Fragments of spaces along the roads. Recycling deleted areas

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Abstract:

"[...]Landscape" means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors; [...]Acknowledging that the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas[...]". [1]

The starting point of this research is the innovative definition of landscape, given by the "European Landscape Convention", that draws the attention to the need of:
- examining the territory as a spatial and temporal continuity;
- considering the territory transformations as a value;
- giving equal dignity to ruined territory, refusing the idea that only beautiful landscape deserve to be protected.

Among the several and diverse European studies on infrastructure and landscape relation, the research focuses on marginal areas created by the infrastructure for mobility (road and highway) in the landscape. These areas are lacking a clearly defined function, they are not anymore part of the landscape, but they have not become part of the infrastructure. These areas are defined as *infrastructural refuses*.

The attention is shifted from the design of the road and from the aesthetic of mobility to the new spaces created by the infrastructure in the landscape.

Moreover, the research tries to analyze the infrastructural refuses only *ex-post*, when these spaces have already been created by the construction and use of a road, or theoretically created *in-fieri* by an infrastructure project that has overlooked these areas, forgetting to design them, or simply not taking into account their existence.

The first part of the research is devoted to define the identity of the infrastructural refuse through the critical analysis of the main theories of the protagonists of the international debate supported by the identification of literature related to the topic. The infrastructural refuse is then described through analytical tools (morphology and perception) that show the effects of infrastructural transformation focussing mainly on

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1"European Landscape Convention", Preamble and Art.1, Firenze, October 20th 2009

mobility infrastructure transformation in Trentino Alto-Adige. The case study analyzed is the trunk road 12 on the stretch called *Tangenziale di Trento*, and more specifically the transformation caused by the junctions close to urban areas. The *Tangenziale* is a great artery of traffic that often cuts through the surrounding areas leading to real marginal areas.

The research then proceeds to the definition of refuse as a value and tries to highlight its potential for transformation mainly by analyzing the strategy of recycling. Different types of re-use of infrastructural refuses are described: the artistic-temporary use, the daily spontaneous use by the population, and finally the illegal use.

The research analyzes the mobility infrastructural refuses: outlining possible transformations, design, re-inventions; illustrating the unexpressed features of the places; re-drawing with different connotation signs that have lost their original meaning; eventually reaching the "operatività dello scarto"[2]. Negative actions like abandon, refuse, waste can become occasions to re-shape and re-think the landscape.

The results of the research show the possibility to re-think the infrastructural refuse spaces as a reserves of soil, suggest alternatives to the mentality of the compensation and mitigation, calling for the evolution of the protocols of mobility infrastructure design.

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2 Sara Marini, "Spazi bianchi. Progettare lo scarto", in "L'architettura e le sue declinazioni" by F. Labelli and S. Marini, IperTestoEdizioni, Verona, 2008.

CONTENTS

Introduction

Reasons of the research

The research analyses the role of the architectural project and of the landscape architecture in the process of urban and extra-urban transformation and growth connected with the infrastructure for the road mobility.

This need comes from the necessity to determine alternative strategies of occupation of areas usually utilized as unique technical support to the road network.

These places, often refused and abandoned, offer possibilities of transformation through the research of innovative planning models which can avoid further land consumption.

Object and ambit

The object of the research are the marginal areas created by the infrastructure for mobility, which are marked by fragmentation, marginality, state of neglect, vagueness, non-utilization or misuse, "terrain vagues" that the research explains as a true operating category labeled as " **infrastructural refuse**. The word refuse shows its intrinsic potentiality, its possibility of being re-cycled and re-used within processes of increase and transformation of the city and the contemporary landscape.

The research draws attention especially to the infrastructural refuse ex-post originated by a road which has already been built and consolidated by the traffic use. This infrastructural refuse can also be created as an inherent product – in-fieri- in the building stage, by executive projects that haven't envisaged its existence and creation. From this point of view the research on the ex-post infrastructural refuse represents a weak reading key within the wide infrastructural theme and it shifts the emphasis from the architecture of the road and from the aesthetic of mobility (K. Lynch) to the definition of new spaces created by the infrastructures and most of all to the potentiality of the ex-post project, just to avoid the use of corrective of mitigation-camouflage devices often ratified by the laws in force.

The following aspects are considered important:

- associating the word **refuse** to the technical residual areas of the road infrastructures seen as a productive process;
- defining these area as reservations of land-space for urban and extra-urban change, adding the recycling action.
- Bounding the analysis to already built roads or to roads in course of execution- (temporal definition of the road product)
- examining as a case-study the trunk road 12, in the stretch labeled "tangenziale di Trento", chiefly the points-nodes of the layout of the road which are connected with the background by the use and which cover lands at the bottom at the valley and close to the peripheral areas considered of low or medium mountain (junctions, interchange nodes, viaducts and access ramps, which have been modified since 1998 by the Provincia Autonoma of Trento).

The research finds its collocation within the wide study about the role of the mobility infrastructures in the present processes of transformation and growth of the city and the landscape at a European

and international level (B.Lassus – S.Allen) .

Moreover the research takes into consideration the suggestions introduced by the European Convention of the Landscape about the need of considering the landscape as a spatial and temporal continuity and of giving equal dignity to " exceptional " and " degraded territories ", reversing the deep-rooted mentality that only beautiful landscapes deserve to be protected.(A. Roger)

The main references of the research are contemporary theories and experiences of architectural and landscape project representing meaningful examples of (re)-definition of (these) delaissés areas in which it is clear the recycling action carried on by the project itself and its relationship with the background. The research takes into consideration the national and international scientific production: a special attention is devoted to the French theoretical considerations and experimentation that since the '80s has developed criteria, laws and projects for the integration of infrastructures into landscape and in the urban backgrounds (es. 1% paysage et développement sur les autoroutes et les grands itinéraires interrégionaux).

The case study analyzed and tested on the field is the Trentino Alto Adige territory of the low and medium mountain, close to the urbanized areas which are relevant for their dimension.

Problems and purposes

The research tries to find an answer to the following questions :

- What are the ex-post infrastructural refuses and how are they seen?
- How do they arise and what do they look like?
- How are they spontaneously used?
- How can they represent one of the fundamental matrixes for the   architectural planning and development of the contemporary towns, contrasting the consumption of some more territory and be an occasion to plan new landscapes?

The purposes of the research tend to:

- Identifying shapes, measures, characteristics of the   ex-post infrastructural refuses   in a perspective of urban and landscape change; (F.Houben – L.M. Calabrese – A.Berger)
- Acknowledging the reasons that have produced them and subdividing them through the use (sometimes spontaneous and/or illegal) into different categories; (Y. Friedman)
- spotting possible planning strategies to highlight attitudes and tactics of the projects to solve complex situations (i.e. metodological M. Smets_ M. Zambelli).
- Suggesting possible lines of theoretical conceptual development for the crucial points of S.S. - 12 Tangenziale di Trento, case study dealt with in this paper , utilized as hypertext to identify criticalities and select illustrative projects.

It must be emphasized that instead of looking for absolute definitions that can be expressed in models, rules, laws which could risk to be turned into strict and standardized regulations, it's better

to propose suggestions of general validity, accepting the specific nature of each place with its own constitutive dimensional dynamics.(J.M.Palerm " Manifesto of the Canary Island for the European landscape project")

Methodology and instruments
Codifying the natural elements
Interpreting the essence of the shapes,
while researching the definition of a behavior:
metabolic, perceptive, functional;
nature, artificiality, landscape.
(atelier portugues PROAP_aequitectura paisagista)

The research starts from a general survey on the regional territory of Trentino Alto-Adige made for the Ministerial study 2007/2010 " The landscape project for the refused sites" . The photographic-perceptive relief made over the low and medium mountain, has pointed out some criticalities related to the theme of fringe degraded areas which are connected to infrastructural landscapes.

This observation has suggested references to the analysis of critical and planning production related to the increase and transformation of the contemporary town and to the role played by the infrastructural transformation in this framework.

Moving then from empirical and general premises, the specificity of the research has been inferred through a peculiar reading key: the **ex-post infrastructural refuse.**

The problem of the infrastructural refuse has been tackled, on purpose, in a non- linear way, trying to divide it in its analytical components, through the concepts of perception, view, " measure" and morphology; a functional characterization of use related to the case study of the Tangenziale di Trento, has been proposed.

On the basis of the analysis of the effects of the infrastructural transformation, listed in a sequence of actions – interruption, cut, exclusion and superimposition, wasting space and land- some projects have been selected without looking for the exhaustiveness of the theme or of the state of the art, so they proved to be instrumental to the discovery of attitudes, planning trends for the recycling.

The research method which has been put in practice is not always linear, from general to detail or viceversa, but it combines different variables that are functional to the verified problems, just like the object investigated in this thesis, which has a different characterization according to the background it crosses.

The research makes use of typical **instruments** of the architecture .

The study of the scientific-theoretical production of the theme related to infrastructures for mobility, to the concept of refuse and of landscape, has made it possible to find out the different aspects of the problems caused by the roads of light and heavy traffic and to select the specific aspects suggested

by the different disciplines and researches.

The aerial shoot has permitted to localize and record generally invisible areas to create geographical maps of land scattered along the lay out of the mountain region which was object of this study.

The design has produced the graphic-explanatory disassemblings which have deprived the shooted areas from their materiality; these disassemblings are finalized to the schematization of representation models suitable for the theme of refusal.

Diagrams and simple disassemblings have been worked out to support the theoretical apparatus of the research, especially in the sections devoted to the analysis of installations, performance, projects and architecture and the aim was to communicate in an immediate, visual way the key concepts of the research.

The use of the interview to two representatives of the French academic world, offers two different points of view on the theme of the landscape project connected to the infrastructures and on the complexity of the concept of refuse – delaissés seen from two different positions: the scholar's, Pierre Donadieu, and the landscape architect's, Gilles Vexlard.

Structure and Chapters

The research is divided into five main sections following the questions listed above.

The **first chapter** outlines the cultural roots on which the subject of research is based. Among the broad reflection that sees the landscape as a system of relations, it has been briefly discussed the problem of infrastructure, seen in an interdisciplinary perspective that goes beyond its technical and structural features. In particular, it has been explored the theme of the infrastructure refuse. In addition to the theoretical variations aimed to its definition, its design potential has been described through the conceptual categories of refuse and recycle.

The **second chapter** starts from the main studies on the perception *from* the road, the dynamic perception by Lynch. It has been made a reading of the landscape surrounding the traffic routes to identify its critical and damaged points, in which the combination of morphological complexity of the places and the technical structure of the road generates waste. The study of famous photographers and researchers has suggested the need to change the point of view on things, observe them with *sideways viewpoint* (S.Boeri), capable of revealing what is normally invisible. The chapter concludes with a graphic experimental interpretation of the infrastructural refused spaces, supported theoretically by the concept of *space in negative* (L.Moretti), experienced in the geographical context of the Trentino-Alto Adige during PRIN 2007-2010.

The **third chapter** deals with the relationship between population, use and infrastructural refuse. The spontaneous occupations of these spaces have been analyzed. The spaces are pragmatically *conquered* by people who usually live in close contact with them and project the need for extension of their private space in these areas, or by those who exhibit the need of free socialization by occupying

them, sometimes also illegally. The chapter bases its conceptual matrix on established authors of clear scientific relevance, identifies conceptual categories through which to analyze and deconstruct urban practices of ordinary use, and finally tries to define operational attitudes to be re-used for design purposes.

The **fourth chapter** classifies, through the reading key of horizontal recycling, recently built projects without distinguishing between architecture and landscape, some accompanied by a substantial bibliography; other, not less significant, are less known but more fresh and lively. This choice wants to highlights the evolutionary and expressive process of architectural design that is rooted in a solid system of knowledge and experience, but elaborates in an original way, putting into practice new formal languages. Of each project the geographical context and the original conditions have been rebuilt; the design concept has been interpreted through the reading key to the research, and the elements that constitute the formal intervention have finally been described.

The conclusions, in **chapter five**, outline the tactics and attitudes identified to redeem the spaces of the infrastructures that have been abandoned, discarded, refused, aiming to open some perspectives for the recycling of new public land.

Chapter 1

Ex-post infrastructural refuse: an interpretation

Il faut considérer un dictionnaire universel des Sciences & des Arts, comme une campagne immense couverte de montagnes, de plaines, de rochers, d'eaux, de forêts, d'animaux, & de tous les objets qui font la variété d'un grand paysage. La lumiere du ciel les éclaire tous; mais ils en sont tous frappés diversement. Les uns s'avancent par leur nature & leur exposition, jusque sur le devant de la scene; d'autres sont distribués sur une infinité de plans intermédiaires; il y en a qui se perdent dans le lointain; tous se font valoir réciproquement.

Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers, art. *Encyclopédie* (Vol. 5, pp. 635-649)

Herman Hertzberger
Colazione sulla spiaggia,
Florida, 1941

1.1 Territorial architecture of infrastructures

Today, talking about landscapes means stressing their dynamism and complexity considering them as a *"system of relations"* which can connect the geography of places and the shape of the built-up landscape.

Keeping in mind what the *European Landscape Convention* pointed out by clearly grasping the principles of sustainable development – intended as a development model meeting existing needs without compromising the ability of future generations to meet theirs – it is evident that there is the need for perceiving a *new feeling for landscape* intended as a natural and cultural heritage, mirroring Europe's identity and diversity, but also as an economic resource able to create new jobs in a context characterised by the boom of sustainable tourism.[1]

Natural and cultural heritage, economic resource: these keywords direct the conceptual and project redefinition of contemporary landscapes. In other words, landscape finds a new centrality going beyond the merely aesthetic conception, in order to assume a more complex identity and a genetic potentiality which is not always defined and is almost an evolutionary process allowing a never-ending dialogue with nature – "a moulded shape evolving during its life".

Therefore, it is no longer possible to disassemble landscapes according to clearly defined formal and structural terms, linked to specific professional figures, nor to conceive them as a harmonious whole of elements.

Relation, movement, metamorphosis, connection are the terms that best try to transfer, on a morphological level, the syntax of the signs composing such a transformative process and revealing its dynamism. Such connotation comes, however, from the very plurality of meanings that can be given to the term *landscape*, according to the point of view assumed: these meanings intertwine with one another creating a possible perceptive and planning synthesis but can similarly be identified in their functional distinctiveness, as variables of the contexts taken into consideration.

In this regard, Pierre Donadieu states: "Landscape is often interpreted by a pluralist project establishing a connection among its components", since it is, at the same time, "imagination and reality, subjective and objective, natural and cultural, immaterial and material, commercial

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1 These considerations have been assumed from the Preamble to the European Landscape Convention, Florence, 2000.

and non-commercial, individual and common, private and public."[2] In other words, it can be confused neither solely with nature nor solely with buildings.

Franco Zagari sets out similar considerations and proposes a possible definition of landscape: "[...] from a harmonious whole of natural and artificial, well organised elements to a new historic and aesthetic value, also open to the relations between apparently conflicting features."[3]

According to these principles, landscape is taken away from the traditional aesthetics of beauty and the picturesque and brings different but strictly linked disciplines together: *geography*, which describes landscape topography from a morphological point of view, *history*, which puts landscape in the culture of places and interprets its changing signs, *architecture* and *engineering*, which define landscape according to compositional and formal elements and meet its technical and functional needs, and *economy*, which grasps the development needs of local populations. On the one hand, these disciplines focus on different and varied territories, on the other hand, they highlight the weave of relations and signs they express.

This assertion is confirmed by the words of João Nunes, a landscape architect who, by means of metaphorical language, defines the idea of landscape: "landscape is a text, an ensemble of signs relating the meaning of the actions that created it." Therefore, those who deal with landscape "read, decipher, interpret and intervene, enter processes with new elements and combine them according to new formulas, trigger and start new processes: intervening on the way a place works, they transform its image, the ensemble of signs composing it. They write a new text."[4]

It follows that landscape does not tend to be simply conservative, that it is no longer considered exceptional and unique, and that there is the renewed will to *"safeguard", "manage" and "plan"*[5] it according to project perspectives that aim at grasping its space-time dynamism, stressing the history of territories as well as meeting people's expectations, in order to be actually considered a product of men's actions and interventions. Also enhancing areas usually considered worthless, making them the

2 Pierre Donadieu, Michel Pèrigord, "Clès pour le paysage", Gèophrys, Paris, 2005, p. 143
3 Franco Zagari, "Questo è paesaggio,48 definizioni", Mancosu ed., Rome 2006, p. 73
4 João Ferreira Nunes, "Infrastruttura e paesaggio/Infrastruttura è paesaggio", in Daniela Colafranceschi, "Un Mediterraneo. Progetti per paesaggi critici", Alinea Editore, Florence, 2007, pp. 134 -139
5 The above mentioned definitions, taken from the European Landscape Convention, are resumed and studied in depth by Franco Zagari, *ibidem*, p. 58

protagonists according to formal terms, as well."[6]

Among these, mobility infrastructures are particularly important: they are traditionally considered plain instruments necessary to connect different spots on the territory and self-referring systems aimed at obtaining an accurate typological and formal identification. Transport infrastructures, however, cannot be restricted to the "single, connecting function": instead, they should be considered as *"issues"*, as multifunctional projects inevitably involving the features of the territory hosting them.

Andreas Kipar confirms that: "[...] It is difficult to think of an infrastructure that does not belong to the landscape as any other things. Not only does it belong to the landscape, it also transforms it, often irreversibly, because it creates depression and development areas. As such, it is located right in the middle of this living system."[7] Infrastructural works can no longer be defined as merely technical and topographic interventions, rather as territorial works, intended as an attempt to overcome the traditional dichotomy between nature and artificiality.

Infrastructures become landscapes and landscapes become infrastructures, thus creating a conceptual mutuality that inevitably turns into project mutuality.

As Franco Purini states: "the very name identifies them as interstitial, pervasive realities, technical entities whose presence in space goes beyond their role. At the same time they are works of engineering and architecture, while taking part in the dimension of landscape, taking the form of often quite substantial pieces or an artificial geography. A designed geography that frequently resembles *Land art*, establishing a complex relationship with the natural setting that goes well beyond the technical aspects of the problems they are supposed to resolve."[8]

As such, it is not only interesting in itself, as an ontologically given presence, or because of the technical solutions it offers in its structural and functional phenomenology, but also and mainly because of the relation networks it creates in its local and global contexts. It can even also be considered a chance for their territorial transformation, sometimes even redefining entire skylines. Almost like a history crossing spaces and re-creating them with new episodes and meanings.

Franco Purini effectively deals with the *narrative dimension* of

6 Andreas Kipar, "Classificazione" in "Nuove infrastrutture per nuovi paesaggi", Skira, Milan, 2003, pp. 49-62
7 Andreas Kipar, *ibidem*.
8 Franco Purini, "Questioni di infrastrutture", in Casabella no. 739-740, Electa, Milan, December 2005-January 2006, pp. 36-37

infrastructures, especially motorways, considering them in their interpretative ambivalence: as a "single structure" and as "development", introducing bridges, overpasses, entry and exit junctions, parking areas, service stations and motorway restaurants. In point of fact, he writes: "This territorial architecture is obviously not legible as a whole, but in individual frames and chapters like a film or a novel. From this point of view the nature of an infrastructure is both *unitary and serial*, in the modular repetition of certain standardized components." [9]

This theoretical consideration has obviously spurred new research paths aimed at solving contradictions and deficiencies that can still be noticed as well as building new project forms with regard to infrastructures.

First, a *knowledge renovation*, in order to overcome segmented and specialist skills, on both a compositional and prescriptive level, which are clearly reported by Marcel Smets in some of his thoughts: "In planning practice", he states, "the division among the traditional disciplines and the customary forms of commission related to it, run against this perception of infrastructures as an all-inclusive landscape. The well-organized body of engineers still considers the domain as its private hunting ground. Architects or landscape designers are normally involved to smarten up the elegance of the constructions to decorate the leftovers once the implementation has been fixed." [10]

The fragmented project management is often linked to the extremely fragmented political and administrative management which intervenes with further financial and decision-making sectionalisation. Triggering new methodologies allowing the comprehension of reality's multiplicity as well as an interdisciplinary interaction outside of any set schemes and "ready-made solutions", is the possible solution for "studying the provision of infrastructures as an overall urbanization" before its comprehensive planning is carried out. The ability to set up such a network of intertwined professional and cultural skills, however, can rarely be concretized during planning practice.

Usually, roads are considered in their functional and technological dimensions where territory is just a support where they can be built; in other cases, even though they are tolerated thanks to their usefulness, they are camouflaged, hidden, almost concealed in order not to be

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9 Franco Purini, *ibidem*.
10 Marcel Smets, "Il nuovo paesaggio delle infrastrutture in Europa"-"The contemporary landscape of Europe's Infrastructures", Lotus International "Città Globali – Planning, disturbi, architettura- Infrastrutture", n°.110, Electa, Milan, 2001, p. 116

an eyesore and damage the aesthetic and perceptive dimensions of landscapes; moreover, it can become a sculpture[11], attracting all eyes and excluding the relations among the various elements forming the context. These interpretations point out again the discontinuity among various notions, all of which aim to exclusively enhance the protection of valued landscapes or to favour functional needs.

According to the first one, merely conservative principles are put into effect; the second one aims to counterfeit the landscape itself; and the third one is just self-referential. In order to overcome this deep-rooted mindset, perhaps it would be necessary to approach the matter with a new planning perspective,[12] to look for a "composition between infrastructures and territory"[13] in the *very idea of landscape* because, according to Pierluigi Nicolin, it "obliges us to surmount the mentality of separate sciences, of specialist logic by which each individual transformation tends to make a single fragment of reality rational",[14] as well as in the *idea of remapping* aroused by infrastructures which "can contribute to enhancing and revitalizing a place"[15], making it *fluid, interactive* and *possible*.

This is why infrastructures could provide an actual creative chance to build contemporary spaces, not looking for "general laws aimed at completely solving time and space issues, but for significant relations

11 Please refer to the works carried out for Reggio Emilia High-Speed Railway Station and planned by Santiago Calatrava: just like sculptures, they overlap the A1 motorway layout becoming the city's landmark.

Anna Detheridge, "Arte e rigenerazione urbana in quattro città italiane", in C. Birrozzi, M.Pugliese (edited by), "L'arte pubblica nello spazio urbano. Committenti, artisti, fruitori", Mondadori Editore, Milan, 2007, p. 53: "the meaning of this operation lies in the iconic language, in the communication and emphatic spectacularity, rather than in technical infrastructural data. With this regard, Santiago Calatrava breaks a stereotype, violates all infrastructure camouflaging landscape standards with a coup de main and is well aware of making a highly symbolic gesture."

12 Marcel Smets, Il nuovo paesaggio delle infrastrutture in Europa, in Lotus International "Città Globali – Planning, disturbi, architettura- Infrastrutture" n° 110, Electa, Milan,2001, p. 122"[…]All this growing sophistication can no longer be handled with stereotype solutions. It calls specific and innovative models; not only with regard to the decision-making structure or to the object of the intervention, but to its repercussions on a wider scale […]"

13 Pierluigi Nicolin, "Paesaggi e infrastrutture", in Lotus International n°139 "Landscape Infrastructures", Editoriale Lotus, Milan, 2009, p. 20 "[…] In seeking a reconciliation between infrastructure and territory it is precisely the notion of landscape that should be culturally reworked in the new postmodern scenario, if we want to overcome the attitudes of pure meditation that limit themselves to pursuing a reductive objective like that of "insertion". […]"

14 Pierluigi Nicolin, *ibidem*

15 Pierluigi Nicolin, *ibidem*

being the terms used to work according to systems and opportunities",[16] and creating a "close cooperating among architecture, landscape art, territory engineering, geographic and urban sciences, in order to reform the formal features of sprawling cities and urbanized country, enhance the fundamental signs of orography and hydrography, to redeem wide abandoned, degraded or no longer used areas, to recover a formal relation with large infrastructures, considering projects with a disillusioned perspective in favour of a regenerative building intervention."[17]
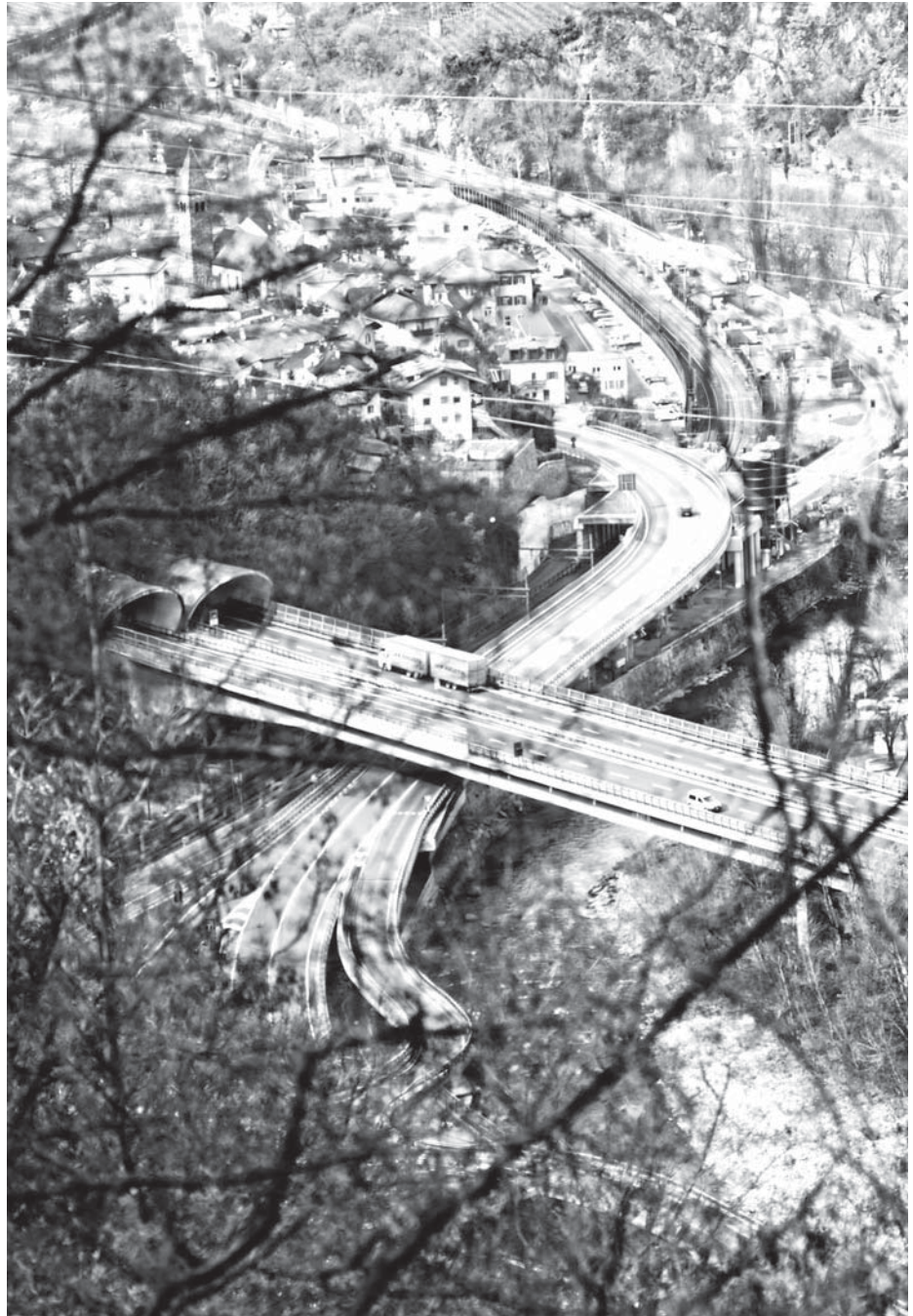
Cornedo all'Isarco
Michele Lamanna, photographer.
PRIN 2007-2010
Bolzano, 2010

16 Franco Zagari,"Questo è paesaggio, 48 definizioni", Mancosu ed.Rome,2006, p. 72
17 Renato Bocchi, "Progettare il paesaggio", in F. Zagari, "Questo è il paesaggio, 48 definizioni", Mancosu ed., Rome, 2006, p. 158

1.2 Landscape fragments

If we start from the study of these themes, strictly connected to road design, it is interesting to focus on a subject not normally seen by those who benefit from the places or who drive an infrastructure at different speeds: *the leftover areas.*

In particular, it is important to mention the surfaces that are discarded from mobility itself: small or big fragments found around the road tracks, generated from infrastructures and from political-administrative choices linked to their project, residential areas that no longer belong no longer to the infrastructural system nor to agricultural, industrial and human context surrounding the road itself.

Also in this case, the enquiry draws on the European Convention on Landscape that urges, as already stated, a new critical thought on the concept of landscape. A new approach arises, both at a theoretical and pragmatic level: the landscape is defined and represented as a multiple and complex reality, including also degraded areas, and thus tearing down the deep-rooted mentality of the conservation of the *beautiful landscape* alone.

Stefano Boeri affirms that "in order to understand and announce globalisation we have to search in the spaces of the daily life, to *discover* places that are overloaded with world and re-tell them, [...] local spaces that appear as extraordinary cases and that enable us to decode the energies flowing in the world, that interweave, that snuggle, that curl up around a building, a public space, a city." [18]

A deep analysis of these degraded areas, of these spaces define by Sara Marini as "left out, omitted, forgotten, pending"[19] requires, first of all, a *problematization* of the areas themselves. This *problematization* requires in return important questions both on a formal and normative level. There is one question regarding these landlocked and discarded spaces put by instruments of both designs and governments of the areas crossed by movement infrastructures: how is it possible to identify these areas? How is it possible to avoid their creation?

It is not easy to answer: it is difficult to define the identity of a place that seems to have no more identity, and it is even useless to give a meaning to that which is apparently marginal and refused. Nevertheless,

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18 Stefano Boeri, "L'Anticittà", ed Laterza, Bari, 2011
19 Sara Marini, "Spazi bianchi, progettare li scarto", in "L'architettura e le sue declinazioni", by S. Marini, F. Labelli, ed Ipertesto, Verona, 2008. p.189

it is important to establish a critical approach regarding these areas, not just directed to establish a precise and schematic definition, but, most of all, to re-write the peculiarity of signs and meanings that represent their capability to transform themselves.

In this sense, the theoretical references that refer to their possible creative and evolutionary methods, focusing on lexical and semantic differences, are very important. The starting point is the reference literature: it "retains the ability to delay, to connect *other* issues".[20]

Some of these texts express a conceptual multiplicity suggesting extraordinary analogies with the considered spaces: they, in fact, focus on their spatial reality, in most of the cases a negative one, but try at the same time their reinstatement, in order to recover the void in the landscape and territorial fabric. A void that, in its uncertainty, could become a new meaning container.

It is then interesting to go through these interpretations of the term *refuse*, although in a concise way, searching for a critical alphabet able to be a guide in their visual decoding and in a hypothetical planning re-invention.

First of all, Kevin Lynch deals with the theme of the waste through a vast reflection in sociological, environmental, urban and philosophical areas. In fact, he describes the waste, trying to define it as a "depleted material, without any left worth, of a production act or of a consumption, but it can also be defined as any used thing"[21].

This expression is, obviously general, but appears decisively problematized and fragmented in the single specification of the concept, different depending on the cultural context where they are found.

If we refer to the spatial waste, the word assumes different identities: it is the result of consumption, generated by neglect, it is a part of neglected and emarginated ground, compared to daily places. It is a sort of "sub-product, apparently useless, of production and consumption"[22], that creates confusion and chaos in the rational order that defines the contemporary landscape. Nevertheless, it is this disorder that produces ambiguity and challenges these conceptual categories, opening the road to an act of transformation: "the waste is full of new forms and carries the soft signs of its origin and of its former use. Its ambiguities are

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20 Sara Marini, "Nuove terre, Architetture e paesaggi dello scarto." Ed Quodlibet, Macerata, 2010
21 Kevin Lynch, "Deperire.Rifiuti e spreco nella vita di uomini e città", CUEN, Napoli. 1992 (Wasting away)
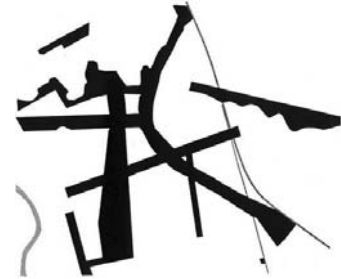22 Kevin Lynch, ibidem, p.207

poetical"[23]. It is a place favourable to change.

Alan Berger describes in a very similar way his *drosscape*: he defines it as a landscape of forgetfulness, of waste, caused by a non-regulated growth and by a non-controlled expansion of the modern and contemporary city: it is often originated from a missed urban planning, it has been forgotten by the negligence of institutions, but it is potentially ready to welcome new meanings: "The term *drosscape* implies that dross, or waste, is scraped, or resurfaced, and reprogrammed by human intentions. Moreover the ideas of dross and *scape* have individual attributes".[24]

A parallel interpretation of waste could be the *Junkspace* identified by R. Koolhaas as a connective element of the contemporary city, which holds together the different pieces of a productive city and becomes the boundary towards the outside: "the *junkspace* exploits every invention able to produce growth, deploys the uniformity infrastructure: [...]. It is always an inside, even if so wide that it is impossible to perceive its limits"[25]. It is "the spatial DNA of the Generic City"[26].

In a more specifically landscape sense it is possible to speak also of the *délaissée* space described by Gilles Clément as a place, waste of the consumer society, considered as not functional to the economical growth and to the exchange of goods and people, but at the same time worthy of a reinstatement, as a ground reserve. In the *Manifesto per il Terzo Paesaggio* he defines it in these words: "the waste derives from the abandonment of a previously used ground. Its origins are diverse: agricultural, industrial, urban, touristic. Residual (*délaissé*) and uncultivated (*friche*) are synonyms. The reserve is a non exploited place. [...] It is the result of a removal from an atrophied ground. [...] The unsettled nature of the Third Landscape corresponds to an evolution left to the totality of biological beings that make up the country, in the absence of any human decision"[27].

If we see all these concepts in a way that is more precisely connected to landscape, they all indicate places neglected by men who elude the organisation of the country: borders of fields, hedges, fringes, side of streets. They are all united by the absence of any human activity; they are

Ville Nouvelles - Melun Senart
Rem Koolhaas, 1987
France.

Gilles Clément

23 Kevin Lynch, *ibidem*, p.211
24 Alan Berger, "Drosscape. Wasting land in Urban America", Princeton Architectural Press, New York, 2006 p. 236
25 Rem Koolhaas, "Junkspace, per un ripensamento dello spazio urbano", Quodlibet, Macerata, 2006 p. 64
26 Rem Koolhaas, *ibidem*.
27 Gilles Clément, "Manifesto del Terzo Paesaggio", Quodlibet, Macerata, 2005

Terrain Vague
Marcel Carné, 1960
Paris

all shelter places for diversity, because everywhere, in the other places, diversity is chased away.

It is possible to conclude with the *terrain vague*: Solà-Morales[28] points out the absence of any use, of any activity in these extensions of place, but associates to them the meaning of liberty, of expectation. The etymological factorisation of the two terms provides in this sense important thoughts: the word *terrain* identifies the idea of country, both in its limited meaning and in its development potentiality, while the word *vague* presents itself as very polysemantic. The German origin *woge*, referring to the waves of the sea, suggests the concept of unstable, undetermined, imprecise. Also the Latin etymology *vacuus* is important, once these two concepts are connected: it gives the sense of availability and of expectation innate in the condition of void - void, being a still unoccupied place, is the place of possibility. They are places where the city is no more, but where the city is not yet.

Foucalt would describe it as something *out of the circuit*, something of *no fixed abode, still in its corner*, un-precise, un-determined, un-certain, but, due to these reasons, it is able to produce liberty and movement. It is a *heterotopy* that is able to make the contradictions innate in the pretended rational organisation of contemporary space to emerge, with its power to "juxtapose in a single real place, different spaces and different places that are incompatible within them"[29].

This concept has been expressed also by Zygmunt Bauman, who, with equal effectiveness, emphasizes that the order perspective is closely connected with that of chaos, complementary to it: "Chaos is the alter ego of order, it is an order with a negative sign: a condition in which something is not the proper place and doesn't carry out its functions. That something without a place and a function crosses the barricade that separates order from chaos"[30]. Just for that, "foreseen the infinite possibilities and the limitlessness of inclusion"[31]. Paradoxically, then, that spatial heterogeneity has a meaning potential that may or must be recognized, analyzed, redesigned.

As in production processes there's the need to address the problem of

28 Ignasi de Solà-Morales Rubió, "Terrain Vague" in "Anyplace", Cynthia C. Davidson, Cambrige: MIT Press, 1995, pp.118-123
29 Michel Foucault, "Spazi altri, I luoghi delle eterotopie" ,S.Vaccaro (a cura di) Mimesis, Milano, 2001
30 Zygmunt. Bauman, "Vite di scarto", Laterza ed. Bari 2007, p. 39
31 Zygmunt Bauman, *ibidem*, p. 40

waste management, similarly, in infrastructural transformations is required an examination of the *recycling* potential to achieve an hoped-for *refuse usefulness*, because only in this perspective the infrastructural margins, waste of technical functional surfaces, could become an opportunity to create new landscapes.

This implies, clearly, a critical review of the function of marginal spaces which means a rethinking of their structural identity: "a transition from the notion or condition of barrier to that of threshold, through identification of design tasks that demand significant understanding and engagement of existing conditions".[32]

Their *perception* is the essential prerequisite, because it allows the reading of their ex-post reality, as it presents itself: in its fragmentation, its dispersal, in its instability, in its space - time contingency, in its multi-scale heterogeneity.

These characteristics leave out conventional design interventions. It wouldn't make sense to aggregate what is disrupted or naturalize what has been excluded both by nature and by the building. "In order to realize of these difficult sites, designers need conceptual framework that can help to organize and create new patterns of coherence in areas that are complicated and confusing, [...] that can support not only growth but also reclamation and regeneration of natural and social systems"[33]: in other words, to reinvent a meaning starting from new and more flexible ordering principles, that can find their foundation in the uses often done of these sites.

Once again the reflections by K. Lynch on re-use, a category considered essential for a correct interpretation of the contemporaneity and of the future, appear to be particularly interesting. He tends to emphasize the complexity and, referring in particular to mobility infrastructures, proposes some significant considerations. To the questions on the reuse of parking lots, highways, large paved airport runways, underground railways[34], he answers in a pragmatic but also problematic way. With great clarity, it lists the new uses that can be made of them[35], stresses their *attitudes* to become something else, but with equal determination,

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32 Linda Pollak,"Il paesaggio per il recupero urbano", in Lotus International n° 128, p. 33
33 Linda Pollak, *ibidem*, p. 34
34 Kevin Lynch, *ibidem*, p.238
35 Kevin Lynch, *ibidem*, p.239 "If a highway is abandoned we can imagine for it many other uses. Of course we immediately think of the movement by other means: walking, running, cycling, by bus, by horse. [...] But it could even become a linear parks, planting vines, trees [...]. It could be used for sports."

states the need "to design things that are reusable[36]".

Perception, use, attitudes, recycle: words that may lead the research of "a new syntax and a new design grammar that put back into tension environments otherwise to be lost"[37], to outline *other* potential infrastructural landscapes.

In this sense the refuse, the leftover space, doesn't look any more like a problem. Abandoned settlements, roadsides, enclosed spaces are no longer regarded as "a number of undecided spaces, without a function, to which it is difficult to give a name"[38]: they aspire to become" something "[39], perhaps "the real project of modernity"[40].

Variante Civezzano - Torchio
Michele Lamanna, photographer.
PRIN 2007-2010
Trento, 2010

36 Kevin Lynch, *ibidem*, p. 238
37 Franco Zagari, *ibidem*, p. 81
38 Gilles Clément, "Manifesto del Terzo paesaggio", Quodlibet, Macerata, 2005, p.10
39 Gilles Clément, *ibidem*, p.10
40 Stefano Catucci, "L'angelo dei rifiuti", in "Gomorra, Rifiuti" n°3, Meltemi, Roma, 2002, p. 24

1.3 Road strip and valley floor: S.S. 12 - Trento

In light of these considerations, which tend to identify the conceptual field, the research aims to investigate on the field the structure of the State Road 12, in the 12km section of Trento ring road.

Such applicative field was suggested by some methodological and thematic stimulus from MIUR - PRIN 2007-2010 " Progetti di paesaggio per i luoghi rifiutati", aimed to highlight the complexity of the damaged landscape of Trentino Alto-Adige, through different ways of reading and investigation.

The choice of the Trento ring road has several motivations and derivations:

- Firstly, its location in the valley bottom, parallel to Adige river and the highway A22, determined by the territory orographic configuration;

- Secondly, because it is a real design opportunity. Having being moved in 1998 from the responsibility of ANAS to the one of Trento Province that has allocated significant investments for functional adaptations and modifications

- Thirdly, because it represents a potential area of interest on possible developments of local territory structure. Some junctions of the infrastructure has already been the subject of analysis and design by Piano Busquests.

State Road nr 12 - From Abetone to Brennero

Level :National

Type: Road

Country: Italy

Province crossed: Bolzano, Lucca, Mantova, Modena, Pisa, Pistoia, Trento, Verona

Region crossed : Emilia Romagna, Lombardia, Toscana, Trentino Alto Adige, Veneto

Starting point: Pisa

End point Brennero (BZ)

Description

The SS 12 is an important State Road that connects Northern Italy to Central Europe.

The route begins in the Pisa and touches 5 regions along the way (Emilia Romagna, Lombardia, Toscana, Trentino Alto Adige, Veneto).

The road crosses the Appennini at the Abetone pass, enters in Emilia Romagna in the province of Modena, in Lombardia at the town of Poggio Rusco, in Mantova province, where he met the SS 496 Virgiliana and in Veneto where it crosses the province of Verona. The last part extends in Trentino Alto Adige departing from Rovereto, through Larina valley and the Val d'Adige where it reaches Trento and Bolzano, the Val d'Isarco and finally reaching the state border with Austria at Brennero.

The overall length is just less than 524 km long and is managed by ANAS in Toscana, Emilia Romagna, Lombardia, and Veneto, while it is administred by the provinces of Trento and Bolzano in Trentino Alto Adige, even if the property remains of the state.

Sections:

SS 12: Pisa - San Giuliano Terme (PI)

SS 12: Faedo (TN) - Egna (BZ)

SS 12: Egna (BZ) - Bronzolo (BZ)

SS 12: Bronzolo (BZ) - Laives (BZ)

SS 12: Laives (BZ) - Cornedo all'Isarco (BZ)

SS 12: Cornedo all'Isarco (BZ) - Chiusa (BZ)

SS 12: Chiusa (BZ) - Bressanone (BZ)

SS 12: Bressanone (BZ) - Fortezza (BZ)

SS 12: Fortezza (BZ) - Campo di trens (BZ)

SS 12: Campo di Trens (BZ) - Vipiteno (BZ)

SS 12: Vipiteno (BZ) - Brennero (BZ)

Connected roads:

SS 43 Della Val di Non

SS 48 Delle Dolomiti (tratta Trentino Alto-Adige)
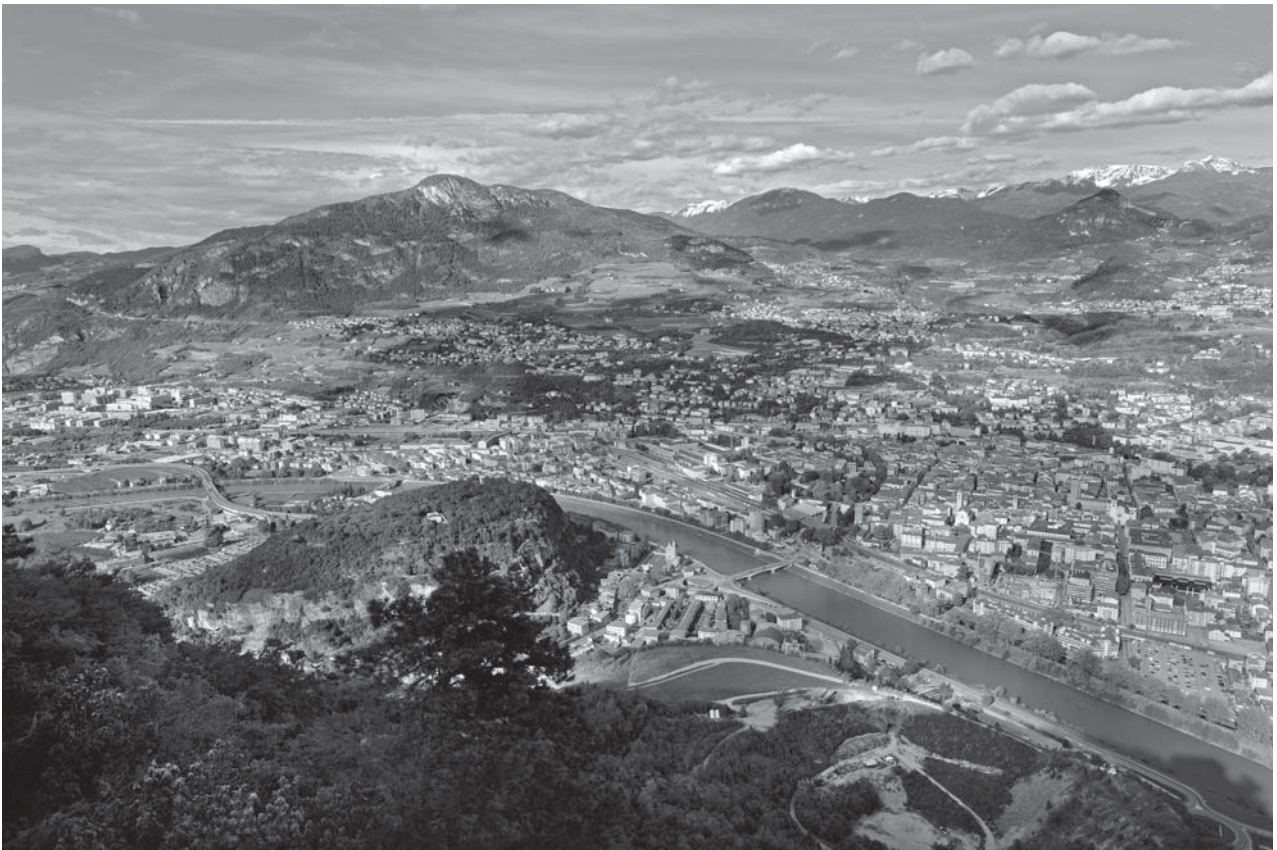
SS 49 Della Pusteria

RING ROAD TRENTO
DIAGRAM

1 / TRENTO NORD
km progressivo 11,20

2 / LOC. CAMPOTRENTINO-RONCAFORT
km progressivo 10,30

3 / LOC. CAMPOTRENTINO-MACCANI
km progressivo 8,90

4 / TRENTO CENTRO
km progressivo 8,10

5 / PIEDICASTELLO, EX-ITALCEMENTI
km progressivo 6,70

6 / TRENTO SUD
km progressivo 2,80

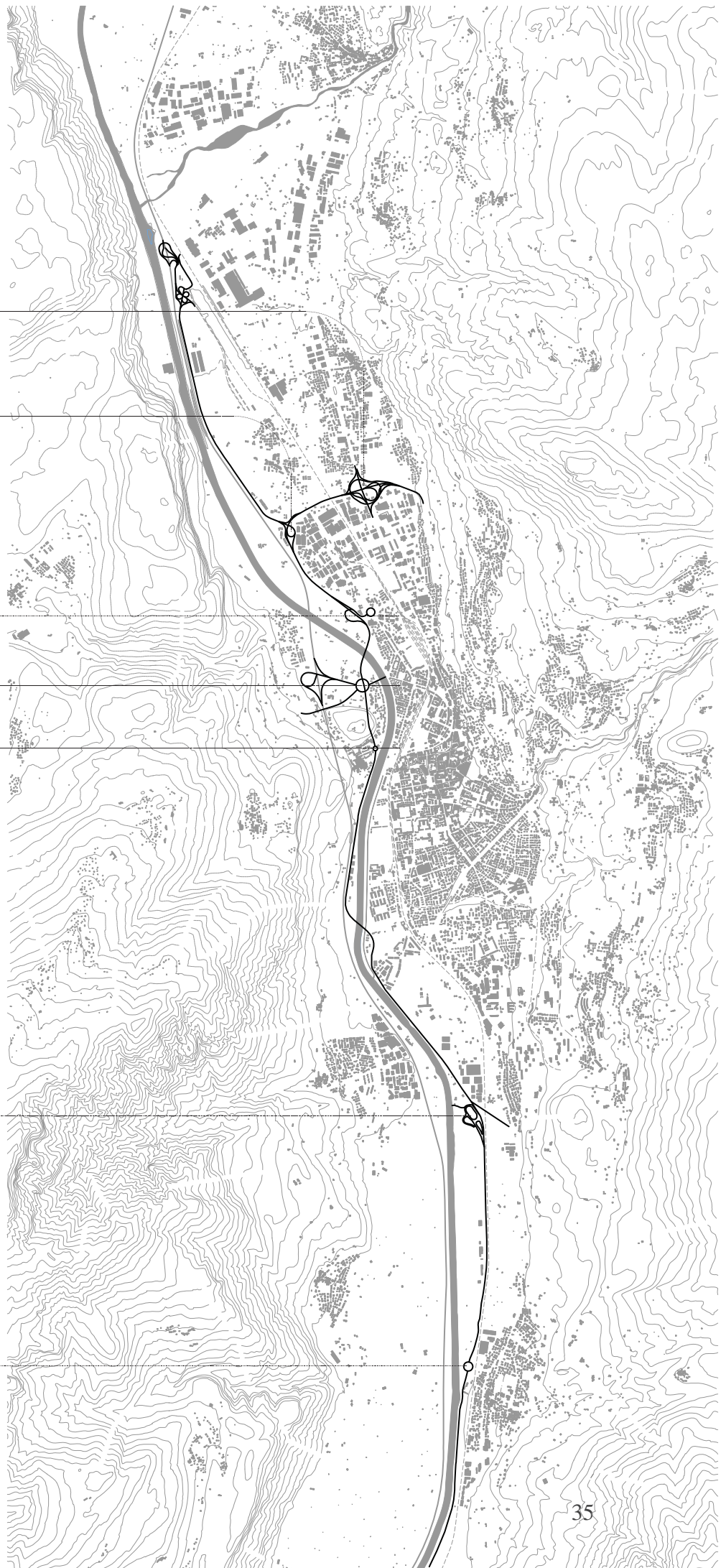**7 /** MATTARELLO
km 0,00
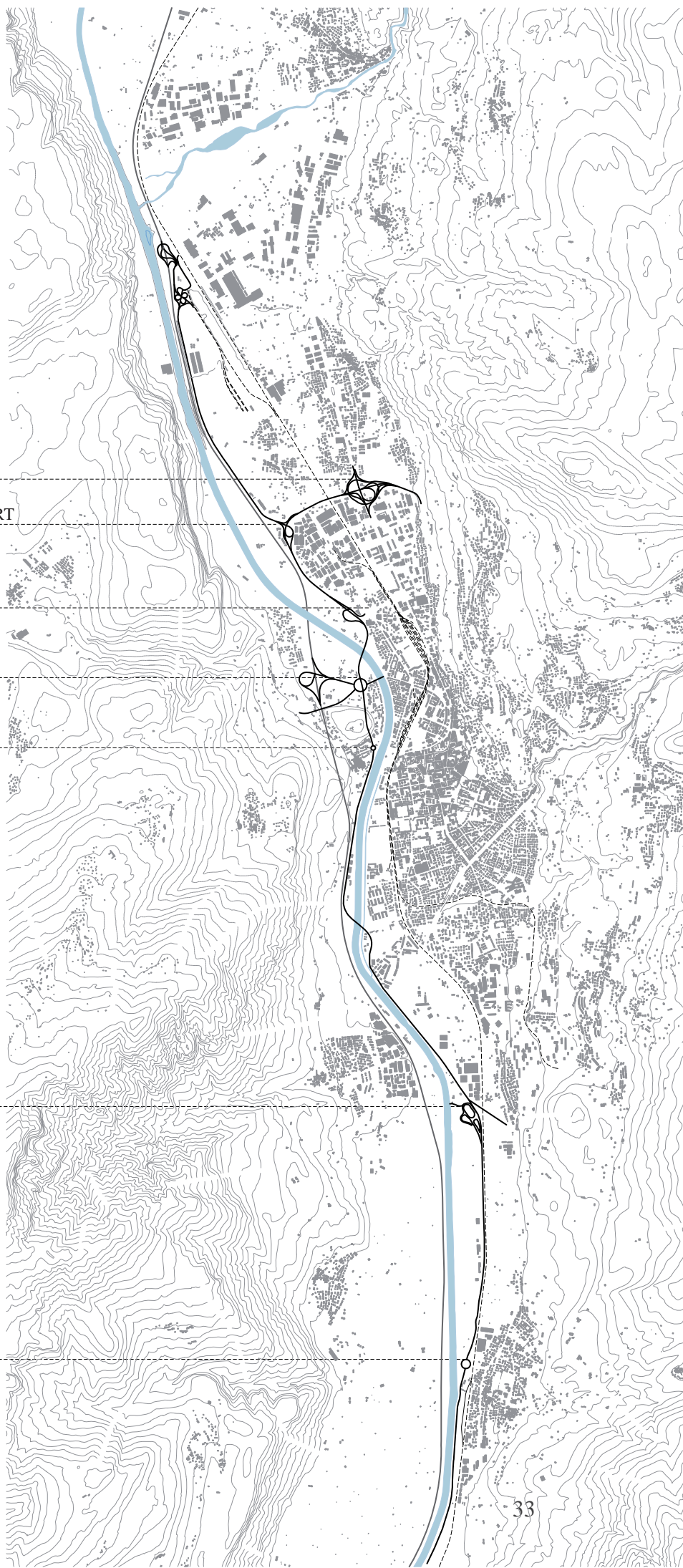
33

Paolo Sandri, fotografo *Reportage for: Turrisbabel and Trento Under Construction* © (Trento South direction Trento), 2010.

