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**Imazhi i kopertines është një punimë diplome i studentit Kludio Ruci, udhehequr nga Loris Rossi.*

Shtypur nga: BOTIME
pegi

Përmbajtja

URBAN MULTIMODALITY

Re-thinking the role of the railway station in the informal cities

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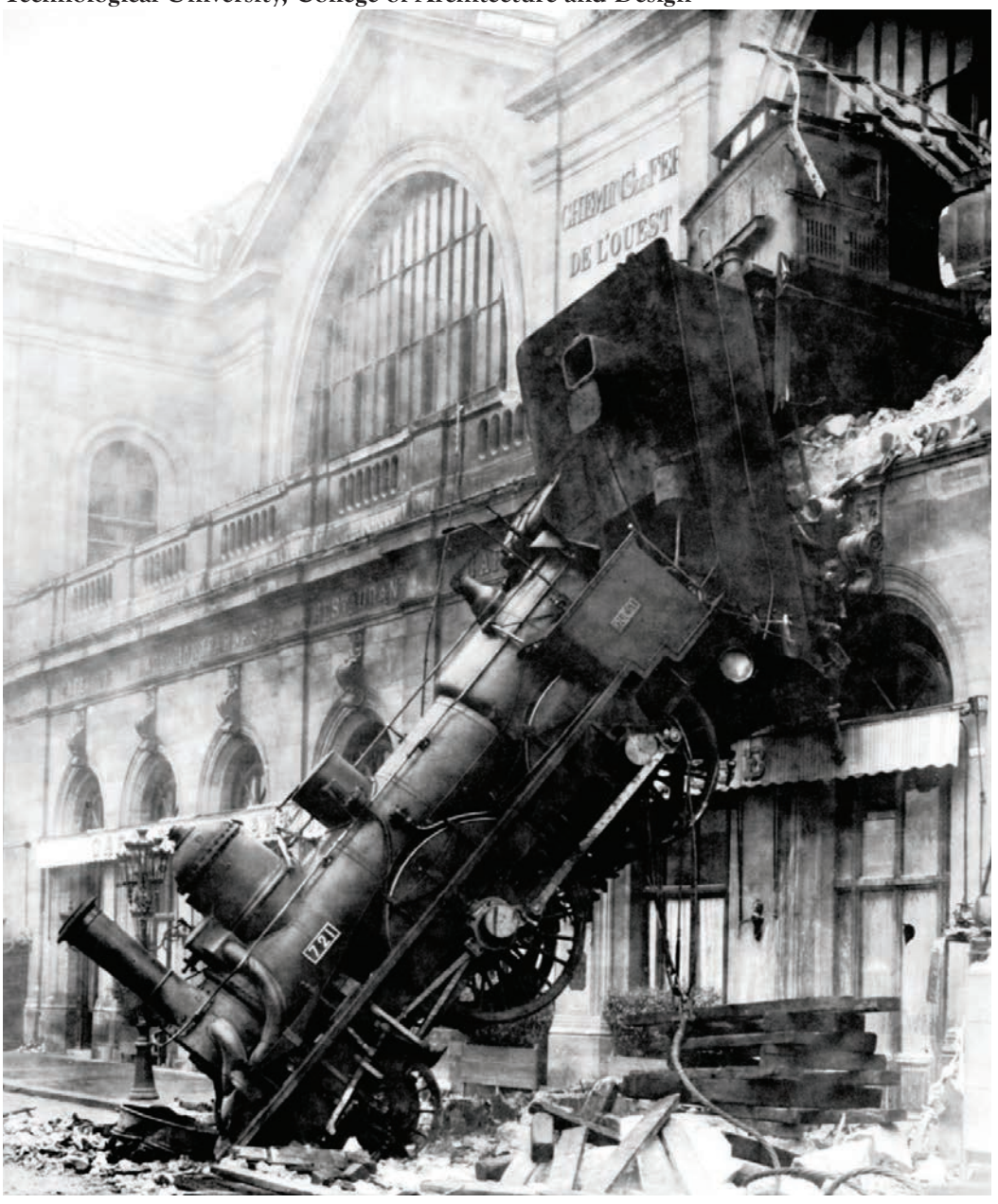
Abstract:

This paper deals with the idea of Urban Multimodality as a way to rethinking the role of the railway station within informal cities. The complex topic of the railway station will be addressed through definition of terms and operative case studies. This paper will underline how certain existing characteristics belonging to the Albanian cities can be adapted as a tool to generate new urbanity and new infrastructural systems. The word multimodality is a purpose to investigate new ways to reinterpret the character of spontaneous cities as collections of multiplicity as well as multimodality. The idea of multimodal station will not be considered as a limit for the city, but rather as an actual pivot related to the different parts of the existing network. From a strategic point of view the new intermodal station will improve the different functional layers in terms of paths and strategies for a new vision of the city. Such a relationship was for years the source of international debates. The subject of this paper will allow the examination of the complex urban fabric of informal cities in relation to the new transport requirements.



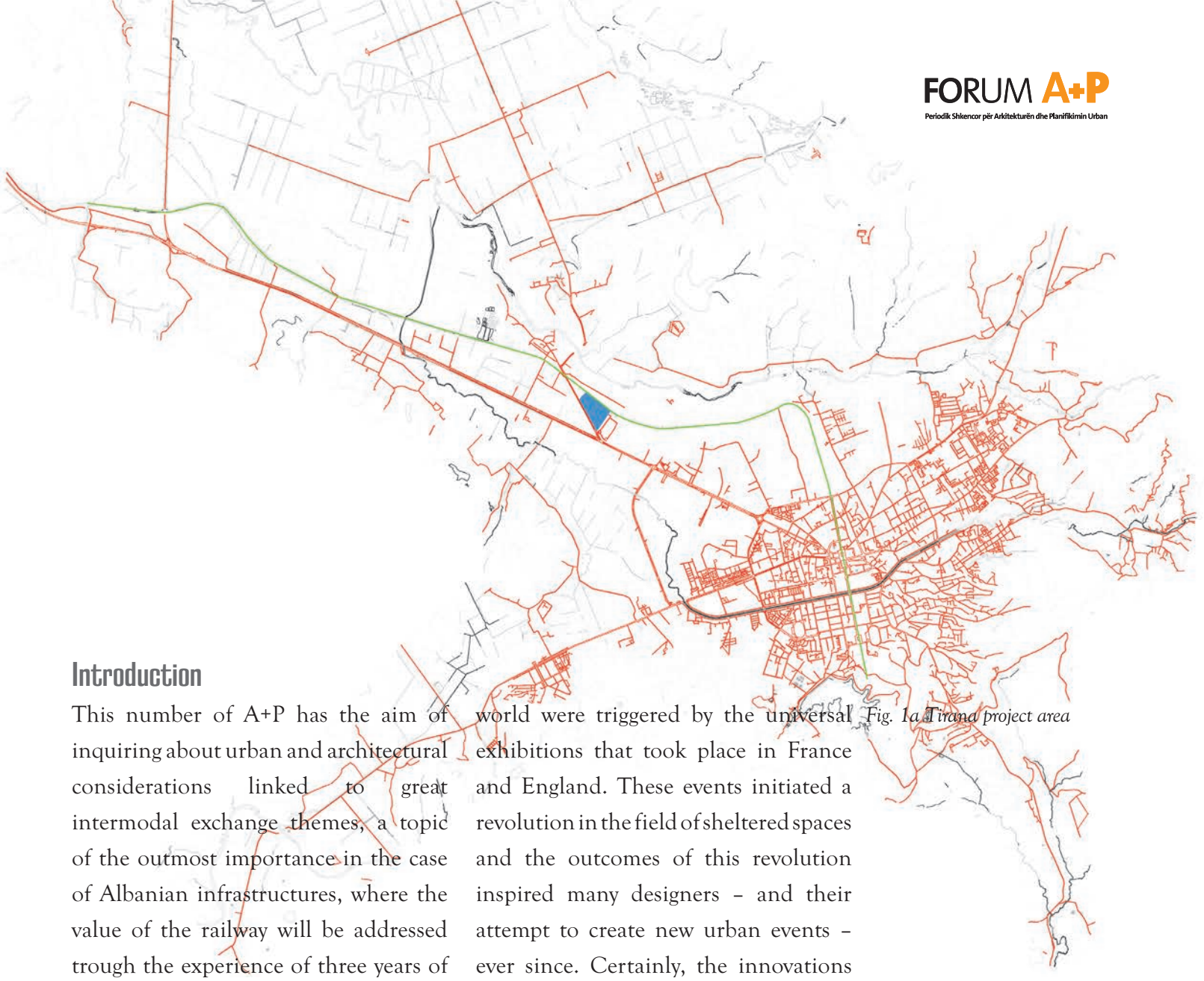


Fig. 1a Tirana project area

Introduction

This number of A+P has the aim of inquiring about urban and architectural considerations linked to great intermodal exchange themes, a topic of the outmost importance in the case of Albanian infrastructures, where the value of the railway will be addressed trough the experience of three years of investigations and observations in the field[1].

In this article I will highlight in particular the relationships that have characterized the realm of railway stations in relation to cities and their urban form for many centuries. Considering the multifold aspects of this topic, the main strategy of this text is to guide the reader through the particulars of multimodality, and to reconsider the case of the Albanian railway under a new prospective.

The great structural chAllenges of the Nineteenth century in the western world were triggered by the universal exhibitions that took place in France and England. These events initiated a revolution in the field of sheltered spaces and the outcomes of this revolution inspired many designers – and their attempt to create new urban events – ever since. Certainly, the innovations in terms of materials and technology introduced a new perspective on how to intend the urban infrastructure within the city space. In some cases, the latter appear as integrative part of the urban environment, in others they appear as urban exceptions, generators of social and architecture contradictions. Therefore, the concept of urban events can be interpreted in different ways. In his famous book City of Panic, the philosopher Paul Virilio offers an interesting key to interpret the events that took place in the last century: "*Whether we like it or not, creating an event means provoking an accident or, even better, breaking with mimicry*" (Virilio, 2004, pp. 34).

1. The Intermodal station studios were developed between 2011 - 2014. It is important to mention that this reflection has been possible also thanks to the great contribution of : Elvan Dajko, Rezart Struga, Branko Balacevic, Olgica Nelkovska and Laura Pedata who, during these years gave a lot of suggestions and support in terms of design and methodology.

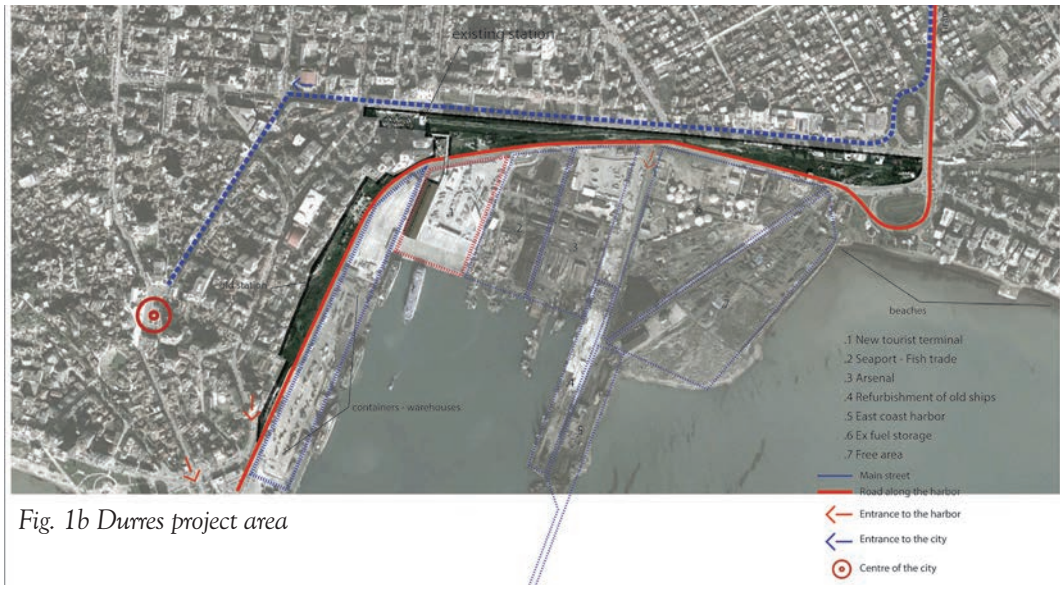


Fig. 1b Durres project area

As a matter of fact, in many cases the great intermodal centers manifest their presence within existing urban fabrics as actual leading elements, characterized by discordant characteristics which not only shock us with their greatness, but also act as social incubators.

