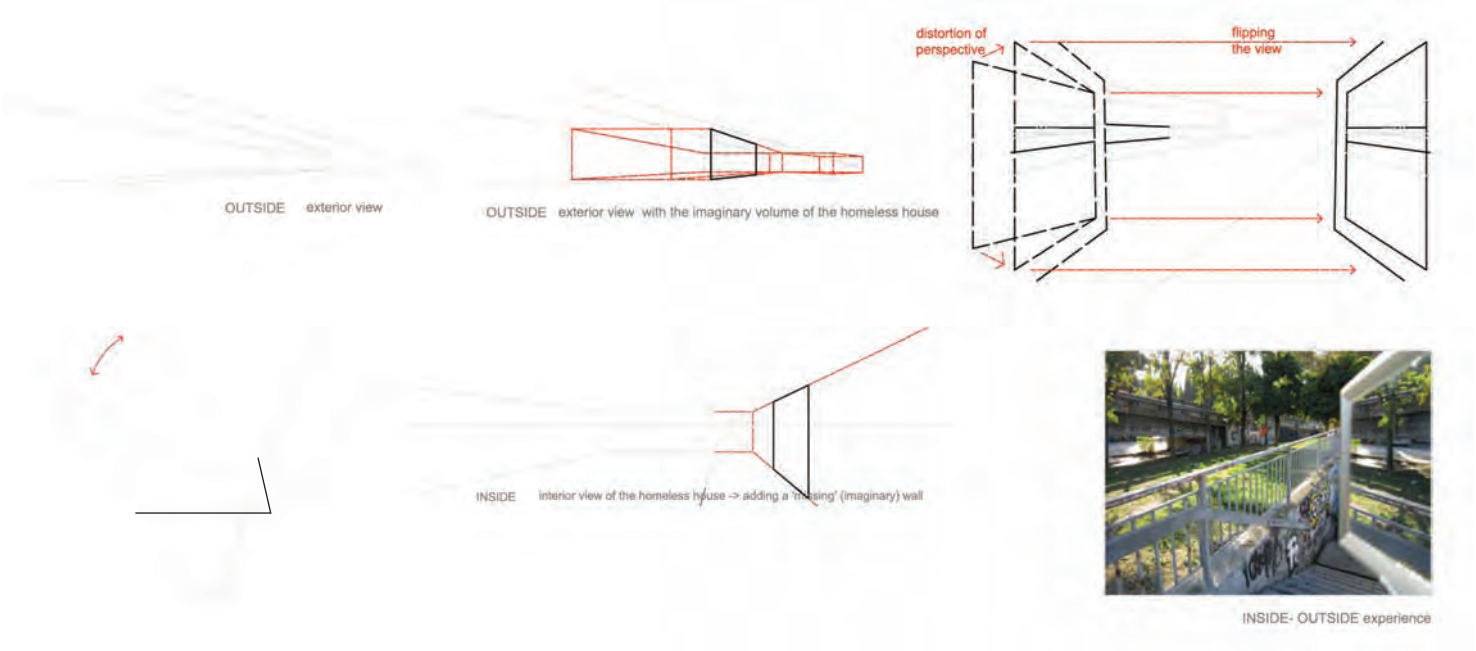
On-site experiment



Mirror Pictures

The attempt to represent the mediating, unfinished character of the by-product spaces was introduced as the experiment of the‘ mirror pictures’. The ‘mirror pictures’ were images made by attaching mirror to the camera, representing a specific place from two points of view in one picture with a perspective distortion. The effect was used to create imaginary walls of the place in the picture – illusion of space that is enclosed and open at the same time. The series of ‘mirror’ pictures were employed as a tool for examining the inside-outside experience of by-product spaces.

Explanation of the method



existing situation

adding an imaginary wall

constructing the inside-outsie image of space

2. Interpretative maps

The second phase of the research was to make a selection from the data about the by-product spaces collected in Rome and translate it into the maps. The mapping was used as a way of reflecting on the observed phenomenon and as a method for representing the specific aspects of by-product spaces.

The mapping focused on investigating the spatial condition of 'by-product' spaces in terms of the interaction between the physical constraints of these spaces and the appropriation taking place in them, that sometimes resulted in space transformations.

In order to be able to explore this interaction, a certain strategy for mapping was developed. The strategy attempted to define the primary constraints of the by-product spaces in terms of the physical visible boundaries (walls, sheds, fences, etc.) and the motion barriers (people's, cars', trains' movement). Further, the mapping tried to explore the relation between the boundaries of the by-product spaces and the activities taking place within them as well as the way the physical structure of the by-product spaces was changed by human activity.

I distinguished two types of the by-product spaces. The first type are the visible ones that relate to the longer term uses, for instance homeless houses, and result in a certain spatial arrangements. The second kind are the invisible by-product spaces created by body-actions and referring to the short term uses. They directly relate to specific activities like waiting, sitting, drinking etc. and may leave some visible traces (for instance old newspapers, empty bottles, cigarette-ends, rubbish), yet not necessary.
According to the different character of these two types of the by-product spaces, a particular mapping was developed for each of them. The mapping analyzed one example for each type of by-product space.

Research focus and mapping strategy

Diagram of strategy for mapping by-product spaces

INTERACTION BETWEEN PHYSICAL PRIMARY CONSTRAINTS OF SPACES

AND THEIR APPROPRIATION BY PEOPLE AND SPATIAL TRANSFORMATION

BODY ACTIONS

SHORT TERM
invisible by-product spaces

may leave some traces (empty bottles, cigarrette-ends, rubbish etc.)

TIBURTINA VENTILATION CUBE

analyzing relation between the activity and the boundaries and elements of the by-product space

SPATIAL ARRANGMENTS

LONG TERM
visible by-product spaces

physical structure arrangment

TESTACCIO HOMELESS SHELTER

analyzing the structure and the physical boundaries of a by-product space

STRATEGY FOR MAPPING

1. define spatial primary constraints of a by- prodcut space

- physical visible boundaries
- motion barriers

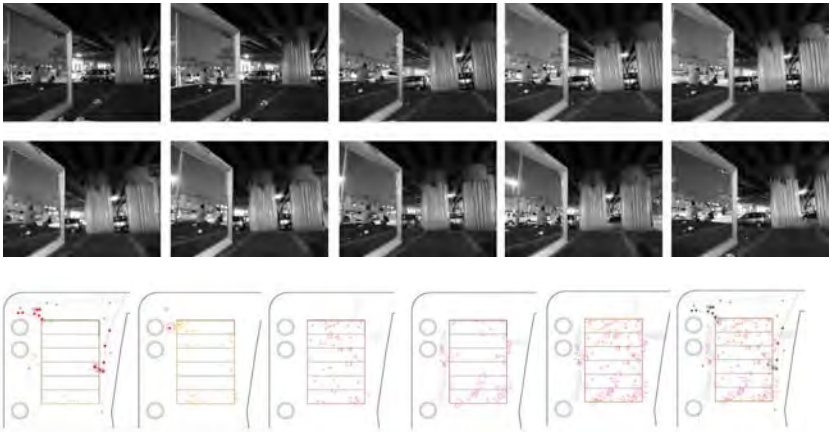
2. analyze human activies and their spatial results in the selected by-product spaces in terms of:

BOUNDARIES AND STRUCTURE (ELEMENTS)

- accessibility movement
- materiality
  - solidity
  - transparency
  - geometry (shapes)
  - arrangment

Mapping 1 | By-Product Spaces: Body Actions

Ventilation Cube (Tiburtina Station)



For the ventilation cube at Tiburtina Station as an example of an invisible short-term by-product space, the relation between the specific activity and the physical elements that constituted this by-product space was analyzed. The exploration was made for four points in one space associated with different activities in order to understand which characteristics of this space can be associated with a choice for a certain activity. The mapping consisted of interpretative plans, sections and perspective drawings and physical models focused on registering movement and changes in time.

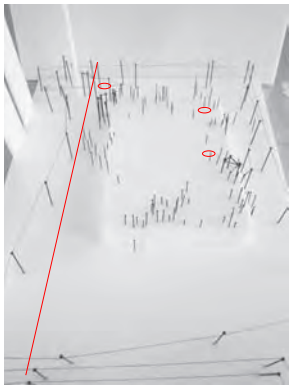
What are the by-product spaces constituted by body motion?

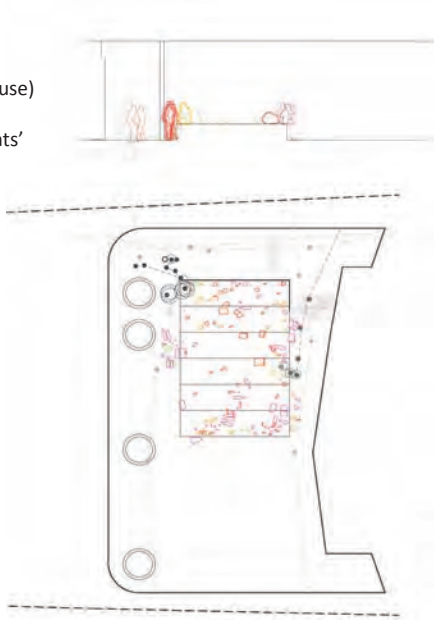
4-Days sequence registering:

-Traces of appropriation

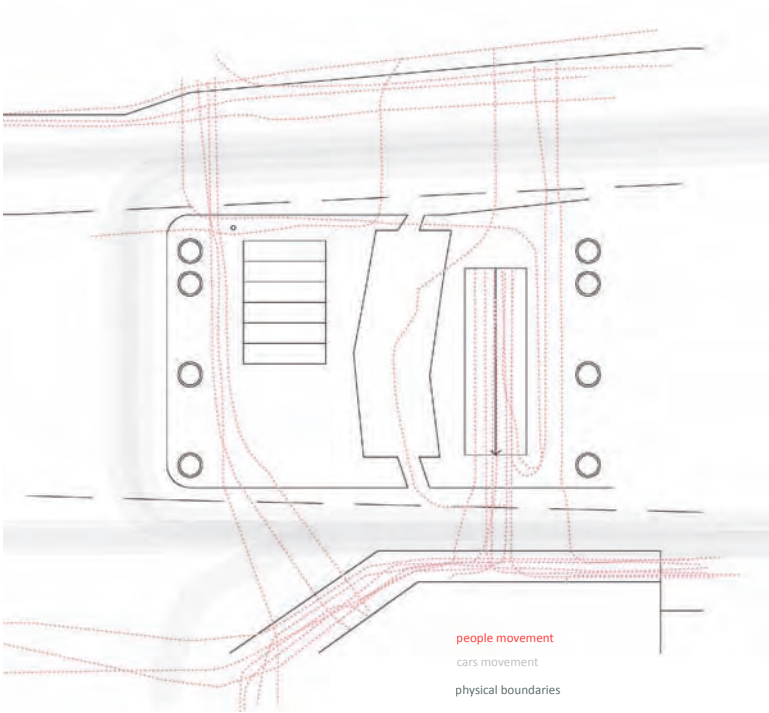
-Pepole flows and stops (places of use)

-'Hidden places'/ 'observation points' (Context dependent)



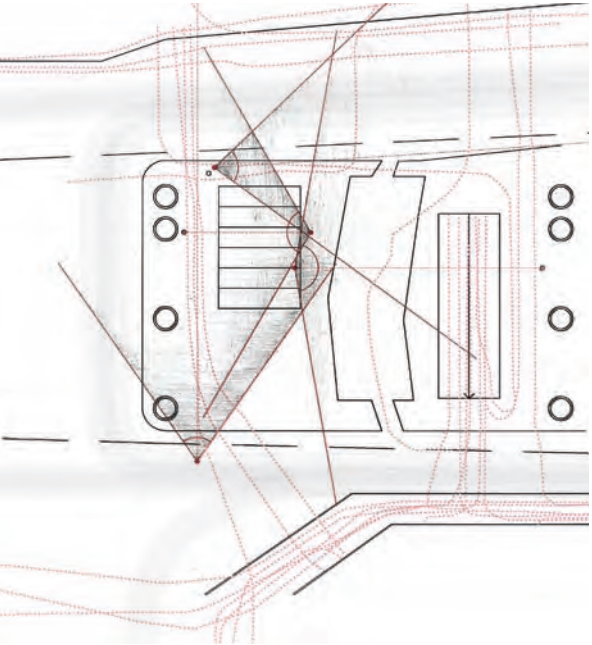


Defining spatial constraints _ space of flows

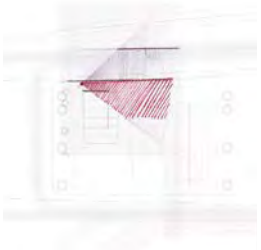


Mapping 1 | By-Product Spaces: Body Actions

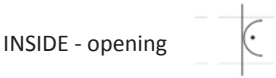
Analyzing a specific spatial condition acording to the activity in four frequently attended places

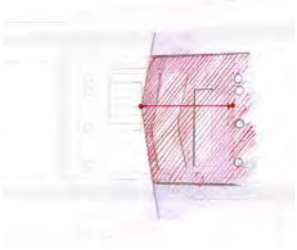


EDGE

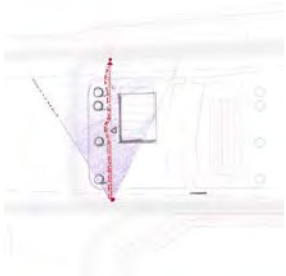


INSIDE - opening

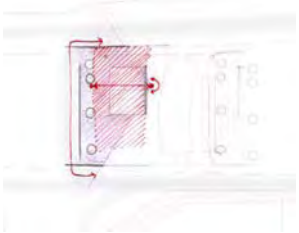




CORRIDOR_ passing through



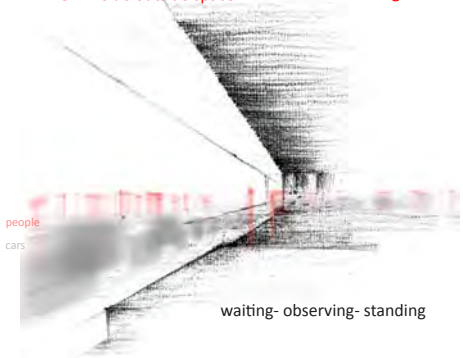
INSIDE - enclosing



Mapping 1 |By-Product Spaces: Body Actions

Extracting the elements that create each by-product space

EDGE- inside outside space a waiting room

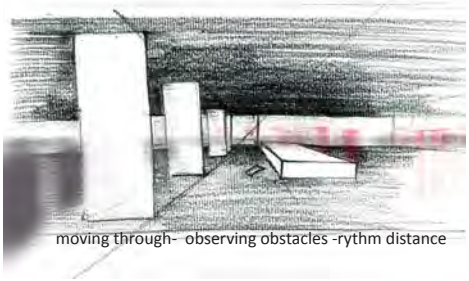


waiting- observing- standing

INSIDE - opening space a bench in a public space

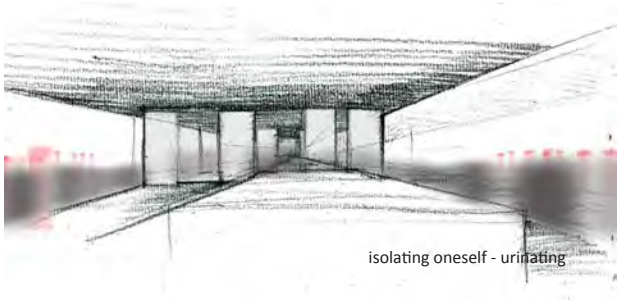
sitting - laying - drinking - talking -observing

TRANSITION_ passing through space a corridor



moving through- observing obstacles -rythm distance

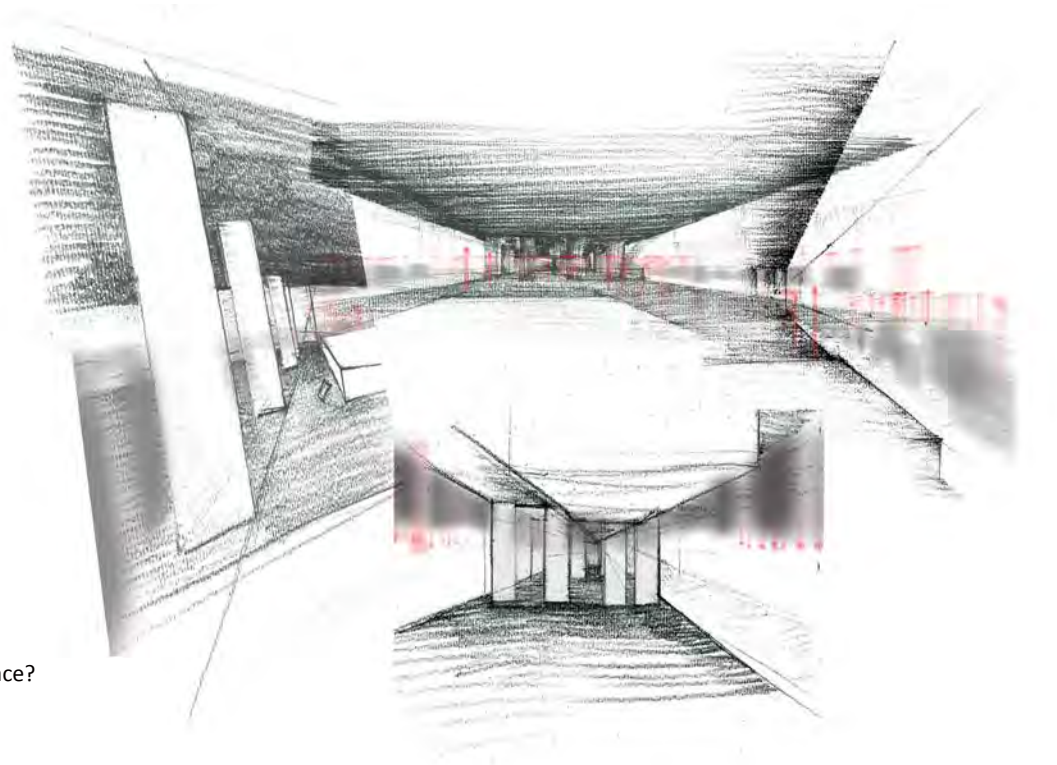
INSIDE _enclosing space a toilet



isolating oneself - urinating

Mapping 1 | Spatial Conditions of Invisible By-Product Spaces

Ventilation Cube (Tiburtina Station)

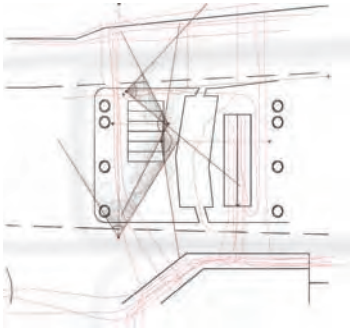


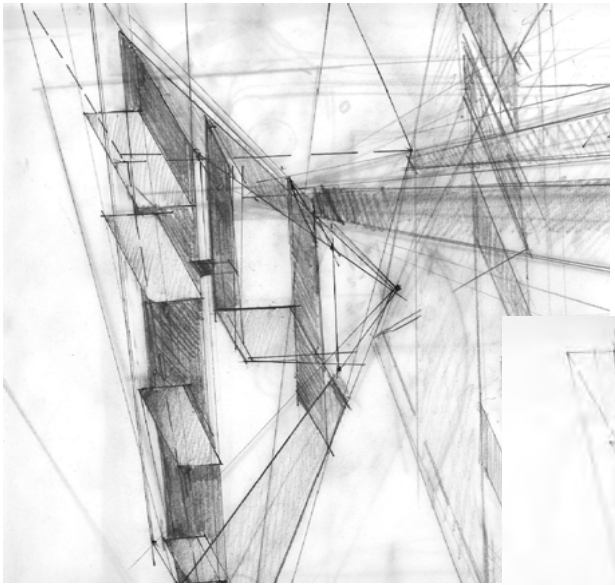
Observations:

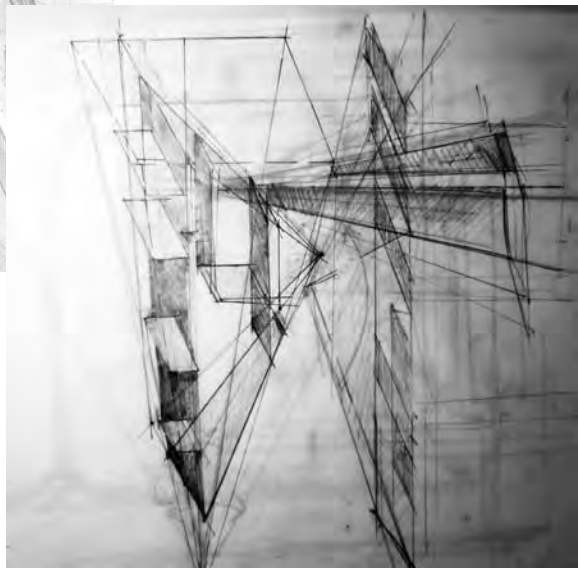
Strong relation of short-tem by-product spaces to the motion barriers

Only a few elements are important to establish each of by-product spaces (selective view)

How to design activity related space?







Method of mapping:

1. Idenitfying different by-product spaces
according to:

_focus distances

_visual field

_time frame

_personal movement

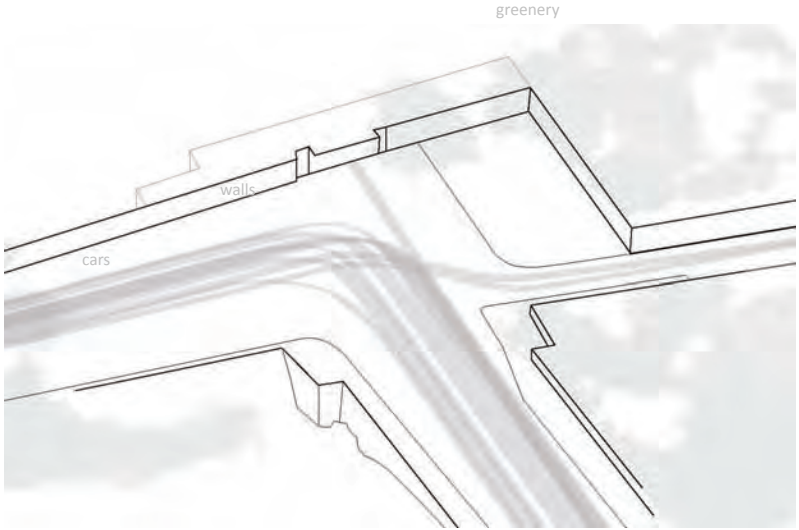
2. Extracting physical elements of invisible by-product spaces

3. Superimposing them according to observers positions

Mapping 2 | By- Product Spaces: Physical Arrangment of Elements

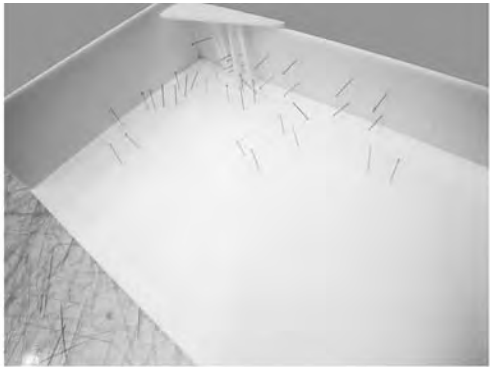
Homeless Shelter (Testaccio)

Spatial constraints - defining boundaries

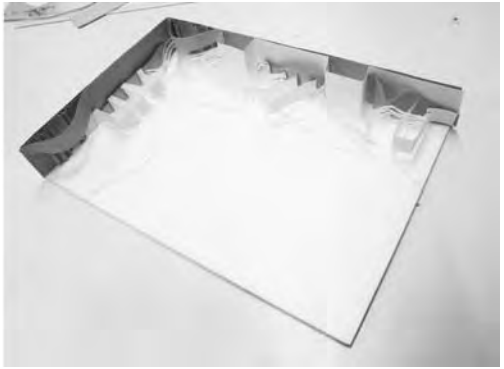


Hard- soft border transformation

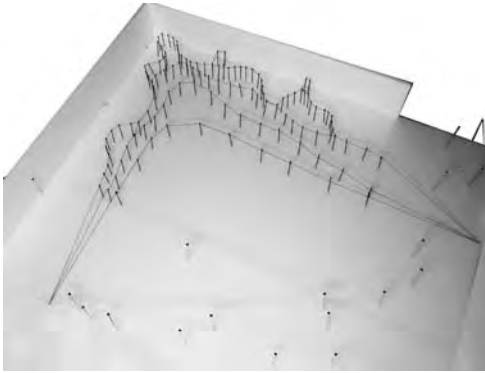
- MATERIALITY _change of physical structure
- ACCESSIBLIY _layers of accessibility



Areas of appropriarion



Layers of physical borders



Layers of movment accessibility

Mapping 2 | Materiality of the Borders

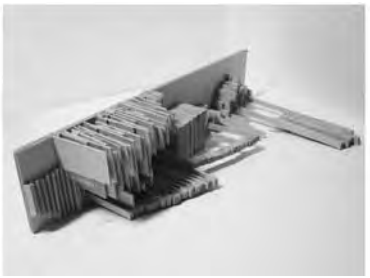
Homeless Shelter (Testaccio)

Hard- soft border transformation in terms of materiality : change of physcial structure.

VOLUME TYPES

LAYERING - TRANSPARENCY

LAYERING -
TRANSFOFMATION OF THE WALL



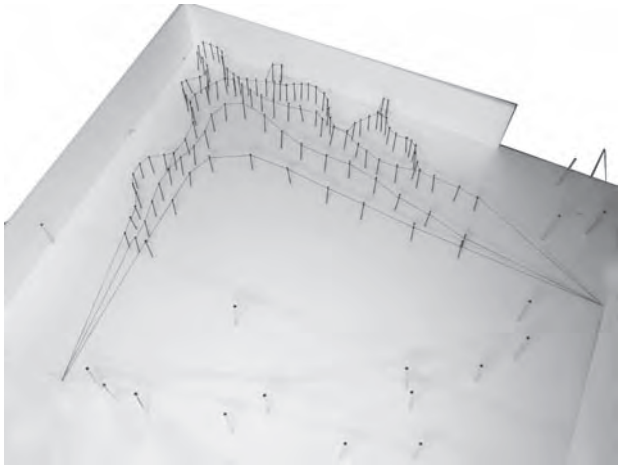
SOLIDITY - SECTIONS

For the homeless shelter in Testaccio the spatial arrangement was analyzed in terms of materiality, solidity and transparency of the structure and its borders. The research also investigated what is the relation between the materiality of the borders in this by-product space and its physical and visual accessibility. The investigation of boundaries and structure was done by series of interpretative physical models and sketches. As it is difficult to represent character of the physical models in one photograph, the next pages a series of photo is shown for solitdy model in order to explore its qualities.

Mapping 2 | Relation between solidity of the border and its accessibility

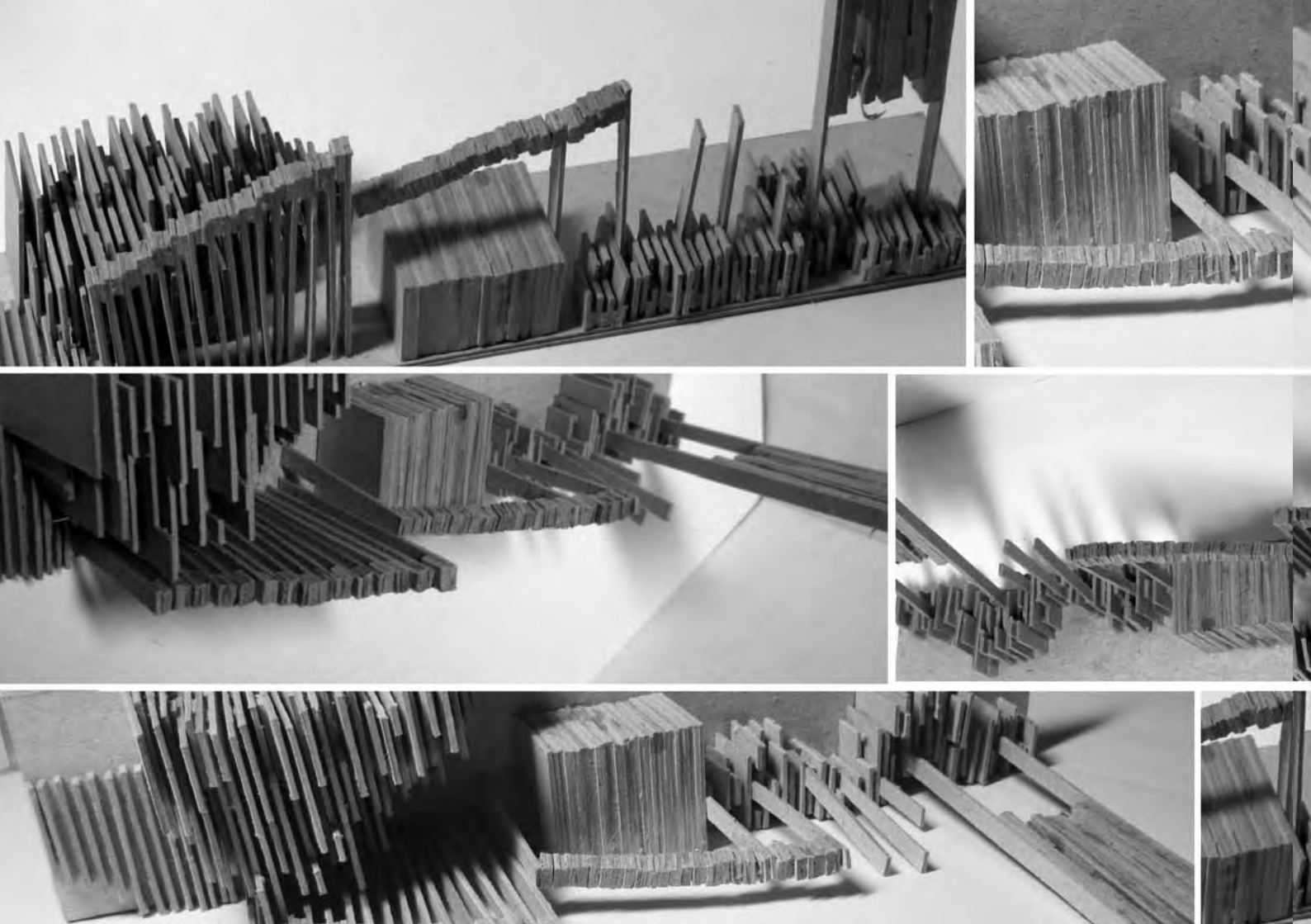
in Terms of Materiality and Movement

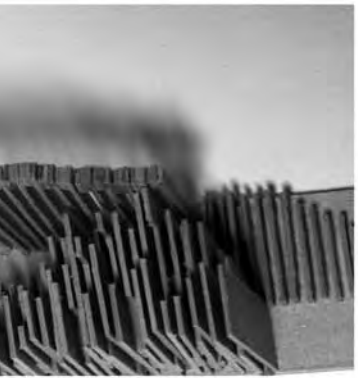
Accessibility represented by movement

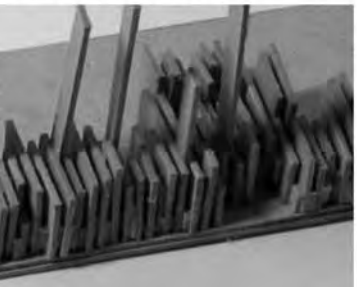


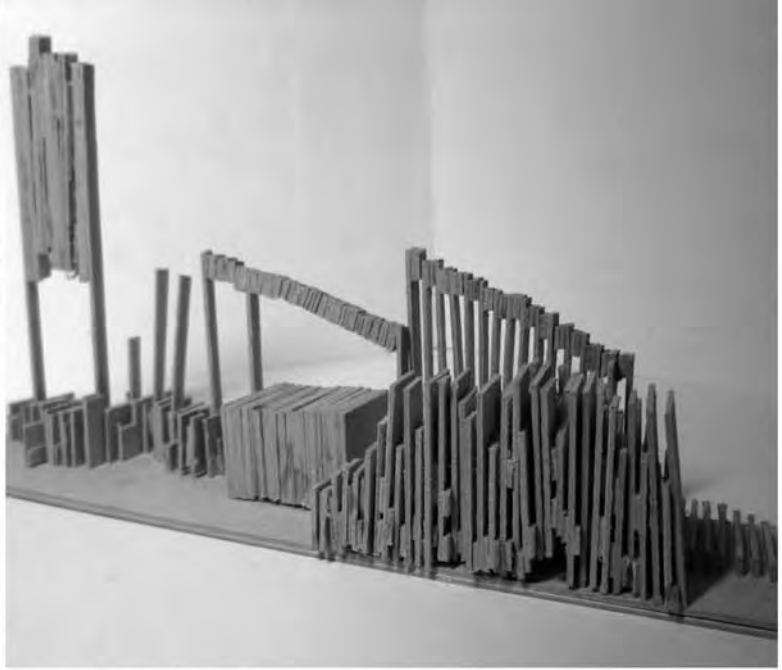
Solidity of physical structure

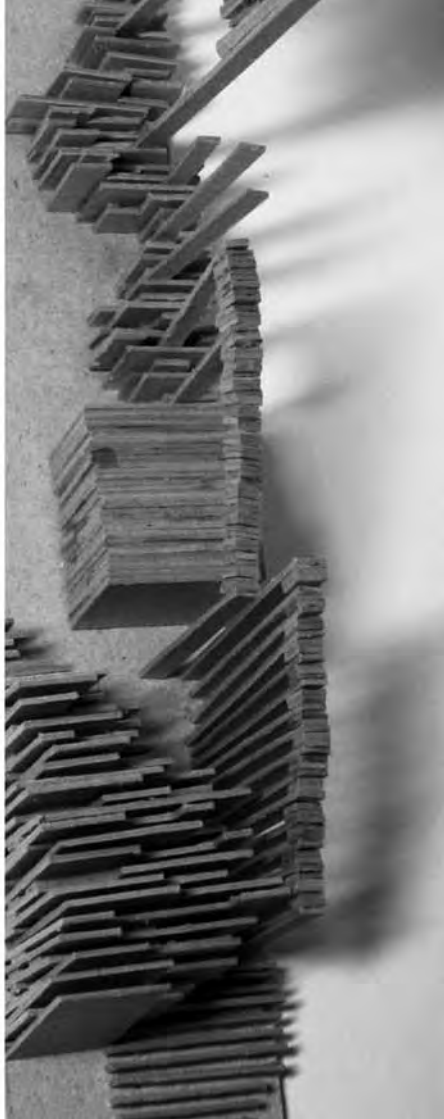
Solidity of the border in space affects its physical and visual accessiblity . Physical features like shape, transparency, assemblage and material structure influence, how easily the border is approached. By using the above-mentioned means, character of the borders and accessibility of space.may be differentiated.