Paolo Sandri, fotografo *Reportage for: Turrisbabel and Trento Under Construction* © (Trento North direction Trento), 2010.

ROAD - SUPPORT
DIAGRAM

quota zero

galleria

rilevato

1 /

viadotto

2 /

a raso

rilevato

3 /

galleria

4 /

galleria/rilevato

5 /

a raso

terrapieno
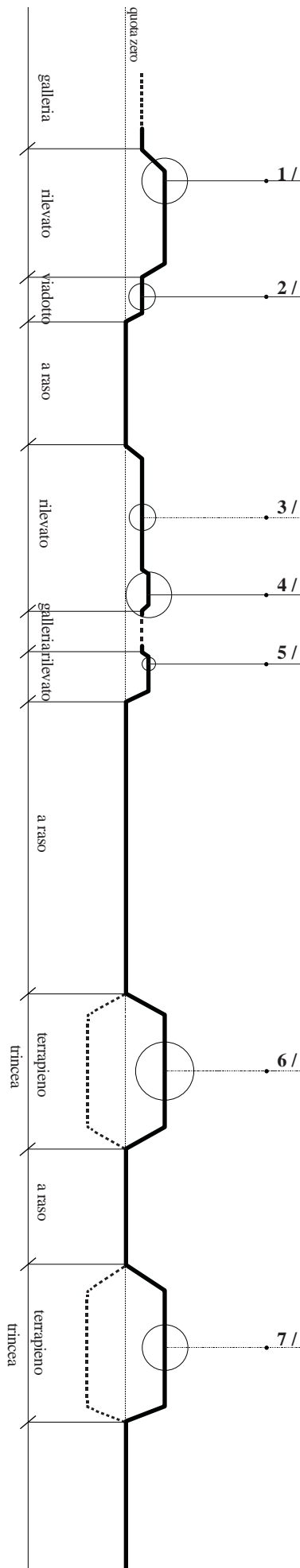
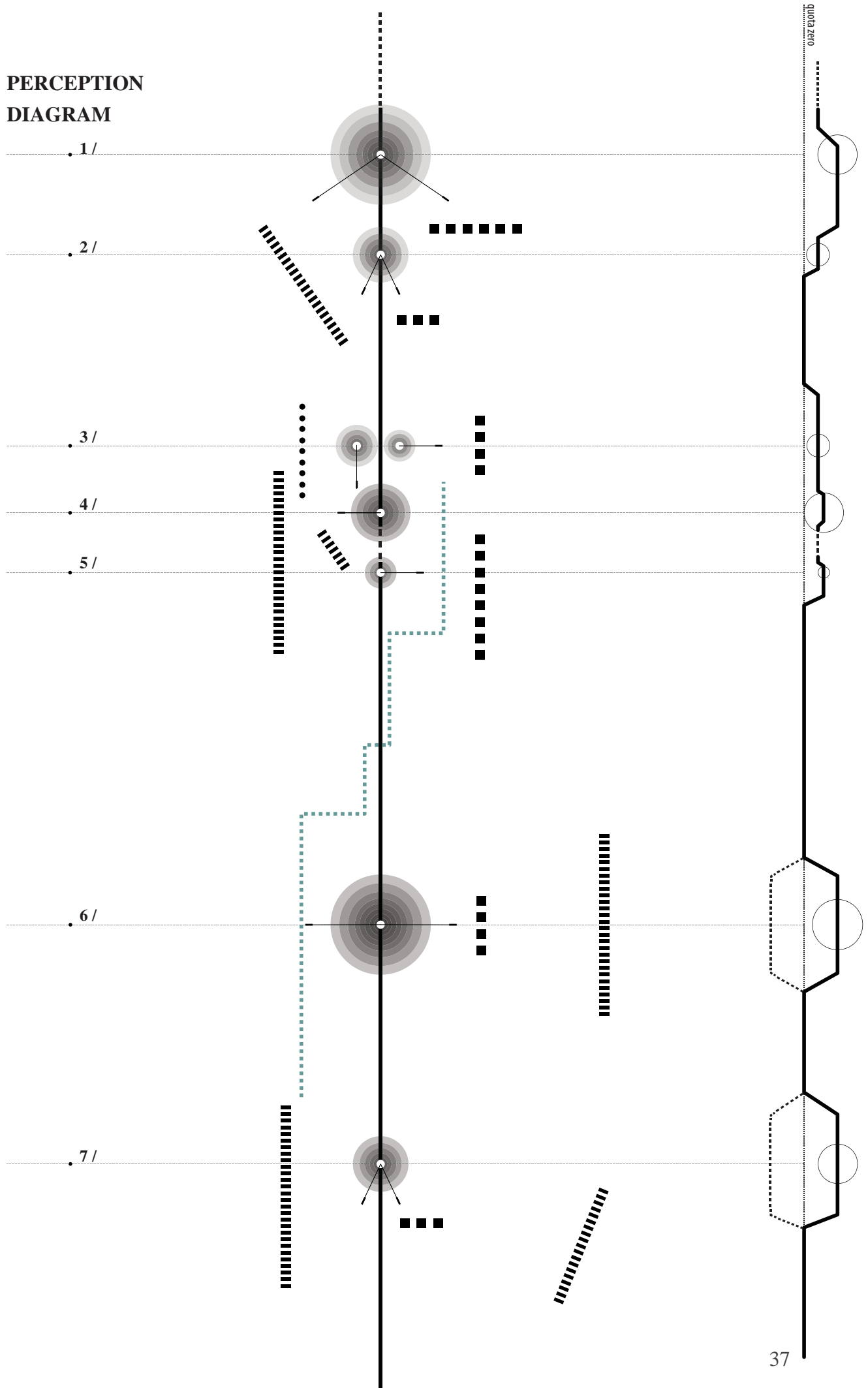trincea

6 /

a raso

terrapieno

trincea

7 /

35

Paolo Sandri, fotografo *Reportage for: Turrisbabel and Trento Under Construction* © (Trento South junction), 2010.

Paolo Sandri, fotografo *Reportage for: Turrisbabel and Trento Under Construction* © (Piedicastello - Ex-Italcementi junction), 2010.

**PERCEPTION
DIAGRAM**

1 /

2 /

3 /

4 /

5 /

6 /

7 /

Interview*

Pierre Donadieu - É.N.S.P. Versailles - Marseille

Pierre Donadieu is an agricultural engineer, geographer and ecologist. He is professor at École Nationale Supérieure du Paysage di Versailles, where he has also been the responsible of the Doctoral School. Since 2010 Donadieu has been directing the Laboratoire de recherché LAREP and the Department of Human Sciences. He is considered one of the most influent European experts of landscape. He is the author of many important essays, among others La Société paysagiste, Des mots de paysage et de jardin and Les paysagistes. He has studied the landscape transformation processes, the differences between different functions of the landscape and the public policies for landscapes qualification focusing on Europe and Mediterranean area.

Question 1
Rapport/Relation entre Infrastructures et Paysage

Quels sont les principaux problèmes déterminés par les infrastructures dans le paysage ?

Une infrastructure est un équipement technique, social ou économique, qui est utile aux habitants d'un territoire (de la nation à la commune). C'est le cas des infrastructures routières (chemins, routes et autoroutes) dont je parlerai. Les voies (auto) routières sont faites pour faciliter les accès et les communications (la mobilité) physiques entre les parties d'un territoire. Elles font partie des paysages ruraux et (péri)urbains.Et leur construction grâce aux politiques publiques de transport modifie les paysages existant. Ce qui posent des problèmes connus qui doivent être résolus ;

Des problèmes sociaux : 1- l'autoroute nouvelle est une coupure physique qui modifie les mobilités des habitants (rupture des chemins et des routes) et perturbe leur vie habituelle.
 2- Le tracé de l'autoroute, proposé par les ingénieurs, peut ne pas être accepté par les populations habitantes (absence de participation aux décisions). 3- La construction des autoroutes fragmente l'espace et crée des espaces oubliés (délaissés, terrains vagues) qui peuvent la source de réappropriations sociales discutables ou non (squat, jardins, déchets, etc.)

Des problèmes environnementaux : 1- L'autoroute est une source de nuisances sonores/visuelles pour le voisinage habitant immédiat. 2- L'autoroute est une barrière physique et une source de dangers

mortels pour certaines populations animales (batraciens, petits et grands mammifères notamment). Des problèmes paysagers : l'autoroute crée de nouveaux paysages, approuvés en majorité par les habitants (mobilité facilitée) d'un territoire, mais souvent discutés localement aujourd'hui par les habitants au nom de la protection des paysages. Les exceptions sont rares (le viaduc de Millau en France).

Question 2

La Convention Européenne du Paysage tourne son attention vers « [...] *les territoires dégradés comme dans ceux de grande qualité, dans les espaces remarquables comme dans ceux du quotidien* [1] **» . On peut parler de** *"drosscape"* [2] **-** *"terrain vagues"* [3] **–** *"friches"* [4] **et** *"blanc"* [5] **produits par l'infrastructure routière et autoroutière?**

Il faut distinguer deux situations. Quand les corridors autoroutiers sont gérés par des entreprises privées, les espaces hors des bandes de roulement sont en principe tous entretenus soigneusement (tonte, fauche, élagage, nettoyage, sécurité, etc.). Quand ces corridors dépendent des pouvoirs publics territoriaux, en l'absence de contrôle effectif, il apparaît des espaces abandonnés que l'on appelle en français, : friches, terrains vagues, délaissés. Ils sont en général localisés à côté des bandes de roulement , au dessous (ponts) ou au dessus (tunnels). S'ils sont accessibles, ils peuvent tenir lieu de parkings incontrôlés, de décharges d'ordures ou de squats (avec commerce éventuelle de drogues) pour les sans domiciles fixes, mais des activités sociales peuvent aussi s'y dérouler notamment dans les villes (fêtes, jardins communautaires, réunions publiques, etc.).

Question 3
S'ils existent, comment ils sont définis, comme les appellent-on [6] **?**

L'appellation *friche* désigne un terrain non valorisé, non cultivé et en général abandonné par son propriétaire. On parle de friches agricoles si les terrains étaient cultivés ou de friches urbaines, par exemple ferroviaires ou industrielles, quand elles sont situées dans le tissu urbain.
Les mots *délaissé* urbain (un espace abandonné dans la ville) et *terrain vague* urbain (un espace à la destination imprécise) sont synonymes.
Les paysagistes jardiniers sont souvent sollicités par les services techniques urbains pour créer des jardins éphémères, dans ces *interstices* ou *vides* urbains inoccupés (petits espaces entre deux maisons

1 *Convention Européenne du Paysage*, Florence, 20.X.2000, Préambule.
"Reconnaissant que le paysage est partout un élément important de la qualité de vie des populations : dans les milieux urbains et dans les campagnes, dans les territoires dégradés comme dans ceux de grande qualité, dans les espaces remarquables comme dans ceux du quotidien;"
2 Alan Berger, "Drosscape: Wasting Land in Urban America", Princeton Architectural Press, New York, 2006
3 Ignasi de Sola-Morales, "Terrain Vague", in "Anyplace", The MIT Press, Cambridge, MA, 1995
4 "La Ville fertile. Vers une nature urbaine" - Cité de l'architecture & du patri moine, Paris 2011
5 Philippe Vesset, "Un livre blanc", Fayard, Paris, 2007
6 Je me souviens de "espaces délaisses" - Dialogue avec Pierre Donadieu à Versailles le 02.06.2009 sur ma recherche.

par exemple). L'expression américaine *drosscape* désigne des lieux de rebut, de déchets, de ruines (industrielles ou non), d'abandon visible des activités humaines.

Question 4
Paysage des infrastructures et la population

Comment la population perçoit l'espace lié aux les infrastructures routière et autoroutière? Quelle est votre opinion/point de vue ?

Il y a plusieurs catégories de perception à considérer. Pour les automobilistes, les autoroutes, qui accroissent leur mobilité sont toujours souhaitables, surtout si elles sont gratuites. Pour les riverains, non protégés des nuisances phoniques, elles sont difficiles à supporter, selon le niveau de bruit. Pour ceux qui utilisent les délaissés, c'est une opportunité qui sert leur interêt. Pour les élus, elles représentent, selon la distance des accès à la commune un facteur de développement économique, de repeuplement ou d'accueil d'entreprises (emploi). Pour les protecteurs de la nature, elles sont synonymes de fragmentation des milieux écologiques (territoires de migration et de mobilité), de risques mortels pour certains animaux sauvages et de diminution de la biodiversité. Pour les ingénieurs constructeurs de routes, c'est la source de leurs emplois. Et pour les gouvernements, c'est un facteur de développement économique et social essentiel (désenclavement des régions, circulation des marchandises et des hommes). Certains architectes souhaitent en faire des œuvres d'art visibles par tous, et d'autres les enterrer pour éviter les nuisances.

Toute personne peut être favorable aux autoroutes, tout en étant protecteur de la nature et désireux d'éviter les nuisances phoniques. L'expertise des techniciens routiers peut toujours être remise en cause par la mobilisation habitante. L'utilité publique pour l'Etat doit composer avec l'intérêt des habitants (leur confort phonique et visuel) et celui du patrimoine naturel et culturel, national ou local à protéger.

Question 5
Du point de vue conceptuel on peut comparer ces espaces (routière et autorutière) avec le phénomène des *campagne urbaine* [7] ?

Le concept de *Campagne urbaine* désigne, d'un point de vue géographique, un mélange de tissus urbain, agricole et boisé. Cet espace hybride à la fois urbain et rural est en général traversé/irrigué par des réseaux routiers et autoroutiers. Selon ce concept de projet, ces réseaux de circulation devraient être inclus dans des infrastructures vertes, boisés et agricoles, qui les isolent des tissus agglomérés. L'infrastructure routière est donc une partie de l'infrastructure paysagère (verte et aquatique) qui structure la région urbaine (au sens de l'écologie fonctionnelle des *Urban Régions* de R.T.T. Forman,

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7 Mouvance II soixante-dix mots pour le paysage, (sous la direction de A.Berque - A.A.V.V), Édition de la Villette, Paris, 2006

2008).

Question 6

Espaces/Lieux singuliers des infrastructures: opportunité de projet ?

On peut parler de projet pour ces « espaces singuliers » routiers et autoroutiers? Est il possible de définir des stratégies et instruments opératifs pour le projet de ces espaces?

Les stratégies de projet d'insertion des autoroutes dans un territoire pluri communal devraient prévoir :

- leur inclusion dans les infrastructures boisées et agricoles d'une région urbaine
- les opportunités offertes par les espaces hors des bandes de roulement (réservoir de biodiversité, usages sociaux, espace tampon et de transition)

Chapter 2

Invisible fragments:
perception[1] and infrastructural refuse

Per vedere una città non basta tenere gli occhi aperti. Occorre per prima cosa scartare tutto ciò che impedisce di vederla, tutte le idee ricevute, le immagini precostituite che continuano a ingombrare il campo visivo e la capacità di comprendere. Poi occorre saper semplificare, ridurre all'essenziale l'enorme numero d'elementi che a ogni secondo la città mette sotto gli occhi di chi la guarda, e collegare i frammenti sparsi in un disegno analitico e insieme unitario, come il diagramma d'una macchina, dal quale si possa capire come funziona.
Italo Calvino, Gli dei della città, in Una pietra sopra. Discorsi di letteratura e società, Einaudi, Torino, 1980.
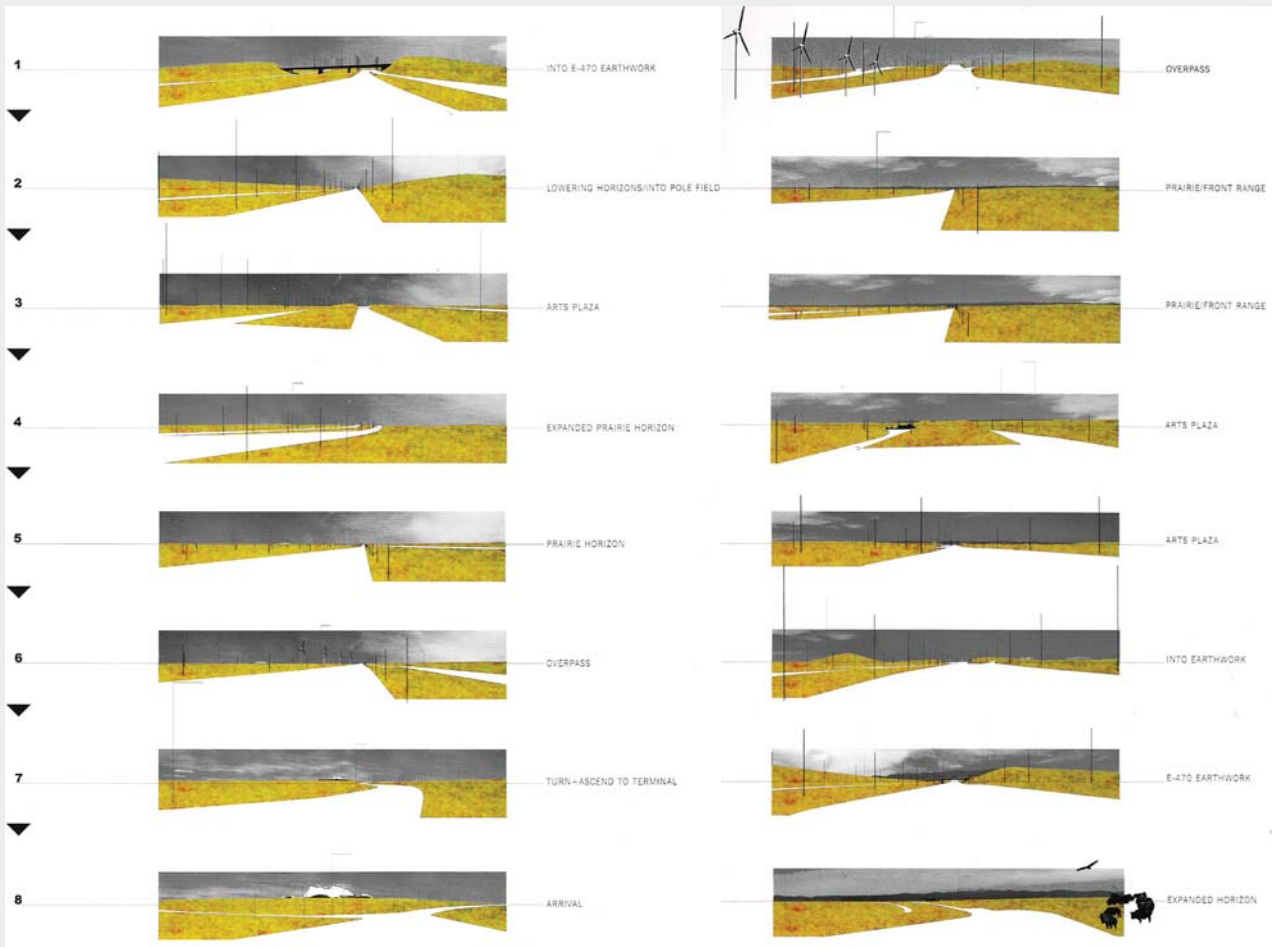
Il nostro sguardo percorre lo spazio e ci dà l'illusione del rilievo e della distanza. E' proprio così che costruiamo lo spazio: con un alto e un basso, una sinistra e una destra, un davanti e un dietro, un vicino e un lontano.
Georges Perec, Specie di spazi, Bollati Boringhieri, Torino, 1989

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1 Emanuele Arielli, "Immagini dell'uomo. Introduzione alla psicologia sociale", Bruno Mondadori, Milan 2000. pp. 20-23 "[...] Perception is somehow the product of choice - mostly unconscious - and a re-elaboration." - "[...] We can speak of three general forms of elaboration that occur in perception: a) *Exclusion*. In which perception excludes the irrelevant information. [...] B) *Addition* or *extension*. In perception, the image is "completed" on the basis of the object's structural characteristics. [...] C) *Structuring*. The way a person connects events depends on their expectations, beliefs and motivations in that moment. [...] Here we may speak of a *point of view*."

Sequence labels (left column, top to bottom): INTO E-470 EARTHWORK, LOWERING HORIZONS/INTO POLE FIELD, ARTS PLAZA, EXPANDED PRAIRIE HORIZON, PRAIRIE HORIZON, OVERPASS, TURN+ASCEND TO TERMINAL, ARRIVAL

Sequence labels (right column, top to bottom): OVERPASS, PRAIRIE/FRONT RANGE, PRAIRIE/FRONT RANGE, ARTS PLAZA, ARTS PLAZA, INTO EARTHWORK, E-470 EARTHWORK, EXPANDED HORIZON

2.1 View *from* the road versus revelations *of* the road

Built primarily to serve the economic need for the exchange of goods and people, infrastructure has always responded to these tasks technically and structurally.

However, one must realize that streets, and the networks they trace as systems and as containers of unexploited potential, can play an active role within the landscape.

Paolo Bürgi has written in this regard: "Infrastructure lies among things, it allows relationships to occur in a material, physical sense, but also in an immaterial sense, on the level of thought. In a sense, infrastructure, too, is a process. Creating relationships, establishing ties, allowing the comparison and exchange of knowledge are all processes, though different from those of the landscape. So I do not think there should be too much difference between designing an infrastructure and, for example, making a garden or a park."[2]

FRAMMENTO_01

Stan Allen, James Corner - Field Operations
Palinscape
(Concorso per Pena Boulevard Denver International Airport, 2002).
Colorado

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2 Paolo Bürgi, *Percezione*, in AA.VV, "Nuove infrastrutture per nuovi paesaggi",

44
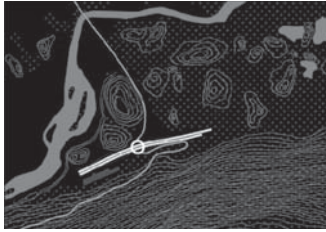
Paolo L. Bürgi, Studio Bürgi ©
Sierre Vierge Competition
Swiss, 2001

This definition reinforces the idea that infrastructure is an integral part of the landscape[3] and that it is composed of many heterogeneous elements that structure and transform it dynamically thanks to man's life and activities.

Infrastructure should in fact be considered a major element within this diverse set of products manufactured from human material and immaterial culture.

Moreover, it appears evident that infrastructure, because of its physical, structural and economic characteristics, causes many conflicts: from an insurmountable element that cuts and mars the places it crosses, it can pose itself, on the contrary, as an instrument through which spaces, inhabited and non, are brought into connection.

For Bernard Lassus, the new networks of highways are reason to rethink the landscape: "[…] ce nouveau réseau va modifier profondément notre culture paysagère, et nous donner une image inédite de notre pays"[4]: it thus overcomes "the connexion seule fonctionelle" and is enriched by the cultural one. This consolidates the aesthetic perceptional function of roadway infrastructure; such infrastructures are offered as a vantage point for observation, a "widened gaze *in motion*"[5], which obliges the driver to adopt a specific perception, mainly determined by the travelling speed.

The relationship between the highway and the landscapes travelled through is transformed "[...] into a positive relationship, into an ethical-aesthetic cultural operation"[6] in which one can search for additional, innovative potential. The theoretical-planning studies carried out in recent years have in fact enabled the detection and decoding of low-

(edited by) L. Ponticelli and C. Micheletti, Skira, Milan, Genova, 2003. p.25

3 This concise statement refers to a wide and consolidated literature on the study of the landscape, which in recent years has re-emerged strongly in the scientific field in the wake of the signing, by many European countries in 2000 in Florence, of the European Landscape Convention. By way of example, we refer to the text of Alain Roger, "Court of Traité paysage", NRF - Édition Gallimard, Paris, 1997, and to the text "Cinq propositions pour une theorie du paysage", VV.AA. (ed. Augustin Berque), Champ Vallon, Seyssel, 1994. For Paolo Bürgi, a Swiss landscapist, "the landscape is a process, something in constant motion, but it is also related to thought, to remembrances, to memory. Thus, the landscape is something so personal that we cannot define it; everyone has their own definition." Paolo Bürgi, *Percezione*, in VV.AA., "Nuove infrastrutture per nuovi paesaggi", (edited by) Loredana Ponticelli and Cesare Micheletti,Skira, Milan, Genova, 2003. p.25

4 Bernard Lassus, "Découvrir, s'arrêter", in "Autoroute et Paysage", ed. Ch.Leyrit and B.Lassus, Les Editions du Demi-Circle, Paris 1994, p.38

5 Massimo Venturi Ferriolo, "Paesaggi rivelati. Passeggiare con Bernard Lassus", Guerini Editore, Milan, 2006, p.170

6 Massimo Venturi Ferriolo, *ibidem*, p.168

prominence spaces connected to road mobility.
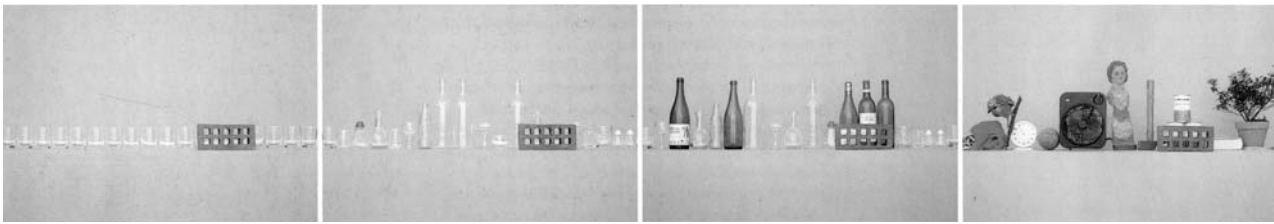
Part of this aesthetic-perceptive potential has been investigated in the famous and "revolutionary"[7] text *The View from the Road*[8] by Appleyard, Lynch and Myer from 1964, in which the aesthetic vision of the landscape, *filtered*[9] by the windshield of the car, becomes an analytical tool for decoding contemporary *complexity*, addressing urban planning and the infrastructural project for the first time with a new aesthetic vision, and placing the tool of dynamic perception at the heart of this reflection.

The study is based on the identification of two crucial concepts for interpreting the contexts travelled through: "the perceptual image"[10] and the "sequential reading of the image"[11]. These concepts facilitate the creation of a useful method for the analysis and designing of highways, and transform the highway into a sensitive platform from which to enjoy, by gazing upon it, the dynamic succession of urban and extra-urban contexts through which one passes.

The sequence of schematized sections along the roadways and the methods of diagrammatic representation experimented with in *The View from the Road* remain the standard tools for designing infrastructure, and strengthen the later idea, made explicit in Lassus' research, of the road as

Bernard Lassus
L'hétérogénéité est plus accueillante que l'homogénéité
Paris,1975

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7 Pierluigi Nicolin and Alessandro Rocca, "The View from the Road 1964 - 2003", note in Lotus Navigator N°.5, Editoral Lotus, Milan, 2003.p.7

8 Donald Appleyard, Kevin Lynch and John R. Myer, "The View from the Road", Massachusetts Institute of Technology - Press, Cambridge (Massachusetts), 1964. "The object of this monograph is the aesthetics of highways: the way they appear to people traveling by car and what this implies in their design. We want to emphasize the potential beauty of these great engineering works, in contrasted with their present ugliness. Since the creation of the visual potential of highways is in the hands of the men who design them, this monograph is intended for highway engineers, whom we hope find our ideas useful.", sections reproduced in Lotus Navigator "The landscape of the Freeway" No. 5 , 2003, "The View from the Road 1964 - 2003" by Pierluigi Nicolin and Alessandro Rocca. p.9

9 *Filters*: "(...) the information coming from the outside world is progressively filtered. The more peripheral filters, such as those of vision and iconic memory, act independently of our will, even if they can be guided by activating our knowledge.", In Emanuele Arielli, "Immagini dell'uomo. Introduzione alla psicologia sociale", Bruno Mondadori, Milan 2000.p. 109

10 Pierluigi Nicolin and Alessandro Rocca, "The View from the Road 1964 - 2003", note in Lotus Navigator No. 5, Editoral Lotus, Milan, 2003.p.7

11 Pierluigi Nicolin and Alessandro Rocca, *ibidem.*

an "*oeuvre d'art cinétique*-machine for observing the landscape"[12].

The driver, the protagonist of the perceptual experience from the road, is no longer a simple motorist or passenger, but an individual who becomes an active part in constructing a landscape story narrated in sequences. This subjective recombining of the variables of time, space and speed gives the road a new role as key player in transforming its surroundings.

Thanks to this, the *aesthetic* variable is added to those consolidated over time, the *functional* and *technical* variables, primarily aimed at fulfilling the task of transporting goods and people. An approach linked exclusively to the perception and the psychology of perception, however, could lead to a flattened view of the issue of infrastructure, ignoring thickness, interactions and their connection with the context.

Recent environmental issues have, to this end, implemented new elements within the complexities of infrastructural, which now includes factors such as sustainability, compatibility and environmental impact, in addition to the technical-normative, economic, and purely aesthetic factors.

The same authors, Appleyard, Lynch and Myer, aware that a method based mainly on visual canons could present limits[13], have focused their work on identifying useful techniques "for directing and shaping the driver's impressions"[14] and to offer a broad spectrum of information regarding movement. This conceptual kit is the basis for creating useful tools for the highway project, to improve, thanks to the construction of sequential dynamic visions[15], general situations of degradation viewed from the infrastructure and to formalize strategies to transform places near the road's edge.

Overturning the established ideas about infrastructure by involving different actors is one of the strengths of *The View from the Road*, which, in addition to this, has the great merit of attempting to correlate the city, the surrounding environment and the systems of mobility, of opposing the flattening of the places, of stressing that their differences can become the characteristic features of the project.

In the case of ex-post infrastructures, it becomes difficult – since it is

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12 Christian Leyrit, Bernard Lassus (ed. by), "Autoroute et Paysage", Les Edition du Demi-Cercle, Paris, 1994
13 D.Appleyard, K.Lynch and J.R.Myer, *ibidem*, "A project must balance many factors: the visual requirements represent only a portion of these" .p.9
14 Donald Appleyard, Kevin Lynch and John R.Myer, *ibidem*,. p.7
15 D.Appleyard, K.Lynch and J.R.Myer, *ibidem*, p.18, "[...] the roadside should be a fascinating book to read along the journey."

not economically sustainable – to imagine a complete redefining of roadways, to recreate favourable conditions for generating "a sense of space and functions as a visual reference and a means of orientation"[16], which would give exclusive emphasis to aesthetic factors.

The study of infrastructural discard or waste in relation to the principles of *The View from the Road* is aimed primarily at expanding the aesthetic potential of perception, orienting it toward the functional movement of infrastructures: thus shifting attention from the infrastructure itself, as a support for dynamic observation, to what is outside it. To try to create a different capacity for the *eye*.

Among the principles identified by Appleyard, Lynch and Myer are "the elements of attention, a sense of movement, the course of the road, the movement of the field, the sense of space, the extension of self, approaching the horizon, orientation, rhythm, continuity and sequential form"[17], the first is particularly useful as an indication of other possible places present in the landscape.
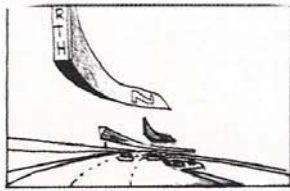
The elements of attention could be defined through the word *landmark*[18], or marked elements of the territory that emerge from the landscape they contribute to shaping, often giving them a strong identity. Thanks to their physicality, the driver has the ability to recognize and identify them as places, although Appleyard, Lynch and Myer recall that "these objects occupy a rather limited part of the potential visual field" and that "the gaze is not only directed forward, but is also drawn from the immediate vicinity – with precedence given to nearby and apparently *moving* objects over the far larger number of those which appear *stationary*. […] In the frontal view of multi-lane highway most of the visual field is filled from the pavement and the sky: the difference of lanes, margins and medians
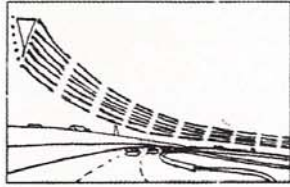
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16 Marcel Smets, "Il nuovo paesaggio delle infrastrutture in Europa", in Lotus International N°.110, Mondadori Editore, Milan, 2001.p.18

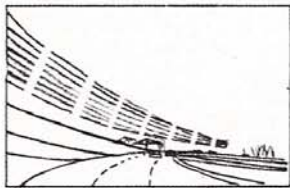17 Donald Appleyard, Kevin Lynch and John R.Myer, *ibidem*, pp.6-21.

18 Renato Bocchi, "Progettare lo spazio e il movimento. Scritti scelti di arte, architettura e paesaggio", Gangemi Editore, Rome, 2009. Landmark is the word used here according to the interpretation given by the author in the text *Progettare lo spazio e il movimento* where, regarding architectural interventions in border areas, he reminds us that frequently they must "reckon with the role of landmarks, reference points, of orientation and the visual and physical measurement of the terrain" in which they are located. This statement harmonizes with the *elements of attention* spoken of by Appleyard, Lynch and Myer. Furthermore, the author points out: "I am speaking about new Landmarks, but not new monuments, such as might derive from the lessons of Aldo Rossi, [...]", but of "[...] suggestive signs, rather, often hybrids, that bear the marks of dialoguing through differences [...] architectures that imply relationships, indeed, that derive their forms from the relations themselves or from the intertwining of relations". pp.134-135
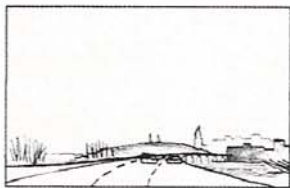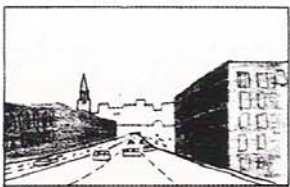
created by structure, colour and width can articulate and enliven the scene. Even at times when our gaze broadens, our attention returns regularly to the road. The only exceptions to this rule occur for short periods when the observer crosses a major barrier and [...] examines a new landscape. This is the moment of visual revelations, when you can be sure of a willing audience, to great effect. [...] The nearby objects, darting away quickly, become difficult to perceive and thus the focus can move to more remote and relatively more stable elements. The reference points are seen in groups rather than individually[…]"[19].

It is interesting to note that in *The View from the Road*, regarding *elements of attention*, explicit reference is made to infrastructural *nodes*[20], seen as crucial points of territorial systems and, therefore, material for specific comparison with the stretch of Highway 12 in Trento, a hypertext of the present study.

"At the decision points such as at the entrance to an exit ramp, one's attention becomes narrowed. [...] The same for the reference points in the distance, especially if characterized by a sharp profile. Similar moments of concentration occur when space shrinks significantly: no one can avoid noting buildings so close to the road as to seem like walls, channels or galleries, nor can one ignore an elevated structure, such as a bridge. […]"[21].

Another principle, chosen as a reference point for their analysis, is the sense of space, which examines the concept of the visual field "interpreted not only as a series of distant views, or as a collection of objects in motion, but also

Kevin Lynch
*The View from the Road,
Route 93,* Boston

19 Donald Appleyard, Kevin Lynch and John R.Myer, *ibidem*,pp.10-11.
20 Paola Pucci, "I nodi infrastrutturali: luoghi e non luoghi metropolitani", Franco Angeli, Milan,1° ed.1996. "[...] The node is defined by the flows of a similar nature that are interconnected in it, carried by one or more networks". The author compares the differences between node and hub and stresses that the former, according to his interpretation, proves to be an "a-spatial entity (in the sense of being indifferent to the local context), though located in a physical space, whose specificity is given only in terms of flows." Paola Pucci lists further specific properties of nodes, such as that of being "generators of centrifugal forces, because what characterizes them is not so much any functional specificity, as much as the type of communications guaranteed, which results in their identity." p.36-37
21 Donald Appleyard, Kevin Lynch and John R.Myer, *ibidem*,pp.10-11.

as a space, a void inside of which the observer can move visually or physically." Where "[...] the boundaries are felt more easily, whether they be trenches, tunnels, tall buildings or hillsides."[22]

On the issue of depth of vision and in continuity with the of studies carried out in the sixties by Kevin Lynch, ranks the first Biennale of Architecture in Rotterdam in 2003 *Mobility: a room with view*, edited by Francine Houben, member of the Mecanoo group.

In this case, one notices the desire to further develop the Lynch's theme focused on the aesthetics of mobility as an element capable of reconfiguring the defined and marginal space around the central infrastructures for mobility, still unresolved almost forty years after the insights of the group from M.I.T.

The title used by Houben, "*Mobility: a room with view,"* emphasizes the need to rebuild paths for mobility, which often degenerates into traffic, such as public spaces, with their own aesthetic visible from the window of the car, where people spend daily a significant part of their time daily.

According to Houben, one of the objectives of research on infrastructure is to "investigate how mobility affects everyday life, [...] and find the points of contact and the contradictions between worlds that until now have been kept separate, closed in the fragmentary gaze of specialized techniques"[23].

In this respect, the draft *Holland Avenue* project has been developed[24], commissioned by the Ministry of Public Works and by the Dutch Water Management, divided into two distinct moments. The first, a collection of statistical data, defined as hardware by the author[25], in which "the facts stand unadorned, side by side" and "[…] make it perfectly clear that a rich society is a mobile society."[26]

The second, defined *software*[27], consists of the installation of four cameras
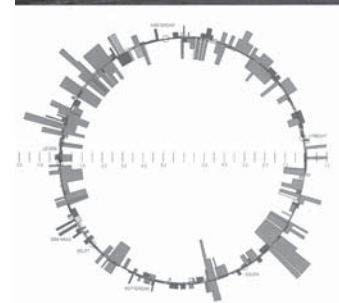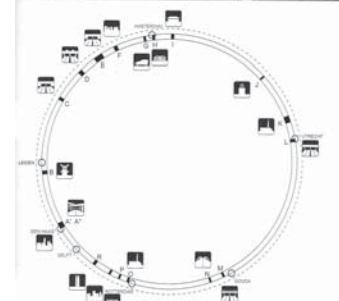
Francine Houben
Mobility: a room with a view,
Rotterdam, 2003

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22 Donald Appleyard, Kevin Lynch and John R.Myer, *ibidem*, p.16
23 Francine Houben, Maria Luisa Calabrese, International Architecture Biennale Rotterdam "Mobility: a room with view", NAi Pubblishers, Rotterdam, 2003. p.13
24 Francine Houben, "Mobility: a room with a view" in AREA No. 79, 2005. p. 109. "De Leuke Weg is a study commissioned by the Directorate General of Public Works and Water Management "Roads to the Future" issued by the Ministry of Transport, Public Works and Water Management/DWW/Delft in 2002 and was published in March 2003 under the title Holland Avenue, A Research Road Atlas, Holland Avenue, Design Road Atlas in February 2003"
25 Francine Houben, *ibidem*. "*Hardware*, fact and figures are collected relating to past, present and future: engineering preconditions, ownership, responsibility and commissioning of the road". p.106
26 Francine Houben, *ibidem*. pp.104-109
27 Francine Houben, *ibidem*

on a car at the driver's eye-level. These, just as rigorously, analyze and record 153 km of highway, whose physical elements comprising the roadway are then catalogued, to define the perceived landscapes: the number of lanes, the speed limit, the time of the exits, the petrol stations, the overpasses and viaducts, the architectural program that touches the road, the depth of field and the landmarks[28]. The objective analysis made by Houben and the combination of the hardware and software data, which evolve the procedures of *The View from the Road*, culminate in the definition of a planning atlas that attempts to develop a new approach to the design of the motorway from the point of view of motorists, referred to as "Visionware"[29].

The structure of the atlas presents "Three spatial domains"[30], called *Road, Verge* and *Field*.

Of the three, the one that is most useful in the study on infrastructural discard is certainly the theme of the *Verge*, which involves not only the roadbelt and the shoulder bordering it, but "the entire area within the sphere of influence of the road" that "looks like a piece of no man's land, you experience it as a non-place."[31]

In contrast to Lynch's work, *Visionware* also relates to existing situations and identifies specific locations in which to intervene. Some operating mottoes are stated in regard to verges: "Purge the Verge"[32], directly connecting rural and residential landscapes with the road; "Identify the Verge"[33], giving these marginal spaces specific identities; move the

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28 Francine Houben, *ibidem*

29 The combination of hardware and software related to the issue of infrastructure is also spoken of by Antoine Picon in "Réel, virtuel des Infrastructures et esthétique", where in questioning the nature of the infrastructure, between physical reality and virtual reality, to assess their aesthetic, he recalls how: "[…] aujourd'hui, le "soft" est souvent plus déterminant, plus infrastructurel que le "hard". Il est plus facile de changer de micro-ordinateur que de sisteme d'exploitation". in "Mobilité & esthétique. Dimension deux des Infrastructures territoriales "Sous la direction de Claude et Prelorenzo Dominique Rouillard, L'Harmattan, Paris, 2000. p.67-68. The same metaphor of hardware and software is defined by Andreas Kipar in regard to the relationship *infrastructure - landscape*: «The infrastructure system is a system of signs that innervate the landscape, making it vital and feeding the processes of growth and transformation of both the urban and suburban area. This system is at the basis of each territorial transformation and, therefore, furnishes the weights and the criteria of the impoverishment on the one hand and of the enrichment on the other. I consider this structure of signs to be the *hardware*. The *software* is represented by the landscape that changes all the time, takes on a new meaning each time depending on the point of view of the observer». Andreas Kipar «Classificazione", in AA.VV, "Nuove infrastrutture per nuovi paesaggi», (ed. by) Loredana Ponticelli and Cesare Micheletti, Skira, Milan, Geneva, 2003 p.49.

30 Francine Houben, *ibidem*

31 Francine Houben, *ibidem*
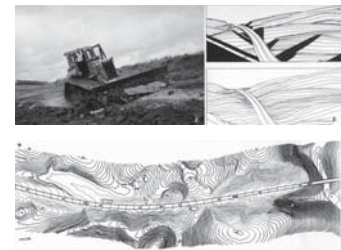
32 Francine Houben, *ibidem*

33 Francine Houben, *ibidem*

"Petrol stations [...] on or under the road", or equip the "noise barriers [...] with digital information displays"[34]. Intrinsically linked to the re-definition of roadsides is the concept of depth, which transforms a street line, the edge, into horizontal thickness, a surface that extends beyond the limits of the infrastructure and that "influences your field of vision" and puts "great measures" up for discussion "both in height and in depth."[35]

After focusing on some elements derived from these fundamental scientific-methodological experiences relating to infrastructure, *the elements of attention, the sense of space/visual field (in The view from the road)* and *the Verges and the Field (in Mobility: a room with view),* it seems necessary to address the issue of the discard related to infrastructures, advancing the discussion to see how we can experiment with other ways through theoretical supports carried out both on the theoretical and real levels.[36]

Convinced of the importance of these fundamental considerations related to the aesthetics of infrastructures, that apply dynamic models and kinetic laws[37] linked to the visual arts, we shift our focus away from the road, where the gaze expands beyond the curbside: the perception of the space surrounding the street. In this case we want to consider the infrastructure as a support for an observation free of barriers which goes beyond the path of the road, which considers its complexity as a physical, three-dimensional physical object, not reducible to a simple line in the landscape, comparable to a "borderless" thickness[38] useful for

Bernard Lassus
Autoroute A28, Cofiroute 1996
France

34 Francine Houben, *ibidem*

35 Francine Houben, *ibidem*

36 Marcel Smets, "The contemporary landscape of Europe's Infrastructures," in Lotus International, No. 110, Electa, Milan, 2001."Appleyard, Lynch and Myer analyze in their famous book how the landscape one observes from the road, generates a sense of space and functions as a visual reference and a means of orientation. They particularly stress the importance of building a sequence in order to achieve these objectives. Their analysis lingers on in the many current efforts to turn the roadscape into a worthwhile experience. Unfortunately, the idea of seeing the sequence as a succession of parts that reveals the city's unique form is often lost in these endeavors. The landscape is rather considered as a spectacle, as scenery to be admired, and not as a means of identification or understanding the environment one drives through. Instead of addressing the sequence as a chain of consecutive impressions, it often falls back on the old but inappropriate architectural notions of opening up a panorama, making a perspective or directing a view." p. 123

37 "*Cinétismes*", Bernard Lassus, «Découvrir, s'arrêter», in «Autoroute et Paysage», ed. Ch.Leyrit and B.Lassus, Les Editions du Demi-Circle, Paris 1994, pp.54-55

38 We have borrowed the term *borderless*, used by Massimo Venturi Ferriolo in regard to the interweaving of skills that flow together in shaping the landscape. The author speaks of "borderless disciplines" as the premise for "all landscape knowledge" in clear reference to the *inventive analysis* of Bernard Lassus, a "basic tool to reveal the

identifying hidden spaces.

Highlighting this potential of infrastructure allows us to think of it as a *belvedere*, a non-static lookout[39] that is not static but dynamic, that interfaces with the context and with the depth of field, touching upon the idea of perceptual measurement.

Going beyond the measurable is the concept set out by Bernard Lassus to define one of the theoretical foundations of his thought: the *demisurable*. The *demisurable*, a term that does not exist in Italian or even in French[40], "indicates an impossible measurement [...] an imaginary visual habit devoid of measurable dimensions. It has no edges while still belonging to a horizon"[41], an incalculable value that does not tend towards the infinite, but towards the "incommensurable imagination"[42], where the key element is "the power of a gaze of unbounded visibility."[43].

This core concept of Lassus poetics causes one to think of a roadway as a tool that has more potential than the mere dynamic and aesthetic perception of the car; *the demisurable,* in fact, expands the eye's potential because it "brings together the visible and the invisible, the material and the immaterial"[44], *revealing* what normally, in travelling along an infrastructure, is not seen, and "shifts the field of research"[45] beyond its

existing" regarded as the "starting point of any landscape praxis" . The expression is used in this context to underline the potential of gazing beyond the border, in this case, the infrastructural border. Cf. Massimo Venturi Ferriolo, "Percepire paesaggi. La potenza dello sguardo", Bollati Boringhieri, Turin, 2009.p.182-184. We consider it important to recall the definition given by Bernard Lassus at the basis of knowledge and perception of places: "Inventive analysis consists in overcoming the initial ignorance and in approaching the places, in the light of their uniqueness and their potential." In Bernard Lassus, "Inflection", in VV.AA., "Nuove infrastrutture per nuovi paesaggi", (ed.) Loredana Ponticelli and Cesare Micheletti, Skira, Geneva-Milan, 2003. p. 86

39 "The highway becomes a *belvedere*, not just a ribbon of asphalt for rapid transit. It invites us to *explore* beyond the horizon, recovering it. Its aim as a landscape becomes that of *arresting* the viewer: its *cultural function*." Massimo Venturi Ferriolo, "Paesaggi rivelati. Passeggiare con Bernard Lassus", Guerini Editore, Milan, 2006.p.168, Cf. Bernard Lassus, "Découvrir, s'arrêter", in "Autoroute et Paysage", ed. Ch.Leyrit and B.Lassus, Les Editions du Demi-Circle, Paris 2004, p.37-55

40 Massimo Venturi Ferriolo, "Paesaggi rivelati. Passeggiare con Bernard Lassus", Guerini Editore, Milan, 2006.p.90

41 Massimo Venturi Ferriolo, *ibidem.*

42 Massimo Venturi Ferriolo, *ibidem.*

43 Massimo Venturi Ferriolo, *ibidem.*

44 Massimo Venturi Ferriolo, *ibidem.*

45 To better define the symbol of the theory and work of Bernard Lassus, as pointed out by Massimo Venturi Ferriolo, we reproduce here a part of the writing *Le puits* for the project for the courtyard garden of the Faculty of Letters of Montpellier from 1972, already mentioned by Massimo Venturi Ferriolo, in "Paesaggi rivelati. Passeggiare con Bernard Lassus" p.91 and in "Paesaggio: un'esperienza multiculturale. Scritti di Bernard Lassus", (ed.by) Francesca Bagliani, Edizioni Kappa, Rome, 2010.p.92. "[…] L'absence toujours retardée du bruit du caillou sur le fond du puits ne repousse-t-elle pas sa profondeur jusqu'à l'infini? Le constat de l'inconcevable absence du bruit du

borders.

Michele Lamanna
Pineta di Laives
PRIN 2007-2010
Bolzano, 2010.

choc, quel qu'il soit, oblige instantanément pour éviter à tout prix d'être confronté à l'impossible et à ce qu'il implique, à trouver immédiatement une explication dont on n'à pas le temps de s'assurer qu'elle soit raisonnable ou réaliste : une porte à l'imaginaire poétique que j'appelle le « *démesurable* ». "

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2.2 Sideways viewpoints on invisible

Once the gaze has gone beyond the edge of the infrastructure's border, and attracted by the *elements of attention - Landmark,* one can begin the pilgrimage[46] towards that which is normally difficult to see.

Exiting the border of the road space, but remaining connected to it, certainly defines an extension, a surface area of interest, an area with a thickness that can be compared to a sort of infrastructural confine.

The word *confine* could indicate a limit, but in this case it is meant to open up a real spatial dimension, "to establish a space, to define a fixed point from which to start and to use for reference, a fixed and stable line, at least until the conditions that led to its decision are profoundly changed"[47]: in this specific case they define the space explored by the study.

Observing what lies in the immediate vicinity presupposes an intrinsic link with the road, from which points in the landscape have been identified that have attracted the attention and have been located and positioned. These signs, therefore, are not located inside the road strip though they do have a direct link with it.

On the one hand, they are confined in a space "that can have an outer margin"[48], concrete and obvious like the infrastructure, on the other hand they reveal "an inner, interior margin" potential, still to be discovered, "that we hardly see clearly, though we often say with certainty that it is there."[49]

The text of Piero Zanini, *Significati del confine*, allows one to make a conceptual connection between the system of infrastructure and the concept of border as an *immense* and full of *meaning space*: just as the border presents features of a real place, so infrastructures are both spaces and boundary-lines[50], defined in themselves, but in reality constituted by

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46 Francesco Careri, "Walkscapes. Camminare come pratica estetica", Piccola Biblioteca Einaudi, Turin, 2006.

47 Piero Zanini, "Significati del confine. I limiti naturali, storici, mentali", Bruno Mondadori Editori, Milan, 1997. p.14

48 Piero Zanini, "Significati del confine. I limiti naturali, storici, mentali", Bruno Mondadori Editori, Milan, "Introduction", 1997. "The border area thus, but also (at least this is the hypothesis) the border itself as an area. Space that may have an outer edge, where man lives, loves, works, moves and has fun, that of more concrete and obvious architecture, but also an inner margin, inner, intimate, linked to our moods, to the hopes and utopias that accompany them."p.XIV

49 Piero Zanini, *ibidem.*

50 Piero Zanini, *ibidem*. "In various forms and ways, boundaries and borders both have to do with the modification of our real landscape, transforming the area that we physically occupy and inhabit. At the same time, they deeply influence the places and spaces that

vertical and horizontal thicknesses, capable of combining contradictory dimensions of space.

This theme is taken up by Antoine Picon who, in the essay *Réel, virtuel et esthétique des Infrastructures*, considers them contemporary dimensions of the near and far, of the '"[...] ici et l'ailleurs" and of the "localise et le délocalisé"[51].

It thus highlights the possibility of infrastructures to collect the specific identities of a place and, at the same time, to put them in relation on a global scale within the networks to which they belong.

This hypothetical *real* and *virtual* boundary of belonging of infrastructures assumes the task of "signalling the site of a difference, real or presumed"[52] of which one often knows nothing, having no memory of it because one's never seen it, where the images tend to blur and whose boundaries are undefined and have fraying edges. Places whose positions one is unable to establish; in effect, they are invisible places.

Invisibility is a dominant feature of the discarded spaces linked to infrastructures. Usually the public is most affected by manufacturing waste to produce energy and objects, solid and gaseous waste linked to daily life, sites polluted by old productive activities, landfills, because they are more obvious, tangible; abandoned, degraded and invisible places linked to mobility infrastrucures remain unknown to most, or are not perceived as "waste".

The infrastructural refuse, comparable to real manufacturing waste, is difficult to identify, though present in almost all inhabited contexts crossed by a road: especially where the infrastructural project has not been conceived and realized through processes of integration in the region. The processes of transformation and occupation of the territory produce residues, fragments, scattered elements where the stitches of the urban fabric are loose and where the morphological conditions of the terrain are complicated.

mark and shape our mental horizons, our more or less authentic identities.".