To rediscover Albanian cities, like the case of Tirana and Durres, through Paul Virilio's words, means to be aware of the continuous *"events/accidents"* produced by the spontaneous creativity of each citizen. The urban fabric describes itself through a progressive unveiling of paradoxes, which makes cities like Tirana interesting case studies. In this article the act of reclaiming public spaces through new intermodal nodes will be analyzed and considered as an evolutionary process within a broader urban and architectural transformation system. In the last decades Tirana as a capital, has expressed a strong inclination towards change and, at the same time, towards an account of extremely complex urban facts. The restless expansion of the city will have to come to terms with systematic urban planning.

In order to support what has been stated above, I believe that it is important to point out that this research is part of a set of considerations made during the Studio IV course I taught at POLIS University in Tirana, from 2011. In these three years I had the opportunity to investigate the topic of intermodality and the influence of new hybrid infrastructures on contemporary society.

My students of the "Studio and Theory of Architecture IV" 2011/12 were asked to develop the theme of "*Mobilicity: the new Intermodal center in Tirana*". In the following two years - from 2012 to 2014 - the same topic was developed in Durres: "*The new Intermodal Station of Durres. The boundary between the city and the harbor as an opportunity for green mobility and sustainable development implementation*". Many of the considerations made during the last three years have set the base for further investigations still under discussion today (Fig. 1a, 1b).

It is also important to underline that most of the reflections on this topic have been developed also through international workshops organized in

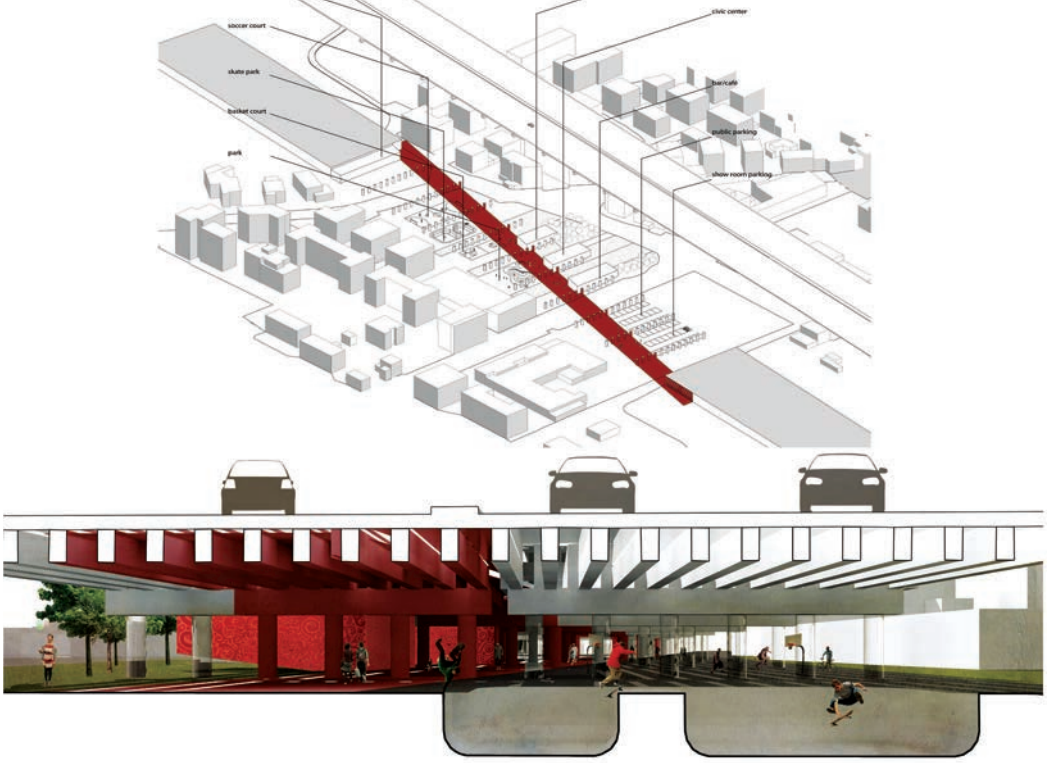


Fig. 2 International Workshop Architecture and Infrastructure: "Borgopanicale Viaduct"

cooperation with the Department of Architecture IDAUP of Ferrara - with Prof. Arch. Antonello Stella. It seems important to mention the workshop done in December 2012 which addressed the topic of "*Architecture and infrastructure in Viadotto Borgo Panigale (Bologna) Italy*"[2]. In this case the topic of intermodality was explored through the project for the connection of the Borgo Panicale viaduct in Bologna, with the surrounding, unresolved urban space (Fig. 2).

There have been other moments in the past three years when the topic of Albanian railway has been explored, like the case of the "Professional Master in Aesthetic and Structural Design Studio". In this case the topic was focused only on the concept of "*small railway stations*" as tools to redefine the new railway between Tirana and Durres. In this case the tectonic value was the focal point of the research on new modular structures for the design of small railway stations. The above mentioned topic has been the object of studies and projects in Italy since the beginning of the 1900s; such operations had the objective of redefining common elements for the design of small railway stations.

This research focus was culminated by the international competition "Mobilicity", organized during Tirana Architecture Week (TAW) 2012 (Rossi, 2013, pp. 28-35), in cooperation with the Rome based AWR Competitions organization. This competition gave me the possibility to collect several ideas from all over the world and to compare them with a series of considerations matured during the Studio and Theory of Architecture IV courses. The actualization of considerations through direct comparisons, has allowed for a more careful redefinition of the urban phenomenon linked to great intermodal nodes and, in particular, for a sheltered spaces' revolution (Fig. 3).

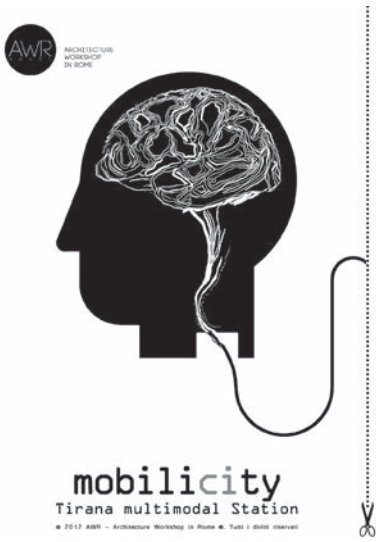


Fig. 3 AWR Competition in Rome –Banner for Tirana Multimodal Station Competition TAW 2012

2. The cooperation I refer to is the research exchange between Albania/Italy promoted by the Scientific Cooperation Unit of the Ministry of Foreign Affairs (ref. AL12MO3) – Architecture and Infrastructure. Topic 1: The new Intermodal Station of Durres (Tirana) - Topic 2: Viadotto Borgo Panigale (Bologna)

Fig. 4a Radio in bachelite signed Henry Brun 3 Rue Royet St. Etienne Type 629D n. 21 326 50's years.

Fig. 4b Detail Iphone.

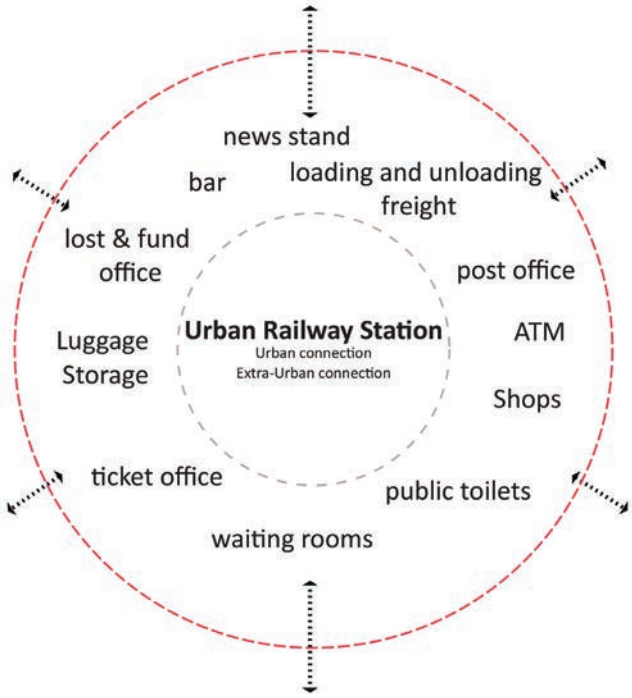


Fig. 4e Conceptual diagram: Relation in between urban space and railway space

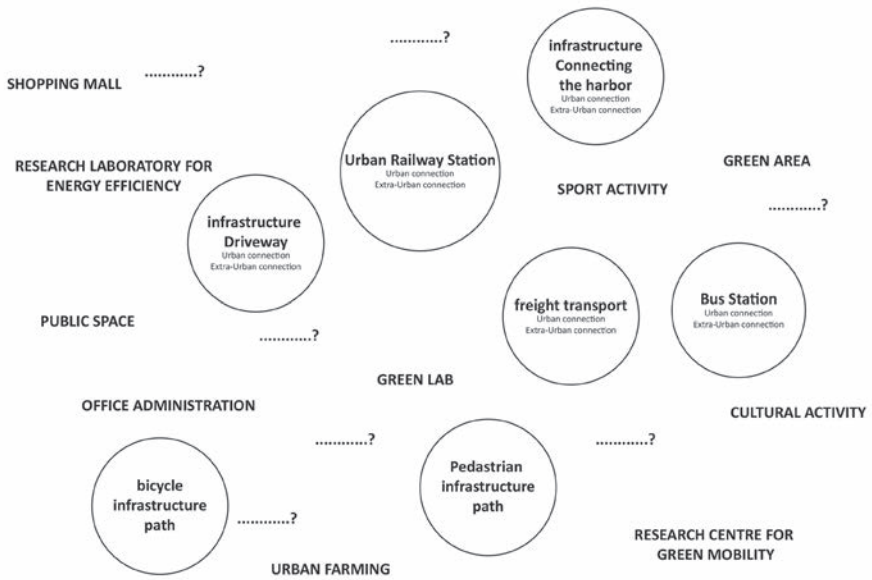


Fig. 4c Conceptual diagram: Multimodality as new way to reinterpreted the informality, urban order and disorder.

First consideration: Intermodal vs Multimodal

One of the first issues that must be addressed in order to better understand this paper, is the confusion around the terms 'intermodal' and 'multimodal', which has always created misunderstandings. In our field of research, the word intermodality will be used to indicate a transport system which operates through different modes like: car, train, ship, bus, bicycle and on foot. On the other hand, the word multimodal is referred to modes of communication, and consequently a multimodal approach offers the possibility to communicate through different modalities. As an example to better define the concept, we can refer to the role of radio transmission systems in history, and how the radio evolved through time. The radio can be considered a mono-modal object, because its only way to communicate is through sound. While television can be considered multimodal, because it transfers information through more than one system: images and sound. The difference between mono and multi-modal becomes even more obvious if we compare a smart phone to a radio (Fig. 4 a, b, c, d, e).

If we transfer this concept in the field of urban processes, we can notice how a lot of cities, like Tirana, are comparable to a multifunctional machine. There are buildings in which different functions are combined within a unique volume, and this appears to be normal in a contemporary city. But there are cases in which the combination of functions creates contrasts.

Based on the above considerations, and in order to avoid misunderstandings, the term multimodality suits better the topic of cities and communication, especially if we consider its characteristic of being flexible and adaptable to different fields. It is not a coincidence that the term multimodality is frequently used in the field of language and physiology. (Kress, 2010).

In line with this argument, the two words 'intermodal' and 'multimodal' can both be reflected in the concept of 'hybrid' in architecture, considering that this adjective holds the characteristic of being simultaneously multi-mode and mono-shaped. Also in this case certain words can become catalysts of meanings and suggest transversal connections between different disciplines and fields of research. Moreover, the identification of such terminology should be useful to guide the reader through the different meaning the word can acquire.

Urban dichotomy-
The history of railway stations

During the 19th century the railway station was the perfect example of a hybrid[3] system in terms of urban and social space. The nature of hybrid space within the railway station can be explained through its great history. Since its creation the railway station was characterized by a dichotomy due to the fact that the world of the machines - composed by trains, noise and restrictive rules-required an intermediation with the urban world, that belonged to people. The travel buildings as continuation of the city were, for several centuries, in contrast with the train shed. This determined a continued fight between city domain and rail domain.