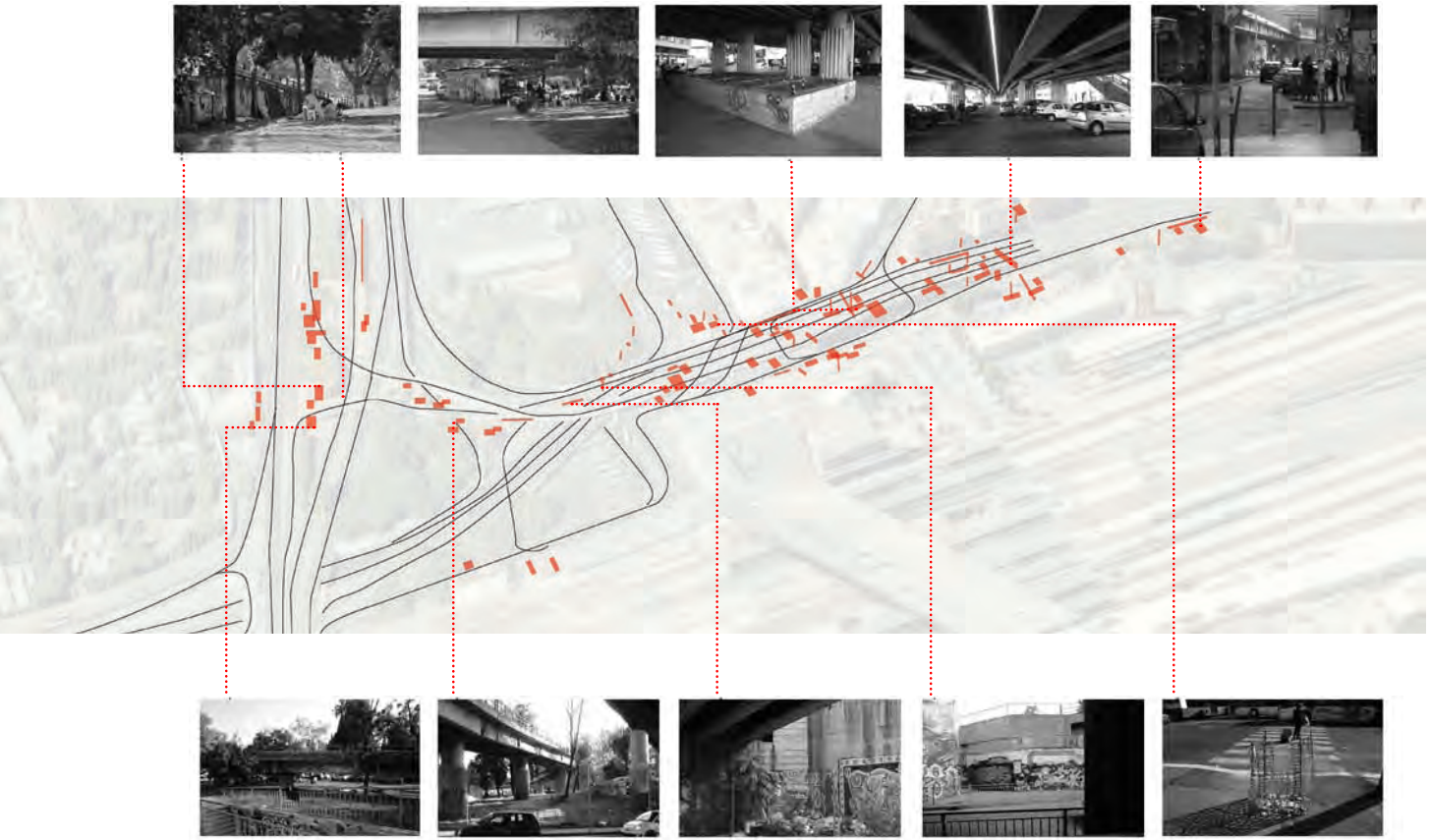






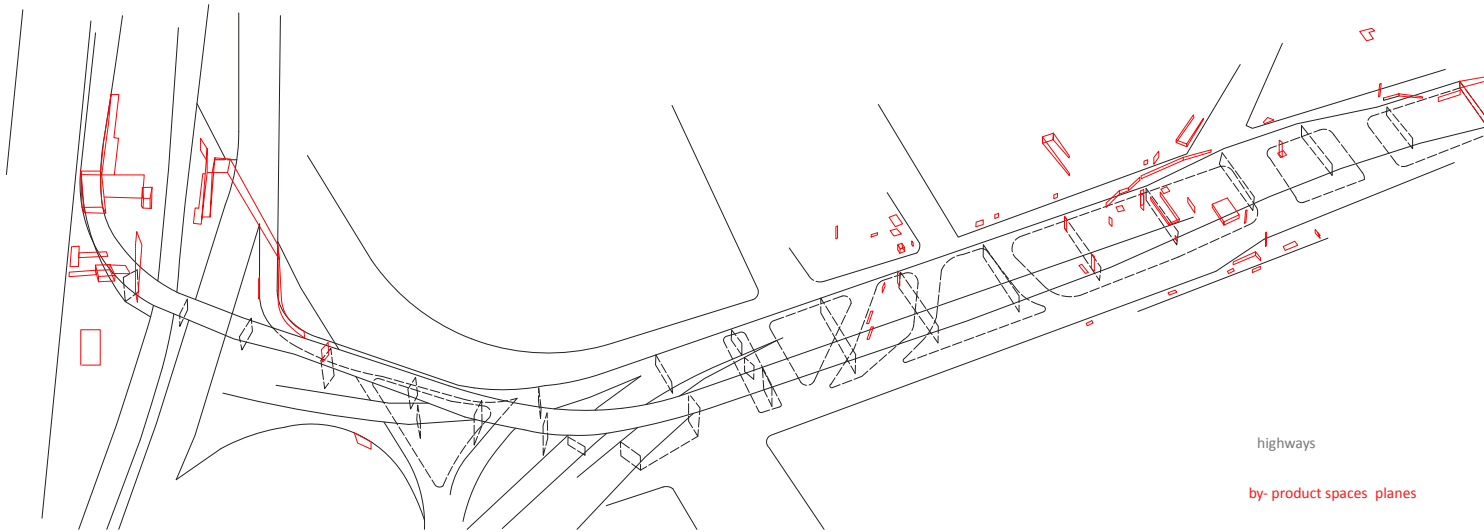
Mapping 3 | By-Product Spaces As A Sequence - Urban Scale

Highway Viaducts (Tibutina Station)



Mapping 3 | Pocket-like Structure OF By-Product Spaces

Relation between motion boundaries and the planes of by-product spaces



The third mapping represents the by-product spaces around Tiburtina Station as a bird eye's view drawing. Marking the emergence of by-product spaces along the highway viaducts uveils their pocket-like structure.

3. Mapping summary

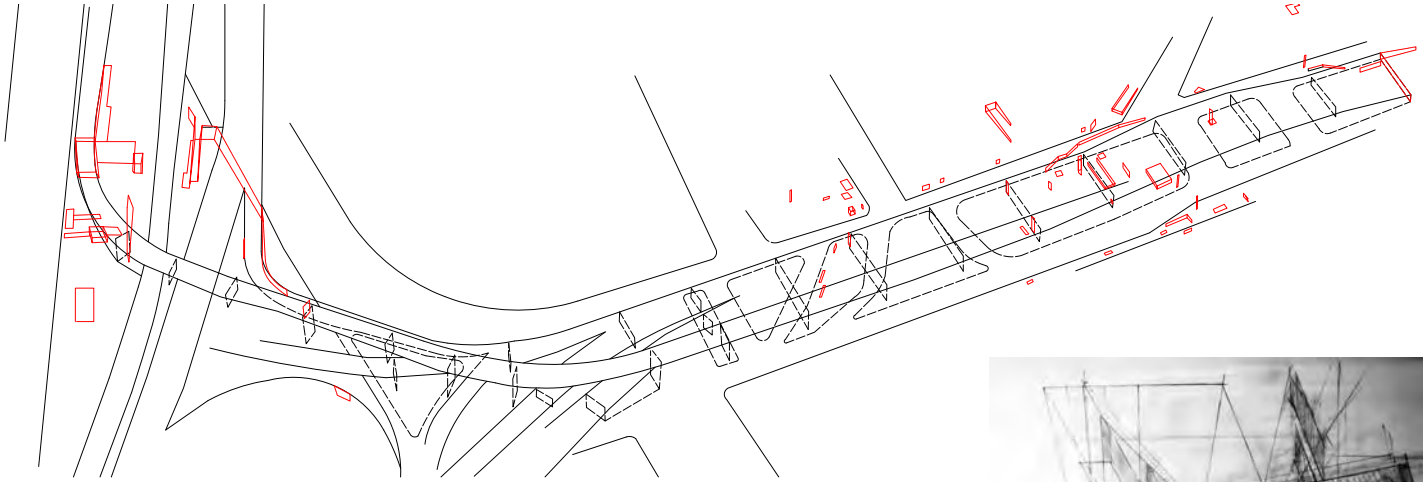
The investigation resulted in three maps of by-product spaces showing boundaries of spaces in relation to human activity. Each map examines this relation in different scale: urban, object (building), human scale. The strategy for the project is to implement extracted spatial relations and qualities of by-product spaces in each scale (designing by scale). The project proposal will aim to include activity oriented design.
Motion barriers become important issue in the strategy development. As indicated in all three mappings they can attract activites but also can be a force that pushes them away.
The program proposal for the building is a museum-consisting of with small galleries partly interconnected. The exhibition space should be diverse and not hierarchical. It can be also partly rebuilt and expanded according to current expositions. The project aims io search for a concept for a museum ,which is not enclosed, hierarchical and definite space.

Design by scales

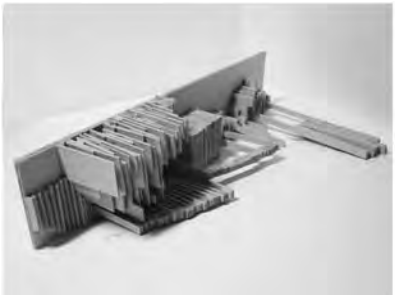
Design by activities

Design around movement boundaries

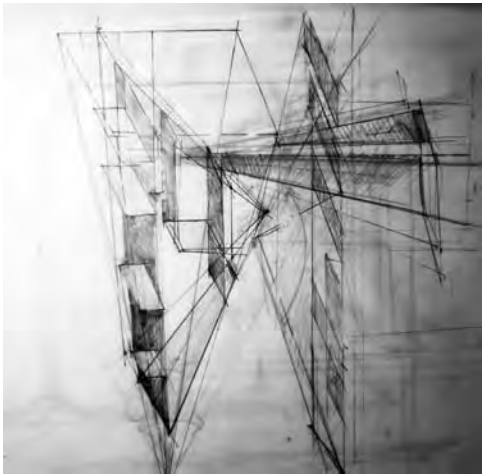
Design by different border materiality



1. Urban scale: Pocket-like structure



3. Human scale: differentiating material solidity



2. Object scale: selecting specific elements - planes and surfaces

The Edge Within.

3.2

Irina Niculescu,
Romania.

Periphery - The edge within

"if existence in all its moments is all of itself, Zoe is the place of indivisible existence. But why, then, does the city exist? What line separates the inside from the outside, the rumble of wheels from the howl of wolves?"
(Italo Calvino, Invizible cities*, Cities and signs 3)*

Within the dynamic process of growth, the contemporary city is in a process of continuous transformation on both territorial and perceptual levels; relations between the different parts of the cities are in a continuous negotiation to position in the system of urban dynamics. In most European cities), the city center is consumed differently by its users; the historical center, for tourists; the cultural hotspots, for residents; the clubbing area, for young people; the green neighborhood areas and shopping centers, etc., for residents, etc. Even though in most cases these areas intersect, they will never overlap completely. Thus, we find that the tourist hotspots become for the residents areas to be avoided, or the alternative clubbing areas are not of a real touristic attraction. The boundaries of these areas are quite unclear while/ and still in a continuous transformation, however, it is difficult to identify periphery only in relation to the city's center, as it is commonly defined. Dictionary definitions explain **periphery** as "*the external boundary or surface of a body*" ; "***a.*** *the outward bounds of something as distinguished from its internal regions or center;* ***b.*** *an area lying beyond the strict limits of a thing*"[1] or "*a zone constituting an imprecise boundary*."[2]. According to these definitions, periphery is a realm that is in between something and nothingness, thus this "external boundary" becomes an organism that dilutes and expands within a spatial configuration growing into a gradient from inside towards outside. But how can this process be spatially identified and what are the forces that initiate this process? These are some of the key questions around which I would like to build up my argument regarding the notion of periphery. Furthermore, I would like to investigate and discuss periphery more as a spatial behavior in a continuous transformation, rather than digging its relation with the center.

The attempt of this paper is to trace some connections between arguments delivered by different authors discussing the concept of limit as a dynamic field, as a terrain of transformation and initiator of new beginnings. Starting from Deleuze's concept of 'fold' that can be considered in architecture as a framework of non-

1 http://www.merriam-webster.com/dictionary/periphery
2 http://www.thefreedictionary.com/periphery

hierarchical relations between different spatial states, I will discuss periphery as a spatial phenomena related with another Deleuzian concept - smooth and striated space.

Deleuze's concept of Fold

"*The organism is defined by its ability to fold its own parts and to unfold them, not to infinity, but to a degree of development assign to each species. Thus an organism is enveloped by organisms, one within another, like Russian dolls. The first fly contains the seeds of all flies to come, each being called in its turn to unfold its own part at the right time. And when an organism dies, it does not really vanish but fold in upon itself*[3]*"*

Analyzing Leibniz's monadic worlds in terms of folds of space, Deleuze concept of fold is related to the idea of non-hierarchic entities that by transformation opens up new states within the same world. When the caterpillar becomes a butterfly it doesn't become superior or inferior to the previous state, it folds into something completely different but with the same status inside the inhabited environment. Thus, the concept of fold tackles the potential of 'outside' to become 'inside' within the same 'world' without being distinguished as different; they are part of the same entity. Simultaneously each 'outside' may become 'inside' while each 'inside' will fold again into an 'outside' of an 'inside'; this process is a sort of device that in the same time traces a boundary and brings together two converging entities. Deleuze following Leibniz argument defines the two entities "between the pleats of matter and the folds in the soul. A fold between the two folds?"[4]. Thus, the fold is an abstract force embodied in spaces and objects, it is a force that triggers movement and transformations but, in the same time, the concept refers to the ability to perceive changes within our surroundings. In other words, Deleuze discusses the pleats of matter not as creases in a piece of cloth, not as the pragmatic capacity of one object to take another shape, but the matter as the common nominator of different entities. Folds, in these terms, exist everywhere, in space and in time, in things and in ideas, with the property to link these categories in the same moment.

Deleuze develops the concept of fold from the theories of Lock and Leibniz. Lock imagines the brain as a camera obscura where images invade but lay orderly to be found upon occasion. Leibniz develops further on the idea of camera obscura and imagines the brain as a Baroque house that Deleuze will call an "allegory" and

3 Gilles Deleuze, *The fold, Lebniz and the Baroque,* Continuum, 2006, pg 9

4 Gilles Deleuze, *The fold, Lebniz and the Baroque,* Continuum, 2006, pg 5

sketches to clarify the concept of fold. The "Baroque House[5]" consists of two floors, the ground floor with four windows and a wide door; the door is approached by three curved stairs; above is a second level composed out of a closed room with five small unequal openings in its floor. This room is hung with five curtains – "drapery diversified by folds" - that fall through the floor openings below. The five openings represent the five senses that activate the receptors of the upper level. Hence, the closed space from above is a kind of projection room where the five senses send the impulses through the openings. According to Antony Vilder[6], the distinction between Leibniz and Deleuze fold is defined on one hand by Leibniz's discussion on the folded curtain as being a two dimensional surface; an interior function working as a receptor of vectors from outside, a generator of forces just inside. On the other hand, Deleuze emphasizes the duality of the two worlds; he develops the fold as a force triggered to the same extent both inside and outside.

However, Deleuze concept of fold refers to perception and experience; the fold can be everywhere and is not necessarily spatial engaged, it is a force that activates a new understanding and perception, it is human's inside state that is being actualized in the inner conscious/soul and realized in the matter through unfolding. But how this folding process may engage in an architectural thinking? How this duality between inside and outside in translated into space?

Elizabeth Grosz in the essay "Architecture from outside" discusses Deleuzian fold as an inside folded or doubled of the outside, a continuous interweaving of two different entities that through interaction creates a new state of the two:

" It is not the convergence but in the disjunction of series that the outside is active in the production of inside. This may be why for Deleuze, the middle is always the privileged point to begin the thought is perhaps best captured in between. Thought starts in the middle, at the point of intersection of two series, events, or processes which however temporarily shared a common milieu"[7].

Thus the fold is defined as the milieu of in between arises in a certain environment where a specific moment ('event' in Deleuzian terms) takes place. The fold may be considered in relation with the experience of different 'events', it might be similar, for example,

5 Deleuze, *The fold, Lebniz and the Baroque,* Continuum, 2006, pg 5 fig. 1

6 Antony Vilder, *Warped space,* MIT press, 2001, ch. Skin and bones – folded forms from Leibniz to Lynn

7 Elizabeth Grosz, *Architecture from the Outside,* MIT press, 2001, pg.69

with an incident that made us aware of the reaction of our body in relation with a specific context. If Grosz defines fold as the space of in-between, John Rajchman in the book "Constructions" relates the fold word with its etymological description tracing from the family of words that contains the root "pli"[8] like *complication* and *implication* or *imply* and *explain* through the Greek origin of the word *multiple.* According to Racjman multiplicity is the key concept on understanding the fold dynamic and complexity of the process that triggers the in-between:

"A defining principle of Deleuze's own philosophy is that the Multiple comes first, before the One. In this sense, stated of affair are never unities or totalities but rather "multiplicities" in which have arisen foci or unification or centers of totalization. In such multiplicities what counts are not the terms or the elements but what it is in between them or their disparities;"[9]

Following the two arguments the fold is the milieu of the *in between* that on one hand is triggered by events and external forces and on the other hand it is the abstract space of continuous transformations where the forces from inside and outside intersect and interacts in a constant flow providing the ground of new beginnings.

Raoul Bunschoten considers the contemporary urban situation divided in what he calls the first skin, the ground of primal geographical forces, and the second skin created by towns and cities which wraps the earth surface creating a new layer. The second skin is certainly affected by movements of the underneath ground but in the same time is a mechanism that allows specific dynamics and flows. Liminal Bodies arise where the two skins interweave creating the cradle of something new "*a kind of womb producing new life organism, new life forms*."[10] The dynamic aspect of the city can be grasped only identifying the intersection ground between converging dynamics and forces. Liminal Bodies is the milieu where the forces of the first skin, natural phenomena and environmental changes, interacts with mobility, progress and the whole complexity of the second skin. For Bunschoten this is the engine of new dynamics, the "incubator" of new beginnings.

Liminal Bodies are elements that activate movements and urban possibilities, that explores the in between space of the two skins through all their potentialities and opens up new possibilities. In this way Liminal Bodies can be considered folds triggered by the interaction different dynamics in a continuous state of transformation but in the same time the milieu of urban

8 According to *wordreferece.com* English French dictionary *fold* is translated *pli*
9 John Rajchman, *Constructions*, MIT press, 2001, pg.15
10 Border Conditions Book, *Liminal Bodies and Urban Incubators, text Raoul Bunschoten,* pg. 278

interventions.

Raoul Bunschoten offers a possible interpretation of the in-between through a top down approach, an overview look of the possibilities on interaction between global and local scale. But the question of identifying and defining the fold through a button-up approach is still valid.

Smooth space\ striated space

In my opinion, the elements that might be spatially relevant within the discussion on fold refer on one hand, to the idea of dynamic transformation within heterogeneous systems with non-hierarchic relations. On the other hand, the fold denotes an 'event' that for Deleuze represents a unique potential within a confluence of forces –"*What is an ideal event? It is a singularity – or rather a set of singularities or of singular points characterizing a mathematical curve, a physical state of affairs, and a psychological and moral person. Singularities are turning points and points of inflection; bottlenecks, knots, foyers and centers; points of fusion, condensation, and boiling; points of tears and joy, sickness and health, hope and anxiety, "sensitive" points*[11]*."*

According to Tom Conley, Deleuze discusses

Fig.1 Smooth/striated space representation - Christian Humbert, christianhubert.com

physical space in two dimensions; first, in relation with the place and secondly as smooth space in contradiction to striated space.

First he describes "space as a discursive practice of a place[12]" where the place is a predefined area "named and mapped, that can be measured in terms of surface and volume". This place becomes a space only when the living agents mark it with their own activities and engage in an active dialogue with this particular place. In other words, the space is marked by traces of everyday life that

11 Gilles Deleuze *The logic of sense*, Columbia University Press, pg 52

12 Deleuze Dictionary, Edinburg University Press, 2005, pg 258

come into existence spontaneously and opens up a field of infinite interpretation.

The idea of space versus place is also measured in terms of smooth and striated space. The first one is occupied by intensities and events, it is heterogeneous made of a nomadic system of movement, where lines becomes vectors rather than units of measurement oppositely to its counterpart. The second one, the striated space, is homogenous, mapped and concrete; the striations are patterns that follow rigorous rules, the grid space. In "One thousands Plateau" Deleuze and Guattari discuss the sea and the desert as being smooth spaces that become striated by means of navigation techniques. Tamsin Lorraine describes smooth spaces as milieus that have their own patterns that interact with other milieus patterns, triggering "*an infinite succession of linkages and changes of directions that creates mosaics of space and time*"[13]. Therefore, smooth spaces are a system of forces that activate striation by spontaneous relations.

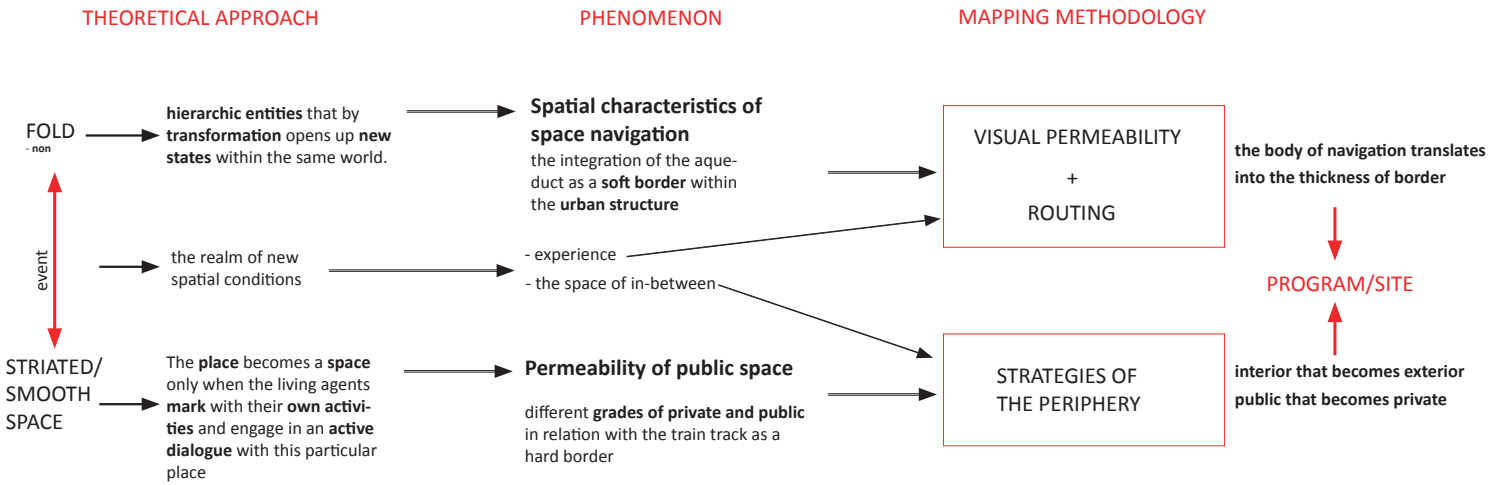
Insofar Deleuzian fold describes an abstract milieu of interrelated phenomena in relation with connection formed between different states of matter. The fold is the in between milieu where rhizomatic association takes places and unpredicted events arise. The smooth space is the infinite surface that reflects the connections of human actions, is the space of folds the space of continuous transformation and flow. Within my research project I pursuit a further grounding of folding as transformation of space and as the base or framework for understanding these transformation from public to private as a nonhierarchical derivation with its own consistency.

13 Deleuze Dictionary, Edinburg University Press, 2005, pg 254

Bibliography:
Border Conditions Book – editor Marc Schoonderbeek, Architecture and Natura Press, 2010
Raoul Bunschoten, *Urban Flotsam*, 010 Publisher, Rotterdam 2001
Bernard Cache – *Earth moves*, MIT Press, 1995
Deleuze, *The fold*, Lebniz and the Baroque, Continuum, 2006
Antony Vilder, *Warped space*, MIT press, 2001
Gilles Deleuze *The logic of sense*, Columbia University Press, 1990
Gilles Deleuze and Felix Guatari, *A thousands Plateau*, University of Minnesota Press, 2005
Deleuze Dictionary, editor Adrian Parr,Edinburg University Press, 2005
Manuel De Landa, *Thousands Years of Non Linear History,* Swerve Edition, New York 2000
John Rajchman – *Constructions*, MIT press, 2001
Elizabeth Grosz – *Architecture from the Outside*, MIT press, 2001

The research methodology of this project involves an in situ investigation of Rome, based on different mapping techniques followed by the remote development of materials gathered on site. The investigation itself is divided in two parts that discuss the fold both as perceptual event and the space of the in-between - the realm of transformations.

The first part periphery strategies map deals mainly with the public-private dynamics and the different occupation strategies of the public space by private agents. Every time the public domain is appropriated through individual or semi-collective acts of a community a new spatial layer is created- one that no longer takes part to public or private but is rather an in-between or a periphery to both the public and the private. Moreover, as this apparent conflict is constantly unfolding it produces transitional phases with an undetermined future, sometimes giving way to resilient and stable spaces while other-times regressing more towards their initial conditions. In this sense periphery becomes rather a property or an outcome of different occupation strategies


THEORETICAL APPROACH
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MAPPING METHODOLOGY
FOLD
- non
hierarchic entities that by transformation opens up new states within the same world.
Spatial characteristics of space navigation
the integration of the aqueduct as a soft border within the urban structure
VISUAL PERMEABILITY
+
ROUTING
the body of navigation translates into the thickness of border
event
the realm of new spatial conditions
- experience
- the space of in-between
PROGRAM/SITE
STRIATED/
SMOOTH
SPACE
The place becomes a space only when the living agents mark with their own activities and engage in an active dialogue with this particular place
Permeability of public space
different grades of private and public in relation with the train track as a hard border
STRATEGIES OF
THE PERIPHERY
interior that becomes exterior
public that becomes private

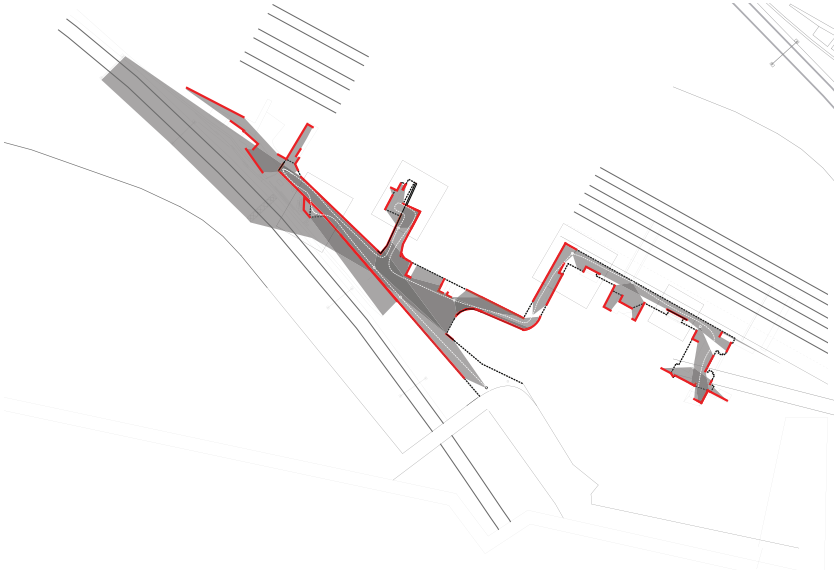
Via Cassilina Vechia is an old Roma street that follows Felix Aqueduct from the outskirts of Rome to Porte Maggiore, a gate through the Aurrelian Wall, the limit of historical city center. The area I am investigation deals with a specific spatial condition of one part of the street, a dwellings island bordered on three sided by railway tracks and on one side by the aqueduct. Following my fascination on discussing different spatial condition triggered by different border behaviors I have choose the are as a case study of the negotiation between private and public.

The mapping method is divided in two parts, first what I call the maximum and the minimum public space, mainly a visibility study and a car movement study, secondly is a zoom-in investigation on four specific case studies of public space claimed by private users that I called them “plug-in”, “setting”, “assemblage” and “extending”.

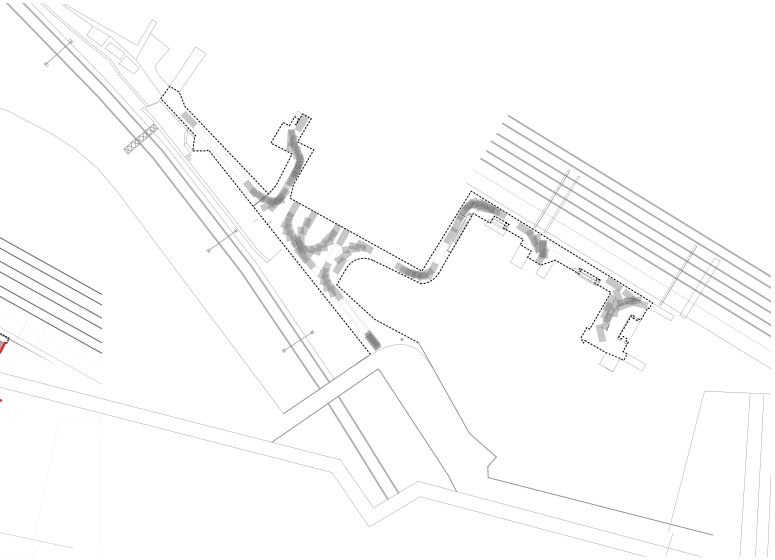

STOP
STRADA CHIUSA

Private within Public

Min/Max map



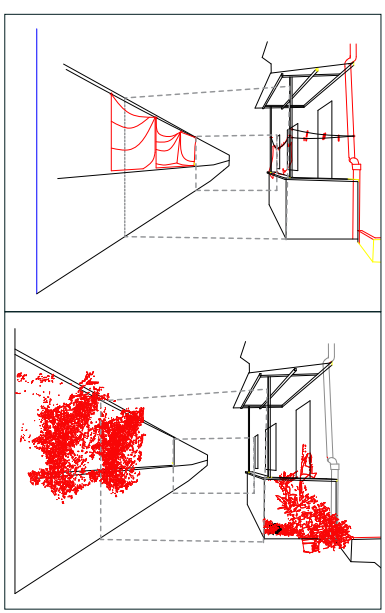
Maximum public space -visual permeability study

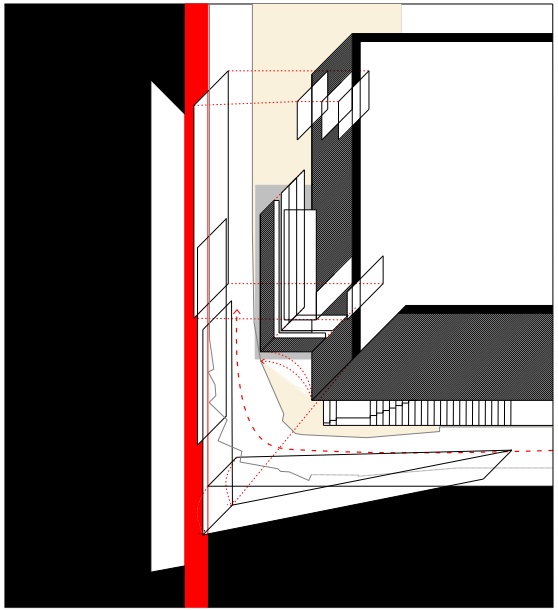


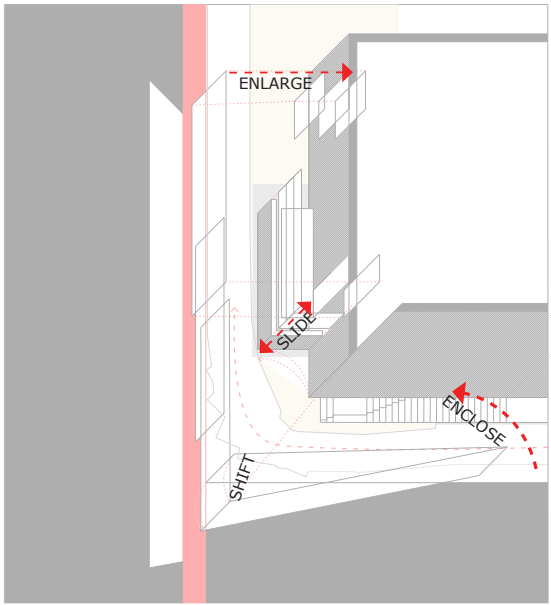
Minimum public space -visual permeability study

Within my research project I pursuit a further grounding of folding as transformation of space and as the base or framework for understanding these transformation from public to private as a non hierarchical derivation with its own consistency. Thus, every overlap between the two is seen as a new emerging species triggered by a special event. For example, public alleyways are often in areas occupied in absence of cars. In this sense, an event can be considered both the presence of cars as well as their absence. Both of these conditions determine the space to fold and change.

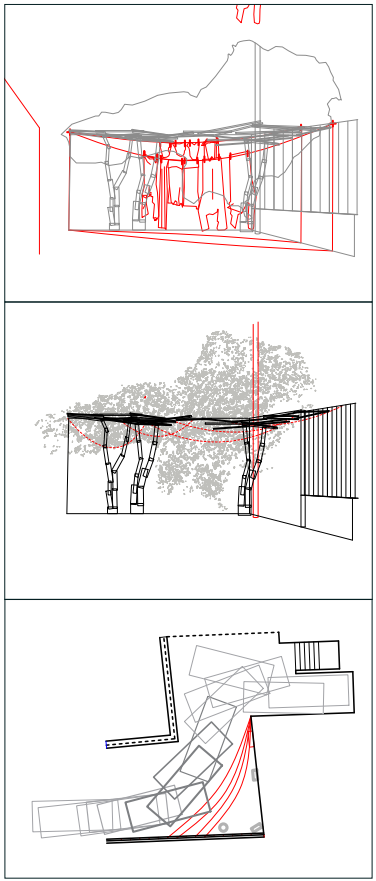
The map below displays my interpretation of this pro-

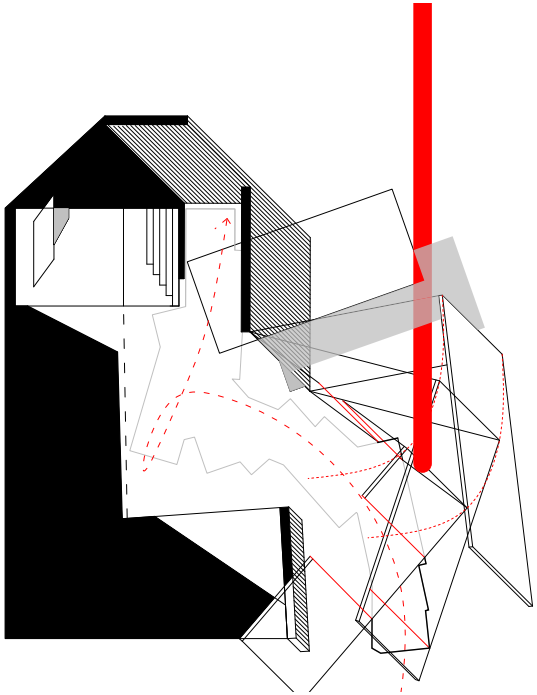


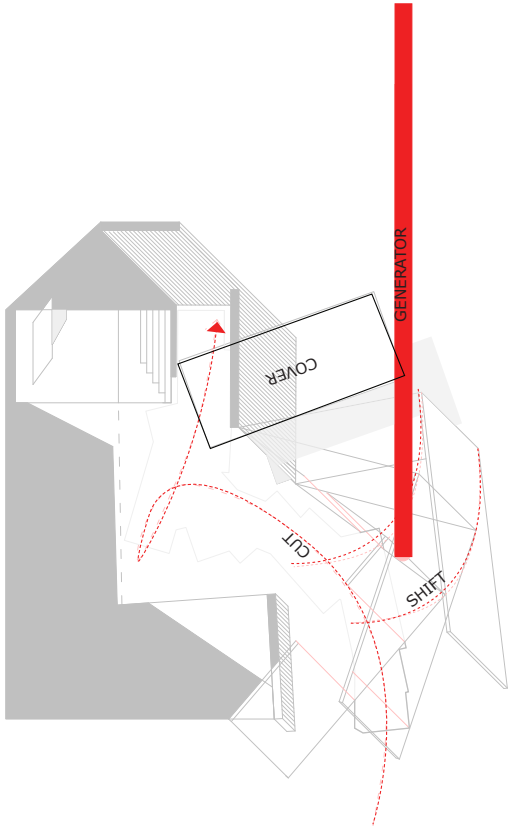



ENLARGE
SLIDE
ENCLOSE
SHIFT

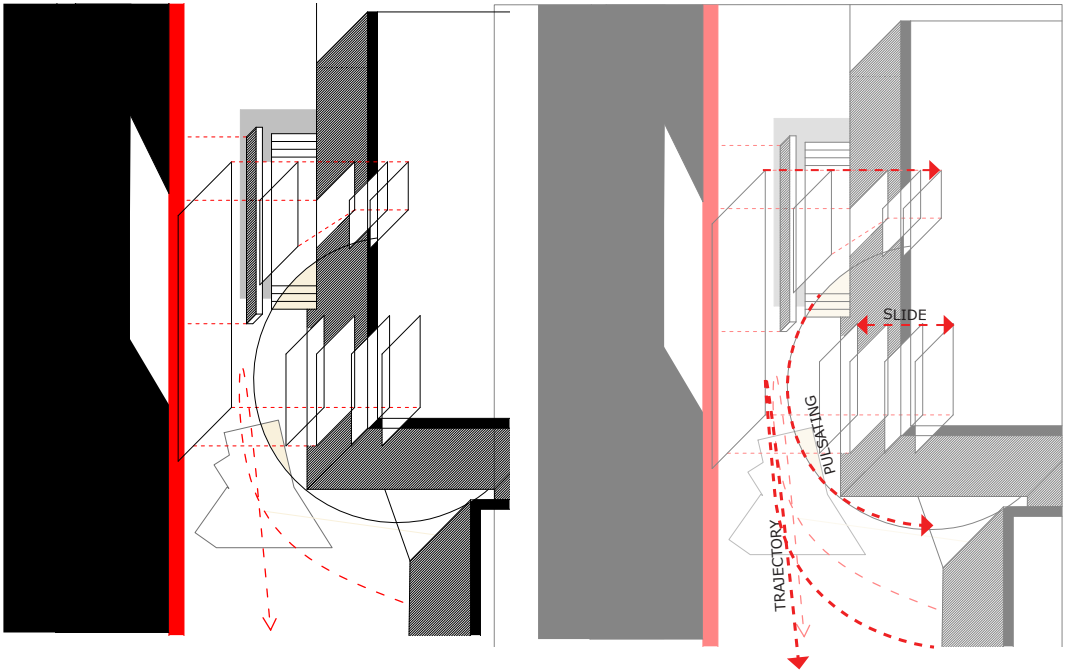
cess. The plan representations deal with the idea of event and display its reoccurrence pattern and the way a space is occupied and conditioned by this event, namely the coming and going of several cars belonging to “locals”. This event is the constraint that determines the private in the area to fold and create a new spatial structure, a form of invasion – the periphery of both public and private. This new special species progresses and regresses in dependency to “event”. The image to the right displays what I call the structure of the fold- an interpretation of the actual special transformation into an abstract drawing of relations and concepts. The dot-