51 "[…] Le pont nous parle de l'ici et du maintenant du site en même temps que de l'ailleurs de la route. Il nous parle de la concrétude du ravin qu'il franchit en même temps que du caractère général et abstrait du réseau auquel il appartient. L'infrastructure permet au lieu et au territoire construits par les circulations et les réseaux de s'interpénétrer.". Antoine Picon, " Réel, virtuel et esthétique des infrastructures", in "Mobilité & esthétique. Dimension deux des Infrastructures territoriales", ed. Claude Prelorenzo and Dominique Rouillard, L'Harmattan, Paris, 2001, p.69
52 Piero Zanini, Etymology and definitions, "Significati del confine. I limiti naturali, storici, mentali", Bruno Mondadori Editori, Milan, 1997. p.5

The residual spaces have come to be considered an inevitable element in these processes of urban transformation and modification, especially those related to mobility, determined by the transport networks built so far and present along the routes.

Linda Pollak recalls, concerning the overall theme of residual space, that "difficult sites tend to be located in areas of the city that have developed without regard for their inhabitation as everyday space. They exist at boundaries that have operated historically as barriers: they are fragmented by transportation infrastructures, or they are the structures themselves –highways, railroads, bridges and post-industrial derelict riverfronts that were once active ports."[53] She seems to focus in particular on the many difficulties involved in investigating these places discarded by society and by the transformation processes, confirming the need to learn more about them: "As boundaries, these sites are invariably suspended between different urban orders: between neighbourhoods and therefore between jurisdictions; between parts of city – such as a park or a street – controlled by different agencies; between scales, alongside or beneath large scale infrastructures, such as highways, bridges or train tracks."[54]

But how do you see them, observe them and get to know them closely, if you still consider them invisible?

To make us more aware of these places, one must get close to them and go outside the limits imposed by the roadsides, to travel that spatial width of the infrastructure's border. The goal is to make visible what is now invisible.

"Seeing is a founding act of our individual relationship with the world, it is a distancing of ourselves from things and at the same time an act of possession towards them, which stabilizes the subject's position and decides on the angle from which to speak."[55].

In the specific case of infrastructural refuse, the *zenithal view*, always used to study the city, does not appear useful. It hides places "full of the world"[56], hidden spaces related to infrastructure that, seen from above, appear confused within nebulous urban contexts and hybrid landscapes

53 Linda Pollak, "The Landscape for Urban Reclamation. Infrastructures for the everyday space that includes nature", in Lotus International n°128, "Reclaiming Terrain", Editoriale Lotus, Milan, 2006. p.37
54 Linda Pollak, *ibidem*
55 Stefano Boeri, "L'anticittà", Edizioni Laterza, Bari, 2011. "Uno sguardo diverso" p.51
56 Stefano Boeri, *ibidem* p.91

of uncertain and frayed edges, where concentration and rarefaction alternate. The "tracotanza zenitale"[57], implemented by new satellite technologies and by Google Earth that at all times makes visible wiped-out portions of earth, is likely to flatten two-dimensionally the rather complex three-dimensional structure of the territories and, in this case, the road infrastructure.

As Stefano Boeri recalls, "the zenith is a misleading paradigm because it leads the viewer *to distance himself* from the territory and to deceive himself by thinking he has the same impersonal angle as those techniques of representation"[58] now available to all.

Zenithal view, dynamic perception, elements of attention, depth of field, all consolidated yet insufficient modes of perception, urge us to review the analytical and reading tools for the territory that can investigate concretely the situations of fragmentation and invisibility to see objects, themes, places and social practices of the contemporary territories[59].

To make visible the infrastructural waste and to try to define its characteristics, we therefore propose the adoption of new methods of observation, that in fact require the abandonment of the zenithal all-inclusive vision, described by Marc Augé as the "aesthetic of distance"[60]

Luis Barragán
Satélite Towers, 1957 - 1958
Mexico City
Barragan Foundation, Swiss.

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57 Stefano Boeri, *ibidem* p.56
58 Stefano Boeri, *ibidem* p.57
59 "[...] The contemporary territory is shaped by tensions between space and society, and make no effort to express themselves within the code of the zenithal morphology; and by configurations that are often just what they appear and do not claim to be anything but what they seem." Stefano Boeri, Ibidem, p.58. Cfr. in AA.VV., USE. Uncertain States of Europe, Skira, Milan, 2003 and AA.VV. "Mutation", Actar, Bercellona, 2001.
60 "[...] By *surmodern* landscape I mean the urbanization of the world, that is, the accelerated extension of the spaces of circulation, consumption and communication that leads to the growth of large cities and the proliferation of the urban fabric along the roads, the coasts and the rivers. The traditional cities, the historic centers become a tourist curiosity, business districts and the giant towers lit-up in the urban night that are the symbol of the new powers in the world, are arising on every continent. Great architecture has always expressed the power relations in society. The grand architecture of American downtowns, or of the European business districts that project their sparkling towers of tent walls towards the daytime sky, or project towards the night sky the bright hopes of the always lit offices is today the most direct symbol of the power of firms. The dominant aesthetic is an aesthetic of distance; from viewing the aerial photos taken by satellites we get used to a global view of things, just like fast roads and high-speed trains. The towers of offices or residences educate the eye, as does film, and even more so, television. The steady stream of cars on the highway, the take-off of planes from airport runways, the passage of artificial satellites in the sky, like shooting stars only slightly slower, give us a picture of the world as we wish it were. We are witnessing the beginnings of space tourism and the planet as a landscape that will allow travelers in zero gravity to observe the earth from a distance at an altitude of 100 km. This accelerated transformation expresses a change of scale of which each of us becomes progressively aware, if only through the images of television. [...] At a time when even the planet is becoming a landscape and the planets of the solar system are beginning to look like mere suburbs of the earth and since scientific study proposes hypotheses

in favour of more subjective and direct visions, which capture potential that lies between the road infrastructure and differently perceived infrastructure.

We must change the point of view, the viewing angle from which to observe, use a "sideways viewpoint"[61] allowing the viewer to examine "the three-dimensional consistencyand the age of the solids, which allows spaces to acquire a thickness, even in time"[62] giving substance to the now visible spaces "that leave a trail in time and cast a shadow on society"[63], leaving marks and traces in the landscape. A *lateral* approach that Stefano Boeri and other authors have experimented with in defining the "*eclectic atlases*".

These atlases "propose new methods of examining the correspondence between space and society"; they are "heterogeneous texts (catalogues, photographic campaigns, geographical and literary descriptions, classifications, research reports, qualitative studies, essays and articles, ...), but similar in their visual attitude"[64], aimed at seeking "new logical correspondences between the *things* in space, the *words* we use to name the mental *images* that we project on them."[65]

The second variable deployed to make infrastructural waste visible is the physical crossing of these spaces, crossing them transversally, because in the past, but also today, "roads no longer merely lead to places, they are places themselves"[66], places that inevitably generate *gaps* and *voids*.

Margins that Francesco Careri, in the text Walkscapes, discovers and

whose language escapes us, and compared to which the mysteries created by earthly monotheism are but a pale figure, nature no longer envelops the earth nor protects us, nor is it a resource or an encounter but a challenge. This expresses in its own way, somewhat poorly, the current urban landscape which in its most sumptuous instances recalls something of the installations that one day, still far in the future, man in the generic sense of the term will set up on other planets, or in the opposite sense, of the spectacle that perhaps one day travelers coming from beyond will appear.

Science fiction and architecture have this in common, they try to mark in advance the empty and different space of the unknown, as if one day it were to be populated and thus authorize it to return to that symbolic enterprise it abandoned since we chased the gods from Heaven". Marc Augé, conference entitled "Landscape" held September 18, 2011 in Sassuolo - MO during the Philosophy Festival in Modena, Carpi and Sassuolo, 2011 edition entitled *Nature*. (www.festivalfilosofia.it)

61 Stefano Boeri, "L'anticittà", Edizioni Laterza, Bari, 2011. "Uno sguardo obliquo" p.64

62 Stefano Boeri, *ibidem*.
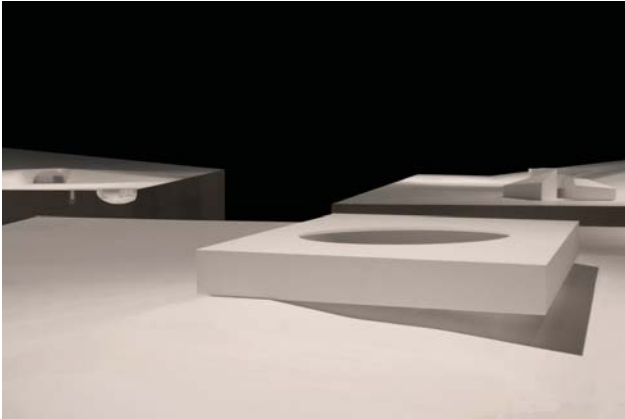
63 Stefano Boeri, *ibidem*.

64 Stefano Boeri, *ibidem* p.59

65 Stefano Boeri, *ibidem*.

66 J.B. Jackson, "A Sense of Place, Sense of Time", Yale University Press, New Haven, 1994.p.190, quoted in Gilles A. Tiberghien, "La città nomade", in Francesco Careri "Walkscapes. Camminare come pratica estetica", Einaudi, Turin, 2006. p.X.

analyzes carefully because "they are not only found on the *edge* of town, but in its very heart [...] occupied by *marginal* populations [...] ignored by everyone, unperceived places because they are always in motion."[67]
Invisibility as a leitmotif highlights the importance of these spaces, bits, scraps of land sacrificed to construct and enhance the infrastructures themselves, "grounds considered as mere physical support"[68] for other elements belonging to the landscape, usually subjected to a "strange ethical condition of *perceptive censure*"[69].

Aires Mateus
Voids, 2010
12. Mostra Internazionale di Architettura, Venezia
"People meet in Architecture" Venezia.

To make visible the waste produced by infrastructure also raises the question of their spatial and volumetric consistency that can be highlighted by the dichotomies of positive/negative, illuminated/in the shade, full/empty,object (infrastructure)/space (waste).

Like all architecture, infrastructures, and consequently the waste spaces they produce, are primarily space, "urban space (between buildings) and internal space (between walls)"[70],as Renato Bocchi reminds us in *Il ventre dell'architettura*.

Precisely for this reason they may constitute potential: they are empty spaces that, before becoming places for architectural designs, weave relationships with the context and the elements that compose them. Usually hidden below viaducts or trapped inside of road junctions, infrastructural waste spaces evoke spaces in negative and contemplate the presence of shadow areas which encumbers their volumes.

Luigi Moretti, in one of his writings entitled *Strutture e sequenze di*

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67 Gilles A. Tiberghien, "La città nomade", in Francesco Careri, Ibidem, p.XII.
68 Claudio Lamanna, "Alla scoperta degli invisibili, i lineamenti di una ricerca" in "I paesaggi del rifiuto: architetture e territori marginali della bassa e media montagna" (C.Lamanna, G.Salgarello, C.Azzali, L.Siviero), in "Progetti di paesaggio per i luoghi rifiutati", (ed.by) Annalisa Maniglio Calcagno, Gangemi Editore, Rome, 2010.p.31
69 Claudio Lamanna, *ibidem*, p.32
70 Renato Bocchi, "Progettare lo spazio e il movimento. Scritti scelti di arte, architettura e paesaggio", Gangemi Editore, Rome, 2009. "Il ventre dell'architettura".pp.44-59
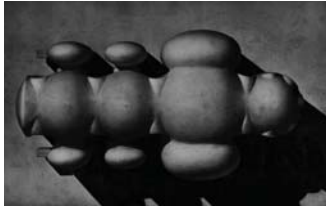
Luigi Moretti
. Modello degli spazi interni di Santa Maria della Divina Provvidenza in Lisbona di Guarino Guarini

. Modello degli spazi interni della Basilica di S.Pietro in Vaticano
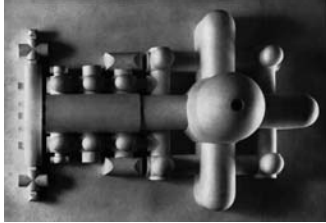
spazi, affirms that "an architecture is read through various aspects of its figure, that is, in the terms with which it expresses itself: light and shade, construction fabric, plasticity, structure of the interior spaces, density and quality of the materials, geometrical relations of the surfaces and other, more foreign relationships."[71]

These *elements*, which Moretti calls *expressive terms*, are mirrored in the empty space inside the architecture, *symmetric* and *negative*, in which they are summarized in a way opposite the way they are in the positive space, conferring on the negative, *interior* space the role of a real architectural *matrix*.

For Moretti, "internal volumes have a concrete presence in and of themselves, regardless of the shape and density of the matter that imprisons them, almost as though they were made of a rarefied substance lacking energy but extremely sensitive to receiving it.

That is, they have qualities of their own, four of which are obvious: the geometrical shape, either simple or complex; the size, understood as the amount of absolute volume; the density, depending on the quality and distribution of the light that permeates them; the pressure or energy charge, according to proximity, more or less imminent, at each point of space [...]"[72].

The discarded spaces of infrastructures, considered invisible and "temporarily expendable"[73] in favour of other places considered more relevant, can be compared to a real *belly*[74]*,* we would say an 'infrastructural belly': a space in negative – internal to the infrastructures themselves, consisting however of specific elements – *expressive terms* proper to the roadway lexicon that, when viewed from a different angle, open up unexpected possibilities. Concrete underpasses, bridge piers, road embankments, entry and exit ramps, roundabouts, junctions create and compose unexpected *enclaves* of wealth.

Associating the architectural space interpreted by Moretti with the reading

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71 Luigi Moretti, "Strutture e sequenze di spazi", in Spazio, a. IV, no. 7, December 1952-April 1953, pp. 9-20, and 107,108 in "Luigi Moretti: opere e scritti" (edited by F.Bucci and M.Mulazzani), Documenti di architettura, Electa, 2000.pp.177-182.
72 Luigi Moretti, *ibidem*, p.178.
73 Claudio Lamanna, *ibidem*.
74 The term belly is borrowed in the sense used by Renato Bocchi in the title of the essay ""Il ventre dell'architettura" ("The Belly of Architecture") in which the author investigates "architecture based on those relationships [...] that give rise to strong connotations and spaces strongly correlated with each other and to connections between interior spaces and exterior spaces." And where the reference to the title of the 1987 film by Peter Greenaway, *Il ventre dell'architetto* (The Belly of an Architect) is evident. Renato Bocchi, *ibidem*, p 44
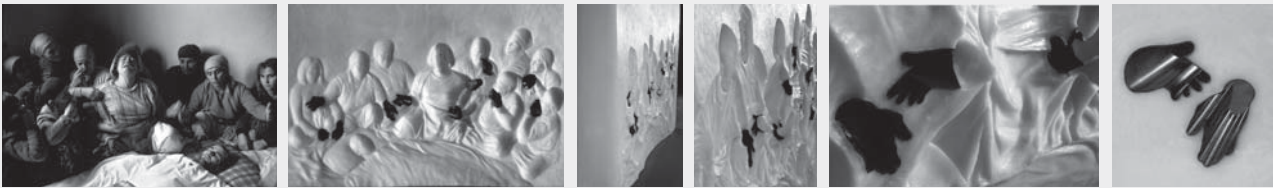
of spatial and formal consistency of infrastructural waste – infrastructural spaces may seem like a daring operation, but it finds its foundation in the belief, repeatedly expressed, in the need to look at these marginal sites as a resource for the evolution and enhancement of landscapes, urban and suburban, traversed by the roads themselves. It also enables us to acquire points of reference in order to break down and analyze these spaces and to understand their morphology, nature and value.

Infrastructure too, just like properly defined architecture, is composed of a *visible-illuminated-material* part and an *invisible-in-the-shadows-empty* part: this dichotomy is revealed through the contrast of light and shade and allows us, even at the mere level of hypothesis, to consider the discarded space produced by infrastructures as a space in negative or "internal", entitled to be considered a *space*[75]and, therefore, no less important.

FRAMMENTO_02

Pascal Convert
Sans titre
(inspiréede Veillée funèbre au Kosovo, photographie de Georges Mérillon,1990).
Cire, résine et cuivre, 224 x 278 x 40 cm.
Luxembourg, Musée d'Art moderne Grand-Duc Jean.

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75 We recall the words of Renato Bocchi previously mentioned: "Architecture is primarily *space*." Renato Bocchi, *ibidem*.p 44
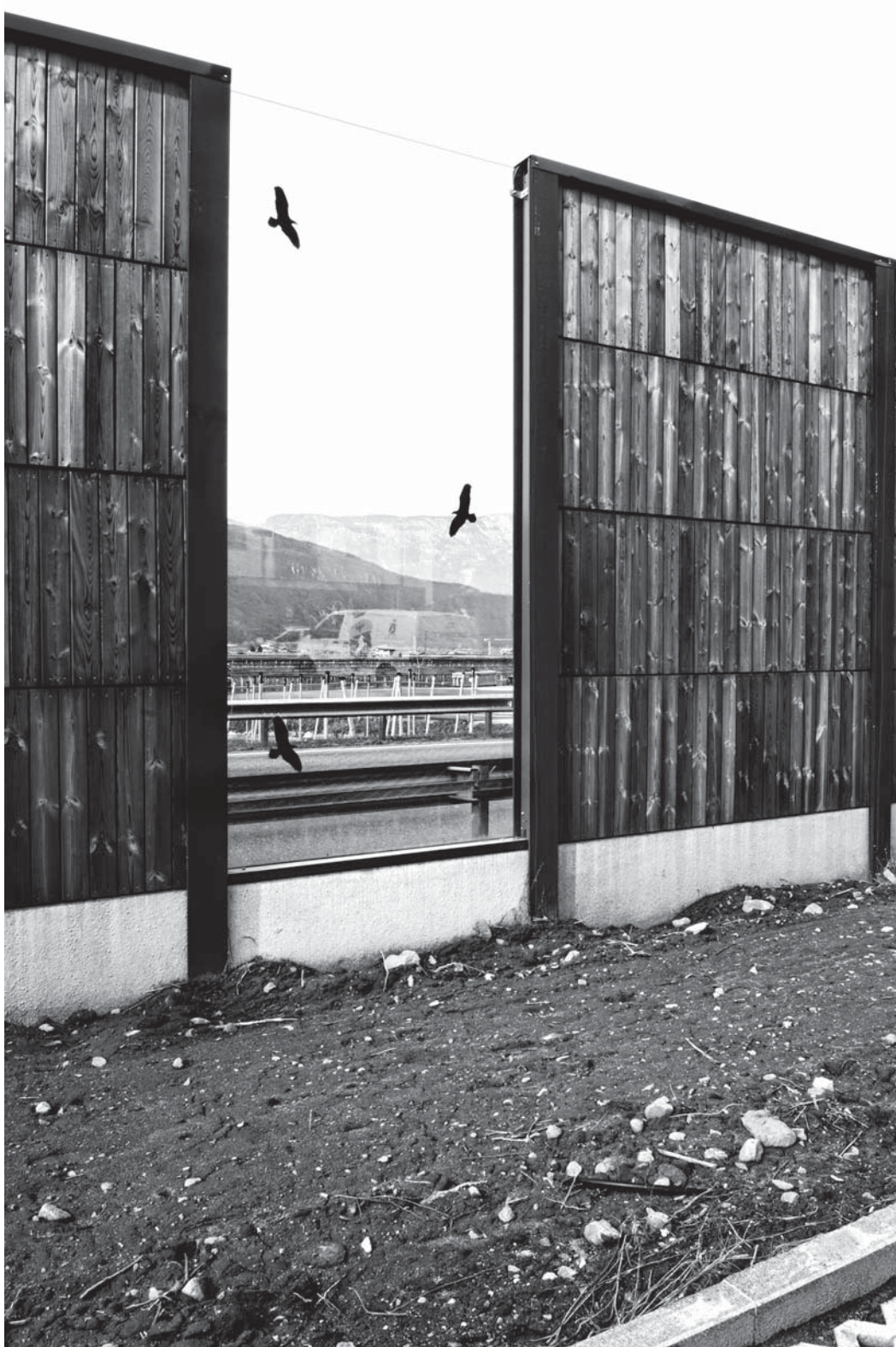
Michele Lamanna
Pineta di Laives
PRIN 2007-2010
Bolzano, 2010.

2.3 Invisible landscape of Trentino

After having gone beyond the border and entered into a borderland which has a real thickness, after having identified, thanks to elements of attention, unknown hidden enclaves where the depth of field becomes infinite and vanishes, we focus our attention on specific, innovative perceptual dimensions that necessitate a change of *perspective*[76], an up-close and tilted gaze.

Luigi Ghirri
Alpe di Siusi, 1979
Bolzano.

Passing from a state of invisibility to the opposite and visible condition, has highlighted the possibilities of perception and of the subsequent understanding of the parts that make up these spaces.

Another element that has contributed to reconstructing the overall picture of the perceptual and analytical dynamics of infrastructural waste is the photographic survey in the field, in Trentino - South Tyrol.

"Photography is a *research tool*[77]. Like other art forms, it is able to make explicit aspects of reality that are not immediately apparent, but destined to change the general perception of the landscape by those who pass through it."[78]

The statement, reported in the essa<y *Photoscape* of the text *Progetti di paesaggio per i luoghi rifiutati*, emphasizes the importance of photography for decoding marginal sites related to traffic, the invisible interstices of the landscape.

The decision to undertake a photographic survey of samples was based on the ability to focus the gaze on a close-up level that would reveal critical situations that the road, in fulfilling its primary task as a connector within the landscape, keeps hidden. The viewer's angle has thus been shifted, that low angle of the one who lurks, going over, to cross that grey area known as the blind spot, "the angle that, when still, our eyes are unable to grasp"[79].

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76 Gianni Celati, "Ricordo di Luigi, fotografia e amicizia", in "Luigi Ghirri. Lezioni di fotografia", (ed.by) G.Bizzarri e P.Barbaro, Quodlibet – Compagnia Extra, Macerata, 2010. "Ghirri said that, when photographing, the most important thing is posture, that is, the way you stand in front of something, the position of the body and the gaze, according to what you want to see. Because everything wants to be seen in its own way, according to the thing to be seen. Because everything wants to be seen in its own way, depending on how it offers itself to one's gaze." p.262

77 See note1 in C.Lamanna, G.Salgarello, C.Azzali, L.Siviero, "Photoscape: atmosphere invisibli", in "Progetti di paesaggio per i luoghi rifiutati", (ed.) Maniglio Annalisa Calcagno, Gangemi Editore, Rome, 2010.p.70

78 C.Lamanna, G.Salgarello, C.Azzali, L.Siviero, *ibidem*.

79 Franco La Cecla, "Per un'antropologia dell'automobile" – *introduzione*, in C.Ward, "Dopo l'automobile", Elèuthera, Milan, 1992.

The photographic survey in Trentino-South Tyrol is inspired by a real reportage by Gabriele Basilico at the time of the revision of the Provincial Urban Planning of the Autonomous Province of Trento and of the legislation concerning the protection of the landscape (approved by provincial law no.5 of 27 May 2008)[80]. Commissioned by the then Provincial Administration, the goal of Basilico's work was not a simple "[...] investigation of the landscape, understood as natural or historical beauty to behold, but a work on changes in the morphology of the territory"[81], aimed at highlighting the morphological changes and grasping the *complexity* and *contradictions* of the Trentino landscape.

There is a clear desire to move beyond the aesthetics of contemplation of the beautiful landscape: the photographic survey is intended rather as "an instrument for knowing and analysing reality"[82], aimed at trying to change the point of view on things. Basilico's *photographic journey*, though imbued with subjective and reflexive characteristics, shows the close relationship between "natural" systems, typical of mountain areas, and systems belonging to "handled, processed and manufactured" landscapes[83]. In pictures nature is often depicted as background material, in the material weight of the mountains, while man-made structures such as roads, railways, bridges, buildings, dominate the scene, measuring themselves against the scale of these natural elements. It also shows how the complex system of infrastructural streams designs a new technical storyline, onto which artificial systems are anchored, transforming the landscape. For Basilico, "the problem [...] is not beauty, it is the acknowledgment of the state of things, [...] it does not travel in the world taken by enchantment, it does not create beauty where there is none, does not hide nor transfigure"[84]. Basilico "puts his efforts in a constant act of observation," he seeks "situations of problematical fullness [...] showing much more than meets the eye"[85], because the eye does not see all the elements that constitute the landscapes and above all cannot identify all the physical and conceptual relationships existing between them.

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80 On 12 September 2003, the Museum of Contemporary Art in Rovereto (MART) inaugurated the exhibition entitled "Trentino - A photographic journey by Gabriele Basilico".
81 Roberto Pinter, "Introduzione", in "Trentino-viaggio fotografico di Gabriele Basilico", (ed.) E.Ferrari and A.Turrella, Nicolodi Editore, Rovereto, 2003.
82 Roberto Pinter, *ibidem*.
83 C.Lamanna, G.Salgarello, C.Azzali, L.Siviero, *ibidem*
84 Roberta Valtorta, "Come non essere turisti, oggi" in "Trentino-viaggio fotografico di Gabriele Basilico", (ed.by) E.Ferrari and A.Turrella, Nicolodi Editore, Rovereto, 2003.
85 Roberta Valtorta, *ibidem*.

The use of white-black, the exaltation of chiaroscuro forcefully recall the directions given by Moretti and applied to the theme of infrastructural waste: it confirms, once again, the difficulty of identifying and knowing these areas and reinforces the correctness of using the photographic instrument.

The *incursions* of photographer Edward Burtynsky[86] into the land left free by quarries, mines, refineries, railroad lines and demolitions they appear, in this sense, paradigmatic.

The Canadian photographer claims that rejected places, discard places, "are outside our normal experience"[87], despite the fact that man interacts daily with the final products of these transformations, consumer goods, and that the photograph is precisely for training the eye on contexts undergoing change, to consider the images as real", to highlight the compromised parts of a unitary landscape such as the contemporary one.

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86 Edward Burtynsky in Lotus International, n°. 128 "Reclaiming Terrain", Ed. Lotus, Milan, 2006.pp.4-8
87 Edward Burynsky, *ibidem* p. 4

Gabriele Basilico
.*Vallagarina*
.*Valle di Non, 2003*
Trentino - Viaggio fotografico di
Gabriele Basilico.
Rovereto.

The photographic image, interpreted by Basilico and Burtynsky, doesn't limit itself to "impressing" and "educating" the eye of the observer, offering him a radical change of perspective, but implements a real process of "*artialisation in visu*"[88] of complex places, degraded places, because, through their "*photographic*" gaze they create patterns of perception and observation of the discard itself.

This concept is taken from the comments made by Roger Alain about mountain landscapes : "c'est ainsi que la montagne, qui, auparavant, du moins en Occident, ne suscitaint que l'indifférence, sinon la répulsion, est devenue un véritable paysage au siècle des Lumière, grâce aux poètes, aux romanciera, aux peintres,aux graveurs, etc. L'*artialisation* est donc la condition de possibilité de toute pratique et de toute perception paysagère."[89]

Infrastructural waste can then assume the identity of *artialisés places*: they take on a value that transforms them from simple abandoned and invisible spaces, to potential landscapes awaiting transformation.

A further methodological suggestion, taken from Gabriele Basilico's trip to Trentino, derives from the descent "into the folds of the landscape"[90]: a close-up that offers emblematic views, where the elements which together form the image, mountains, man-made objects, infrastructures, fields, "show significant relationships that determine that compact nature-construction continuum which constitutes [...] all of our landscape, [...] including that of Trentino."[91]

The close-up and detailed analysis of some individual buildings, figures, objects, elements, presented in the dimension of everyday life: "each figure has equal dignity to that of the others"[92] and simply tells of the place where it is located. Basilico thus presents the characteristics of approval, opposed to those of a residual typicalness, be it *spontaneous* or *artificial*.

88 Alain Roger, "Court traité du paysage", Editions Gallimard, Paris, 1997.
89 Alain Roger, "Mouvance II. Soixante-dix mots pour le paysage", (ed.) Augustin Berque – AA.VV, Editions de la Villette, Paris, 2006.pp.30-31. See also about the concept of *artialisation*, also by Alain Roger, «Court Traité du paysage», Editions Gallimard, Paris, 1997.
90 Roberta Valtorta, *ibidem*.
91 Roberta Valtorta, *ibidem*.
92 Roberta Valtorta, *ibidem*.

Reference to the teaching of the photographer Luigi Ghirri also has served as a methodological check and practical foundation in the search for fragments of infrastructural production through the photographic instrument. For Ghirri, in fact, photography "was to restore the dignity of things... withdrawing them from the schemas, the hasty judgments of those who never look at anything"[93]. From his pictures, his friend Gianni Celati recalls, "there stood out a way of looking that was, [...] a revelation"[94].

It was just this "*revelation*" of the up-close scale and of the ordinary detail that was the basis of the photographic survey carried out in Trentino - South Tyrol in March 2010 for the PRIN Ministerial research[95] on *rejected landscapes*. The report focused on what one normally excludes from view when passing through places of infrastructure, taking for granted in their entirety, but especially in detail, all those details, technical and otherwise, that make up the streets.

The interpretation of the findings is the next stage of the study. The report was conducted through brief stops in service areas, rest areas along the roads, embankments on the edge of the roads and recesses under viaducts, capturing elements of small-scale and large-scale relationships that quietly weave invisible relations in the territories where they are located.
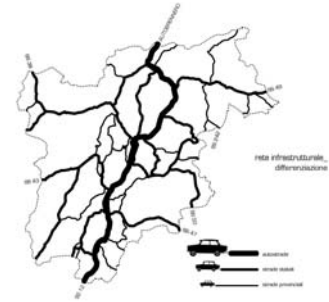
It is in the *folds of the landscape* that these spaces are found, places difficult to categorize that create an atmosphere difficult to analyze, similar to those of E. Burtynsky: fragmented details, "scraps of territory placed as relics, ruins, as remains of a landscape marked by historically struggling economies due to the particular orographic formation and now further in crisis due to its proximity to development area, consumed by globalization and waste (both material and urban) produced by different manufacturing processes and infrastructuring of the more urbanized areas."[96]

Miur - PRIN 2007-2010
Trentino roads
"Progetti di paesaggio per i luoghi rifiutati"
Unità di Ricerca di Trento

Edward Burtynsky
.*Nanpu Bridge Interchange*
Shanghai, China, 2004

.*Highway #1 Los Angeles,*
California, USA, 2003

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93 Gianni Celati, "Ricordo di Luigi, fotografia e amicizia", in "Luigi Ghirri. Lezioni di fotografia", (ed.by) G.Bizzarri e P.Barbaro, Quodlibet – Compagnia Extra, Macerata, 2010. pp.251-264
94 Gianni Celati, *ibidem*.p.252
95 Ministry of Education, University and Research - Research Projects of National Interest 2007-2010 "Landscape projects for rejected places", national scientific responsible Prof. Annalisa Calcagno Maniglio. Research Unit: University of Studies of Trento, IUAV University of Venice, University of Studies of Genoa, Federico II University of Studies of Naples, Mediterranean University of Reggio Calabria.
96 C.Lamanna, G.Salgarello, C.Azzali, L.Siviero, "Photoscape: atmosfere invisibili", in "Progetti di paesaggio per i luoghi rifiutati", (ed.by) Annalisa Maniglio Calcagno, Gangemi Editore, Rome, 2010.p.70

Luigi Ghirri
positivo a colori - Versailles 1985
France

In the photographic mapping performed in Trentino-South Tyrol, we have not wanted to give the waste infrastructure a positive or negative value, but rather recognize a poetic capacity in this degraded local context, capable of determining the identity of a place.

It is a way of seeing the "world upside-down"[97], in its mirror image, "that upside-down reflection we see in the camera lens"[98] and also decodes what remains in the shadows.

Through an interpretative forcing, a two-dimensional graphic decomposition was attempted on the elements that were recorded during the photographic mapping, to understand concretely their consistency and to analyze what kind of effects are produced by infrastructures and, consequently, by surface and area discard in the contexts passed through. An attempt to read the positive and negative space of infrastructure through an abstractive process, summarized graphically, that highlights in two dimensions the data collected in the photographic reportage, breaking down the complexity by a monochromatic two-dimensional flattening of the image and by splitting the illuminated and shadowed elements.

The objective was to highlight how even waste spaces, negative spaces, are component elements of the architecture of the landscape. The mass of infrastructure becomes an object extracted from its function, and the *other spaces*-empty, formerly subordinate to the primary form of the road, appear on the same *overturned* perceptual level[99]. They are spaces in all respects, and no less important.

An integral part of the research work was therefore to identify a mode of expression complementary to the photographic survey that could support the theoretical and methodological reflections through a graphics processing aimed at taking apart and analyzing the complexity that these spaces reveal. The design instrument offers a double opportunity: on the one hand it returns the multiplicity of the many elements that constitute them, while on the other it allows a possible interpretative simplification to facilitate their understanding.

This graphical interpretation, abstract and experimental in nature (in the sense of an attempt), is inspired by Luigi Moretti's reading of the work of

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97 Gianni Celati, *ibidem*.p.253
98 Gianni Celati, *ibidem*.
99 The term refers to previous citations and notes relating to the writings of Luigi Moretti (space in negative-matrix) and Luigi Ghirri (upside-down world)

Caravaggio in the essay, *Discontinuità dello spazio in Caravaggio*[100].

The author points out how there occurred in the painter a veritable revolution in the handling and representation of the figure-background relationship: "the background is in shadow, where no forms live; the form lives as such and rejects any other logic or structure; light becomes the only warning of the shape."[101]

This cultural suggestion, taken from Moretti's text on the work of Caravaggio, has pointed the way to interpret graphically what has been concretely detected and observed. The processed images attempt to highlight the consistency of the discard, its extent, through two-dimensional diagrams without the use of colour.

The two-colour scheme (black and white) simplifies visual communication, it draws closer to the concept of the Morettian relationship of negative space - positive space and isolates the object of study from the *emptied* background where, as pointed out by Moretti, *figures* and *landscape*[102] lie on two different levels.

Miur-Prin 2007-2010
"Progetti di paesaggio per i luoghi rifiutati"
Unità di Ricerca di Trento.
(sperimentazione grafica: C.Azzali,L.Siviero,I.Lambertini)

100 Luigi Moretti, "Discontinuità dello spazio in Caravaggio", in Spazio, a. II, n°. 5, July-August 1951, pp. 1-8 and 91, in "Luigi Moretti: opere e scritti", (edited by F.Bucci and M.Mulazzani), Documenti di architettura, Electa, 2000.pp.170-173.
101 Luigi Moretti, *ibidem*. p.170
102 Luigi Moretti, *ibidem*. "[...] Leonardo had already laminated two levels of reality for the figures and landscape, and already the old Titian had coagulated onto certain color groups, the real kernels of inertia in his paintings, greator vigor of reality than onto others [...] The landscape then, from this concentration of interest on an entire form to the acute focusing on a section of a single form, taken as the sole and most dense reality, representative of the form itself, and cut against a shadow that absorbs and cancels the other sections and reasons of the form, is a progression of the expressive algorithm we now understand in the dialectic."

2.4 Changing Trentino landscapes

In light of these theoretical considerations and referring to the survey carried out in the region, some operational considerations have emerged:

- primarily, the need to rethink the very project of infrastructure for mobility through a design approach that allows one to overcome **cuts** and lacerations inflicted on the land, which cause sharp separations between existing systems of relations, to reconsider it in its entirety (Pineta di Laives);

- secondarily, the need to redesign impoverished areas, giving them different meanings than their original value, reinventing them or recontextualizing them within a landscape, understood as an evolutionary process in continuous transformation, in which to rewrite and **spark** new uses and functions, sometimes generated spontaneously (North Trento);

- thirdly, the desire to rediscover the "narrative dimension"[103] and perceptional dimension of the infrastructural landscape that is "like a succession of environments at once similar and different"[104] at times invisible, in which the rejected space appears as part of a whole, as an element whose complexity is determined by the excessive **overlap** of distribution systems, designed to connect local dynamics at different scales that **hinder** relationships and views (Cornedo all'Isarco and Civezzano).

Michele Lamanna
Pineta di Laives
Miur - PRIN 2007-2010
Bolzano, 2010.

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103 Franco Purini, "Questioni di infrastrutture," in Casabella, *Forme del movimento*, 739_740, Dec-Jan.2005, Electa, Milan, p.36, "[...] This regional architecture is not easily read as a whole, but can only be read by individual frames, proposing itself like a movie or a novel. […]"
104 Franco Purini, *ibidem*.

nuovo casello_trento sud

cornedo all'isarco
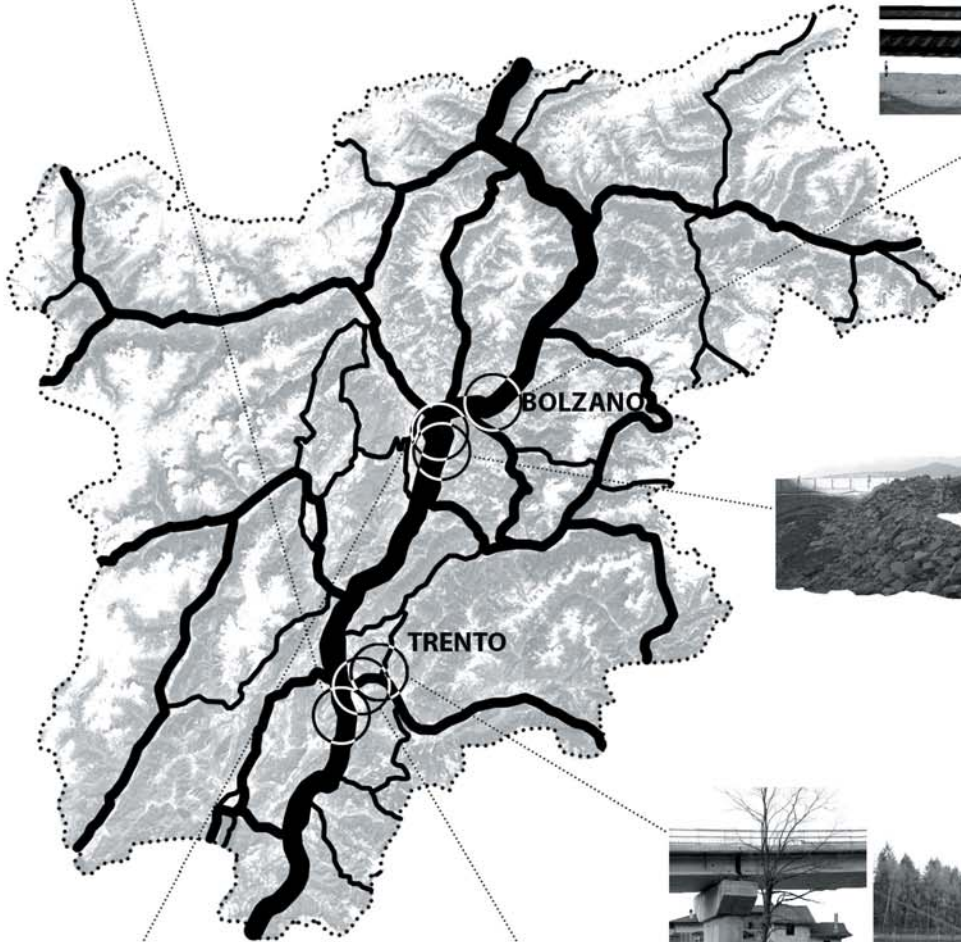
BOLZANO

TRENTO

pineta di laives

civezzano

bolzano_viale trento

svincolo ss47_ss12

72

A.

LA CIRCONVALLAZIONE DI PINETA DI LAIVES, LAIVES E BRONZOLO (SS 12 TRA BOLZANO E LAIVES)

Elemento di separazione:
la barriera acustica segna
nettamente il confine tra strada e
spazi abitati.
Il paesaggio della valle diviene
spazio oltre la strada, e così viene
percepito.

Planimetria schematica:
relazione strada /spazi abitati/
paesaggi naturali

Cutting.

The case study examined, understood in its new route, cuts, depending on what it crosses through, into pre-existing relations in its geographical context, creating completely separate spatial areas. The consequence of this design operation results in a total break between previously integrated agricultural and urban areas,inevitably resulting in the isolation of two distinct systems: the inhabited space and the space for growing/cultivation.
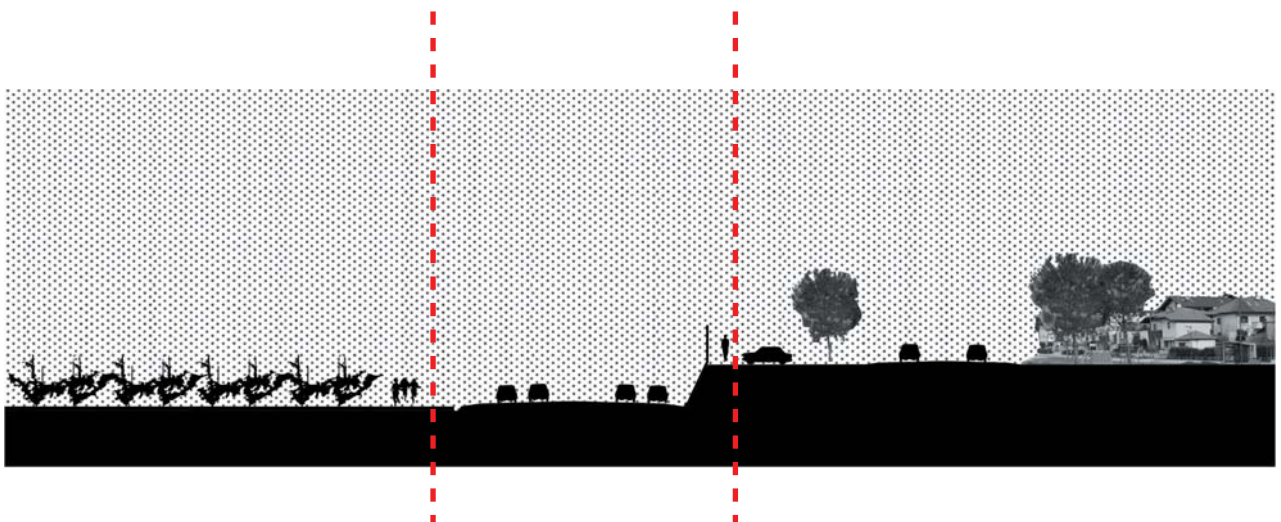
B.
IL NODO INFRASTRUTTURALE DI CORNEDO ALL'ISARCO

Overlay.
Building by levels: this is what is perceived by looking at the tangle of roadways in this case study. Circulating through different systems at different heights, sometimes dizzying ones, to join mountain units, eventually reaching the valley streams flanking the course of the Eisarck River. In this node the overlap of mobility infrastructures generates landlocked, inaccessible, deleted and abandoned spaces, causing great visual communicative disorientation. The result of implementation by road and railway overlapping has denied any relationships of the town of Cornedo with its context and has resulted in forgotten places, practically invisible landscapes, beyond the perception of the gaze.

Planimetria schematica: innesti ed attraversamenti di infrastrutture nel tessuto edilizio del paese
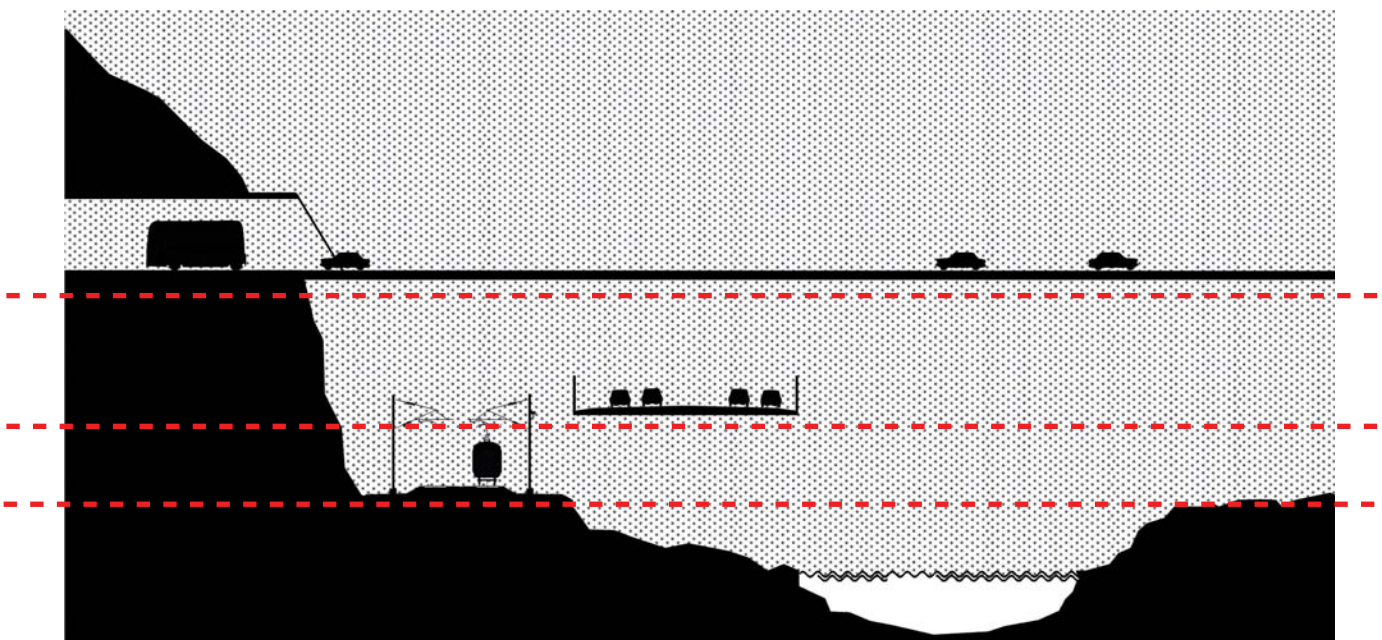
C.
SVINCOLO SS12 – SS47 TRENTO NORD

Graft.

The striking feature of the case study in question is the temporal overlap of its construction; it has created new conditions by crossing through the peripherally built-up area of the northern zone of the city of Trento.

Connecting the Valley to the Region's infrastructure system and serving small craft areas is certainly the purpose of the bypass in Trento; forcibly inserting it into the urban fabric is a necessary compromise for it to work.
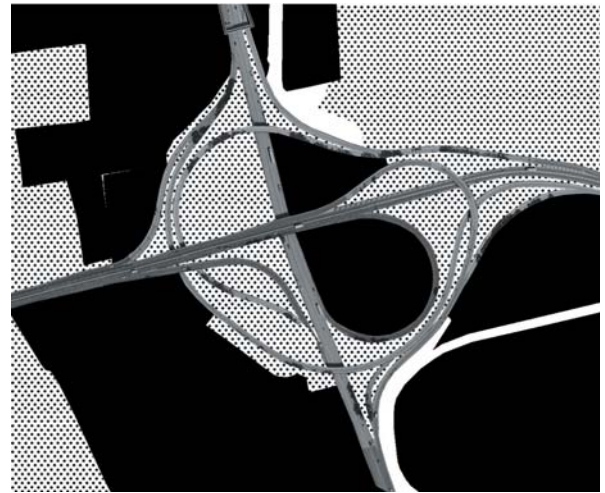
Planimetria schematica:
aree abitate interne e adiacenti allo svincolo

Innesto forzato dello svincolo nel tessuto urbano di Trento Nord
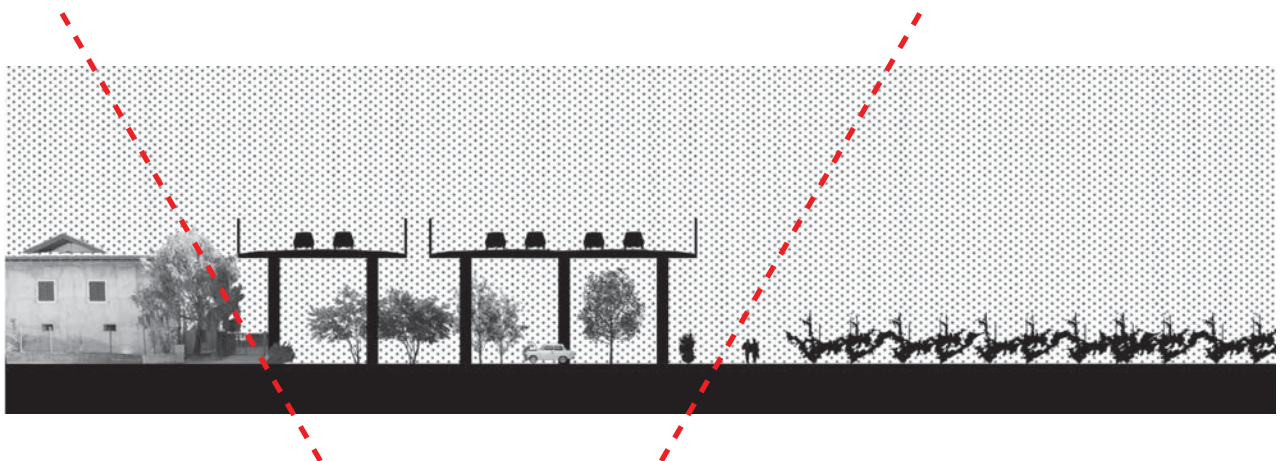
D.
VARIANTE ALLA SP 71 CIVEZZANO – TORCHIO

Obstacle.

The identification done by this case study is the question of the relationship between road production and environment. This contrast highlights its volumetric impact as soon as you approach the construction site: here all proportions vanish and every connection is denied because of the massive prevalence of the road embankment that will support the ribbon of the road.

We are facing a solid wall that offers just a "glimpse" to introduce a section of viaducts and borders on one side a small group of houses and on the other a lake for fishing.

Convivenze con volumi fuori scala

Planimetria schematica: taglio di relazioni precostituite
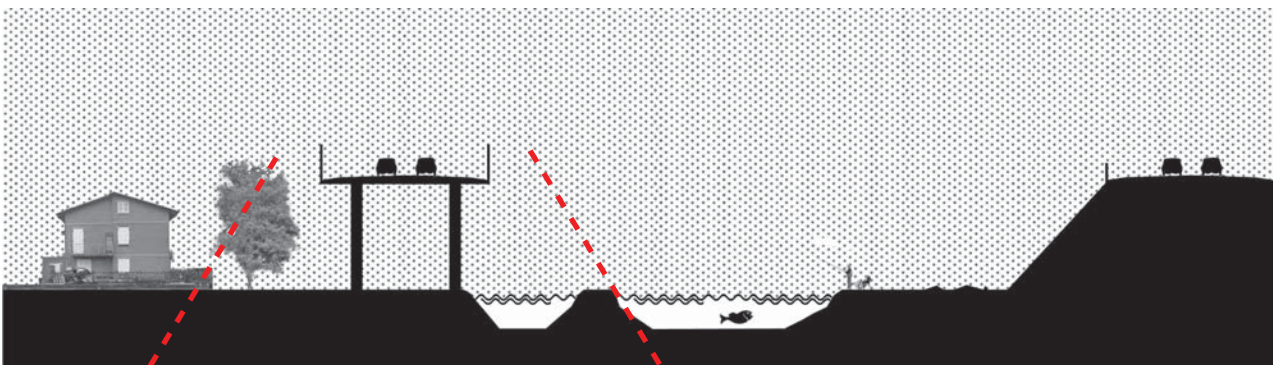
Chapter 3

Ordinary practices: use and potentiality

Questa cultura dell'uso implica una profonda mutazione dello statuto dell'opera d'arte. Ormai, oltre al suo ruolo tradizionale di ricettacolo della visione dell'artista, l'opera funziona come agente attivo, risultato musicale, scenario rivelatorio, contesto che possiede autonomia e materialità ad ogni livello, e la sua forma può oscillare dalla semplice idea alla scultura o al quadro. L'arte contraddice la cultura "passiva", quella composta da merci e mercanti, divenendo generatrice di componenti e riutilizzi potenziali. L'arte fa funzionare la forme all'interno delle quali si svolge la nostra esistenza quotidiana e gli oggetti culturali proposti alla nostra attenzione.

Nicolas Bourriaud, Postproduction, Come l'arte riprogramma il mondo, Postmedia Books, Milano, 2004

Herman Hertzberger
Riventicazioni private su spazi pubblici.

3.1 Ordinary codes

After closely and directly analysing spaces rejected by mobility infrastructures, it is necessary to delve into the study to verify how contemporaneity evaluates them in terms of use and exploitation. Therefore, in order to infer possible suggestions for the architectural project, it is helpful to discover their applications and spontaneous, functional and formal manifestations in order to assess the way these spaces have been already used by people that dwell them so closely.

The main topic of this research is the interpretation of *ordinary* practices within the city, in its urban and extra-urban contexts and spaces as well as their spontaneous use and their ability to modify places and habits: in other words, to see how dwelled contexts can be transformed and offer new possibilities and subjects in terms of projects and research.