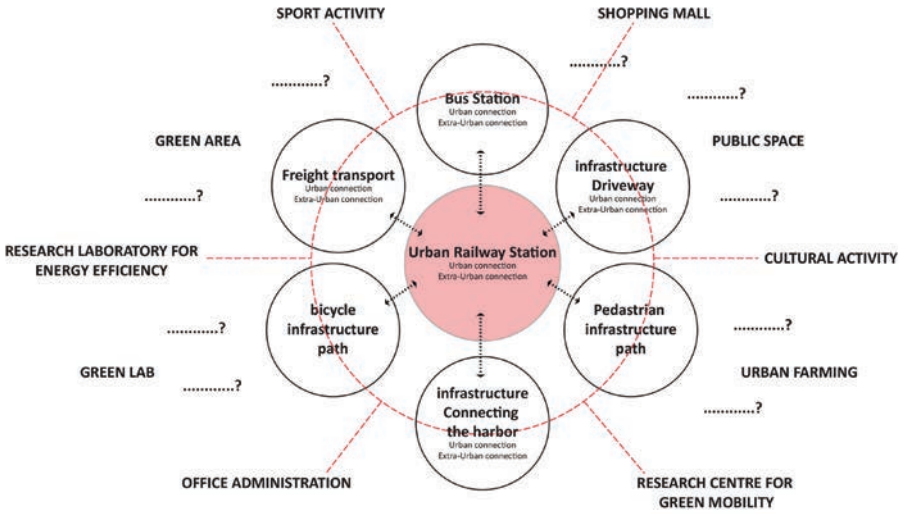


Fig. 4d Multimodal concept

In his famous book "Storia dei viaggi in ferrovia", Wolfagang Schivelbusch highlights, quoting Alfred Gotthold Meyer, how the double nature of the railway station is perceivable like "half fabric" and "half palace"; a real innovation in the history of architecture at that time: *"Per l'architettura, due mondi affatto differenti, perchè in effetti essa non conosce nessun altro tipo di costruzione in cui un unico edificio unisca due corpi principali tanto eterogenei nella loro forma come accade oggi, nelle nostre grandi stazioni, con I fabbricati in muratura destinati ai passeggeri e le tettoie in ferro e vetro për la vera e propria sosta dei treni"* (Schivelbusch, 1988, pp. 186-187). The meticulous analysis provided by Schivelbusch takes into consideration many aspects that linked the new discovery of the train machine with the everyday lives of the human society (Fig. 5).

Fig. 5 The Raylway journey cover of the book.

3. To better highlight the importance of this word in our discussion I will report the definition took from the Oxford dictionary: 1- Biology The offspring of two plants or animals of different species or varieties. 2- A thing made by combining two different elements. 2.1- A word formed from elements taken from different languages, for example television. 2.2- A car with a petrol engine and an electric motor, each of which can propel it. Source: http://www.oxforddictionaries.com/definition/english/hybrid item: hybrid.

Fig. 6a Central Station Milan 1931 an example of dichotomy issue

Fig. 6b The Chrystal Palace from above 1928

Fig. 6c The Chrystal Palace a view from inside 1851.

The other important aspect related to the history of railway is retraceable in one of the most important innovations introduced by the industrial revolution (1760– 1830) which strongly affected the Architectural field: large steel structures. The Cristal Palace construction realized by Joseph Paxton (Benevolo, 1993, pp. 122-144) in 1850, marked an important moment in the history of architecture, and it became a prototype for all the future generations of train sheds. It was a structure that responded to the chAllenge introduced by the need to shelter large areas. For the first time a big shelter was realized with standard elements (in steel and glass) in a limited amount of time - as requested by the clients. Paxton, who was not an architects but an expert in the design and construction of green houses, came with the proposal to adopt a concept normally associated with greenhouse construction, in a completely new context. The above mentioned operation reinforces even more what could be considered as the concept of hybrid in architecture; as *ideas in action* in which the terms of reference can be shifted from one field of knowledge to another, producing new interpretations. The structure of Paxton was perceived by the citizens as an important iconic building, like in the case of the vertical landmark tower designed by the engineer Eiffel, but in this case the landmark was horizontal. The influence of the Crystal Palace, despite the case of train sheds, has endured for many years, and ensured great performance in terms of flexibility and tectonics (*Fig.* 6 a, b, c,).

In the past, the topic of railways has been the subject of debates centered on two main values: from one side the aesthetic value of the passenger building[4], and the technical concept of the train shed glorified by its aesthetic structure, on the other. The industrial revolution introduced new paradigms.

For centuries the passenger building has played a very important role in the search for an identity, able to absolve a character of multiplicity. As explained by Carroll L.V. Meeks, the evolutionary process of the passenger buildings

4. It's important to mention that in his book "The Railroad Station. An Architectural History", Meeks doesn't examine in depth the relationship between railway station and city, he rather elaborates a rich list of railroad cases focused on the historical evolution of the passenger building.

Fig. 7a StettinerBahnhof.By Theodore Stein 1876. Berlin.

Fig. 7b London, Euston Station.

Fig. 7c Gare de l'est. Paris 1847-52.

Fig. 8a The double nature of Gare de l'est Paris view from above.

Fig. 8b The double nature of Pancras Station in London: Luxury hotel plus station.

is characterized by "Picturesque eclecticism". Meeks subdivided the evolution period of the railway station into three types of Picturesque Eclectic style: Symbolic (1760-1860); Synthetic (1860-90) and Creative (1890 – 1914) (Meeks, 2013, pp. 3). In each period the passenger building has been described as a 'mask', used to break the trauma of the intermediation between city life and machine world. The most famous stations realized during the 19th century had the ambition to elevate their profile to a representation of a style, composed by different languages, aimed at giving a function to the role of the city entrance (Fig. 7a, b, c).

The classification elaborated by Meeks highlights the topic of 'eclectic style' (Benevolo, 1993, pp. 144-148), emphasizing the role of railway stations in cities, and declaring a specific competence in the fields of architecture and engineering. The dichotomy between railway and city explored in those years, was a result of the cooperation between architects and engineers, who were asked to work side by side, merging their competencies. On one side the architect was invested in research on the concept

of beauty, represented in the language of that period; on the other, the engineer was trying to match such aesthetic value in the structures. This was a constant debate in the design of railway stations until the beginning of the 20th century, when some new experiments attempted to unify both fields of investigation in a unique hybrid system.

The history of the railway station can really contribute to understand how in some cases the evolution of a shape can suggest a new way to use space as well as a new approach to interfere with everyday life. Before proceeding with this investigation on the concept of 'hybrid', and on how railways had a great influence in this field, I wish to explain how certain conditions were born (Fig. 8a, b).

The double nature of the railway was born exactly when John Foster II (architect) and George Stephenson (engineer) decided to build the first Railway station called Crown Street Station in Liverpool 1830. To analyze this structure today we only have an image, that shows a strong contrast between shape and function. The project shows two distinct worlds in which, for the first time in the history, human activities try to find a relation with the world of machines, attempting to fill the gap between different fields and professional competences. What the Liverpool station shows is an unusual composition in which a domestic building is placed side by side with a wood shed for agricultural use. Also in this case, like in the case of Paxton's Cristal Palace, different fields of knowledge come together and combine their meanings. Researchers and historians dealing with the evolution of Railway stations, always refer to this first tentative as an archetype, which in a certain sense, can be seen as an object assembled in an informal way (Fig. 9).

The most remarkable aspect of the project was the idea to force the coexistence of two protagonists; the first one completely dedicated to the travelers and able to guarantee their reception; the second one built to protect the trains and the people during the waiting time. Seamlessly both shapes were concerned with their own domain and at the same time attempting to solve an unresolved urban threshold. The Crown Street Station in Liverpool was considered like

Fig. 9 Liverpool, Crown Street Station. 1830

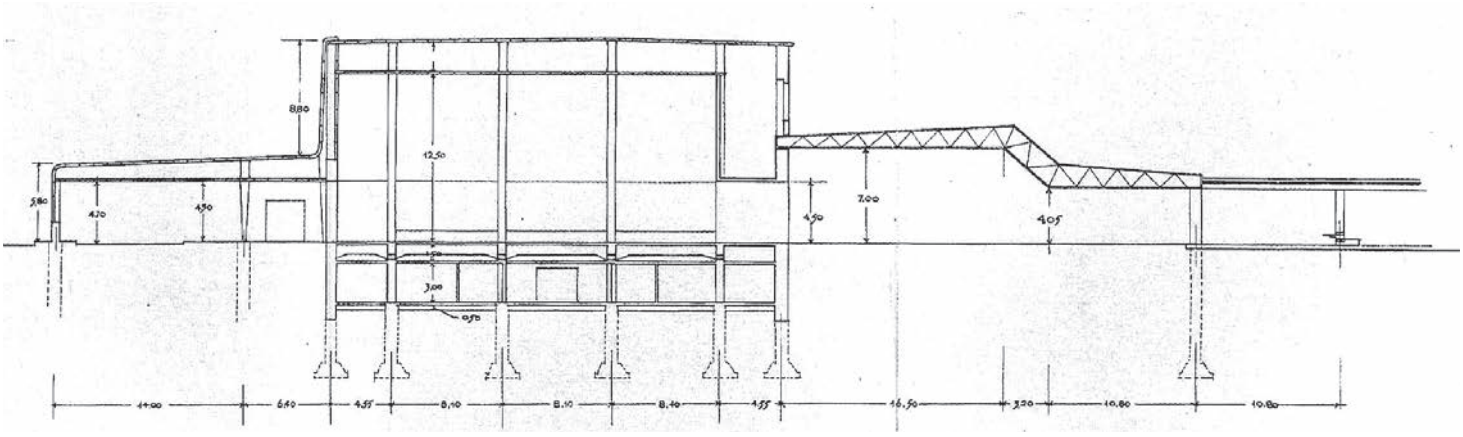


Fig. 10a Section of Santa Maria Novella Station. Florence by GruppoToscano 1932/35.

an ancestor of many other later attempts to combine the world of machines with the human world, until the 30's, when some important Italian figures started to reinterpret this idea of dichotomy with a new perspective.

Among the other references it seems important to mention the still existing Railway station in Milan (1913-30), which offers the same dichotomy, highlighting the contrast in shape and functions. A monumental front facing the city, acting as a huge mask that filters the space behind, organized in five tunnels built in steel structure and glass panels. (see Fig. 6a) Similarly to the previous case, we can notice how from the multifunctional aspects of the passenger building we move to a mono-functional element, the train shed. Again, the dichotomy highlights a strong contradiction, one in which the interior functions of the railway station absorb all the characteristics. The train stations with similar characteristic that can be associated with specific typologies can be found from Paris to London throughout the 19th century.

Certainly the first example of hybrid system braking the double nature of the front station was introduced by the railway station of Santa Maria Novella in Florence. The architect who designed it, Giovanni Michelucci, developed an innovative concept in which the train domain merged with the human space, operating a series of scale operations perceivable in the building section. The design competition for the train station in Florence was won in the 1932 by a group called Gruppo Toscano. The group was composed by: Giovanni Michelucci, Nello Baroni, Pier Niccolò Berardi, Italo Gamberini, Sarre Guarnieri, Leonardo

Fig. 10b Santa Maria Novella Station. Florence by GruppoToscano 1932/35.

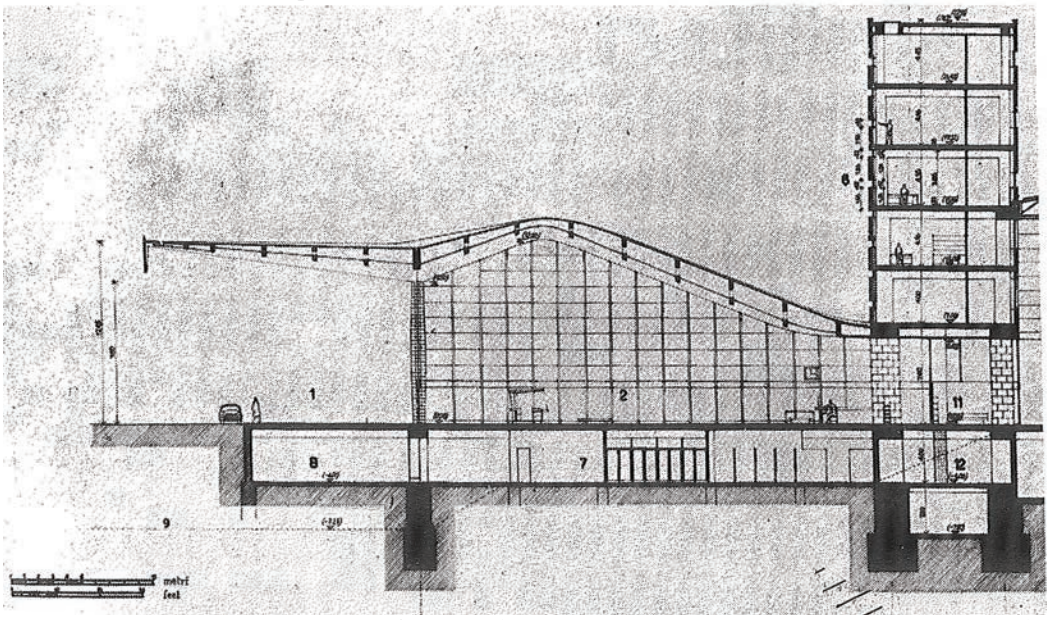


Fig. 11a Roma Termini Station. Detail section.