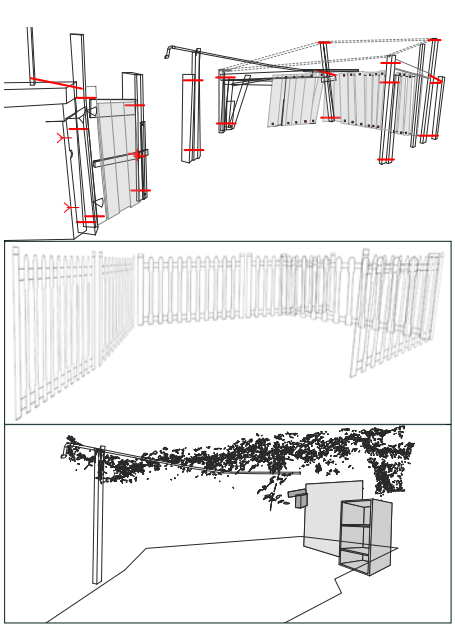


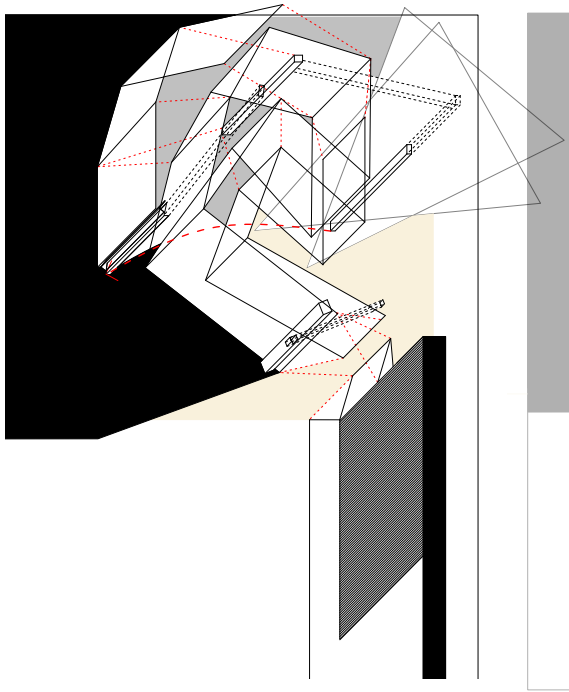

GENERATOR
COVER
LIFT
SHIFT

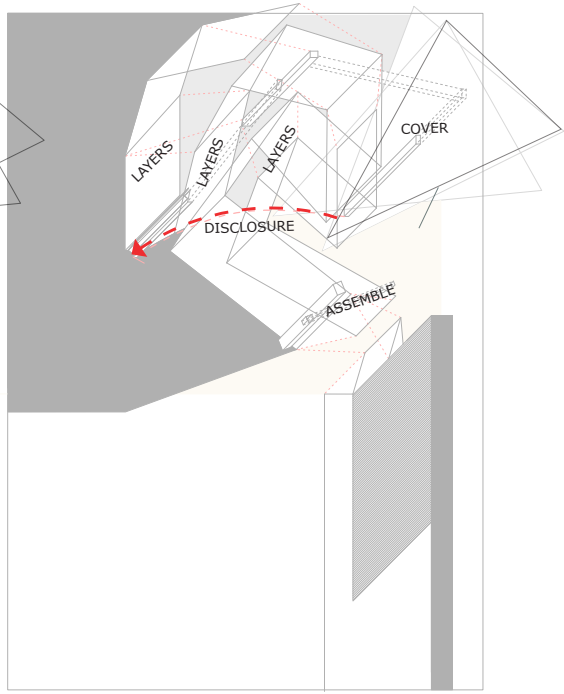
ted red line is indicative of the reoccurring event which is part of the fold as potentiality of further unfolding. Furthermore as it is the private that folds (i.e. the alleyway is occupied by a dining table or other leisure activities) the windows of the house also suffer a transformation and become exchange gateways between the indoors and outdoors. This constant change of status and functionality becomes a multiplication of the element in discussion as the folding does not imply a regression of a fold to an initial state but rather the initial

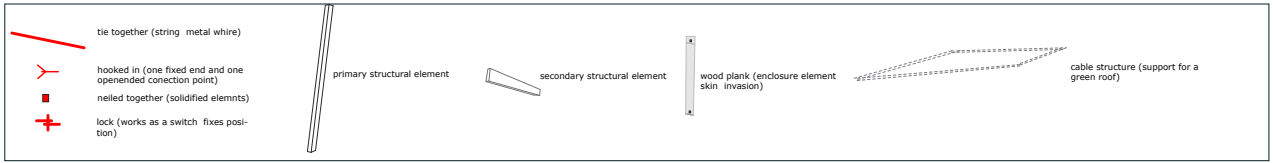

SLIDE
PULSATING
TRAJECTORY

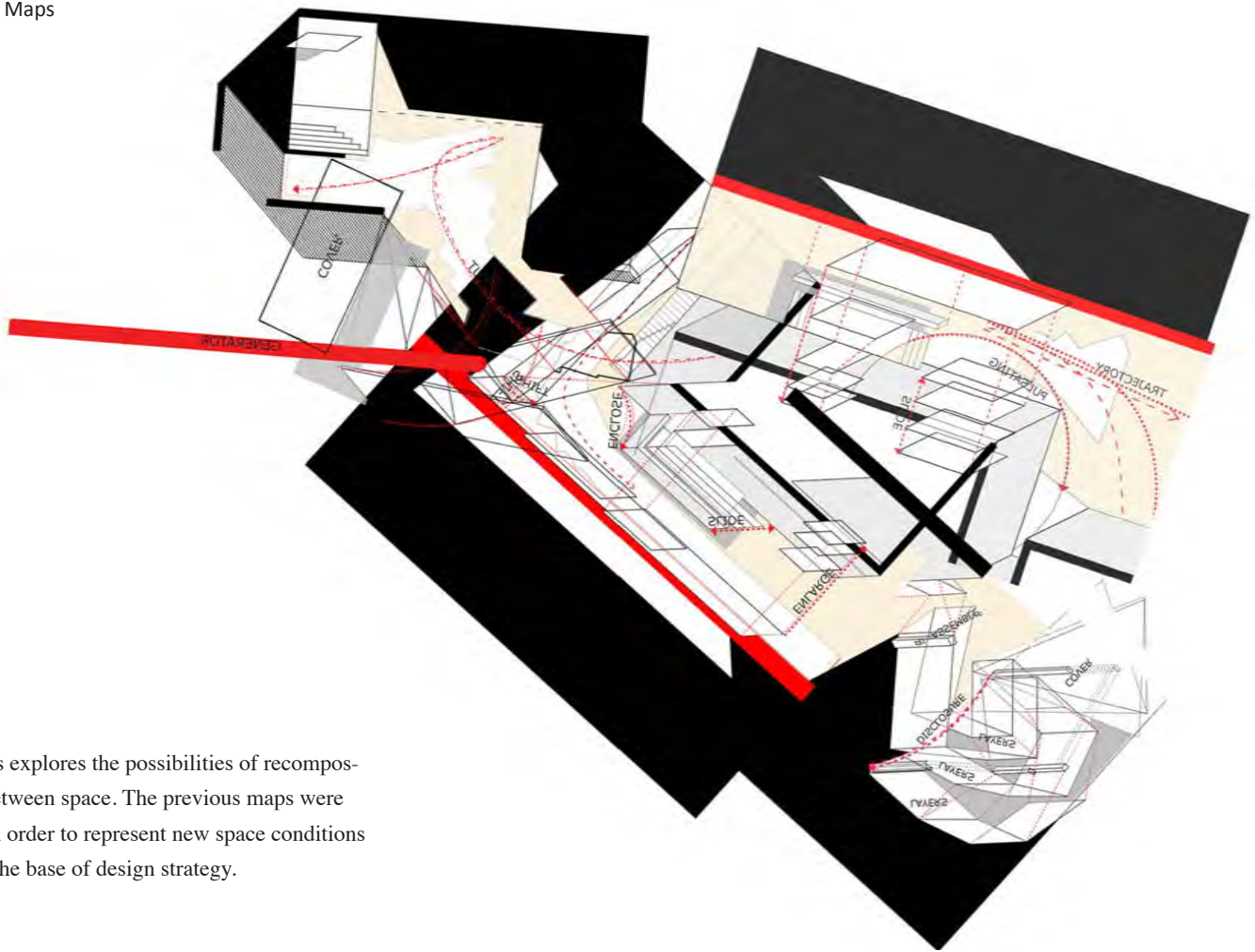
state of a space is a new fold. In this sense the entire map seems to have expending properties. As Deleuze points out folds have also the quality of transgressing seemingly parallel materialities, thus spatial modifications that tend to regress to an initial state unfold in the memory of both human occupants and place.



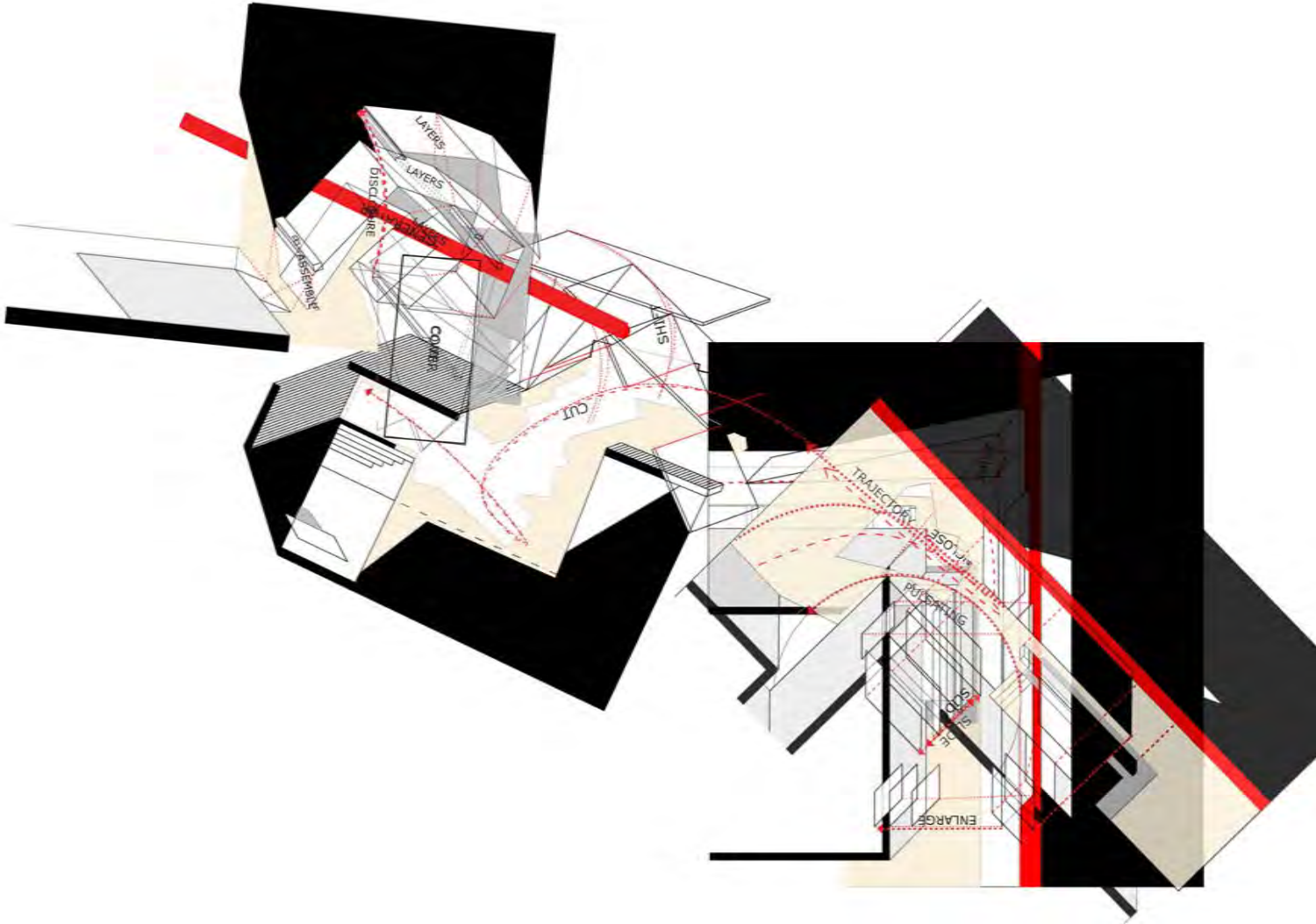



LAYERS
LAYERS
LAYERS
COVER
DISCLOSURE
ASSEMBLE


tie together (string metal whire)
hooked in (one fixed end and one openended conection point)
neiled together (solidified elemnts)
lock (works as a switch fixes position)
primary structural element
secondary structural element
wood plank (enclosure element skin invasion)
cable structure (support for a green roof)

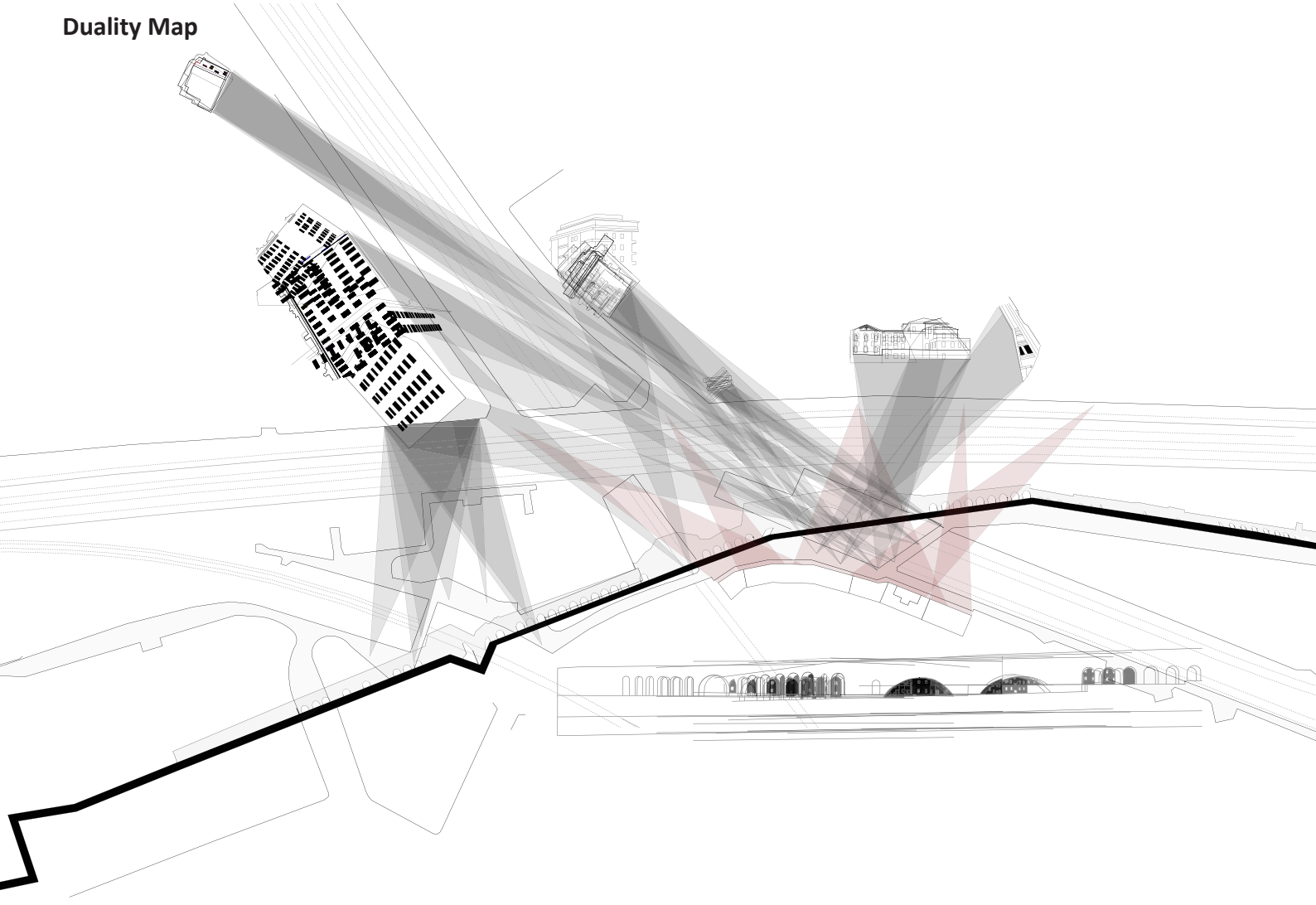


Within maps explores the possibilities of recomposing the in between space. The previous maps were overlaped in order to represent new space conditions that can be the base of design strategy.

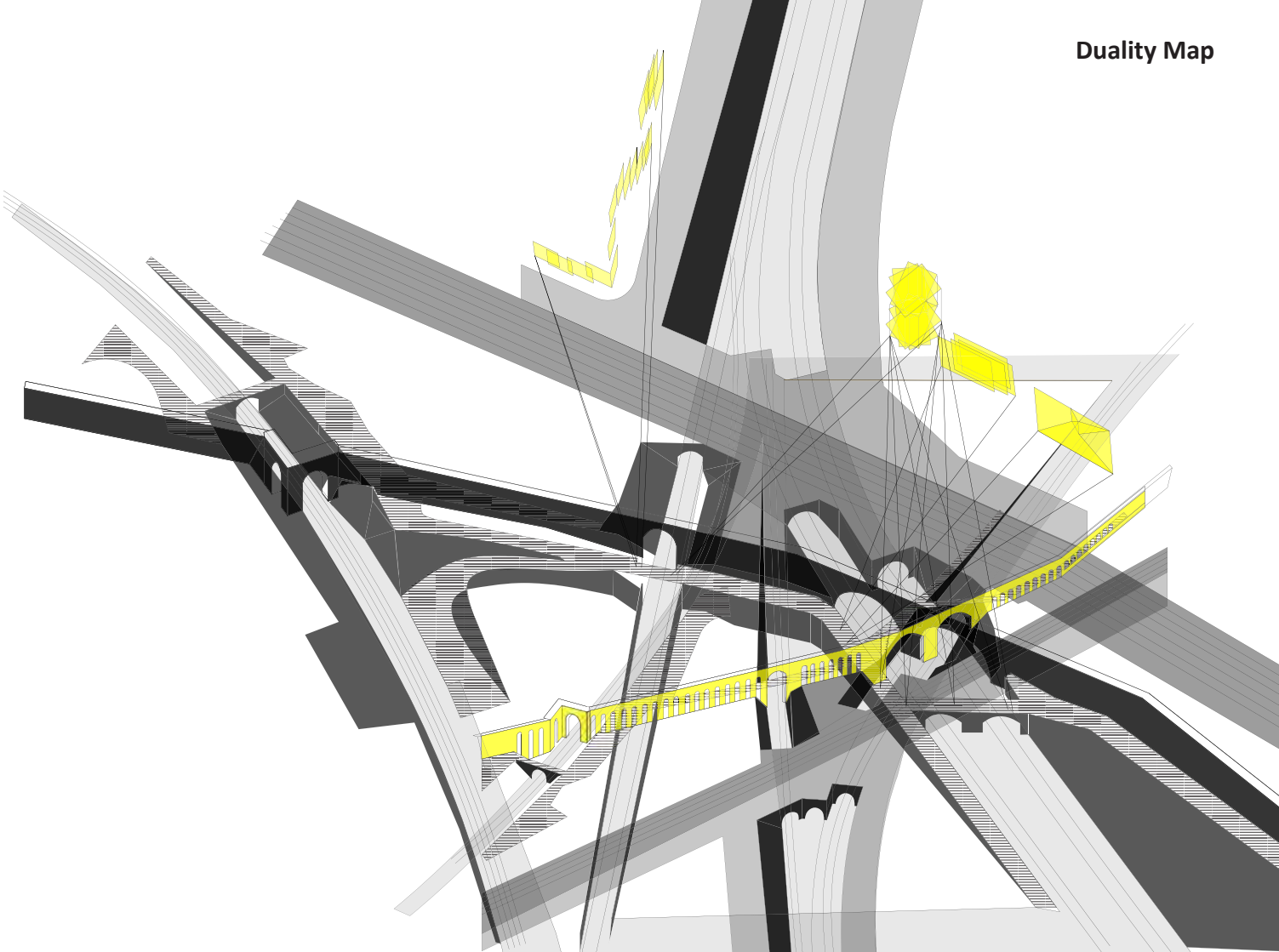

LAYERS
LAYERS
DISCLOSURE
DISASSEMBLY
CONFER
CUT
SHEETS
TRAJECTORY
DISCLOSURE
PHYSARUM
SHOE
ENLARGE

Felix Aqueduct is a 2000 years old Roman construction that was integrated within the urban tissue as structure that offers a wide range of appropriation means. It is used in different ways, as a façade, an interior wall, a gate or element for landscape design. Duality map explores the aqueduct as a navigation device that on one hand functions as an urban landmark and on the other hand divides the space generating a framing system.

Duality Map



Duality Map



3.3

In-between,

Periphery and Rural.

Miguel Setas,
Portugal.

Mapping as a process in an abstract machine

"There are no rules, only tools" Glenn Vilppu (famous animator and drawer).

The investigation on Rome became at a certain point a constant metamorphosis of ideas, techniques, methodologies that changed as the understanding evolved about the full phenomena that we naively sum in the word Periphery.
The definition of periphery was rather far as the complete toolbox necessary to achieve it.
But the lack of focus was a temporary circumstance of the diversity and complexity of facts, in which the concept of toolbox was rather connected to Chaosmosis's Deleuzes ontological heterogeneity, than to reduction.

"rather than moving in the direction of reductionist modifications which simplify the complex," schizoanalysis "will work towards its complexification, its processual enrichment, towards the consistency of its virtual lines of bifurcation and differentiation, in short towards its ontological heterogeneity."[1]

1 Guattari, Félix (1995) Chaosmosis. An Ethico-Aesthetic Paradigm. Trans. Paul Bains and Julian Pefanis. Sydney: Power Publications.

This is the base points to a research, where the process of abstraction and materialization, extract and apply, is understood as a continuous process.
Were the toolbox doesn't include the tools.
Focault's book was interpreted by him as "toolbox". In other words, a frame which you could develop new concepts. Again for him the words tool box are connected to containing, framing a set of tools.

Abstract machine

The concept of abstract machine in deleuze explains very well the concept of toolbox as envelop of functions (mathematical definition).

"Abstract machines consist of unformed matters and nonformal functions. Every abstract machine is a consolidated aggregate of matters functions (phylum and diagram."[2]

In which Deleuze's materializes in the example of the technological plane:

"…on a technological"plane"… is not made up simply of formed substances (aluminum, plastic, electric wire,

2 Translator's foreword reference in the book, pg 501, "Thousand plateaus: Schizophrenia and Capitalism" by F. Guattari and G. Deleuze, University of Minnesota Press, Minneapolis, London, 1987.

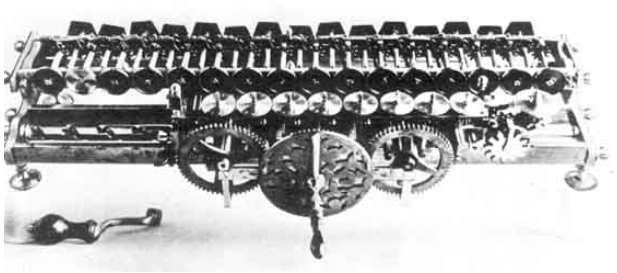
etc.) or organizing forms (program, prototypes, etc.), but of a composite of unformed matters exhibiting only degrees of intensity (resistance, conductivity, heating, stretching, speed or delay, induction, transduction . . .) and diagrammatic functions exhibiting only differential equations or, more generally, "tensors."[2]

We can understand from that the abstract machine is rather the "a process" than "the process".

If we could change the technological plane to architectural research plane, *it would not be constituted from* (typologies, fixed praxeologies, or other kind of definition of architectural substance) *or organizing forms* (methodology, styles, ideologies…).

But of composite unformed matters exhibiting only degrees of relation (understood trough other disciplines that inform architecture without defining architectural substance a prior). *And diagrammatic functions exhibiting* what would be "tensors" in architecture - the relation that exists between one thing and another, in other words not the fixed relations but relations of "forces" of this two things (for example in geometry, tensor relates one or a set of vectors with another in a surface).

It also important that the concept of abstract machine itself is only defined by the person that created it like



Leibniz's calculatting machine

Enstein notative process, or Galileu calculation, that lived in a time and context.

Creating an abstract machine

"But the abstract machine must first have composed itself, and have simultaneously composed a plane of consistency. Abstract, singular, and creative, here and now, real yet nonconcrete, actual yet noneffectuated…"[3]

Creating an abstract machine

This tells us of the importance of the abstract in the machine. And this abstraction is in my opinion one of the fundamentals in which architecture research should always operate.The ability not to just find the adequate

3 Translator's foreword reference in the book, pg.502, "Thousand plateaus: Schizophrenia and Capitalism" by F. Guattari and G. Deleuze, University of Minnesota Press, Minneapolis, London, 1987.

toolbox for a plane of consistency, but both cannot exist without another.

In architectural research this would be translated to toolbox of methodologies, and any other substance that informs the context of the informant, and are able to morph to better suit that context. Where the process of abstraction doesn't not only depends of the process but also of what is being abstracted.

That is for me the true abstract machine where the content of the toolbox is decided by its plain of consistency and vice-versa.

Another important aspect to devise this abstract machine is the reversion of the process, especially in architectural research, where there is always bidirectional relation in the research tool, to abstract and to concretize.

Therefore to create a abstract machine there are 3 important ingredients:

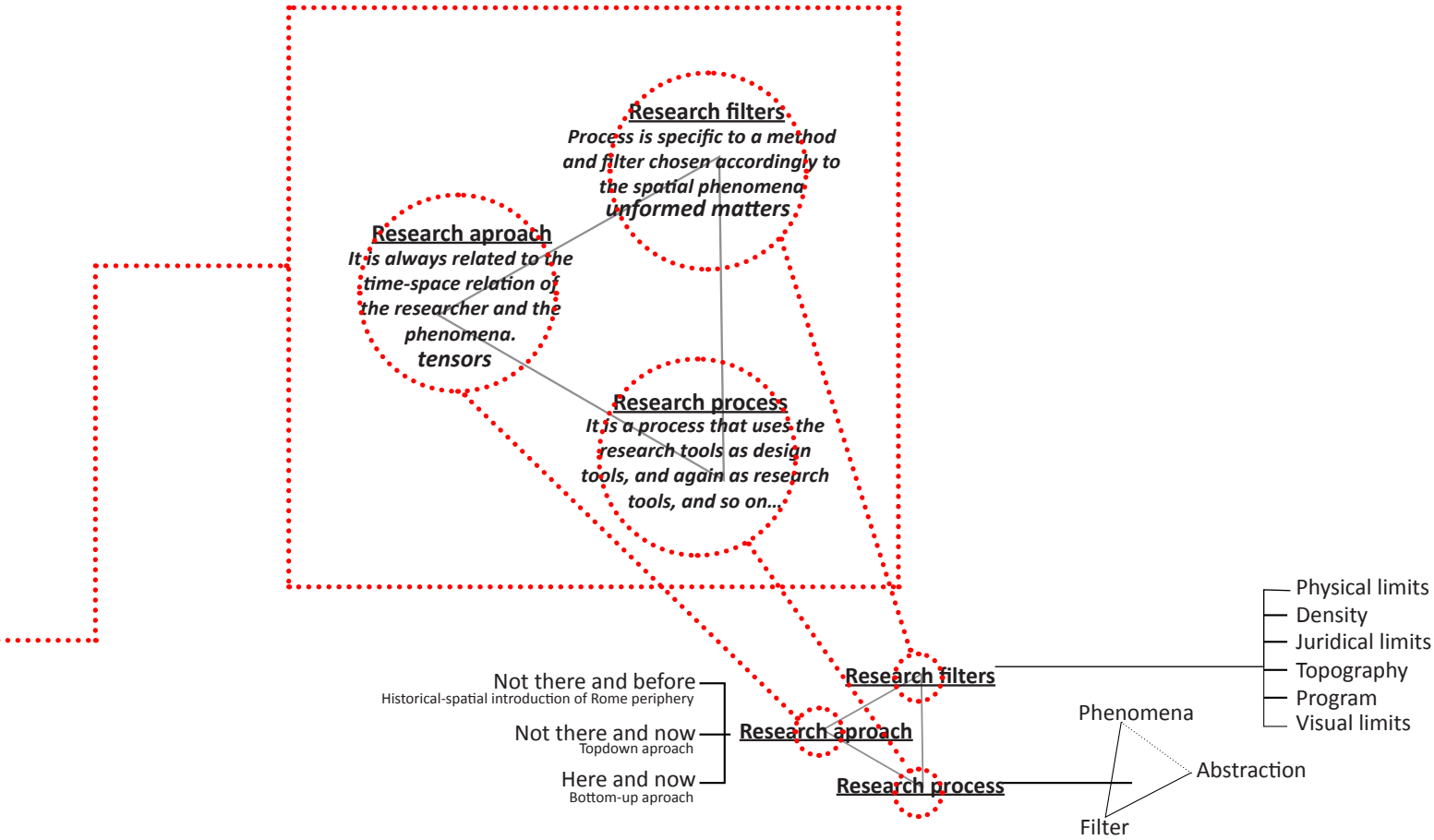
- ***The specificity of the machine (specific way a thought)***
- ***The relativity of the machine (time and context)***
- ***Circular or reverse process (it can always process the information into informant and vice-versa)***

Probability machine- Francis Galton

Bibliography

"Thousand plateaus: Schizophrenia and Capitalism" by F. Guattari and G. Deleuze, University of Minnesota Press, Minneapolis, London, 1987.

Guattari, Félix (1995) Chaosmosis. An Ethico-Aesthetic Paradigm. Trans. Paul Bains and Julian Pefanis. Sydney:


Research filters
Process is specific to a method and filter chosen accordingly to the spatial phenomena
unformed matters
Research aproach
It is always related to the time-space relation of the researcher and the phenomena.
tensors
Research process
It is a process that uses the research tools as design tools, and again as research tools, and so on...
Research filters
Physical limits
Density
Juridical limits
Topography
Program
Visual limits
Not there and before
Historical-spatial introduction of Rome periphery
Not there and now
Topdown aproach
Here and now
Bottom-up aproach
Research aproach
Research process
Phenomena
Abstraction
Filter

Title

Subtitle

The growth of periphery in rome
Fragmentation of the periphery
Search for a border

Problem statement

Corviale
Corviale between periphery and rural
Learning from Corviale

Case study

Research methodology
Filtering top-down and bottom-up information

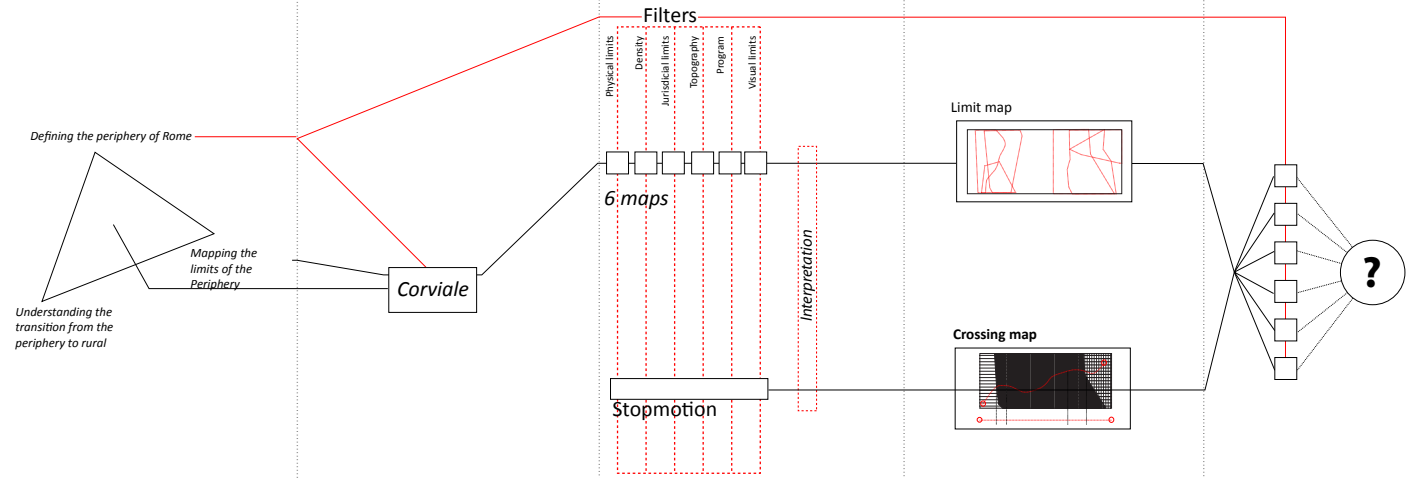
Research method

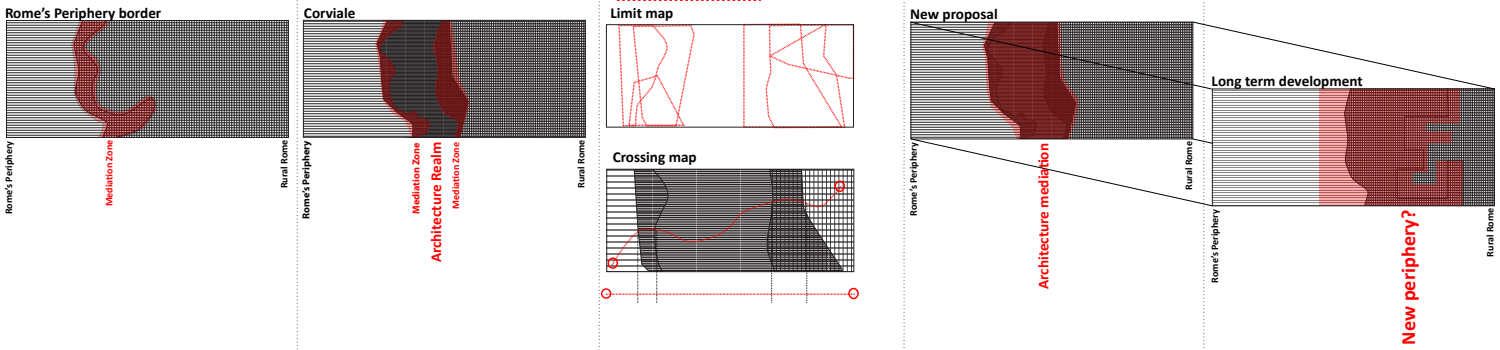
Understanding mediation between Periphery side - Corviale - Rural side
Experience of Crossing Corviale and relation with urban context

Conclusions

Architecture as mediator
Crossing architectural design experience

Design Proposal





Not there and before

Historical-spatial introduction of Rome periphery

Anti- facist poster exhibit during the construction of via dell'Imperio

Not there and before

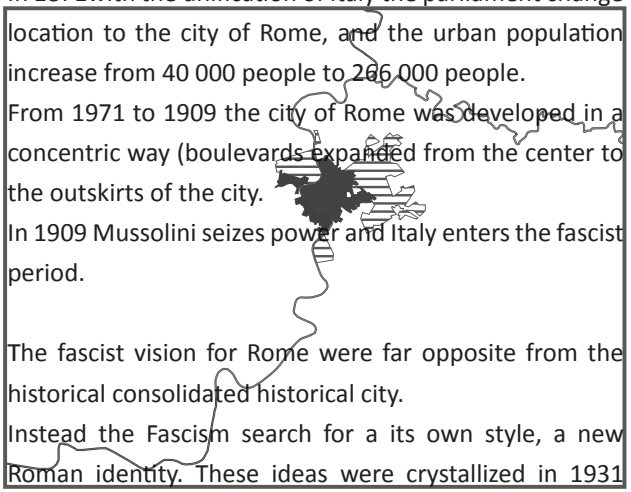
The first question is what is Rome's periphery?

The periphery of Rome phenomena can be traced since the city entered a process of decentralization.

In 1871with the unification of Italy the parliament change location to the city of Rome, and the urban population increase from 40 000 people to 266 000 people.

From 1971 to 1909 the city of Rome was developed in a concentric way (boulevards expanded from the center to the outskirts of the city.

In 1909 Mussolini seizes power and Italy enters the fascist period.