"There are places, environments, cities where we feel more at ease than any others. You can walk in an unknown city and feel it is fitting, that it

invites you to explore it, that its passages are highly in tune with feelings of suitability. We feel we suit these places and that they suit us."[1]

Is it possible to transfer this statement of Franco La Cecla to spaces and rejected areas generated by mobility infrastructures? Are we feeling at ease with them? Are we feeling suitable?

The instinctive answer is often no. The most common feeling is uneasiness, anguish "[…] because our body expects affinity with the surrounding physical features"[2] and, in these cases, it cannot find it because "[…] we form the space, together with the surroundings"[3]

For La Cecla and others, this marked inability to establish relationships with dwelled environments is determined by the typical habits of our dynamic, frenetic mobility-oriented society that allows displacements from one point of the planet to another in the shortest time possible, thus reducing, progressively, every "work of adaptation"[4] in the contexts we live.

Indeed, the concept of "losing oneself"[5] and "indifference to the environment"[6] can be associated to all spaces that do not respect traditional and consolidated standards, commonly considered integral part of the city and of the landscape that we are ready to recognize thanks to culture or habits.

If we are out of a car, near technical spaces rejected by road infrastructures, we can feel disoriented and distressed because of their invisibleness that makes them less perceptible and suitable to the idea of collective use.

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1 Franco La Cecla, "Perdersi. L'uomo senza ambiente", Economica Laterza, Rome, 2007. "Mente locale e distrazione periferica", page 88 [English title of the book: "Losing oneself: Man without environment", English title of the paragraph: Local mind and peripheral distraction"].
2 Franco La Cecla, *ibidem,* p. 89
3 Franco La Cecla, *ibidem,* p. 89. To support this statement, the author quotes Merleau-Ponty from M.Merleau-Ponty, "Fenomenologia della percezione", Il Saggiatore, Milan, 1975: "Experience discloses beneath objective space, in which the body eventually finds its place, a primitive spatiality of which space is merely the outer covering and which merges with the body's very being. To be a body, is to be tied to a certain world, as we have seen; our body is not originally in space, but it enters it." [English title: Phenomenology of perception].
4 Franco La Cecla, *ibidem*, pp. 90-91. The author demonstrates how "developed" societies are losing their direct relationship with the environment. This produces an interruption of the relationship between man and the environment: "In a world where mobility is really fundamental, it is extremely important to reduce also every "work of adaptation". This can be achieved through the elimination of the differences between places and spreading an ideology that proves the lack of importance of the relationship between bodies and places."
5 Franco La Cecla, *ibidem*, p. 92
6 Franco La Cecla, *ibidem*, p. 92

The desire to bring them to light and reveal them can contribute to building a new, collective and spatial awareness, allowing to establish new relationships with the contexts we face and live.

According to La Cecla, this process begins with "losing oneself", a necessary action to promote the subsequent one: "getting oriented" to determine a new "adaptation". The final step is what the author calls "local mind"[7].

If "local mind" means "perception and definition of the surrounding space, outlining one's intentions and movements in space, […] also the use of this same space is a prosthesis of physical presence,[8] i.e. using the environment as an envelope". Thus, ordinary spaces can become important in the light of what we have stressed above. They contribute to making the "local mind".

To show how spaces rejected by infrastructures, swarf, scraps and fragments can be considered a value, it is essential to point out their potentialities of transformation and analyse their uses as well as the way people make these places familiar in daily life, re-establishing interactions and relationships among the different areas of the city.

Today, some changes are taking place in this direction, and for this reason the research focuses pragmatically on the direct relationship between user and signs of use, promoting a correspondence between theory and practice. Best practices are not a simple consideration on the formal and figurative language of the intervention, but they are proposed as possible tools to show strategic directions that emerge, more or less naturally, in ordinary cities.

Sara Marini stresses out the importance of studying these practices in her text *"Nuove terre"*[9]. She analyses Michel De Carteau's work "*The practice of everyday life*[10], where the author: "[…] is interested in how

Umbo (Otto Umbehr)
Rue inquiétante, 1928
Gelatin silver print
29 x 23.5 cm
Mystère de la rue, 1928
Gelatin silver print
29 x 23.5 cm
© Galerie Rudolf Kicken,
Cologne and Phyllis Umbehr,
Frankfurt/M.

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7 Franco La Cecla, *ibidem*, pp. 4-5. According to the author, "local mind" is an expression linked to orally transmitted cultures. It is "(...) the expression of the capacity of living. It is the perception, the definition and the use of a space that can be fully possessed only by the dweller". According to the author "local mind" has a positive meaning: "I prefer talking of "local mind" to imply the culture of dwelling, of construction and dwelling, and not of "vernacular architecture", "architecture without architects", "spontaneous", "primitive", "traditional" architecture, because these definitions are not only an humiliation to the vast range of possibilities of dwelling, but also a definition lacking hope".

8 Franco La Cecla, i*bidem*, pp. 94

9 Sara Marini, "Nuove terre. Architetture e paesaggi dello scarto", Quodlibet Studio, Macerata, 2010 [English title: New lands. Rejected architectures and landscapes.]

10 Michel De Certeau, "L'invenzione del quotidiano", Lavoro, Rome, 2005. [English title: "The practice of everyday life"]

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people live spaces and rules they find" and focuses his attention on "[…] clarifying smaller systems, personalized microcosms, without forgetting the principles that influence the definition of these surrounding places"[11].

In this fundamental text, Michel De Certeau depicts the ordinary man through collective actions that describe the way he appropriates daily spaces, usually available without project and normative planning tools.

On the contrary, this statement reminds us that the definition of infrastructure is mainly based on binding standards from a formal and technical-structural point of view, and that current standards, relating to road safety, establish accurate parameters in order to obtain technical inspections and detailed economic control systems. Often, in respect to road layouts, they lead to choices which are not really in tune with landscapes and contexts.

Criticizing rational organization and rule hegemony that creates uniformity and flattening, De Carteau highlights the creative capacities of ordinary practices that, overlaying one another, generate transformations.

"Actually, to a rationalized, expansionist and at the same time centralized, clamorous and spectacular production corresponds another production, called "consumption". The latter is devious, it is dispersed, but it insinuates itself everywhere, silently and almost invisibly, because it does not manifest itself through its own products, but rather its ways of using the products imposed by a dominant economic order."[12]

He elaborates two conceptual models that confirm this statement: the idea of *trajectory* and the distinction between *strategy* and *tactic*.

The former relates a temporal sequence in a spatial pattern, recalling "a temporal movement in space"[13]. The definite and definitive function of a place is substituted by the continuous possibility of modifying its identity through use: time passes through space and transforms it.

The conceptual distinction between *strategy* and *tactic* specifies the interesting thought of De Certeau. The author declares: "I call a strategy the calculus [...] of force-relationships that becomes possible when a subject of will and power (a proprietor, an enterprise, a city, a scientific

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11 Sara Marini, *ibidem*, p. 33
12 Michel De Certeau, "L'invenzione del quotidiano", Lavoro, Rome, 2005, p. 66 [English title: The practice of everyday life"]
13 Michel De Certeau, *ibidem*. p.71

institution) can be isolated from an environment"[14]. "[...] I call a tactic, on the other hand, a calculus which cannot count on a "proper" (a spatial or institutional localization), nor thus on a borderline distinguishing the other as a visible totality. The place of a tactic belongs to the other"[15]. Strategy defines, encloses, "establishes" the autonomy of space, making it measurable: it is "a victory of space over time"[16], it is space's identity and, for this reason, space's knowledge.

As J. Derrida would say, it is "metaphysics of presence". Tactic, on the contrary, is movement, opportunity, it is the "art of the weakest", but without an overall project, it is determined by its lack of power. For this very reason, it allows full freedom.

It is or could be what Derrida calls "différance", i.e. the difference between signs and their meaning.

The above mentioned definitions may be enlightening if applied to the use and ordinary practices of places.

While "strategies are actions which, thanks to the establishment of a place of power (the
property of a proper), elaborate theoretical places (systems and totalizing discourses) capable of articulating an ensemble of physical places", tactics "are procedures that gain validity in relation to the pertinence they lend to time, to the circumstances which the precise instant of an intervention transforms into a favourable situation, to the rapidity of the movements that change the organization of a space [...]"[17]. Circumstances, weaknesses, precariousness, ordinariness produce creative, dynamic and interesting effects, both at project and use level.

In confirmation of this, in *Nuove Terre* Sara Marini writes: "today, the insignificant importance of the land and its latent memories not easily recognizable to the majority represent the subject of the project. Spaces abandoned by planning that are waiting for the determination of a new role are used spontaneously or simply indicated as new public places, marked by art, architecture and planning experimentations. These places offer a freedom of use which allows a more public definition in response to the economic regulation achieved by many historical or modern spaces"[18].
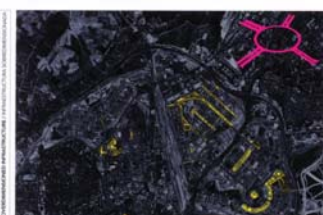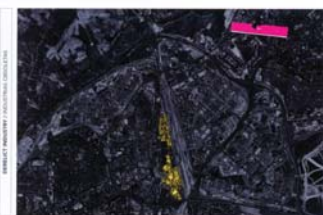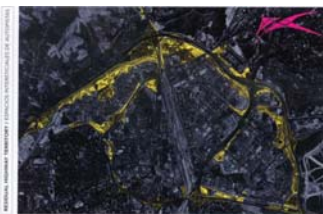
J.Tenyenhuis & A.Vàzquez
The city that never was. Strategies for negotiating urban landscapes in transition.

14 Michel De Certeau, *ibidem*, p. 71
15 Michel De Certeau, *ibidem*, p. 73
16 Michel De Certeau, *ibidem*.
17 Michel De Certeau, *ibidem*, p.75
18 Sara Marini, "Nuove terre. Architetture e paesaggi dello scarto", Quodlibet

Usually, self-determination for the definition of these spaces is carried out by users without limitations or a purchaser being responsible for planning the intervention.

In some cases, an independent construction of the city can be noticed, where there is a direct relationship between user and project without the mediation of a decisional bodies (municipalities, institutions, dealers, etc).

The commitment to identify these spontaneous and ordinary practices in the city, looking for operative tools in existing phenomena, can allow the support of the planning action through the formalization of coded strategies.

The creation of a strategic benchmark can find new possible considerations for the architectural project. Indeed, the focus of this research is not seeking out exhaustive examples or a vast range of cases, but to highlight the possible relationships, solutions and creations to settle these incomplete spaces by means of the description of representative samples of contemporary transformations.

The interpretation of often informal interventions means breaking them down in a series of formal, geographical-localized, geometrical-dimensional, functional data inferring, eventually, a real operative language.

The project can be interpreted as a support and development of the transformative actions of contemporary spaces.

This chapter, specifying and cataloguing the uses of infrastructural waste spontaneously carried out by people, aims to identify metaphorically equivalent tools which may be similar to the *conceptual tools*[19] described by Peter Eisenman in *Diagram Diaries* based on actions that support invention techniques.[20]

Studio, Macerata, 2010. p. 37 [English title: "New lands. Rejected architectures and landscapes"].

19 Matteo Zambelli, "Tecniche di invenzione in architettura. Gli anni del decostruttivismo", Marsilio – Saggi, Venice, 2007, p. 28. "Conceptual tools are: inversion, mapping, artificial excavation, folding, grafting, tracing, marking, layering, montage, voiding, decomposition, blurring, striation, gridding, laminar flow." [English title: Techniques of invention in architecture. The years of Deconstructivism].

20 Matteo Zambelli, *ibidem*, p. 28 The author, defining precise spheres of study and authors, describes and analyses the technical and cultural tools that are subject to the creative process in architecture:"Architects rely on invention techniques to project and start the ideation process, explicitly or not, even if architects and critics dealing with this problem are few".

For planners, the uses of these spaces become mental schedules to the extent they find new options and using-solutions, change their point of view and highlight new potentialities.

The practice of every day life or, fitting to infrastructures, the practice of every day life *in* infrastructural waste, is pointed out by Bruno Munari in *Fantasia,* describing the inventive process: "Invention is what did not exist before but without aesthetic problems and exclusively practical"[21]: "[…] inventing means thinking of something which did not exist before"[22] or could not be seen before, associating known things, knowledge, images, solving primarily practical solutions. Invention, implied in the fantasy and creativity of every single person, shows up in the culture of users that simply or not completely consciously put it in place also in underestimated and rejected places, possibly hoping for the next intervention of the architect.

The tools inferred by classified cases are part of the cognitive and formal baggage forming the background of several architects[23], able to implement creative mechanisms to solve architectural problems.

As we have seen, the analysis of the ordinary and the functional as well as of imaginative acts, does not aim at the static definition of models that can be exported and applied to all contexts, but contributes to building the general features of the mentioned strategies.

A further support, identified in literature and in ordinary reality of spontaneous and urban transformations is the tool of *defamiliarization*[24], a process that creates a new and unusual vision of a common reality.

Matteo Zambelli, in *Tecniche di invenzione in architettura*, describes it as an operation that "shows us a known object in a context, with unusual functions and modalities. Defamiliarization tells us how to look at daily
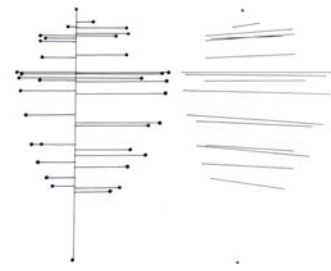
Bruno Munari
Collegamento orizzontale dei punti esterni della foglia con l'asse centrale.

Collegamento tra i punti esterni della foglia, della stessa natura.

21 Bruno Munari, "Fantasia", Laterza editori, Rome-Bari, 1999 p. 21, quoted by Matteo Zambelli [English title: "Fantasy"]
22 Bruno Munari, "Fantasia", Laterza editori, Rome-Bari, 1999 p. 21, quoted by Matteo Zambelli [English title: "Fantasy"]
23 Matteo Zambelli,"Tecniche di invenzione in architettura. Gli anni del decostruttivismo", Marsilio – Saggi, Venezia, 2007, p. 25 "Architecture falls within the *problem solving* topic because it solves, or should solve disciplinary (functional, distributive, formal, figurative, detailed...), or extra disciplinary (customer's requests, expense and consume reduction, normative...) problems. In *problem solving* we have two kinds of problems: "undefined problems" and "badly defined problems". […] The architectural project is a badly-defined problem" which must be clearly solved". [English title: Techniques of invention in architecture. The years of Deconstructivism]
24 Webster's New World College Dictionary, Wiley Publishing, Inc., Cleveland, Ohio, 2010: "Defamiliarize: to make (something well-known or well-established) seem unfamiliar, strange, disconcerting, etc., as in order to reinterpret or subvert it."

predictable things, from an unusual and different observation (and transformation) perspective"[25].

As the author points out, the main consequence is that many buildings, which today are abandoned and no longer used, are recovered deeply transforming their original function: "stables are the typical example of this changing function: they become apartments, while workshops are converted into luxurious lofts for artists, boats are used as restaurants, churches become discotheques"[26].

Therefore, defamiliarization helps to consider mobility infrastructures as different systems, a mixture of daily elements which can be assembled according to perspectives that change their uses, and to transform all spaces related to them: a roof, a "square", a protection fence, a living thickness, grasping structures, etc.

In order to change the usual configuration and start any inventive process, it is obviously necessary to know the object and the context that generates it in advance.

Hereinafter, different kinds of re-use of infrastructural wastes will be described: temporary-artistic use, spontaneous and ordinary use by populations and finally illegitimate use.

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25 Matteo Zambelli, *ibidem,* p. 37
26 Matteo Zambelli, *ibidem*

3.2 Artistic use

The artistic intervention in public spaces is a consolidated practice: the way of commissioning the work has changed, but also places and spaces to create it. In particular, the relationship between art and users has changed.

In the last decades, we have had the opportunity not only to witness an actual invasion of urban spaces, but also of open spaces defined more "natural"[27], anyway outside museums, galleries, shopping centres, that usually host works of art. The museums themselves have become anti-conventional places, set in *different*[28] spaces of the city. On the other

27 C.Birrozzi and M.Pugliese (edited by) ,"L'arte pubblica nello spazio urbano. Committenti, artisti, fruitori", *Premessa*, Bruno Mondadori, Milan, 2007. [English title: "Public art in urban space. Costumers, artists, users"]

28 Different spaces of the city refer to schools, courts, workshops, manufacturing buildings, warehouses, slaughterhouses. Some examples are: *104 – CENTQUATRE* in Paris, former Service Municipal des pompes funebre and *HangarBicocca* in Milan,

Anselm Kiefer
I sette palazzi celesti, 2005
Milano, Hangar Bicocca.

hand, it is clear that art is able to modify parts of the city and whole parts of the territory: in regard to this, we might think, for example, to the artistic experience of the *Land Art* movement. Usually, in its need of continuous, expressive and communicative research, art contributes to reinterpreting planning and figurative tools in order not to be affected by external influences and to open new cultural prospects.

As Angela Rui states: "In their precision and far-sightedness, in their ability to anticipate the interpretation of the times, the arts today feed not only on their contradictions, tending toward the ground zero of their own orthodox language, but also on new programs that interact with other worlds and other lands.[29]" These new perspectives usually provide for the participation of users themselves that more and more frequently complete the work with invention acts.[30]

In regard to artistic interventions, Rui states that "the fact of their being unfinished produces syntax, […], contributes to broadening the horizons and the objectives of the culture of planning."[31] This consideration opens up an important reflection: interpreting *performances* and artistic installations, even if placed in atypical places, to understand how work and place, contents and container are related, both at staggered or, on the contrary, overlaid level (example: *site-specific* works).

This interesting relationship between art and urban dimension suggests new theoretical and cognitive models to be tested on the field and indicate unusual planning modalities, able to redeem small spaces, pieces of city, huge territories and allows "experiencing places in an immediate way […]. Its significance lies in the experience that one has of it, […], in a particular place."[32]

Analysed best practices, in this way, explore the potential uses of useless and impracticable spots of the city and highlight their redeem tendencies through installations, performances and works of art, also of spaces and volumes rejected by infrastructures.

Hou Hanru, supervisor of the section *Useless to be useless* within the artistic event *Fuori uso* in Pescara in the year 2000, points out the

where, in the past, coils for train electric motors were produced.

29 Angela Rui "La città alla prova dell'arte", Lotus International *Minimum*, n°142, 2010. p.114 [English title: "The city tested by art"]

30 In this case, the word "invention" refers to the previously explained meaning, discussed trough Matteo Zambelli's interpretation, in the new reading of *Fantasia* by Bruno Munari.

31 Angela Rui, *ibidem*, p.114

32 Angela Rui. *ibidem*, p. 118

necessity that art reconsiders the issue of its own place and, then, the concept of place. During the artistic event, the choice fell on spaces under motorway bridges where traffic invasion and the continuous motion of communication networks leads to further thoughts on city lifestyles and on how to convert spaces considered out of use through the development of artistic strategies aimed to re-interpret places[33].

"Fuori Uso" 2000
The Bridges. Art on the highway
Pescara

Hou Hanru writes: "The evolution of relationships between useful and useless is also a cultural process. The way to define the usefulness of a site has to do with its cultural and historic conditions. Today, the transcultural reality in our society is no doubt a decisive element in the definition of a useful site. It is also a fundamental significant element in the creation of the current cultural context.

Artistic intervention, often introducing alternatives, understandings and uses of the site can play a particularly inspiring and dynamic role in the redefinition of this relationship.

In the current case of "Fuori Uso 2000", the intervention projects […],by means of various forms of "interruption", negotiation and transformation of the site itself, are articulating such an intensive relationship."[34]

Defining "eccentric images", building "unexpected architectural elements", "critiques of the presumed meaning of the site" through political demonstrations determining "urban actions"[35] focused on the cultural exchange: these are the results obtained by artists' installations and creations. It is equally important to point out, however, the technical and figurative action to carry out them, representing through diagrams the role of technical infrastructures, of roads that usually become physical supports or a static roof for art. An overlaying of sense between the work of art and the infrastructural artistic project.

104 - Le Centquatre,
1873 Édification du 104 rue d'Aubervilliers.
2001 Lancement du projet de réhabilitation.
2008 Ouverture au public.
Paris

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33 Hou Hanru, "Useless to be useless", in "Fuori Uso 2000. The Bridges. Art on the highway" (edited by) H. Kontova, E. De Cecco, H. Hanru, A. Schlaegel and A. Rosemberg, Giancarlo Politi Editore, Pescara, 2001, p. 105
34 Hou Hanru, *ibidem,* p. 105
35 In inverted commas, the definitions of the artistic sections by the supervisor Hou Hanru. In Hou Hanru, *ibidem*, pp. 105-111

3.2.1 Installations and performances

The *Eugenio Bassa overpass*, in Milan, confirms that marginal spaces used for mobility infrastructures are converting in available spaces for the community.

The overpass was created in the '60s and was part of the work of reconstruction, decentralization and distribution scheduled by the Local Strategic Plan (P.R.G) of 1953. It was developed "precipitately"[36]
and superficially by the municipal technical experts of that period, with the task of connecting Via Mario Pagano and Viale Zara through a "heavily trafficked road". Since the beginning, the Bussa overpass contradicted its original function of element connecting the two parts of the city (South and North): because of its dimensions, it contributed to separate rather than connect, stressing the division of Isola Garibaldi neighbourhood, already confined due to the presence of railways.

The intervention of neighbourhood committees, arisen when the Municipality had started to purchase the houses in order to demolish and build the above mentioned Viale, stopped the realization of the whole project provided by the Local Strategic Plan, with its definitive filing at the beginning of 70's.

The consequence of this urban intervention is, today, the incumbent presence of the Bussa overpass, lonely witness of the building development of the Porta Nuova area, symbol of an incomplete urban connection and of a never-ended production waste generated by an infrastructural project.

As a wreck made of reinforced concrete set above railways, the road "section" is used mainly as parking area and offers an important driveway and road junction through a one-way road between Via Guglielmo Pepe and Via Maurizio Quadrio, serving Porta Garibaldi railway station.

In these years, symbolic and temporary actions of redeem and interpretation of this place have been carried out due to its location and dimensional-functional characteristics.

These two projects, one dating back 2009 and the other to 2011, have different goals and conceptual origins, but share the same timing and fruitive matrix.

The first, in chronological order, is the installation of the Fehlstelle

Ponte pedonale -ferrovia
Isola Garibaldi, Milano

P.R.G '53
Milano

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36 G. Denti e A. Mauri, "Milano: l'ambiente, il territorio, la città", Alinea Editrice, Florence, 2000, p.140 [English title: "Milan: environment, space, city"]

collective of German artists (Johannes Döring, Barbara Hilski, Thomas Neumann, Thyra Schmidt and Jürgen Staack)[37], former students of Thomas Ruff's photography studio from the famous Düsseldorf art school, called: "*The zone. From the two lookout towers to Isola*".

La Zona, 2009
© Fehlstelle (Thyra Schmidt, Barbara Hilski, Johannes Döring, Thomas Neumann, Juergen Staack).
Cavalcavia E.Bussa,Milano.

It is to interesting to note that the term *Fehlstelle,* in Italian language, means location. This word is made of *Stelle* meaning place and *Fehl* meaning inappropriate, missing, interruption of topsoil[38], almost stressing the artist collective's attitude to deal with artistic, conceptual and physical installations, often placed within unsuspecting and out of place environments, where every project is related with territory, with its history and people that dwell it. It is the context that influences Fehlstelle technical choices and realization procedures. As in this case, marginal, degraded and abandoned places can become support and stimulus for reflection and planning action.

The Milan installation was created for the 20th anniversary celebration of the Berlin wall's fall, when the city has re-created the atmosphere and emotions lived in Germany in that period with the initiative *BERLIN 1989 – MILAN 2009 FREEDOM DAY.*

The project required the building of two temporary watch towers that

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37 http://www.juergenstaack.com/fehlstelle/, photographs http://www.tenderix.com/artificialis/de-milano.html

38 Marco Conedere and Fulvio Giudici (edited by) "Termini Forestali Italiano – Tedesco" V6000, Swiss Federal Institute for Forest, Snow and Landscape research, FNP, Southern Alpes Substation, Bellinzona, 1993 [English title: "Italian – German Forestry terms"]

La Zona, 2009
© Fehlstelle
Cavalcavia E.Bussa, Milano.

represented, symbolically, the towers raised along the Berlin wall's perimeter to control the surrounding area, the "boundary" wall, between East and West Germany.

The choice of Bussa overpass was important because the infrastructure establishes a connection between two parts of the city of Milan, separated definitely by tracks and Porta Garibaldi railway station. The context is the Isola neighbourhood, an area that is converting from manufacturing neighbourhood to City of Fashion. The two watch towers, 9.5 metres tall, built with scaffolds and sheets, have highlighted the overpass as if they were control lights re-creating the atmosphere of anxiety and distress experienced by East Germany inhabitants and transforming, at the same time, the overpass, a separating barrier, into an open-air theatre for artistic and *site-specific*[39] performances.

It is relevant to point out the conceptual coherence between work and place that is converted into a space for art and the community: the faults of the over-dimensional and underused infrastructure fragments the neighbourhood, marking on one hand the evocation of the wall that divides and separates and on the other hand the unifying metaphor of the bridge.
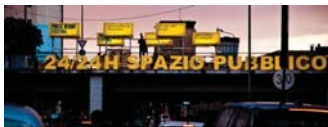
Todo sobre ruedas - Milan on wheels, 2011
Basurama (Creatividad y basura)
Cavalcavia E.Bussa, Milano.

The second intervention of *Basurama group*[40] - in Spanish language, *basura* means rubbish - is different from the Fehlstelle installation mainly for its operative component of space occupation.

Basurama was born in Madrid School of Architecture in the year 2001 as a collective of architects in continuous evolution with the aim of studying and analysing those phenomena related to mass consumption and production of real and virtual trash in the consumer society. They find gaps in these processes and introduce alternative methods modifying these logics, creating new ways of thinking.

The research of Basurama has a strong multidisciplinary connotation and is focused on the use of waste as creative material, stressing its potentialities and processes through the realization of performances that, converting waste objects, creates new urban contexts of creative

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39 Enrico Fontanari "Arte anticipazione e progetto di paesaggio" in "Paesaggi fatti ad arte" (edited by) A. Bertagna, Quodlibet Studio, Macerata, 2010. pp. 39-46 "[...] with site specific, the artist is asking us to live (the contemporary work art), driving us to think about the subjective value of the vision rather than the description of what we see." [English title: "Arts, anticipation and project of landscape" in "Perfect landscapes"]
40 http://basurama.org

interaction with people.

In occasion of the Milan *Public Design Festival*[41] of 2011, in collaboration with *esterni.org,* the group presented the performance *Todo sobre ruedas*, a temporary occupation of urban space on wheels of the Eugenio Bussa overpass.

Todo sobre ruedas - Milan on wheels, 2011
Basurama (Creatividad y basura)
Cavalcavia E.Bussa, Milano.

The available space of the street has been activated trough the building of little mobile devices, made with manual tools and domestic furniture that can be found in houses or in neighbourhood's trash and that were used for little mobile raids in Isola neighbourhood to involve citizens.

For a week, the emptiness of the Milan infrastructure, equipped with small, self-built and temporary stands has been filled with temporary participation practices of reuse of materials and common sense, trying new ways to use public spaces.

The interventions of *Fehlstelle* and *Basurama* study, through different tools, the use of residual materials of contemporary cities as support to art and socialization: even if with different goals, they re-activate and occupy temporarily a space considered unusual to host these kind of functions.

The realization of these different urban works shows that the infrastructural section is a support for alternative uses and actions compared to the functional standards according to which it was built: the overpass is converted from static element to dynamic element, a container for changing events.

Precisely because it has been rejected and is out of scale in comparison

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41 www.publicdesignfestival.org

with the context, it has been converted into a real *platform for art:* a place that, potentially, offers new public space where this did not exist before. In this case, we can refer to the temporary use of road platforms as a "support" (of positive – upper space) for art and city and, therefore, of an actual urban platform[42].
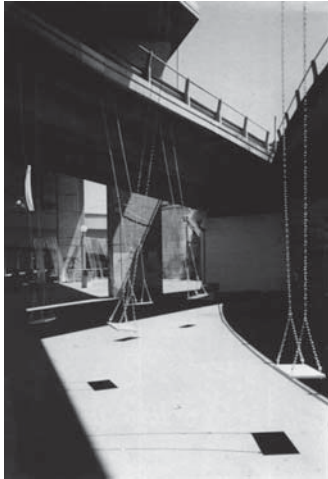
Swing
gruppo A12
Fuoriuso 2000 The Bridges,
Pescara, 2000.

Trough the critical and interpretative analysis of *Swing,* an interactive installation borrowed from the world of art (knowledge as witness of contemporary changes, thanks to the ability of observing, in a different way, the surrounding environment), the research looks for further objective possibilities/strategies of spatial re-definition, able to highlight the unexpressed characteristics of places abandoned by mobility infrastructures.

At the contemporary art exhibition *Fuori Uso* in Pescara, in the year 2000, the professional partnership of architects *A12*[43], that have been working in the field of Art and Architecture at very different scales, presented an installation that satisfied the distinctive features of the show: the use of unconventional – often no longer used in the city context – areas aiming to their reactivation, at least during the exhibition itself.

The topic proposed for the 2000 edition is *The Bridges*[44] and finds its collocation under Pescara's motorway viaducts and bridges, allowing the artists to expose their works without being tied to institutional places usually designed for art. These half-abandoned spaces are, at the same time, in close contact with the daily and contemporary life of people: they are distinguishing marks of modern art landscapes and allow invited artists to criticize art's relationships with infrastructural context and visitors.

Artistic performances become the opportunity to make disused or never-used city locations more active, open and available and offer the spectator a different point of observation, pointing out how spaces are subject to a fast and unknown transformation process that, at the same time, can have possibilities of redemption.

Within one of the four supervision projects "Underneath the Arches", "Useless to be Useless", "The Storyteller" and "Divas and Flaneurs", we

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42 Florian Haydn, Robert Temel (edited by) ,"Temporary Urban Spaces. Concepts for the Use of City Spaces", Editors Birkhäuser, Basel, 2006. p.70

43 www.gruppoa12.org

44 E. De Cecco, H. Hanru, A. Rosenberg, A. Schlaegel, H. Kontova (edited by) "The Bridges:art on the Highway. Fuori Uso 2000", Giancarlo Politi Editore, Pescara, 2001.

find *Swing,* promoted by *A12* Associates group that, through the simple assembling of swings, rediscovers and reuses areas beneath viaducts, and convert them in parking areas, recreation and leisure centres through exclusive technical elements.

The installation anchors to the intrados of the road infrastructure and, as in the two previous Milanese examples, becomes the essential *support*[45] without which the work would have never been created and, perhaps, even conceived. Although only for the limited period of the art exhibition *Fuori uso*, people have had the opportunity to raise their awareness for these "lifeless" and interstitial territories in our cities, creating a more direct and close relationship with them.

Furthermore, this phenomenon questions the concept of distance, usually a normative subject that originates infrastructures and the formal-technical creations that define them, opening new possibilities for the development of the topic of "security distance", reinterpreted as convertible space for the city.

SUPPORTO

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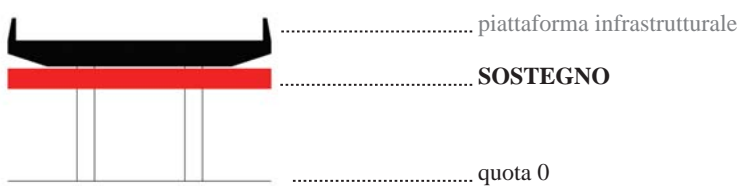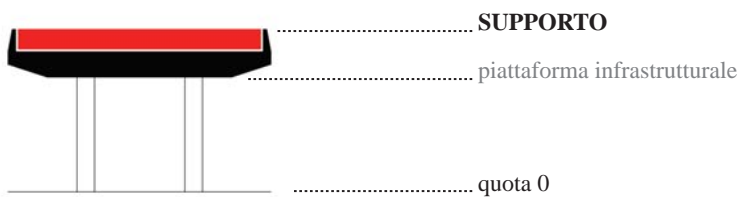
45 The concept of supporto is extensively discussed in the text of N. J. Habraken, "Strutture per una residenza alternativa", F.Mancuso , Il Saggiatore, Milano, 1974.
His reflection, ranging in sociology, urban planning and architecture, is to propose a new type of residence and city design, based on relationship and on participatory process. The lines on which it develops this research are both conceptual and methodological: clarify the meaning of the term supporto to finally define its operational design. The author says: "The definition of the concept of supporto and the concept of removable unit is not technical, it is a definition that covers the decisions to be taken. [...] If the user, like the individual can't decide on an item of his home, then this element is part of the funding". The support, then, as a stable element on which to insert possible variations, a mobile and participatory design.

From the top to the bottom, from extrados to intrados, from positive to negative, the new interpretation of these three installations – artistic performances convert what has been "rejected" by road infrastructures into support for artists where they can hang their works (negative space – underneath) as in the case of "Swing", or leans them, as in the case of "The zone. From the two lookout towers to Isola" and "Todo sobre ruedas".

This to show that, although temporarily, small and cheap devices can transform rejected structures and spaces into usable public places and suggest possible intervention solutions left for the creativity of those who perceive potentialities where, apparently, nobody can or want to see them.

High line,
Derelict elevated train line
New York.

3.3 Illegitimate Use - self building

"Undefined spaces of infrastructural development, mobility and consumption places, public facilities subjected to acts of vandalism, areas of social friction require great imagination efforts that go beyond simple morphological assessment."[46]

This observation of Giovanni Corbellini shows an important declaration of intent that recalls the need of analytical and creative intervention on the analysed territories.

To implement these "strongly imaginative" efforts within the architectural planning process, it is useful to explore the spontaneous relationship between infrastructures and self-building, focusing on the application modalities of this practice and observing how it is possible to recycle infrastructural waste of contemporary landscapes also through "strategies

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46 Giovanni Corbellini, "Ex Libris. Parole chiave dell'architettura contemporanea", Serie Y_Architettura Arte e Paesaggio, 22 Publishing srl, Milan, 2007. *Evento,* p. 20 [English title: "Ex Libris. Keywords in contemporary architecture"].

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of legality tricks[47]”.

In architecture, the topic of self-determination appears mainly during the '70s through the *Situationist* movement that aimed to create an alternative life style, free from habits and ties, modifying the concept of living and conventional urban practices.

This topic is expressed in the work of two heterogeneous architects and theoreticians: N.J. Habraken and Yona Fredman.

N.J. Habraken, in his text *Supports, an Alternative to Mass Housing* dating back to 1961, suggests that the planning and realization process of the building leaves a margin of freedom to its user.

Making reference in particular to dwelling, he points out two main components: parts defined beforehand by the planner, supports precisely, and unstable parts that recall their determination to the user. This approach highlights the need not to define typologies of static and defined architectures, rather to arrange a structure that could be ready to support the unstable and variable parts that will complete it.

Regarding mobility infrastructures, it is interesting to note their great, finished and tested structural-technical completeness, that allows to use them in security and efficiency, as framework and "support".

The infrastructural skeleton without its unique function of mobile connection structure, appears as a "support", a defined element that welcome unstable and self-built elements, frequently designed to create re-establishing systems with contexts marked by the same infrastructures.

We face a re-established, flexible and solid opportunity, able to welcome a new system of self-built and variable elements: if any man can learn a simple system to express his program as well as to know and control the consequences of his choices, why not apply this to road infrastructures?

Then, Yona Friedman, describing the dweller as architect of himself and "self-planner", reinforces the thesis that considers infrastructures as flexible and support elements, one of the components of the project allowing the development of new buildings and architectures.

This can be put into practice if we consider road structures as possible elements of the different techniques referred to "self-planning", because, for the author, every constructive technique is based on few elements: "*foundations* that transfer the weight of the construction to the ground (load); *structures* that support the roof and, eventually, floors; at last,

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47 Sara Marini, "Architettura parassita. Strategie di riciclaggio della città", Quodibet Studio, Macerata, 2008. "Progetto e autocostruzione" p.136 [English title: "Parasitic architecture. Strategies of city recycling"]

horizontal plates (light for the roof, more resistant for floors) and schemes that protect from adverse weather conditions, stares and noise".[48]

According to Friedman, if we consider "ground extensions" […] "foundations and empty structure as irreplaceable technical elements of the architectural object"[49] then we can take into consideration the road infrastructure with its components as support for "movable elements - closure of the infrastructure"[50].

In this way, the author assumes that a mistake caused by a removable element or closure cannot be catastrophic or unmovable so that the action of self-planning or, in this case, of self-building, cannot be harmful. On the contrary, in the case of conversion and exploitation of abandoned spaces by infrastructures, it can support the ideation process of the future architectural project.

The analysis of self-built, independent, illegitimate or almost illegal systems redirects to another topic: the need of public space, to reconquer social and community interaction places.

This element can be found in the following best practices that strengthen the idea of breaking from the public-private contrast in many urban realities. Generally, functions noticed in self-determined interventions, i.e. the absence of a real designer and customer, describe this need felt by people that dwell these places.

Always referring to Friedman, it is important to reconsider covered spaces as "public spaces"[51]: the author mentions, for example, Italian tunnels and *passages*[52] of French cities, pedestrian urban infrastructures that enable covered passages from one part to the other of the city.

His study on the public-private relationship in the "poor city"- *slum,*
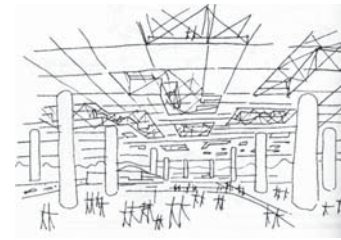
Yona Friedman
Une utopie réalisée.
Disegni per la mostra al Musée d'Art moderne de la Ville de Paris, 1975

48 Yona Friedman, "L'architettura di sopravvivenza. Una filosofia della povertà", Bollati Boringhieri editore, Torino, 2009. p.24 [English title: "Surviving architecture. Philosophy of poverty"]
49 Yona Friedman, *ibidem*, p. 25
50 Yona Friedman, *ibidem*.
51 Yona Friedman, *ibidem*, p 104
52 In his essay "Eterogeneità ed evocazione", Alberto Ferlenga compares infrastructural overpasses – responsible of distorting "aesthetic standards" of contemporary cities – to Paris *passages* describe by Walter Benjamin as the "key element of modernity expressed by Paris as the capital city of 20th century. [...] symbol of a modernity which lies its strength in its accelerated and protected vision, just like in the diffusion and concentration of functions." Therefore, *passages* are considered as capable of reuniting different aspects as well as pointing out a "fundamental moment during the transition towards a renewed city". The overpass and the major roads are considered by Ferlenga as possible bearers of a new "order" by means of the simulation of different layers and the overlapping of the contexts they cross. In Margherita Vanore, "Suoli urbani all'ombra dei viadotti", CELAN Editore, Napoli, 2002, p. 7

where property means "considering that things belong to those who hold it in their own hands or are able to use it: a space, for example, belongs to those who can cover it with a roof"[53]leads to question, even formally, about the use of defined spaces under infrastructural viaducts or fragments of streets or mobility spaces that do not carry out completely their functions anymore. This study offers the possibility to reflect on the possible reconquest of public spaces linked to infrastructures.

3.3.1 Misappropriation

Continuing the classification and study of tangible cases of an *"everyday"* use of forgotten areas linked to mobility infrastructures and acknowledging the more and more evident need of people to regain control over places by carrying out concrete actions, the topic of self-building will now be illustrated, which sometimes borders on the illegal.

This type of *spontaneous* uses and projects strongly underlines the ability of people to transform the cities and territories they live in: according to such practices, the infrastructures and their spaces offer margins of formal and functional freedom strictly connected to their users.

Over time, architecture criticism has dealt with the study of buildings and the occupation of areas by means of "illegitimate" actions, thus pointing out the contemporary topic concerning the relationship between territory governance and right to space: "[...] slums are, from a certain point of view, the *laboratories of the future*"[54] according to Friedman in *Architecture of survival.*

A squatter village on a live train line and under a highway. Bangkok

A clear example of self-building bordering on the illegal is *Burnside Skatepark*: as many interventions of this kind, it is evidently located beneath an elevated motorway overpass in Portland, USA. This area is delimited, as it often occurs in such cases, by two neighbourhood roads respecting the orthogonality of the distributional framework of

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53 Yona Friedman, "L'architettura di sopravvivenza. Una filosofia della povertà", Bollati Boringhieri editore, Turin, 2009, p.103 [English title: Surviving architecture. Philosophy of poverty]

54 Yona Friedman, *ibidem*. In chapter 5 "The poor city", Friedman starts off talking about slums as "laboratories of the future". According to the author, slums inhabitants "have to face surviving problems and have at their disposal only a limited number of tools to live." This can be conceptually compared – even if it is not an actual surviving – to the best practices analysed in the paragraph describing almost illegal actions which are able to suggest strategic and planning actions that can redeem degraded places.

standardised parcelling-out, a truck depot and a parking space. Since it is enclosed in this space and covered by a road "ceiling", organised skater groups illegally built a public and free track for them to practice and perform.

The well-established and ordinary use of this new urban area, has made it an integral part of the city dynamics so much so that the issue of the illegal building has been overcome in favour of a public and consolidated city, thus transforming a degraded place into an official skater training area. Many spaces located beneath motorway overpasses and viaducts have drawn their inspiration from skateboarders and have been built without permits or authorizations, becoming actual examples of *survival actions*[55].

In order to meet technical needs, the skatepark morphology models the topography of the *terrain vague* underneath the road expanding beyond the limits of the orthogonal projection of the infrastructural layout and changing the immediate surrounding environment.

Thus, a new urban area is defined that is completely artificial and winding, contaminating everything it comes across just like a concrete *blob*.

The case of the mountain bike park deliberately built by enthusiasts in Seattle is similar to the Portland one. This park covers two hectares of land and is located beneath the layout of Interstate 5, being an integral part of a larger public park started in 2005.

In this case, too, more than two kilometres of ramps and wooden paths have been built autonomously, following the land morphology, and have been subsequently acknowledged by the City of Seattle as an integral part of urban public areas (Seattle Parks and Recreation): they have been put at the people's disposal who periodically receive funding from territory governance bodies for the park maintenance. The interesting feature of this case is the uninterrupted use of spaces brushing the q80 road, as if the intention was that of doubling its thickness not in favour of cars but of people.

Burnside Skatepark
Pista si skate sotto ad un viadotto.
Portland, USA

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In Slovakia's fourth most important city, Zilina, another example of the almost illegal occupation of an unexploited area linked to mobility infrastructures can be found.

The cultural centre *Stanica Žilina-Záriečie*, already engaged in the revitalization of former industrial city areas and located inside a slip road, decided to build autonomously its new seat where theatrical performances and cultural meeting should be held.

Tuned into the topic of re-using already existing structures, Stanica's main seat is located inside a small, former local railway station.

In 2009, the cultural centre, thanks to the work of young volunteers, built the S2 area beneath a road overpass and on the old layout of an out-of-use railway line. Being consistent with the concept of waste as a resource, it is interesting to point out the use of recycled materials for the construction of the new seat, as well: beer crates, straw bales, wood, railway sleepers, a container, clay and metal for joint components and, what is more, the hand labour of almost 5,000 volunteers. On a formal level, this intervention utilized the entire overpass section, thus occupying all the available space: it is evident that the infrastructure became the roofing, but in this case the process, the supervision and the result obtained thanks the inhabitants' contribution are worth mentioning. With the *Stanica Cultural Node* three fundamental aspects should be noticed: the opportunities offered by forgotten and rejected spaces, the sensitivity and the capabilities of the people involved in the autonomous transformation of such abandoned places, the non-request of official authorizations and the cutting down of realization costs by means of voluntary labour and recycling of waste materials, including the road overpass. The promoters of this project proudly state that the economic burden amounted to just 7,000 Euros for more than 250 m², even though they clearly point out that the new S2 seat is an evolving area, therefore subjected to a continuous transformation and completion process.

On the website of the cultural centre there is a note according to which: "*Also the aim is to show a fresh solution to public authorities that use to invest money in huge national and municipal cultural venues that soon after cause economic problems related to heating and maintenance costs. And (mainly) it has been the enthusiasm and passion for this original idea of recycled, ecological, alternative architecture, that has pushed us to build it up.*"[56]

Stanica Žilina-Záriečie
Cultural node.

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56 From the website of the cultural centre: http://www.stanica.sk/s2

Parallel to the Stanica Cultural Node, but in a completely different geographical setting, the case of *El Sawi Culturewheel* in Cairo is worth noting: it was discovered and analysed in the "*Learning from Cites*"[57] research, mentioned above.

In this case, as well, an abandoned area, a dumping ground, a den of rubbish and social degradation, has been transformed into a public space offered to the city with a different look.

El Sawi Culturewheel
Cairo.

The cultural centre generates from the road and the four spans constituting the heavy infrastructures built in Cairo in an attempt to solve traffic congestion issues in the city.

Its authors, Navarra and Trovato, describe the cultural centre as: *"an architecture that cannot be understood at a glance: it hasn't got either prospects or plans with clearly definable quotas, or recognizable geometrical forms*."[58]

The construction of this cultural centre has never been set out by a complete architectural project, on the contrary, it has been self-built, one stage after the other, according to the living needs arisen with the course of time.

Worth noting is such layered action that led to the fluid connection of internal spaces by means of informal actions which, on the whole, created an actual urban metamorphosis.

The informal architecture of El Sawi Culturewheel brought about a reorganization of the big infrastructural scale[59] that had cut off the minute connections of the urban fabric: that is why it is able to transform the roads' unexpressed and monofunctional potentialities into meeting and community places.

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57 Marco Navarra (edited by) "Repairing cities. La riparazione come strategia di "sopravvivenza"", Lettera Ventidue Edizioni, Siracusa, 2008.
The case of El Sawi Culturewheel is mentioned and called LOST PROJECTS in the Ph.D dissertation: "Re-. Pratiche di riparazione e personalizzazione" ["Re-. Repairing and personalization practices"] by Francesco Trovato, Syracuse Faculty of Architecture, University of Catania XXI cycle, Ph.D course in "Architectural project and urban analysis" 2008. The question posed is whether "cultivated" and "designer" architecture can learn from examples of informal architectures.
58 Marco Navarra, *ibidem*, p. 70
59 Marco Navarra, *ibidem*, p.70 "This architecture grafts over a pre-existent one that, by function and dimension, establishes the giant order and produces a jump and a weave of different scales, re-knotting the urban landscape with the household interiors. These elements prefigure an architecture of paradox which, contradicting the idea of the type, is built without either a structured plant or clearly defined prospects or functional programs, but through sections with operations of excavations and additions."

The most extreme case is that of the illegal occupation of a road.

This is the basic idea of Reclaim the Streets!: *"...for a short time public space should be taken over, namely with the help of a large number of bodies with creativity and music."*[60]

Born during the mid '90s in London, Reclaim the Streets! (anti-roads movement) criticizes the capitalistic hegemony of cars, even if its starting seed is linked to the protests carried out by the inhabitants of London neighbourhoods that were part of a large infrastructure building plan and had to be crossed the by M11 motorway. Their concerns were based on the environmental and social effects they could suffer due to the construction of new infrastructures. Right from the beginning, this peaceful protest aimed at occupying the road which, in turn, had occupied the public and private living space of this part of the city.

With the course of time, RTS! became an actual non-governmental, protesting organization with clear political references and popular in European, American and Australian cities.

However, what we want to point out is the occupation of a space with a single, specific use that, in very particular cases, could obviously turn out to be a free surface to be returned to other urban and social dimensions, even suitable for protests.

Hence it is evident a new right to space, according to which people can organize public and common meeting activities – even if, as a start, only temporarily – almost denying cars the simultaneous use of such spaces. Bodies occupying a surface[61].

.... infrastruttura
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SUOLO OCCUPATO

.... infrastruttura

SPAZIO VERTICALE OCCUPATO

SUOLO OCCUPATO
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60 Florian Haydn, Robert Temel (edited by), "Temporary Urban Spaces. Concepts for the Use of City Spaces", Editors Birkhäuser, Basel, 2006. p.138. In this text, many examples of spontaneous, self-building, temporary, legal and illegal uses of denied, abandoned and rejected spaces being part of commonly called *marginal* landscapes.

61 For further information on the occupation of spaces using the evocative power of bodies please refer to the works of the artist Vanessa Beecroft.
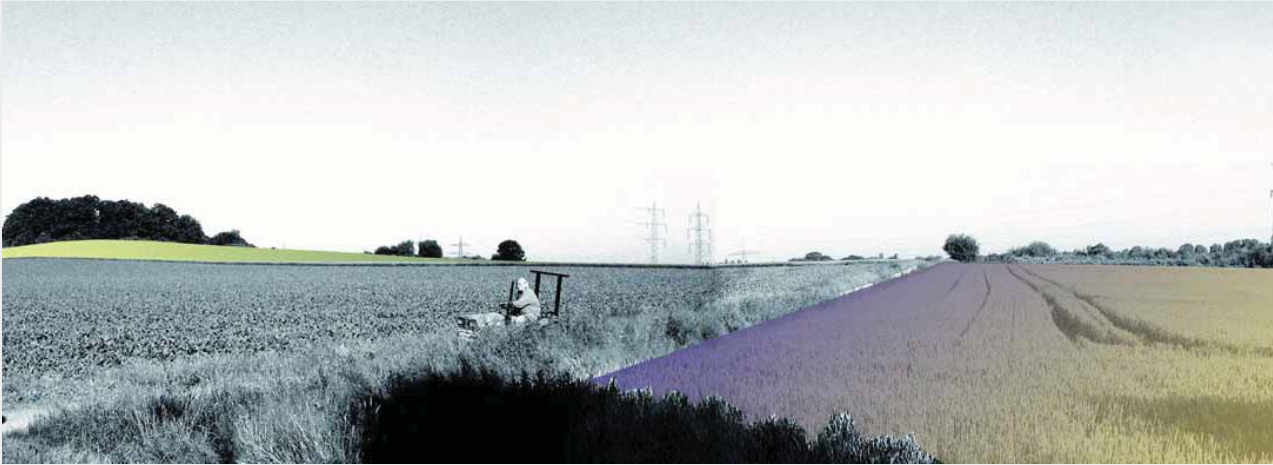
3.4 Domestic and extemporary use

Going further with the analysis, unexpected, immediate, simple, domestic uses can be noticed that are not always durable in time and are to be found near road infrastructures, in places considered chaotic, abandoned, rejected and forgotten but that can be transformed, even if just for a short time.

The concept of temporality[62] – what is thought to be determined, linked

62 Here reference is made to the research *Urban Catalyst: Strategies for Temporary Use* (2001-2003), Vienna–Berlin according to which the following text has been published: Florian Haydn, Robert Temel (edited by), "Temporary Urban Spaces. Concepts for the Use of City Spaces", Birkhauser, Basel, Boston, Berlin, 2006.
"Temporality is an unusual idea for architecture and urban planning and for the uses proposed for their spaces: usually, planning is for the long term and not for rapid changes in use. Yet this very temporality offers its own qualities, which can be interesting both for planning and the economy as well as for groups of users who usually have little to do with planning or economy on the large scale. We do not apply the word "temporality" in its literal sense to spaces and uses but rather use it to refer to such special qualities of the temporary rather than the actual duration of use." p. 17

to a definite time interval – is often considered as an unusual feature of planning and architecture.

We are accustomed to considering transformative processes to be long-term and not depending on quick and flexible modifications.

However, temporary uses, be they planned or not, are conceived, right from their start, to be non-permanent, non-long-lasting and offer those who devise and subsequently use them great flexibility, which can bring about transformations and change.

"A change [...] can be a development or a decline, a simple reallocation, a modified intensity or a shape transformation: it can a reconstruction following a disaster or an adaptation to new forces, an intentional or uncontrolled change.

When a change is controlled, it should aim at the creation of a better situation or, at least, avoiding a worse one: however, each change entails economic, technical, social and psychological costs. [...] In particular, I want to see if it is possible to gain any advantages from the various types of transition and how change itself should be conceived in order to successfully manage it"[63].

Kevin Lynch's assertions offer many cues for reflection: the evolutive transition process creating a change, the conditions needed in order to carry it out and the effects obtained in various fields.

In the following analysed case, the relative technical and realization simplicity and the cost-effective interventions are good instruments to meet the immediate and domestic needs of people who, in certain situations, become the planners themselves.

The idea of temporary is not obviously an a priori warranty for success, yet it allows to carry out also collective and experimental actions that are not exclusively focused on the limited duration of the use of the available areas.

An intrinsic purpose could be that of deriving features that are unique and innovative just because they are different from "permanent" and more traditional uses.

Moreover, a consequence of such extemporary, short-term actions could be suggesting a new planning process of residual spaces taken from the city infrastructures, *interim* uses that could become prototypes for definitive, long-term solutions, as well.

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63 Kevin Lynch, "Il tempo dello spazio", Il Saggiatore, Milan,1977. p. 227 [English title: "What time Is This Place?"]