Lusanna. The project showed several innovations, especially in its approach towards the relation between city scale and machine scale. One of the strong points of the project was the revolution in the sequence of the traditional functions of the station: passenger building - shed train - clock - thicket office - administrative area - shopping. In fact in Santa Maria Novella all the above mentioned elements are located in a new order, refusing the strong separation of functions used in train stations until then. Analyzing the building through its sections, we discover how the dichotomy issue is solved through a particular treatment of the volumes. The strong contradiction of functions, treated in the past as a formal separation, became a moment of experimentation. In the self-regulated building section spaces change gradually linking the city scale with the train domain (Ferrarini, 2005, pp. 43-45) (Fig. 10a, b)

The building's exterior is no longer characterized by a monumental façade, and the new character of the station seems to open a new path in the future development of train stations. The front facade, the one in relation with the main square, shows a strong horizontality dominated by bricks and interrupted by a waterfall of glass and steel; steel and brick are assembled like an unique organism. For the first time the building is treated as a coherent organism from the beginning, merging different competences and skills. The

Fig. 11 b Roma Termini Station.

world of engineering merges with the complexity of the architectural world, in a unique gesture.

Under this prospective, also the project for the renovation of the Termini Station facade in Rome (1848-50) is remarkable. Following the innovations of the Train station in Florence, also in this case a group of architects - E. Muntori, L. Calini, A. Vitellozzi, M. Castellazzi, A. Pintonello - focused their attention on the idea of progressive section, in which the image of the city enters the railway station, thanks to a large super structure. The new entrance has a transversal dimension of 53 meters with a 19 meters cantilever, followed by a deep inner sheltered space (Ostilio Rossi, 2012, pp. 165). This is one of the first cases in Europe where the idea of the shed changes completely. The idea of large and iconic shed moves away from its original position, shifting from the back of the station to the front, accommodating travelers and giving a new facade to the railway station (Fig. 11 a, b).

Using the historical research we focused our provocations to include the typological classifications of railway stations, which can be easily subdivided in three main groups: one-side station; two-sided station; head type station. In all three cases the role of the city in relation to the station is crucial to understand how the railroads influence urban domain (Fig. 12)

The above mentioned typologies can be considered as a simplification elaborated during the past, in order to address the problems related to the

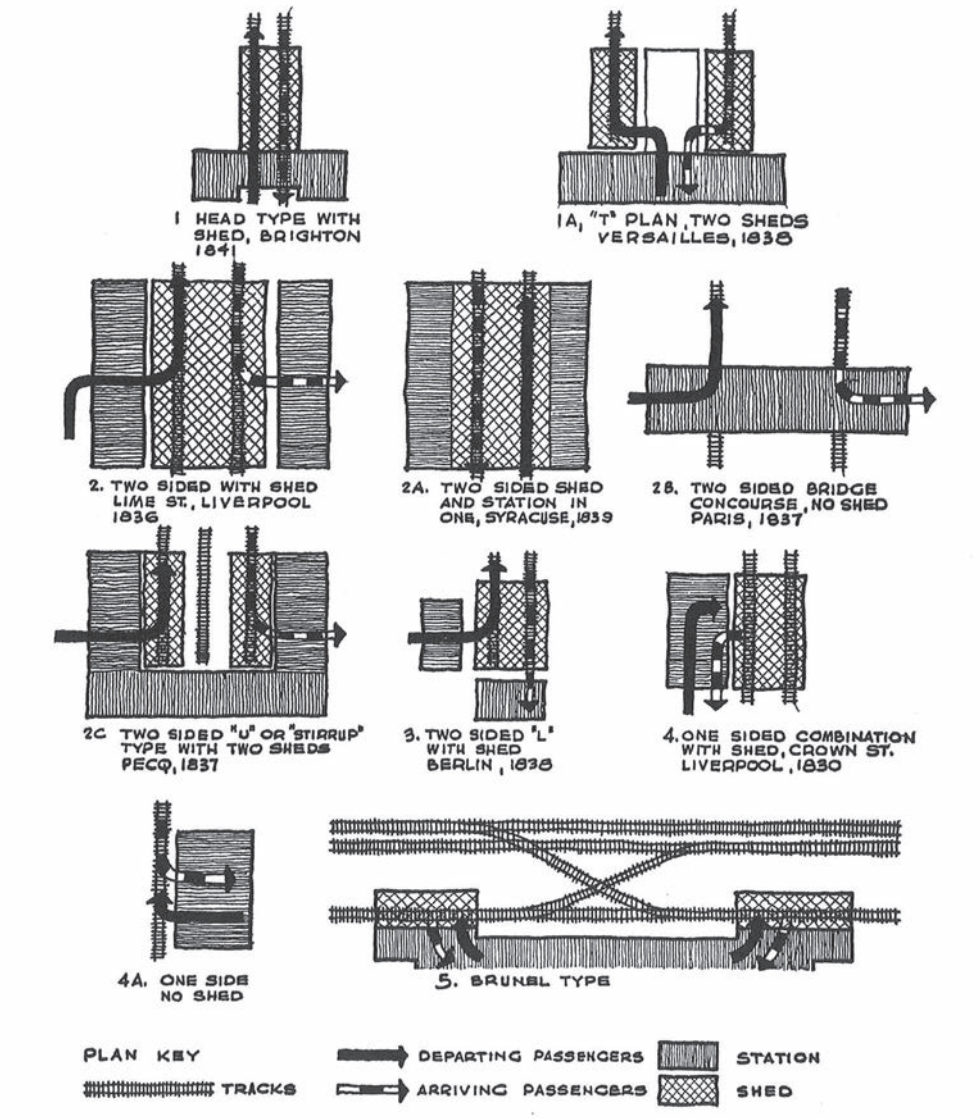


Fig. 12 Early types of station plan.

introduction of railways into cities. Since its origin, the problems the railway station had to address were related to the orientation as well as the coordination between the traveler buildings and the platforms with the railway tracks. The first experiments were concentrated around the need to give travelers easy access to the trains, adapting to the technical requirements established by the railway world.

The typological simplification offered by the three cases can be read also through another point of view, based on the relationship that during the past century the station has tried to establish with the city; in others words, a kind of

Fig. 13a - La città che sale by Umberto Boccioni 1910.

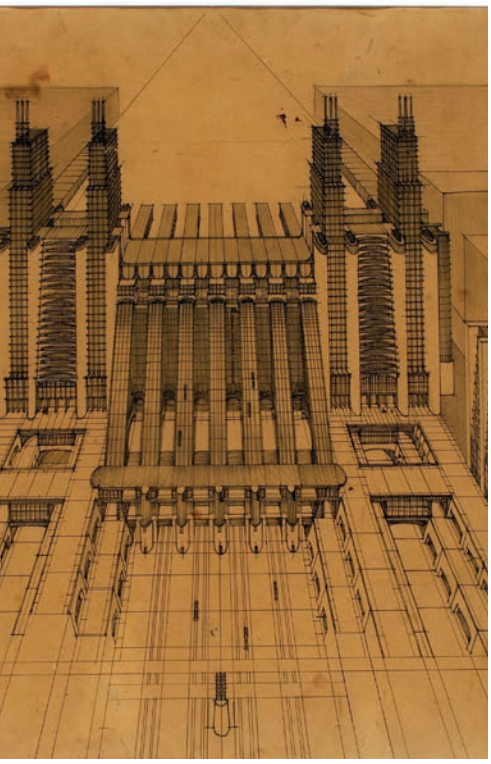


Fig. 13b Multimodal Station by Antonio Sant'Elia 1914.

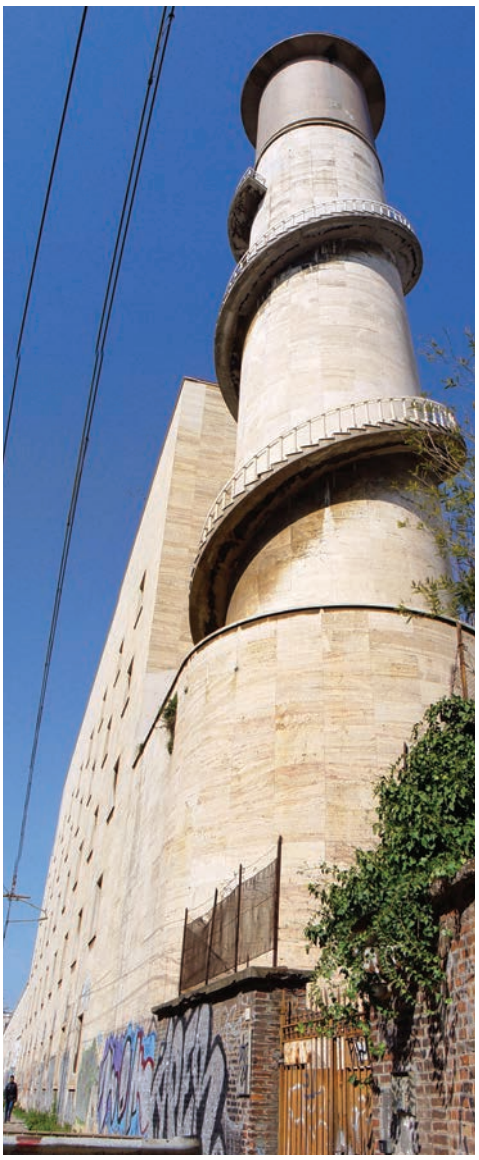


Fig. 13c Detail Station Termini in Rome by Angiolo Mazzoni.

agreement between host and guest. To better understand this concept we must read this strange relationship the other way round, that is how the city had to adapt to a, sometimes undesired, guest: the railway. The rigid role of the railway always conditioned the city by arrogantly entering its space, and influencing its relation with the life of people. We can find this concept in the reflections elaborated by Schivelbusch (SCHIVELBUSCH, 1988), he explained that it's not by chance that since their appearance, railways have been seen as a danger and a controversial presence by people; a strange mixture of innovation and trauma, combined with a powerful effect. In Schivelbusch's book we can understand how the invention of the first locomotive[5], as well as the first railroad, moved a lot of ground, influencing the world of art, literature, philosophy and medicine. Surely, the role of the first discoveries in the field of mechanics have been a driving force for many artistic movements; from the 19th century until the middle of the 20th century the invention of the machine was perceived as a violent earthquake able to provoke a new sound, Recalling Virilio's quote, a "provoking an accident" . In the arts, Classical language was no longer seen as the only promoter of new theoretical interpretations; modern language was getting inspiration from new technological inventions instead.

The new concept of dynamism brought together different fields of knowledge, and the relation between space and time became more and more relative also thanks to the new artistic experiences. This is the moment when, in the beginning of the 20th century, the phenomenon of artistic representation opens a new prospective, accepting the role of the machine as representation of movement. Important figures like: Boccioni, Balla, Severini, Prampolini and Sant'Elia guided by Filippo Tommaso Marinetti, established the new movement called "Futurism". Breaking

5. The first railroad open for the public use was realized in England in 1825. The first locomotive called The Rocket was invented by George Stephenson in England 1829.

the link with classic tradition, Futurism introduced a new form of transgression; the new concept of the art absorbed all the innovations, including railway stations. The paintings by Boccioni mark a revolutionary moment of abstraction; the real becomes visible through the lens of figurative decomposition. Under the same spirit, the architecture visions by Antonio Sant'Elia represent the real witness of hybridization in the field of architecture. In his inventory of images, he anticipates many of the architecture experiments to come, like in some of the projects proposed by Angiolo Mazzoni[6]. (AA.VV., 1984) (Fig. 13a, b, c)

Urban domain - Railway domain

It is not a coincidence that since the end of the 19th century the Railway has been seen as a place connected to the industrial area and not to the heart of the city[7]. Observing some of the capital cities from above, it's easily perceivable how the road system is well integrated and metabolized by the city, and how, on the other hand, the railway tracks and the railway stations seem to be almost neglected. Many of the contemporary European Capitals still have not yet solved this problem; in some cases the railway tracks are pushed underground, to allow for a threshold space, between city and railway (Fig 14 a, b, c).