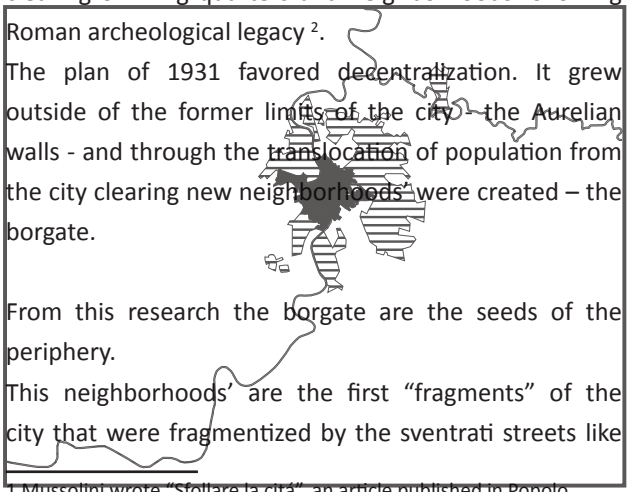
The fascist vision for Rome were far opposite from the historical consolidated historical city.

Instead the Fascism search for a its own style, a new Roman identity. These ideas were crystallized in 1931 with the new master plan of Marcello Piacentini.

Basically Mussolini administration aimed for merging landscape with the "Roman identity", and therefore architecture shifted focus from the city to territory.

The crystallized idea of identity existed in the idea of a clear landscape were accordingly to Il Duce was to "liberate"[1] the symbols of the city by evacuating it.

The most important changes are: the 2 main streets constructed by what is nicknamed "sventrati" architecture is Via della Conciliazione and Via dell'Imperio, and the clearing of living quarters and neighborhoods following Roman archeological legacy [2].



The plan of 1931 favored decentralization. It grew outside of the former limits of the city – the Aurelian walls - and through the translocation of population from the city clearing new neighborhoods were created – the borgate.

From this research the borgate are the seeds of the periphery.

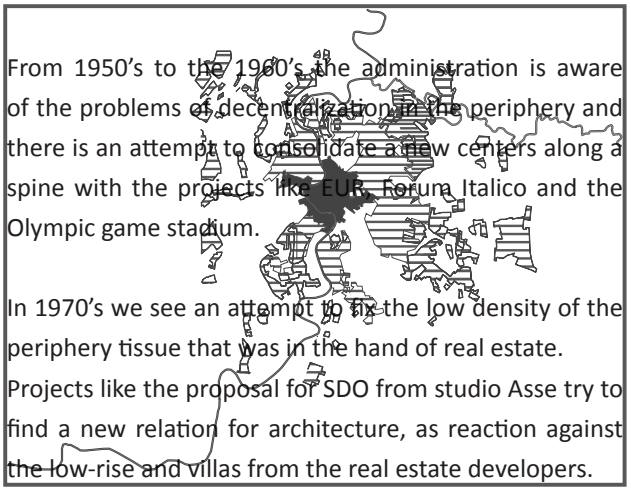
This neighborhoods' are the first "fragments" of the city that were fragmentized by the sventrati streets like

1 Mussolini wrote "Sfollare la città", an article published in Popolo d'Italia in 22 November 1928, which was discussed by Giorgio Ciucci in his aforementioned book Gli architetti e il facismo p.26, referenced in p. 40 of the book "Rome: The center(s) elsewhere ", Berlage institute project, Skira editore, Torino, Italy, 2010

2 About the archeological character of the demolitions under the Facist regime see op. cit, p.131, referenced in p. 40 of the book "Rome: The center(s) elsewhere ", Berlage institute project, Skira editore, Torino, Italy, 2010

1870 -1908 **1908 -1930**

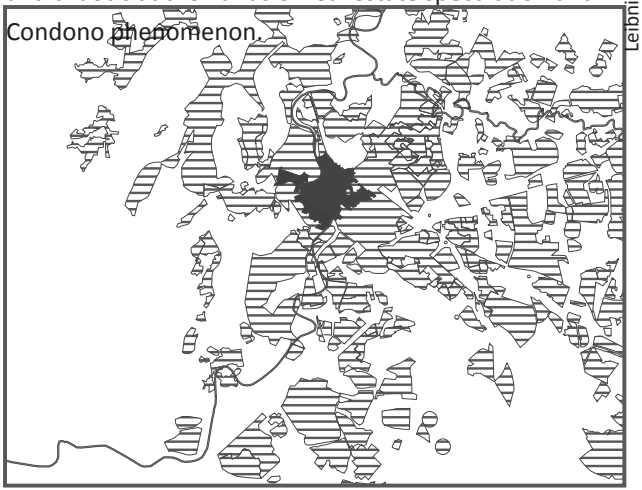
Via Cristoforo Colombo that opened a crack between circulation space and the constructed area of the city.
From 1930's to 1945-48 at the end of WWII, the problem of low density and bad conditions on periphery caused by the wars starts to become visible at the eyes of architecture.



From 1950's to the 1960's the administration is aware of the problems of decentralization in the periphery and there is an attempt to consolidate a new centers along a spine with the projects like EUR, Foruma Italico and the Olympic game stadium.

In 1970's we see an attempt to fix the low density of the periphery tissue that was in the hand of real estate.
Projects like the proposal for SDO from studio Asse try to find a new relation for architecture, as reaction against the low-rise and villas from the real estate developers.
An important project to mention that is included in this group of projects is Corviale from Mario Fiorentino. This project will be later the case study of this analysis.

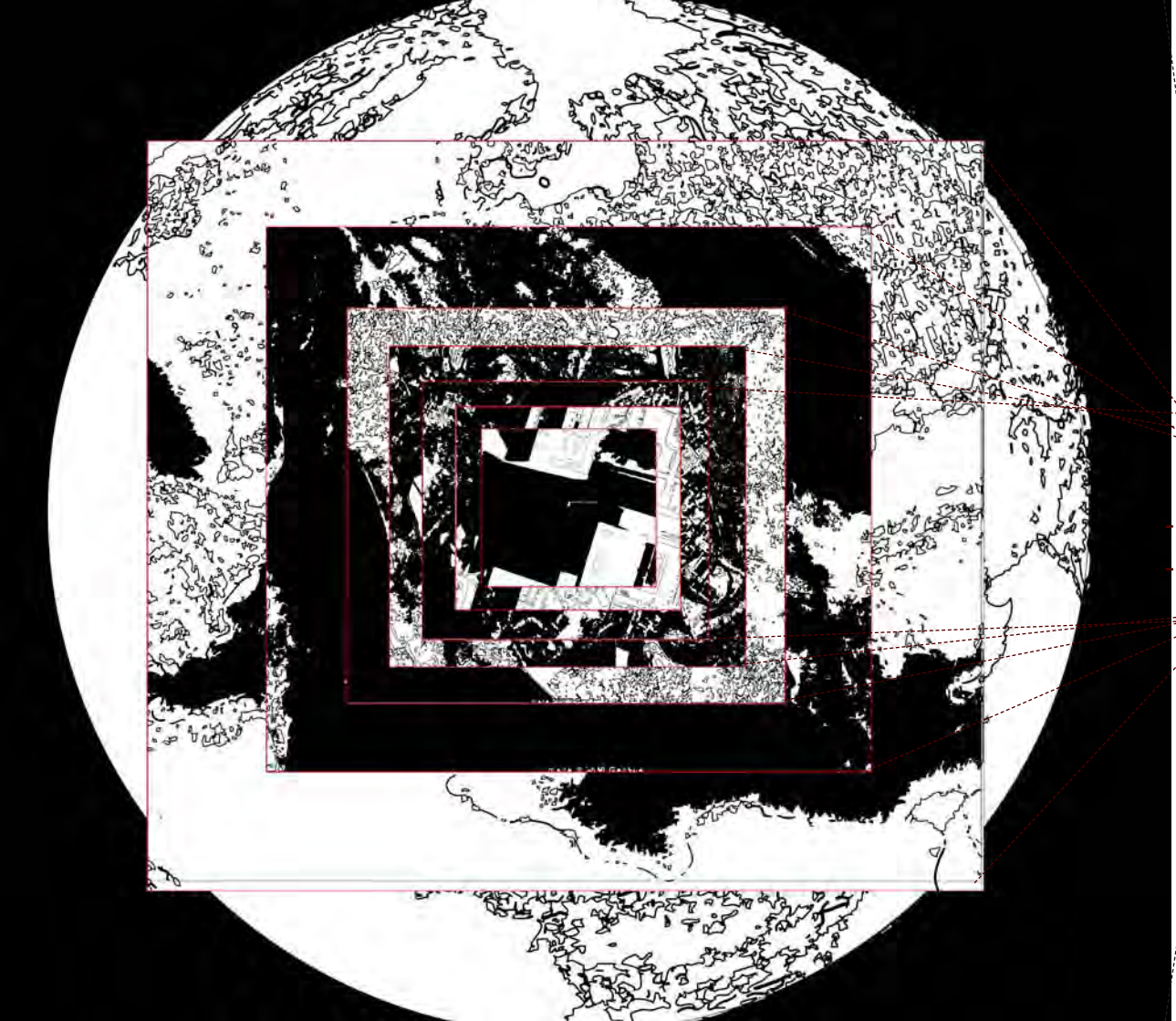
The Contemporanean periphery of Rome did not changed in the problematic of decentralization. In fact as the conditions started to improved and the "slumish" borgate were replaced by better constructions, the periphery continue to exponentially grow fragmentized and chaotic at the hands of real estate speculation and Condono phenomenon.

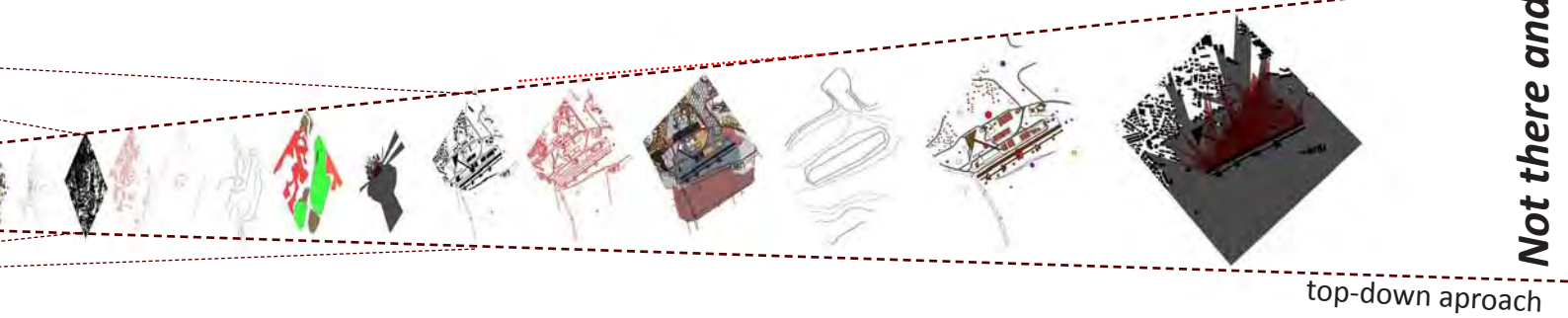


Leibniz's calculating machine

1930 -1957

1957 -2001





Not there and now

top-down aproach

Filters

Density

Physical limits

Juridical limits

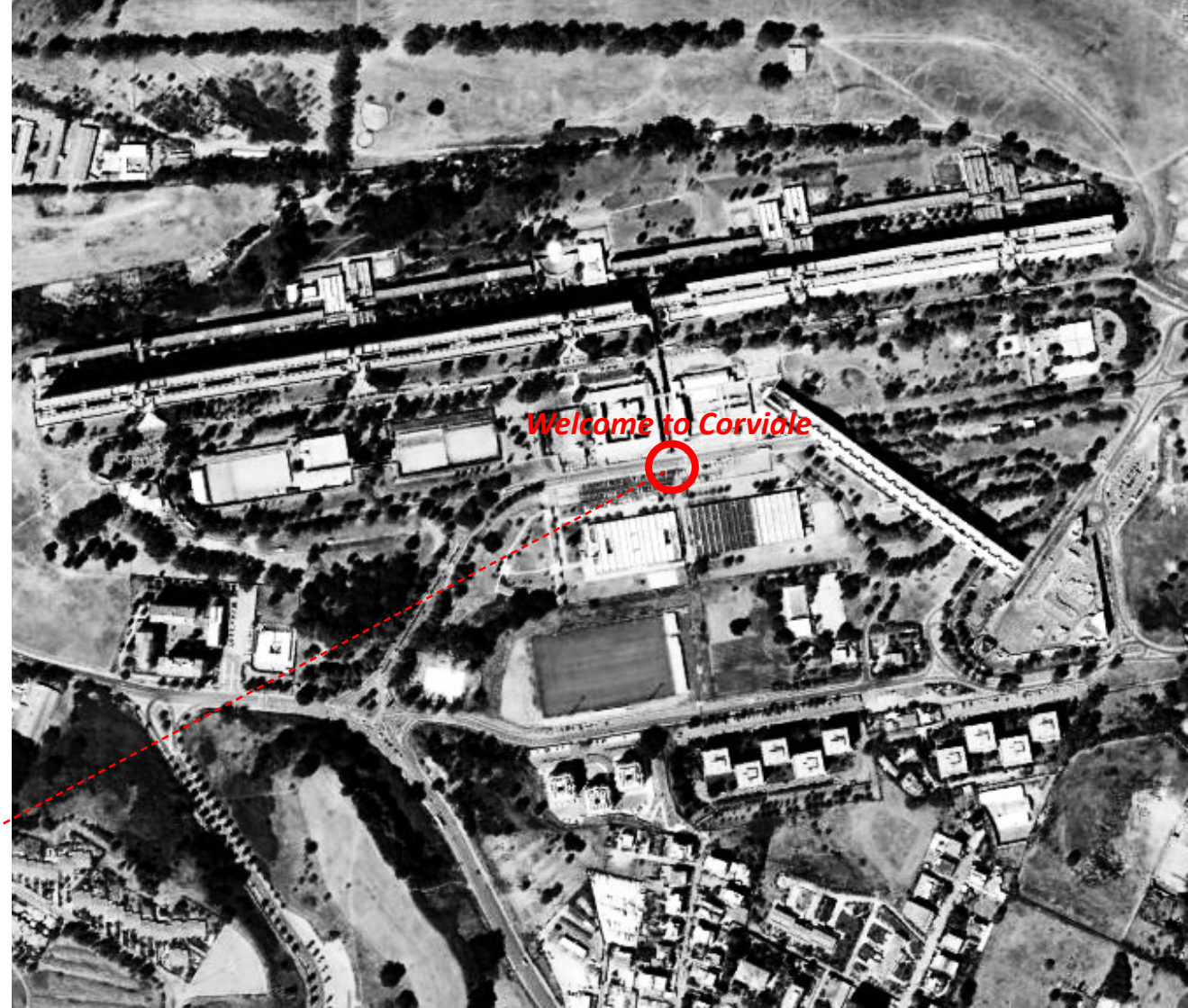
Topography

Program

Visual limits

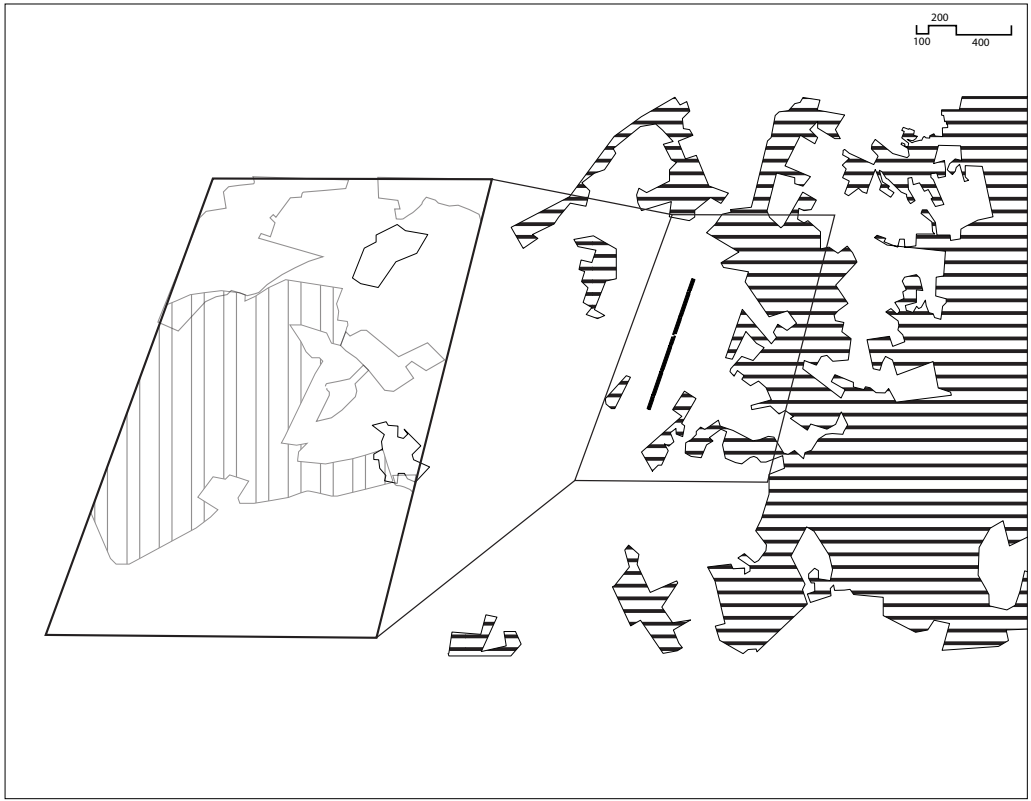
1.2km

1.2km



Density

The urban density generally shows the constructed space vs the void The constructed space normally matches the private or inhabited space, and the void the circulation
In the periphery of Rome the density takes an upper scale of research because of the fragmentation. The density analysis is made not about the constructed space and circulation space but related to system that exists between voids in the urban sprawl, the periphery and rural empty side.



Filter maps

6 top-down views of Corviale

Density

Physical limits

Juridical limits

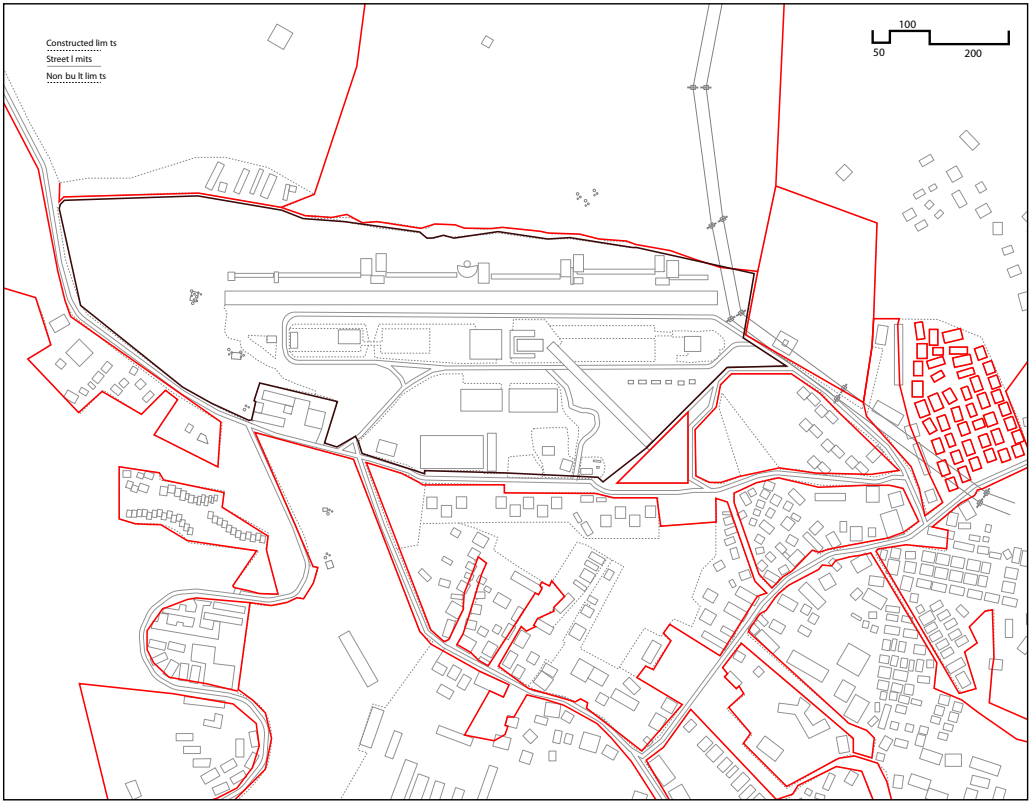
Topography

Program

Visual limits

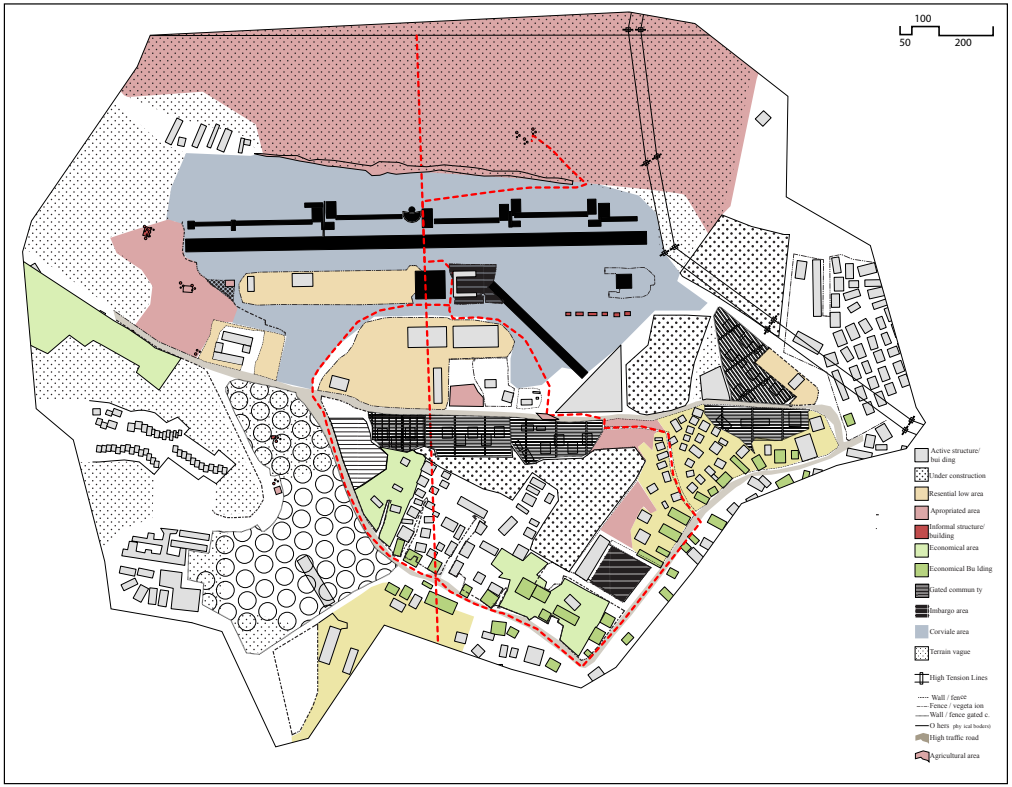
Physical limits

Physical limits are important to understand our circulation and how space is divided.
The periphery public – circulation space is normally not developed with objective of public space or a public cause. Instead it is generated almost as consequence of the fencing of property.
The challenge then becomes to understand circulation space not as primary space but as a consequence of a system of physical limits.



Juridical limits

Juridical limits are limits imposed or constructed in space following a law.
The law spatial expression in Rome's periphery is common to be a situation of ownership – public vs. private. The third space that exists between the juridical limits is the appropriated space that following the Condono can become private space and constitute legal sprawl.
The challenge then becomes to understand which of the physical limits are legally or not, or were not and can become (appropriated), and therefore constitute juridical limits.



Filter maps

6 top-down views of Corviale

Filter maps

6 top-down views of Corviale

Density

Physical limits

Juridical limits

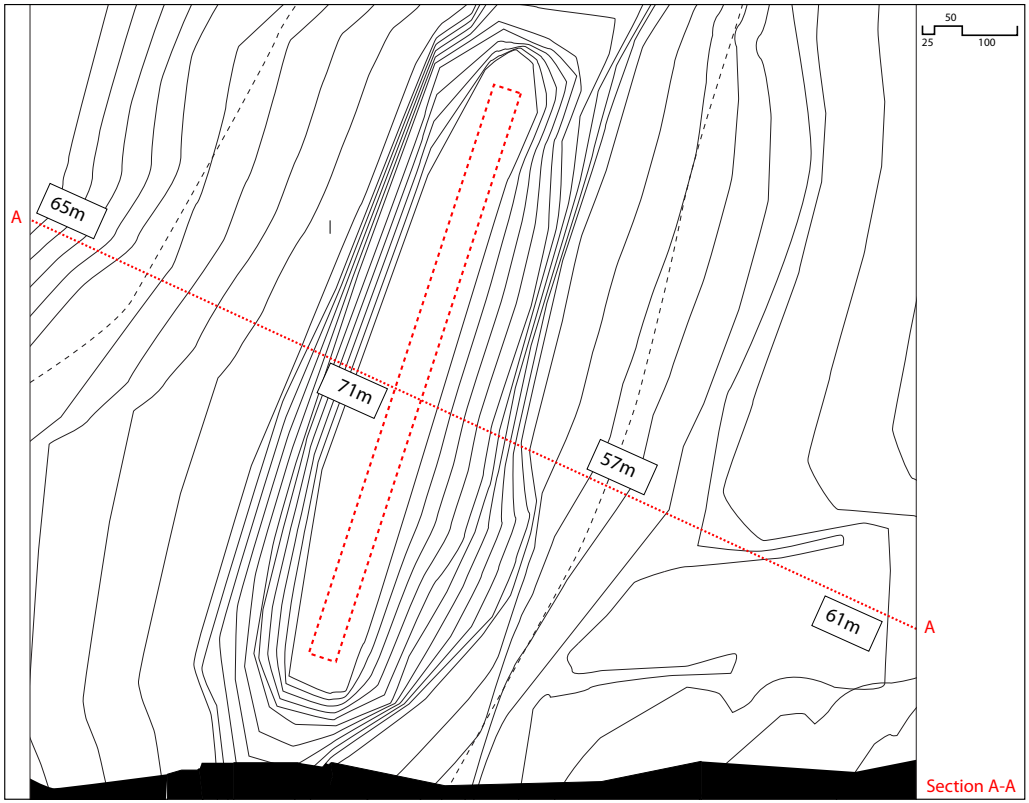
Topography

Program

Visual limits

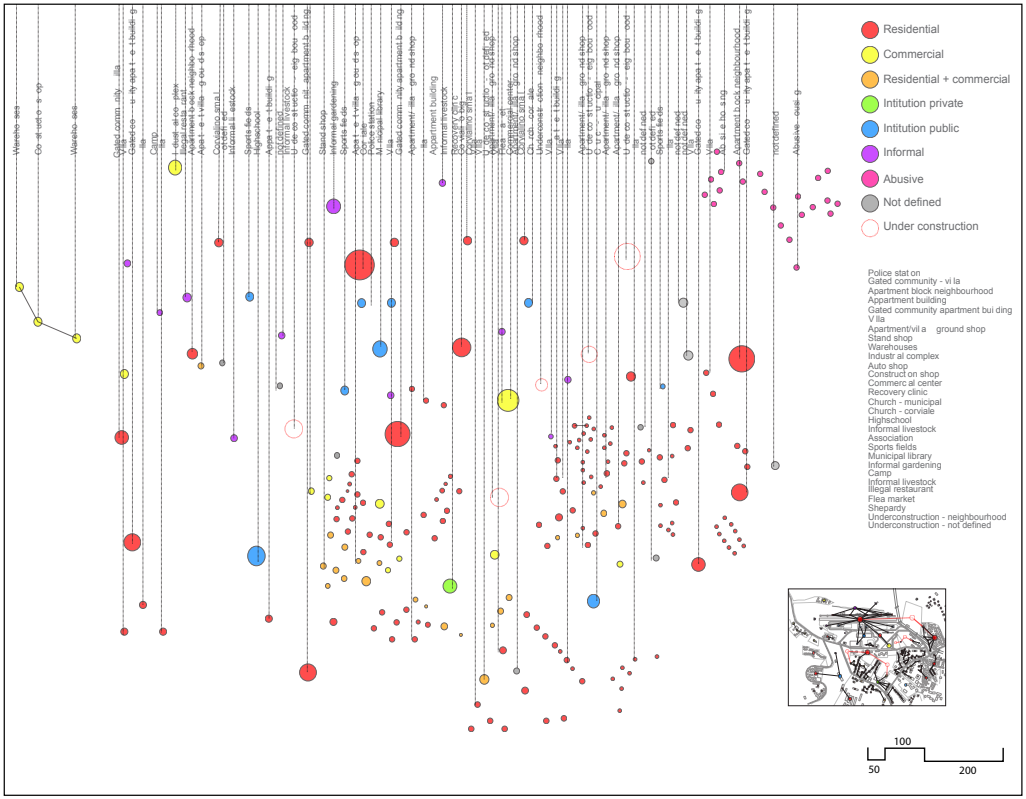
Topography

Topography is an element that is present in both rural and periphery, and it is a active element either as limit and also as condition of the growth of urban sprawl.
The challenge then becomes to understand which topography can become a limit and condition the circulation and how the periphery accommodates its sprawl according to the shape of the terrain.



Program

Program in this analysis is focused on understanding the uses of space either formal or informal. It is important to understand what practices a space can generate and the inverse situation. The challenge then becomes to understand which practices are generated not only by periphery but also by the presence of rural and architecture element as mediator (in-between both).



Filter maps

6 top-down views of Corviale

Density
Physical limits
Juridical limits
Topography
Program
Visual limits

Filter maps

6 top-down views of Corviale

Density

Physical limits

Juridical limits

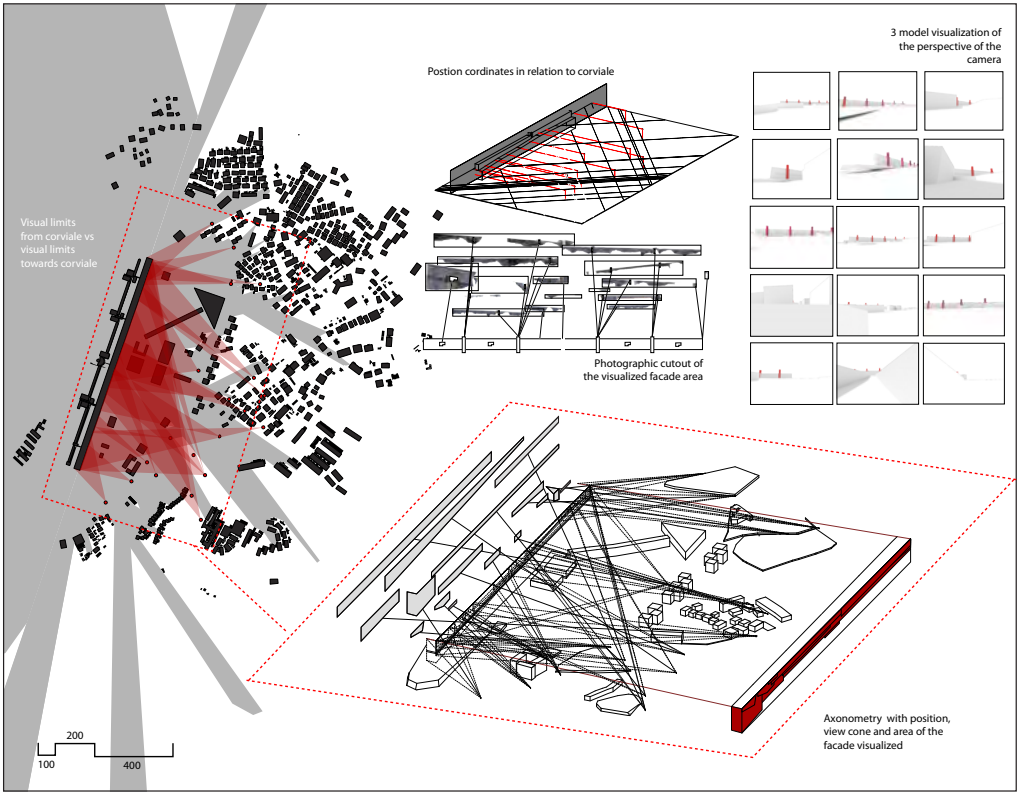
Topography

Program

Visual limits

Visual limits

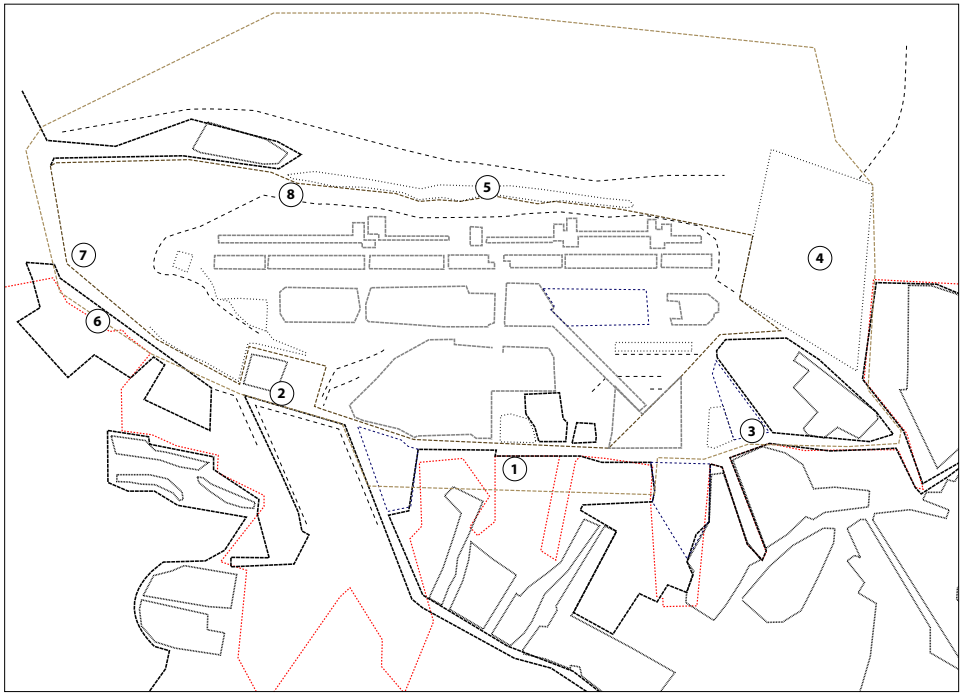
Visual limits are how the space affects our vision and its extension.
In the edge of Periphery there is presence of rural environment given by the low construction and the alignment of the circulation space. In Corviale, the building becomes a visual barrier, and the panorama vision is substituted by the presence of one humongous architecture element.
The challenge then becomes to understand how this element extends its influence by becoming a visual barrier, mediates the environment at long distance and becomes a symbol of the border of periphery



Filtered zoom

Limit map

Interpretation of the 6 filter maps



Phys cal Informal limits
Phys cal Temporary lim ts
Topograph c l mits
Corv ale Program related limits
Per phery program related limits
Corviale original jurisdicional limits
Corviale current jurisd cional lim ts
Visual limits
Density concentrat on limits

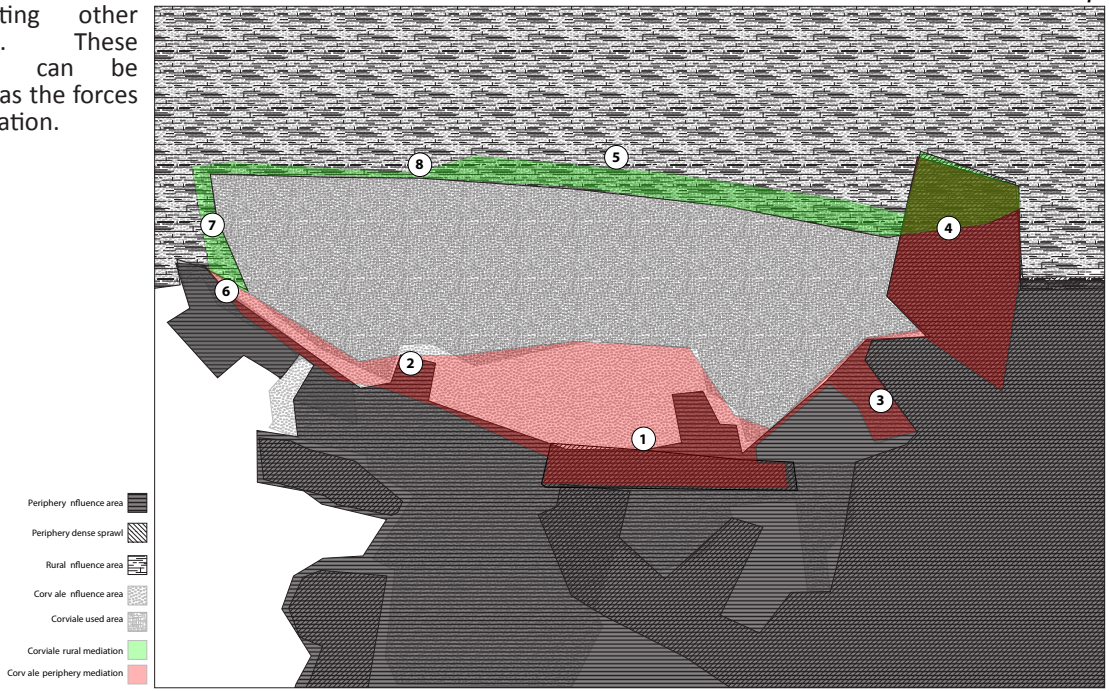
Limits and mediation

The top down view starts with a separate map for each of the filter. The second step is the combination of the filters into one map in which all the filters are represented as limits (exception of Program that is given function to the limits). The third step is the interpretation of this map in a mediation map. The mediation map shows the areas where the mediation conflict between identities

1. The small rise block initially part of the communal Corviale project where built as gated communities. This change led to barrier between the periphery and Corviale, disconnecting the spaces in front of the gated community from the periphery small villas.
2. There is a small concentration of medium rise apartment blocks that overtake the juridical space from Corviale. The space cuts the topography and opens itself to the periphery side, generating leftover terrain behind since there is no connection between the down road and the upper space.
3. This area doesn't have any construction but it becomes a playground for children and for people strolling their dogs. Some stray dogs interacting with each other. The size of the area and the proximity to the front corvialino area the main factors that made it into a void.
4. The west rapid development that substituted the previous illegal housing is nearest arm of the periphery that is growing beyond Corviale. There is a conflict between the rural area used by livestock and the prepration of terrain for construction leading to buffer zone with "vague" activities.

is generating other phenomena. These phenomena can be interpreted as the forces of this mediation.