Is it possible to think of city areas that already envisage temporary uses? Could they be infrastructural waste?

At the end of the '50s, the *Situationist International* movement already investigated and experimented with the topics linked to the space produced by social activities and the idea of mobile urban spaces[64].

From the analysis of these best practices, it is possible to infer the features, directions and suggestions aimed at solving the problem posed by infrastructural waste. But if the temporary use can be considered as a prototype in order to experiment with a "transition" towards a change, it is also useful to remember the case of *Permanent Breakfast*: here a domestic and familiar action changes in comparison with the expected one – eating, not walking, stopping around a table and not passing with a car.[65]

Permanent Breakfast
1.Friedemann Derschmidt, 2004
2-4.Abbé Libansky, 2003 - 2004
3.stadtlabor.ch, 2006

Permanent Breakfast, located on the edges of the roads and beneath overpasses, aims at pointing out the right of assembly and is an occasion to diffuse ideas concerning the use of public spaces regardless of the concept of permits (and, thus, of non-forbidden action) that usually has the effect of reducing the fields and the possibilities of action, avoiding possible actual or imaginary conflicts[66].

This self-organized "game"[67], defined by the time needed to have breakfast along the edges of a road, encourages new possibilities of use and conquers new potentially flexible and transformable public areas with no predetermination, allowing different uses and meeting the requests of future consumers.

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64 Klaus Ronneberg, "From Regulation to Moderation" in particular, paragraph: "Temporary Use and the Situationists", in Florian Haydn, Robert Temel (edited by) "Temporary Urban Spaces. Concepts for the Use of City Spaces", Birkhauser, Basel, Boston, Berlin, 2006, pp. 47-49.
65 The artistic performance documented by Wim Wenders in his documentary film "*Pina*" – shot in 2011 and paying tribute to his friend Pina Bausch, dancer and choreographer, who recently passed away – is particularly interesting and suggestive: two dancers perform in a green central reservation immersed in the chaotic city traffic destabilizing the audience accustomed to associating specific uses to specific and recognizable places.
66 Ursula Hofbauer, Friedemann Derschmidt, "Horror Vacui", in Florian Haydn, Robert Temel *ibidem*, pp. 105-112.
67 This is the definition given by the authors of the essay, *ibidem* p, 105.

Thinking of the areas rejected by infrastructures as free, released and vacant spaces offers the opportunity to consider them actual "[…] spaces of desire [and] means providing spaces for the unknown wish and thus creating desire"[68].

Usually, desire spaces – i.e. *"vacancies"* inside contemporary cities – are converted exclusively according to business market strategies; as a matter of fact, they do not offer any opportunity to carry out transformations unifying building typologies as well as materials, standardizing *"desire"* uses which becomes "prefabricated and compulsive"[69], too, thus losing its creativity potential.Finding, detecting and subsequently converting rejected spaces into "reserves of desire spaces", also according to temporary, domestic and familiar strategies, brings about a creativity condition generated by desire itself, "poetic reserve"[70] and new ideas to imagine future urban developments which can even be intended as a metamorphosis of overhanging infrastructures and the spaces linked to them in the landscape.

Releasing[71] spaces offers areas that can meet the needs of the city. Simply desiring it, this reserve can be activated and released from its previous context in the same way as a picture can be cut and extracted from its background using Photoshop and prepared for a new context.

Interventions linked to time and to the "familiarity" of the activities carried out in abandoned places not only fulfil desires, but also leave a trace in the memories of consumers and of those who contributed to its creation.

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68 Barbara Holub, Paul Rajakovics,"Vacancies and Urban Reserves", in Florian Haydn, Robert Temel (edited by) ,"Temporary Urban Spaces. Concepts for the Use of City Spaces", Birkhauser, Basel, Boston, Berlin, 2006, p. 113. Barabara Holub, artist, and Paul Rajakovics, architect and town planner, belong to the Transparadiso platform "in between architecture, urban design and urban and artistic intervention. The projects range from design objects (as side product of larger scale contexts) to architecture and complex issues of urban development and society with a focus on "research through practice", from www.transparadiso.com. See their experimental project in Chile "Deseo Urbano" of 2000, pointing out the tight bond between urban desires and space creation by means of participative systems.
69 Barabara Holub, Paul Rajakovics, *ibidem*, pp.113-119.
70 Barabara Holub, Paul Rajakovics, *ibidem*.
71 Barabara Holub, Paul Rajakovics, *ibidem*, p. 118. This is the definition of "releasing" according to the authors: "The use of the German verb freistellen is a reference to the meaning it has in the graphic software Photoshop (to crop or to extract an image from its background) but is here introduced as an urban strategy in the sense of releasing, liberating spaces from their original or market oriented uses. Freistellen would literally mean "to free spaces" and alludes to the possibility of an extracted image serving as space of projection for new wishes. Freistellen is thus translated in its various meanings as releasing spaces, liberating spaces and vacancies."

To this end, Luca Ronconi, in an interview by Pierluigi Nicolin[72] regarding the topic of time, points out that usually the traces left behind by a show, by an artistic performance, are quite feeble and intrinsically linked to the spectators' – in our case the consumers' – memory processes.

In point of fact, he states that: "The persistence of these traces in the memory [...] is very different and bound to change. It is interesting how the duration of a performance lasts beyond the moment of the event, and is subject to continual modification as things are added or taken away in the memory […]"[73], after the temporary use reaches its end, "screens"[74] remain on which new projections can be made: following their traces can offer new spurs for the places involved in such experiences.

The concept expressed is confirmed by Lynch's statement in the book *What time is this place?*: "As far as the celebrations of times are concerned, if only we wanted to deal with them, they could offer new and interesting planning opportunities. Roads and other movement channels have already been designed by public bodies, but hardly ever with the intention of making the journey pleasant and interesting. Every now and then, public events are organized that have some kind of connection with time – fireworks, parades, openings, concerts, open-air shows – but, generally, they are really coarse in their design. [...] With a quite modest expense it is possible to invent new public entertainment occasions and expand the experience of living in time. Thus, maybe, fluid and chaotic urban landscapes could have again a legible and significant look."[75]

72 Luca Ronconi, Pierluigi Niocolin, "La mappa dell'azione.Una conversazione", Lotus International, n°122, 2004.[English title: "The Map of Action. A Conversation"]
73 Luca Ronconi, Pierluigi Niocolin, *ibidem*, p. 5.
We quote here the definition given by Emanuele Arielli of memory as a support to the processes of *selective perception* seen in the preceding chapter: " [...] *memory* is an active process, not just a simple, passive accumulation of data stored in the brain. Actually, since we are dealing with past events, the process of recalling to mind is, more than perception, subject to transformations." Emanuele Arielli, "Immagini dell'uomo. Introduzione alla psicologia sociale", Bruno Mondadori, Milan, 2000, p. 23.
74 Robert Temel, "The Temporary in the City", in Florian Haydn, Robert Temel, (edited by), "Temporary Urban Spaces. Concepts for the Use of City Spaces", Birkhauser, Basel, Boston, Berlin, 2006. "Spaces, Places, Uses" pp. 59-60. "Locations of temporality are not Marc Augé's *non-places*: like Augé's *places,* they possess identity, relation and history. Unlike *non-places,* they are locations where temporary spaces have been constituted –projection surfaces. They are screens onto which something is projected, but they already contained information beforehand. They can be thought of as photosensitive material on which all the attempts at projection have left traces over time: immaterial palimpsests, so to speak, that nonetheless have a location."
75 Kevin Lynch, "Il tempo dello spazio", Il Saggiatore, Milano, 1977, [English title "What time Is This Place?"], chapter 10 "Some policies for changing things", p. 277

3.4.1 Spontaneous actions

The non-systematic research of new, free spaces to be colonised has characterised many urban metropolises during the last decades. The observation of these dynamic behaviours of public life points out the tendency to occupy several spaces, among which those linked to mobility infrastructures are recurring.

Often neglected, they are notable for their precise formal and geographical features that make them flexible and, at times, easily accessible.

The following examples regard cases of spontaneous and occasional *appropriation*[76] of "difficult" road areas, often connected to urban or city contexts where people autonomously organise activities and actions aimed at enjoying the space.

Jose Marti Park is one of the main points of reference of Little Havana neighbourhood, well-known as a centre of social, cultural and political activities in Miami.

This neighbourhood is one of the most densely populated centres inhabited by Cuban immigrants and exiles in the United States and, also for this reason, its analysis is particularly interesting.

Having precise physical and morphological "boundaries", this park is located beneath and around the edges of great and high urban overpasses of the Interstate 95, the main interstate motorway of the US East Coast. It also overlooks the banks of the Miami river, which, together with the urban road network, sets its limits.

The neighbourhood inhabitants' dynamism as well as the busy social life on the road and the availability of portions of urban areas free from buildings have witnessed, little by little, the spontaneous birth of more or less definitive structures for free time and sport activities.

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76 Karen A. Franck and Quentin Stevens (edited by), "Loose spaces. Possibility and diversity in urban life", Publisher:Routledge Tayolor & Francis Group London and New York, 2007, p. 35, Part I *Appropriation*.

Nowadays, the use of such areas has become well-established and has led to the construction of actual basketball, baseball and squash courts, swimming pools, playgrounds and parking spaces, and nearly all of them are covered by overpasses or viaducts.

This intervention is influenced by the informality of construction – due to spontaneous uses carried out by the inhabitants of the neighbourhood with the course of time – and by the strategies of appropriation of abandoned and underused infrastructural spaces.

The occupation of the playground thus defines the intervention method that intentionally insists/works on exclusively horizontal and vertical planes (definition of fences and chromatic painting on the I-95 overpass pillars), effectively showing that even just a change in the surface can lead to conquering the space and, in this case, actually returning/redeeming the public space.

There are many other actions aimed at spontaneously using non-conventional urban and non-urban spaces, where people experience the possibility to work on the city, easily adapting it to suit their needs: these are urban *"ready made"*[77] practices, which change the original function of the *"found object"* without twisting its formal structure but creating a complete new, reinvented one.

Jose Marti Park
Jamey Prezzi ©, 2006.
Miami River. USA

Also the activities of everyday life can be considered examples of immediate practices, carried out in the spaces beneath the infrastructures, such as Wallace Idaho Under the Freeway Flea Market or Sacramento Farmer's Market: these and many other public markets are located beneath overpasses and flyovers in order to take advantage of the protection from excessive rain or sun.

They become recurrent places and events and people become well accustomed to their use, thus demonstrating their utmost flexibility and functional simplicity.

What is more, in case of need, it is extremely natural and functional to expand their outdoor dining area beneath an overpass, just like in Cairo[78], a metropolis that has already been the subject of many studies

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ALLESTIMENTO TEMPORANEO

SOSTEGNO VERTICALE

STRUTTURA ATTREZZATA

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77 Francesco Careri, "Walkscapes. Camminare come pratica estetica", Piccola Biblioteca Einaudi, Turin, 2006, p.48. [English title: "Walkscapes. Walking as an aesthetic practice"]

78 Francesco Trovato's photo – attached to his PhD research – is very significant: "Beneath the same robust overpass on which the cultural centre El-Sawy has been inserted, other ground occupation practices take place, which are more or less temporary and exploit all the available space[...]". "Re-. Pratiche di riparazione e

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regarding urban regeneration, such as the one called *ReparingCities* and coordinated by Marco Navarra[79] for the workshop *Learning from Cities* organized during Venice Biennale in 2006.

In this case many spontaneous and temporary actions are evident that can lead to the appropriation of these actually public spaces.

3.4.2 Temporary actions

The program conceived by the *Esterni* group for Milan *Public Design Festival* is an example that can be placed among the cases already analysed and classified as spontaneous or extemporary uses intended for everyday, ordinary life, but implying the organizational support of third parties. The Esterni group is a real cultural enterprise aimed at planning and reinventing public spaces by designing services for small and large communities, promoting and creating recreational events, emphasizing the importance of participation on the part of communities, citizens and people involved.

Esterni's intervention becomes an important point of reference thanks to the final goal of the festival: redeeming an indefinite and neglected space that can be transformed into an actual common aggregation area by defining a urban campsite in the city of Milan.

The Public Camping project deals with the organization of reception and stay areas for the designers coming from all over the world during the Milan festival in the most unusual and, above all, most flexible parts of the city available creating informal settings characterised by the common sharing of spaces.

Public Camping
Esterni.org
Public Design Festival, 2011
Cavalcavia della Tangenziale
Via Caduti di Marcinelle, Milano

personalizzazione" ["Re-. Repairing and personalization practices"] PhD dissertation by Francesco Trovato, Syracuse Faculty of Architecture, University of Catania XXI cycle, Ph.D course in "Architectural project and urban analysis" 2008.
79 Marco Navarra (edited by), "Repairing cities. La riparazione come strategia di *sopravvivenza*", Lettera Ventidue Edizioni, Syracuse, 2008. p. 15.
The research, even though so specific in its subject and focused on the city of Cairo, shows common traits which can be applied also to various European, international and global contexts, thus confirming the ordinary transformation capabilities of people from all over the world, as it can be noticed in this short excerpt taken from Repairing cities: "The Infrastructures create an articulated vocabulary of forms that, defining covered spaces of changeable heights, interferes with the urban texture. Therefore, special spots are created forming residual spaces, which are not accessible to cars and are divided from the houses. In these junctions spontaneous temporary actions are gathered that bring to their use with absolutely changeable ways and times. The viaducts give a wide rhythm to the city tiny pace. The structural span, marked with changeable figures, bear a wide breath, reorganizing the daily time of each gesture and urban movement."

What should be pointed out is, in particular, the occupation of the space beneath a stretch of the East Milan ring road, near Rubattino, where dimensionally remarkable spatial opportunities arise from the overlapping of two different infrastructural levels.

The campsite has been prepared beneath the reinforced concrete pillars, at ground level, transporting two customised containers containing camping pitches, tents, tables, shelves, ground lights, chairs, a fridge and an oven, in order to offer all the services necessary during the stay.

The answer offered by this type of intervention is mainly indicating the use of an indefinite space – often rejected because linked to infrastructures and, thus, neglected – identifying how to make it functional again by means of easy-to-use, cost-effective devices and pointing out the opportunity to redeem up to 14,000 square metres of ground underneath the East Milan ring road transforming them into a public space used by the community as a meeting and a receptive place.

The strategy implemented is made up of three different functional and physical overlapping levels: the first one is the overpass-roofing which defines a very large covered area; the second one is the ground that extends beyond the orthogonal projection of the above ring road, free from any impediment; the last one is the equipped campsite, which is raised from the sea level of the ground by means of pallets and contains the functional structures of the camping.

These three levels do not technically interact with one another, yet are linked by functional relations that if were missing would make the successful outcome of the project impossible.

Public Camping
Esterni.org
Public Design Festival, 2011
Cavalcavia della Tangenziale
Via Caduti di Marcinelle, Milano
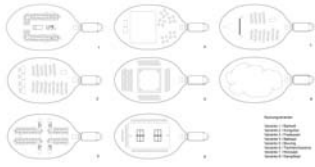
Küchenmonument
Raumlaborberlin and Plastique
Fantastique.
Duisburg, Mülheim, Hamburg,
Warschau, Giessen, Berlin,
Liverpool, Venice. u. a.

The transformation of margins and portions of road areas into domestic spaces is also the general goal of the groups *Raumlaborberlin*[80] and *Plastique Fantastique*[81], both architecture firms based in Berlin working on the topics of contemporary architecture researching innovative strategies aimed at urban renovation and strongly focused on the social dimension, between public and private, common and individual spaces. The mobile sculpture called *Küchenmonument*[82], is defined by its authors as a "generator of space and travel on four wheels"; in point of fact, being so easy to move and flexible in its structure, it has become an interactive instrument capable of adapting itself in different contexts.

This work is part of a set of experiments that aim at relationships between individuals and are able to express people's intuitive requests towards the city and all the indefinite spaces in each urban context, including infrastructural waste, as well.

Inserting an inflatable structure underneath an overpass, it is possible to carry out all the activities aimed at the construction of new "temporary communities" and, again for a limited period of time, to conquer interstitial spaces where the individual and common city dimensions can communicate. In fact, *Küchenmonument* is made up of two main elements: an anodized steel coated trailer-box, serving as the structure entrance, and the inflatable bubble-tyre in high-resistance plastic that becomes a public room of about 200 square metres.

The travelling kitchen-monument can be used for a wide range of non-

80 *Raumlabor*berlin - www.raumlabor.net, (from home page): "Architecture is an experimental laboratory for a moment related to the participatory work practice in urban areas. Architecture is understood not as an object, but rather as history, a layer of the history of the place. As architects, artist we are more of activists, because we operate within the city. Architecture is a tool, in the search for a city of possibilities, the city of tomorrow!"

81 In the case of Plastique Fantastique it is interesting to point out the description of their mission that can be found on their homepage: "Plastique Fantastique's synthetic structures affect the surrounding space like a soap bubble does: it is a foreigner which occupies and mutates usual relations and points of view. By mixing the landscape, it gives birth to a new hybrid environment that allows an osmotic passage between private and public space. The installations crop the subject from its context by beaming it into a new realm of space. Whether people interact with the bubble simply by seeing it, or walking around the exterior, or actually moving through the interior, the structure is a medium to experience the same physical setting in a temporary extraordinary situation. Plastique Fantastique creates light and fluid structures that can lay on the street, skirt a wall, infiltrate under a bridge, squeeze in a yard, float on a lake, invade an apartment and generate an *urban premiere.*" From www.plastique-fantastique.de (about).

82 Consistently with the title, it has been used as a space for events, discussions and workshops during the last edition of the Venice Architecture Biennale in 2010 "*People meet in architecture*" directed by Kazuyo Sejima.

contemporaneous purposes: as a reception room, a conference room, a cinema, a dormitory, a concert hall, a ballroom, a boxing gym and sauna – all activities aiming at giving people the possibility to reconquer and directly controlling places.

This structure was conceived to fit in the contexts it encounters and where it is located, physically filling up an empty space, leaning against the facades of the surrounding buildings, incorporating green areas and occupying free spaces, in order to promote a new dialogue between man and buildings: the structure has to be simple, immediate and familiar, not linked to the dynamics of exclusive regulatory and commercial control. Küchenmonument finds its reason for existence in the city, it implements public space and completely occupies the area available beneath a road overpass which seems monolithic but is actually extremely flexible: in a word, it redeems the space between the infrastructure and the ground beneath filling it up[83].
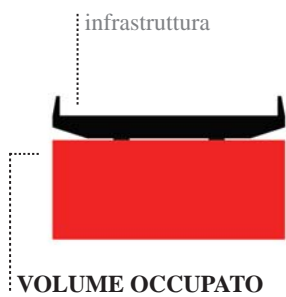

Tight Spot
David Byrne
The Pace Gallery,
New York. 2011

The *Batignolles* Cemetery in Paris reverses the logic of previously analysed cases, even if it can be added to the list of spontaneous uses in everyday life of areas separated from urban and territorial systems due to the presence of infrastructural layouts. So far, we have seen the spontaneous use carried out by groups of citizens that ingeniously get possession of places usually underused and considered as opportunities

83 David Byrne, "Tight Spot" (15 September 2011), is similar but was conceived as an artistic installation for the new outdoor area of The Place Gallery in Manhattan, New York, where the artist placed an enormous globe pressed down by the supports of the High Line, recently converted into a city, linear park by J. Corner and Diller Scofidio + Renfro. With his work, Byrne wants to encourage a reflection on the current condition of the planet, which is overpopulated and overwhelmed by environmental and economic issues, and he himself saturates the available space between the road and the infrastructural intrados. (from "Il mondo compresso di David Byrne a Manhattan" "La Repubblica" newspaper, 28 September 2011)

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SPAZIO OCCUPATO

**PIATTAFORMA
ATTREZZATA**

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VOLUME OCCUPATO

SPAZIO URBANO

Cimitère parisien des Batignolles
François Lacour, photographer.
Périphéries.
Porte Pouchet, Paris, 2004 - 2005

to give birth to new realities. The *Batignolles* Cemetery offers a very interesting example of how a pre-existing space, opened in 1833, can be spontaneously adapted to great spatial changes and how people using it can get naturally accustomed to situations that are unusual for that context. As it can been noticed from the pictures, the design and construction of a large, 4-lane boulevard called "*Périphérique*"[84], erected between the end of the '50s and the '70s, superimposes an extensive, 35 km long infrastructural system over parts of the city, thus radically changing its look and uses. Such road intervention undoubtedly changed and radically divided the city of Paris *(intra muros)* and its suburbs, playing the role of an imposing visual and physical barrier, ever since subject of many studies aimed at solving the significant problems of urban and, consequently, social, marginalization that it created over time. This overpass covers also a part of the graves, thus defining a new space and a new urban look without undermining the ordinary and spontaneous use of people and transforms the cemetery 15th division into a peculiar place where, thanks to the dark layer caused by car exhaust gas emissions, the atmosphere becomes surreal in gloomy days attracting tourists and photographers[85]. Hotels, shopping centres and parking spaces built in the immediate vicinity of the boulevard and representing the economic valorisation of the area, do not interrupt the relationship between the old and the new, between pedestrian city and car driver city: instead, they let original urban shapes emerge where monumentality and modernity are interchangeable.[86]

84 Françoise Moiroux, Dossier: "Penser Paris à travers le périf.", from D'architecture, n°178 décembre'08 janvier 2009. p.45 and François Béguin, "Le périphérique parisien: infa et superstructures", sous la durection de C.Prelorenzo et D.Rouillard, Le temps des infrastructures, L'Harmattan, Paris, 2007.pp.123-130
85 François Lacour,"François Lacour:l'impromptu di périf", Dossier: "Penser Paris à travers le périf.", from D'architecture, n°178 décembre'08 janvier 2009.p.51
86 François Béguin, "Le périphérique parisien: infra et superstructures", in "Le temps des infrastructures" Sous la direction de Claude Prelorenzo et Dominque Rouillard, L'Harmattan, Paris, 2007.

3.5 Learning from ... Trento - Use in S.S. 12

Resuming, without the immodesty of copying them, the essential lines of a significant and important research dating back to the '70s – "*Learning from Las Vegas*"[87] by Robert Venturi, Denise Scott Brown and Steven Izenour – a taxonomy of some cases of spontaneous and ordinary use along Trunk Road 12 in the stretch crossing the city of Trento is proposed.

Direct, field observations as well as the use of photos and the "discovery" of *other* places linked to infrastructures, induce the research to decode and describe such "findings" by means of a taxonomy of the spontaneous uses people carry out often without complying with rules and provisions, thus taking cues for new projects [88].

Therefore, the underlying belief of *Learning from Las Vegas* is repeated: "learning from an existing landscape is a way for an architect to be revolutionary."[89] Context can indeed suggest a "a different" and "more tolerant" way[90] to look at the things that surround us, thus distancing ourselves from the idea of a complete demolition in order to start "all over again, as Le Corbusier suggested in the '20s."[91]

Observing what happens in the context we inattentively and superficially cross everyday, offers the opportunity to meet what is "mutable and unpredictable", what can "disconcert every idea of form expressed through definitive structures, moving attention to what is happening and, above all, to what can happen in any space, even beyond expectations"[92]:

87 Robert Venturi, Denise, Scott Brown, Steven Izenour, "Learning from Las Vegas. The Forgotten Symbolism of Architectural Form", by The Massachusetts Institute of Technology, USA, 1972.
88 Robert Venturi, Denise, Scott Brown, Steven Izenour, M.Orazi (edited by),"Imparare da Las Vegas. Il simbolismo dimenticato della forma architettonica", Quodlibet, Macerata, 2010.pp.23-26. "[…] architects preferred to change the existing landscape rather than valorising what was already there. But taking cues from what is "common" is not a new operation: "pure" art draws its inspiration from folk art. [...] There is some kind of degeneration in the learning process: we look back at history and tradition in order to go forward; we can also look down... to go up. And certain general judgments can be used as tools for following, more thorough judgments. That is a way to learn from anything."
89 Robert Venturi, Denise, Scott Brown, Steven Izenour, *ibidem*, p. 23
90 Robert Venturi, Denise, Scott Brown, Steven Izenour, *ibidem*.
91 Robert Venturi, Denise, Scott Brown, Steven Izenour, *ibidem*.
92 Giovanni Corbellini, "Ex Libris.16 parole chiave dell'architettura contemporanea", 22Publishing, Milano, 2007. Here reference is made to the definition of the word EVENT in the text by Corbellin, where the author mention B. Tschumi's proposal to replace the Vitruvian Triad *firmitas (firmness)*, *utilitas (utility) and venustas (beauty)* with *space, event and movement*, pointing out that *utilitas* can "hardly be distinguished
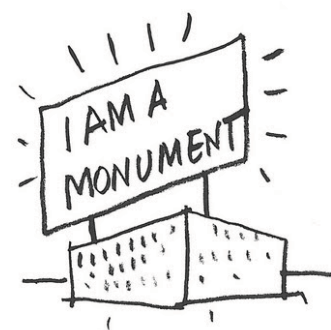
such viewpoint can be offered by infrastructural waste, too, when considering their reuse.

The sections analysed along the 16 km forming "Trento ringroad" are described in support of theoretical assumptions enunciated in the above paragraphs, organized according to a hypertextual[93] – therefore not strictly linear – structure.

Strada Statale 12
Michele Lamanna, photographer.
Località Trento Nord
Trento, 2010

in the ever changing uses and objectives" of contemporary architecture. This quotation refers to the topics of instability and change discussed in this dissertation. pp. 17-23
93 *Hypertext* (noun): computer software and hardware that allows users to create, store, and view text and move between related items easily and in a nonsequential way; a word or phrase can be selected to link users to another part of the same document or to a different document. Collins online English dictionary http://www.collinsdictionary.com/

TRENTO NORD JUNCTION_01[94]

The junction between Trunk Road 12 and Trunk Road 47 near the northern area of Trento, as it has been pointed out in chapter 1, plays the important role of sorting out traffic flow.

Due to pressing technical and structural needs, road solids had to be of imposing size, while their heights have been fixed according to intersection needs, thus making the junction road a disturbing element inside the urban context. Pre-existing areas occupied by buildings did not make it easy to choose where such roads structures should pass, thus causing hard disputes among highly varied functional fields.

The main, evident dispute regards the excessive proximity to entry overpasses, bridges, house and residential building pillars.

At first sight, it could be inferred that it is impossible to live a quality life among such a forest of reinforced concrete pillars erected to support a road, fragments of ground and space that are the results of political and economic decisions suitable exclusively for the construction of the infrastructure. In an attempt to overcome such assessment, it can be noted how the inhabitants of these "hidden islands" have autonomously taken hold of spaces rejected by road infrastructure construction processes, moulding them according to their everyday needs.

The main ordinary and spontaneous uses noticed at the Trento Nord Junction_01 are:

- storage of building machinery, inside the road junction, area delimited by embankments supporting overpass ramps, limited accessibility;
- storage and processing of stone materials and porphyry, inside the road junction, area delimited by embankments supporting overpass ramps, direct access in Via Bolzano, towards Gardolo, limited accessibility;
- fenced area used for loading and unloading waste material, beneath the road overpass that is used as a protection against severe weather conditions, easily accessible;
- fenced area for residential buildings, used as a covered area/ colonnade for dwellings and transformed into a private garden, easily accessible.

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94 Area of study that is part of Ministerial Research PRIN 2007-2010 "Progetti di paesaggio per i luoghi rifiutati", (edited by) Annalisa Maniglio Calacagno, Gangemi Editore, Rome, 2010. Analytical description by Chiara Azzali and Luigi Siviero. p. 62

CAMPOTRENTINO – RONCAFORT JUNCTION_02

The intersection of Trento ringroad with Trunk Road 235 heading North is an infrastructural joint that is quite off-centre compared to urban buildings. It meets traffic distribution needs, as well, but, in this case, it is mainly used as a link to what is going to become the actual connection axis between the cities of Trento and Bolzano, which will cross the large production hub of northern Trento.

This road infrastructure markedly separates two distinct and well recognizable areas: the manufacturing and the agricultural one, the latter still resisting in the guise of fragments and portions of land between cities and infrastructural *flows*[95], such as the ringroad itself, the A22 motorway and the river Adige.

In this case, the junction led to the isolation of buildings in their context, thus causing a gradual abandonment of some of them, boosted by the difficulties arisen in reaching everyday the necessary urban services.

The number of road structures is not substantial as in the previous case of Trento Nord Junction_01, but they slip into the surrounding land in order to raise their height, by means of embankments, and reach the nearby overpass. Since it as a border zone – between manufacturing and agricultural areas – inside this junction particular, specific uses cannot be noticed, apart from some exceptions near the sporadic and scattered residential buildings.

The main ordinary and spontaneous uses, at times non-authorized, that can be detected inside Campotrentino – Roncafort Junction_02 are the following:

- storage of wood material and equipment for private use, easily accessible;
- utility rooms of the public network of natural gas distribution for

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95 When the word *flows* is used when talking about Trento, reference is made to the studies, formulations and operative proposals of Renato Bocchi and his team during the consultancy service carried out in 2000-2001 for the Municipality of Trento with regard to the urban river area for the definition of the Guide Plan. "The west valley crossed by the river [Adige] and these infrastructural lines [railway, A22 motorway and S.S. 12 ringroad], has soon become a place of quick crossing *flows* and "unwelcome" installations. [...] It is far more interesting to plan an innovative style for the "new" city, starting from the river itself and from the longitudinal *flows* at its sides, conceiving a city-landscape shaped as a "*flow* city" penetrating from the south into the historical city and becoming a place for urban recreation, tourism, sport, shows and culture in general." Renato Bocchi, in "Il paesaggio come palinsesto. Progetti per l'area fluviale dell'Adige a Trento", (edited by) Emanuela Schir, Nicolodi & Trento University, 2006, p. 13

home heating, easily accessible, provided with fences for obvious security reasons;
- public parking space near the infrastructural overpass, serving the manufacturing area of Via Maccani, easily accessible;
- orchard area, private property, easily accessible.

CAMPOTRENTINO – MACCANI JUNCTION_03

In this area, not far from the previous junction, there are two roundabouts sorting out the traffic flow exiting and entering the ringroad and the traffic flow exiting and entering Via Brennero, i.e. the city.

Such roundabouts are connected by means of road link-up segments with different slopes and a varying number of lanes, occupying a large portion of land.

The system of the double distribution junction is perpendicular to the asphalt ribbon of Trunk Road 12 and forms a "transept" whose shapes is similar to a figure eight inside of which, in a case, fruit trees are grown.

The surrounding context is extremely varied and features several formal and functional characteristics that are all placed nearby the roundabouts. The topography is almost completely horizontal and facilitates the construction and use of buildings; the only significant element from a dimensional point of view is the ringroad section which stands out against the land level by means of imposing embankments covered by vegetation.

The distributive road system, which is particularly complex, contributes to disorientating car drivers, since it is difficult to understand the services and uses of this double interchange.

In this case, it is not possible to mention actual spontaneous uses, because these structures are part, in turn, of the public service infrastructural network – i.e. gas, electricity and public water[96] – that was planned without paying particular formal attention to Trento municipal and provincial bodies.

The only fragment penetrating among these roads and service infrastructures is a nursery that uses the portion of land contained inside one of these two roundabouts as a *display window*.

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96 On 28 April 2011 pipe adjustment and laying were carried out in order to cope with emergency situations in case of extraordinary precipitations. Municipality of Trento, Public Works Department, Network service.

TRENTO CENTRO JUNCTION_04

This area is made up of several elements that are important for the entire valley space where the city is located and developed over time: a succession of layered transformation that created wealth and complexity.

As Renato Bocchi states, "Trento – I mean, the historic city, when it first expanded towards the valley – is, to me, a mosaic-like city, namely a city with a complex identity, based on hybridized shapes and different, layered cultures: from Roman and Medieval to Renaissance and baroque legacies, up to 19th- and 20th-century transformations."[97]

The analysed junction is located in a place that has always been considered vital for the city of Trento, where many road flows meet, where the A22 motorway Trento Centro tollgate can be found near which Doss Trento hill, a "territorial landmark"[98], lies.

Studying this junction, it is inevitable to focus on some essential matters, without entering into the analytical details of the historic and urban evolutions of this area.

It is important to remember that the network of different mobility layers brought to the construction of imposing structural elements, because, up till recently, the former motorway tollgate introduced into the city traffic flows coming from the north and the south and because here the distribution of mountain ranges is particularly complex.

Once out of the motorway, the infrastructural junction of Trento Centro offers the opportunity of sorting out vehicles in different directions: this is why the junction had to be constantly technically adjusted and has been radically changed as soon as two new tunnels have been opened in the S.S. 12 ringroad and the old ones have been downgraded and transformed into museums.

Here the intention is not that of reconstructing the history of such changes

97 Renato Bocchi, public speech "Per un ritratto della città e del suo territorio nella storia e nel presente" ["For a historical and present portrayal of the city and its territory"], Trento municipal library, "Trento in 10 racconti e 100 libri" ["Trento in 10 stories and 100 books"], 22 March 2006, Sala degli Affreschi (Frescoes Hall), lecture minutes. This quotation has been referred to as a warning, in order to remember that, as many other areas, Trento developed over time thanks to a slow historical layering process. These transformations occurred a layer after the other are useful to describe how, in the same way, the area surrounding Trento Centro Junction_04 changed with the passing of time.

98 Renato Bocchi, in "Il paesaggio come palinsesto. Progetti per l'area fluviale dell'Adige a Trento", (edited by) Emanuela Schir, Nicolodi & Trento University, 2006.

and transformations, rather it is to point out how such constant technical and distributive change to the road has led to conflicts and disorders in the uses of the areas rejected by infrastructures.

In this junction, too, different typologies can be noted: some of them are planned, yet lack any accuracy, other are more ordinary and spontaneous and, apart from property boundaries, did not request particular formal definitions.

The main planned and spontaneous used found near Trento Centro Junction_04 are:

- storage of metal materials generated from vehicle scrapping activities, easily accessible, even if close to road edges;
- a large parking area called Parcheggio Zuffo supporting the motorway exit, now closed, formally delimited by road edges;
- an area supporting the Brenner motorway with offices, utility rooms used for storing maintenance machinery and parking area reserved for employees;
- fragments of uncultivated green areas, where people use to walk in order to unsafely cross the road and reach Parcheggio Zuffo.

PIEDICASTELLO – FORMER ITALCEMENTI FACTORY JUNCTION_05

The analysed best practice has common traits with many roads in the region of Trentino Alto-Adige because of the limited space available where the junction could be positioned and of the difficult morphological conditions of the land characterising the context.

Piedicastello – Italcementi infrastructural junction, in fact, is completely developed at high altitude: a large roundabout is supported by a huge quantity of mechanically stabilized earth covered with grass and reinforce concrete structures are decorated with a mosaic in order not to draw too much the attention of drivers crossing them.

The S.S 12 ringroad altitude is, in this case, lower in comparison the previous infrastructural junction and is almost at the same level of the river Adige, in order to allow the access to the new tunnels crossing Doss Trento hill.

The remaining part of the junction develops itself at a higher altitude and receives the vehicles exiting the lower part of the ringroad in order to head them along the banks of the Adige toward the former Italcementi factory and the Piedicastello neighbourhood.

As Renato Bocchi mentioned in the Guide Plan for the Adige river area, here the dichotomy between vertical mountain edges and the horizontal planes of infrastructures and the river Adige itself is quite evident.

The limited space, the areas confined by infrastructural structures and the distribution on several levels of asphalt ribbons precisely defines the fragments of land rejected from the infrastructure building process.

The factors that contributed to the devaluation of the entire areas are the following: the old Piedicastello tunnels no longer being used and being reconverted into an exhibition area with the following downgrading of the old ringroad stretch along the river to urban road which became a parking area and was partially turned green again; the Italcementi factory no longer being used, which has always been a urban area, pending an improvement plan[99]. These hardly noticed spots and areas can be seen only if one is motivated to walk along some of ringroad stretches: where possible, improper and illegal uses and functions can be detected.

The main spontaneous and temporary, almost illegal, uses noticed inside Piedicastello – former Italcementi factory Junction_05 are the following:

- storage of stone and inert materials for construction linked to the quarrying and processing activities carried out at the former Italcementi factory, hard and difficult accessibility, direct connection to the S.S. 12 asphalt ribbon;
- unauthorized gypsy camp, delimited by the traffic area and mechanically stabilized earth of the road junction, limited accessibility;
- area assigned to a public parking area on no longer used road sections of the old ringroad route at the Trento exit (Lungoadige San Nicolò).

TRENTO SUD JUNCTION_06

Trento Sud road junction, recently built (2010-2011), connects the new Trento Sud motorway exit and the ringroad, at high altitude.

As already noted, thanks to the Trento Centro A22 motorway tollgate no longer being used in favour of the new Trento Sud exit, substantial changes to the surrounding landscape have been carried out.

99 Giuseppe Ferrandi and Alberto Winterle, "Ex-Italcementi – Un progetto sulla memoria per rilanciare Piedicastello", in Turrisbabel no.83 – Trient_Trento, October 2010, Bolzano.

This area is characterised by a bundle of very significant territorial structures from a technical, economic and functional point of view: the Brenner motorway, Trunk Road 12, Caproni airport and river Adige.

In point of fact, it can be surely said that this multiple infrastructural junction is the gate of Trento when reaching the city from the south[100].

The new motorway tollgate defined new spatial arrangements, thus contributing to the formation of actual wasted surfaces that are contained among the road solids and notably increased the number of users of the entire area.

As C.Lamanna stated in this regard: "[...] a motorway is one of the metropolitan places differently occupied by a large number of people rapidly moving in a sort of extraterritoriality. [...] In some specifically equipped areas – such as tollgates and service stations – quick lanes are left in order to reach a particular place or city, or sometimes people stop over there in order to eat, to chat and to listen to the music referring to social and behavioural rules that are not the isolated ones applied to driving […]".[101]

Such "occasions" have been missed in the new project and, above all, in the new construction of these infrastructures, which were exclusively transferred to the abilities and sound judgment of the experts who were assigned the job and the landowners involved in the intervention.

In point of fact, in order to grant full technical and distributive efficiency of the road junctions, the relationships with the context, the river Adige and the existing farming fabric have been ignored, superimposing the distribution roundabout and the access and exit ringroad ramps at a high altitude and building part of the S.S. 12 routes in a trench.

The main planned and ordinary uses noticed near Trento Sud Junction_06 are the following:

- public water disposal plants at the edge of the road, easily

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100 Just for this reason, in this strategic area the Guide Plan conceived by Renato Bocchi and his team provided for the construction of the new stadium as the heart of a system interconnecting sports facilities: "The new stadium will be build in the area along the right bank of the river Adige, enclosed by the gypsy camp and the road heading to the south motorway tollgate to-come, between motorway and river. [...] Thanks to the proximity of the south motorway tollgate and the ringroad, the level of accessibility will be extremely high, so possible traffic congestions during sport events or important shows will be hindered." Renato Bocchi, in "Il paesaggio come palinsesto. Progetti per l'area fluviale dell'Adige a Trento", (edited by) Emanuela Schir, Nicolodi & Trento University, 2006, p. 55

101 Claudio Lamanna, "Arrivi veloci – Paesaggi lenti", in Architettiregione, n°. 42, May 2008, Udine.

- accessible;
- "A1 marinaio" restaurant, bar and hotel, built inside the area of an infrastructural margin, limited access, close to the asphalt ribbon;
- parking and storage area for caravans, limited access, close to the asphalt ribbon;
- pedestrian/cycle routes built along the edges of the infrastructure.

MATTARELLO JUNCTION_07

Mattarello infrastructural junction completes the analysed stretch of **XX** km of this research Recently built, the intersection between the ringroad and the local urban network exemplifies the studies according to which Mattarello is "a *threshold place* between mountain side, valley and entry defence wall of the city when reaching it from the south […]"[102]. It is defined as a confrontation area between "[...] two types of territorial geometry: the axial and linear one, i.e. flow geometry, along the Adige river channel, and the fractal, articulated and branched geometry of the slope along the mountain side."[103]. In this junction, where different landscapes deriving from settling forms linked to tradition and contemporary systems converge, rural as well as hill and mountain sceneries can be noticed displaying areas linked to the mobility and infrastructural movement near the river channel[104].

The proximity of territorial elements so different from one another and the construction of the new Mattarello junction would have been a good opportunity to look back on the relationship between the river Adige and the city, which, in the last few years, got lost. In this case, too, the primary technical needs inspired a formal structure for the infrastructure that overlapped the context it crossed without paying any particular attention to the relations with the existing spaces.

From a morphological point of view, this junction has a structure that is similar to the previous one, i.e. Trento Sud junction, featuring a higher altitude in comparison with the land where the distribution, S.S 12 entry

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102 Renato Bocchi, public speech "Per un ritratto della città e del suo territorio nella storia e nel presente" ["For a historical and present portrayal of the city and its territory"], Trento municipal library, "Trento in 10 racconti e 100 libri" ["Trento in 10 stories and 100 books"], 22 March 2006, Sala degli Affreschi (Frescoes Hall), lecture minutes.
103 Renato Bocchi, *ibidem.*
104 Renato Bocchi, *ibidem.*

and exit roundabout is situated, thus requiring the use of mechanically stabilized earth to support it and forcing the roundabout to be positioned into a trench for a short stretch. This technical solutions causes a strong interruption between the portions of affected ground and automatically transforms the infrastructure into a landscape disruptive element as regards to both its size and its shape. This junction becomes an actual open-air platform waiting for the vehicle traffic to be sorted out.

In the nearby spaces, different kinds of uses have been applied: planned, ordinary and spontaneous. Those noticed near Mattarello Junction_07 are the following:

- areas devoted to the separate collection of waste, easily accessible;
- pedestrian/cycle systems and routes built along the infrastructure edges;
- commercial area devoted to a nursery, enclosed between the ringroad and the railway, with limited accessibility and visibility;
- driveway access roads to homes built under overpasses, easily accessible;
- generic, building, stone and waste storage areas as well as parking areas built under overpasses, easily accessible;
- fruit trees cultivated area and urban vegetable gardens[105] provided with fences – probably without any authorization – , limited accessibility.

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105 The phenomenon of spontaneous or urban vegetable gardens has been studied in various ways and in different disciplinary areas – town planning, design, architecture, sociology, anthropology, geography, landscape, etc. In this specific case, a comparison between recycling infrastructural waste and the phenomenon of "urban countryside" as it was analysed and studied by Pierre Donadieu (E.N.S.P. Verasilles). The intended comparison consists in considering urban countryside as a possible strategy for recycling spontaneous and temporary urban waste. Here is the brief description given by Pierre Donadieu himself in: *Muvance II Soixante-dix mots pour le paysage*; ***Campagne urbaine***. *Association durable de forme set de fonctionnalités urbaine et rurales dans les aires périurbaines des agglomérations.*
Le concept de campagne urbaine – métissage de la ville et la campagne – est une -réponse possible aux questions de requalification des péripheries. Issue d'un *project urbain de paysage*, et reconnue pour ses qualités paysagères et environnementales propres, la campagne urbaine n'est pas une ville à la campagne, mais une association fonctionnelle des formes urbaines, circulatoires, agricoles, forestières et aquatiques. [...]. From AA.VV. Augustin Berque (sous la direction de), «Mouvance II soixante-dix mots pour le paysage», Editions de la Villette, Paris, 2006.pp34-35
Cfr AA.VV. Alain Roger (sous la direction de) «Mouvance, cinquante mots pour le paysage», Editions de la Villette, Paris,1999
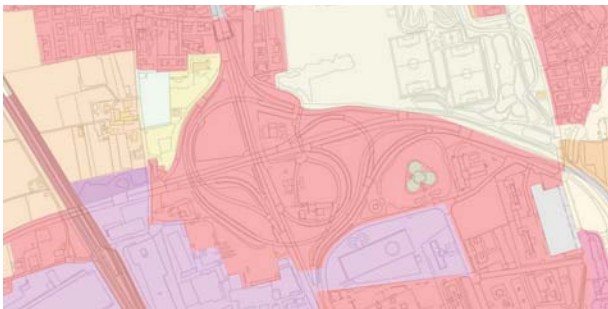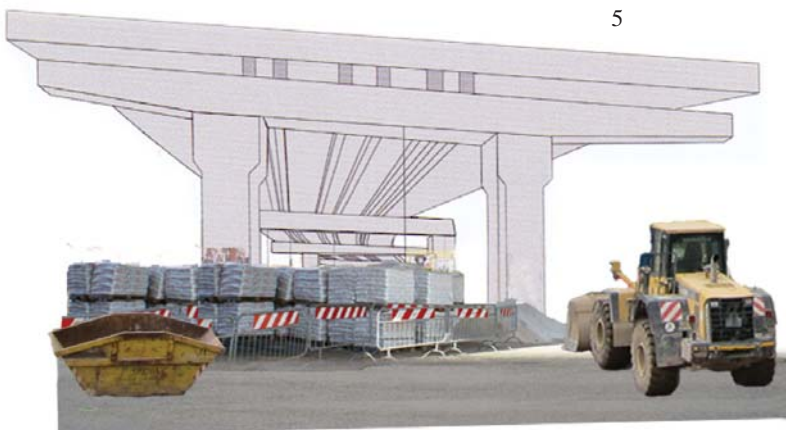
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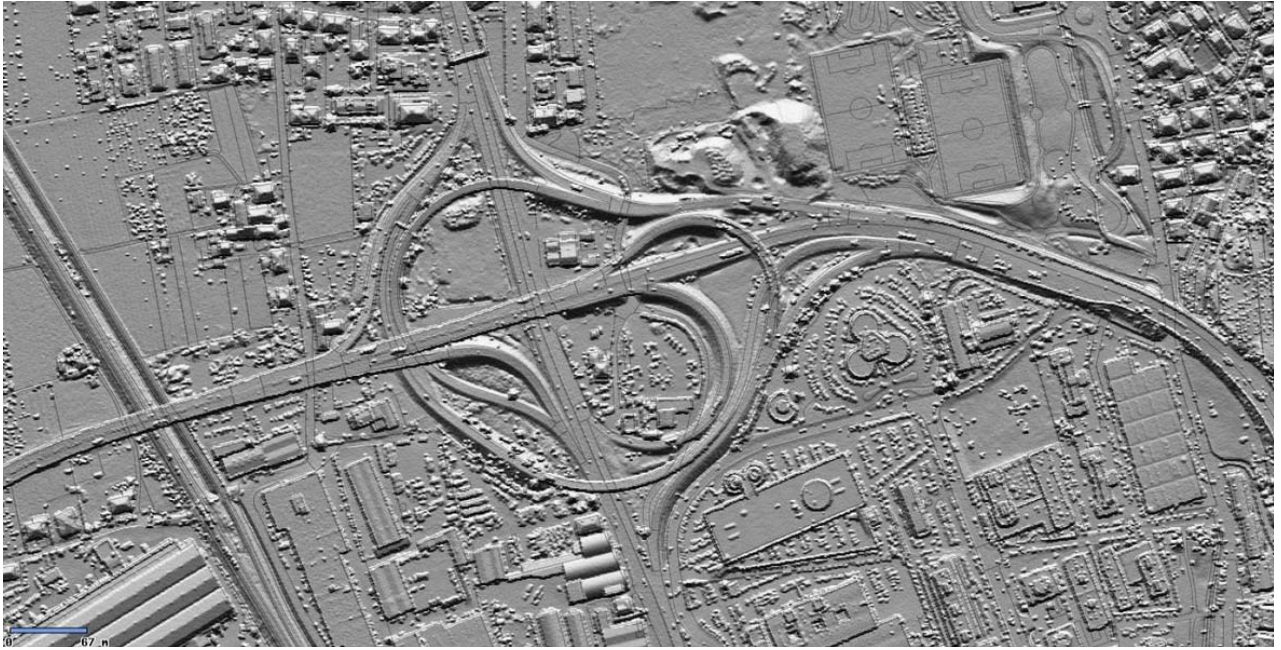
Zonizzazione da PRG

■ NS F - Nodi di scambio

■ F 4 - Zone destinate al
verde di protezione e
di arredo

Uso del suolo

■ Tessuto urbano
discontinuo

1 Rappresentazione 3D
2 Zonizzazione da PRG
3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

TRENTO NORD JUNCTION_01

129

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Zonizzazione da PRG

F 4 - Zone destinate al
verde di protezione e
di arredo

Uso del suolo

Tessuto urbano
discontinuo

Rete stradale principale - sede
normale, su ponte o viadotto

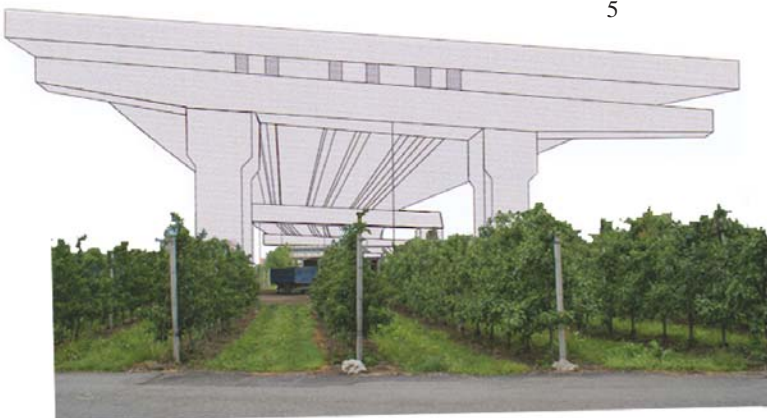Frutteti e frutti minori

1 Rappresentazione 3D
2 Zonizzazione da PRG
3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

**CAMPOTRENTINO
RONCAFORT JUNCTION_02**

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Zonizzazione da PRG
- ■ F 4 - Zone destinate al verde di protezione e di arredo

Uso del suolo
- ■ Tessuto urbano continuo
- ■ Frutteti e frutti minori
- ■ Prati stabili
- ■ Rete stradale principale - sede normale, su ponte o viadotto

1 Rappresentazione 3D
2 Zonizzazione da PRG
3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

CAMPOTRENTINO – MACCANI JUNCTION_03

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Zonizzazione da PRG

■ F 4 - Zone destinate al
verde di protezione e
di arredo

Uso del suolo

■ Tessuto urbano
continuo

■ Prato alberato

■ Prati stabili

■ Rete stradale principale - sede
normale, su ponte o viadotto

4

5

1 Rappresentazione 3D
2 Zonizzazione da PRG
3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

TRENTO CENTRO JUNCTION_04

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Zonizzazione da PRG

▇ F 4 - Zone destinate al verde di protezione e di arredo

Uso del suolo

▇ Frutteti e frutti minori

▇ Prati stabili

▇ Rete stradale principale - sede normale, su ponte o viadotto

1 Rappresentazione 3D
2 Zonizzazione da PRG
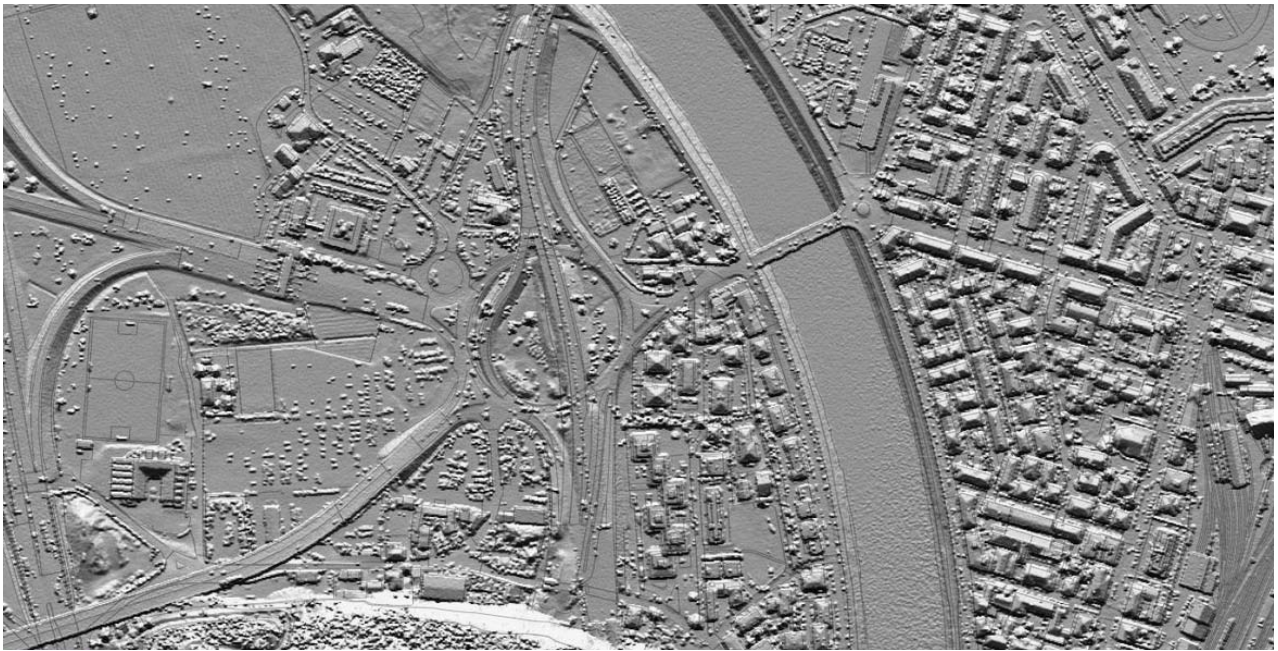3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