The railway system reflects within

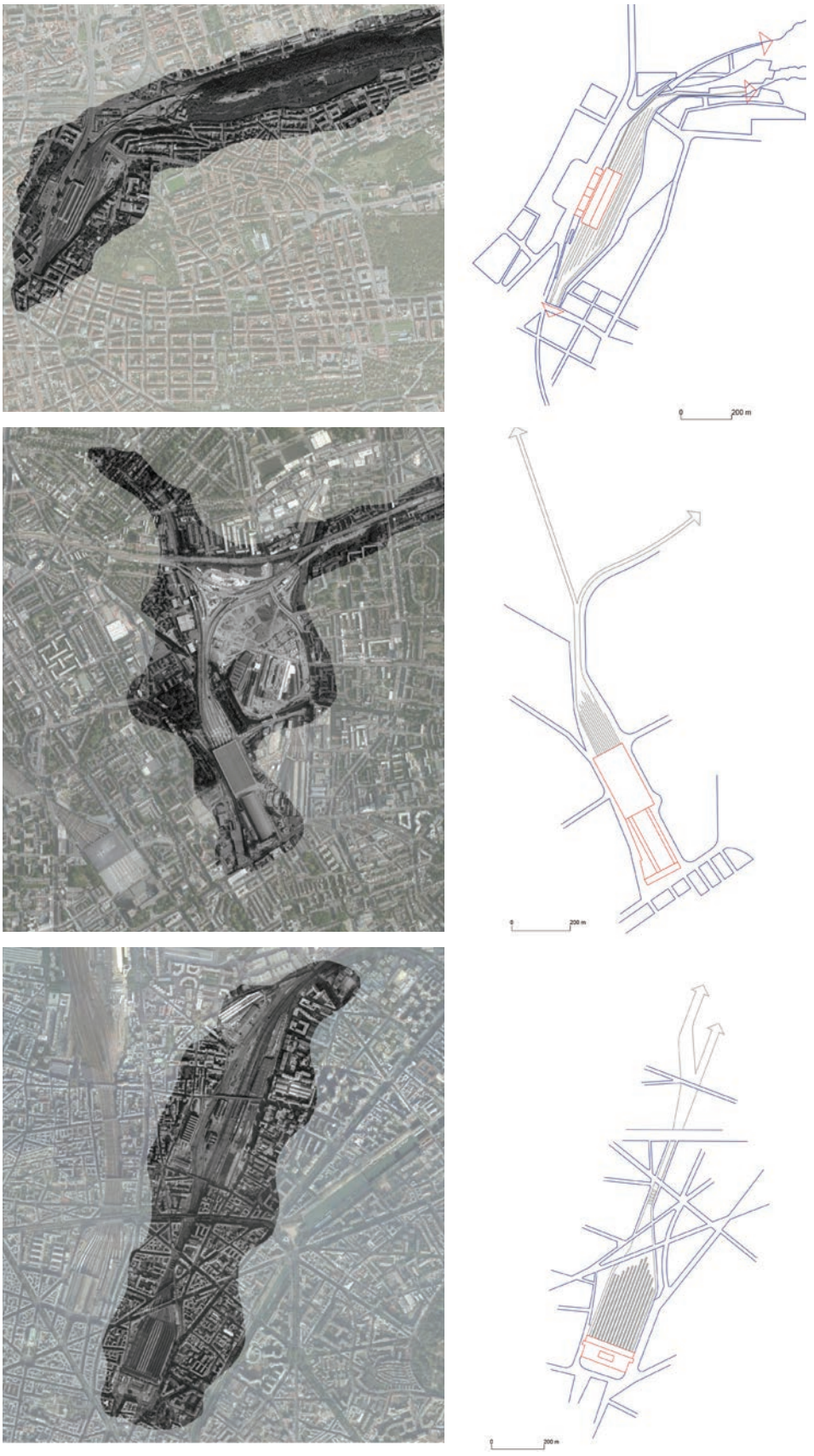


Fig. 14 a, b, c. Urban domain/Railway domain diagrams elaborated during the Design Studio course. Gare de Paris est (a), London St Pancras Station (b), Praga Central Station (c).

6. Angiolo Mazzoni, Italian engineer and architect (1894-1979), was a relevant figure in the field railway station and postal service construction. For more information see also: Angiolo Mazzoni (1894-1979) "Architetto in Italia tra le due guerre".

7. It is not by chance that the most important discoveries in architecture and science occurred during the Industrial Revolution (1760-1830). All the following revolutions in the sphere of technology and in the new modes to connect different cities were also a consequence of the Industrial Revolution.

the surrounding environment its influence in different ways[8], especially marking the destiny of the urban landscape. The railway appears as a scar on a face, or an urban threshold systematically fenced in and not yet organically absorbed in the urban fabric and in the life of the city. Within the possible urban scenarios, the most persuasive idea was to move railway on a different level. This argument has been frequently supported by many researchers during the past century, proposing an image of cities vertically subdivided in layers[9]. Certainly the actual implementation of such strategy also entailed significant investments which were not always economically sustainable and justifiable. In the past there were also initiatives in architecture which tried to incorporate the machine world in human activities, from the urban scale to the architectural scale. The inspiration came from different references, sometimes quite far from the architectural field. For example borrowed from the world of the movies and often repurposed in architectural utopias.

After the above observations, the aim of this research to consider infrastructure as hub of multimodal activities, which can be seen like an organism well incorporated in the idea of contemporary city, starts becoming clearer. This research focuses its interest on the concept of hybrid space within the field of infrastructures, city and human beings, and it intends to open a new debate on the related phenomena. In the three years of the Research Studio experience, we (me and my colleagues) tried to inject this concept in the idea of multimodal station in Tirana, as well as in Durres. In both cases different suggestions came out, enriching the field of research in the Albania context.

From dichotomy to the hybrid infrastructure-new mechanisms to rethink multimodality in albanian cties

The argument related to the dichotomy issue in the railway station, can be a useful tool to observe some of the current urban phenomena in Albanian cities. As already argued in the previous section, during the 19th century the debate between passenger buildings and train sheds, gave way to innovative solutions and allowed to metabolize the concept of train machines within the city. As already explained, the example of Santa Maria Novella Station in Florence acquires a very important role in the search for hybrid characteristics in difficult urban facts. What Albanian cities show today, in terms of relationship between infrastructures and buildings, is characterized by an unusual way to take advantage of the road domain. In several instances the road infrastructures are fused with the buildings, creating a strange, but also charming, contradiction.

In many cases the combinations are so strange to produce non conformed associative ideas; these are the cases in

8. The introduction of train stations in the urban fabric has always generated complexities linked to road transportation and in relation to the rationalization of urban voids.

9. The most beautiful interpretation on the idea of layering city comes from the intellectual Harvey Wiley Corbett. Discussing the New York traffic problem his idea is to think New York like a "Venezia Modernizzata" in which all the pedestrian levels are distributed in vertical, far from the water channels. Corbett's idea of the city is explained also in the famous book by Koolhaas "Delirious New York" pag.111.

which a new formal combination can contribute to architecture, suggesting new ways to operate.

To explain why this phenomena is so important in our investigation, it's necessary to highlight some architecture peculiarities, where urban facts can generate speculative activities in the research of new functional models. In different moments the history of architecture has witnessed the application of urban tools, where fantastic combinations contributed to the creation of new debates concerning multifunctional approaches, in some cases, through real applications. Through some applicative examples, I will try to demonstrate how the dichotomy issue, explored in the world of the railway station, must be seen as a natural shape evolution,[10] a kind of urban catalyst where the idea of railway change its shape from mono-modal to multimodal, modifying its shell. The examples activate a consistent number of fantastic combinations, always using the infrastructural system as a metaphor for the city, and as definition of a space increasingly absorbed by the city.

What if a building behaves like a road?

The first group of examples investigates two different terms: building and road. I am using the following question to associate them to one another: what if a *building behaves like a road?* This relation/ metaphor puts under discussion the relevance of certain arguments in which, different protagonists continuously try to find a compromise: since the invention of the first machine the human domain and the machine domain have been trying to reconcile and find a balance. The concept of 'Building as Road' has been theorized back in 1910 by Edgar Chambless in the book "Roadtown". In his visions we can find the source of many inspirations in the architectural field and in cinematography (Fig. 17).

The Renaissance witnessed urban experiments aimed at solving the emblematic role of road infrastructures within the architectural scale. In this period 'urban form' acquires a fundamental role in the design of modern cities. Among those experiences the case of Cortile del Belvedere in Vatican, seems to represent very well the importance of urban experiments. (Fig. 15a, b, c).The project was commissioned by Pope Giulio II in the 1504-1505, to one of the best architects of the time, Donato Bramante (Bruschi, 1990). The main idea of the project was to connect the Belvedere with the private apartments of Giulio II, through a set of multiple corridors located in both sides of an existing urban void. The result of the project was an excellent example of mega-form (Allen, 2011) in the heart of Rome, where the need for connection was addressed through a wall crossed by multiple paths. This is an example easily comparable with the case of the ancient Aurelian walls, a defense line around the core of Rome, bordered by a path. The *Cortile del Belvedere* reveals a huge void formed by a section divided in three

Fig. 15a Cortile Belvedere Rome

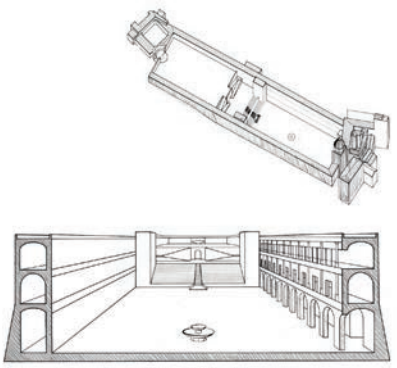


Fig. 15b Cortile Belvedere Rome 1504 Donato Bramante. Axonometry and prospective section.

10. This kind of approach must also take into consideration the fact that form has a life of its own. According to the French art historian Henri Focillon, in the nature of forms there is an hidden logic where different structures can have different meanings.

Fig. 15c Cortile Belvedere Rome 1504 Donato Bramante. Today

Fig. 16 Lingotto di Torino, by Matte Trucco(1923).

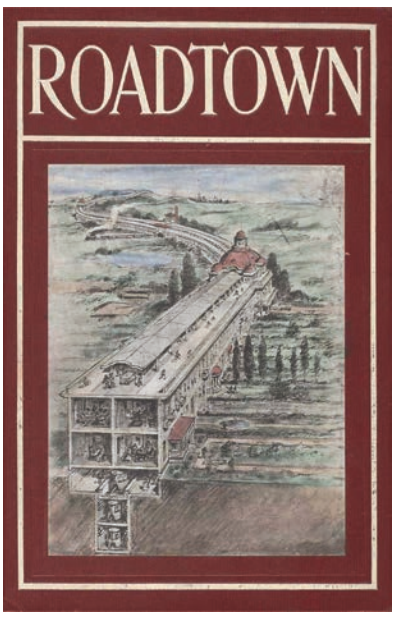


Fig. 17 Roadtown. Cover book 1910 by Edgar Chambless.

different terraces, wrapped by multi level paths. The project shows how two apparently controversial terms: building and road, (in this case road intended as connectivity) can find a common agreement through a unique shape.

Before proceeding in this investigation, I believe it's important to make some considerations on cognitive activities. Between creativity and different skills the limits of knowledge can be considered like a line with soft edges, and therefore a crossroad of multiplicity and different interpretations. This hypothesis puts us in the position to generate new comparisons and new ideas, putting in action different arguments that belong to distant times in history.

The inauguration of the Lingotto factory in Turin in 1923, sets an important advance in the history of experiments focusing on the 'building as road' metaphor (Fig. 16). The FIAT factory, designed by the engineer Mattè Trucco (Signorelli, 2008), linked the concept of building with an innovative idea of road. Placing a road on the roof of the building to test drive cars. Like in the previous case, the constructions was conceived as a courtyard building, but in this case, with a special crown. The innovation introduced by Trucco was the possibility to reorganize a restrictive program given by the car factory, in a different layout, introducing for the first time a new paradigm. The section of the building expresses its main characteristic to be autonomous and in a way sustainable. Never before that moment, the road domain had been so close to an idea of hybrid building (Fig. 17).