Mediation map



1. The visual protection given by the size of Corviale and the fertility of the topographic valley formed there created a perfect zone for informal agriculture manly made by the habitants of Corviale.

2. This area is used mainly by warehouses and small industries informing us that is very similar to the typical mediation between periphery and rural areas. One can speculate that this area is off the influence of Corviale, since there is no connection to Corviale and the topography almost visually hides Corviale.

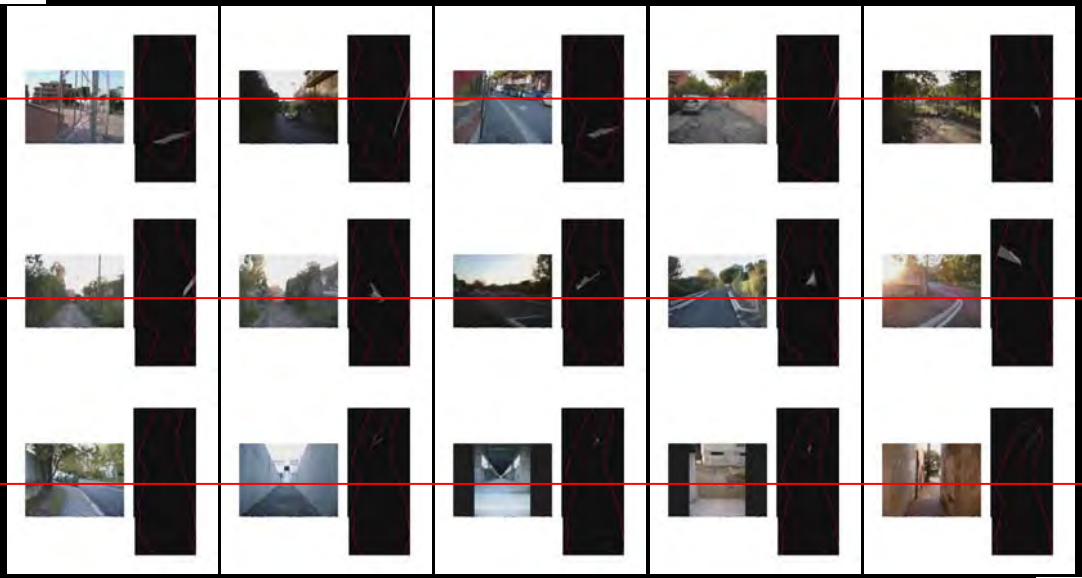
3. The disconnection from Corviale mentioned in point 6 lead also for illegal appropriation that we can see through the shacks rising in the slope and some ruins filled with traces of appropriation.

4. The north-east side of Corvialeh as manmade terrain plan that is used by young people as race track. The graffiti sprawl that starts in the small amphitheater is very strong.


15:32
15:35
15:37
15:39
Trastevere Station
15:41
15:42
15:45
15:46
15:48
15:50
15:51
15:55
Corviale
15:56
15:58
15:58
16:02


WELCOME TO
CORVIALE
Somewhere and now
Here and now

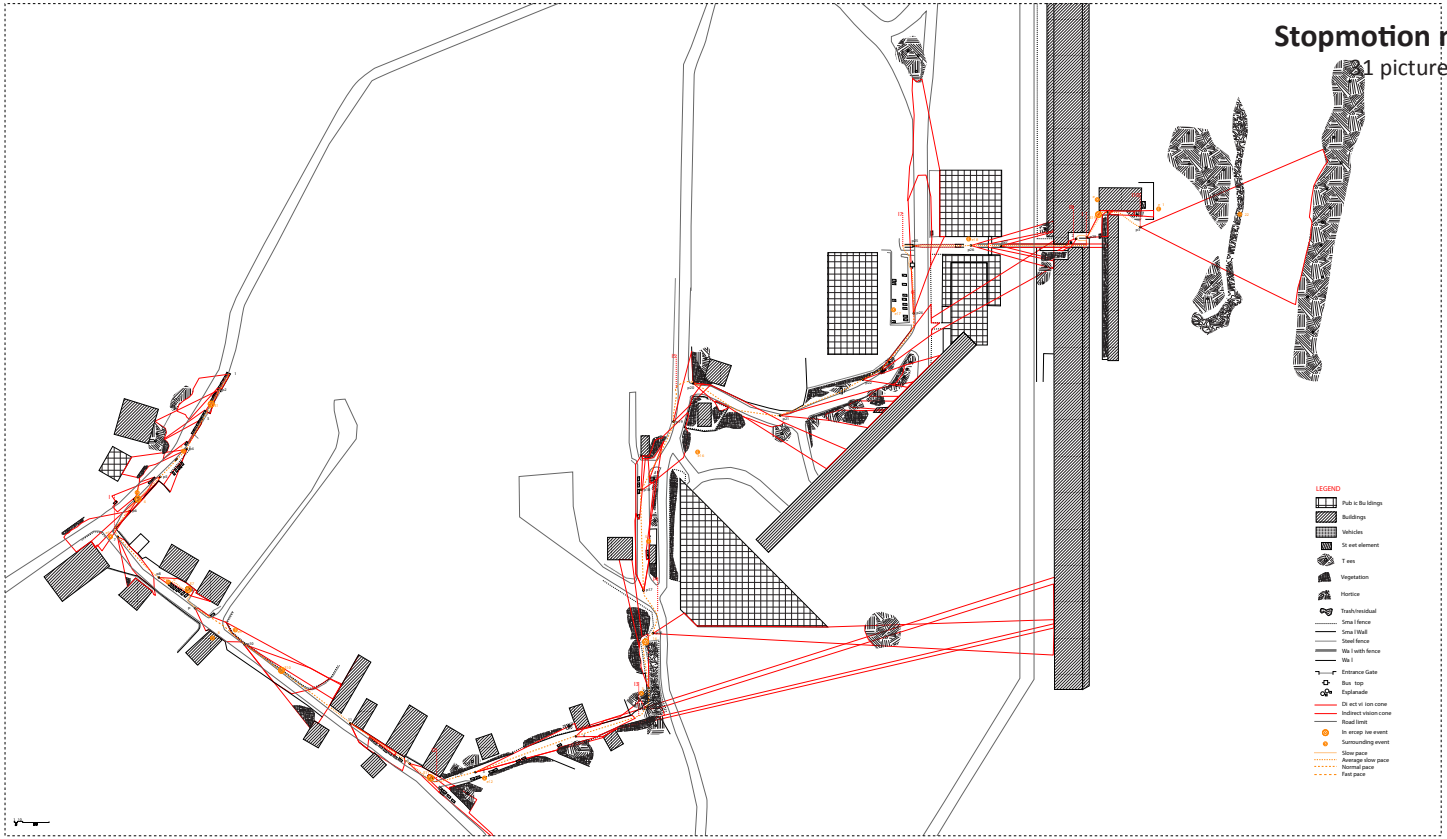
From periphery....

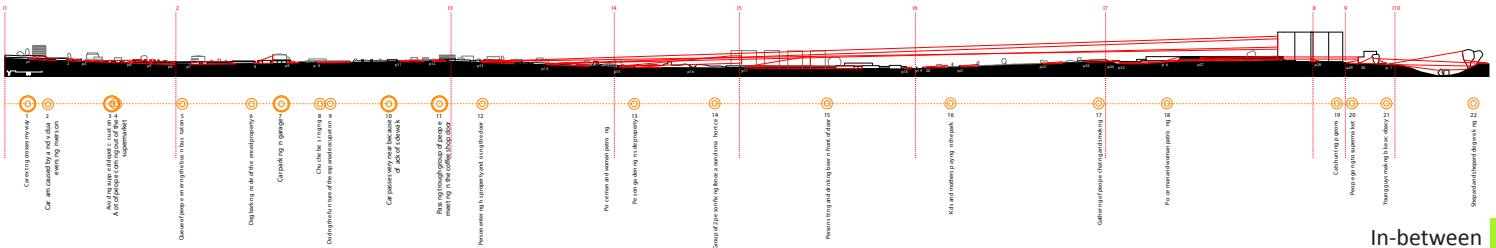


... to rural

Stopmotion map

1 picture map



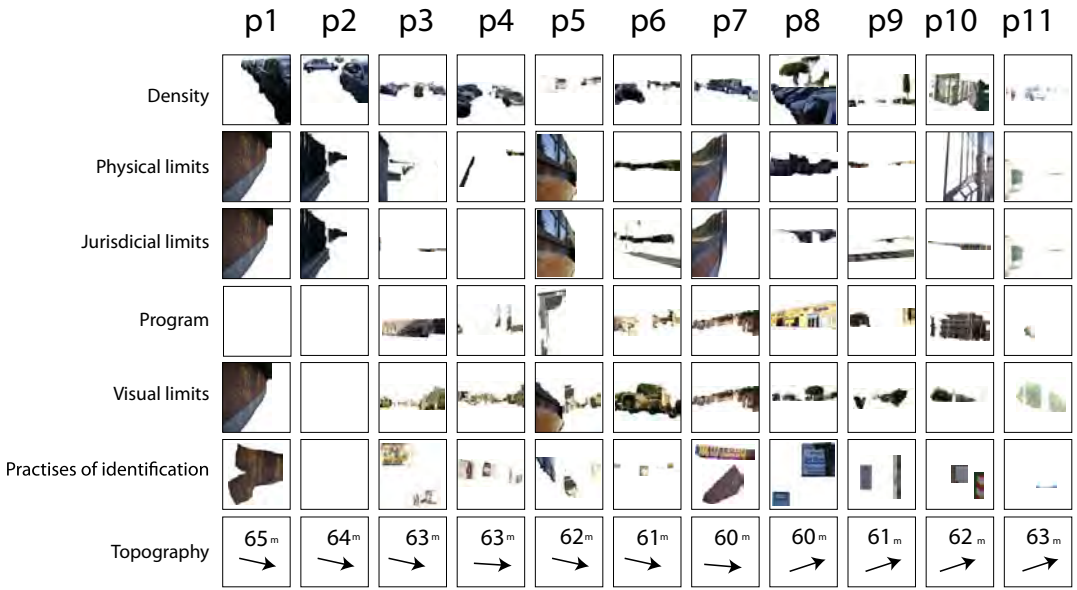


Crossing Corviale

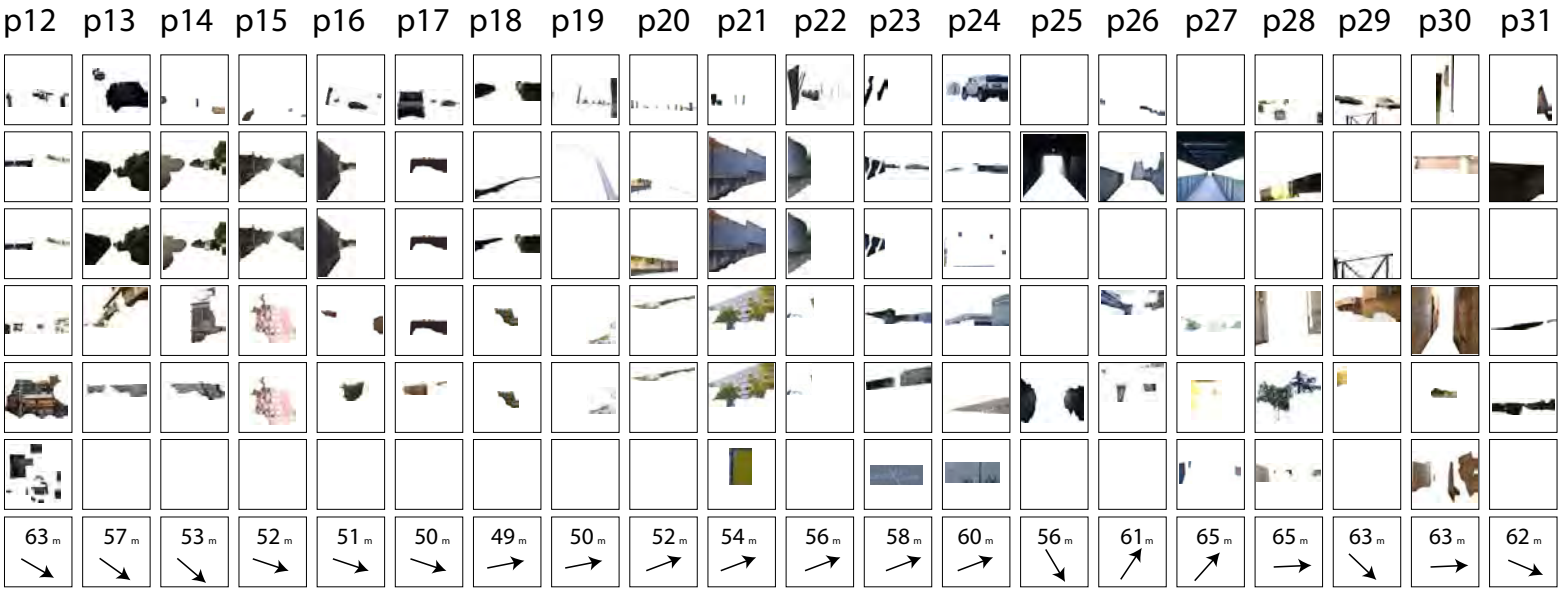
In order to understand the complexity and richness of the urban phenomena of Corviale, it became necessary to cross the "serpentone" (popular nickname). The strategy was simple: one must cross Corviale as perpendicular as possible to cut and experience as many types of spaces existing between periphery and rural.

Therefore the obstruction was to cross as near as possible to imaginary perpendicular line to Corviale, and every 10 meters (aprox.) take a photo in order to create a stopmotion.

This map is a analysis of the photos taken in to consideration the space and events (either horizontal representation – plan x,y – or vertical – plan path,z). The map shows the important elements in the progression, the velocity of progression and the cones from all the 31 pictures of the stopmotion.



Filtering the stopmotion

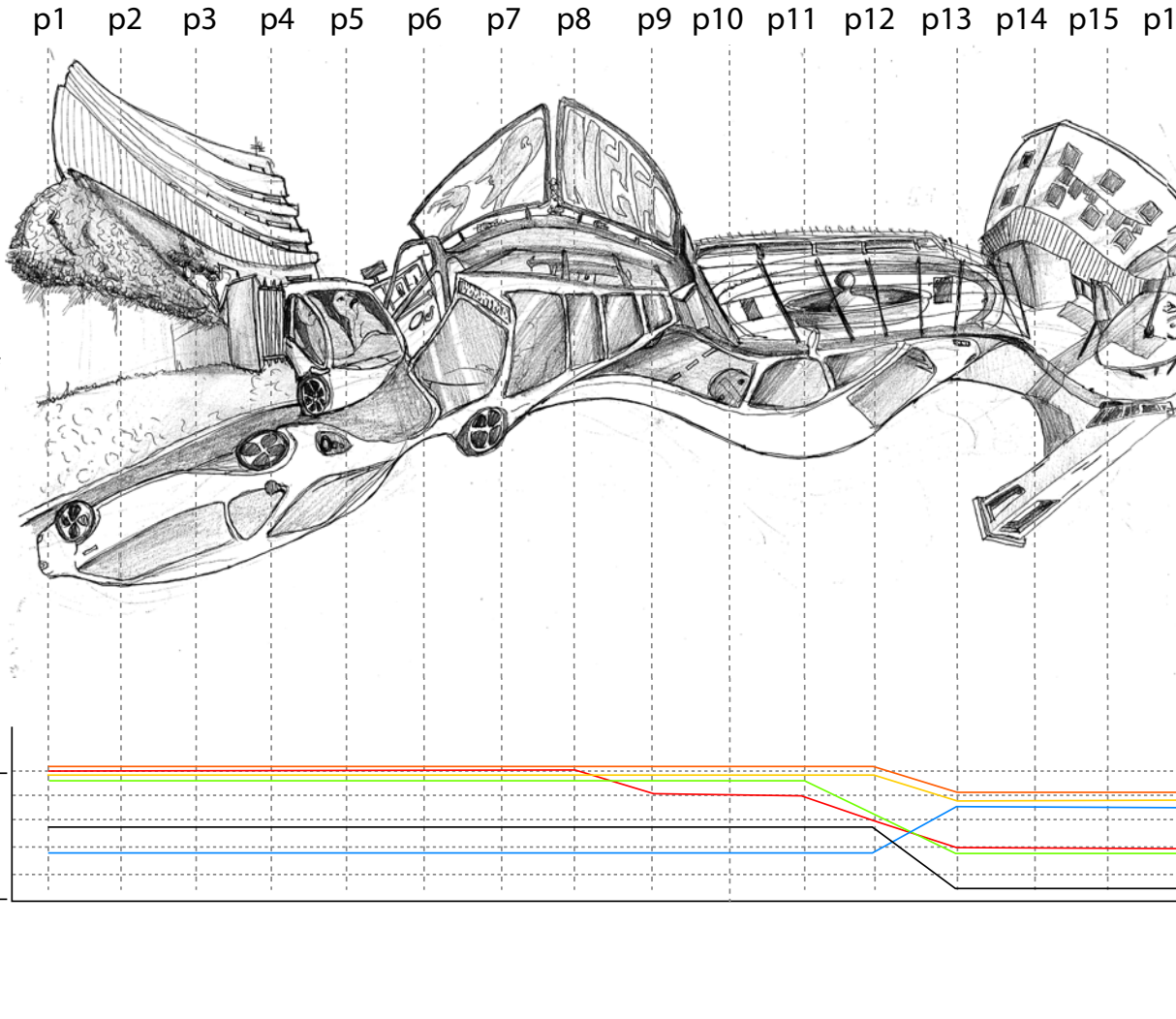


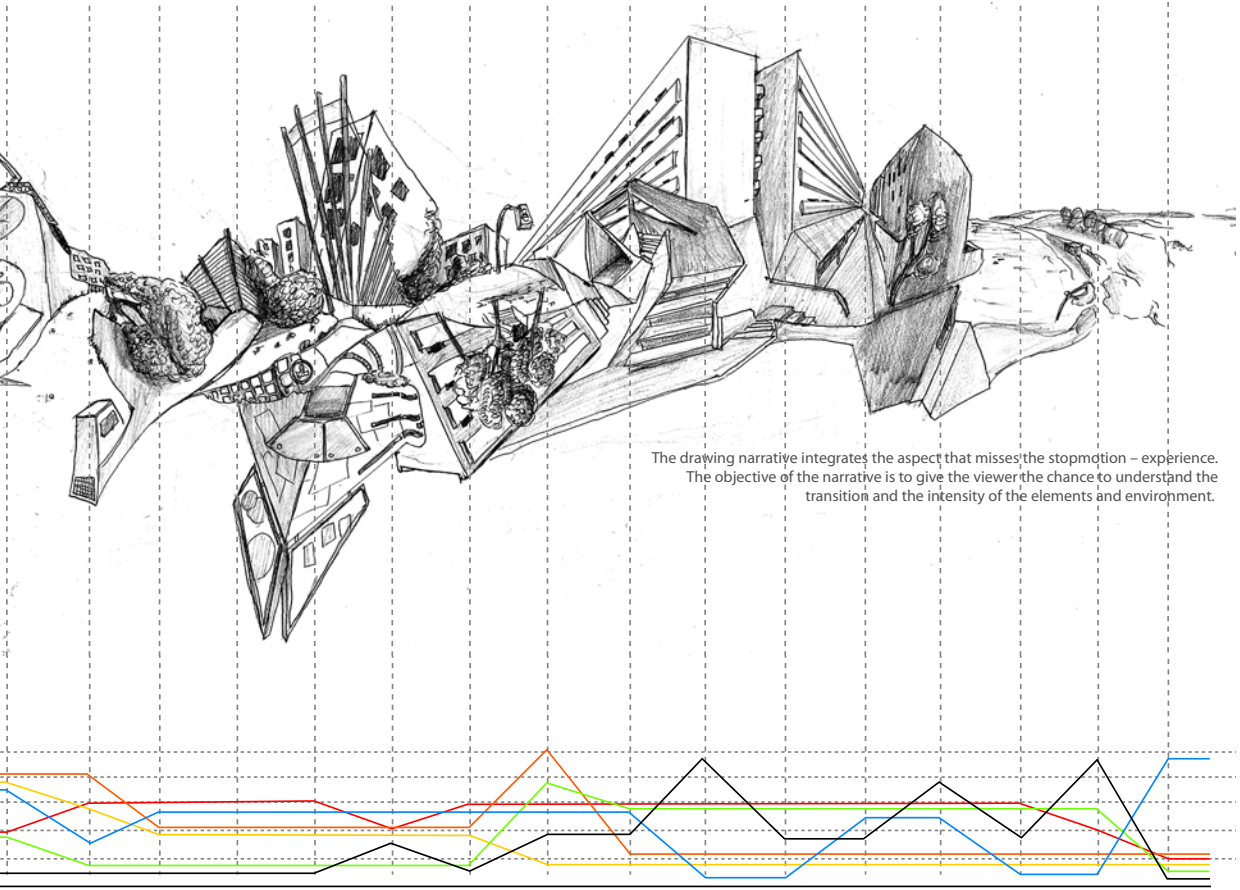
Interpretation

The second step is to analyze the spaces which we crossed from a bottom-up perspective.

The 31 frames of the stopmotion are lined and exploded according to the filters. This allow us to see the stopmotion with only the elements that concern the filter.

The stopmotion is not a complete analysis of the crossing. In between the frames there is a gap that was not recorded and therefore a union is need, for completing the stopmotion. What exists





The drawing narrative integrates the aspect that misses the stopmotion – experience.
The objective of the narrative is to give the viewer the chance to understand the transition and the intensity of the elements and environment.

This graphic shows in a 5 level measure of intensity and complexity (height) with the distance of progress in the walk.
It is the final interpretation and synthesis of the crossing.
The objective is to provide the viewer a holistic simplification of the crossing filtered experience

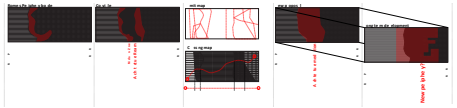
Memory and rational map

Memorized and rational experience

between this frames is only recorded in the memory, therefore the connection tool becomes the drawing of the experience. The memory of the crossing is not divided by the stopmotion frames instead is a continuous narrative.

So the method is to overlap 5 of the frames that can define a structure for the narrative and connect the 5 frames through the memory narrative drawing.

The interpretation of the crossing maps and exploded stopmotion is accomplished by analyzing the level of intensity and complexity of the 6 filters and through the narrative drawing map that is related as the experience memorized from this 6 filters.



Program
Site
Design Strategy

Program as mediator

The program was chosen accordingly to the design strategy. The main idea behind the choice of the program is how could a function take advantage of both sides and at the same time develop that potential further consolidating the in-between space and the sides.

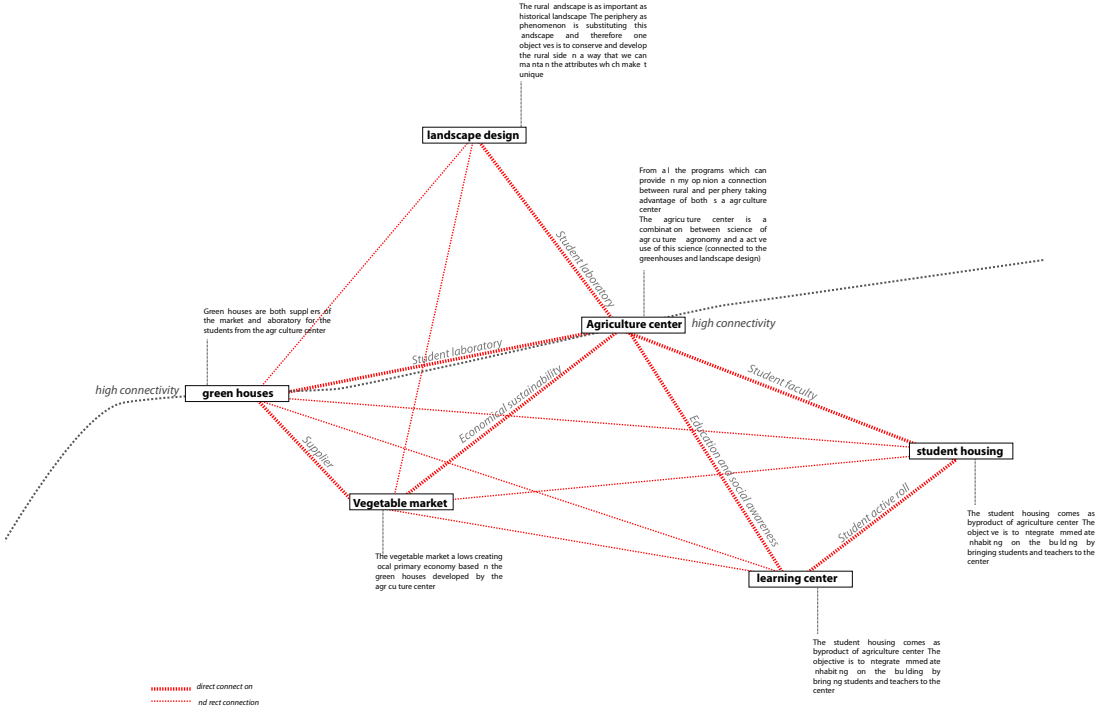
The choice was agriculture center.

The agriculture center is a combination between science of agriculture – agronomy and an active use of this science (connected to the greenhouses and landscape design).

The student housing comes as byproduct of agriculture center. The objective is to integrate immediate inhabiting on the building by bringing students and teachers to the center.

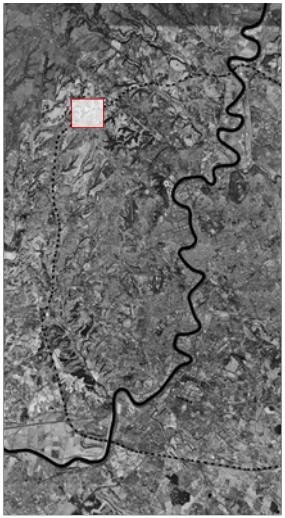
The vegetable market allows creating local primary economy based in the green houses developed by the agriculture center.

Green houses are both suppliers of the market and laboratory for the students from the agriculture center.

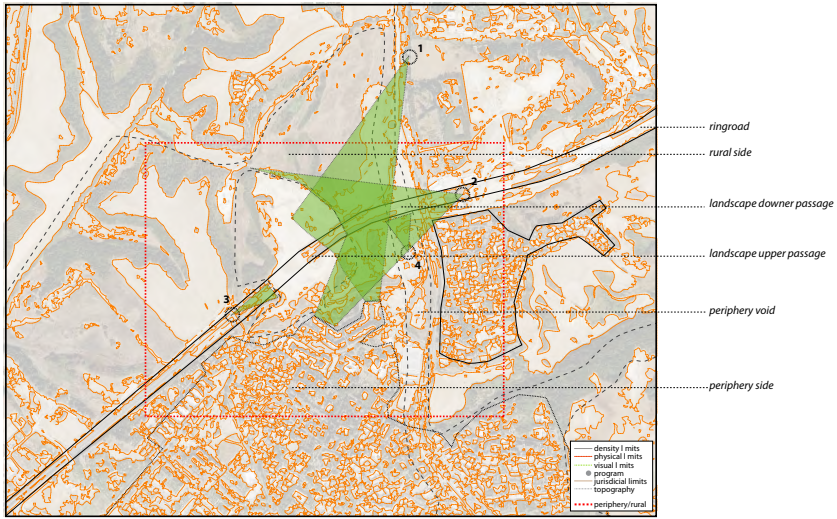


Periphery/rural

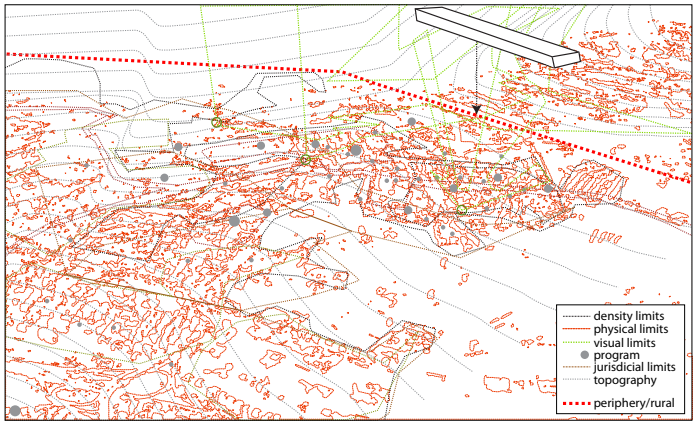
The choice of the site was based on morphological similarity to the conditions of Corviale, except two aspects: the intervention is made in a space of high connectivity (ring road) to ensure the integration at a bigger urban scale (One of the motives which lead Corviale to fail as linear city was the fact that was very far from the urban tissue resulting in low connectivity and isolation) ; natural condition of transition (The ring road is a border before the intervention. The chosen site shows to movements of landscape transition over and under the ring road, providing perfect conditions for developing transition between periphery and rural).

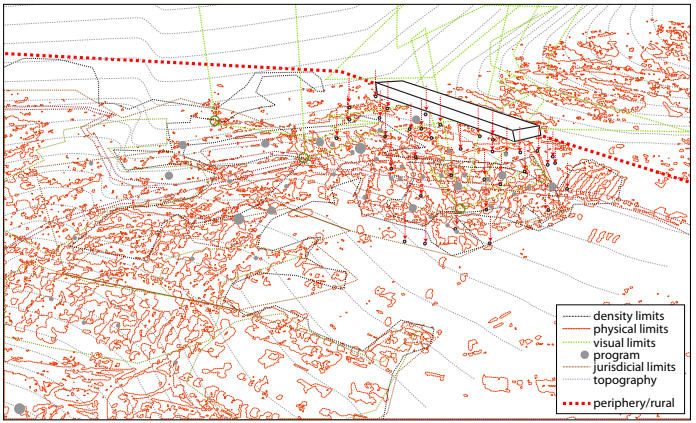


site location



site


density limits
physical limits
visual limits
program
jurisdicial limits
topography
periphery/rural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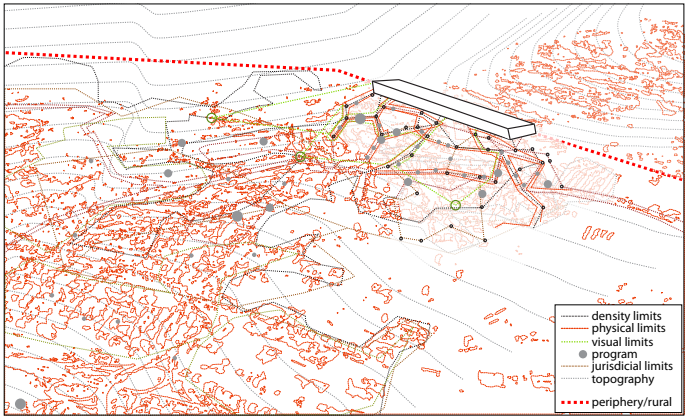
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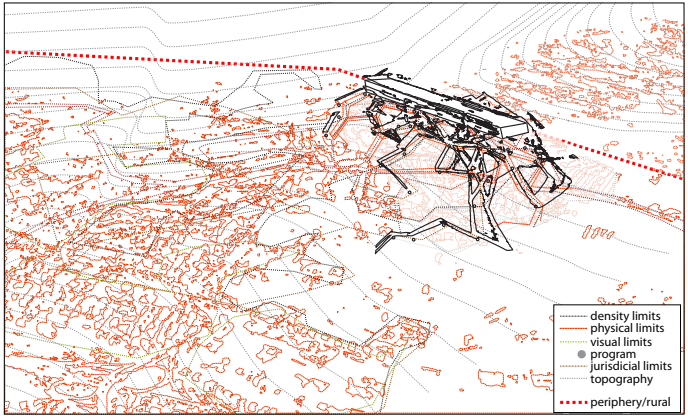
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topography
periphery/rural

Weaving limits

The design strategy uses the research conclusions are the spatial and programmatic intentions, and the filters go from tools of research into tools of design.
The design strategy is divided in 4 points:

- Choice of location and arrival of the program to the investigated border area between rural and periphery
- The program starts to pinpoint mediation/conflict areas in the front void of the periphery. Points become the base for the grid of the fabric
- The limits that are converging in the points are then pull in to the grid originated by the points and are weaved creating the opposite physical condition of the periphery (the circulation space becomes the physical space.
- The fragments in-between become the new development area.

The long term of this design strategy is that the periphery can integrate the building gradually. Instead of having a direct clash with the architecture element the urban space is dissipated in to the building, merging both.

3.4

Soft Edges, Hard Edges.

Cho Tung Wu,
Hong Kong.

Soft-edges, Hard-edges

An investigation on layers of edges

Lines

A line dawn in a city makes a limit to be transgressed or else, each line delivers distinction and division. An investigation starts with lines dawn in urban. The Aqueducts in Rome was built in ancient Roman Empire now is artificial element in this city, the line of the aqueducts with arches create specific spatial conditions such as crossings, blockings and attachments. In Rome periphery, my investigation is focused on edges defined by public factors (mainly infrastructure) and private factors(mainly focus on personalized house built with no complete regulations) the relationship between private residential areas and lines of conditions are specific in the development of the city. It also answers the first question: what is periphery? What is Rome's periphery?

Lines as paths

In *The images of the city*, Kevin Lynch concludes five elements in cities. One of five elements is Path: Paths are the channels along which the observer customarily, occasionally, or potentially moves. They may be streets, walkways, transits lines, canals, railroads. For people, these are the predominant elements in their images. People observe the while moving through it, and along these paths the other environmental elements are arranged and related.[1] Paths are the main accessible space in the selected locations for the investigation. On the other, in the Ram Koolhaas's essays The Generic City, "periphery presents the final death of planning Why? Not because it is not planned - in fact, huge complementary universes of bureaucrats and developers funnel unimaginable flows of energy and money into its completion."[2] If the areas can be privatized, it already has been privatized. The walk in the selected areas is without any planned public space like an urban park with a row of trees. Even I didn't see planned sidewalk on the road, if it is no need, it shouldn't be existed. Private factors extend or push their border to the maximum of public area; finally there are paths of road as the only accessible spaces because they need roads for connecting outside. I saw this as tensions as edges on a path.

Edges

The second element in *The image of the city* is edges. Edges are the linear elements not used or considered as

paths by the observer: they are usually, but not quite always, the boundaries between two kinds of areas. They act as lateral references. […] Those edges seem stronger which are not only visually prominent, but also continuous in form and impenetrable to cross movement. They are the boundaries between the phases, linear breaks in continuity: Shores, railroad cuts, edges of development, walls. They are lateral references rather than coordinate axes. Such edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, lines along which two regions are related and joined together. [1] If there are only paths physically accessible, what kind of edges are defined for inaccessible? What kind of edges obstruct us in spaces? Several kinds of edges can be defined for the investigation; the layering of edges of physical accessibility and visual accessibility are introduced in this point of view, both some time are visible boundaries or some time not with different field conditions. Several main lines can be defined by infrastructure and residential areas generate different layers of edges. It seems the starting of my investigation.

Nodes

Nodes are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and form which he is traveling. They may be primarily junctions, places of a break in transportations, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may be simply concentrations, which gain their importance from being the concentration of some use or physical character, as a street-corner hangout or an enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol. They may be called cores. Many nodes, of course, partake of the nature of both junctions and concentrations. The concept of node is related to the concept of path, since junctions are typically the convergence of paths, events on the journey. [1]

In Rome periphery, the built environment is characterized by informality, in some areas, the road is only public space for connecting outside with no sidewalk for pedestrian, base on the complicated planning history for occupation and illegalization of occupation, demolition of occupation and rising conscious of preservation for historical building, the process shaped the character of Rome periphery with the combination of past ruins and present contemporary urban condition, some private house attaching different kind of surface such as attaching to infrastructure or aqueducts to create a specific

spatial phenomenon.