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PIEDICASTELLO JUNCTION_05

133

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Zonizzazione da PRG

▉ F 4 - Zone destinate al
  verde di protezione e
  di arredo

Uso del suolo

▉ Area in trasformazione

▉ Vigneti

▉ Prati stabili

▉ Rete stradale principale - sede
  normale, su ponte o viadotto
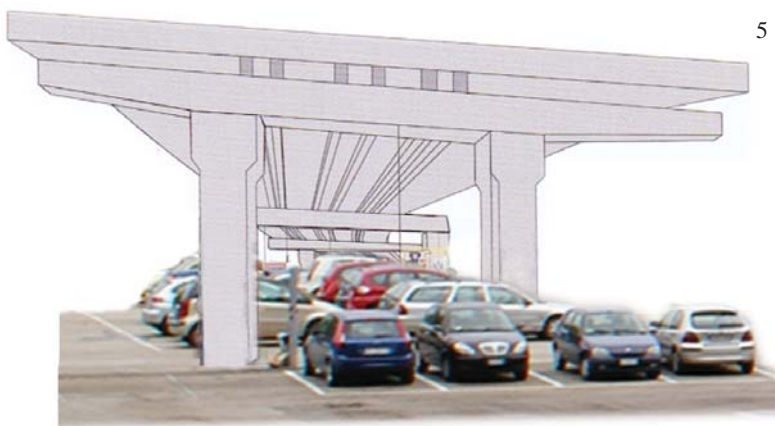
1 Rappresentazione 3D
2 Zonizzazione da PRG
3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

TRENTO SUD JUNCTION_06

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Zonizzazione da PRG

■ F 4 - Zone destinate al verde di protezione e di arredo

Uso del suolo

■ Vigneti

■ Prati stabili

■ Rete stradale principale - sede normale, su ponte o viadotto

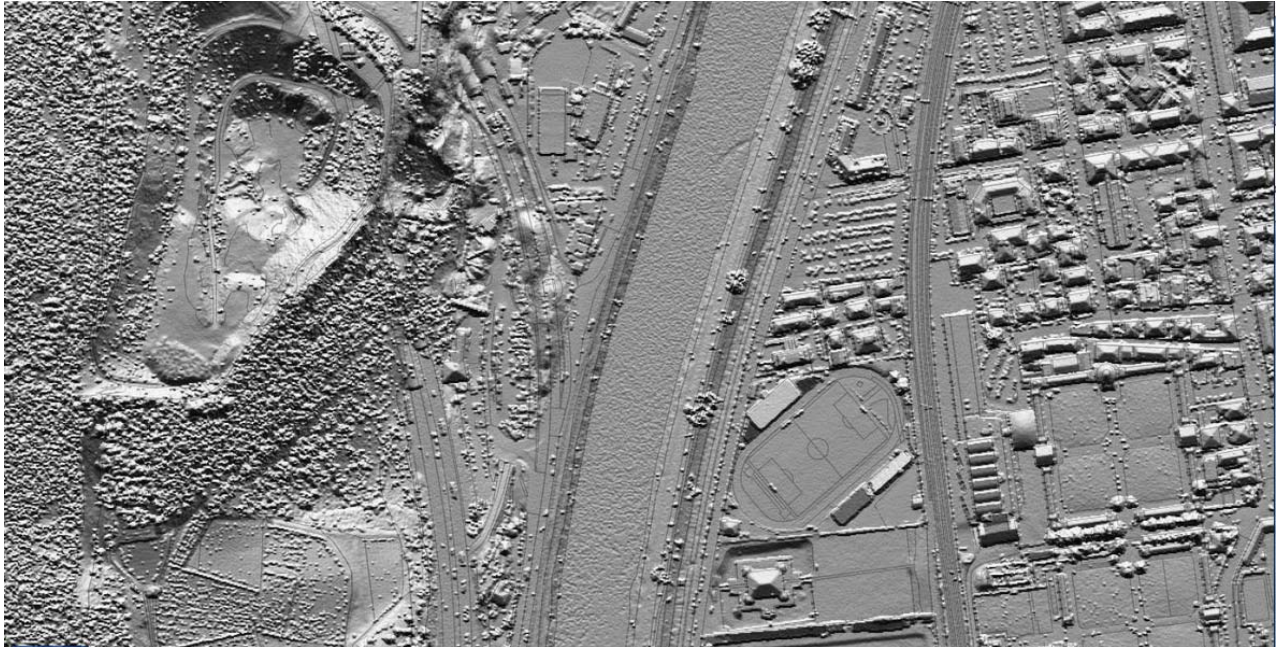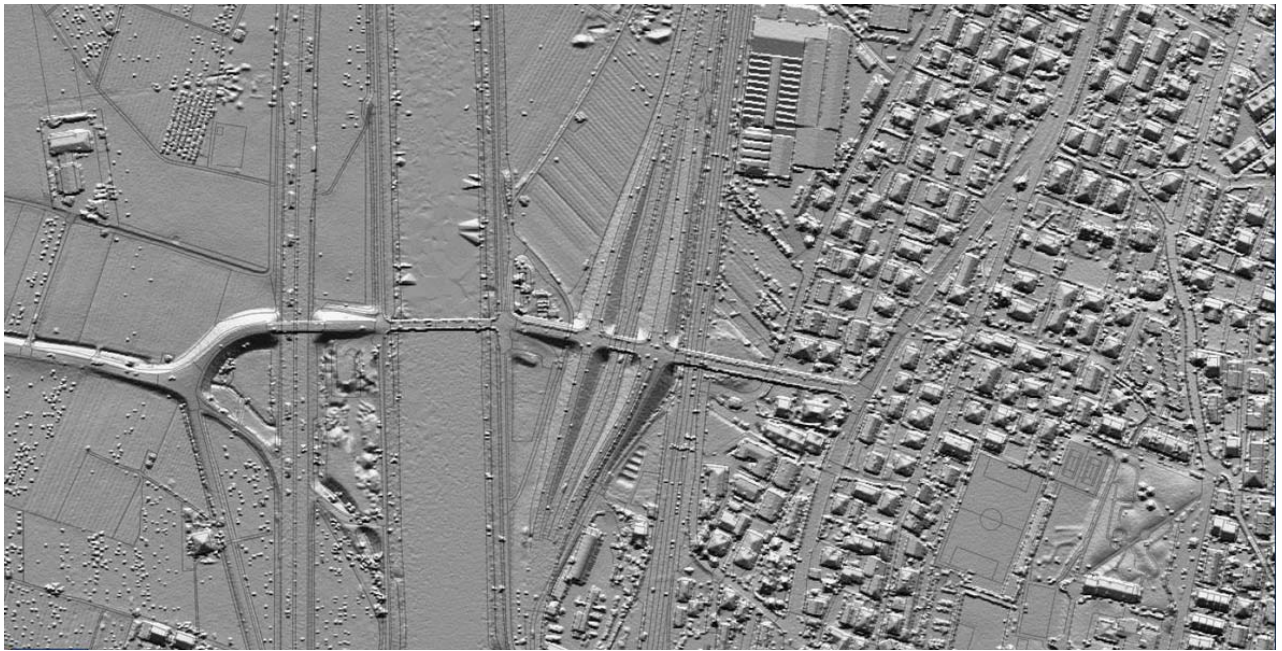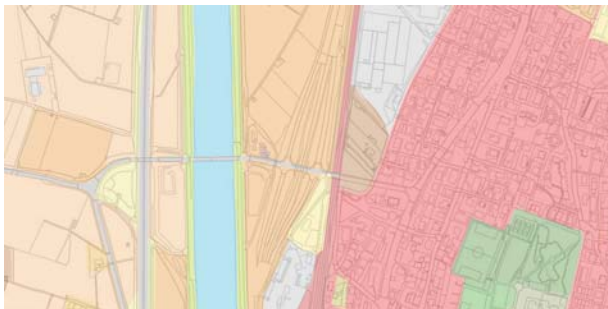1 Rappresentazione 3D
2 Zonizzazione da PRG
3 Ortofoto 2011
4 Carta sull'uso di suolo
5 Uso reale del suolo

MATTARELLO JUNCTION_07

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Chapter 4

Postproduction: attitudes and tactics

"Je voudrais, à ce propos, dénoncer un préjugé: l'obsession du vert, entretenue par les écologiste set de nombreux défenseurs de l'environnement. Pourquoi cette "verdolâtrie"? Parce que le vert renvoie au végétal, donc à la chlorophylle, donc à la vie? Sans doute, mais est-ce une raison pour ériger cette valeur biologique en valeur esthétique, cette valeur écologique en valeur paysagère?[...] Faut-il qu'un paysage soit une vaste laitue, une soupe à l'oseille, un bouillon de nature?
Alain Roger, "Court traité di paysage", nrf - Édition Gallimard, Paris, 1997.

Agence Ter
The inhabited tree canopy of the park desbordsde Seine
Nanterre, 1991

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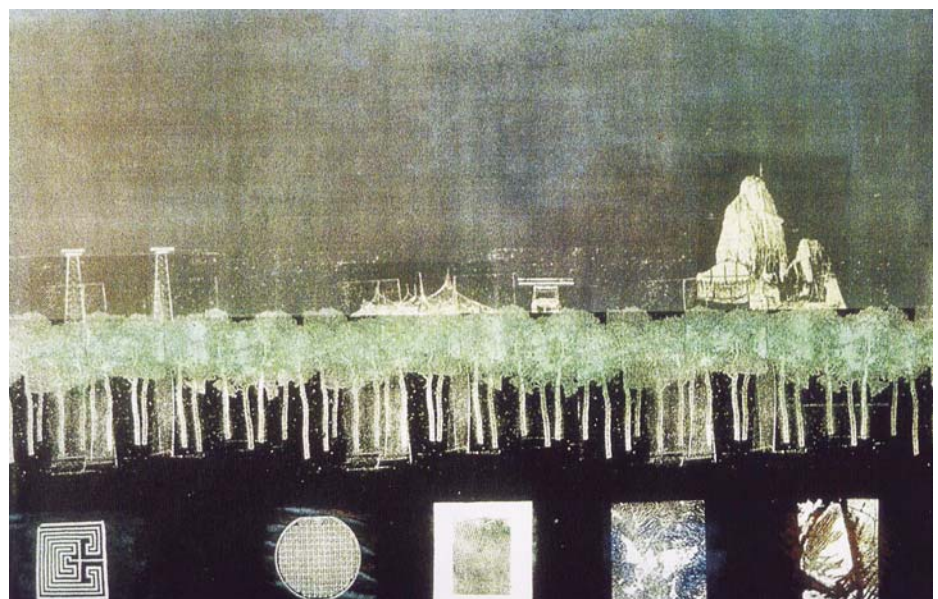
4.1 Recycle and infrastructures

The theoretical matrices of the infrastructural theme, the interdisciplinary researches on the interpretation of the refuse, the perceptual investigation of the deleted sites in the ordinary road landscape and the decoding of the uses of marginal spaces, bring to investigate *attitudes* and formulate *tactics* in support of the architectural and landscape projects.

Once proven that *delaissées* are available spaces, numerous and not so alien to the contemporary city, the research continues with the decomposition and recomposition of projects and architectures, related to the infrastructural theme, in which the spatial element of the *surface* can recreate, through recycling, the potential of the refused space that had outlived, or that he never had, its usefulness. The act of recycling, implied in the word *refuse* and key to understanding the research, permeates and extends the potential of the project's action: "[...] allows the waste to be reduced, the refuse to be limited, disposal costs to be cut and production

FRAMMENTO_07

Christian Boltansky
Camminando, REC 2005
Installazione Site Specific
Chiesa di San Carlo,
Reggio Emilia.

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costs to be limited for new ones. "[1]

The main theme of the analysis of the cases is the pursuit of new value and new meaning where apparently there isn't any; the identification of intuition, concepts and devices that have allowed degraded spaces, once considered not so important during the construction of a road, to be put back into use.

The classification of the selected projects is not aimed at achieving completeness. But to reveal the way in which a functionally and technically *finished* theme, as the infrastructure is, nonetheless offers the possibility to differentiate the design.

"Punctually (and necessarily?) , every 3 to 5 years, architecture (in Italy but in other places too) goes back to wondering about the legitimacy of its existence and whether it should continue to pursue its apparent destiny […] Small shifts in style, infinitesimal movements in criticism and modest changes in behaviour are dissected with infinite care and followed by critics with an anxious eye"[2] Wondering about the *legitimacy* and *fate* of contemporary architecture, and therefore also about its creative act, Aldo Aymonino introduces the possibility, among others, to seek new matrices and "a new *genius loci* for those precariously balanced areas, those territories with no homogeneity, continuously wavering between abandonment and improper use"[3] of which current landscapes are full.

Through these spaces, just because there are many, we can see a real independent transformation of cities and towns that can be defined as an act of *spontaneous growth*, where the "residual"[4] plays a key role.

If Gilles Clément reveals the dimension of the *third landscape* as an enclave of natural biodiversity, cancelled elsewhere and found again in unexpected contexts, then, as we have tried to highlight in the third chapter, you can also speak of "the third landscape for architecture." Mirko Zardini uses this neologism to emphasize that, even in this context, a similar phenomenon is occurring: here too, the waste ("residual areas") produced by the logic of human intervention, are "sites where it is possible to develop an architectural biodiversity which seemed to have been erased by the predominance of practices and images consolidated

1 Mosè Ricci, "Nuovi paradigmi: ridurre riusare riciclare la città (e i paesaggi), in Pippo Ciorra, Sara Marini, "Re-Cycle – Strategie per l'architettura, la città e il pianeta", Electa, Milano, 2011.p.72
2 Aldo Aymonino, "Sintomi emergenti. Piccoli progetti e nuove vie per la produzione di senso", Lotus International, n° 130 *Coming Architecture*, Editoriale Lotus, Milano,2007. p.120
3 Aldo Aymonino, *ibidem*.
4 Gilles Clément, "Manifesto del terzo paesaggio", Quodlibet, Macerata, 2005.

by the architectural marketing of the last few decades"[5]. Thus giving the designers the opportunity to observe their surroundings in a different way "and conquer a much larger territory in which to operate", where it is necessary, however, to rewrite and define new tools and strategies.

The intersection between the discovery of new spontaneous uses, the decoding of invisible places barely noticeable along the roads and the scarce economic resources during long periods of crisis, has prompted many disciplines to find new methods of recycling, repairing, re-using until *postproduction*.[6] Is it then possible to transfer this category in the design of infrastructure?

Starting from art may seem adventurous, but it may be necessary to break the barriers of exclusive technical discipline, also because, along already constructed paths, "extreme"[7] or "disruptive" re-used actions are already in place.

Post-production: This technical term, taken from the domain of television and movie, with Nicolas Bourriaud, art critic and curator until 2006 of the famous Palais de Tokyo in Paris, has become a word loaded with meaning also in the architecture field, in all those studies that investigate and reflect the theme of recycling. For Bourriaud, since the eighties, "works of art have been created on the basis of existing works: more and more artists interpret, reproduce, display and re-use works created by others or other cultural products."[8]

Rereading the leftover spaces generated by infrastructures such as materials to be post-produced is certainly fascinating. The built infrastructures, provided with a precise morphological-formal definition, are comparable

5 Mirko Zardini, "Un terzo paesaggio per l'architettura. Nelle aree residue dell'architettura contemporanea una miriade di scoperet/A Third Landscape for Architecture. A moltitude of discoveries in the leftover areas of contemporary architecture", in Lotus International n°130 *Coming Architecture*, Editoriale Lotus, Milano,2007. p.124
6 The use of these terms implies an infinite, or nearly so, number of references, projects, case studies and publications. To avoid being biased, the research will deal explicitly with only a few authors and domestic and international experiences related to this subject, useful for introducing the study of research and decoding of the real cases to construct operative categories called skills and tactics. We recall, from the essay by Alessandra Ponte "Arte e rifiuti/Art and Garbage – L'arte e le strategie di recupero, riciclaggio e riuso. 1970-2006", as a valuable information source for a detailed study on the subject. Lotus International n°128 Reclaiming Terrain, Editoriale Lotus, Milano, 2006. p.9-21
Please also note that this research comes from Ministerial research PRIN 2007-2010
7 Mirko Zardini, ibidem. p.125 "Such extreme conditions do not consist solely in the choice of unusual themes or places and the definition of new programs, but also in the poverty of the means on hand. This poverty requires a sophisticated use of the available resources." – See as an example the projects by Lacaton and Vassal.
8 Nicolas Bourriaud, "Postproduction. Come l'arte riprogramma il mondo", Postmedia, Milano, 2004. p.7

to the original work, "the virgin materials", to some extent a true symbol of progress, production and consumption. The designer, like the artist, can work with that original material, can manipulate the infrastructure in its sculptural concreteness and can post-produce it (recycle), helping to eliminate the consolidated idea of road mono-functionality, working effectively with materials that are already in circulation and that, sometimes, are *downgraded* in favor of others.

Clearly a work of art is very different from many points of view from a road infrastructure. But the possibility "of using forms already produced thus showing the desire to incorporate the work of art within a network of" different "signs and meanings", is an innovative stimulus for the infrastructure," instead of considering in its autonomous form"[9], finished, so amplifying its untapped potential.

Curiously, even the ex-post modification logic provided by the legislation on environmental impact assessment, works through an ideal post-production, since it occurs in the final phase of projects, leaving little room for change. This behaviour almost always leads to mitigation and compensation works, trying to reach parameters related to "health protection, improvement of human life quality, conservation of species variety, balance and reproductive capacity of the ecosystem, all essentials to ensure the plurality of resource uses and biodiversity."[10]

The fixes that can be implemented on the original material, the infrastructure *in-fieri,* doesn't have the strength to rescue the project but, in contrast, tends to deny it, hide it, by applying the act of *camouflage* through vegetation. This does not only deny the sculptural and formal self-referentiality that the road can have when well designed[11], but is also a tentative to hide the element, that is not resolved or considered necessary for the construction, producing waste.

This type of *green post-production,* encouraged by an ecological vision that in recent years has gained more and more ground, has attempted to "create a threshold between the infrastructure and the contemporary

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9 Nicolas Bourriaud, *ibidem*. p.13 "all these artistic practices share the use of already produced forms, thus showing the desire to incorporate the work of art within a network of different signs and meanings, rather than to consider it in its autonomous and original form. It is no longer about making a tabula rasa, to create starting from a virgin material, but to find ways to fit in the innumerable flows of production
10 Provincia Autonoma di Trento – Dipartimento Lavori, Trasporti e Reti. Servizio Opere stradali
11 Infrastructure and architectural quality, is a central theme of the discipline that the research deliberately does not address, as explained in the preface / introduction, but we are aware it is a founding element of the discipline.

city"[12], leading quickly to a vision of mere preservation of the landscape, on which very often were transferred[13] archaic and bucolic visions from the past that do not allow road work to become a real opportunity to transform contemporary landscape.

On the contrary, the idea of hiding as much as possible what has been built, to camouflage it, is even getting stronger precisely because it is still common to suffer from the "complexe de la balafre", which forces the designer, the architect, or in this case even better, the landscaper, to hide or to disguise the negative impact that the road has had on the environment:"As the architect considers that his project can not have a negative impact on the landscape and on the environment, he decides to call the landscaper to camouflage them. That is a sad vocation of one who thinks he has a creative mission to invent future landscapes and who is reduced only to camouflage, yes, what slight!" [14]

Alain Roger expresses strongly, with these words, the need to abandon the idea of infrastructure as wound or scar[15] and to give it a positive value, especially as a creativity tool. This reinforces the possibility to see the infrastructure ex-post, such as a filament filled with discarded fragments to be recycled: as Nicolas Bourriaud would say, think of it as "original work" to be post-produced[16] and, as argued in this discussion,

12 Francesco Repishti, "Scavo e sovrapposizione. La sparizione della tecnica – Excavation and superimposition. The disappearance of technique", in Lotus International, n° 139 Landscape Infrastructures, Editoriale Lotus, Milano, 2009.p.115. "Thus the work of landscaping is invited to find a remedy for problematic situations, created chiefly by infrastructures or by neglect, and the intervention of the landscape architect is seen as a necessary treatment for the territory, aimed at generating a liveable space."

13 Alain Roger, *Paysage et environnement: pour une théorie de la dissociation*, in "Autoroute et Paysages", (sous la direction de) C.Leyrit, B.Lassus, Les Edition du Demi-Cercle, Paris, 1994.p.16 e p.28 Bernard Lassus "[...] has acted, it was important for him to separate these two notions, to emphasize the specificity of the landscape, to dispel the confusion, almost general in professional and environmentalist circles ... between the values that relate to the landscape by those on the environment. [...] There is only a matter of «preserve», «protect», «preserve». it is clear that it is simply transferred to the landscape of ecological values, which are not his own"

14 Alain Roger, ibidem. p.33 "Puisque le concepteur d'une route considère que son project ne peut avoir qu'un impact negatif sur le paysage come sur l'environnement, il appelle le paysagiste pour le camoufler. Triste vocation de celui qui se croyait investi d'une mission créatrice, inventer le paysage de demain, et qui se voitréduit au camouflage, oui, quel camouflet!"

15Alain Roger, *ibidem*. p.33 We must, I think, shameful to abandon the vision of free[way]. This is not only, in and of itself, a real landscape, but like the TGV, it produces new ones.

16 Nicolas Bourriaud, *ibidem*. p.28. "when whole areas of our lives become invisible due to economic globalization, when the basic functions of our daily lives are gradually transformed into consumer goods (including the human relationships that are becoming a real industrial interest), it seems logical that artists seek to rematerialize

fully consider it as project[17] material.
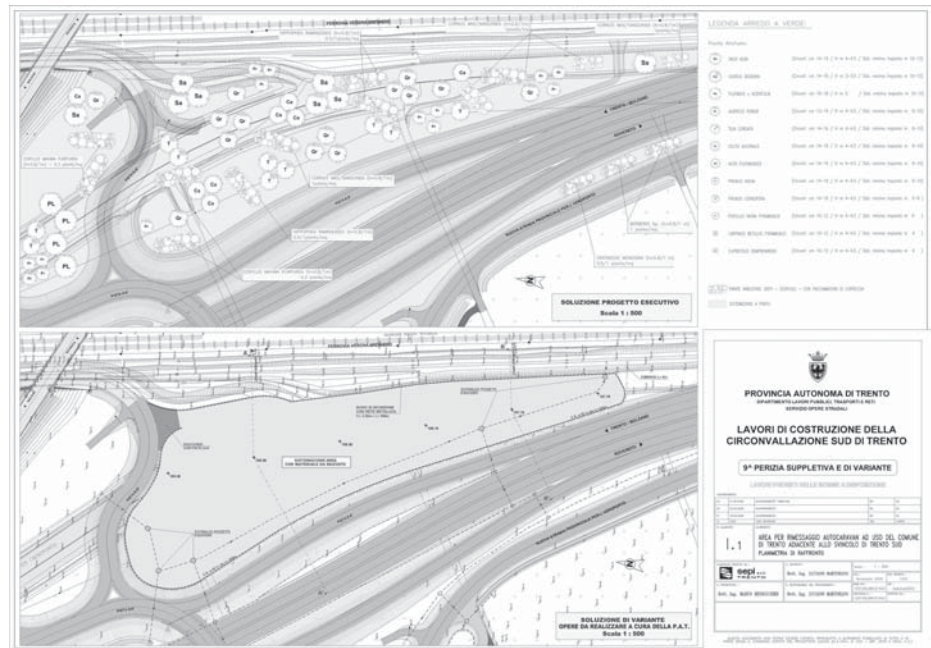
The importance of a critical reading of the transversal effects that the mobility infrastructure cause on the crossed contexts, is well established by several authors and by a vast literature. This subject inevitably involves other disciplines that already jointly work in the territories[18].

In addition to potential and poetic intrinsic factors, it is necessary to remember that on infrastructure and, consequently, on the infrastructure leftover spaces, the *vides programmés* by David Mangin[19], are also

these functions and processes, to re-give form to what is disappearing. "It is necessary that contemporary architects are ready to face this kind of change. One type of this rematerialization could be the recycling action, however, that assumes that "an artist [an architect] should be held responsible for the forms and the social function" of his action, his work of art."

17 Vittorio Gregotti, "Il territorio dell'architettura", Feltrinelli, Milano, 2°ed.2008.p.11 "the project is the way in which we attempt to implement the satisfaction of our desire. [...] From an architectural perspective, the project is the way they are organized and fissat, architecturally speaking, the elements of a certain problem. Il progetto è il modo con cui tentiamo di mettere in atto la soddisfazione di un nostro desiderio. […] Dal punto di vista dell'architettura, il progetto è il modo con cui vengono organizzati e fissat, in senso architettonico, gli elementi di un certo problema."

18 Marcel Smets, "Il nuovo paesaggio delle infrastrutture in Europa/The contemporary landscape of Europe's infrastructures", in Lotus International n°110, Città globali. Planning, disturbi, architettura, infrastrutture. Electa, Milano, 2001. p.116 "the apparent randomness of the urbanization of the area is the overlap representation of architecture, infrastructure and landscape: Each new intervention, whatever its nature, simultaneously calls into question the other levels, but we can not project well to distinguish which belongs to which category"

19 David Mangin, "La ville Franchisée. Formes et structures de la ville contemporaine", Éditions de la Villette, Paris, 2004. p.100 "Ces [vide sans qualité] junkspace, chers à Rem Koolhaas ou au groupe italien Stalker, amateur de dérive périurbaines, sont tantôt dénoncés, tantôt sublimés, notamment par le cinéma et la photographie, qui y trouvent

present more pragmatic factors linked to economy and regulations. Infrastructure, even in a time of severe financial crisis, is of great public interest and a target for financial investments; states and governments continue to invest in them mainly because of their strategic role in the processes of industrial and social development. This investment of public money becomes an opportunity for job creation, but also for giving cities and territories a new shape. This process, of course, triggers the whole set of legislation and technical urban regulations that define the characteristics that the infrastructure must meet, often leaving little room for the project itself, and causing the formation of the famous "délaissés de voirie" [20] (networks neglected areas).

The simple graphic experiment described by David Mangin in his book *La ville Franchisée* is interesting. He imagined drawing regulatory constraints regardless of the project and its context, to demonstrate how overlapping laws, regulations, and standardized processes concurs to generate *programmed vacuum*s that prevent, from his point of view, the densification of the area and produce urban sprawl: "some rules, are of course necessary. But the overflow of the rules induced overflow of voids"[21]. To address the issue of legislation inflexibility, which over the years has led to a flat, un-diversified application to areas with very different and specific characteristics, a "significant, sensitive, understandable by all measure, that it will not only be the addition of negative constraints" is necessary and which should be changeable and adaptable to " "specific situations starting from the site, the landscape, the topography or the serious technical constraints"[22]. Rules that should also cover the action on ex-post infrastructural refuse.
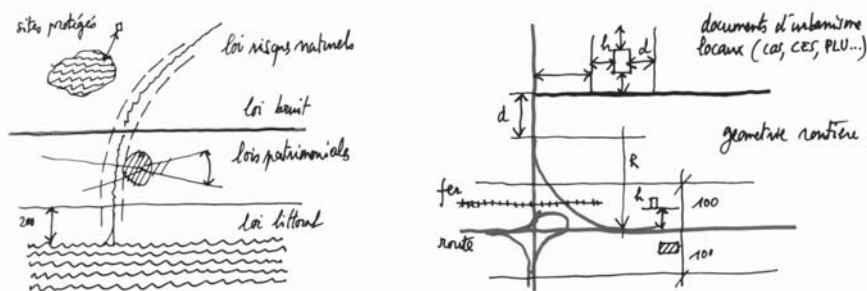
David Mangin
Le superposition des lois environnementales, de la géométrie routière et des règlements d'urbanisme génère un vide considérable.

un hors-champ esthétique et métaphysique."
20 David Mangin, *ibidem*.(délaissés de voirie=Spazi trascurati delle reti stradali)"Elle sont à l'origine des fameux *délaissés de voirie*, liés aux marges de recul imosées, en territoire suburbain, par les normes nationales […] ou européennes, ou par des cultures techniques locales: vitesses tolérées, modalités d'échanges, etc."
21 David Mangin, *ibidem*. p.103 "des règles, sont bien sur nécessaires. Mais le trop-plein de règles induit le trop-plein de vides."
22 David Mangin, *ibidem*.

Among the recent attempts to challenge the unshakable mindset of standardized legislation and to create design tools for the foundation principles introduced by the European Landscape Convention, is the *Manifesto for the European Landscape Project*[23] of 2011, in which scholars and architects have tried to define the essential 12 points for the realization of the landscape project. This manifesto, supported by the activity of classification in the field by *Observatorio del Paisaje* created by Juan Manuel Salazar Palerm*,* should become an operative tool to refine and expand these objectives.

In this broad field of research, abandoned, embedded, refused infrastructure spaces offer potential opportunities for recycling. After having recognized them and brought them to the surface, they show their *palinsesto*[24] that becomes the basis on which the design action can be reborn to a new life. This design action insert itself in a given and determined space, the one of the refuse, characterized by its previous footprints[25], in which, however, introduces a new object that rule a space already previously regulated[26].

The search for traces, used as *supporting points*, *accents* in refused surfaces, leads to an action of digging, of looking for layers that accumulated over time that, through their thickness, have helped to draw the territory. Even the infrastructural refuses, scattered along the tracks, are characterized by their thickness, by their consistency that, when added to one another, is able to induce changes in the contexts in which the refuse is placed, and landscapes that partly composed.

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23 Juan Manuel Palerm Salazar "Manifesto per il progetto del paesaggio europeo – Isole Canarie", in Paysage, rivista internazionale di landscape-architecture and urban design, n°8 – 2010, Milano. p. 57-60. www.bienaldecanarias.org

24 André Corboz, "Il territorio come palinsesto", in Ordine sparso. Saggi sull'arte, il metodo, la città e il territorio", (a cura di) Paola Viganò, Franco Angeli, Milano, 1998. p.190 "the territory, overloaded of traces and past readings, looks like a *palinsesto*. In order to set up new structures, to use more rationally certain lands, it is often necessary to modify the substance in an irreversible way. [...] Each territory is unique, so you need to recycle, to scratch one more time (possibly very carefully) the old text that men wrote on the irreplaceable material that is the soil, to lay a new one that meets the needs of 'today, before being itself replaced "

25 André Corboz, *ibidem*. p.189-190 "Some planners are beginning to address these traces for their design actions. After two centuries during which the management of the territory had known only one recipe, the tabula rasa, it is being proposed an idea that consider the territory no longer as an operating field almost abstract, but as the result of a very long and slow layering [...] there exist fragments of a road system of which we can only guess the extent and the layout. Traumatic events are perceived, after a few generations, as positive facts […]."

26 Sara Marini, *ibidem*. p.29

Categorizing them, adding them together and putting them side by side, strengthen their individual entities: from individual pieces of disconnected space, they become tangible entities that are part of the complex context that is the landscape.

According to the *Landscape Urbanism*, recently established discipline that is based on the concept of "landscape as urbanism"[27], the *infrastructures*, the *horizontal surface*, the *forms* and *processes*, the *programmatic indeterminacy,* the *ecology*[28], are variables closely related to changes in the contemporary city, that make possible *undetermined* changes, open to *mixture* and to *interdisciplinary*; thus able to undermine the old logic of urban planning aimed mainly to the commercial development of the city, where the notions of hierarchy, boundary and centrality have led to problems and, today, opportunities for marginalization, abandonment and rejection.[29]

This research takes mainly into consideration the variables of *surfaces horizontality* (*topological surfaces*[30]) and of *infrastructure*[31] to further demonstrate the value of the theme of the infrastructural refuse within a more complex system of relationships and as an element starting from which, through the project, significant changes can be made in the landscape, meant precisely as a *model of processes*[32] and relationships.

The infrastructure for mobility represents a structure that could act as a catalyst for transformation, through which it is possible to plant new potentialities in a layer that makes up the structure of the horizontal surface; if it produces or has produced (ex-post) refuses along its extension, then we can say that recycling pieces of the surface is actually a necessary action, firstly to redeem the development supporting role of the infrastructures and, secondly to re-locate small but valuable fragments

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27 Charles Waldheim, "Landscape as Urbanism", in A.A.V.V., C.Waldheim (a cura di), The Landscape Urbanism Reader, Princeton Architectural Press, New York, 2006.p.35
28 Stan Allen, "Oltre il Landscape Urbanism – Beyond Landscape Urbanism", in Lotus International, n° 139 Landscape Infrastructures, Editoriale Lotus, Milano, 2009.p.112-113 cfr. James Corner, "Landscape Urbanism", in M.Mostafavi e C. Najle (a cura di), Landscape Urbanism: A Manual for the Machinic Landscape, Architectural Association, London, 2003.p.58-63
29 Regarding this approach see: James Corner, "Recovering Landscape. Essays in Contemporary Landscape Architecture", , Princeton Architectural Press, New York, 1999. E James Corner, "Landscape Urbanism", in M.Mostafavi e C. Najle (a cura di), Landscape Urbanism: A Manual for the Machinic Landscape, Architectural Association, London, 2003.
30 Stan Allen, "Oltre il Landscape Urbanism – Beyond Landscape Urbanism", in Lotus International, n° 139 Landscape Infrastructures, Editoriale Lotus, Milano, 2009.p.112
31 Here meant as an infrastructure for mobility, but in reality also considered as general infrastructure which underlies the operation of a main structure.
32 Stan Allen, *ibidem*.

of soil belonging to the variable of *surfaces horizontality*, connection matrix within the structure of the landscape. [33]

Coloco + G.Clément
Trame verte et bleue dans les agglomerations quels projets de territoire?
Roubaix, France 2011

The inter-connection of fragments of refused surfaces, linked to road structure, defines a network of "strategic friction areas [...], territories of accumulation"[34] of which it is possible to imagine the transformation or simply the recording of expectations. Manuel Gausa sees the real opportunity in their role of interstitial spaces, sometimes obscured, spoiled, but above all, free, open and unbuilt. Rethink them as "unstable places, changing, open to temporary, to ephemeral, belonging to the culture of mobility, of insecurity [...] of event"[35] capable of redeeming entire territories already compromised by infrastructural systems that are not calibrated and not necessarily completely built. They can be considered as devices of a network able to mend separate contexts, "relational channel"[36], aimed at colonizing the landscape depending on the specific attitudes of the places crossed.

An example of this strategy of making a system of the *omission of spaces* is the research *To Replace.bz*[37], directed by Luca Emanueli for the *Provincia Autonoma di Bolzano*. Through a census, were brought to light places, spaces, structures and underutilized buildings, abandoned, "at low definition"[38], to be reactivated through different degrees[39] of intervention

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33 Stan Allen,*ibidem*.
34 Manuela Gausa, "Dispositivi Geourbani – Geo-urban devices", in Area n°79, Motta editore, Milano, 2005
35 Manuela Gausa, *ibidem*. p.5
36 Manuela Gausa, *ibidem*.
37 Luca Emanueli, "ToReplace.bz. Ambienti a bassa definizione: 70 luoghi possibili per l'arte e la cultura in Alto Adige", Damiani, Bologna, 2007.
38 Luca Emanueli, *ibidem*. p.11
39 Luca Emanueli, *ibidem*. p.13. In the research are foreseen differentiated level of intervention on identified places: "If places are ready for use (level 0), we need only become aware that they exist and find out if they are available, recognise a place without there being any need for modification at all . Others require a minimum work (level 1) to make them safe, to equip them and hook up basic utilities. yet others (level 2) require partial interventions[…] Lastly, actual projects (level 3). this is the context that may be anomalous, suitable for *low definition* environments whose forms are insufficiently stable.

as points of a network used for cultural and artistic initiatives were brought to light. Available sites that, through the *replacement* strategy, are offered in a short time and at extremely low cost to administrators, sponsors, curators, artists and citizens. In this way they become a flexible and available tool that is, *ready to continue re-stagings*, alien to the traditional decision-making dynamic for urban planning and construction. In this specific case the result of the *replacement* strategy was an extended museum, that spreads throughout the territory, which can compress or expand according to the needs of the moment. [40]

Since the identification of new support tools to the designing/recycling action is the objective of the research, by reading some references and case studies are outlined four major operational strategies, described below are outlined.

A reflection on the recycling[41] key, aimed to seeking innovative solutions, able to tackle the contemporary themes, confronting with what has already been experienced in the field, is necessary and is confirmed by the exhibition *Re-cycle*, at MAXXI museum in Rome.

Projects and architecture discussed in this chapter, are interpreted and assembled according to subjective criteria, suggested by the research keywords: infrastructure, refuse, fragment, recycle. They aspire to identify *attitudes*[42] and *tactics*[43] that can avoid the standardized approach and instead emphasize the mental approach, intuition, the reasoning that led to the definition of the final design of the architecture created.

As Marcel Smets said: "In the pioneering field of integrated landscape design, the professions of the built-up environment are constantly searching for models. At the same time due to the impact of local specificity, it is clear that such models should not be considered as rules, norms, or laws. They have no universal validity and can never be identically applied from one situation to another. No matter how spatially attractive a concept or scheme may look, it is never more than the outcome of a
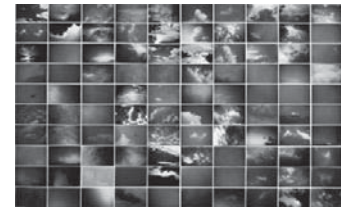
Luigi Ghirri
Infinito (particolare) 1974
4,00x6,50 ml
Museo di Parma

"L'ho lasciato là, era molto ingombrante. Quello che mi interessa non è l'analogo di un cielo, fotografato tutte le mattine, più o meno ma non necessariamente alla stessa ora, piuttosto un *catalogo*." L.G.

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40 Luca Emanueli, *ibidem*, p.13
41 P.Ciorra e S.Marini (a cura di) Re-Cycle. Strategie per l'architettura, la città e il pianeta.Fondazione Museo MAXXI Roma 12.2011/05 2012 (a cura di) P.Ciorra.
42 Kelly Shannon, Marcel Smets, "The landscape of contemporary infrastructure", NAi Publishers, Rotterdam, Netherlands, 2010. p.9
43 Florian Haydn, Robert Temel (a cura di),"Temporary Urban Spaces. Concepts for the Use of City Spaces", Editors Birkhäuser, Basel, 2006. p.16 "Tactics is, like "strategi", a term from a military contextet, where il refers to short-term battle planning in contrast to long-term, less flexible war planning. "Tactics" means an approach from the weaker place, which is not in a position to dictate conditions to an opponent but is compelled to try exploit relationships to its advantage, by waiting for an opportunity and exploiting it flexibly and quickly.[...]"

particular design process influenced by local interests and circumstances. For that reason, the real value of the model rather resides in the mindset and the reasoning that led to the configuration of the intervention. This book distils such attitudes rather than simply compiling an inventory of blueprints"[44]. Furthermore, a taxonomy of design attitudes is expected to remain valid over time.
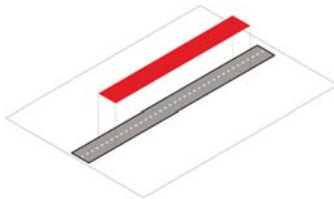
4.2 Stratified surfaces - *minimum thickness*

Diagram Strategy_01

"*Each location whatever its scale is more than a surface invested by humans more than just a horizon; it proceeds by a multiplicity of strata that may be geological or atmospheric, frequently not direct visible but nevertheless present which for the most part interact with each other. To these may be added the temporary strata of vegetation and constructed elements that come and go as well as nonphysical strata such as human ideas and human memory, [the designers] choose the stratum or strata to be revealed and activated in a given project from this landscape of things above and below the maps.*"[45]

The act of lying on the last available layer of the infrastructure, unused and abandoned, is the object of this section that contains architectural and landscape design projects. The infrastructural refuse, in this case is the road or railroad itself: a forgotten ruin within the city, a relic defined in its size, in its geometry, measurable, which has ceased to perform its function, or has suffered a downgrade from the previous one.

In these cases, the degree of abandonment is not a secondary factor. It is the measure of time that often leaves room for vegetation growth, for structures of any kind to appear, for spontaneous uses and for other possible meanings.

These two elements, the infrastructural refuse and the last layer deposited on its road surface, suggest various recycling project possibilities: infrastructure offers itself as a support structure, where natural and artificial vegetation, expressive and economic solutions designed from recycled materials, can be applied.

In all the projects examined we analyze the new horizontal stratification actions carried out on the base of the infrastructure. The only exception

44 Kelly Shannon, Marcel Smets, *ibidem*.
45 Agence Ter, H.Bava,M.Hoessler, O.Philippe, Lisa Diedrich (a cura di), "Territoires from landscape to city", Birkhäuser, Berlin, 2009. p.41

is the Plantée Promenade, where even the viaduct below is brought back to life by a specific intervention.

The *tactic* put into practice is based on careful reading of the traces left by time, on the detailed classification of the natural and material elements, and on the analysis of the technical structures that make up the infrastructure. The next step of the inventive act of the project, re-assembles and re-composes the parts, integrating the collected data, to define a new layer that acquires its own *thickness*, although slight, identified by small details in balance with each other: the organic material is left free to grow, to *extrude* itself from the refused infrastructure surface, and inorganic, physical, refused material develops into a substance to be molded.

The last horizontal layer, the project, becomes a new *surface*[46], geometrically defined by the edges of the refused infrastructure, by its road section and by the length of the track. "A non-homogeneous body [...] constructed from different materials and densities"[47] that defines new uses, new travel speeds, new public spaces of the contemporary city, deploying the resources that already exist and are available locally.

"Architecture becomes a device for upgrading and for putting into service: combines the ability to read the possibilities and the constructive knowledge, to allow the activation of the *marginal urban spaces*."[48]

46 H.Rashid, L.A.Couture, "Surface: the hope is that all surfaces of architecture, intended as a modulated fields of performance and action, could produce experiential effects that are unexpected and spontaneous. "In B.Tschumi and M.berman (ed.by) "Index Architettura. Archivio dell'architettura contemporanea", postmedia books, Milano, 2004. p.208
47 Giancarlo Laorenza, "Spessori infrastrutturali", in Pepe Barbieri (a cura di), "Infraspazi", Meltemi editore, Roma, 2006. p.32
48 Sara Marini, "Architetture in fieri. Strati in attesa di occupazione", in "Il palinsesto paesaggio e la cultura progettuale", C.Barbiani e S.Marini (a cura di), Quodlibet, Macerata, 2010. pp.92-93

INDEX Architekten
Bunker Aufstockung.
Frankfurt am Main

4.2.1 Case studies

The Promenade Plantée[49] of Paris project is considered here as an example of recycling of layers, surfaces and *on hold,* abandoned lines, of the contemporary city. It is an example of reconversion of an infrastructural refuse. This case represents a slight diversion from the subject of mobility infrastructures, since it is a former railway line, half underground, half train that connected Place de la Bastille to Verneuil-l'Etang suburb.[50] Work started in 1988 and, through several stages and projects, were completed about a decade later. The interdisciplinary teams assigned to the different parts of the project, the promenade, the gardens and the Viaduct des Arts, included architects and landscapers like Patrick Berger, Philippe Mathieu, Jacques Vegely, Christo-Andréas Foroux, Vladimir Mitrofanoff, Roland Schweitzer and Pierre Colboc.
The railway was built on a brick viaduct 1026 meters long, and is supported by 71 arches that led the track at a significant height, equivalent to the third to fourth floor of the adjacent buildings, due to the difficulties of steam locomotives to face slopes. This engineering work required the construction of embankments, trenches, retaining walls and terraces. "[…] It is a rough, uneven, hostile, place of wild and untamed nature"[51] constructed behind and close to the existing buildings. The Promenade Plantée represents the transformation of an abandoned railway line into a pedestrian and bike path, nearly five kilometers long; "The decision to convert this piece of infrastructure into a facility for walkers instead of just eliminating it based on a clear-eyed realism rather than on any nostalgic desire to save at least something of the old Paris before it is swallowed up by speculation. Behind this banal change in use , however, is concealed a true mutation, as it has turned the symbol of efficiency and performance, the technical device of the train, into an object of poetic regeneration."[52] We are facing a real shift in meaning and function for the infrastructure. "The glaring incongruity between the subject (a work from the realm of civil engineering) and the use of its content (a place for strolling around) result in a strangeness that is full of charm."[53]

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49 Tracciato ferroviario-metropolitano aperto nel 1859 per servire la classe operaia delle numerose officine presenti a Parigi.
50 Réseau Express Régional.
51 Marc Bédarida, "Percorso nella psicogeofrafia parigina – Walking through the Psychogeographt of Paris", in Lotus International, n° 97, 1998. p.98
52 Marc Bédarida, *ibidem*, p.94-95
53 Marc Bédarida, *ibidem*, p.95

This is a case where a specific part of the marginal city is *recycled* . The function of an open-air railway has become useless, in favor of faster and more modern transportation solutions like the subway. This leads to abandonment. The Daumesnil Viaduct, the future Plantée Promenade, spent years, like an actual corpse, waiting for a new definition.

It is interesting to see how, because of excessive difficulty in disposing of and dismantling the typical technical structures of the infrastructure (the rails, ballast and weed-infested sleepers, the viaduct, the embankments, the trenches dotted with tunnels), it was preferred to keep the entire infrastructural system to prevent the complete distortion of the urban context. The demolition would have been the fastest immediate solution for the administration but in the long term, would have led to the need to re-think buildings leaning against the rail, blank walls of houses, access and views of neighboring buildings. "Destroying the line meant revealing the city's scars, its areas of neglect, lapses and defects."[54]

The planimetric structure of the *linear park* has in fact allowed different parts of the city to be reconnected and healed: some vacant underutilized areas were transformed into gardens which are the intermediate stops along the long green walk; embankments, viaducts, tunnels, trenches, embankments, have been welded, connected to each other and transformed into one organic path that, adapting to the original conformation of linear infrastructure, affords unusual views over the city, sometimes elevated and panoramic, others completely hidden below street level.

There is, thus, an ambivalent relationship of separation and contact with the crossed context of this part of Paris, where dominates "the heterogeneity of space"[55], which rejects the monotony and standardization of some ex-novo projects.

The upper surface of the viaduct, where the trains used to run, has become a green "carpet"[56] that unfolds more than 8 meters above the ground, has its own vegetable and material thickness, and enhances what time and neglect have deposited on the old route.

Another point of view to the recycling of '"last layer found"[57], the thickness

Promenade Plantée
Paris, 1993

54 Marc Bédarida, *ibidem*, p.97
55 Marc Bédarida, *ibidem*, p.99
56 Marc Bédarida, *ibidem*. It is being quote a concept from M.Tafuri in "Progetto e utopia: architettura e sviluppo capitalistico", Laterza, Bari, 1973.p.67-85. " […] the viaduct section of the Planted Promenade passes through so much agitation almost with indifference and, for a kilometer and a half, unrolls a flying carpet at a height of over 8 meters above the ground"
57 Sara Marini, "Architetture in fieri. Strati in attesa di occupazione", in Il palinsesto paesaggio e la cultura progettuale", C.Barbiani e S.Marini (a cura di), Quodlibet,

of the green linear elevated park, is the one given by Herman Hertzberger in his text *Lessons for Students in Architecture*. The architect, dealing with the relationship between *structure* and *form*, the first intended as a "new form of oppression" and the second as an element determined by *use* and *experience*, sees in this project, the loss of an "extraordinary urban monument", that leaves space to a "standardized solution".[58] From this point of view, the project can be an example of *spontaneous-abusive recycling* of an abandoned city's infrastructure.

The case of the reconversion of the High Line in New York is in line with the previous example, basing its new formal features on the memories of existing, abandoned elements. Also in this case, there is a substantial part of a disused railway line elevated from the ground. It is the same subject of the ruin as a physical object: a dimensionally relevant infrastructure that sneaks through the city blocks of Manhattan, at an altitude of 6 -10 meters from the ground, over which, time has deposited a vegetation layer, which, in silence, has colonized the full width of the viaduct (10-20 meters).

In New York, where the green space seems to be concentrated in one large space, Central Park[59], the availability of an abandoned surface, even if delimited and elevated, was seen as a good opportunity to increase the number of public parks, to mend urban relationships in areas apparently unrelated to the city, and to reclaim an object linked to the urban memory.

Macerata, 2010. p.92

58 Herman Hertzberger, "Lezioni di architettura", Editori Laterza, Bari, 1996. "The viaduct was built for the railroad. [...] The 72 arches have been filled in with whatever was at hand. The viaduct has been used as a sort of frame, a row of compartments that can be filled at will. The viaduct itself has remained basically unchanged, largely intact, as a permanent structure can remain always ready to accommodate new functions, which in turn gives new meaning to the surrounding spaces. It is quite surprising how little attention was given by the filling to the semicircular shape of the frame. [...] As if it were the most obvious thing in the world, all the arches were filled with buildings built on the same principles of a house that arises without constraints. The viaduct was not used as a starting point or as a source of inspiration, but it was not even felt like a constraint [...] the viaduct has been redesigned as a pedestrian path [...] There is also a plan to fill in all the arcs in the same way, consistent with the entirely civilized and conventional idea of the order that is common nowadays." pp.92-93

59 Although not strictly related to the theme of this research, is to be noted the critical essay by Tim Richardson, historian and critic of landscape design. The author refers to projects of the High Line and of MOMA roof gardens by Ken Smith, criticizes a popular attitude in the American city, which is attentive to the new environmental-social-landscape contemporary needs, but far from implementing them in a direct way for its citizens. Representative is the title and subtitle of the essay itself: "NY Elevated Landscapes - Watching without touching" Tim Richardson, "NY Elevated Landscapes," in Domus-web Section: Architecture Published: 12 Sep 2005.

Built between 1929 and 1934 as an elevated passageway for goods trains, the railway line runs for about 2.5 km and stretches from Meatpacking District to 34th Street Station. The structure, mainly made of steel, is solidly made up of pillars and spans which contribute to make it look like *post-industrial ruins* of *melancholy and unruly beauty*[60], where "nature has reclaimed a piece once vital of urban infrastructure"[61], its rightful place.

Rescued from demolition by a New York citizens', and center of interest for financial investors and government, in 2003 it became the subject of the ideas competition which was attended by 720 design teams from 36 different countries. The second phase followed in 2004, during which, among others, Diller and Scofidio + Renfro with James Cornes (winner of the contest), Zaha Hadid, Steven Holl and TerraGram were selected.

The winning projects have re-thought "this industrial conveyance into a post-industrial instrument of leisure reflection about the very categories of nature and culture in our time"[62]. For this reason they have put in place a complex conceptual strategy that combines two key categories: organic materials and building materials; a mixture of *vegetable* and *mineral* called "agri-tecture"[63], based on ever-changing relationships.

The design matrix, that we want to emphasize in this project, is the possibility to recycle the last available layer of the infrastructural refuse identified in the contemporary city. The authors of the project however, providing new areas of expansion and vertical access along the route, are oriented to *overlap* the existing material and character of the abandoned landscape by implementing it. The infrastructural refuse, in this case physical, tangible, material, becomes a potential to work with, which the project faces directly, to define new formal features and to reach its full recycle.

The surface of the path is composed of concrete filaments that irregularly penetrate between spontaneous "planting beds", between the old steel rails and between the wooden sleepers, determining "a landscape *without paths*, where the public is free to walk in different ways"[64]. The result, is a continuous and moving indefiniteness that continues over time, as

The High Line
New York, 2011 (in progress)

60 Guido Incerti, Daria Ricchi, Deane Simpson, "Diller+Scofidio (+Renfro). Architettura in dissolvenza – opere e progetti 1979 – 2007. pp.198-203
61 Diller and Scofidio + Renfro, in "The High Line Masterplan – N.Y. - Zaha Hadid, Steven Holl e TerraGRAM, Diller and Scofidio + Renfro", Giacomo Delbene (a cura di), AREA 79, Federico Motta Editore, Milano, 2005. p 98
62 Guido Incerti, Daria Ricchi, Deane Simpson, *ibidem*.
63 Design concept as described by project's authors
64 Guido Incerti, Daria Ricchi, Deane Simpson, *ibidem*.

already happened during the years of abandonment of the railway line. James Corner emphasizes in this regard that:" The entire project turns on the intrinsic beauty of the relationship between the infrastructure and the life of the plants that grow on it", where "the proportion between the cement of the walkway and the different sort of planting changes continually, creating landscapes representatives of the wild character of the High Line and suited to the different uses of the *new* infrastructure"[65]
Waste and recycling process never ends.
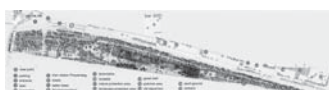
NaturPark Südgelände
Berlin-Schöneberg, 2000

Conceptually similar but formally different, is the case of the Natur-Park Südgelände Berlin-Schöneberg. Located in the central area of Berlin, near the former Tempelhof Airport, the area originally extended for about 70 hectares and was designed for the handling of rail freight in support of the airport until the final closure in 1952. Working even during Second World War, the old freight station was built between 1880 and 1890, and was characterized by massive infrastructures.