Following the previous considerations, the Lingotto was a starting point for several urban experiments to come. One of the first attempts to apply and further elaborate the concept of 'building as road' proposed in Turin, was presented by Le Corbusier in the 1929, with the project for Rio (Fig. 18). The concept was extremely simple, to superimpose a freeway on the top of a building, creating a new concept for a linear city (Tentori, 1999). In this case, the two terms - building and road - are used by Le Corbusier as a fantastic dichotomy, useful to explain how in the world of architecture, different terms can be associated with different approaches. As Le Corbusier himself observed, also roads and houses must be considered as equipments, and as such, an extension of the human body (Le Corbusier, 2011, pp. 43).

Le Corbusier's proposal belongs to the historical period when hybrid concept urban experiments reach the maximum expression. It is important to remember that in this discussion the concept of hybrid was introduced because, in the difficult relation between railway-scape and city-scape, the idea of combining different meanings was found to share many similarities with the Albanian built environment (Fig. 18).

The three afore mentioned examples also define the role of urban landscape in relation to infrastructure, they show three different approaches in which different actions operated on forms, generate reactions that follow different modalities.

As the last example of this group of investigation, I would like to consider the

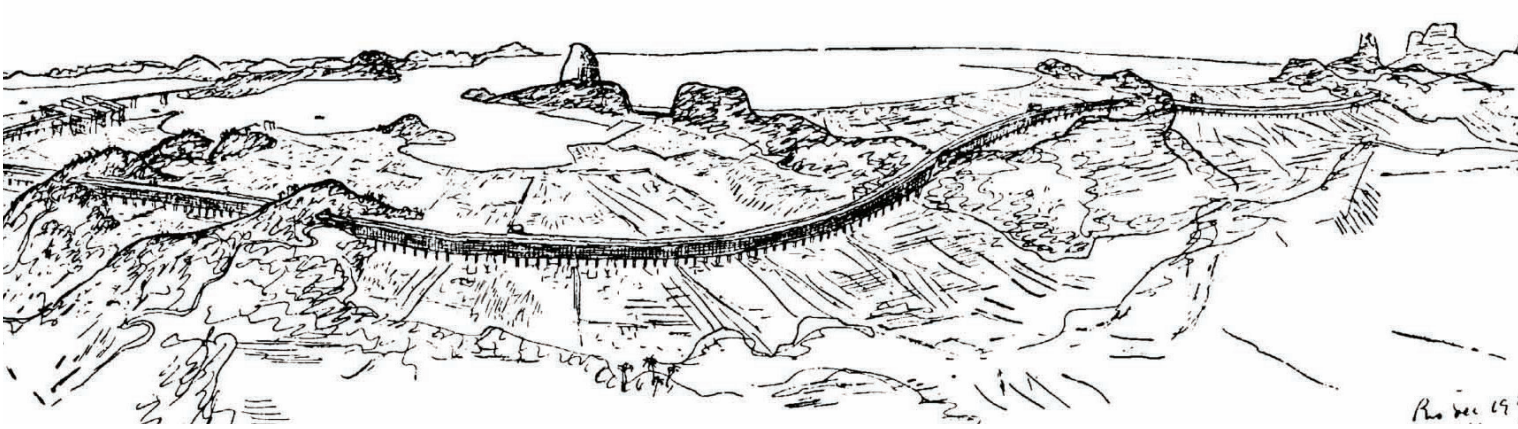


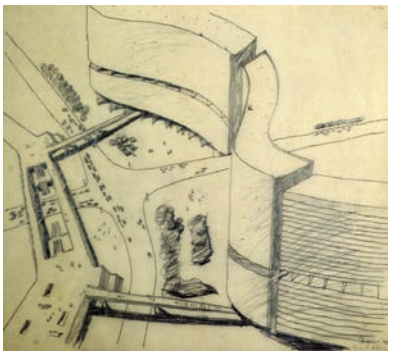
Fig. 18 Le Corbusier 1929 sketch for the city of Rio.

projects by Alison and Peter Smithson[11], where they carry on in an exemplar way the lessons learned from Le Corbusier. In the specific, their projects show the concept of infrastructure as an extension of buildings, resulting in elements creating a kind of urban cluster. The Smithsons introduced the topic of 'cluster city' by working on the metaphor of 'building as road'. The most explicative example of this concept is the plan they drew for the international competition for the city of Berlin, in 1958. The main idea was to overlap on the existing city pattern a new net to organize the pedestrian traffic. Pedestrian mobility was separated from automobile traffic, but the city was developed horizontally rather than vertically. The original idea was the same, to guarantee enough protection to the inhabitants. The main concern was the preservation of the everyday life against the constantly growing number of automobiles. Keeping in mind the main argument of our discussion, for decades the strong relation between infrastructure and building has been associated to a kind of trauma, something we must defend ourselves from. The fear associated to new discoveries has always generated strong contradictions; a concept present in Louis Khan's traffic study plan for Philadelphia in 1952. Khan proposed a new traffic pattern evoking the medieval town of Carcassonne in south France: "*just as Carcassonne was a city built for defense, Kahn envisioned the modern city center having to defend itself against the automobile*". (Mc Quaid, 2002, pp. 112) (Fig. 19a, b, c).

To conclude this section we can draw the first considerations. The examples analyzed underline a recurring element: the most significant innovations in terms of city and infrastructures are generated every time we combine two different and divergent aspects, in our case building domain and road domain. Starting from this consideration the afore mentioned examples can be synthesized in three groups:

- The '*hybrid loop*'. In this group we can find the case of Cortile del Belvedere and Lingotto di Torino.
- The '*hybrid line*'. The project for the plan of Rio and the speculation of the book "Roadtown" by Edgar Chambless belong to this second group.
- The third group, '*hybrid pattern*',

11. Referring to the idea of the metaphor 'building as road', an interesting point of view on the work elaborated by the Smithson has been well described by Peter Eisenman in one of the last books, entitled " inside out" (EISENMANN, 2014, pp. 75-99).



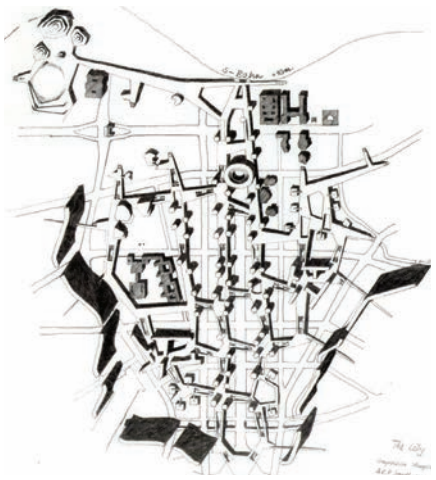
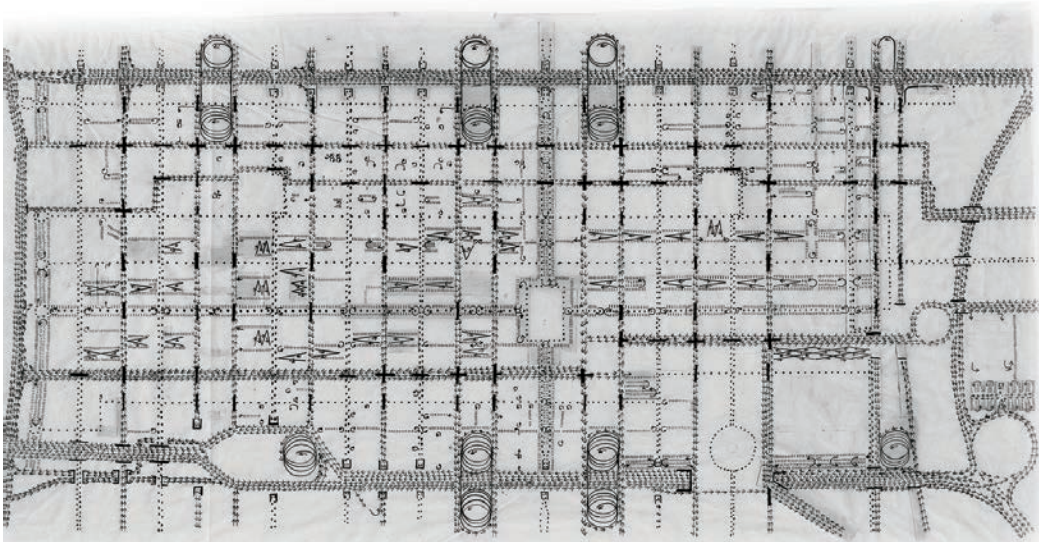


Fig. 19a,b Alison and Peter Smithson Competition Berlin city 1958.

Fig. 19c Louis Khan traffic study plan of Philadelphia 1952.



includes the project for the plan of Berlin and the concept for the traffic study of Philadelphia.

The three groups are representative of a specific way to operate in the urban space, adopting landform tools and playing with the territorial scale (Allen, 2011, pp. 192-267). The three words: *loop, line* and *pattern* can give access to interesting design experiments, combing infrastructure and building.

What if a road behaves like a building?

Frequently in architecture things can work also if considered upside down. Then, what if roads were to behave like buildings? There are instances in which unexpectedly roads, or urban voids, work like 'defined space' and tend to be considered 'living space'.

The first example in one of the main of this condition can be observed in the main road axis in the historical center of Rome, enclosed between Porta Pia square and Quirinale square. The road in question extends for almost one and a half kilometers, and it is bordered by important and monumental buildings like: the impressive facade of Quirinale palace, the Ministerial buildings and two churches erected during the baroque period, the church of San Carlino alle Quattro Fontane (1634-1644) by Francesco Borromini, and the church of Sant'Andrea al Quirinale (1658-1678) by Gianlorenzo Bernini. In order to understand why this axis has such relevance in my discussion, we must concentrate our attention in a precise moment in history, 1561 – 1565, when Pope Pio IV commissioned the project for the renovation of Porta Pia to Michelangelo Buonarroti (Quercioli, 1997 (Fig. 20a)

Despite being an innovative sculptor and architect, Michelangelo was also a great urban designer. In his conception of the city there are a lot of inspirations, still today, important reference points for research. In his theories elaborated within the sculptural field we can trace some creative constants, which he also applied on his research at city scale. The well know '*unfinished technique*' investigated by Michelangelo reveals some of his future urban and architectural speculations on the concept

of "*finite space vs infinite space*"[12]. Many of the architectural ideas elaborated by Michelangelo (Zevi & Portoghesi, 1964) try to chAllenge the boundary between architectural and urban space. In his buildings we can appreciate design gestures that find a strong relation with the urban landscape, something visible in the case of the renovation of Farnese palace[13] (1534-1549). In Michelangelo's original drawings[14] the idea of the courtyard was imagined like a limited/ unlimited surface, a porous wall visually connected with the Farnese villa located on the opposite site of the Tiber river (Ackerman, 1988, pp. 90). For the first time in the history of architecture a wall is not considered as a limit, as an element to define and confine space, but rather as a diaphragm that projects the viewer into infinite space.

Through the example of Farnese palace we can argue how the topic explored by Michelangelo in the project for the courtyard, can be a useful tool to interpret what the axis Porta Pia\Piazza del Quirinale represent in our discussion. Following this assumption, we can observe how the road became a building in the very moment Michelangelo decided to alter the classical meaning of 'city gate'[15], adding another gate on the other end of the axis, that looks towards the inner city.

Fig. 20 a Porta Pia Rome by Michelangelo Buonarroti 1561 – 1565.

Fig. 20b Porta Pia Rome by Michelangelo Buonarroti 1561 – 1565. View of monte cavallo square by Piranesi.

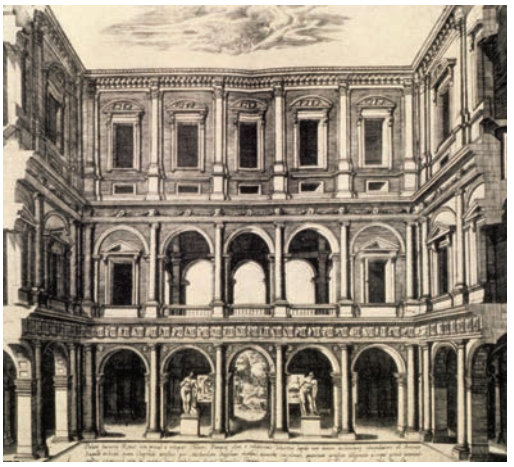


Fig. 21 The courtyard of Farnese Palace with view through archesby Michelangelo Buonarroti.