Stan Allen mentions in the book Point+ lines that “The new institutions of the city will perhaps occur at moment of intensity, linked to the wider network of the urban field, and marked by not by demarcating lines but by thickened surfaces. “Conditions are in the thickened surfaces. Stations and paths together form a system. Points and lines, beings and relations. What is interesting might be the construction of the system. The number and disposition of stations and paths or it might be the flow of messages passing through the lines, Stan Allen see the meaning and system behind a line.” [3] one of the specific and interesting spatial experience when I was walking is crossing phenomenon in a intersection of different lines like crossing an arches of the aqueduct.

Layering of edges

The existing aqueducts as ruins and the development of human behavior is a process of struggle, some houses attaching on aqueducts or infrastructure, some trace on walls still exists after demolition, we can imagine there were private houses was existed in temporal process. I chose my investigating site beside the aqueducts with intersections, crossings and attachments with infrastructures and residential houses. The phenomenon with interaction between past aqueduct and present urban development; In Rome periphery, we can see the architectural conditional struggle between past ruins and capitalist extension of private power extending the edges. Ordered and disordered Periphery can be seen as the level of intension by government, periphery is a battle zone between private factors and public factors.

Aqueduct as past ruin still exists in Rome. It’s repetition of arches and thickness provides diverse possibilities to have interactions with other spaces. I saw some size of arches changed because road or railway crossing the aqueduct, some traces still attaching on an arches reveal previous demolished house, we still can see a lot of houses attaching on the Aqueduct providing a extremely specific spatial experience.

Perception

When I was walking the selected paths, I took photos to record what is interesting. What kind of perception can be mapped with spatial conditions? This question connects to how can I see a space and understand a space. Walk is my first hand experience. Also how can I understand spaces?

“Space is essentially a mental construct. We imagine space to be there, even if we experience it as a void, an

absence we cannot perceive." Lebbus Woods was trying to clarify what is the meaning of spaces, he took a movie as an example, when we are watching a movie with only minimal physical reality, as projections on a screen, we never experience the spaces physically in a movie but we remember spaces for a movie with actors moving. It is a process of constructing spaces. [4]

When I was talking that I was constructing the perception of the spaces. Some arches of the aqueducts are used as a road that cars and people share this crossing, The physical crossing through aqueduct is interesting because the size or width of the arches is small, only one small car is able to cross, but aqueduct is visual obstruction, we never know what is behind or is it a car coming, so we adjust our body not to stand in the middle of the arches only a pair of eyes as a spy to judge can our body follow to cross or not, visual obstruction provides a perception of danger in the situation, it also can be said visual obstruction provide a expectation of what we will see behind, our perception of spaces is influenced by environment, but the question is why we know some dangerous situation could be happened even it was the first time to go there with no memory or knowledge exactly for the place? It seems relate to a more important question, how a person understands a space, Deleuze could agree that image and perception are impossible to be separated independently. We understand a space with our perception including our memory and images we constructed in our brain, we all have a little knowledge and understand about danger, so when we cross a arches with a unpredictable situation, we react by our perception, it is an interaction between our perception and the environment. It is also a perception of spaces

The view of the body that comes in with Deleuze and Guattari's analysis is equally open-ended. If we look at the body in terms of machines, then- as Samuel Butler pointed out – there is no reason to suppose that there is any point in saying that what a body can do is limited to saying what it can do using only its organic parts. I can dig much better if I pick up a spade. I can see further if I look through a telescope. These prosthetics extend and amplify the body's capabilities. I can put them down and leave them behind, but when I need them they become part of me- part of the digging- machine, or the seeing-machine- and in a way they are always part of me if I use them. Indeed if I have developed the habit of using them and they then become unavailable to me, I will feel their lack, and will feel disabled, in the same way(but less painfully) as if I had lost a hand or an eye. But our sense of what human form is, has not been uniform at all

times and in all places.

For the experiment of perception, Artist Matta Clark's works challenge our perception of spaces and provide different way of seeing and reading a space. The experience inside one of Matta Clark's building dissections and an account of his more successful photo-collages can be discussed in strikingly similar terms, with a normal spatial situation being interrupted by other views or images that clearly contest the expectations of "normality." The consequence is that viewers can no longer easily assume a single viewing position and remain "outside the frame," as they might with traditional painting, or "within the building," as they might with architecture. Instead, the passivity of traditional viewers, sustained and policed by the system of abstract spatiality, is unsettled; they are put not in more than one viewing position (Cubism) but rather are offered more than one mode of reception, a situation that appeals both to their reflective faculty (partial views to be synthesized) and to their body's scale and habit. The projected whole reconstituted by the intellect runs alongside the habitual spaces inhabited, drawn, and redrawn by the body.

Mapping

The drawings of mappings that are presented here related to layering of edges.

Tschumi clearly expresses his need for a new definition of architecture. "We should remember that there is no social or political change without the movement and programs that transgress supposedly stable institutionalism, architectural or otherwise; that there is no architecture without everyday life, movement and action". [7] Tschumi's reality is always seen as a deconstructable one, transformable; it's like a composition of fragments of reality which unavoidably introduce ideological and cultural concerns. He presents three levels of 'reality': (1) Worlds of objects composed of buildings abstracted from maps, plans and photographs (2) World of movements which can be abstracted from choreography, sport or other movement diagrams (3) World of events which is abstracted from news photographs. Photographs provides full of information of spaces, freezing events. 'A photograph is not only an image… an interpretation of the real, it is also a trace, something directly stenciled off the real' Sontag mentioned 'What came into being was a new aesthetic principle.[8] By the invention of photography and film in the first place, and the New Media in terms of the explanation by Lev Manovich in the second place, traces become reproducible in a rather easy way. By this means of spreading information and therefore

traces, memories extend and reoccur by the extended visibility of a set of actions performed in the past.

On the other hand, Stefano Boeri proposes four gaze to see a city as (1) inside the space, blinking as a detective gaze, (2) looking at the space while it is changing as an oblique gaze, (3) intercepting the city as a sampling gaze and (4) perceptual strips as a mobile gaze. [10] It provides a framing on mapping, on my investigation of the mapping. The process of seeing a city by Stefno Boeri is to abstract what we are going to see in a frame work.

Jeffrey Kipnis taking deconstruction in the essay of Twisting the separatrix,[11] The separatrix is the incision of decision, the cut that is the possibility of management, of rendering complexity manageable, of keeping things in line, keeping things straight, […] Having dogged and disrupted the separatrix, deconstruction can then inquire into the hidden agendas that underlie its efficacy of simple difference. It thereby recovers, and gains respect for, the undecidability that this mark represses so as to make decision possible.5 Thus, for example, deconstruc- tion deconstructs the project of radicality as well as that of conservativism by destabilizing the network of separatrices that construct the simple directionalities, inclusions, and exclusions of either project, of any project as such.

Framing

Inspired by the aqueduct as a framing machine with regular arches and a complete horizontal line for framing sky, Gerrit Rietveld's Sonbeek pavilion built in 1955 in the sculpture garden of the Kröller-Müller Museum for exhibition of small sculptures, is a good example to understand the concept of framing of modernism. This pavilion has the simplicity and geometric qualities characterized of De Stijl architecture. Around a central space (12 by 12 meters), Rietveld arranged three corridor-like open galleries. The materials of the construction are clearly evident: concrete block brick, glass, and metal beams. The materials in the pavilion create different kind framing

Gerrit Rietveld's Sonbeek pavilion in the Kröller-Müller Museum

through movement in the pavilion, framing is changing in movement. Three sculptures are located in the center of corridor, apparent the corridor is not for walking underneath but for framing sculptures, when you are close the sculptures, it is inevitable to walk around the sculpture and outside the corridor, form this point looking at the sculpture, two columns supporting the roof the corridor construct another framing, but more than that, the pavilion creates three dimensional framing with depth is more challenging for the concept of framing, layering of framing and the depth of framing. It can be translated to be a new way of seeing or a new way to see our contemporary built environment.

Re-reading of mapping

So what is three dimensional framing in my investigation? How can I map the framing with movement? And can my maps provide multiple readings? One of art works of John Baldessari enriches my understanding of seeing or creating different way of seeing. Aligning Balls was created in 1972, it consists of 41 photos of a ball up in the air. The frames are hung completely out of alignment. When you see a hand-drawn pencil line on the wall, you discover that the dancing frames are actually the result of aligning the balls. We can read the process of making: the photos are what Baldessari got when he tried to capture a ball he threw up in the air in the middle of the frame. All of a sudden, you realize this entire assembly with “no proper composition” is in fact determined by the combination of the forces of throwing, gravity, flow of air, the speed of the artist’s reaction and movement, and the shutter of the camera. A new order is created from a deliberate choice of accident. Form this point of view; we can create different kind of logic or new way of reading to contribute other order. A series of my mapping of framing movement, two opposite paths was selected with taken photos, the location of taking photos was marked in plan and drawing of visual accessibility of visual framing, crossing and blocking. Two paths are askew, but if I read it as an alignment, like read those photos one by one as a construction of memory to remember the spaces. This

John Baldessari , Aligning Balls , 1972

alignment immediately creates different reading of the map as trace of memory.

The essay is to clarify the relationship of mappings and space as a translation form mental construction of spaces to realization of design process. Space is a mental construct. My mappings are the realization of interpretation of specific spatial conditions I chosen as my mental construction of spaces, how can I transform my mappings to design? Peter Eisenman's use of the diagram proposed a different rationale, "such logic could be found in form itself, but rather in a diagrammatic process that had the potential to open up the difference between the form/ content relationship in architecture and other disciplines." [12] And for him, initial diagrams were used to draw into the project to find other diagram. The developing process of diagram or mapping itself is meaningful that it is also constructing process of spaces.

James corner in the essay The Agency of mapping [13] finally asked a question: if maps are essentially subjective, interpretative and fictional constructs of facts, constructs that influence decisions, actions and cultural values generally, then why not embrace the profound efficacy of mapping in exploring and shaping new reality? Yes, the new reality is already on the way.

Reference:

[1] Kevin Lynch, The image of the city, The MIT press, 1960

[2] Rem Koolhaas, Generic city, S,M,L,XL, Monacelli Press, 2nd edition (October 1, 1998)

[3] Stan Allen, Points + Lines: Diagrams and projects for the city, Princeton Architectural Press, 1999

[4] Lebbeus Woods, The question of space http://lebbeuswoods.wordpress.com/2009/11/19/the-question-of-space/

[5] Andrew Ballantyne, Deleuze Guattari for architects, Routledge, 2007

[6] Stephen Walker, Gordon Matta-Clark: Drawing on Architecture , Grey Room, No. 18 (Winter, 2004), pp. 108-131

[7] Bernard Tschumi, Bernard Tschumi, Thames & Hudson, 2003

[8] Susan Sontag, On photography, Anchor Books, 1990

[9] Lev Manovich, The language of new media, The MIT press, 2002

[10] Stefano Boeri, Eclectic atlases, Daidalos, double issue 69/70, December 1998/ January 1999

[11] Jeffrey Kipnis , Twisting the sparatrix , Assemblage, No. 14 (Apr., 1991), pp. 30-61

[12] Peter Eisenman, Diagram diaries, Thames & Hudson, 2001

[13] James Corner, The agency of mapping, Mappings, Reaktion Books LTD ,1999

Context:

Theoretical research:

Observation on phenomenon:

What is periphery? how can I define periphery?

Rome Periphery

Centre

Physical element:

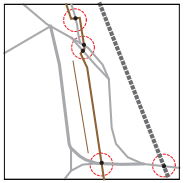
Image element:[3]

Phenomenon:

[A] Infrastructural conditions:
>Aqueduct
>Railway
>Road
>sidewalk

Paths / Lines / nodes[3]

intersections/nodes with architectural conditions



This diagram is form the site C

[B] Spatial conditions

To define edges of physical and visual accessibility

Edges[3]

[C] Field conditions

To define layering of edges

temporal process

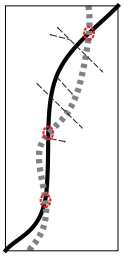
"Edges are the linear elements not used or considered as paths by the observer. [...] the boundaries between two kinds of areas. [...] Those edges seem stronger which are not only visually prominent, but also continuous in form and impenetrable to cross movement."[1]

[1]The images of the city, Kevin Lynch

Theme:

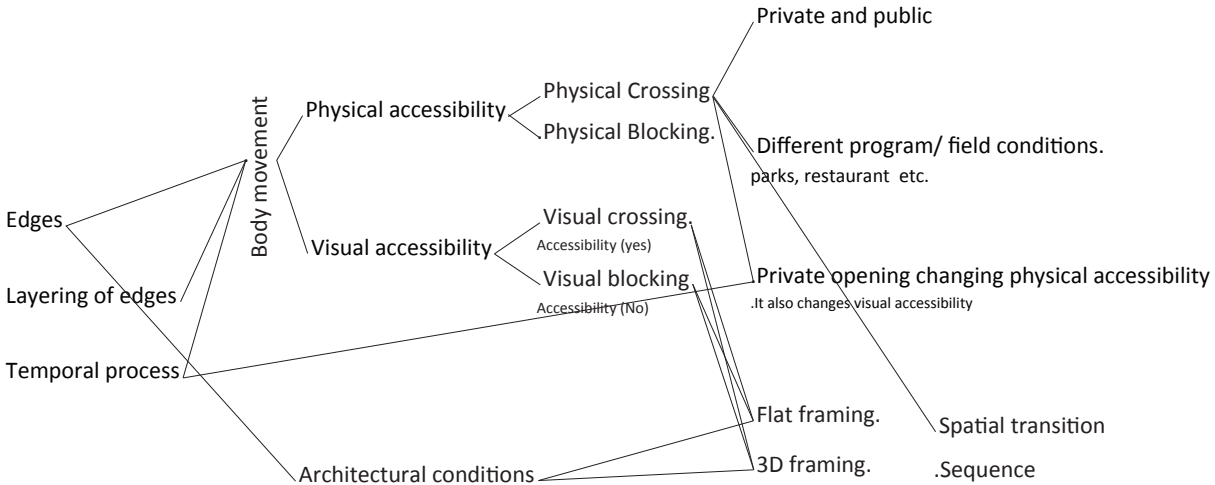
Interaction / cross movement with **boundaries** between two kinds of areas

Soft / hard edges



how can I define edges ?

Mapping Process:

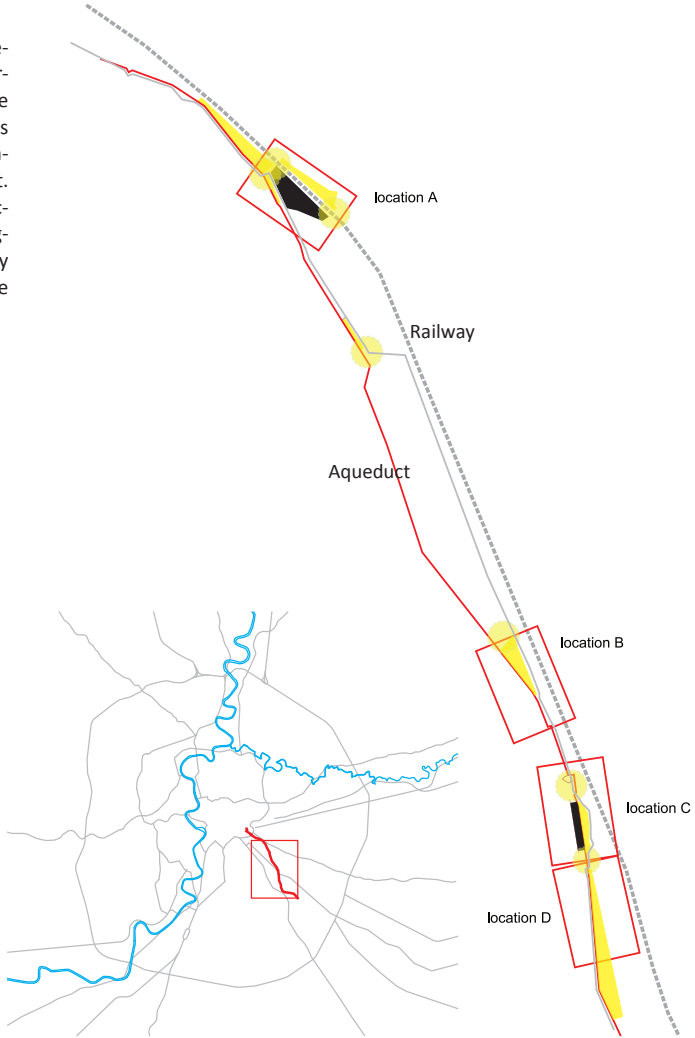


Case study:

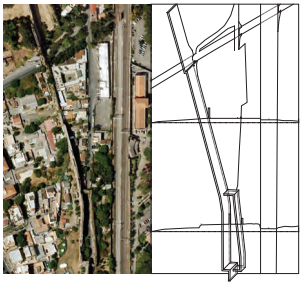
Exhibition pavilion for sculpture,
Park Sonsbeek,
Arnhem
by Gerrit Th. Rietveld

Obstruction map:

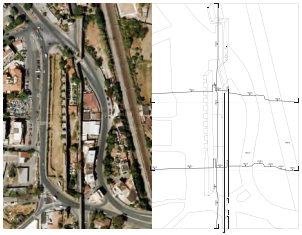
The four locations were selected with different characteristics, the photos were analysed taken when I was talking in these four locations as a starting point. Barriers construct obstructions with layering of edges. Physical accessibility and visual accessibility are divided.



Location A



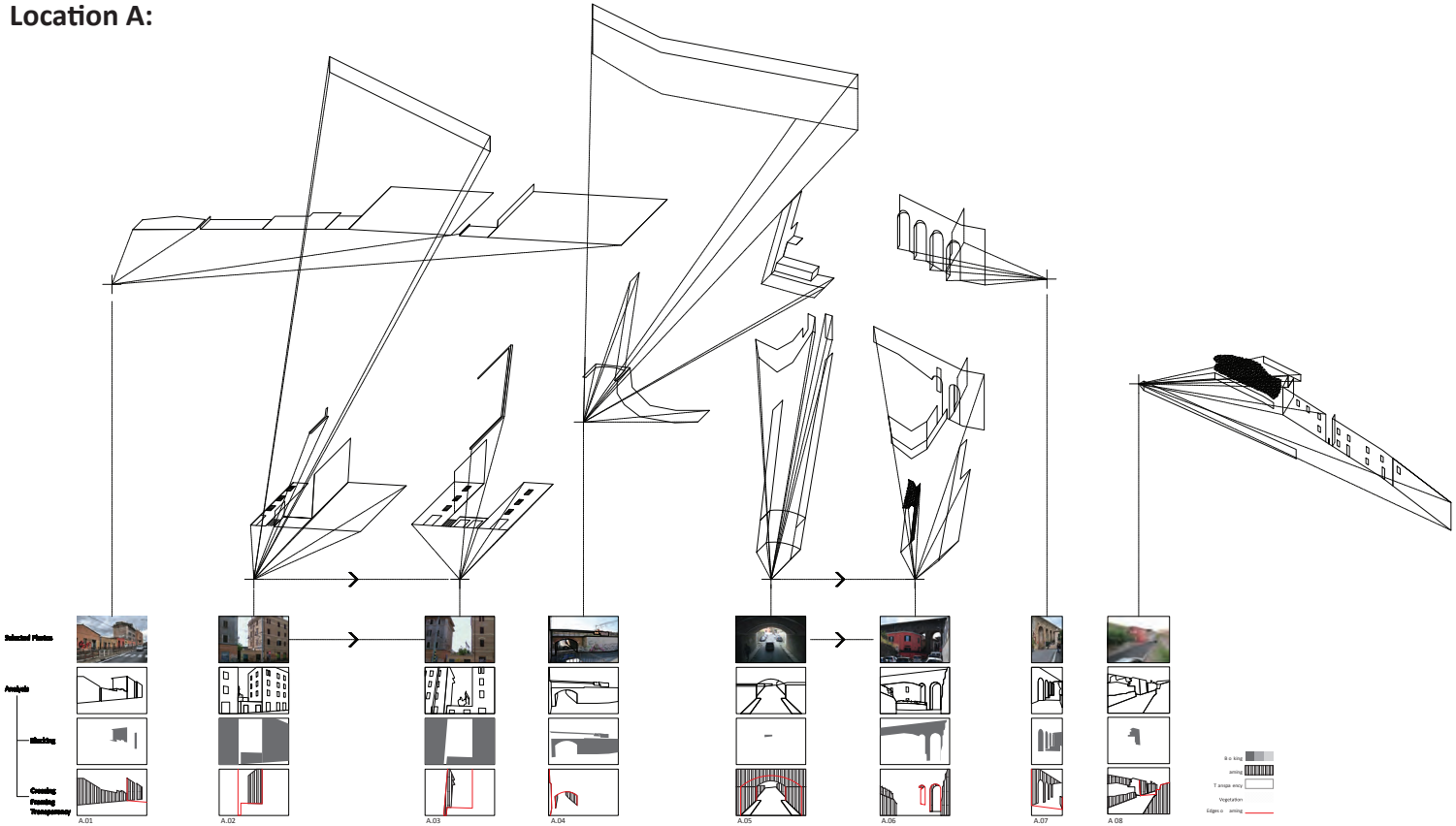
Location B



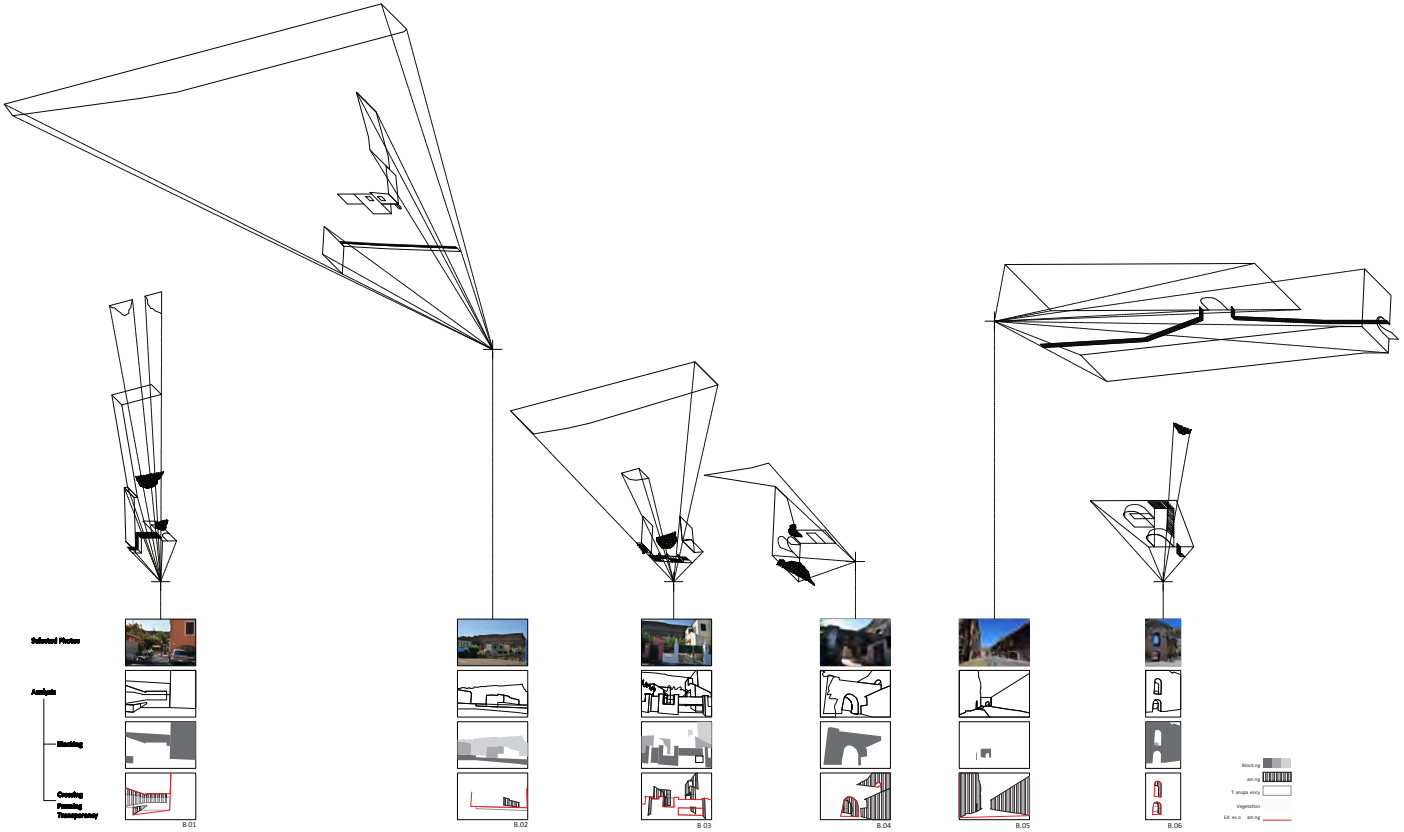
Location C

Location D

Location A:


Selected Photos
Analysis
Shading
Crossing
Framing
Transparency
A.01
A.02
A.03
A.04
A.05
A.06
A.07
A.08
Vegetation

Location B: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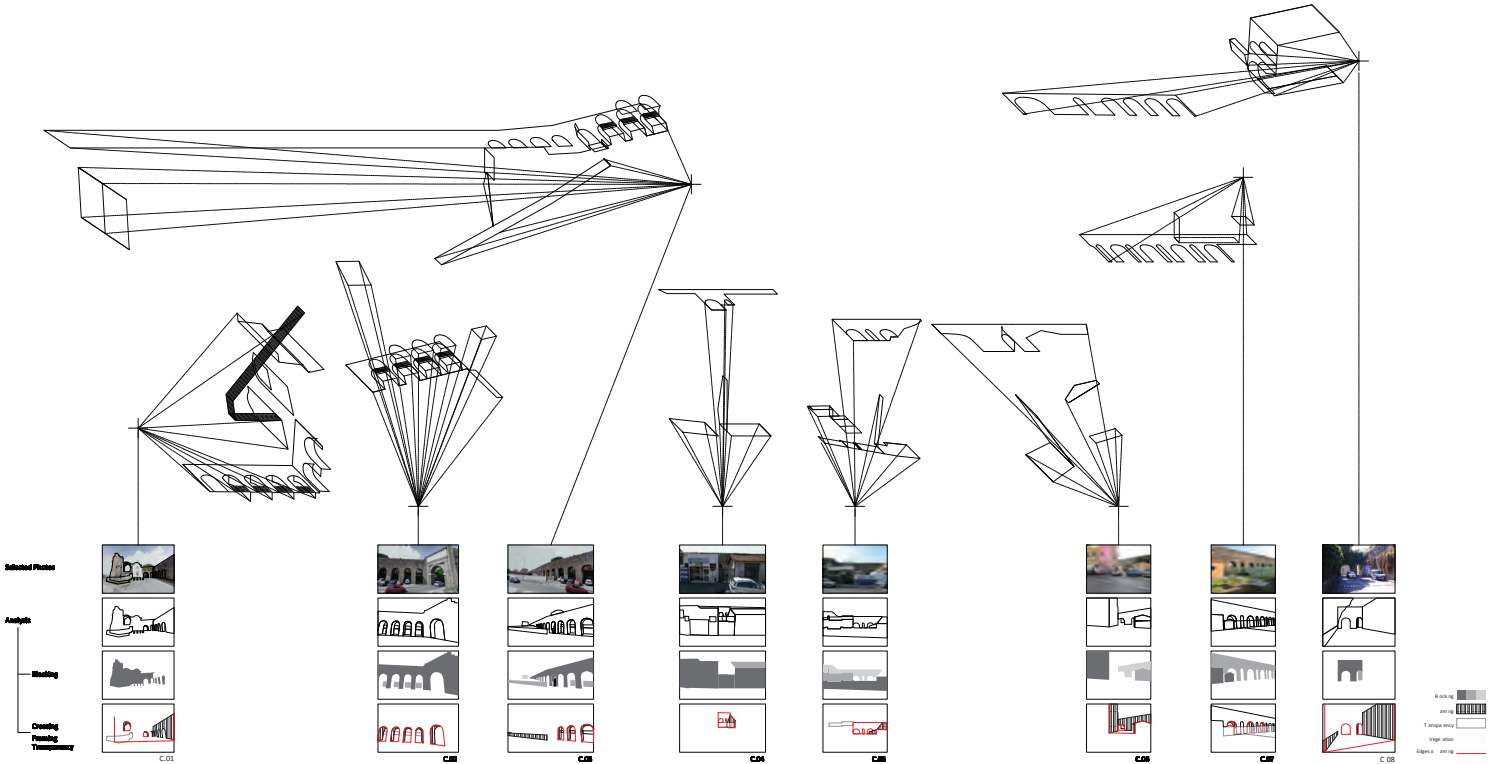
Location C: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Analysis
Shading
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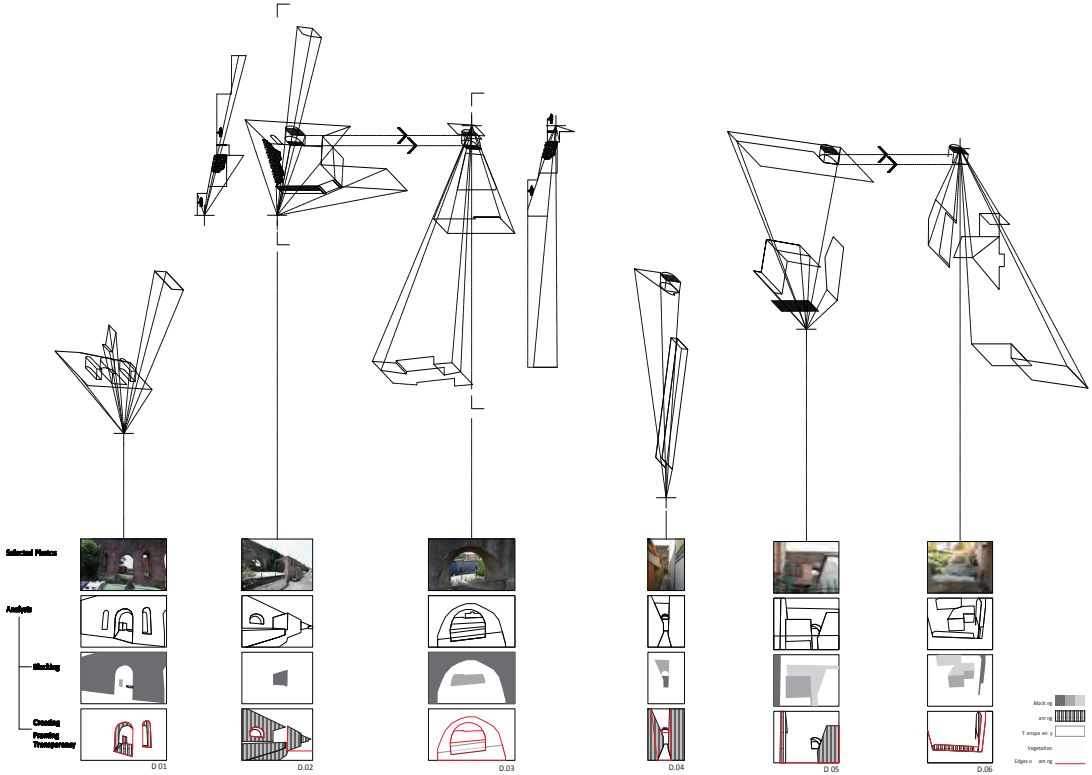
C.07
C.08

Location D:


Selected Photos
Analysis
Blocking
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Framing
Transparency
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D.02
D.03
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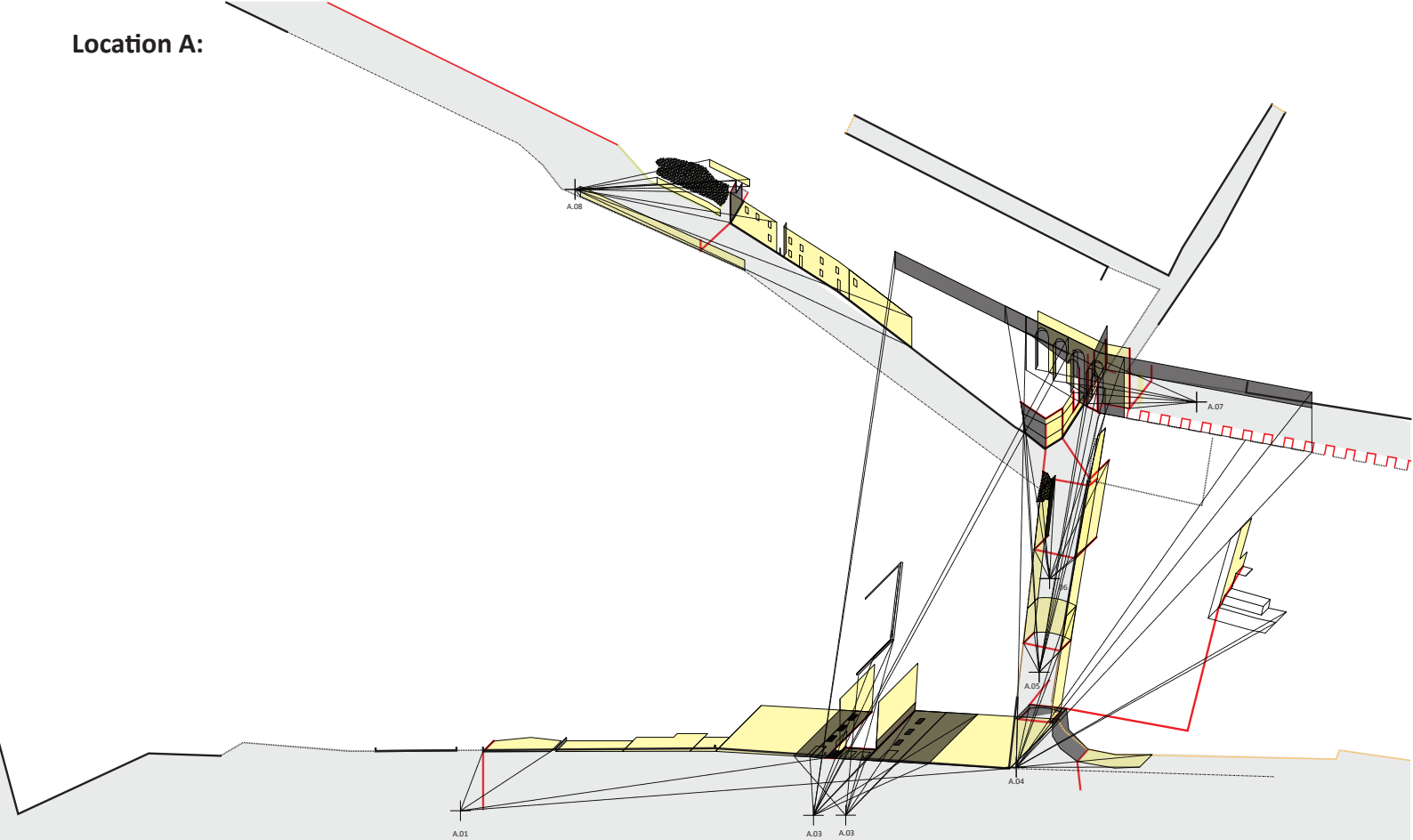
D 05
D.06

Location A:



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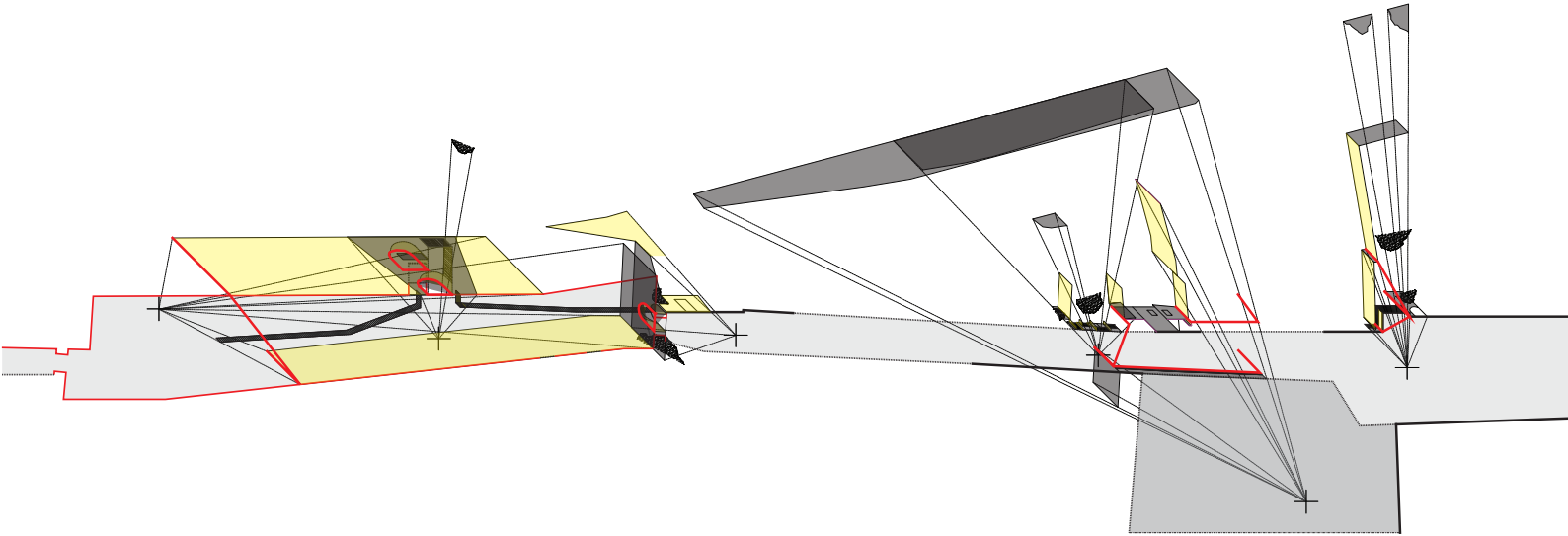
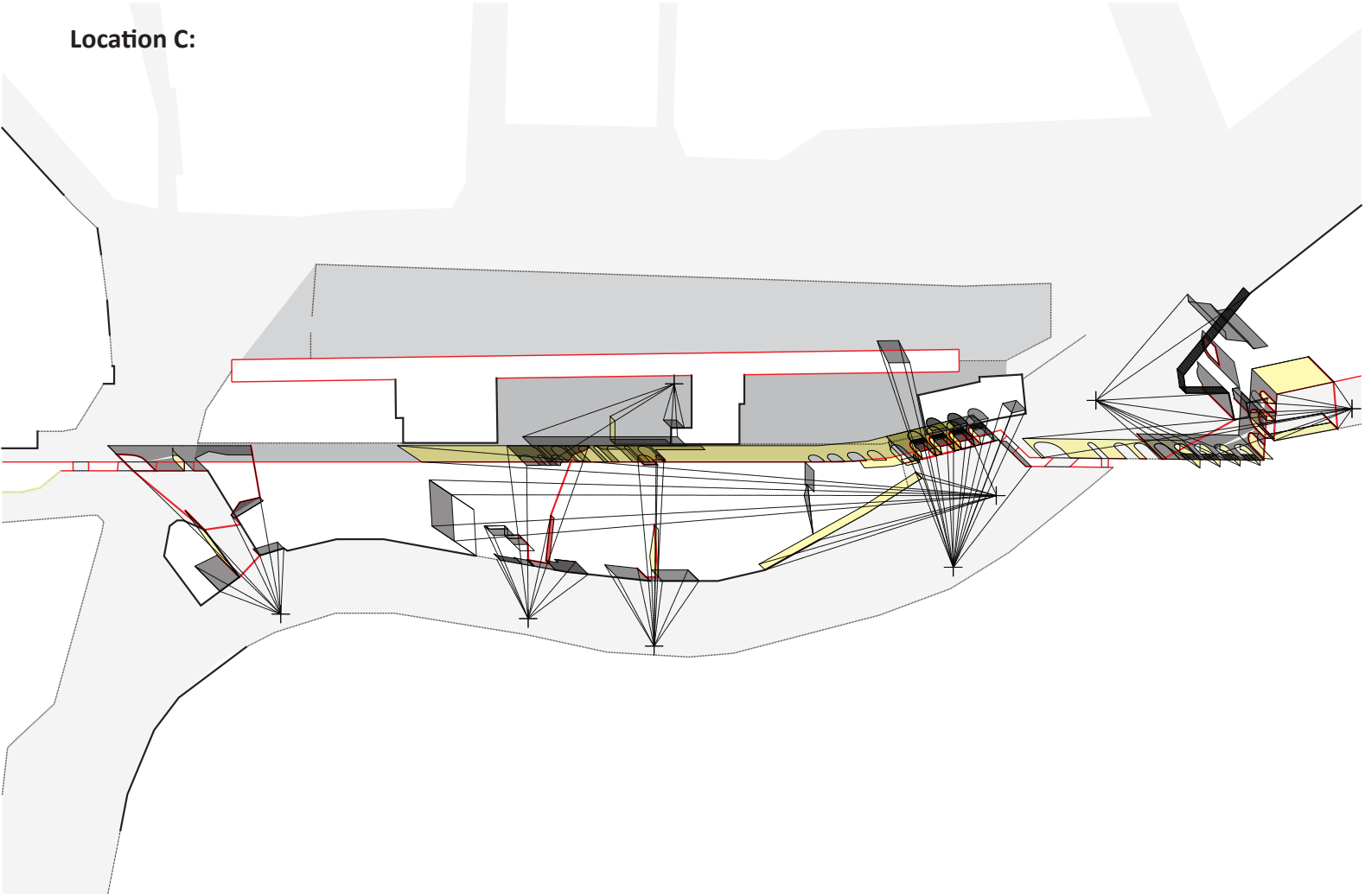
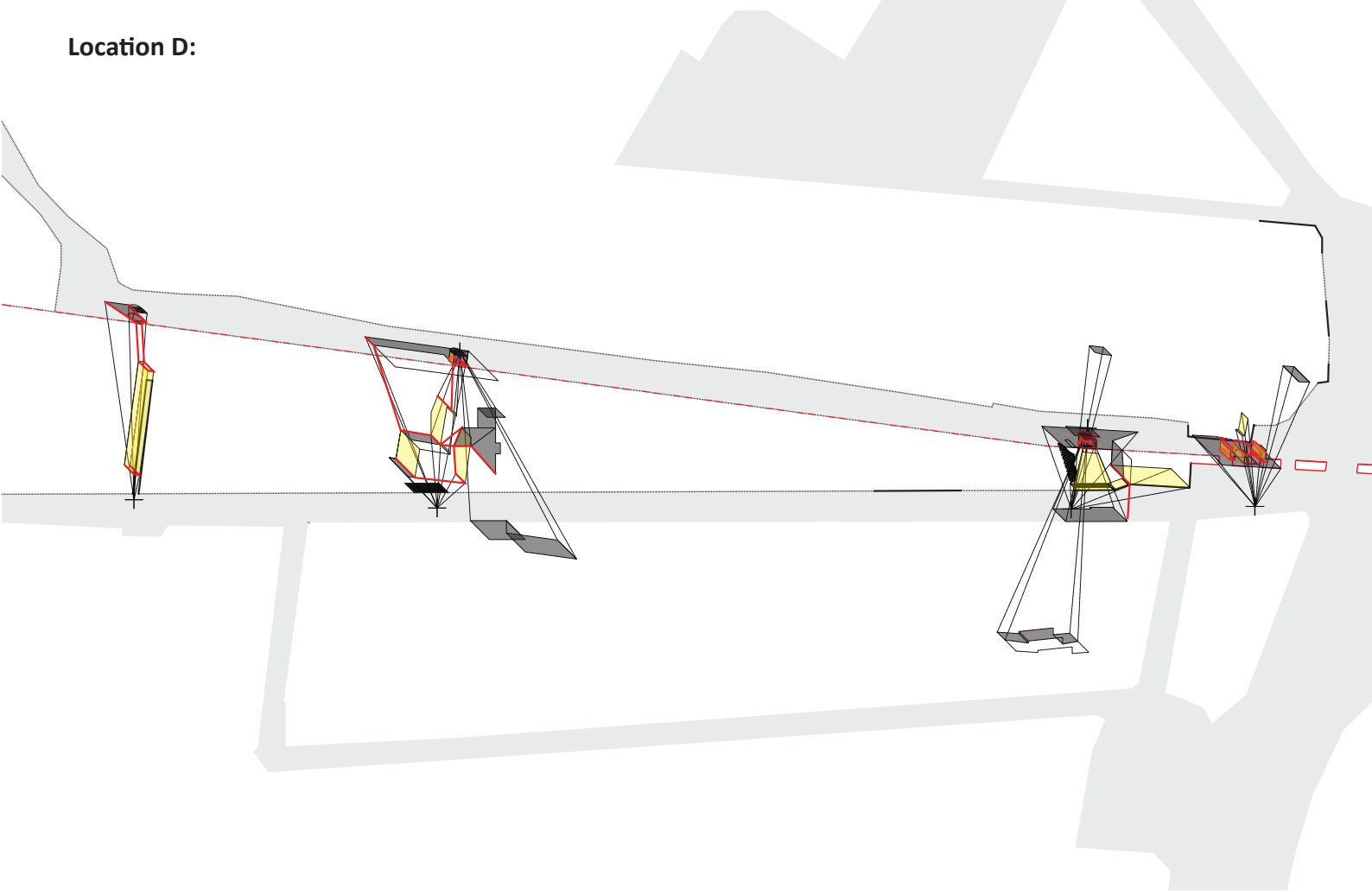
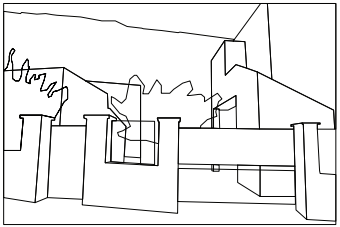


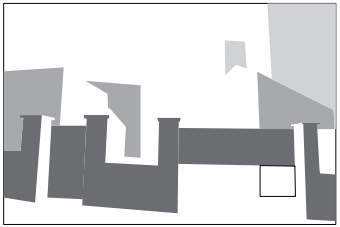
Location C:

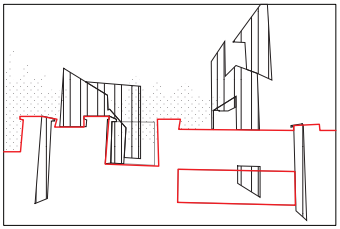


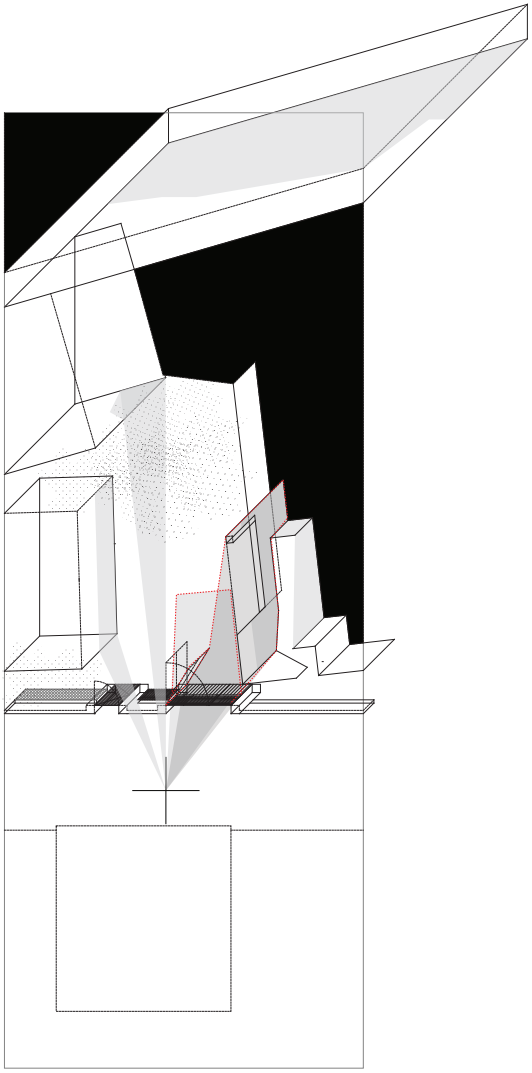
Location D:





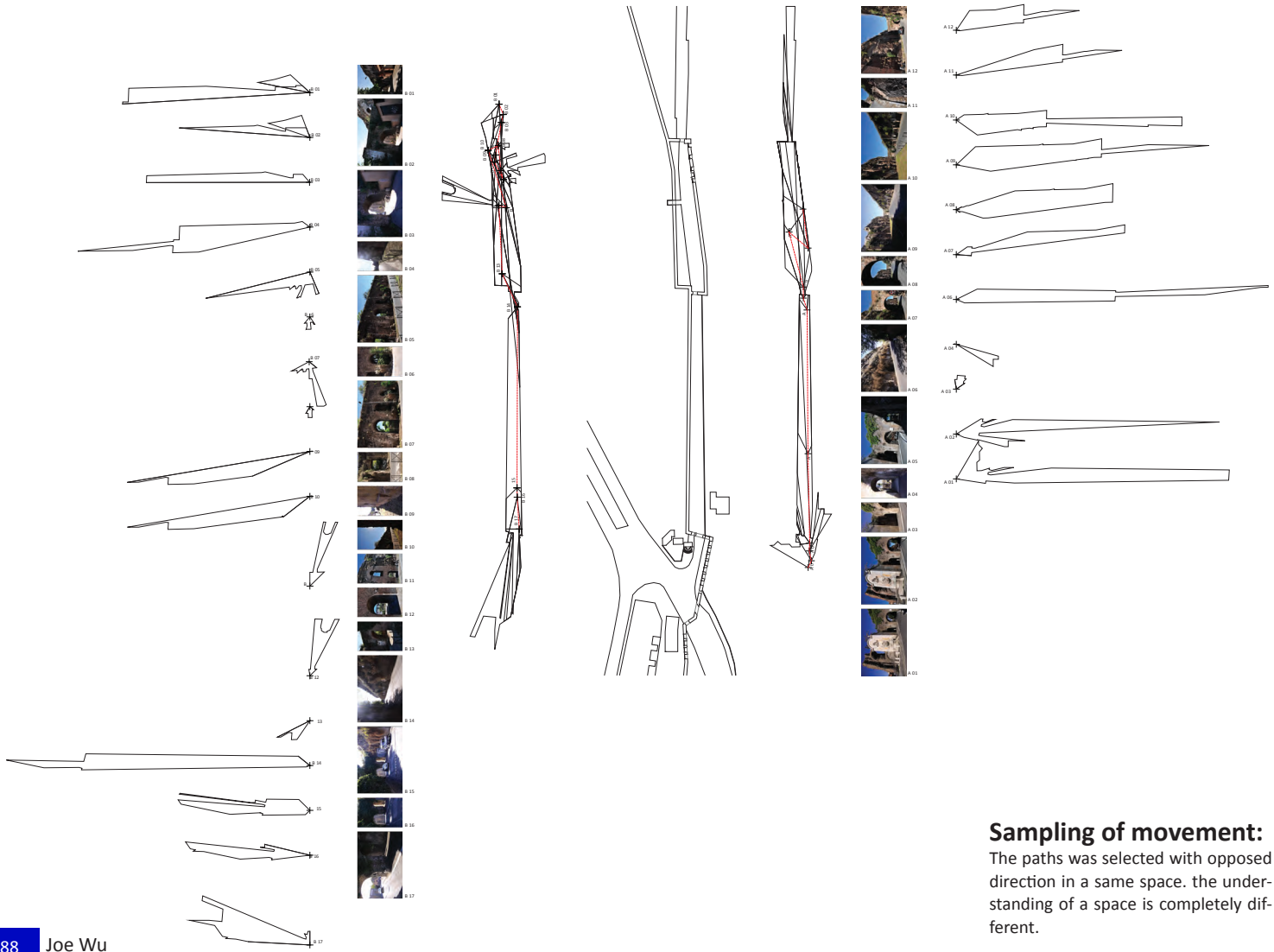






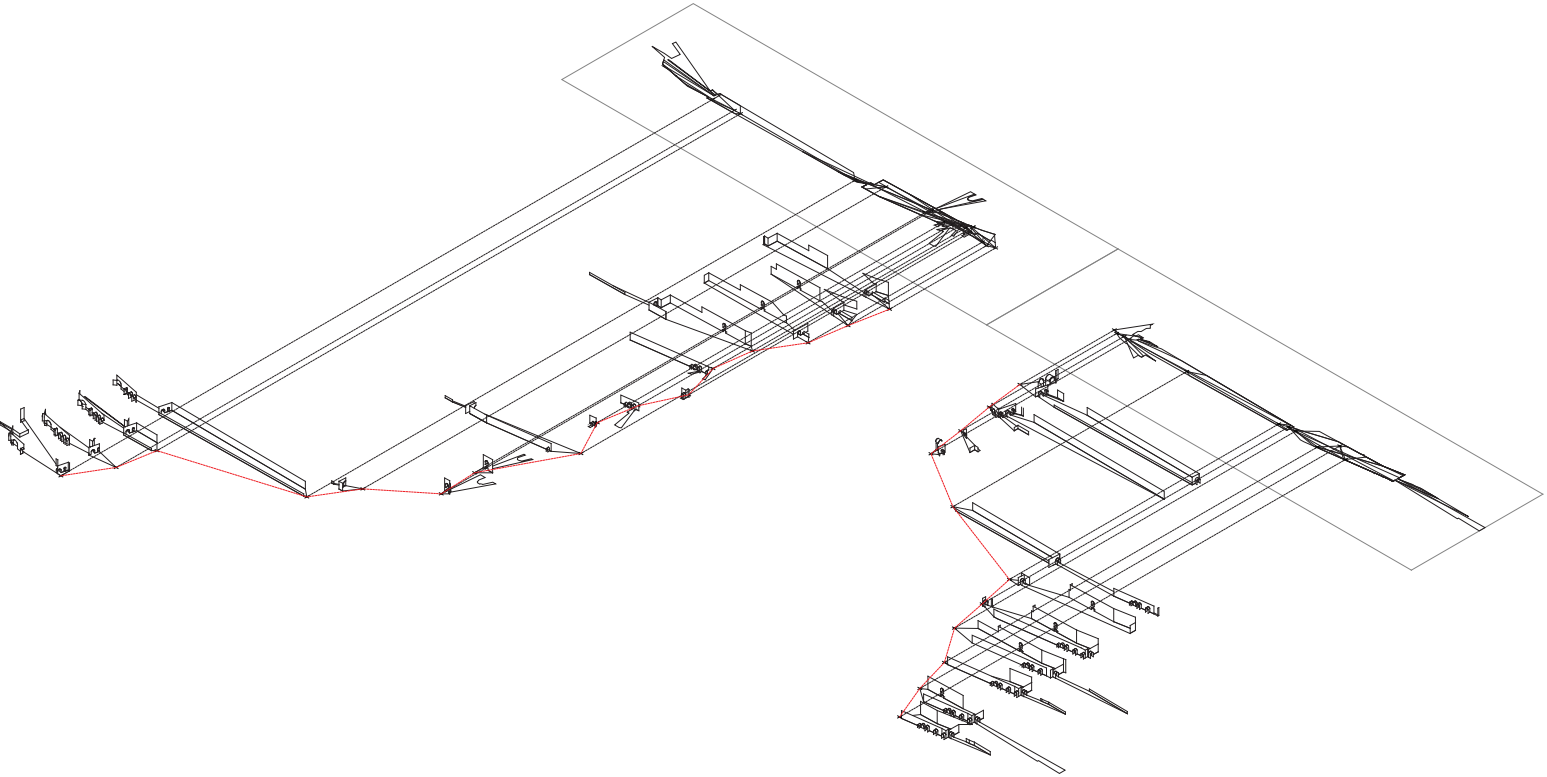
Map of moving framing:

Some physical elements can be changed like rotation, sliding. Edges at moment are changing. In this situation, our movement is a freeze-frame.



Sampling of movement:

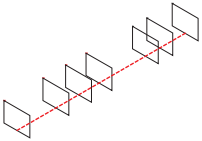
The paths was selected with opposed direction in a same space. the understanding of a space is completely different.

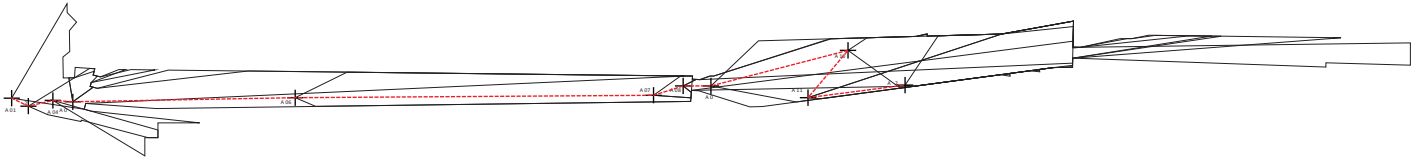


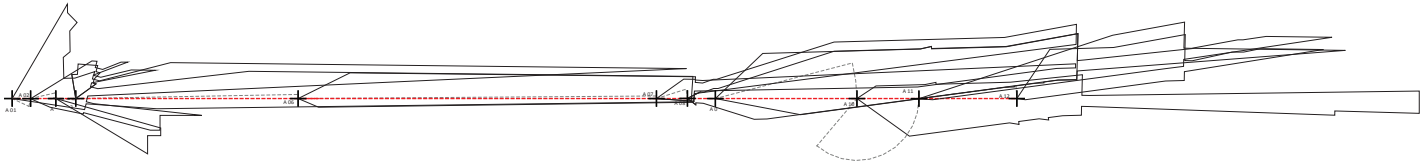
John Baldessari , Aligning Balls , 1972

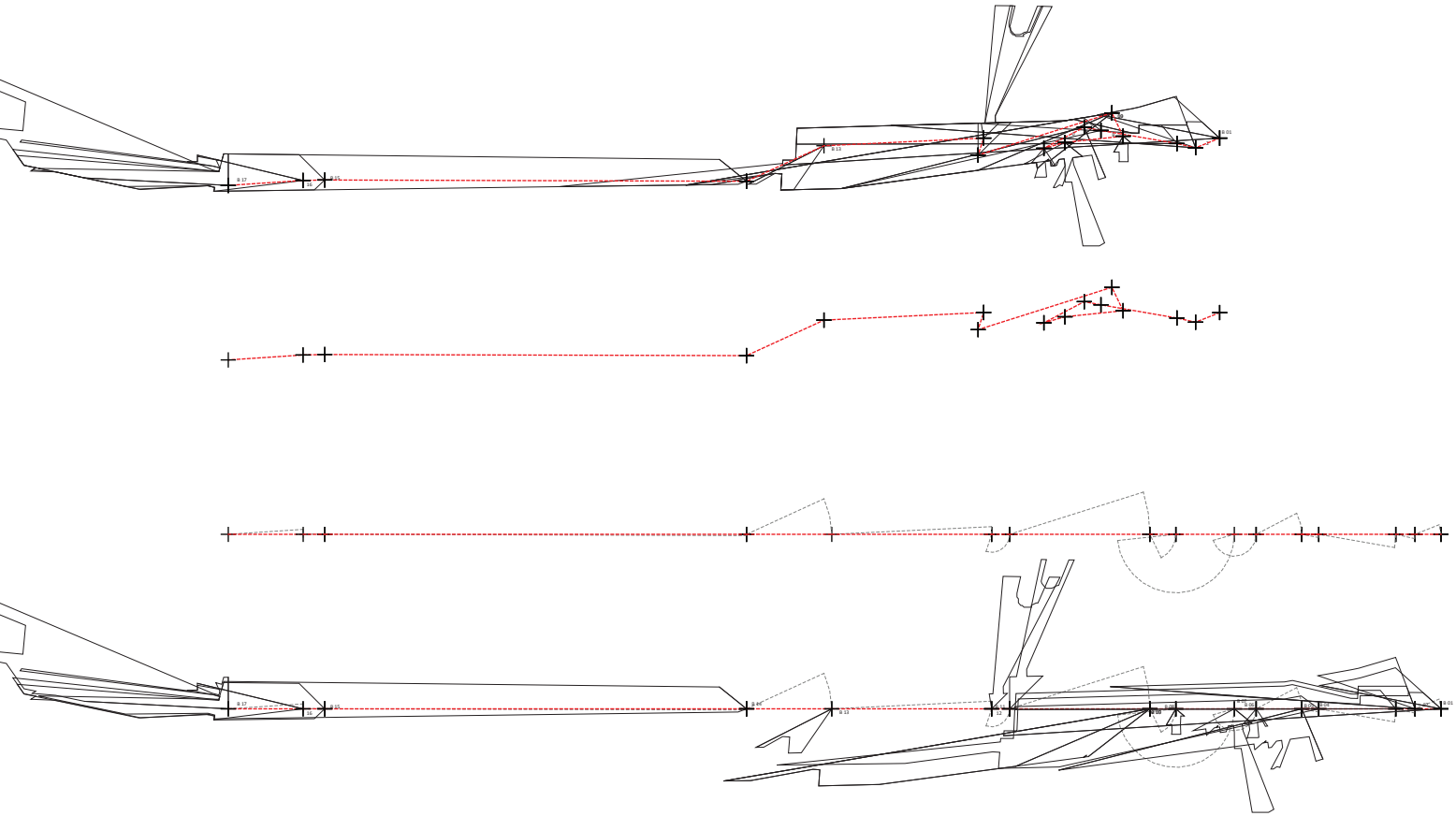
The map of Framing / Movement

A series of my mapping of framing movement, two opposite paths was selected with taken photos, the location of taking photos was marked in plan and drawing of visual accessibility of visual framing, crossing and blocking. Two paths are askew, but if I read it as an alignment, like read those photos one by one as a construction of memory to remember the spaces. This alignment immediately creates different reading of the map as trace of memory.



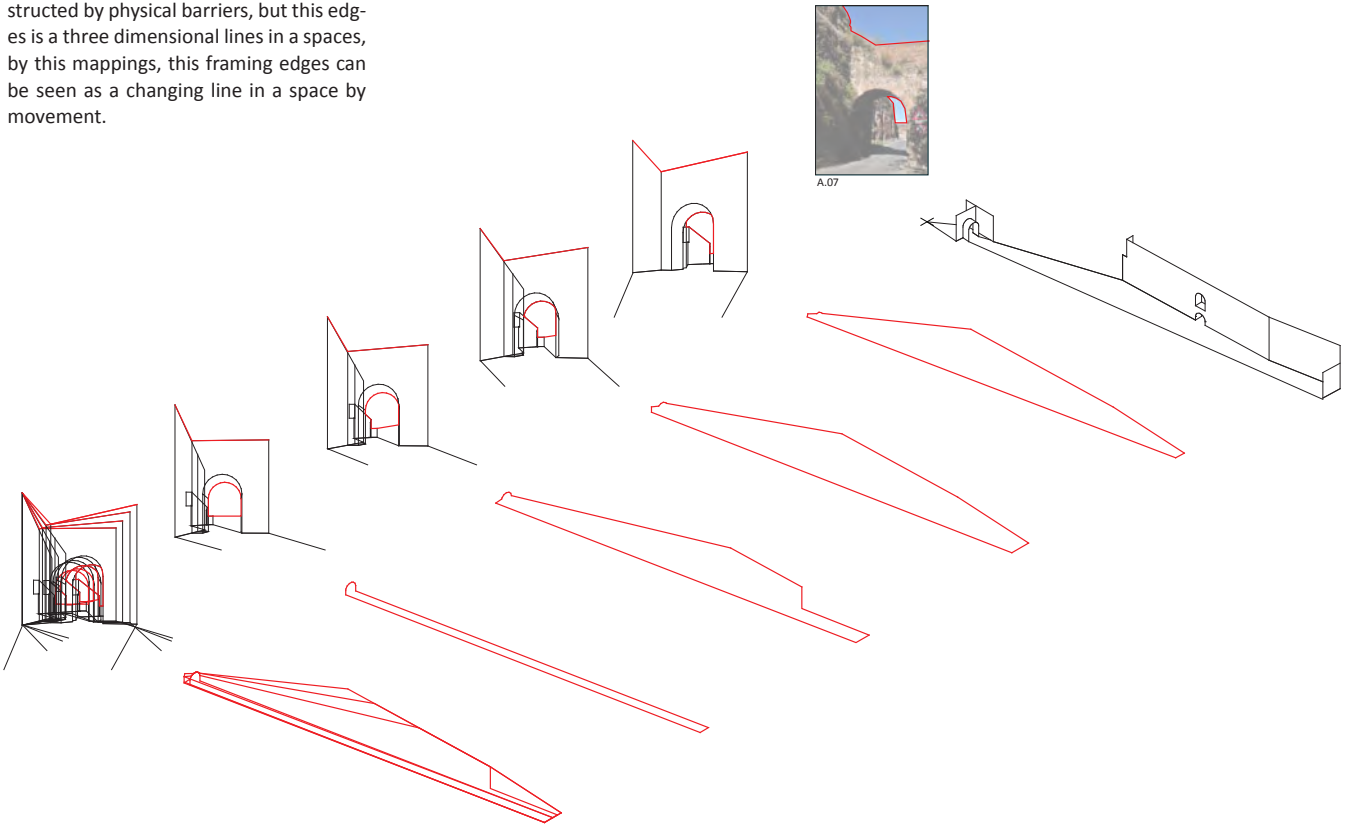






The map of framing edges:

We see images and clarify the edges constructed by physical barriers, but this edges is a three dimensional lines in a spaces, by this mappings, this framing edges can be seen as a changing line in a space by movement.



3.5

Moving Across the **Transitions**,

A Reading of Roman **Courtyards.**

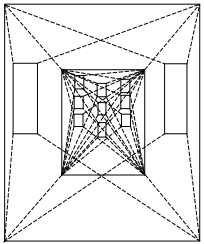
Luigi Grosso, Italy.

Moving across the transitions.

The Discovery of the Courtyard.

When you are navigating in a part of the city where the streets structure is made of parallel and perpendicular roads, if your aim is to rich from your point A, a point B in the closest parallel street what you usually do is to take a perpendicular street which intersects the two roads and reach your point B. In this way the experience that you have of the city you are navigating into is based on the same scenario, your trajectory from point A to point B almost moves into the same space, the street. In my excursion to Rome, in one of my walk during the navigation of the periphery, I discovered the possibility to move through the city in a new scenario, not just walking on the sidewalk of the streets, but also through the numerous courtyards of the residential buildings present in the city. These courtyards are spaces of multiple connections. They can connect the space of the street to the entrance of the single staircases that bring to the door of each private house, or in other cases they can connect, through multiple openings where the entrance is almost never denied, different streets or, in some special cases, different courtyards. The discovery of the permeability of the block have allowed me, on one hand, to have a new experience of Rome, new routes where the scenarios were not made just of street façades, cross roads and cars, but also of more quite environments in which sequences of different spaces come one after the others, and on the other hand, experience particular special condition in terms of intriguing sequences of different space.

After a first fascination when I slowly started to analyze my new discovery I began to be intrigued by the experience of the act of *crossing* because as I said each courtyard has a peculiar sequence of different spaces. I'll try to give an idea: [Crossing example]: Walking on the sidewalk of a street you suddenly discover the presence of an open gate, you get in. Crossing it you pass in a sort of darker entrance often closed by a ceiling, in front of you another gate connects this space to a big brighter open space, full of windows and hanged clothes to dry. On the other



Entrance of a courtyard with the tracing of the sequence of passages.

side of this space you have another gate and another entrancew (or exit), same sequence and you find yourself again on another street. Close by you there is another gate slightly different then the previous that can lead you to another similar experience, and so on.

The question now is: which is the contribution that a reading of these urban phenomena can have within a more general spatial reasoning? What is indeed recurring is a series of themes. The juxtaposition of different spaces (street, courtyards, entrances, etcetera…) with the possibility to freely cross them put a first topic at the centre of the discussion: the topic of *transition.* What spatially constitute the transition between a space and another? And furthermore, since movement is at the base of a the act of *crossing* and *transition*, which is the relationship between movement and perception of transitional elements?

The aim of my essay is to present some reflection made during my analysis project on Rome Periphery. I will discuss the issues mentioned above in order to present some theoretical position in order to highlight some aspect of the subject able to inspire further considerations.

24 pictures to study a horse.

On June 19, 1878 the photographer Eadweard Muybridge with his experiment *Sallie Gardner at a Gallop*[1]*,* allow the businessman Leland Stanford to win a bet made consisting of stating that the horse's hooves are off the ground at the same time during a gallop, in opposition of what was at that time the common awareness consisting that everybody believed that there's no moment in which the horse could leave the ground with all his four hooves contemporaneously. Thus Leland Stanford asked Muybridge to prove scientifically his position by setting up an experiment using his photographic cameras. Edward Muybridge set up a series of 24 cameras located along a track parallel to the rectilinear path that the galloping horse was about to make. The 24 cameras were arranged 27 inches apart and connected to 27 thin wires transversally put on the horse's path in order that the horse's hooves would trigger the shutters themselves. The pictures were taken in succession of one thousandth of a second. The result was a single negative showing the 24 pictures of the horse clearly demonstrating that at a certain moment the four

Two pictures from the Sallie Gardner at a Gallop experiment.

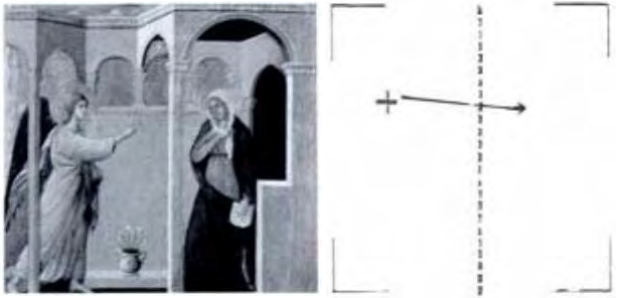
horse's hooves where detached from the ground simultaneously (conclusion n.1) and furthermore that in the moment they were detached the horse was not with the legs fully extended forward and back, as contemporary illustrators tended to imagine, but rather at the moment when all the hooves are tucked under the horse (conclusion n.2). Leland Stanford won his gamble.

The reason why I've presented this example is because it has some analogy with the recording methodology I've used in my analysis. In each courtyard after choosing a *movement trajectory* in order to pass as many different spaces as possible, I've chosen to use the photographic tool (1st analogy) in order to capture single moment (single frames) within the time (the trajectory). I've taken pictures pointing the camera in front of me for the all trajectory, shooting what I had in front of me. The results are a series of sequences (2nd analogy) which try to simulate the experience of movement between those different spaces. At this point a series of doubt concerning the methodology started to came into my mind, and that's also why is interesting to make some reflections on Muybridge example. Mainly, is my tool able to have a full understanding of the spaces I am investigating? The answer was no. But in the same way I can consider also the tool used by Muybridge unable to have a full understanding of the horse, but at the same time it has the ability of stopping in order to have the base for his investigation, the picture. In this perspective my tool could be consider stiff in a reductive sense, but in its reduction is able to record and freeze the moment of transitions and the place of spatial localization that transition, *the threshold*.

Threshold and Space.

"Literally the threshold is a piece of stone, timber or metal that lies under a door – the counterpart of the lintel across the top. […] Threshold is the point at which a physiological or psychological effect begins to be produced. […] It is a boundary, as its meaning indicates, but rather than constructed, it is insinuated. It is a sign of change in condition or state that man uses to delimit a space"[2]

As the first line of the quote written above suggests, we



Annunciation image with its relative threshold diagram by R.Bunschoten [3]

could think about thresholds in terms of border between a space and another, or even more precisely as the piece of matter (made of marble, of stone, of concrete, of timber) that embodies the idea of border. This is a classical way of seeing it, and in such terms the possibility for further considerations is quite limited. What anyway we could start to see is that the capability by a piece of matter of embody the idea of border suggests us to consider the threshold not as a element itself, but as a *state of being* that the matter could acquire in specific conditions. In this sense I like the definition by Raoul Bunschoten who defines the threshold as a diagrammatic object.

"It delineates" he writes "the boundary between one space and another, but as an object it does not create a real obstruction. It is a diagrammatic object." [3]

These qualities give to the threshold a peculiarity: it can be considered as a boundary but as one of those that has the unique quality of both separating and connecting two different spaces. It is the place of the in-between, the place where the transition and the change takes place.

At this point a question could arise: why the interest in thresholds, and which are its potentiality?

"The threshold is a very potential space. It is the place of suggestion, where things happen only in a half way. The place where the moral and the amoral, the legal and the illegal, the truth and the lie can not be sorted out. The place where everything is possible just for a moment, before you pass through it." [4]

What is actually interesting me of these few lines is the idea of potentiality that thresholds would have. First of all the clear idea that the *state of being* threshold can be acquired not just by a single object (a piece of stone or timber) but by a system of object, thus becoming a *space*. I like the idea of seeing at thresholds as *places of tension*, a meeting place of different conditions where its presence is always accompanied and preceded by the feeling of curiosity that something new (and "other") could suddenly happen. The possibility of being in a place where the action of *sorting out* is almost impossible because of the high level of tension between two external *polarities,* is something what constitutes the peculiarity of this *state of being.* This makes me imagine the possibility of approaching and reading the space in an extremely intriguing way. In this terms would be stimulating to shift the object of the design process and start to think about *threshold devices* instead of commonly spaces.

For this reason, in my investigation, after the elaboration of a core constituted by a series of diagrammatic maps, result of the processing of the sequences of picture taken from the *crossing trajectories* of the courtyards, a second part has been produced. This latter part of my investigation aims, through a series of maps (i.e. see *Interference*

map) and physical models, to the understand, investigate and speculate on the effects related to (ore the side effects [?] of) the presence of thresholds, mainly in terms of perception and mental projection of yourself within the environment.

Why a diagrammatic map.