Again, we analyze an area dedicated to railway transport: is important to emphasize that the main reason for this is the historical period which these facilities were built, the period of industrialization, where the rail system ensured more security than the road transport, mainly developed in recent times.

The area of the old freight station and its system of equipment, industrial buildings, maintenance sheds, tracks, gravel ballast, locomotives and water tower had been abandoned because of the division of Berlin.

Erased from the memory of the citizens, not easily accessible due to the lack of roads, the place had become unusable for residents, giving to nature the opportunity to regain it. The railway area, over time, transformed into an oasis of great natural botanical and biological diversity, developing a very particular habitat characterized by at least 30 species of birds and over 350 botanical species. A green oasis[66] created in a central district of Berlin, the subject of numerous studies by ecologists

65 James Corner Field Operations with Diller Scofidio + Renfro, "The High Line, New York, 2004-09", in Lotus International, n° 139, Editoriale Lotus, 2009. p.12
66 Ingo Kowarik, Andreas Langer, "Natur-Park Südgelände: Linking Conservation and Recreation in an Abandoned Railyard in Berlin" in K. Ingo; S. Körner, Wild Urban Woodlands. New Perspectives for Urban Forestry, Springer-Verlag Berlin Heidelberg, 2005. pp 287-299 "The special political situation of West Berlin also made possible here, earlier than in other places, the development of specific urban-industrial ecosystems which we identify today as a particular type of nature, as "nature of the fourth kind" (Kowarik 2005); these ecosystems have long been studied systematically by Berlin's urban ecologists (Sukopp 1990)."

and researchers:[67]: "Originally a desolate freight rail yard, then for over four decades an almost untouched new wilderness, today it is one of the first official conservation areas in Germany in which urban-industrial nature is protected and made accessible to the public."[68]

The Natur-Park Südgelände was saved by a group of active citizens that, supported by technicians and scientists, prevented the dismantling and partial restoration as a railroad yard between the seventies and eighties, and has convinced the public administration to transform it, as we said, in a real natural park.

Developed over about 18 hectares, the master plan for the recovery of the former railway area and for the conservation of the natural-urban oasis, has requested a double focus to the designers: "first, how to open the site to the public without endangering the rich local flora and fauna, and second, how to respond to the natural vegetation dynamics that would, in a short time, lead to a complete dominance of woodlands."[69]

According to the designers, ÖkoCon & Planland[70], in the park must cohabit three souls: the historical one of traces and ruins of the railway station, the wild one of nature that reclaimed space within the urban context, and the social one of citizens that regain collective space.

Completed in 2000, the Natur-Park Südgelände implements a real, complex recycling *tactic* in a hostile environment; the project, in fact, is developed on an abandoned area, an infrastructural rail layer, combined to a wilderness essential to Berlin, that the project *browses* and reassembles working on the last three available layers found in situ. The train tracks and the metal structures connected to them, become the backbone of the pedestrian and cycle tracks. The green cultivated layer slip in politely while the nature wild and native layer is left free to expand, by the means of the recycle of existing ramps, underpasses and routes elevated of a few centimeters from the ground nso as not to disturb its growth.The site is particularly evocative: citizens and visitors can enjoy a green area, inaccessible before, where the old rail tracks, recycled and reinvented, allow a stroll in an environment of great natural and botanical value,

67 In this regard, it is inevitable to find a similarity with biodiversity studies of Gilles Clément. Gilles Clément, "Manifesto del Terzo paesaggio", Quodlibet, Macerata, 2005

68 Ingo Kowarik, Andreas Langer , *ibidem*. p.288

69 Ingo Kowarik, Andreas Langer , *ibidem*. p.291

70 Ingo Kowarik, Andreas Langer, Ludger Schumacher, Helmuth Knoll.
Some restoration and some artistic and cultural productions are made by the collective of artists *Odius*, who has its operational headquarters in the Natur-Park Südgelände and helps maintain the park itself.

immersed in the German capital city's center, in which many cultural activities take place each year."[71]
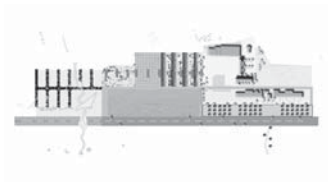
Maurice Rose Airfield Park
Frankfurt, 2004

Road, asphalt and concrete surfaces, earthworks, rails, underpasses, if discarded, abandoned, rejected, become, as we have seen, material for potential re-use, re-cycle.

The Frankfurt Maurice Rose Airfield Park by GTL (Gnüchtel Triebswetter Landschaftsarchitekten[72]) takes this idea and concept to the extreme.

The asphalt airstrip of the former U.S. military base for helicopter becomes a key element in the definition of the entire redevelopment project for the area: "The basic idea was to modify the original airfield and its materiality so gently that the military character of the area is able to build a new unity with the surrounding nature."[73]

Born from environmentalists need to clean up the polluted area of the former military base, from the need to safeguard the north-east area of Frankfurt from the flooding of the Nidda river, and from the interest that citizens showed with the spontaneous use of this abandoned area, the project highlighted its objectives immediately: mitigating the severity of the military use, increasing the green belt around the city and using devices that ensure low economic and environmental impact.

Abandoned by the U.S. Army in 1994, the heliport has thus ceased its function. It soon became a place of neglect and decay, away from traffic, where vegetation acted undisturbed, until 2003, when the Frankfurt City Council, after having bought the whole area, has proposed its conversion with minimal expenses. The aim has been to allow a complete re-naturalization over time, to implement the social and public spaces, and to preserve as much as possible the historical connotations of the place.

The project, covering an area of approximately 2.2 hectares, has provided for the isolation of some contaminated portions of land, the reclamation

71 Annegret Burg, Giovanni Chiaramonte (fotografie), "Natur-Park Südgelände, Berlin-Schöneberg – An Unexpected Victory of Nature", Lotus International 144, 2010. Other references related to the project can be found in: AA.VV. "Refer paisatges – Remaking landscapes. Catalogue of the 1st Biennal on Landscape 1999", Fundaciò Caixa D'Arquitectes, Barcellona, 1999.

72 Markus Gnüchtel, Miachael Tribswetter Landscapers Architects (www.gtl-kassel. de). The study GTL has been awarded for this project with the German Landscape Design Prize in 2005. Among the reasons it was stressed that this was a cheerful, environmentally friendly and low cost project.

73 Markus Gnüchtel, Miachael Tribswetter, (GTL Gnüchtel Triebswetter Landschaftsarchitekten), "Old airfield. Frankfurt am Main – Bonames. Germany", Paisea, revista de paisajismo, n° 016 "Cicatrices", editorial gustavo gili, Barcellona, 2011. p.30

of other areas and minimal intervention on existing buildings, leaving to nature of the freedom of regain, spontaneously and over time and, the place. One of the most interesting elements of this project is the demolition of a substantial portion of the landing airstrip for helicopters.

Half of the existing paved land, of asphalt and concrete, after the demolition was done in pieces of different sizes. It was recycled and reassembled with different grain, ranging from real concrete and asphalt blocks of up to 10 square meters, to really small pieces to create gravel beds .It has become the new irregular flooring of the park. The hard, waterproof, rigid and uniform surface of the abandoned military airstrip, was transformed and converted into a permeable and highly differentiated surface, putting into practice a 'radical action of recycling. It has become the basis for the proliferation of a new habitat where vegetation can grow. A series of subsequent processes of stratification, sedimentation and deposition has created continuous and slow changes in plants and animals societies, a dynamic show of how nature reclaims the ruins.

As emphasized by the design team GTL: "Given a difficult plot of land with vast areas to be demolished and deposited at high cost, the strategy of keeping the whole quantity of concrete waste within the area gives way to a most unconventional, sustainable park with minimal future maintenance cost."[74]

The infrastructural surface became material (physical, concrete), and support for a new spatial definition, intended, without any new building, to increase the public space of the city, redesigning a complex relationship between architecture and landscape, based on the enhancement of the traces left from previous uses and of the waste found in the place.

An act of destruction, demolition and waste, becomes the first design phase of the project.[75]

Lois Weinberger
RUDERAL-EINFRIEDUNG
Szene Salzburg, Summer 1993

CUT
Spontanvegetation, 100ml, Universität Innsbruck 1999

74 Markus Gnüchtel, Miachael Tribswetter, *ibidem*. p.30-31
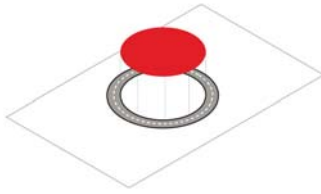75 http://www.publicspace.org/en/works/d079-umnutzung-alter-flugplatz-maurice-rose-airfield

4.3 Enclosed surfaces - given perimeters

Defined areas, confined by hard, closed, apparently insurmountable boundaries. To redeem these areas enclosed by the frenetic motion of traffic, we need to see beyond appearances, to make "a deviation from the boundary lines" to the "unifying surfaces." [76]

Unnoticed by drivers, like images relegated to the category of the ordinary, the monotonous, the standardized, even the areas inside the junctions can be redeemed for the construction of extra-ordinary, unusual landscapes.

Defined by fences, shields, roadsides, they are involved in setting the infrastructural thicknesses, determining their variable size along the routes.

A sensitive precursor, looking to these technical details of small scale, is Peter Porcinai with his landscape intervention, with the road project already defined, for A22-Brennero[77] motorway. The landscape designer, after careful documentation gathered from study trips in the United States and copious correspondence with famous landscapers, including Halprin, designs traffic barriers, embankments, lighting and service stations. The most evident element is the precise vegetation design within the junctions, now green oasis, with native plants and modeled edges through grass-covered slopes that define the perimeter.

The theme of the border is essential to define a tactic that can recycle the waste enclosed within infrastructures, to outline its identity, not only as a formal result of the infrastructure, but as a space with its morphology, functional and able to relate to the context.

Saturating the extension of the waste is what links the case studies: the strong road geometry leads the designers to formally interact with the urban and non-urban landscapes that surround the refused spaces. *An osmotic* action, capable of mediating between inside and outside, between fast and slow, between car and pedestrian, a *mediation device* that resembles the concept of " porous space"[78] as a category that decodes

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76 Stan Allen, "Campo", in A.A.V.V., B.Tschumi e M.Berman (a cura di), "Index Architettura. Archivio dell'architettura contemporanea", Postmedia, Milano, 2004. p.21

77 Cesare Micheletti, "Si può progettare il paesaggio dell'autostrada? Pietro Porcinai e l'Autobrennero", in "Natura, scienza, architettura. L'eclettismo nell'opera di Pietro Porcinai", (a cura di) Tiziana Grifoni, Polistampa, Firenze 2006, pp. 217-233. - Cesare Micheletti, "Pietro Porcinai e l'Autobrennero", in "Architettura del paesaggio", 8, 2002, pp. 23-28.

78 Steven Holl, "Parallax. Architettura e percezione", Postmedia, Milano, 2004.

and interprets the space of the contemporary city . Action of recycling by superficial saturation which, while not coming out of the borders, creates relationships with the context.
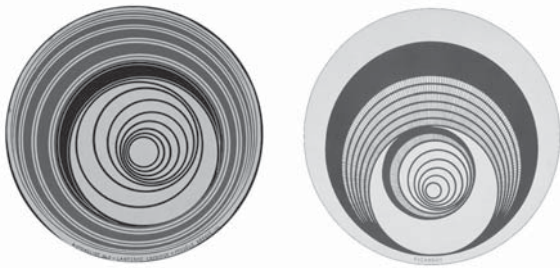
4.3.1 Case studies

The project for the *Monumento alla Resistenza* of Udine by Gino Valle represents, in an exemplary way the concept of recycling of a surface confined in a rigid and geometrically finite space, identified by the research.

Designed in collaboration with Federico Marconi in 1959, the monument lets Gino Valle to face the construction of a "place"[79] with high symbolic value. Inaugurated on April 25, 1969, after a long and difficult to manage construction phase with many variations, today represents an important chapter in the history of contemporary architecture.

The monument was built in Udine in the middle of Piazza XXVI Luglio characterized by the temple Ossuary of '42. It is inside a roundabout positioned on the city ring road, in an area that at the time of the project was a booming suburb.

The initial conditions that Gino Valle had to face are now commons in many cities. The road element defines and governs the character of urban and suburban areas, and imposes rigid geometries within which empty areas and spaces remain trapped.

"Deeply characterize"[80] this place, this was one of the objectives of Valle, to overcome the monument figurative conception for its own sake, and to give a different character to the urban space.

Made of structures that are simple, but very strict and carefully calibrated, the monument relates with the strong circular geometry of the roundabout, with the dynamic factor of the speed of cars and pedestrians,
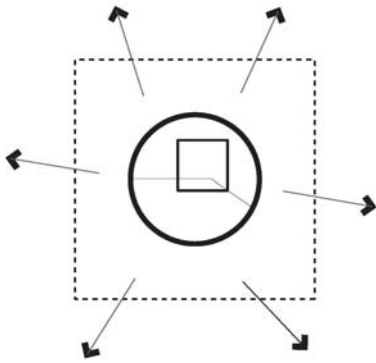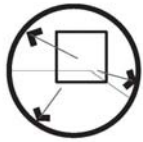

Gino Valle
Monumento alla Resistenza
Undine, 1959

Chapter: Porosità.p.123
79 Pierre-Alain Croset, Luka Skansi, "Gino Valle", documenti di architettura, Electa, Milano, 2010. pp.117-125 cfr. a Pierre-Alain Croset, "Gino Valle.Progetti e architetture", documenti di architettura, Electa, Milano, 1989
80 Pierre-Alain Croset, Luka Skansi, *ibidem*.p.117

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with the surrounding context, and with the sky above. The great concrete square yard of 21.5 meters on each side, suspended from the floor, frames perfectly a part of the sky; people, as they pass through the square, can't avoid observing it.

The wasted surface of the roundabout is completely used. The plan of the project, with several different heights, is mainly divided into two parts, the *ground* one and the *water* one, which define the roundabout crossing path; both are dominated by the void volume of the concrete square.

"The *Monumento alla Resistenza* of Udine might be the project in which Gino Valle expressed most strongly the idea of *fondazione dell'architettura*", in fact, enhance the symbolic significance of the monument, defined as a microcosm enclosed in a defined space, determines the "substantial transformation of a traffic square in a real place, where you can enter and stay." [81] It creates a new landscape.

The context is a decisive instrument for the project: the rigid geometry of the mobility infrastructures, the fragments of the residential settlements and traces of water courses, become, together, the formal matrix of the project by Enric Battle and Joan Roig inside the *Nus de la Trinitat - Cloverleaf* in Barcelona.

A project already published and well known, the park is generally considered one of the best examples of Barcelona's innovative policy on the great road network nodes, which began in the early nineties with the monumental project of Plaça Glòries Catalanes by Arriola and Fiol[82].

Being located in the northeast part of town, where avinguda Meridian ends and the motorways A17 Girona-France, A18 Terrassa-Manresa and Maresme starts, the park becomes an infrastructural distribution node to enter and exit the four-lane ring road of the Catalan capital. The park takes its name from one of the seven *barris* of Sant Andreu district, in particular the village of Trinitat Vella. Placed on a small hill, until the second half of the 20th century it was characterized by the presence of vineyards that were later replaced by large residential expansion and by massive traffic changes that finally turned it into a working-class neighborhood[83]. Another important aspect of the context is the presence

81 Pierre-Alain Croset, Luka Skansi, *ibidem*.p.119
82 See the section "The internodal spaces: concentration and new central figures" in Rosaria Anna Iarrera, "Autostrade come progetto di paesaggio", Gangemi Editore, Roma, 2004
83 See the essay of Lucia Boanini Parc de la Trinitat, Barcellona, là dove inizia l'autostrada, in Quaderni della Ri-Vista - Ricerche per la progettazione del paesaggio,

of the former bed of the Besos river, which flows nowadays not far away, following the new artificial course.

The space, once occupied by the bed of the river, now is manifestly marked by road structures, which in their technical and dynamic definition, draw a huge ring completely empty on the inside, causing a strong isolation of the surrounding neighborhoods from the context. What once belonged to the inhabitants and to the city's water system, has been closed inside a kinetic belt that rejects whoever should wish to enter. An inaccessible area of more than 10 hectares.

The Batlle and Roig project, which was supported by an efficient technical team including Luis Maldonado, architect, and Manel Colomines, agricultural engineer[84], offered an innovative approach to the issue of an isolated vacuum produced by roads junctions. Since the beginning, the designers identified in the complex articulation of the street levels, an opportunity to redesign the topographic relationship between the city and the river. The area intended to become the park is lowered in relation to both the town and the road junctions. The Park is home to the dark of the underground, to the train iron smell, the buzz of electric cables moved by the wind[85], leaving outside the dynamic movement of cars.

The project of the Parc de la Trinitat reshapes and recycles the great void created by the construction of the road junction through the combination, at different heights, of thick linear strips to compose a unitary surface, functionally divided, but completely saturating the refused space available.

The potential for recycle, as suggested by Battle & Roig project, arises from the action of exclusion caused by the infrastructure in the contexts crossed: the recycling method used here is the non-volumetric *saturation* of the surfaces enclosed inside the roads junctions, where the degraded available space is filled with green materials, without exiting from the limits imposed by the technical infrastructure.

The new park, therefore, changes the topography, manipulates the ground and inserts new paths and trees, arranged in linear masses that highlight the restored traces of water. A new protected area is defined. A green island surrounded by the rigid geometry of the infrastructure, that, nonetheless, establishes with the forgotten context new functional

Battle & Roig arquitectes
Nus de la Trinitat - Cloverleaf
Barcelona, 1993

84 www.batlleiroig.com
85 Lucia Boanini, ibidem, p.53-54

and landscape relationships[86], one of which is to act as a nodal point of reference for the access from the north to the city of Barcelona.

A *brutalized* fragment of the city is recycled to make room for a vast and complex system that follows the geometry of the infrastructure and integrates activities, apparently conflicting with cars moving at speed, by means of architectural and vegetation devices that create a buffer zone against the negative effects of traffic.

Common spaces in every city, present at every junction and crossroad, sprawled urban and suburban spaces that, as dots, draw small constellations in local landscapes. Often embellished by the means of questionable sculptures and green installations, roundabouts, in recent years, have been invested with a role and funding which are often disproportionate. Treated as real space to represent the city, they have lost the proportion, the figurative and the formal relationship with the landscapes to which they belong.

The quality of the projects here considered, is to show how, a surface necessarily wasted, can be recycled using a different point of view. The two projects of this short section have in common similar geometric and contextual conditions. In fact, they lie along the roads and rail tracks, are on the outskirts of their cities and, in both cases, played a key role in the redemptions of the neighborhoods in which they are located.

The characteristics of the infrastructural refuse are obvious: an area of modest size, a precise geometry defined by the road junction and by the building walls of the city, a crossing of the tramway, and the presence of tree-lined roads radiating from the roundabout.
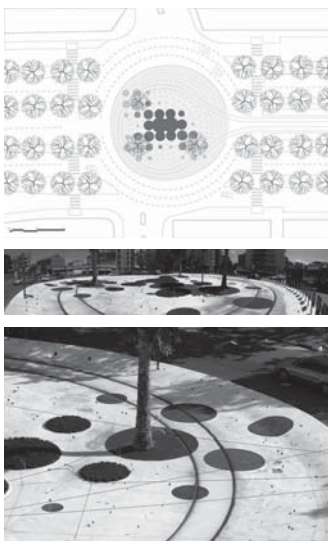
Round Blur, by the group nicole_fvr/2A+P Architecture, won the competition organized by the city of Turin and by *Artegiovane Torino incontra l'arte* in 2003. The request was "the requalification of a road and tramway distribution roundabout through the construction of an art installation."[87] The will of the call was to transform a place of transit, a

Nicole_fvr-2A+P
Round Blur
Torino, 2003

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86 Enric Battle e Joan Roig, "Svincolo stradale La Trinitat, Barcellona", in Casabella, *The design of open spaces*, 597-598, 1993, pp.70-71. "The vegetation grouped in thick linear masses balance the large size of the roads. The public spaces and the water infrastructures form continuous elements that cross the entire project area. Within the intersection, different uses create a new topography. The stepped section of the walkway contains several services. Between the walkway and the street is a parking for cars. Elsewhere the topography has a hemisphere shape, crossed by the vegetation lines that run along the banks of the river."

87 nicole_fvr / 2A+P architettura, "Round Blur", in Arch'it, digital architercture magazine, March 16th 2006. (http://architettura.it)) – (http://www.2ap.it/en/projects/round_blur/index.html)

tramway terminal, in a space with enduring features that had the power to redeem the entire urban area to give her a new identity.

Round Blur project is the result of an *out of focus* combination between artificial and vegetation materials, a " pixelated bubble"[88] in an uncertain, fragile, unexplored circular space which can, by crossing the roundabout, be reached by tram or observed from the car, and which has the ability to combine imagination and material.

The elements that redefine this area excluded from the context are: the superficial platform, built through a soft layer of asphalt dotted with sparkling fragments that, technically, connects the internal flat area of the roundabout to the slightly raised perimetrical curb; the flower bed bubbles, 4x4 meter circular shapes, seeded with heather and arranged according to a regular grid, getting more dense and larger as they approach the center of the roundabout; the trees, which "create a certain botanical domain that spills over the terrain, forming a new topography where the image of nature emerges and defines itself"[89] finally the *catafiori*, small metal structures scattered on the asphalt pavement to evoke a field full of flowers that, even in the dark of night, shine thanks to reflective films.

Conceptually inspired by a graphic process which builds on the blurry and grainy images of floral areas, the nicole_fvr/2°+P project reshapes the surface of the roundabout. It gently reconfigures the topography that starting from a liquid undefined state and is turned into a heterogeneous pattern of structures designed to accommodate different functions.

The new roundabout in fact, as noted earlier, hosts the tramway terminal, but is also capable of accepting citizens as a true public space. "Winter tones down the natural color but maintains the artifice of the hybrid, where alterations caused by the passage of time and by the succession of seasons become malleable elements for the trams and people passing through the bubbles."[90]

Also in the case of the project by Subarquitectura - Andres Silanes, Fernando and Carlos Valderrama Banon, the project was the outcome of a competition organized by the regional railway company FGV (Ferrocarrils de la Generalitat Valenciana). The competition required explicitly a new image for the tram stop, capable of proposing innovative identity of the
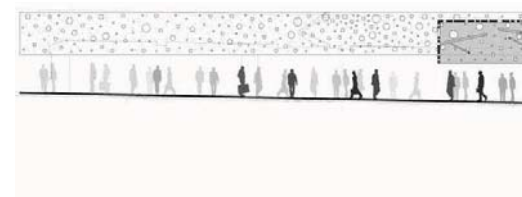
88 nicole_fvr / 2A+P architettura, "Round Blur, Torino", in A+t, magazine of architecture+technology, Espacios colectivos in common III, n°27, Spagna.p 32-35
89 nicole_fvr / 2A+P architettura,*ibidem*
90 nicole_fvr / 2A+P architettura,*ibidem*.p.33

Subarquitectura
*Tram Stop Plaza*
Alicante, 2004

public transport and, at the same time, capable of converting the space devoted to vehicles parking into a real urban space.

The area in question is located in a central area of the new tramway line which connects a strip of the city of Alicante, in Spain, to the urban beach of San Juan along the coastline. It is circular road junction that radially intercepts four streets, two of which are city boulevards, with a large central pedestrian area.

The proposal defined by the young architects is highly scenic even if it consists of simple elements. The shelters, usually treated as standard elements of street furniture, become the protagonists of the intervention. They are elevated from the ground in the center of the roundabout, "seem to float above the heads of the passengers while they wait on the tram platforms"[91]. They were built as two large open boxes of steel: 36 meters long, 3 wide and 2.5 high. They appear as shells, emptied inside, where a number of diagonal cross braces and bright neon lighting tubes draw the skeleton, that has the clear structural function of resisting to the lateral forces. SSpaced out in the longitudinal direction, they make a relative offset to the ground, giving the impression of floating in the air (with a cantilever of 22 meters) and of raising the tracks off the ground to project them into a third dimension.

In reality, the platform roof artifice is revealed by two slender columns, subjected to compression stresses, and by a pair of tension cables that react to traction and counterbalance cantilevers. To facilitate the structural work and to allow air circulation during the summer, 800 holes were drilled into the shelters with five different diameters (ranging from 10 to 50 cm). They reduce the weight of the 25 tons of metal sheet used for the construction and reduce the resistance to lateral wind forces.

The soil of the old traffic roundabout becomes the *screen* on which to project the play of light and shadow through the different times of day and night; a platform composed of many small green pieces that redefine the texture former wild meadow. The accessibility is ensured by a network of 32 possible paths to reach the magic boxes. "The fractal system of passages is deformed on both sides to accommodate the existing trees. The combined units of seating and lighting adorn the paths and invite us to stop"[92], turning an anonymous space enclosed in a road junction in a
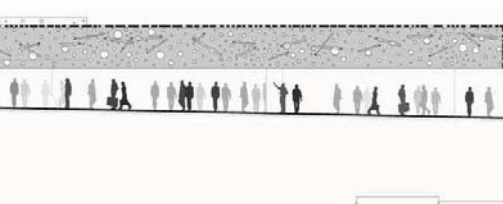
91 Kelly Shannon, Marcel Smets, "The landscape of contemporary infrastructure", NAi Publishers, Rotterdam, Netherlands, 2010.p198
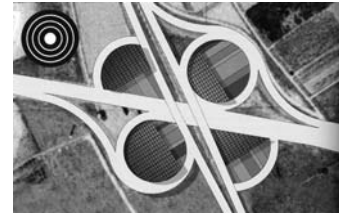92 Kelly Shannon, Marcel Smets, *ibidem*

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"comprehensive city plan"[93]. The construction of the tram stop and the redevelopment of the roundabout are "a way to reclaim an area removed from the city, turning the roundabout in a public place"[94] a garden crossed by a system of artificial devices put together to recycle and infrastructural refuse.

Accumulate fragments, abandoned and invisible spaces, recycle *land*[95] waiting to be manipulated, points of a real and concrete network of roads that has drawn the discontinuous, widespread, low density city, which, over time, has penetrated not urbanized farmland, now awaiting reconsideration.These are points, junctions, which, if added together, have the ability to be a valuable resource for space, "[...] residual landscapes, in-between, generated within and around those intersections and junctions that today surround most of the towns"[96]. The 2003 research by IAAC Actar Arquitectura + + Mr.Fung on the nodal spaces created by infrastructure, Infraestructuras y nudos generadores de energia is what this concrete and factual evidence is based on. It is part of the much more extensive and complex territorial research *HiCat-Territorios de investigacìon*[97], and helped to lay the foundations and to indicate investigation strategies on the current theme of interscalar project from the landscape to the city, constantly changing.

Manuel Gausa
Catalogna multi-nodes
2003

The projects, not realized, for the areas enclosed within the infrastructure junctions of the Catalan region, offer the possibility to extend the conceptual boundaries of public space over the margins of the junctions themselves, to free up lands, with high dimensional impact, but low economic cost which, added together, make up a real *constellation*. The authors called them *generators nodes*, they are rethought and designed as spaces of *loisir*, in areas close to the urban sprawl, as spaces for power generation through solar panels and wind turbines, or undefined activities with different degrees of environmental impact.

On a formal level, the works proposed do not go beyond the perimeters given by the infrastructures and strictly comply with their margins, but,

93 Kelly Shannon, Marcel Smets, *ibidem*

94 Matteo Zambelli, "La pensilina di Alicante fa sognare il tram", in Il Sole 24 ore, B2B24.it, 10 febbraio 2009

95 Kevin Lynch, "Il tempo dello spazio", Il Saggiator, Milano, 1977, quarta di copretina: "I've seen land emerged from the sea […]" Ovidio, Metamorfisi, libro XV. Sara Marini, "Nuove terre. Architettura e paesaggi dello scrato", Quodlibet, Macerata, 2010

96 Manuel Gausa,"Multi-Barcelona/Hiper-Catalunya. Strategie per una nuova Geo-Urbanità", LISt Laboratorio Internazionale Editoriale, Barcellona, Spagna.p.240

97 A.A.V.V. "HiperCatalunya: Territorios de investigacìon", Metàpolis, Iaac, Actar, Barcelona, 2003.

programmatically, they exploit the entire available surface, almost as if it were an intensive agricultural field. The key idea of this study is to look to them all together, as if they were a new pointed landscape where *free interstitial spaces* accumulate.

The last project analyzed in this section is an example of mastery in "working the land." Gilles Vexlard has always used these words during of his long experience as a landscaper since he founded *Agence Latitude Nord* in 1977 along with Laurance Vacherot. He based his action on the awareness that the landscapers work will transform "small world pieces under the sky"[98], they are also part of the *étendue topo-graphiques*[99] which is the Earth. With a special attention and intuition, with an excellent *nose*[100], Gilles Vexlard tackles every job that is offered very carefully and methodically, "because we work on Earth that is finished, and we modify it."

What is necessary to emphasize to decode the work for *Aire de repos autoroutière à Garabit,* a parking area on the A75 located in Southern France near the Massif Central, is a breakdown of three key factors: the first is the Earth, as a finished land surface, the second is the topography, because the earth has mountains, hills, is not flat (plans do not exist, are only geographic abstractions[101]), finally the handwriting, the drawing as a tool that "gives back the measure." The landscape represents, for

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98 Gille Vexlard, Etendue Tpo-Graphiques, conferenza, Milano, 15 settembre 2011. "parts of the world under the sky, that's how we think our work".
99 Gille Vexlard, Etendue Tpo-Graphiques, *ibidem*.
100 During the interview with the French landscapers made on September 15, 2011, Vexlard defines himself as an hunter, and the landscape proejct, in embryonic form, in every place, its prey.
101 Gille Vexlard, Etendue Tpo-Graphiques, *ibidem*.

Vexlard, the continuity of the Earth. The project for Garabit, not yet well publicized, contains all the factors described above, and interprets the key topics of this research, refused spaces created by mobility infrastructures. Characterized by sinuous but evident topography, is marked by the presence of the spectacular Viaduct de Garabit designed in 1884 by Gustave Eiffel and Léon Boyer to transport wine and coal to Paris.

The *Aire de repos autoroutière à Garabit* frame neatly the red iron bridge by Eiffel, enhancing the view almost perfectly to emphasize the constructive beauty. Nearby, on the way to Clermont-Ferrand, is the equally famous Millau Viaduct, designed by renowned architect Norman Foster. The presence of the Garabit bridge has certainly influenced the design idea, but the component that most characterized the intervention is the modeling of the ground. As stressed by Gilles Vexlard in the interview, more than 300,000 cubic meters of landfill have been moved, arranged according the project drawing with highly detailed sections, one each 50 cm. This requirement was dictated by the desire to have the user to take a journey, within a journey, at a different speed.

Enclosed in an area of 15 hectares, the area looks like an expansion of a motorway cloverleaf junction. Oversized, expanding the dimension of the area as if to detach as much as possible the people from the motorway, to slowly project them into another dimension, away from the speed and noise of the motorway itself. The ellipse that is created, by the will of the designers, seems *inflated*[102] when compared to the other exit ramp, turned into a viewpoint, from which one has the feeling of being at the same level as the Eiffel's bridge, with the illusion of being able to grasp it: this is made possible thanks to the design of the topography that has raised the ground level by 11 meters. The surfaces enclosed between the *aire de repos* entry and exit roads, are, in fact, literally extruded in height by the movements of the ground, to generate a feeling of compression and decompression for the driver, which is made possible by the elaboration of different speeds, and finally taking the driver on the platform. At that point, the show of the bridge is built.

The area consists of parks with basic facilities: a meadow, isolated trees, 3 ft wide walkways that recall the characteristic subdivision of the

102 Kelly Shannon, Marcel Smets, "The landscape of contemporary infrastructure", NAi Publishers, Rotterdam, Netherlands, 2010.p132 cfr. Gilles Vexlar, "Motorway Service Garabit, France", in Topos: European Landscape Magazine, n°53, 2005. pp.86-89

Latitude Nord
Aire de repos autoroutière
à Garabit.
project 1995 - 1999
realization 2001...in progress
France.

agricultural plots of the region. Here the slope of the platform is 4%, to be easy on the users and to facilitate the movements, drastically changed from the 30% of the previous one. The morphology of the project and its main parts force the movement and the view towards the Lac du Barrage de Grandval, which are overlooked by the large terrace and, a short distance away, there is the Maison du Cantal, information pavilion for the French region. "The pavilion itself, designed by the architect Bruno Mader, is positioned parallel to the elevated terrace and forms part of an elongated landscaped strip defining the edge of the plateau and marking the river valley"[103].

Even more spectacular is the small terrace at the edge of the undulating plateau with its unusual geology. It emphasizes the limestone gorge of the Trouier river with a 200 m long granite view.

According to Gilles Vexlar the landscaper should always have a dual perspective on things, a subjective view on the landscape, but also a view *from* the landscape, to imagine trends and changes over time. Precisely for this reason, the compact horizontal surface is overlapped on the valley of the Massif Central as a tangent to the motorway, but especially on the Viaduct de Garabit, from which is invisible, "une ligne d'une autre ligne en face."[104]
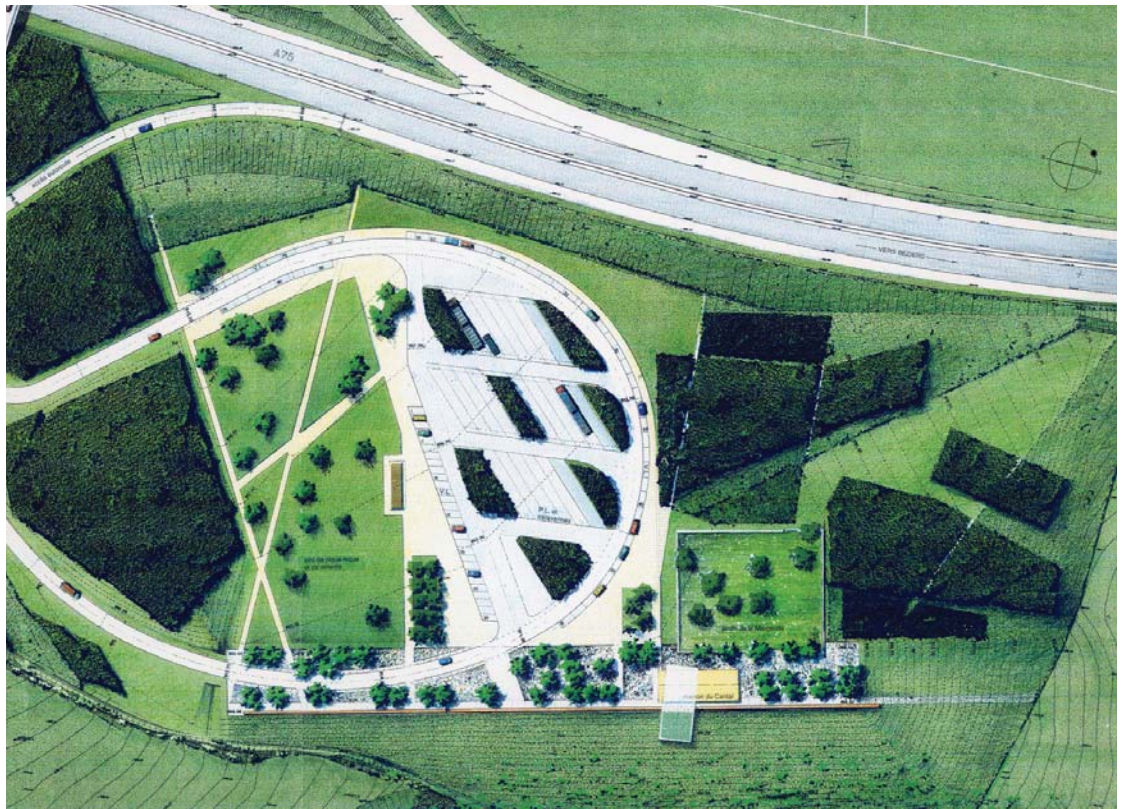
103 Kelly Shannon, Marcel Smets, *ibidem*
104 Gille Vexlard, Etendue Tpo-Graphiques, *ibidem*

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4.4 In-between surfaces - horizontal plans

The projects and architectures chosen for this recycling category, testify the ability of connecting urban and not-urban contexts, torn by a violent, even if necessary, insertion of a road. The problem solving attitude of these projects is based on urban and social urgency conditions in the cities, where usually these spaces, below and beside the great viaducts or underpasses, are usually considered dangerous and frightening.

DIAGRAM STRATEGY_03

The marginal, interstitial spaces, *in-between*[105]*,* are generally characterized by unclear activities, generating insecurity. They are invisible spaces that communities perceive as potentially hazardous, areas outside the city, often completely excluded from the urban context through fences and boundaries, with the illusion of controlling them better.

The crux of these projects is the occupation and the opening of the spaces *in mezzo-in-between-entre-deux*[106], through the horizontal and vertical project of the surfaces embedded in the horizontal plan of the ground and the elevated road.

Recycling spaces *between things* to mend broken relationships.

There is a vast and extensive literature on this theme that define the space *in-between* as a: "[...] place of *spacing*, generated by flows and movements, place of mutations and of wearing down of boundaries, place of values reversal , place of the *venue* [...]"[107]. And there are many architectures *manifesto* that theorized and implemented this strategy.[108]

In the projects examined the critical element is almost always the ground *zero level*, and in particular, the surface of the area rather than the volumetric space. The recycling of the horizontal surface is, therefore, the operational tactics that define the projects' works. This surface to be redeemed and rewritten, generally extends transversally to the
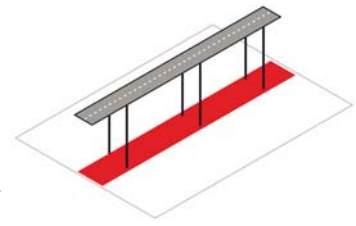
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105 Matteo Zambelli,"Tecniche di invenzione in architettura.Gli anni del decostruttivismo", Marsilio,Venezia, 2007 .p.97 "[…] recurring words among the architects [...] It expresses the condition of being between things, a condition of *interstizialità*."

106 Paola Gregory, "Territori della complessità. New Scapes", Collana Universale di Architettura Testo&Immagine, n°138, Torino, 2003. p.28 "In mezzo, fra, entre-deux, l'in-between è il luogo dell'indeterminato, dell'interstizio, dell'intervallo: lo spazio che apre e smuove l'autodefinizione dei termini, propria di una dialettica binaria, lo spazio che contemporaneamente *separa* e *tende verso* e dunque […] luogo *del movimento dello sviluppo o del divenire* dove la sintesi è unità conflittuale, campo problematico d forze e finalità capaci di realizzare *una possibilità virtuale dello spazio architettonico*"

107 Paola Gregory, *ibidem*. p.31

108 Among other we can mention the Wexner Center for Visual Arts by P.Eisenman, the National Centre of Contemporary Arts Le Fresnoy by B.Tschumi. Please refer to the text of Paola Gregory and Matteo Zambelli for a first reading on the subject.

infrastructure track overhead, just because in this way the reconnecting action on relations cut is clearer.

There are two minor exceptions related to the recycling of flat surfaces *in-between*: the first where the horizontal plan folds into the ground, sinking into it to become an underground architecture (Hardbrücke Railway Station by EM2N Architects), the second where the horizontal plan, economically precious ground, bends and detaches itself from the ground becoming a filler of the space *in-between* (Maison de l'Architecture de la Ville de Lille X-Architecture TU).

4.4.1 Case studies

West 8
CARRASCOPLEIN
Amsterdam, The Netherlands

One of the earliest and best known projects of redevelopment of spaces below viaducts is the *Carrascoplein* of Amsterdam, designed in 1992 designed and built in 1998 by the Dutch group West 8[109].

The area under the railway viaduct, which became no man's land left available for misuse, from residual space is converted into a public park accessible to everyone.

The area was an empty space near the Sloterdijk railway and bus station, close to a river inside the Teleport park, halfway between Amsterdam and the Schirpol airport. This space is characterized by a number of transport networks: cars, trams, cyclists and pedestrians, mostly covered by rail and road infrastructures, supported by columns and piers of reinforced concrete.

Carrascoplein presents itself as an area featuring bands of asphalt and grass underneath the railway bridge, on the side of a parking lot. The designers aimed to "transform this landfill into a park"[110], without using the usual vegetation and green vocabulary here inapplicable due to the infrastructure shade to build a clearly artificial landscape. The bands, deliberately covered with ivy, stretch beneath the piers of the railway bridge interacting with the existing signs: in areas where the lawn crosses the asphalt, going from one material to another, the surface is covered with white spots that force drivers to slow down.

This new surface, which reconnects the deleted relationships of the place, turns, through the project, into urban space. Several elements, that

109 AA.VV., West 8, Luca Molinari (a cura di), Skira, Milano, 2000. cfr. Giovanna Donini, "Margini della mobilità" Meltemi, Roma, 2008. Scheda p.148-149 e Alessandra De Cesaris, "Infrastrutture e paesaggio urbano", EdilStampa-Editrice dell'ANCE, 2004. pp.152-153
110 AA.VV., West 8, Luca Molinari, *ibidem*

cleverly mimic the shape of tree trunks, are spread on the ground and project a light beam that lights up the ceiling of the bridge. The structural columns symbolize a new forest with trees ideally drawing a *surreal landscape*[111].

It is evident, in this case, how a mobility infrastructure, as complex linear architecture, can be recycled as a tool for urban redesign, to be enhanced especially in terms of "public space"[112], as landscape architect Adrian Geuze said.

The recycling of the spaces below the roads, by the means of strategies inspired by spontaneous uses belonging to *streetculture* (see chapter 3), is the theme of the project *A8ERNA* Zaanstad of NL Architects[113], built in 2005, again close to Amsterdam.

The tactic followed by NL Architects reinterprets these spontaneous and self-organized activities that are often confined in the urban interstices. The spaces designed combine different uses and functions to create social cohesion and familiarity with these activities that are considered special and unusual.

Under the viaduct of the old motorway in the city center, the spaces have been violently cut. "The city is interrupted. […] The place is abandoned, invaded by neglect and cars"[114]. This abandoned place becomes even more important because the city is small and there is a growing need for services and public spaces. The goal then is twofold: on one hand there is the need to redeem the refused space by creating new activities, on the other, there is the fundamental need to find land.

NL Architects
A8ERNA
Zaanstad, Netherlands, 2003

Formally, the project does not introduce innovative elements, but the logic applied is interesting. Not only does the project redeem the surface below the viaduct, as we have seen in other cases, but it also leaves the infrastructure's projection, contaminating, by points, the fragmented surrounding areas through devices that have the ability to unify the entire compromised urban area. "Under the bridge, descending towards the river, are corners for lovers, a skating rink, a place for break-dancing, sports courts, a parking lot. […] There is a covered plaza with the omnipresent supermarket on the edge. A gallery for graffiti artists. Further on, close to the small jetty, supports and pavements are covered with wood. […] Out

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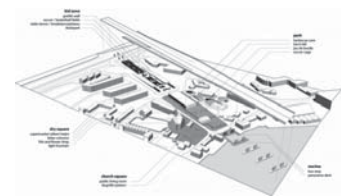
111 West 8, project description, in www.west8.nl
112 AA.VV., West 8, Luca Molinari (a cura di), Skira, Milano, 2000.
113 NL Architects, "A8ERNA a Zaanstad", in A+t – Espacios colectivos In common IV, n°28, 2006.p.54-63
114 NL Architects, *ibidem*.p.54

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in the open is a park of small green hills with hollows where one can do barbecue in summer and a cage for playing with a ball."[115]

The project demonstrates, once again, that the infrastructures refused areas, can become connectors, both parallel and transverse to the transport tracks, active supports that stretch horizontally as mats, even where several heavy vehicles transit.

Garscube landscape Link - The Phoenix flowers[116] by Rankinfraser landscape architecture and 7N Architects, closes the analytical filing for the *in-between* recycling strategy. The specificity of this project is the ability to keep heterogeneous materials and themes together. It is here enlightened again the need, more and more urgent, to establish interdisciplinary teams of professionals capable of addressing complex issues, the engineering and strictly technical approach is simply not enough.

Garscube landscape Link is the first part of the requalification program *Speirs Locks*[117]*,* "the project brief called for the radical revitalization of a crucial connection between the canal network and Glasgow city centre"[118].

The project solves, in an original way, this crucial urban connection node of the city of Glasgow, where an intricate system of water channels, viaducts, pedestrian and cycling crossings at ground level, paths and driveways, urban blocks, overlap with each other, causing functional confusion, danger and degradation. This situation was mainly generated in 1960, when the M8 motorway was simply built over the existing context, excluding an important urban part from the city.

TThe project transformed the primary interface "from an inhospitable barrier to one which will be a positive threshold to the wider area"[119], changing the old path from an existing hostile, dark, dirty, noisy, and intimidating environment to a welcoming and wide to cross public space.

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115 NL Architects, *ibidem*.p.56
116 Rankinfraser landscape architecture and 7N Architects, "Garscube landscape Link - The Phoenix flowers", Paisea, revista de paisajismo, n°016 "Cicatrices", editorial gustavo gili, Barcellona, 2011. Built in 2008-2010. p.40-43
117 http://www.glasgowcanal.co.uk/projects/
118 Rankinfraser landscape architecture and 7N Architects, "Garscube landscape Link - The Phoenix flowers", Paisea, revista de paisajismo, n°016 "Cicatrices", editorial gustavo gili, Barcellona, 2011. p.40
119 7N Architects, "Garscube Link", relazione di progetto, in http://www.glasgowcanal.co.uk/projects/

By re-defining the paths, no longer intertwined with each other in a chaotic way, but arranged according to morphology, materials and levels, the entire area went through an overall re-stitching, securing the functional connections, giving birth to a general process of urban regeneration.

The new surface, like a red fluid magma, has sneaked into in these hard and compromised places, helping "healing the scar of the M8"[120]. The project has broken down the fences the old tunnel, opened up the space under the viaduct allowing more natural light and depth of field of view, cancelling the feeling of danger generated by the darkness.

The site is considerably expanded, leaving room for a " flowing, red resin bonded surface that doesn't constrain those using it to a single, confrontational, route."[121] The new surface also connects the two sides of the urban space, the two banks, which had been given different treatments according to their location. Before the construction of the M8, the project site was a park, called Phoenix Park, and the designers decided to recall it using the same name and by the installation of colored aluminum flowers, designed in deliberate contrast to the solidity the structure of the motorway.

The action of recycling is carried out completely due to the construction, on the east side, of a series of herbaceous terraces formed by reused stones from demolition works enclosed in cages of corten steel, where there are basins for collection of rainwater collected from the road above.

The new public space takes ownership of a territory originally abandoned and provides a place where people can meet.

NL Architects
A8ERNA
Zaanstad, Netherlands, 2003
photographer: Luuk Kramer

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120 Rankinfraser landscape architecture and 7N Architects, *ibidem*.p.43
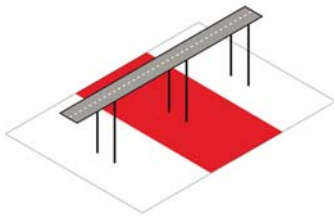121 Rankinfraser landscape architecture and 7N Architects, *ibidem*.

DIAGRAM STRATEGY_03_Ap

4.4.2 Appendix

The two following cases show some differences compared to the previous ones, and are thus placed in an appendix. Compared to the methodologies identified until now, where the action of recycling is realized primarily on *flat*[122] surfaces, there is an operation of inclination in the case of *Hardbrücke Railway Station* by EM2N Architects, and to a bending in the case of the *Maison de l'Architecture de la Ville* in Lille by X-TU Architecture.
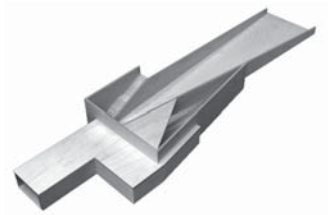
EM2N Architects
Hardbrücke Railway Station Upgrading[123]
The aim of the competition, sponsored by the Buildings Department of the City of Zurich with a budget of about 3.3 million Swiss francs, was to expand the train station Bahnhof Hardbrücke. The area, already crisscrossed by numerous traffic lines, including railways, appeared highly compromised. The request for the addition of a new facility that would meet the distribution and expansion requirements of the station looked like an even further saturation of the space.

The design team, through selective and calibrated interventions, has attempted to give a new identity to the railway node, simplifying the distribution routes and the frontal accessibility of the station itself. Structured on two levels, the station was not easily related to surrounding context because it was partly hidden from view by the roadways and bridges. Through the use of large light panels, standardized to the corporate colors (white, blue, red) of the Swiss railways, every point of access, collection, parking and transit intermodal hub have been marked.

At the level of the elevated road Hardbrücke, usually very busy, the light panels create a visual relationship between them, and the two bus stops, on opposite sides, interact with each other, signaling their position immediately. Under the viaduct, oversized panels direct pedestrians to the station entrance, where the anonymous area *in-between*, has been completely cleared out of any unnecessary element and structure, recovering every available space, giving an immediate sense of order. This first clearing action continues with an even more simple and

EM2N Architects
Hardbrücke Railway Station
Upgrading
Zurich, Switzerland, 2005-2007

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122 The reference is purely conceptual, we are aware that plans are only geographic abstractions that don't exist in reality, (see note 53)
123 EM2N Architects, Zurigo, See project report in: http://www.em2n.ch/

unexpected design gesture: the discarded surface of the access road level bends and dig in the ground, becoming an access ramp to the station and facilitating the sight and the entrance to the station.

The area in front of the entry ramp under Hardbrücke road, is, therefore, completely rewritten, rethought as new atrium covered by the viaduct. The station has been enlarged without adding new building as foreseen in the competition.
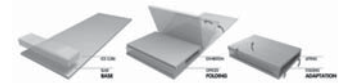
X-TU Architecture

Maison de l'Architecture[124]

Within the *Euralille* master plan, directed and defined by OMA - Rem Koolhaas in 1994 for the city of Lille following the construction of the new TGV station, there is a small fragment of soil with a height limited by an urban viaduct.

The French group X-TU Architects used this space, enclosed between the horizontal plane of the city and the mobility infrastructure that is usually perceived as an obstacle for the visual and functional connections of the place, to build a small architectural box, that adapts itself to the apparently disadvantageous morphological features of the place and turn them into something positive.

The result of a design competition, the aim of the project for the Maison de l'Architecture de la Ville is to have wide open spaces arranged on one level and to contain land purchase costs because of the increase in value due to the new impressive master plan.

Exploiting the structural condition of the infrastructure which forms the roof, the viaduct pillars allow the modular subdivision of the construction, adjusting the internal space in areas exhibitions, offices and services. The skin of the architectural box is defined by the bending of the ground level surface that became a planimetric distortable platform. Through a simple composition of plans, the ground and the elevated motorway, a volume completely open at the sides is created. The perimeter, which extends slightly from the orthogonal projection of the viaduct roof, is completely transparent, so as to allow maximum visual permeability from the inside, but especially from the outside, encouraging relationship on an urban scale in the whole area.[125]

XTU Architects
Maison de l'Architecture et de la ville
Lille, France 2006

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124 X-TU Architecture - Anouk Legendre, Nicolas Desmazieres, si fa riferimento alla relazione di progetto presente in: http://www.x-tu.com/
125 Within the masterplan "Euralille" is also the extraordinary project of Gilles Clement "Parc Henri Matisse" 1996-2000 where the author says "exaltation of the intrinsic value of a *terrain vague,* capable of suspending, if only for moments, the condition of

A note in the website of the Association of French architects – DRAC, recalls that the land was granted, through a reasonable lease to the community of Lille to give the opportunity to create a venue for architectural culture and urban reflection: "*D'un non-lieu sous la culée d'un viaduc, une vitrine communicant a été crée sur plus de 450m²*"[126].
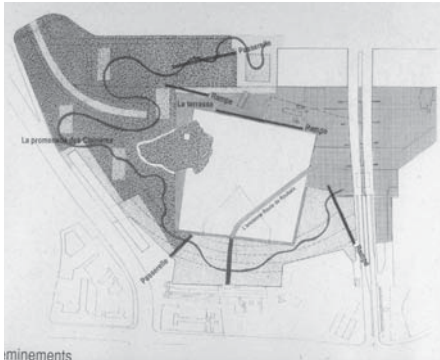
Gilles Clément
Parc H.Matisse, l'île Derborence
Lille, France, 1996 - 2000

4.5 Overlapped surfa*ces - horizontal thickness*

The conceptual foundation that underlies this action of recycling is the attempt to exploit the morphological characteristics given by the context, as they appear. In these situations, the factors that often lead to marginalization are the functional technical elements of the road junction: embankments, retaining walls, *rilevati, terre armate*, connecting ramps, etc.. This is because in complex road junctions the altimetric conditions are usually very difficult. Different traffic flows have to go in different directions without crossing on the same plain, given their obligation to handle vehicles swiftly.
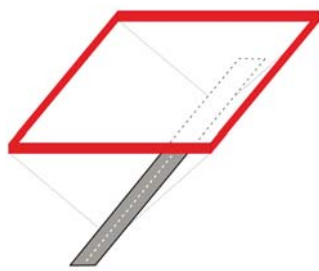
In the territories marked by the presence of these large and elevated infrastructural nodes, some areas, previously unified, are left isolated, divided into portions of uneven ground. If the junction is located in an urban setting, purpose-built and populated oases can be generated, enclosed by the hard edges of the road systems; in certain cases located in vast agricultural areas where there are hard fragmented areas of land, involving the abandonment of land previously destined for other uses.
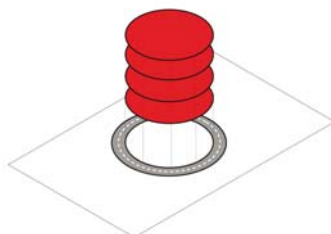
The attitude expressed by the selected projects is the identification of specific and highly material devices, capable of mending relationships between the places crossed, and between people and activities undertaken

DIAGRAM STRATEGY_04/A

DIAGRAM STRATEGY_04/B

uprootedness and standardization brought by the building of the new city." Giuseppe Marinoni, *Parc Henri Matisse*, Lotus International, n°122, Temporary, Editoriale Lotus,Milano, 2004
126 http://www.mav-npdc.com

in the areas.