With this operation the monumental axis of Rome overturned its original function as road infrastructure, and became a stage for a theatrical production, where the existing building facades acted as protagonists (Ackerman, 1988, pp. 116). The concept of infinite space expressed by the original idea of Porta Pia, was interrupted by a new idea of defined space. In this operation the urban void is no longer mono-modal space; the new orientation of the axis transforms it into a multimodal space (Fig. 20b).

12. The concept of finite and infinite space as an interpretation of Michelangelo's approach has been elaborated for several years by Prof. Giorgio Simoncini, Professors of history of architecture at University La Sapienza in Rome. Some of his suggestions are still part of my research interest. For more information, see: http://www.giorgiosimoncini.com/pubblicazioni_storia.html.

13. The Farnese palace was commissioned by Alessandro Farnese (Pope Paolo III), to Antonio da Sangallo in 1534. After the death of the architect, the Pope assigned the project to Michelangelo Buonarroti (1546-1549).

14. Unfortunately the courtyard that was realized does not reflect at all the original concept designed by Michelangelo.

15. The City gate was as point of control for people, vehicles, goods and animals that accessed the city.

Fig. 22a Ponte Vecchio of Florence (14th-16th century).

Fig. 22b Autogrill Pavesi in Montepulciano 1967 by Angelo Bianchetti.

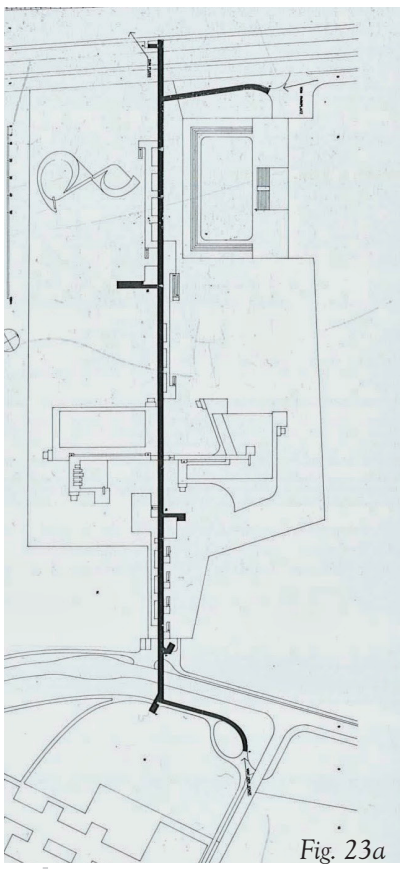


Fig. 23a

We can associate similar cases to the previous reference, this proves that in my investigation the singular case is not as important as the taxonomy that can be developed from different cases. This way of operating lead me to identify another case able to reinforce my theory on the relation between infrastructures and buildings.

If a road can behave like a building, does this apply also to other types of infrastructure? Many other objects present in the contemporary urban landscape can acquire functions different from the original function they were built for. This is the case of bridges. One of the famous historical bridges which has a hybrid character is *Ponte Vecchio* in Florence (14th-16th century). It's quite complex to track its development phases; in more than two hundred years different construction phases and additions overlapped. What is striking to the eye when we see the bridge today is, without any doubt, its hidden metaphor of being a bridge but, at the same time, a multifunctional object. A contemporary way to reinterpret the idea of Ponte Vecchio is the motorway restaurant, a typical grocery store/bar/restaurant store that can be found along the Italian freeway pay-tall system (Colafranceschi, 2013). Some of these restaurants stretch across the highway lanes, acting a bridges between the two opposite sides of the road. The latter are objects that change their original vocation to be a bridge, to become hybrid buildings that house the contemporary needs of the motor tourists. They have become infrastructural icons, symbolizing an important Italian catering brand like "Autogrill" (Fig. 22a, b).

The Bellinzona pools of Aurelio Galfetti 1970 (Galfetti, et al., 2010) is another interesting example of a bridge with the vocation to become multimodal. The idea of the Swiss architects was to draw in the beautiful landscape of Bellinzona a line connecting two different sites. Analyzing the project it is possible to notice how the idea of a simple pedestrian bridge can become an excuse to solve the introduction of an artificial infrastructure in a delicate landscape. From the section to the plan the project denotes different modalities of interacting with the landscape. The line drawn by Galfetti tries to find a

balance between an infrastructural path and a system of pools (Fig. 23).

To conclude the second argument we can surmise that the above examples try to define an important concept: the idea of roads or paths behaving like buildings is traceable when an urban space becomes defined between two specific points. From the references we can open the research in different directions, certain that many other associations can be generated by other alert observers.

Urban station / Urban mutation

This article provides the necessary origins of the train station and its tendencies regarding multimodality in the world, It was my intent to give the reader new tools to read and interpret what lies behind this ambivalent topic. The new generation of Railway Stations appears more and more multimodal in its inner complexity and as urban phenomena. Since the beginning of the railway history, the debate has been focused on an architectural dichotomy centered on two protagonists: the machine building and the passenger building. This typology has passed through many phases, until a moment when the two domains merged in a unique shape.

This complex relation gave birth to another field of interest: what if an infrastructure like a road or a bridge can behave like a building and vice versa? As already explained this hypothesis has been the motivation to select case studies in the architectural panorama.The cases presented below were selected in order to propose a new taxonomy, considering


Fig. 23b


Fig. 23c

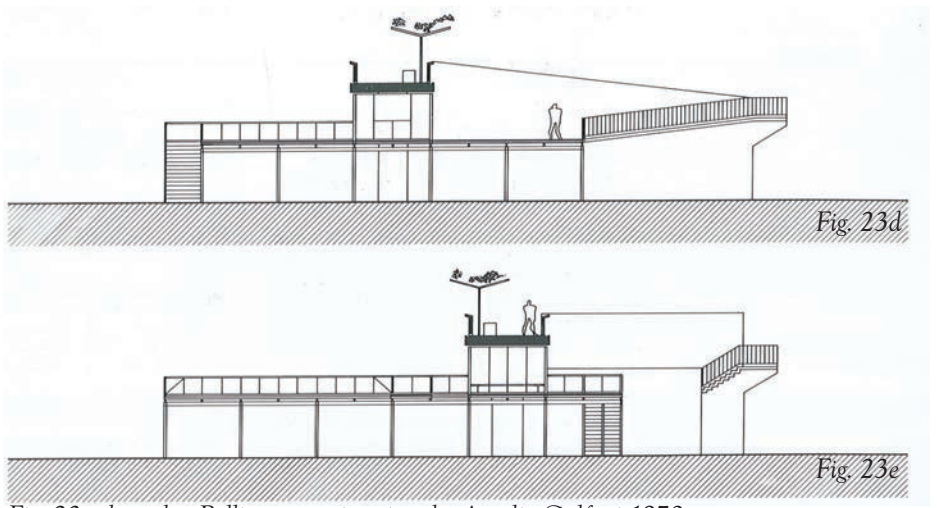


Fig. 23d

Fig. 23e

Fig. 23a, b, c, d, e Bellinzona swimmings by Aurelio Galfetti 1970.

the infrastructural domain in relation to the human domain, and to offer readers and researchers the possibility to further develop arguments exploring the relationship between hybrid systems.

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Source of figures

- Fig. 2 International Workshop Architecture and Infrastructure: "Borgopanicale Viaduct" Stud.: S. Dughetti, G. Quercia, F. Tonnarelli. Tutor: Antonello Stella, Loris Rossi, Elvan Dajko.
- Fig. 3 AWR Competition in Rome – Banner for Tirana Multimodal Station Competition TAW 2012
- Fig. 4a Radio in bachelite signed Henry Brun 3 Rue Royet St. Etienne Type 629D n. 21 326 50's years. Source: http://www.antik.it/Design-moderno/4043-Radio-in-bachelite/
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- Fig. 6 The Chrystal Palacec a view from inside 1851
- http://milanocittaimmaginata.it/en/progetti/stazione-centrale
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- Fig. 10a, b. Santa Maria Novella Station,Florence. Gruppo Toscano (1932/35). Source: http://www.tuscanypeople.com/wp-content/uploads/2015/02/Firenze-stazione-SMN-41-e1423567803516.jpg
- (Fig. 10b), Source: http://3.citynews-firenzetoday.stgy.it/~media/original-hi/51274054282658/04_-2.jpg (Fig. 10a)
- Fig. 11a, b, Roma Termini Station.
- Source: http://www.yourownguide.com/wp-content/uploads/2015/03/Stazione-Roma-Termini-Vitellozzi.jpg (Fig. 11a)
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- Fig. 13 a – "La città che sale", Umberto Boccioni (1910). Source: https://upload.wikimedia.org/wikipedia/commons/4/44/Immagine-Umberto_boccioni_la_citt%C3%A0_che_sale.jpg
- Fig. 13b Multimodal Station. Drawing by Antonio Sant'Elia 1914. Source: https://upload.wikimedia.org/wikipedia/commons/4/4f/Stazione_Sant'Elia.jpg
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- Fig. 19 a, b Competition Berlin city, Alison and Peter Smithson (1958). Source: http://lapisblog.epfl.ch/gallery3/var/albums/20140709 Source: 01/smithson_a_smithson_p_haupstadt_berlin_competition_1957_04.jpg
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- Fig. 22b Autogrill Pavesi in Montepulciano 1967 by Angelo Bianchetti. Source: http://blog.italiavirtualtour.it/wp-content/uploads/2013/03/roma_maxxi_energy.jpg
- Fig. 23a, b, c, d, e Bellinzona swimmings by Aurelio Galfetti 1970. source internet

On proceeding pages some of Studio 4 student's projects.