"Modelling involves a shifting into an abstract and coded form of representation. […] Diagrams are used to shift between 'found' reality and a level of abstraction. On this level material can be manipulated, models constructed, relationships drawn and information processed to show only one aspect of a particular environment, creating a would-be or virtual reality […] The altered diagram only affect the real world if linked to a tool that can respond to the diagram and change the world. But the power of the diagram lies not only in its openness to alteration, suggesting changes to its source; it can also be disengaged from its source altogether and become a drawn object in itself, an object with specific organization, indicating a particular set of relationships."[5]

In this perspective my diagrammatic maps would aim that level of abstraction that is in a way needed to permit that act of manipulation. Since the diagram tries to achieve a state where the lack of physical qualities would help that manipulation, I will try, using them, to keep the level of relationships between the elements of the diagram almost original, while the alteration of those elements will allow me to create new scenarios, that would constitute the first design scheme.

A binary reading of space, or the *Fields of Operations tool*.

A further consideration could at this point be done. Indeed to make a clear distinction between two spaces we need to introduce an element of sharp discontinuity, *the threshold.* In this way we are using a binary system[6] to categorize the reality: space 0 or space 1; totally inside or totally outside; or, in a chromatic way, black or white. This way of reading could be extremely useful because of its sharpness but at the same time could also be extremely reductive, especially when we are dealing with the ephemeral issue of threshold.

If for a moment we want to start to read space in a non-binary way we accept the presence of an *in-between condition*, the one proper of the *threshold fields,* considering the threshold not as an element (or series of elements in the case of a *threshold space*) with sharp edges but as condition were its borders are blurred into fields.

Using a mathematical language similar to the one used for the group theory I could try to formulate an example of the application of the field of operation model, and why it could be useful:

I'm moving into *space 1* which is connected to *space 2* by the *threshold T.*

To *Field 3* belong all the points of the space in which I don't perceive (see) *threshold T,* but just elements directly related to it.

To *Field 2* belong all the points of the space in which I do perceive the *threshold T*, and thus the space after it.

To *Field 1* belong all the points of the space in which I'm neither in the *space 1,* neither in the *space 2, **but** in-between.*

With the use of this model it could be possible to start thinking about design schemes where the identification of the different spaces would be not related to their geometrical properties (geometrical borders), but to the perceptual conditions and would be intriguing start to think that it is possible to design field instead of spaces.

References:

[1] http://www.sfmuseum.org/hist3/sallie.html [Muybridge's *Sallie Gardner at a Gallop* experiment];

[2] José Alfonso Ballesteros, in *The Metapolis Dictionary of Advanced Architecture*, Actar, Barcelona, 2003, p.623;

[3] Chora, Raoul Bunschoten, *Urban Flotsam*, 010 Publishers, Rotterdam, 2001, p.360;

[4] Susanna Cross, in *The Metapolis Dictionary of Advanced Architecture*, Actar, Barcelona, 2003, p.623;

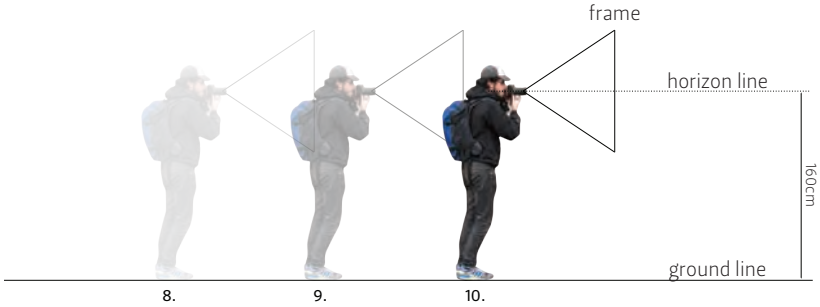
[5] Raoul Bunschoten, *Urban Flotsam*, 010 Publishers, Rotterdam, 2001, p.36;

[6] http://en.wikipedia.org/wiki/Binary_numeral_system [Binary numeral system].

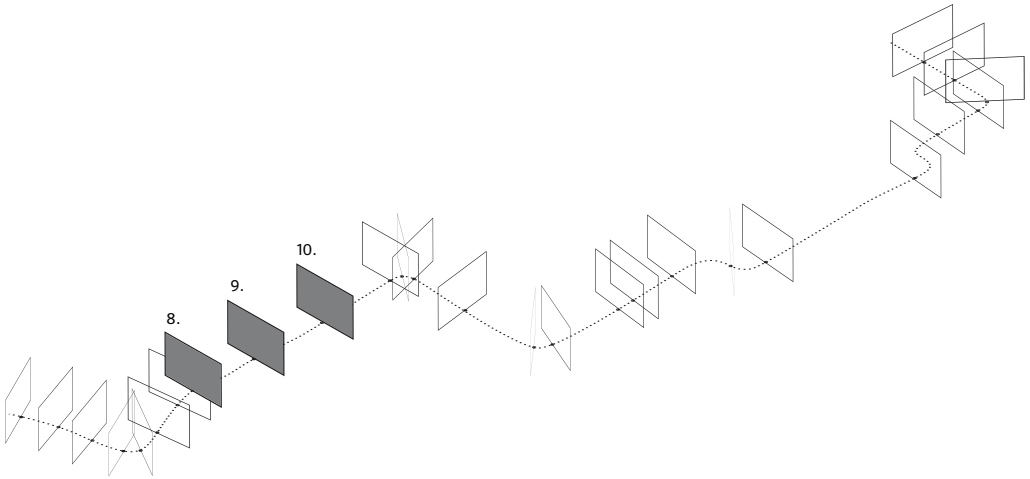

Walk3_26/10/2010
41 9.0913 12 5293.7
41 9.0394400 12 520434
Walk2_25/10/2010
41 87840 12 45884
Walk4_27/10/2010
41 926857 12 573 103
Walk5_28/10/2010
41 8658 12 53506
41 85642 12 56252
Walk1_24/10/2010
41 87459 12 52272
41 865558 12 48327


Walk2
Courtyards map
C.2.3
C.2.2
C.2.4
C.2.5
C.2.1
C.2.6
C.2.8
C.2.7
C.2.9
C.2.10
C.2.11
É PROIBITO ENTRARE
ED USCIRE IN BICICLETTA
41.87840, 12.45884
41.87608, 12.48227

Recording methodology

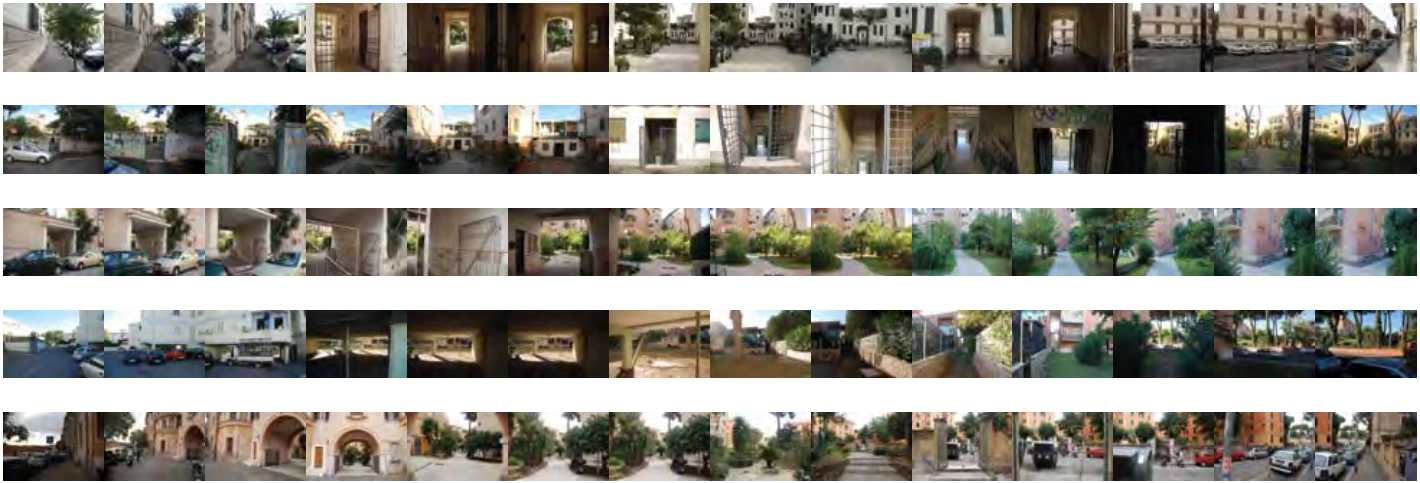


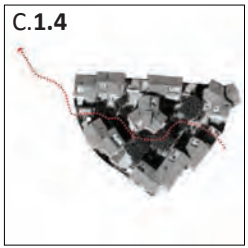
The pictures, that in my investigation have been the starting point of the drawings elaboration, have been taken crossing the different courtyard found during my walks. I always kept the camera perpendicular to the ground, shooting every with an average of 6-7 steps distance. I always used the same lens length (28mm) in order to have comparable picture to work on.

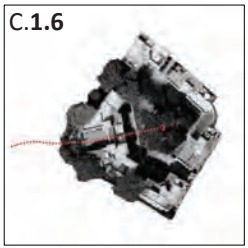


Stop motion movies

Courtyards C.**1.4** -C.**1.6** - C.**2.8** - C.**3.1** - C.**4.2**







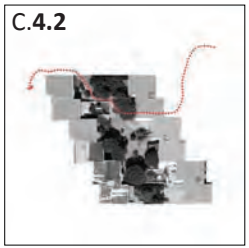
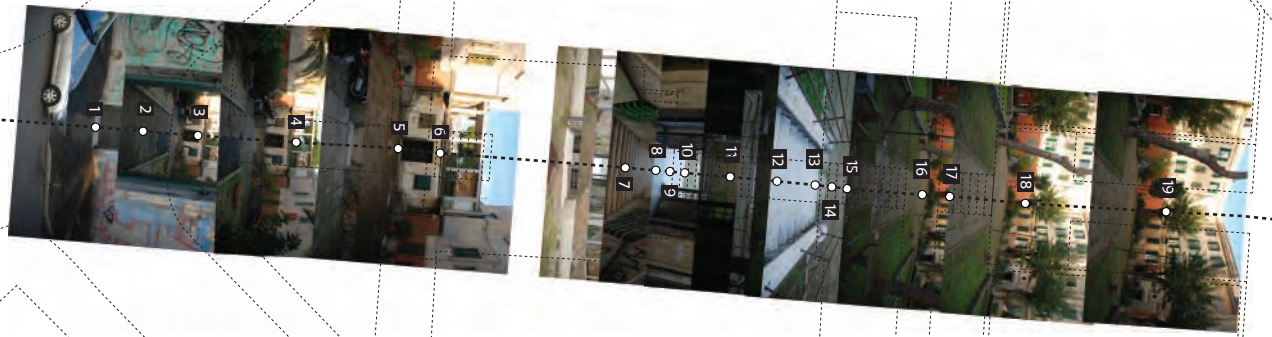


Image sequence

Courtyard C.**1.6**

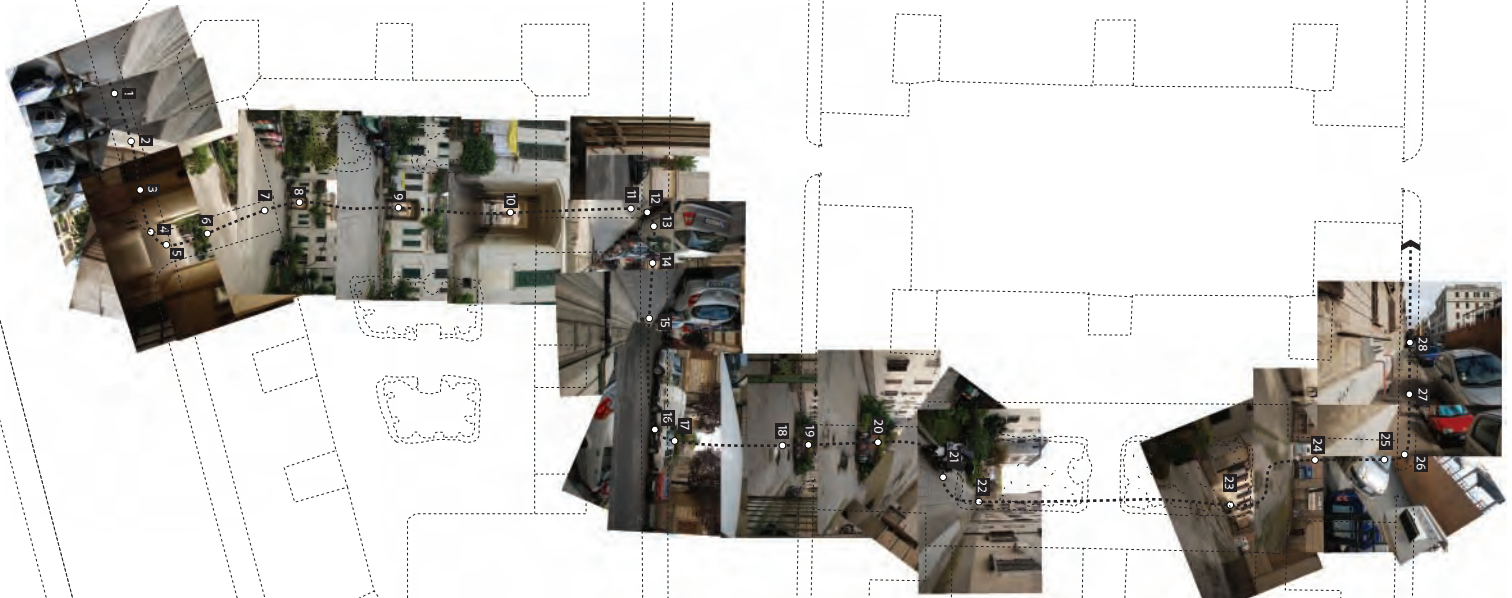


0 5 10 20

meters

Image sequence

Courtyard C.**2.8** C.**2.9**

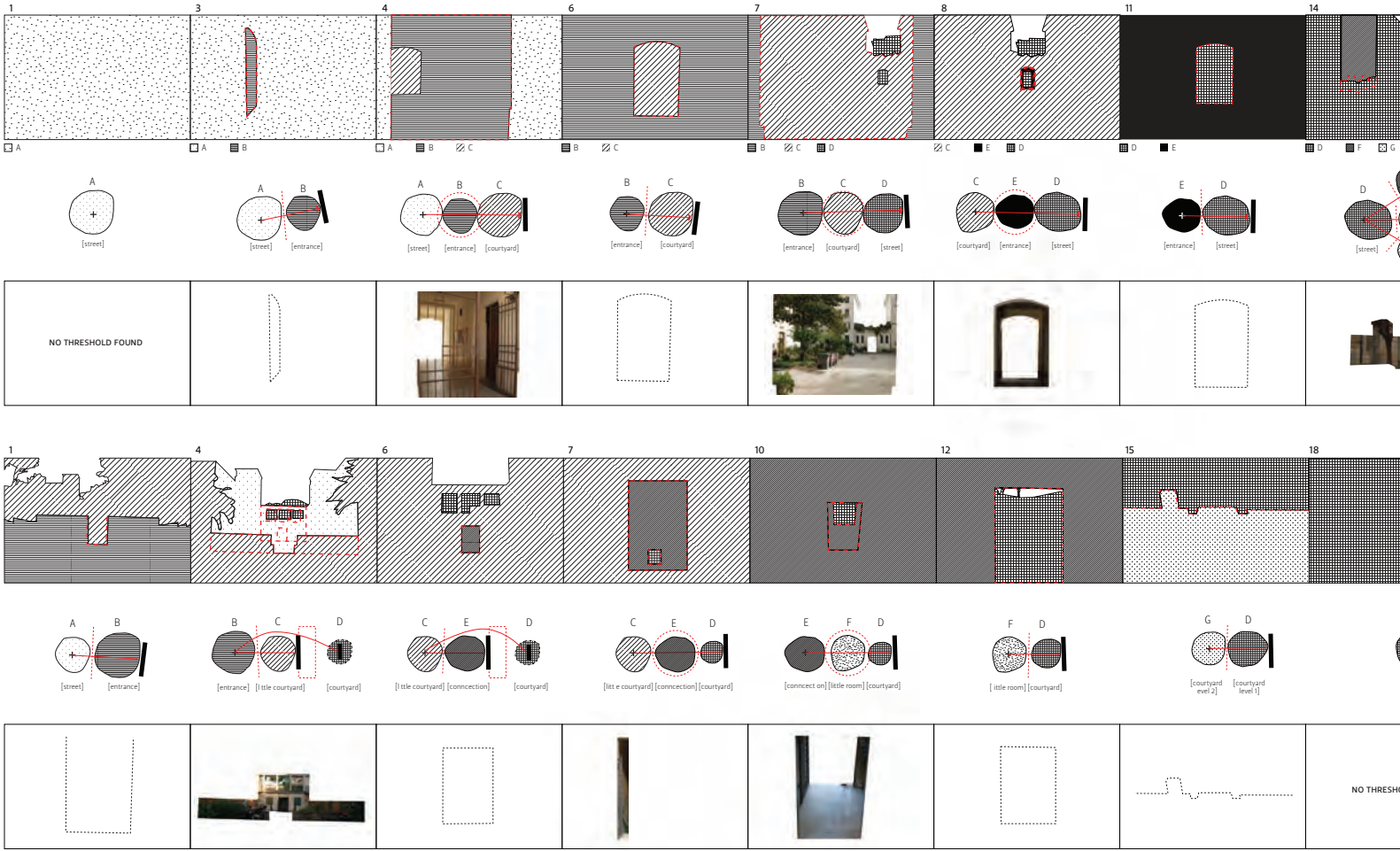


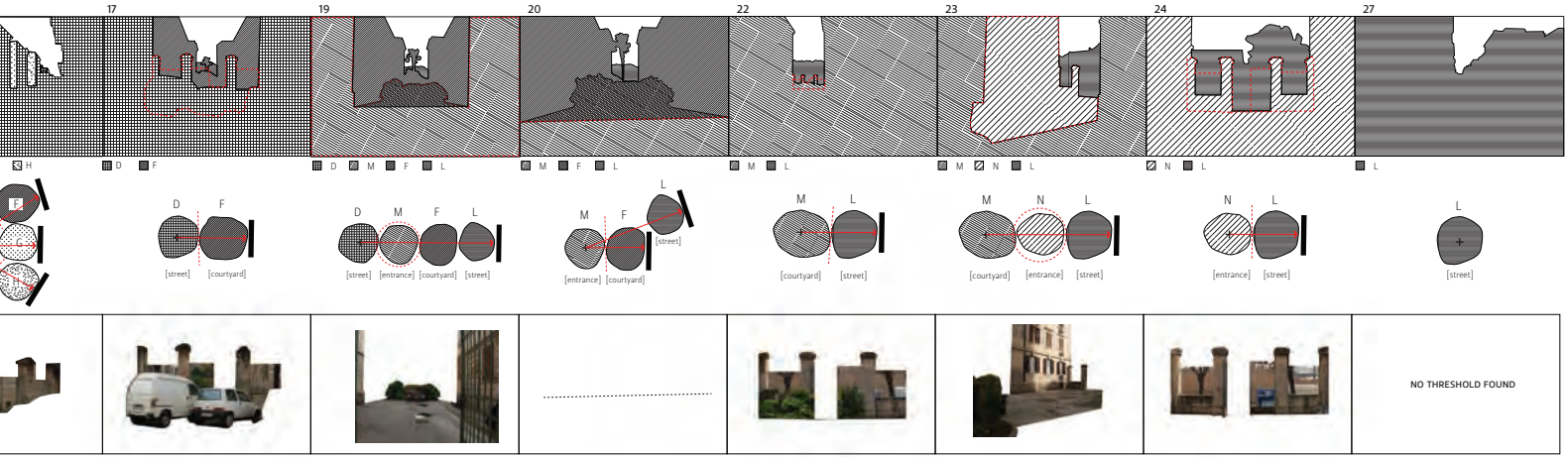
0 5 10 20 30

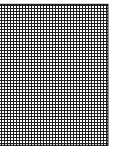
meters

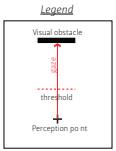
Image sequence analysis

Courtyard C.**2.8**-C.**2.9** (top); Courtyard C.**1.6** (bottom)









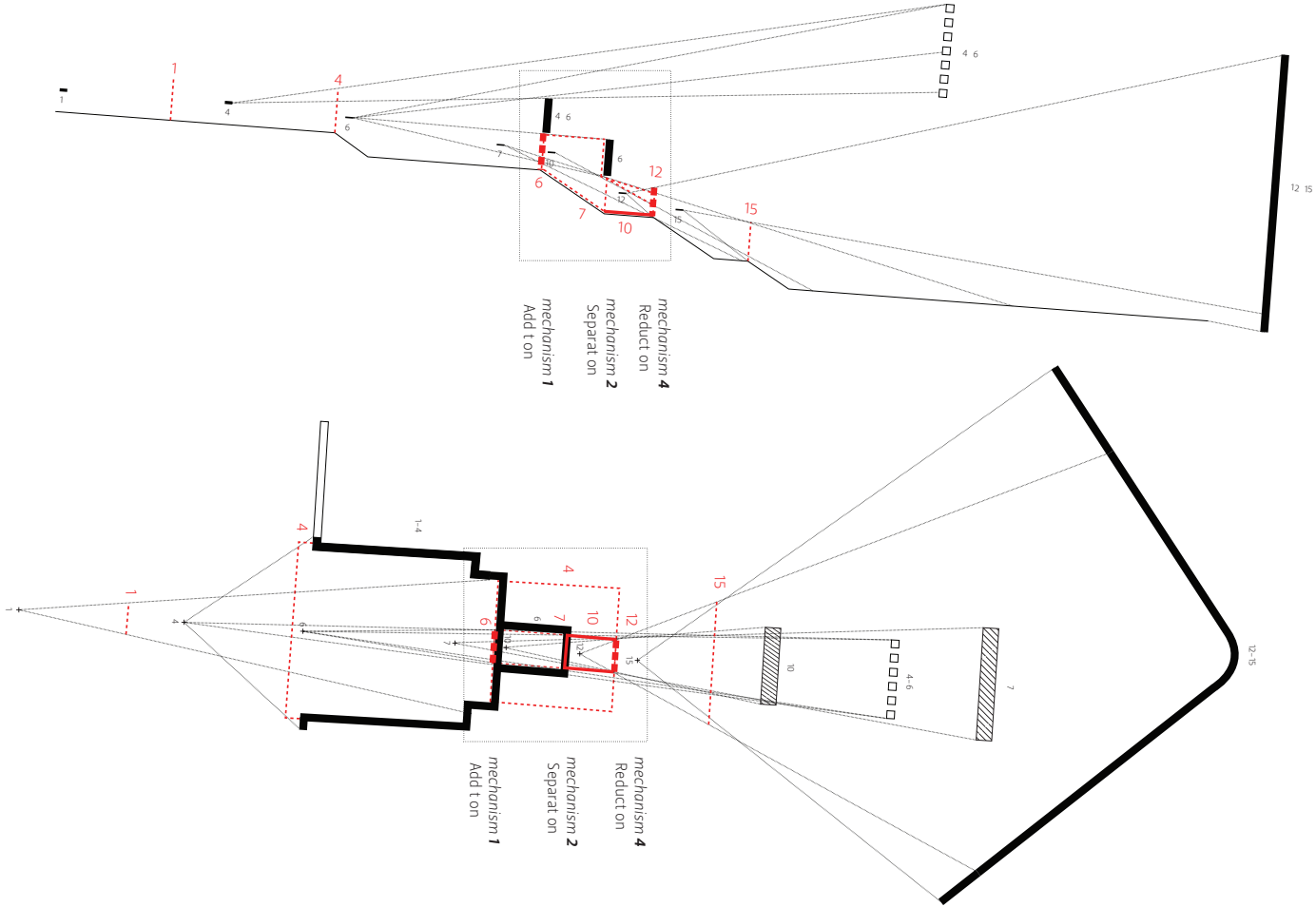
The first row shows the tracing on each image taken from the picture sequence of the different spaces perceived within the trajectory across the courtyard (as indicated by the different hatches) and the element of threshold found (in dashed red).

The second row highlights, through the use of diagrams, the relationship between the point of perception, the spaces seen, and the type of threshold perceived. This represent the first step for the production of a series of diagrammatic maps (next pages).

The third row investigates what, according to the perceptual condition, constitutes the threshold. What comes out from this is a variety of different objects and spaces which collection constitute what i called a threshold catalogue .

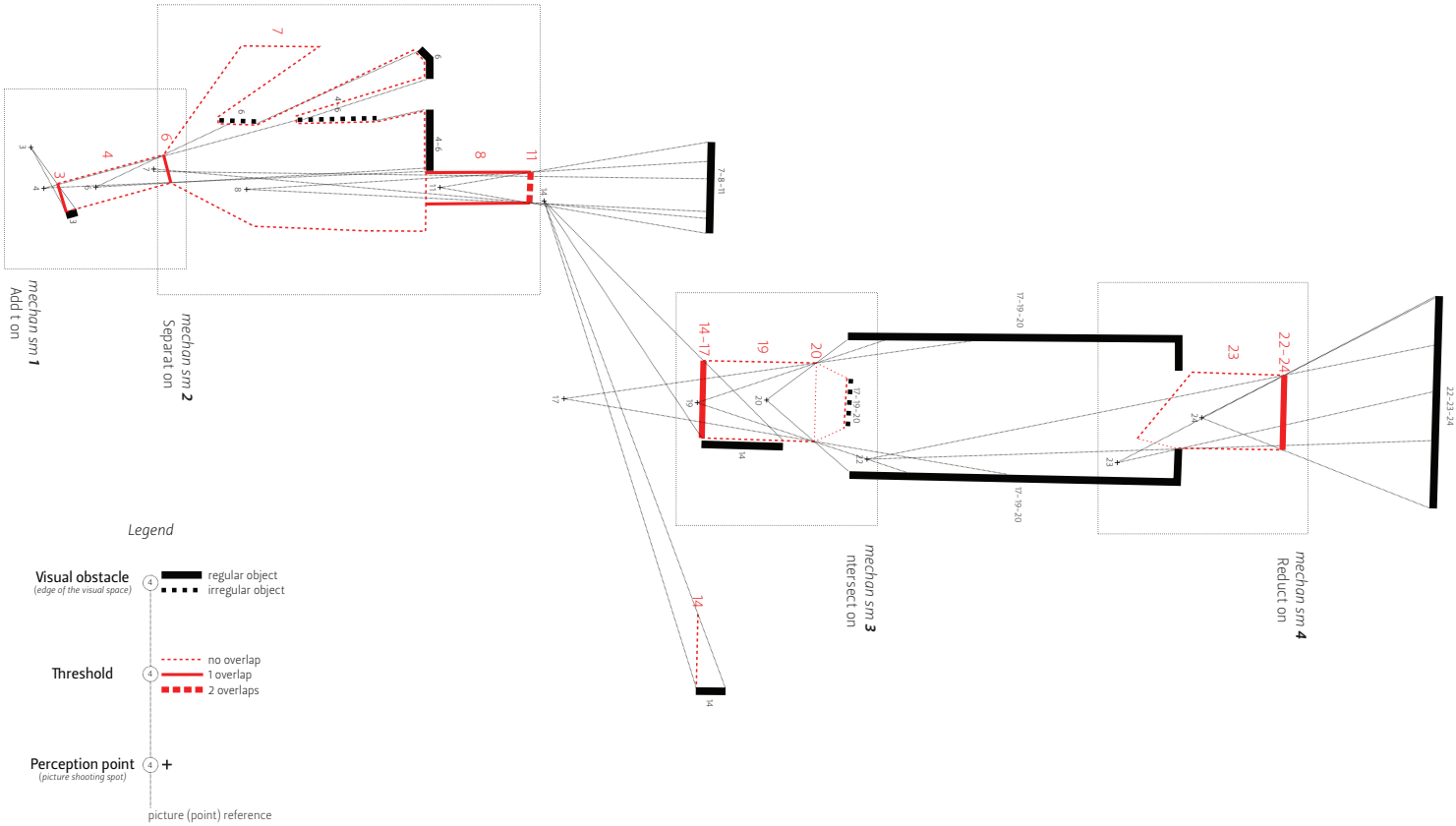
Threshold diagrammatic map

Courtyard C.**1.6**



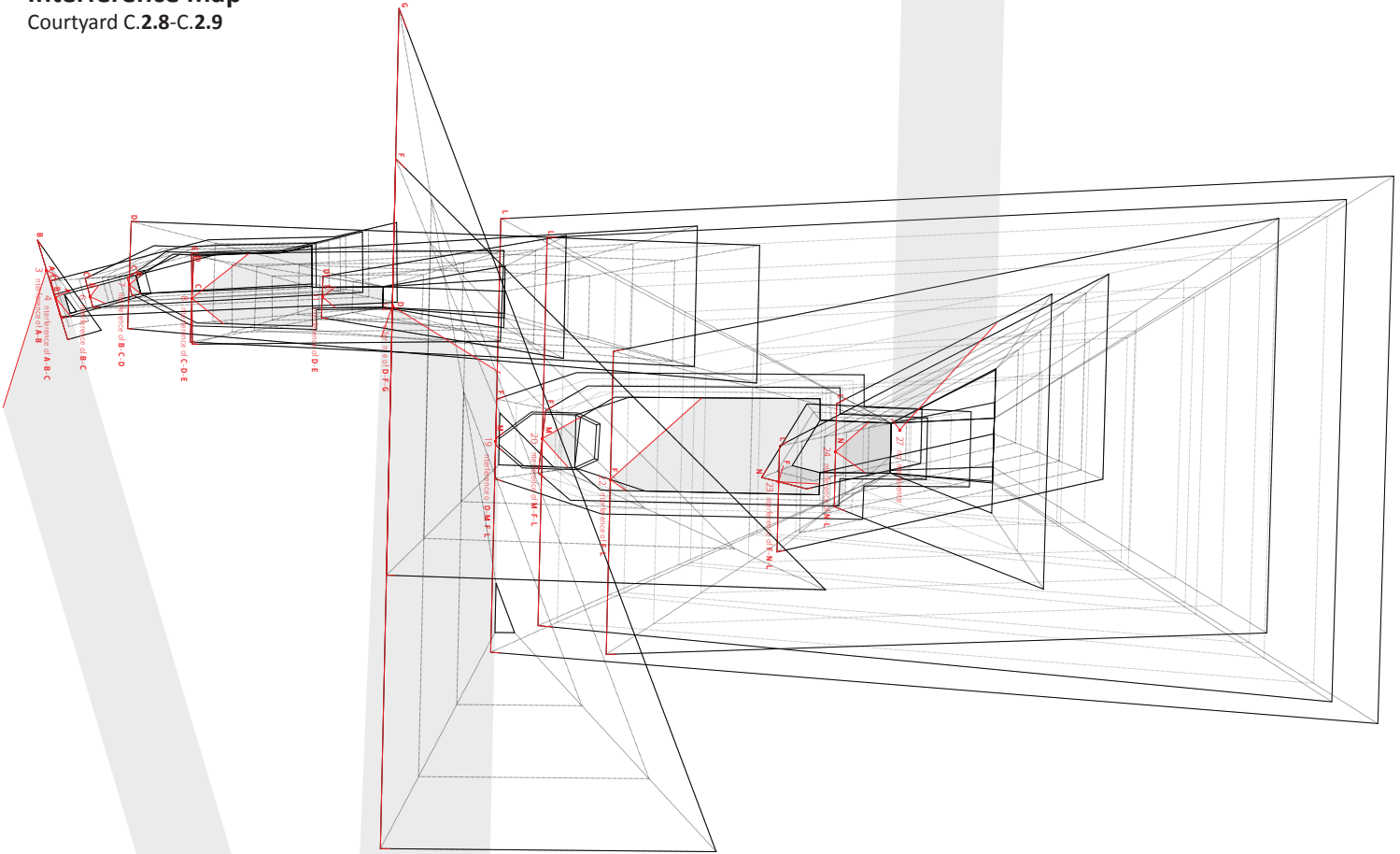
Threshold diagrammatic map

Courtyard C.**2.8**-C.**2.9**



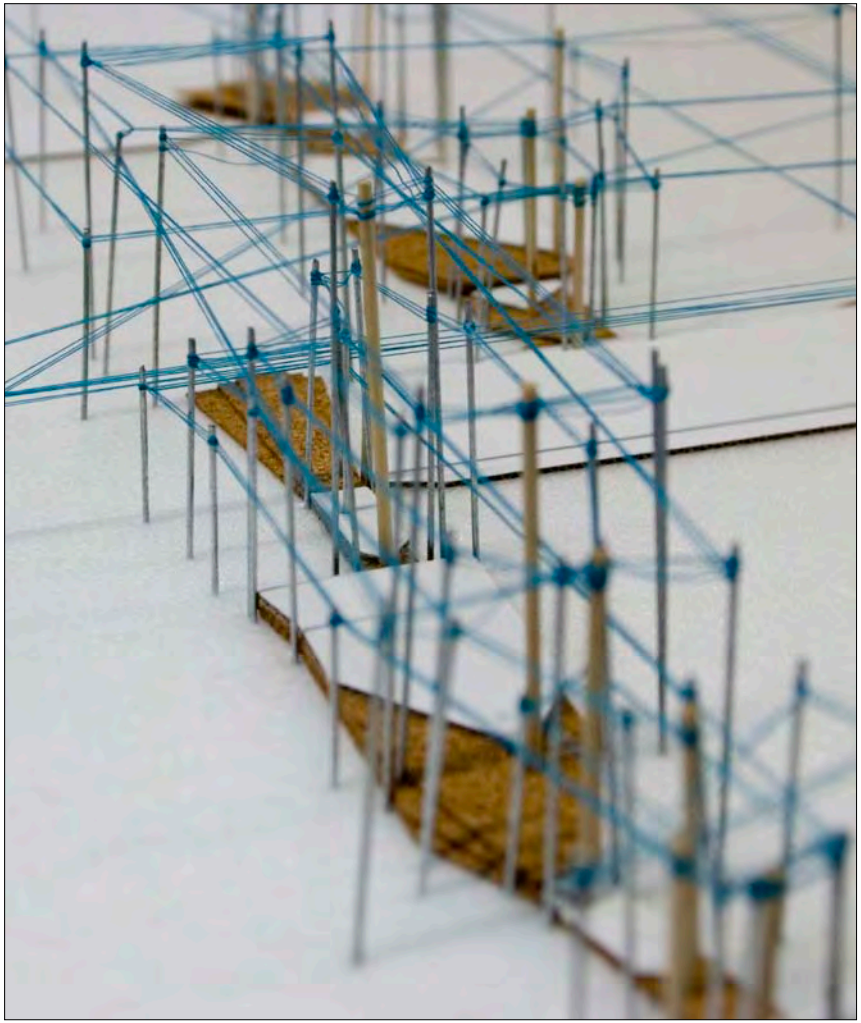
Interference map

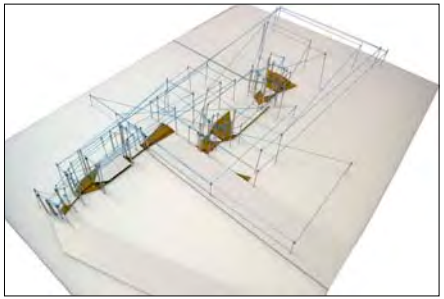
Courtyard C.**2.8**-C.**2.9**

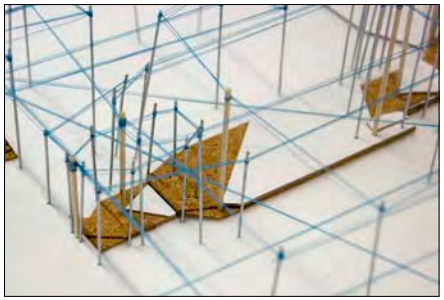


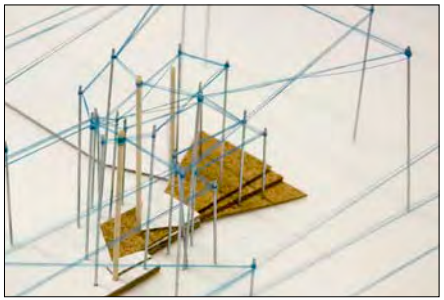
Spatial interpretations

Physical model #1



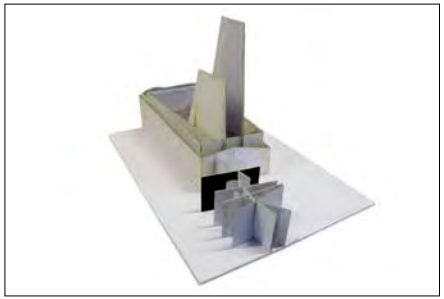


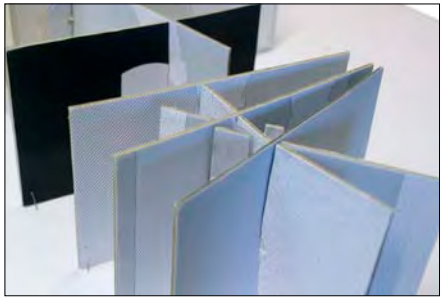




Spatial interpretations

Physical model #2





Roma - Trinità dei Monti


1.Luigi–2.Chang–3.Miguel–4.Karolina–
5.Filippo–6.Joe–7.Irina–8.Monica–9.Song
1
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