These are clearly refused spaces, but with a strong aptitude to be re-cycled or, even better, healed, by identifying and putting into the practice an additive strategy: the *overlap*.

Overlapping, adding layers one over the other, tends to overwrite, not to cover the existing: the object has to interact with a new level that, in these cases, it is considered characterized by a considerable thickness, a new *thick surface*.

This is hardly an innovative interpretation, since there are many architects and architectures that, especially in the nineties, have utilized this technique[127], but it is interesting to re-read some important infrastructural projects from this point of view.

"The additive strategy for overlapping undermines the concept of" unitary "architectural composition"[128] in favor of a vision in which the parts have their own formal and functional autonomy, since the hierarchy is replaced by the relational order. The overlap, working by layers and surfaces one above the other, maintains the parts at a certain *distance* between each other, in a condition of tangency, and doesn't compulsory imply hybridization, an intersection between the parts. On the contrary, this is exactly what is happening in the *stratification* technique, seen in the projects of Promenade Plantée, High Line and Natur-Park Südgelände, where the last layer is *blended* with the project.

In the infrastructural nodes, which have different scales, plans and functions, it becomes a key strategic option for solving situations of separations and cuts, allowing the depositing of a layer over the road paths responsible for the cuts inflicted on the territories. The distribution node becomes the base for the recycling project, and the new layer host plans for usability and perception of the city.
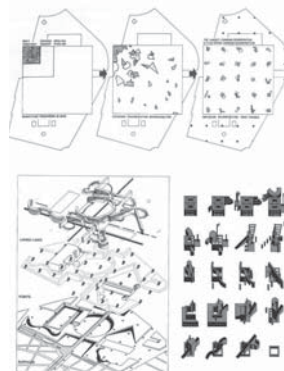
Rem Koolhaas
JUSSIEU - TWO LIBRARIES
France, Paris 1992

Bernard Tschumi
Parc de la Villette
Paris, 1982-1998

127 See Matteo Zambelli, "Tecniche di invenzione di architettura. Gli anni del decostruttivismo", Marsilio, Venezia, 2007.
128 Matteo Zambelli, *ibidem*. p.183

4.5.1 Case studies

S.Godia & X.Casa
Parc de la Solidaritat
Barcelona, Spain 1998

Barcelona offers many examples of design and recovery of parts of the city worn by large infrastructural and urban transformations, the one due to the 1992 Olympics. *Parc de la Solidaritat*[129] by Sergi Gódia and Xavier Casa, completed in 1998, is another of these cases. It is radically different from the previously analyzed case of *Parc del Nus de la Trinitat* by Battle&Roig. The project is located above a small portion of Ronda del Dalt, the ring road of Barcelona, and solved, by using a 2.4 hectares plate, the connection between the *barrio* de Can Colta and *barrio* Can Vidalet, historically separated by complex geomorphological conditions.

The presence of the ring road stresses the separation of the two neighborhoods with real banks and edges that mark the road lanes. We are in front of more conceptual rather than formal recycle. Unlike the previous strategies in which the concept of infrastructural refuse is clear, here the degradation is the exclusion of significant city areas from the overall city urban context, determining urban and social marginalization. This can't be always considered negative, but restoring or reinventing relations between the parts can certainly generate cultural and spatial wealth.

The strategy that supports the design of *Parc de la Solidaritat* is the use of a large artificial elevated platform that crosses the deep trenches of Ronda del Dalt and reconnects residential parts of the city: a new floor that covers and recovers urban fragments, using the public space, the park, as a tool to ensure permanence and trigger innovations.

The idea is clear and simple: a trapezoidal plate that overlaps the inherent road elements. It has been structured by the designers through paths, green areas, sports equipment, sculptural devices, which, together, connect the two neighborhoods on either side. This solution recalls the idea of a bridge, expanded in width, with a flat surface, suspended above the wide infrastructural canals, that hides the traffic and, simultaneously, transforms it into an architectural theme, completely redeeming the neighborhoods local scale.

The overlap of artificial soil to infrastructural and distribution nodes, allows to bypass landscapes cuts, to duplicate layers, to visually and functionally connect separated systems, and to insert new functions and group activities for pedestrians even in close proximity to cars.

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129 Giovanna Donini, "Margini della mobilità", Meltemi, Roma, 2008.

In line with the Parc de la Solidaritat are the Dutch research projects *Zuiderzee route*, on Schiphol-Groningen motorway in 2000 by the Mecanoo, and *Infrabodies*[130] along the Randstad Ring A20 motorway near Rotterdam in 1997-98 by Monolab. The two projects, with a heavy architectural approach, work on the concept of a plate with a consistent thickness, an expanded bridge with a great thickness, overlapped to infrastructural paths of large dimensions such as the major road networks in Netherlands.The two projects differ essentially according to the numbers of new surfaces utilized.

In the first case, one single large thick surface is overlapped, becoming a physically new urban block resting on the motorway. In the second case, *Infrabodies*[131] by Monolab, the project works on six specific infrastructure points. Where different traffic flows intersect, and high urban compression, numerous urban vacuums and empty zones can be found.

Monolab
INFRABODIES
A20 Rotterdam, 1998-1999

Through the introduction of functional surfaces, architectures are built by plans and levels "organized in a neutral way to allow the absorption of a wide range of programs"[132].

Interestingly, it is the experimental side of this Monolab research that, free from external influences, reveals the need for a general review of the regulatory apparatus that often overly constrains and standardizes the project action: "Had this research been executed in accordance with current laws and regulations, an impenetrable mountain of limitations would have emerged. So we approached the research from the opposite side in order to reveal the potentials of infrastructure."[133]

The same overlap strategy of thick surfaces, architectural platforms, is implemented in the winning project of the international design competition to celebrate the 75th anniversary of ANAS. The competition *Il tunnel, il ponte e la storia*, is divided into three sections: two bridges over the Arno, a new motorway tunnel in Venice-Mestre and a landscape valorization project along Salerno-Reggio Calabria motorway. The project by Archea Associati, winner in the third section proposes a large circular horizontal structure, that is ideally offset from the ground and

130 Elisa Cagelli,"Modelli insediativi delle autostrade olandesi: Infrabodies di Monolab", in Trasporti & Cultura, n°19, I bordi della strada, da limite a risorsa, Campanotto Editore, Verona, 2007. issn 1971-6524
131 http://www.monolab.nl/
132 monolab,ibidem. Project description.
133 monolab, *ibidem*.

interacts by overlapping with the motorway. Thus, it creates relationships with the surrounding territories, which simulates the farmland texture, become a distinctive sign along the motorway, a landmark, and connects the two roadsides by way of an elevated walkway.

Aurelio Galfetti
Rotonda di Piazza Castello
Locarno, Svizzera

Formally similar to the previous project, the *portale autostradale e rotonda di Piazza Castello*[134] by Aurelio Galfetti solves the problem of access to the city of Locarno through the action of overlapping and the invention of a public space, transforming a pure technical and functional road project, into a project for the city, covering not only the driver, but the pedestrian, the cyclist, the citizen.

The junction where the infrastructures meet it's on several levels: the motorway in the trenches, urban roads at ground level, and the public square. The connection of the node is realized through a large roundabout which represents a hinge between the different parts of the city of Locarno, by linking the twentieth century part with the medieval one.

These conditions made it possible to highlight the central urban role of the infrastructural hub, turning the road into a support element for public spaces.

"With this view, the upper part of the motorway tunnel portal becomes a public garden, the noise-reduction wall becomes the support for a tree-lined avenue, the inside of the large roundabout, about 100 m in diameter, becomes a square in the historical city, 4 m lower than the new roadway level, which connects the various parts of the city and prepare the spaces for the building of new needs in relation to the main cultural activity of Locarno, its International Film Festival"[135].

Even if there isn't a total extrusion in height of the circular plan of the roundabout, still, you can perceive the overlap of the junction surface, that on its inside, it fills completely the space, becoming a square.

The L'*Espace Auguste Piccard* by Paolo Bürgi, in Switzerland, reorders the places and the spaces where it is located, interacts with the grounded tunnels of Autoroute du Rhône A9, softens their dimensions without hiding them, indeed it enhances them.

The area of the site for the construction of the two motorway tunnels

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134 Serena Maffioletti, Stefano Rocchetto (a cura di), "Infrastrutture e paesaggi contemporanei", Il Poligrafo, Padova, 2002. Aurelio Galfetti, "Arrivo dell'autostrada a Locarno 1987-2001" Piano viario Locarnese. p.28
135 Aurelio Galfetti, relazione di progetto.

has a particular shape; it is wedged between two hill ridges crossed by the motorway. The morphology of the place figuratively brings the idea of two banks with a river of vineyards in the middle. The two sides seem detached and non-communicating although part of the same urban context, Sierre, in Sous-Géronde, Switzerland.

The infrastructural work has provided the Swiss landscaper with the occasion to rearrange the space, giving it unity, reinventing a new public place built with a few signs where before there was beauty, but disorder[136].

The project is structured leaving the covers of a square concrete tunnel, characterized by their curved sloping, to emerge from the lowered ground, reminiscent of an amphitheater: "The two concrete tunnels of Route Nationale become the real protagonists in this project, because they are allowed to surface, to emerge, giving rise to a modern sculptural gesture - rigorous and essential. "[137]

The perimeter of the circular sunken amphitheater is underlined by some poplars planted in groups of eight elements; a drainage channel, a purely technical feature for water management, is covered by a 50-meter long concrete bench, decorated with a blue stone, in memory of what flows beneath, i.e. water.

This place, so re-meant, instead of rejecting, appeals: people use it as a space of *loisir*, forgetting, being staged but not hidden, the motorway connecting Italy to France, the center of the project and clearly emerged from the ground.

The extraordinary landscape poetry of Paolo Bürgi expresses, through a few simple gestures, the attitude of the project to address the critical presence of two highway tunnels through *overlap*. Overlapping layers not independent, but integrated.

The turf, and then the soil, doesn't lay to cover up what you do not want to see, but, on the contrary, closes the wound, fills the unevenness of the excavations, smoothening structures that, for their technical nature, are violent, harsh, out of scale with the landscape crossed, but necessary. A recycling action by overlapping that doesn't only unifies the plain of

136 Paolo Bürgi, "Autostrada e paesaggio – conversazione con l'autore", in Rosaria Anna Iarrera, "Autostrade come progetto di paesaggio", Gangemi Editore, Roma, 2004. p.139
"The place was pretty messy, but beautiful, with the presence of these landscape elements: the hills, the plan, the vineyards, the meadows, the lake. And I've read this moment as an opportunity to design and create a new space".
137 Paolo Bürgi, "Paesaggi_Passaggi", Libria, Melfi, 2011.p.190

the valley, but stresses the contemporary human action, transforming an engineering work in "two twenty-first century large sculptures that
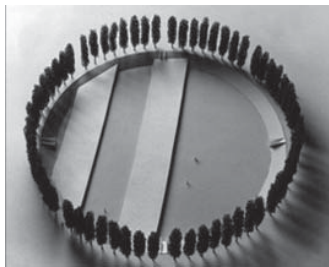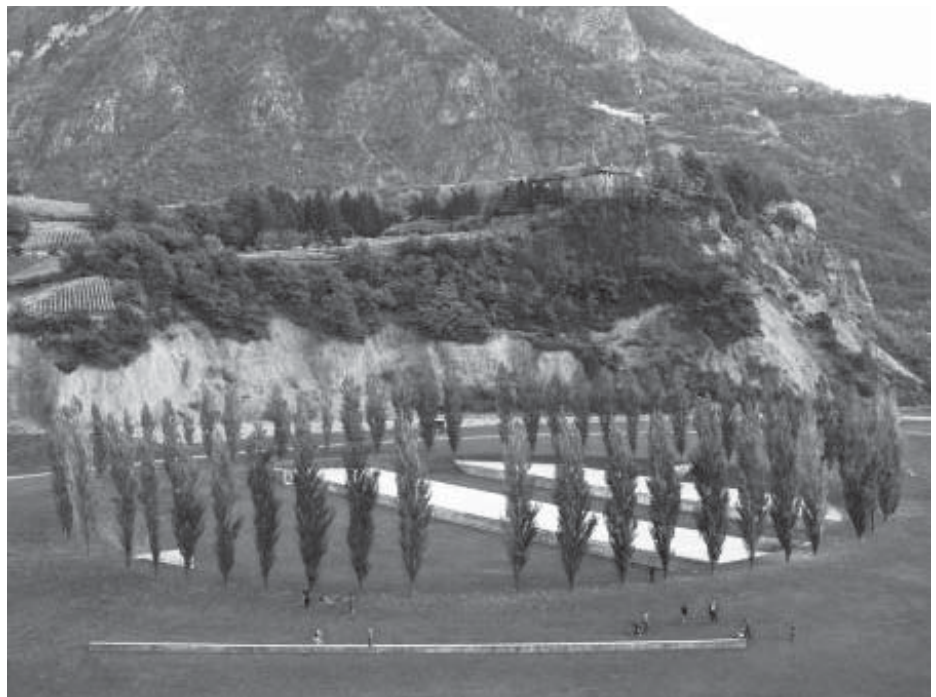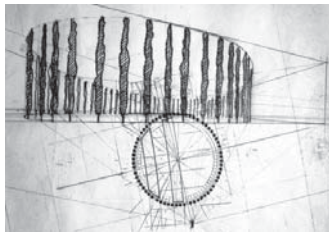
Paolo Bürgi
Espace Auguste Piccard, Routes Nationales Suisses N9
Sierre-Geronde,Suisse 1990-2000

138 Paolo Bürgi, "Percezione", in L.Ponticelli, C.Micheletti (a cura di), "Nuove infrastrutture per nuovi paesaggi", Skira, Milano, 2003. p.44

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Interview*

Gilles Vexlard - É.N.S.P. Versailles - Marseille

He is landscaper DPLG and Professor at the École Nationale Supérieure de Paysage de Versailles. Before joining in the landscape branch of École Nationale Supérieure d'horticulture de Versailles, he attended the School of Fine Arts in Nancy and studied geography and history at University. These experiences influenced his landscapers attitude in his relationship with the space and the landscape, in his project pictorial representation and also in his pedagogical relationship with his students. In 1981 he founded LATITUDE NORD with Laurence Vacherot.

Question 1
Quels sont les principaux problèmes déterminés par les infrastructures dans le paysage ?

Je pense que pour des projeteurs, le grand problème des infrastructures dans le paysage, s'il y en a un, c'est qu'il n'y a pas de projet de paysage. Tant qu'on n'aura pas établi et éclairci ce qu'est un projet de paysage, et que ce projet ne dirigera pas les travaux des infrastructures, tant que ne deviendra pas directeur le plan qui permet de diriger les travaux dans le paysage par le passage ou l'implantation des infrastructures, il y aura des problèmes après.

Mais si on faisait l'inverse, c'est-à-dire, si on faisait d'abord le projet de paysage, dessiné, pas intentionnel, pas intellectuel, et qu'on revoie comment passe l'infrastructure je pense qu'alors il n'y aurait plus de problème et que ce serait une valorisation du paysage.

Je crois que c'est surtout la manière initiale, la façon dont on pense au projet, l'infrastructure qui est mauvaise - erronée parce qu'elle est faite par des ingénieurs, des politiques, avec souvent des principes d'élaboration très rudimentaires comme la vitesse, l'efficacité, l'ignorance des connaissances, de la subtilité d'un paysage, la richesse des choses et souvent, quand le paysagiste intervient c'est pour camoufler, corriger, embellir le projet.

Le projet de paysage, c'est d'être, parce que le paysage est, on ne peut le décrire. La terre est ronde, complète, finie: elle est terre. Le paysage est un morceau de terre. Dans le paysage il y a une certaine banalité, quelque chose d'habituel, on n'y fait plus attention. Comme la société n'a pas développé le paysage comme un outil qui dirige la transformation de l'espace et qui exige aussi un savoir, pour le faire avec intelligence, talent, subtilité, culture, patrimoine.

Il faut être pénétré de tout cela. Les paysagistes viennent avant ou après, mais jamais pendant.

Ce sont des gens sérieux, des grandes personnes et non pas des enfants. Mais nous, nous sommes des

enfants, on reste des enfants de l'aménagement. Ce sont les politiques, les économistes, les ingénieurs qui savent faire : c'est là la grande erreur. Les paysagistes n'ont aucun problème à dessiner les infrastructures, s'ils travaillent un peu plus, s'ils comprennent comment ça marche - le mécanisme - s'ils sont prêts à compter sur le travail des ingénieurs, les qualités qu'il faut réunir.

Le paysage est une philharmonie ce n'est pas chacun qui joue son petit morceau sympathique.

La méthode est le seul problème tant que les paysagistes n'auront pas une autorité, une qualification, sur comment on fait une route par exemple, on aura toujours le complexe de l'ingénieur et les ingénieurs auront le complexe du paysagiste.

Ce n'est pas une question de sensibilité, c'est une question d'efficacité de professionnalisme et d'ambition de la profession. La profession n'a pas d'ambition à ce niveau-là. La profession se trompe de cible. Le paysage est le vrai polytechnicien, sauf qu'il est un peu esthète, poétique, imaginaire; il n'a pas la rigueur de l'apprentissage – mais les éléments du paysage sont suffisamment simples pour être compris par chacun. Le difficile c'est la simultanéité de tout cela comme dans un orchestre.

Question 2
La Convention Européenne du Paysage tourne son attention vers «les territoires dégradés comme vers ceux de grande qualité, les espaces remarquable comme ceux du quotidien». On peut parler de «terrains vagues», de délaissés produits par l'infrastructure routière et autoroutière ?

En théorie je pense que les délaissés n'existent pas. La société est responsable de l'ensemble des choses qu'elle fait, des autoroutes comme des délaissés mais ces espaces sans définition peuvent être disponibles pour quelque projet mais parfois ils apparaissent comme des handicaps trop larges, trop étroits et ne trouvent point d'utilisation. Pour nous paysagistes autoroute et délaissé constitue une globalité. Il n'y a pas de valeur morale de paysage rédhibitoire. Les religions, les grandes philosophies, politiques ont pour but de donner des règles à la société pour vivre ensemble.

Le paysagiste n'a ni règle, ni morale. Il faut distinguer la réalité, le temps ; nous sommes très limités dans la vision du temps et le temps est essentiel pour mesurer ce qui est irrémédiable de ce qui est convertible, parce que peut-être l'action initiale qui consiste à tout changer en fait s'avère, cinq, dix, quinze ans plus tard extrêmement positive et pour la flore et pour la faune et pour les gens.

Question 3
On peut parler de projet pour les espaces abandonnés ?

Oui bien sûr je pense que c'est possible. Le plus grand paysagiste français, Jaques Simon, disait, dans une de ses revues, merci Monsieur E.D.F. (Électricité de France), merci les routiers parce que dessous ou à côté des autoroutes on avait de l'espace disponible pour les paysagistes.

On commence à exploiter ce qu'il a dit il y a quarante ans. C'était un visionnaire. La route par lui était un moyen non seulement de voir du paysage mais aussi d'en fabriquer.

Question 4

Est-il possible de définir les stratégies et les instruments opératifs pour ces espaces ?

Ces espaces pour les paysagistes sont de nouveaux lieux à inventer, les lieux indéfinissables: pour nous le paysage n'est pas quelque chose de normé, de calibré, de référencé, mais c'est quelque chose d'ouvert, de libre, d'indéfini, ce qui rend le métier difficile.

Ces non-lieux ces, lieux innommables comme les *terrains vagues,* les *friches*, existent et sont très intéressants pour les paysagistes, très à la mode aujourd'hui.

On doit les affronter sans préjugés et sans peur, en toute liberté. Le paysagiste est quelqu'un qui accepte le mal à l'aise des situations qu'il rencontre, mais qui en fait une discipline qui lui permet de projeter, d'y voir la vie, c'est cet équilibre qui est difficile à trouver.

Il y a quinze ans, avec mes étudiants, nous avons fait un projet sans programme. Je les ai envoyés vers les endroits les plus dégradés.

Ils ont été inventifs, décomplexés et chacun a porté son projet de paysage, chacun a été créateur.

Quand on projette une autoroute, il faut projeter en même temps l'espace environnant. Si on intègre, on dessine l'ensemble complexe-autoroute, sans le décomposer, si une seule personne définit l'ensemble des composants, on n'aura plus de problème.

Mais quand l'autoroute existe déjà, est-il possible d'intervenir?

Ça dépend de l'assurance des paysagistes, qui ont souvent peur des moyens qu'il faudrait pour réaliser leur projet : ils sont complexés sur l'argent. Notre absence d'ambition, comme dirigeants des nouveaux lieux de la société, notre absence de compréhension des phénomènes de société politique ou économique nous empêchent de faire des propositions au bon niveau, les plus justes.

On peut dire que le paysage dynamique, futur, intéressant, varié, non conventionnel, non préformaté, plus libre, ce sont sans doute les délaissés qui constituent le renouveau de la ville, des infrastructures etc.

Je pense qu'en faisant la carte des «délaissés» des villes, on pourrait donner un autre sens à la ville.[1]

Mais pour cela il faut être décomplexé des moyens. Il faut faire une révolution. Il faut créer des lieux à moins d'un kilomètre et demi du centre-ville, en communication directe avec celui-ci.

Il faut transformer les sites, se les accaparer et non plus les protéger. La ville doit devenir *terrier rural* et le paysage *intra-urbain*.

Les infrastructures sont l'occasion de se rendre compte qu'il faut absolument réaliser autre chose, pour que la ville devienne belle et désirable. La société future doit choisir sa forme, sa destination, ses paysages, sa pratique.

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1 C'est ce que le Professeur - Paysagiste G. Vexlad et son Agence Latitude Nord, entend faire à Amiens dont on lui a confié le projet de renouveau de la métropole.

Question 5

Comment faire, comment projeter ces espaces en évitant les méthodes de compensation, d'atténuation, de mitigation et de *camouflage*?

L'insuffisance du rôle du paysagiste dans la définition des infrastructures est tellement forte que l'on a plus la culture du projet.

Par contre l'autoroute de *Bellinzona* est un exemple de compréhension, de savoir faire et d'intelligence, complice avec le site. Mais souvent les infrastructures ont ignoré, dominé et n'ont pas rempli leur contrat d'assemblage.

Dans les grandes échelles il faut trouver des combinaisons. L'aménagement n'est qu'un jeu de *pousse-pousse*[2]. On a toutes les lettres de l'alphabet et il s'agit de les assembler pour former des mots. La petite échelle, elle, est prise dans la vision globale. Je ne crois pas aux échelles. Pour moi il n'y a que sa propre échelle, l'échelle à soi. Lorsqu'on n'a plus la grande échelle, les petits détails montrent leur nécessaire réalité. Il faut une gymnastique d'esprit très compliqué, ce qui contient toute la palette des possibilités.

Question 6 - *Aire de repos de Garabit*

Pouvez-vous me décrire les raisons et les éléments principaux qui ont dirigé les choix du projet? Quelle est la relation entre le projet, la route existante et le contexte?

Avant tout le projet doit plaire. Je connaissais le site de Garabit à travers les timbre poste et je le trouvais fascinant, magique.

Ensuite il est indispensable de se rendre sur les lieux pour une lecture du paysage pour étudier la pente, les proportions, pour régler formellement les proportions, la générosité de l'espace, la forme du terrain. Le projet est une mise en scène du paysage, un tour de manège.

Le programme est une émanation référentielle entre l'arrêt et le mouvement lié à la vitesse. Vu la position du site, on a dû rendre la forme de la vitesse, l'intégrer par dilatation giratoire, la dilater, l'amplifier, la grossir, la gonfler, l'hypertrophier pour qu'elle contienne toute l'aire de l'autoroute, pour qu'il n'y ait que l'autoroute et son aire: il n'y a pas une autoroute, une aire de repos etc... côte à côte.

Si on n'était pas en situation de préparer cet arrêt, ça le rendait banal. Cette mise en scène est indispensable pour provoquer l'émotion, le piquant de la découverte.

Il fallait donc changer les volumes sur 15 hectares environ. D'où le terrassement et l'arrêt pour nous était un tracé parallèle au tablier du pont . Quand les gens arrivent là et s'arrêtent, ils voient cette mise en scène. De l'autoroute on ne voit pas le *pont du Garabit*, il est complètement caché dans le relief. Le pont c'est le service du projet. A l'arrivée, on tourne, on vient caresser le site, on gare sa voiture, là, en face du pont.

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2 Jeux pour enfants

Les gens se promènent, se détendent dans le sens de la pente. La pente est très importante pour le mouvement: sans que les gens s'en rendent compte, ils arrivent à cette terrasse, à une table de vue, grande, large comme les tables d'orientation du grand tourisme, d'où l'on dé couvre le paysage, le premier plan.

Pour réaliser ce projet long et difficile, nous avons dû bouger/déplacer 400.000 mètres cube de terre, sans que cela se voit, tout en mettant en valeur le site. Nous avons respecté la flore du lieu, les genévriers, l'exposition. Le projet a mis en valeur le pont, lui-même devient invisible. Le projet est parallèle au site en bas et en haut, mais le site est construit et met en valeur le pont. Le travail de terrassement met en valeur l'ensemble du paysage. Nous avons une vision globale. Le paysage est un formidable espoir donné. Contrairement aux écologistes primaires, je pense qu'il ne faut pas protéger un site, mais plutôt le rendre étonnant.
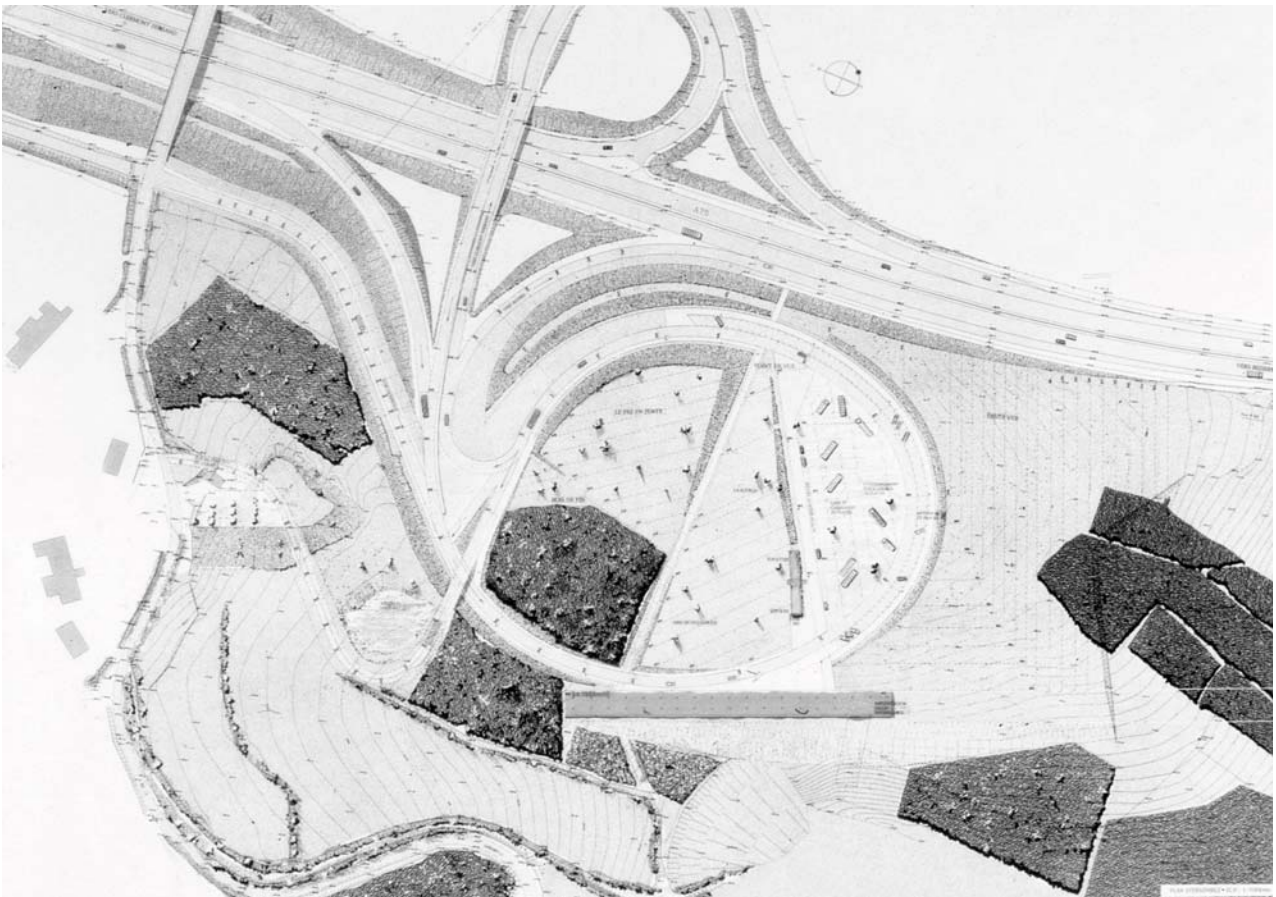
Chapter 5

Conclusions
Refuses and fragments, land reserves along the roads

"Non sono un fisico, né un sociologo, posso essere al massimo un architetto. Non credo di formulare una teoria fisica o sociologica, al massimo un'architettura. Non posso però liberarmi dall'idea che tra questi campi del sapere (e probabilmente tra tutti gli altri) ci sia un legame: una comune struttura di fondo. Non so (e non mi interessa in modo particolare saperlo) se questa struttura di fondo esista realmente, o se si tratti solamente di uno strumento di ciò che chiamiamo "comprendere".
Yona Fiedman, "L'ordine complicato. Come costruire un'immagine", Quodlibet, Macerata, 2010
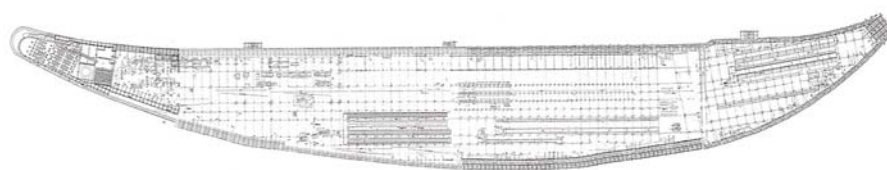
Michel Desvigne
Reconversion de l'île Seguin,
Boulogne-Billancourt
France, 2000-2007

Within the vast subject of infrastructure, in order to limit the scope of investigation, it was necessary to identify a particular key to the reading, the refuse, that could allow a specific variation of a subject already widely covered at a scientific and design level.

An attempt has been made to add a piece to the complex and vast mosaic related to infrastructure which is made up of several tiles that do not always connect.

Another clear-cut demarcation was the temporal division of the objects examined; the research has considered only what has already been built, existing infrastructures in the city, in the territory and especially in the landscape. Large formations, with their specific identity, that support the activities of man in constant motion.

But what is hiding "in the shadow"[1] of these engineering structures? Why do we get passively used to their presence? In this, the European Landscape Convention, at the start of the new century, clearly destabilized our habits and forced us to open our eyes to what no one wanted to consider.

Associating the words *refuse* to infrastructure, according to E.L.C. suggestions and in parallel with many other interpretations[2], has allowed us to think in terms of opportunity and potential through the perspective of recycling. The recycle is seen as a way to find a remedy to abandonment and neglect through the project, as already foreseen some years ago by Kevin Lynch in his latest work *Wasting Away*.

A concrete opportunity from which the present research was inspired has been the MIUR-PRIN 2007-2010 research entitled *Progetti di paesaggio per i luoghi rifiutati*[3]. This research identified, through a direct examination of the places, several critical points along the roadways of Trentino Alto-Adige, an area usually considered as a best practice.

The identification of landscapes that could be sacrificed and discarded in favour of others (the infrastructures), is reflected in the words of Salavatore Settis' text, *Paesaggio costruzione cemento*, which addresses the central issue of land consumption[4], and where the author argues and

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1 Margherita Vanore, "Suoli urbani all'ombra dei viadotti", CLEAN, Naples, 2003.
2 Cf Infraspaces, Margins of mobility, INFRA atlas and manual, Roads and landscapes, Mobility: a room with a view, Highways as landscape projects, From the volume at the interface, The landscape of the freeway, The thickness of the road, etc.
3 Annalisa Maniglio Calcagno (ed.by), "Progetti di paesaggio per i luoghi rifiutati", Gangemi Editore, Rome, 2010.
4 Salvatore Settis, "Paesaggio costruzione cemento. La battaglia per l'ambiente contro il degrado civile", Einaudi, Turin, 2010. p.3-4 "Some figures: according to Istat data between 1990 and 2005, the utilized agricultural area (UAA) in Italy fell by 3 million

documents what is happening to the Italian landscape. The legal tangle, although with positive connotations, does not help, according to Settis, organic land management, introducing *grey areas*, where it becomes easy to evade the rules and where the lexical overlap of the three terms *landscape*, *territory* and *environment* does not allow effective means of control, dividing responsibilities through the large number of institutions and laws.[5] These *grey areas* of the regulatory body, for Settis, could be resolved through the use of the term *suolo* considered inclusive of all three.

Such thinking highlights in particular, the centrality of the issue of land consumption, widespread in many Italian regions that are passively witnessing the programmatic exhaustion of an asset which is finished by its own nature.[6] Among the research objectives, there has been the identification of areas in Trentino Alto–Adige waiting for re-signification and recycling. A region where there is not yet a specific structured program for land consumption study but which, for its orography and morphology, has limited and geographically constrained valley floor areas.

Consumo di suolo
Università degli Studi dell'Aquila, Fondo ambiente italiano (Fai) e Wwf.
31 gennaio 2012
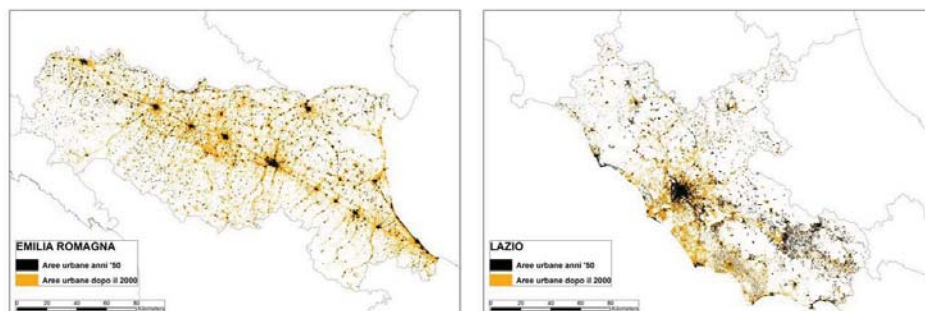
and 663 thousand hectares, an area larger than the sum of Lazio and Abruzzo: we have hence converted, cemented or degraded in fifteen years, without any planning, 17.06% of our agricultural land."

5 Salvatore Settis, ibidem,p.251 "[…]in volumes of laws and in the halls of Parliament and Regional Councils, Italy's landscape (which is attributable to the State), Italy's territory (where government lies with the Regions), Italy's environment (with expertise distributed unclearly). At least two different Ministries (Cultural Heritage and Environment, but other expertise must be added, such as Public Works, now Infrastructure, and Sanitation, now Health), […]"

6 Giovanna Maria Fagnani , "The Italy that is disappearing: land use is the environment's number 1 enemy", in *Corriere.it* of 31st January 2012. "Pollution, hunting, arson are the lesser evils against which nature in Italy has to reckon with. The worst? Is land use: the covering of virgin or agricultural land with asphalt and cement to build homes, factories, roads or major highways. In Emilia Romagna between 1954 and 2008 9 hectares of land per day disappeared. In Sardinia, the increase of urbanized land grew by 1.154% compared to the Fifties. And cities continue to expand despite thousands of residents choosing each year to live elsewhere: for every inhabitant « lost » the city grows instead by 800 square metres. If the process is not governed, in the next twenty years we will lose 75 hectares a day.[…]"

The first analytical tool in support of this research was the visual act of observing closely what is invisible. The perception device has been focused on searching the refused spaces produced by roads, has thus identified their existence, location and characters through the use of a photographic tool that has restored their spatial consistency, to determine the physical and material elements that characterize them. Using the collected data, a subjective diagrammatic breakdown was attempted in an effort to develop experimental representation methods for the study of these specific spaces aimed at identifying their problems.

The second point that has been addressed is the critical interpretation of the more or less spontaneous and more or less legal uses of these abandoned spaces. The aim has been to identify, through the reading of many cases, the techniques and functions that underlie the existing, ordinary practices, and that, even if temporary, have the strength and ability to suggest operational strategies for the recycling of these spaces. Re-signification of the objects found (discarded) which, through *ready-made* actions, change the scope of both architectural and landscape designs.

The third step of the discussion was to define conceptual models for the design of infrastructural refuses. Tactics and attitudes able to widen the change tools of designers to recover useful land in the city and contemporary landscape. The instruments used were a weighted selection of case studies, always sources of the evolution of architecture which bases its essence on the reinterpretation and reworking of concepts, strategies, suggestions, traces and memories collected in places, but based on a consolidated cultural contribution.

A parallel and careful journey along the path etched in Trento's topography was the sampling of State Route 12 in the section between *Trento Nord* and Mattarello that, as a field test, verified each logical and theoretical item produced by research, particularly highlighting the need to change the approach to urban development. A rewriting of the infrastructure and landscaping design instruments, aimed at implementing the contemporary city, which can regard the refuse as material available for its overwriting. The bypass in Trento was then the hypertext that, through its peculiarities, has helped the selection of case studies that have provided a foundation to design strategies.

These strategies, that recycle the leftover surfaces in a different way, use the infrastructure, depending on its features, as a support, base, cover or board.

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The surface itself, recycled, changes the landscape's horizontal fabric.

The four strategies considered (see Chapter 4) implement available spaces for the city without consuming other land, drawing, through tactics and attitudes, degraded land and recovering the infrastructural machine that can enrich itself of multiple, dynamic and reversible functions, reducing the monolithic specificity of its original function.

From the New Athens Charter:

Sixth recommendation: Design "reversible, light, temporary infrastructure"; building roads, bridges, links with non-rigid and definitive, but removable, logistics systems that leave no trace on the land and that adapt over time to changing local needs.

(Andrea Branzi, Per una Nuova Carta di Atene, in AA.VV. People meet in Architecture, 12.International Architecture Exhibition, director Kazuyo Sejima, Marsilio, Venice, 2010)

5.1 From ex-post to ex-ante

Sergio Musmeci
Ponte sul fiume Basento
Potenza, 1967 (progetto)

The field, the methodology and the results gathered in this research aim to interact also with other sectors that make up the specific discipline of mobility infrastructures, trying to influence and to fill gaps that establish ingrained habits, operational procedures and cultural approaches to road design.

The critical points that would be involved, where the time factor varies from the ex-post to the ex-ante (the infrastructural design), are:

- *Changing* regulatory rules and design protocols that, although necessary, often lead to a conflicting and complex relationship between road structures and context. What might be reconsidered is the need for technical specifications which undoubtedly ensure the infrastructure's functionality, but that contemplate the specific features of the places visited, hoping for less standardization and uniformity for each design;
- *Exceeding* the overall infrastructural monofunctionalism, which can be enriched with devices parallel to the dynamism of the road that interact with places, to create a new, osmotic infrastructure with a complex thickness that contemplates also the road architecture as an integral part of the design;[7]
- *Making provisions for* the design integration processes from the initial

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7 As an example we remember, among the others, some of the great architects that created an Italian school of infrastructure's architectural structural quality: S.Zorzi, R. Morandi, S.Musmeci, G.Oberti, etc.

decision stages, contemplating possible legislative guidelines, like for example the French Protocol "*1% paysage et développement" sur les autoroutes et les grands itinéraires interrégionaux*.[8] This aims to put the road work into the environment and promote economic and tourist development of the places visited, with the *mise en valeur* of the landscape, the working-out of *chartes d'aménagement* and availability from the State of 1% of the cost of construction work to implement the programs previously provided for. This type of protocol, applied since 1995, also requires the necessary training and involvement in the definition of roadways and the interdisciplinary design team, with different professional training. These processes should also change the logic of compensation, mitigation and camouflage, as if an infrastructure could not be considered harmful, to hide and embellish, especially by stereotyped greening[9] which, often, placed along the edges, emphasizes instead of shields the roads.

- *Increasing* the degree of participation of the people involved in decision making, concerning the choice of roadways and their geographical location.

5.2 Trentino archipelago?

Interpretive models of the research were *the enclave* and *the archipelago*, seen not so much in their metaphorical sense, but as key concepts to understand and decode the relationship existing between landscape and infrastructure.

The first, the enclave, tends to emphasize the idea of separation, isolation, uniqueness; the second, the archipelago, conveys the size of the flow, the continuity, the link.

Transferred on the landscape reality level, both made it possible to gather interesting analogies. You can, in fact, find features of the enclave in the refused ex-post spaces considered in the course of the research, showing in this case "characteristics of disconnection" that the network infrastructure can generate, causing "fragmented land, consisting of a set of islands separated, segregated, suspended".[10]

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8 Circulaire n° 96-19 du 12 décembre 1995, "Bulletin Officiel du Ministéere de l'Équipement, du Logement, des Transports et du Tourisme", n.8, 31 mars 1996. http://www.manche.equipement.gouv.fr/environnement/paysage.html
9 Alain Roger, "Court traité di paysage", NRF - Édition Gallimard, Paris, 1997.p.134 *"verdolâtrie"*
10 Alessandro Petti, *Arcipelaghi e enclave, Architettura dell'ordinamento spaziale contemporaneo,* B. Mondatori ed.Milan 2007. p. 83

It is possible instead to view as an archipelago the possible resolution of this fragmentation in a systemic view of the infrastructural design, in which the road network can serve as a connecting element or, if a separation of the surrounding spaces occurs, specific object of the research, like these they can regain meaning.

The archipelago is indeed "a land of different islands, separated by a sea which, however, can be a bridge"[11] and, as Massimo Cacciari says, "is the Sea par excellence, the *archi – pelagos*. The truth of the Sea, in a certain sense, will manifest, then, there where lies the place of relationship, dialogue and confrontation between the many islands that inhabit it: all distinct from the Sea and all intertwined with the Sea; all fed from the Sea and all at risk from the Sea."[12]

The concept under consideration, actually because it is rich in interpretative potentials, has pushed the research in its interpretation on the perception and use of infrastructural refuse. Particularly stimulating, in this case, was the reflection of Francesco Careri on the revealing power of dynamics in a spatial context, "a constructed wandering that produces new lands to explore, new living spaces and new routes to travel"[13].

This new idea of space, the *walkscape*, is generally identified by him with the voids, the gaps, the margins that are often not perceived since they are always in motion, *urban amnesia* "that are not just waiting to be filled with things, but are living spaces to be filled with meaning"[14]. As occurs in a *fractal archipelago*: a group of *islands* breaks off from the material and compact *centre*, to form a *large polycentric system*[15].

Once again the image of the archipelago has suggested, according to analogic criteria, the relationship between road infrastructure, material and compact, and residual spaces, islands waiting for meaning.

Once identified, measured, described, in short perceived, infrastructural refuses can show their *capacity* to become real and actual land reserves, through the application of site-specific recycling strategies that, while not automatically determining their re-definition, design re-integration ended, offer, however, new possibilities of meaning for the layers that make up the contemporary city.

This methodological orientation takes you back once again to the

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11 Alessandro Petti, *ibidem*. p. 23

12 Massimo Cacciari, *L'arcipelago,* Adelphi, Milan 1997 pp.16 and 19

13 Francesco Careri*, Walkscapes, Camminare come pratica estetica,* Piccola Biblioteca Einaudi ed. Turin 2006, p.74

14 Francesco Careri*, ibidem* p.73

15 These concepts are taken from the text by F. Careri*, Walkscapes.*

archipelago structure in reading, applied to landscape architecture by Atelier Le Balto[16] .
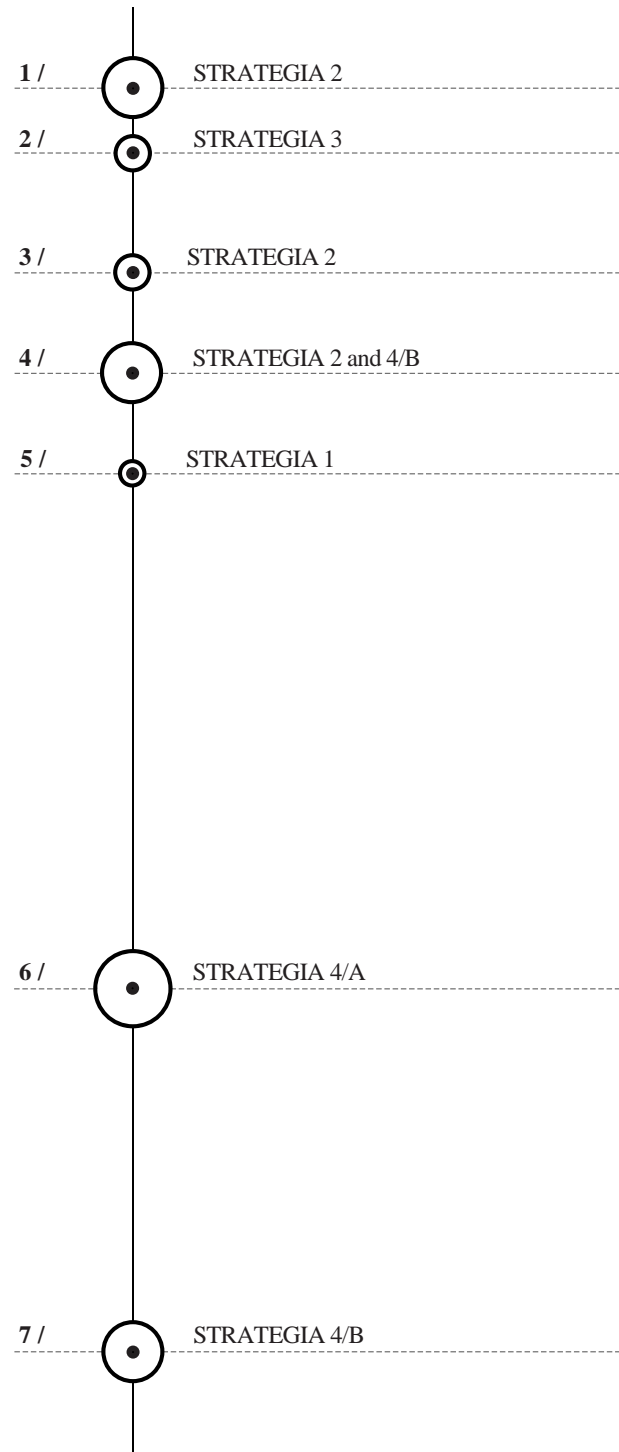
The archipelago consists of fragments of submerged land, in the process of surfacing, afloat. Like in this structure there are such diversified land fragments between them, but between them interconnected through the fluid movement of water, similarly, for the contemporary landscape's infrastructure discard it is possible to find a similar morphological situation.

The refused spaces are associated with fragments of submerged land. The operative strategies can place them in the process of emerging and the recycling project can make them emerge, restoring them in relationship through the same tracks of the mobility infrastructures.

Interpreted in this sense, even the *Tangenziale di Trento* can transform its identity: from *enclave* to becoming *archipelago*, from the place of fragment and dispersion to the place of design potential.

The city can gain space and the landscape change again.

S.S.12 >>

1 /   STRATEGIA 2

2 /   STRATEGIA 3

3 /   STRATEGIA 2

4 /   STRATEGIA 2 and 4/B

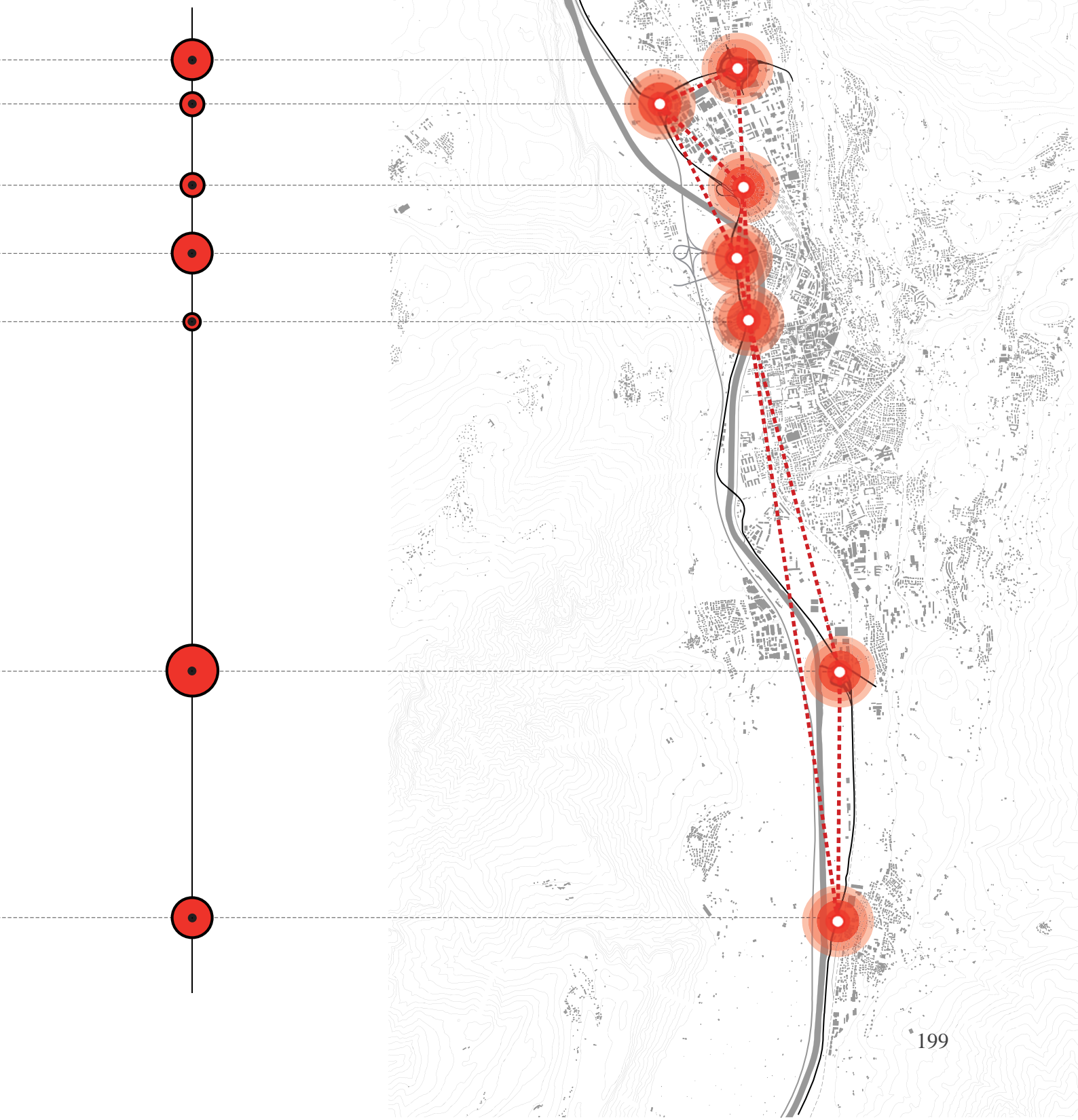5 /   STRATEGIA 1

6 /   STRATEGIA 4/A

7 /   STRATEGIA 4/B

16 Atelier Le Balto, "Archipel. L'arte di fare giardini, Oltre i gardini", Bollati Boringhieri,Torino. 2008

STRATEGIA >>

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