EXISTING MOBILITY INFRASTRUCTURE

LIMITS AND ACCESS POINTS

ACUSTICS, WATER, LAND AND AIR POLLUTION

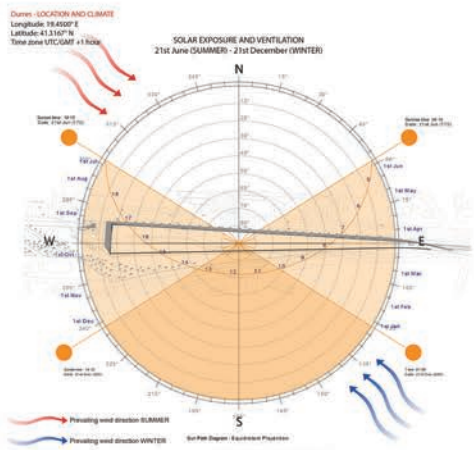
SETTLEMENT SYSTEM

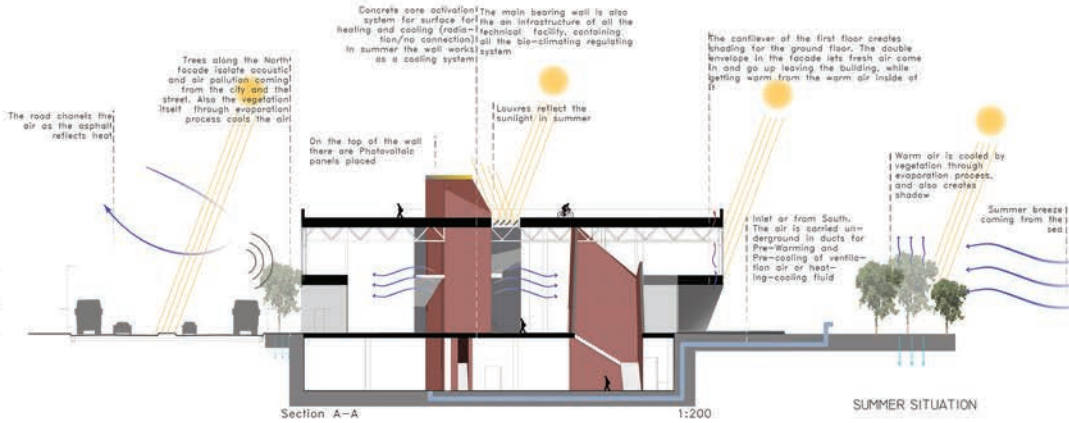
ACUSTICS, WATER, LAND AND AIR POLLUTION

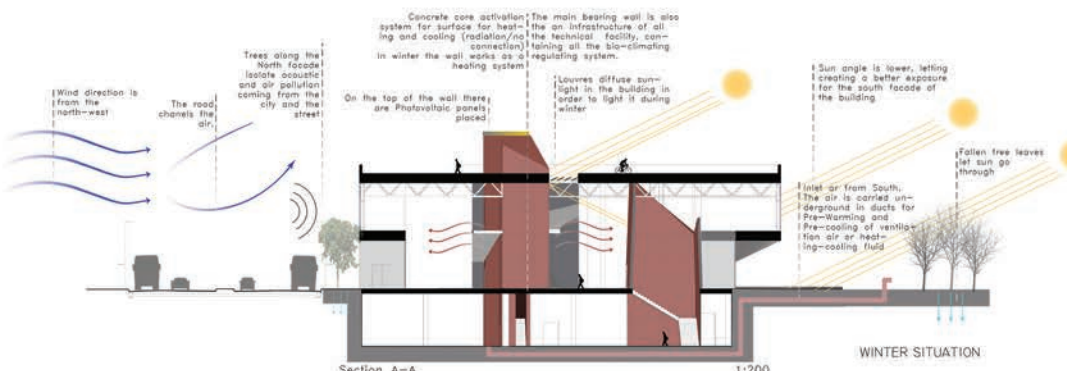
SETTLEMENT SYSTEM

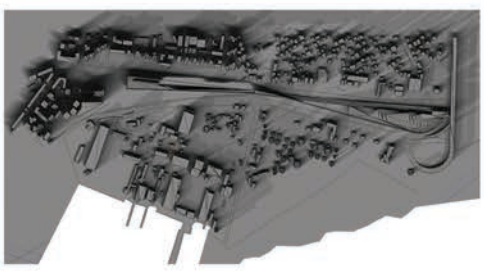
GREEN AREAS

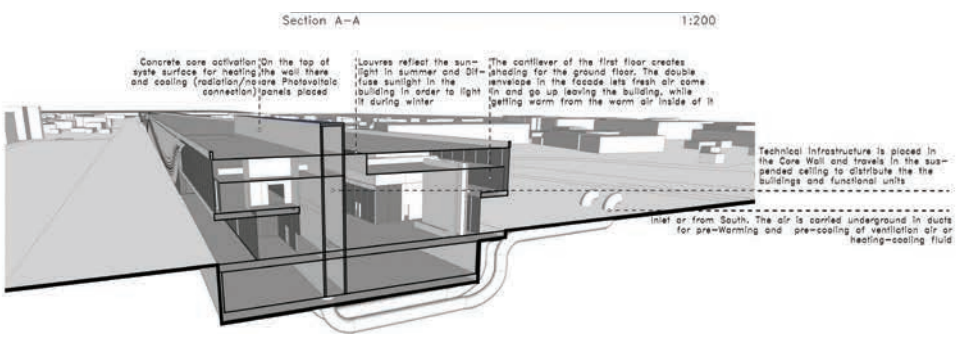
BUILT / VOID











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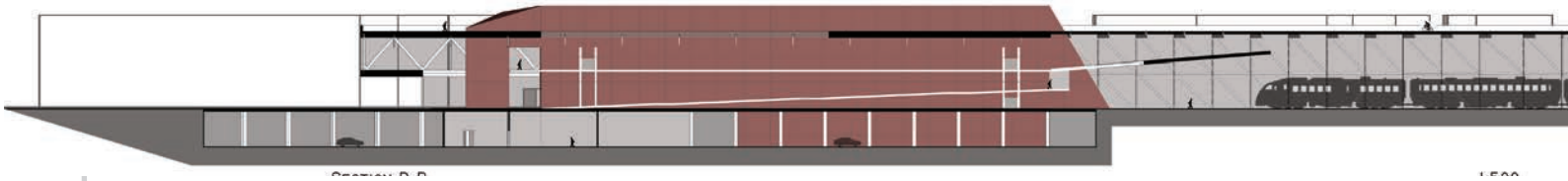
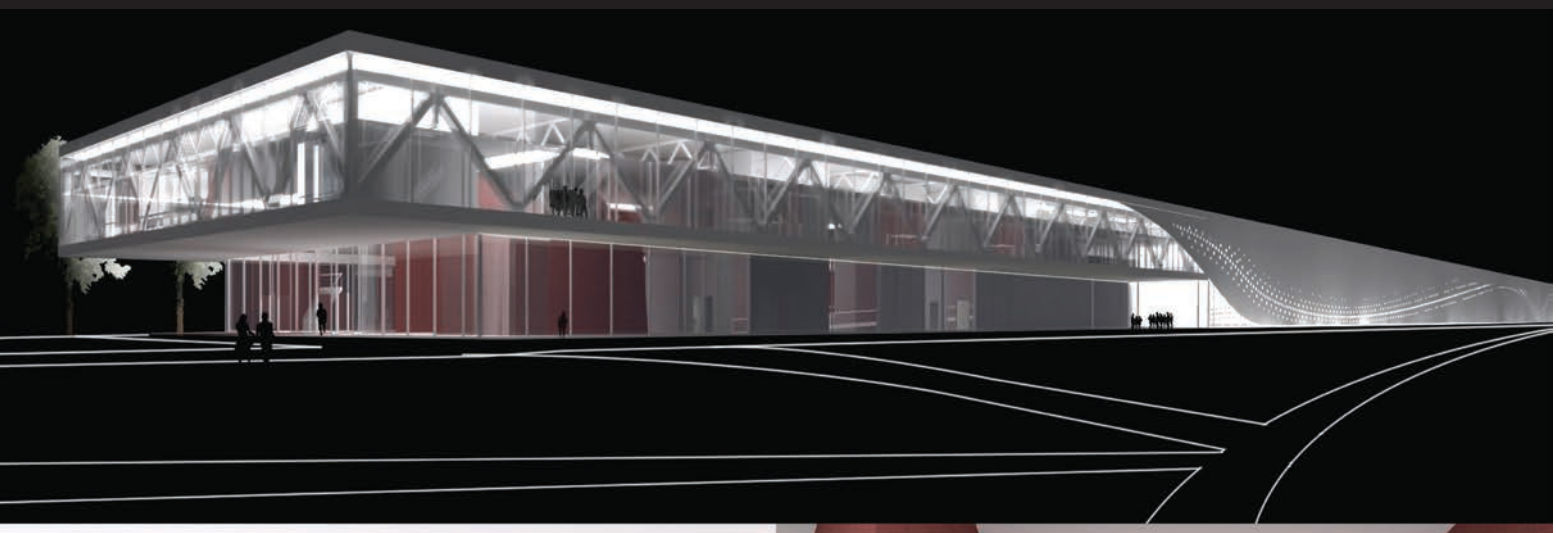
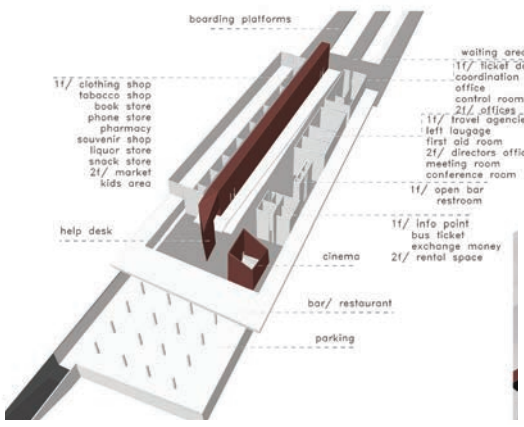
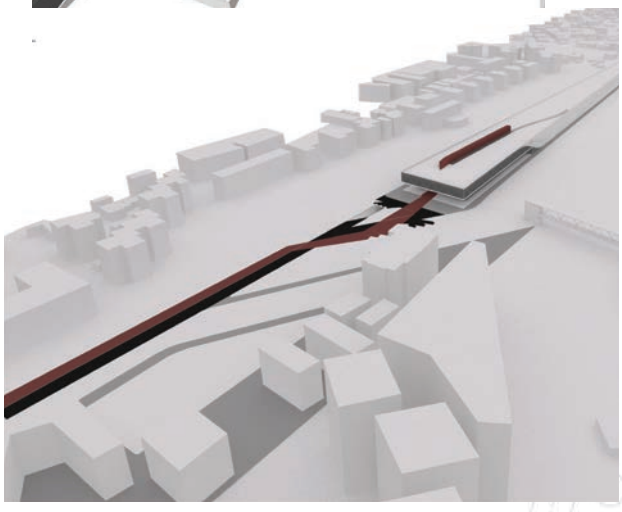
Design Studio 4 – 2013/14
Students:
Remzi Kutrolli, Jesuida Zemani

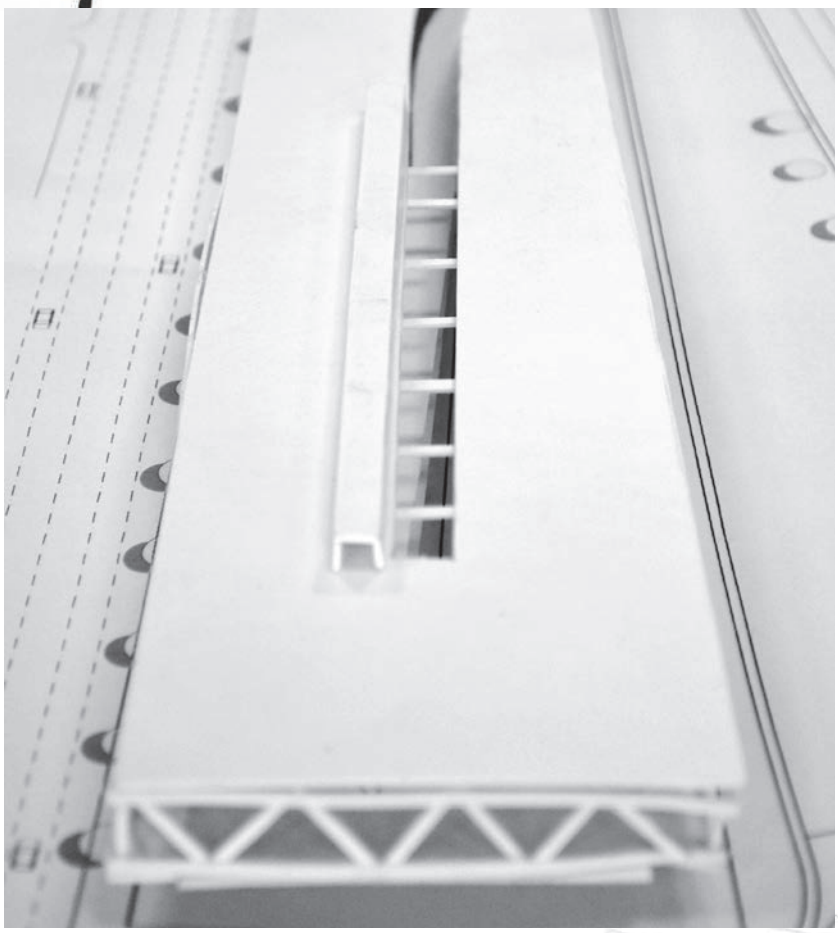


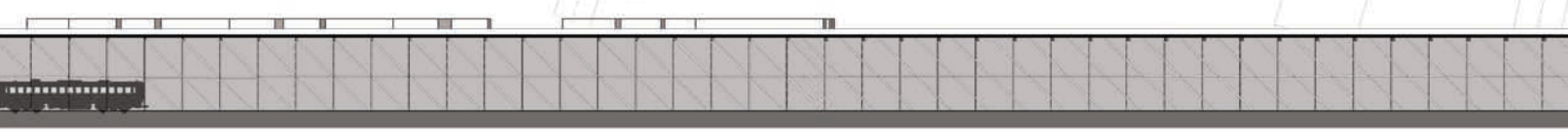



Students: R. Kutrolli; J. Zemani Professors: Ark. L. Rossi; Ark. L. Pedota


boarding platforms
waiting area
1f/ ticket desk
coordination
office
control room
2f/ offices
1f/ travel agencies
left laguage
first aid room
2f/ directors office
meeting room
conference room
1f/ open bar
restroom
1f/ info point
bus ticket
exchange money
2f/ rental space
1f/ clothing shop
tobacco shop
book store
phone store
pharmacy
souvenir shop
liquor store
snack store
2f/ market
kids area
help desk
cinema
bar/ restaurant
parking







1 Height barrier:
*aluminium sheet
*waterproofing
*metal U-shape element

2 Roof cover layers:
*cover layer 2%
*levelling material
*waterproofing
*steam barrier
*insulation
*separative layer
*reinforced concrete
*corrugated metal

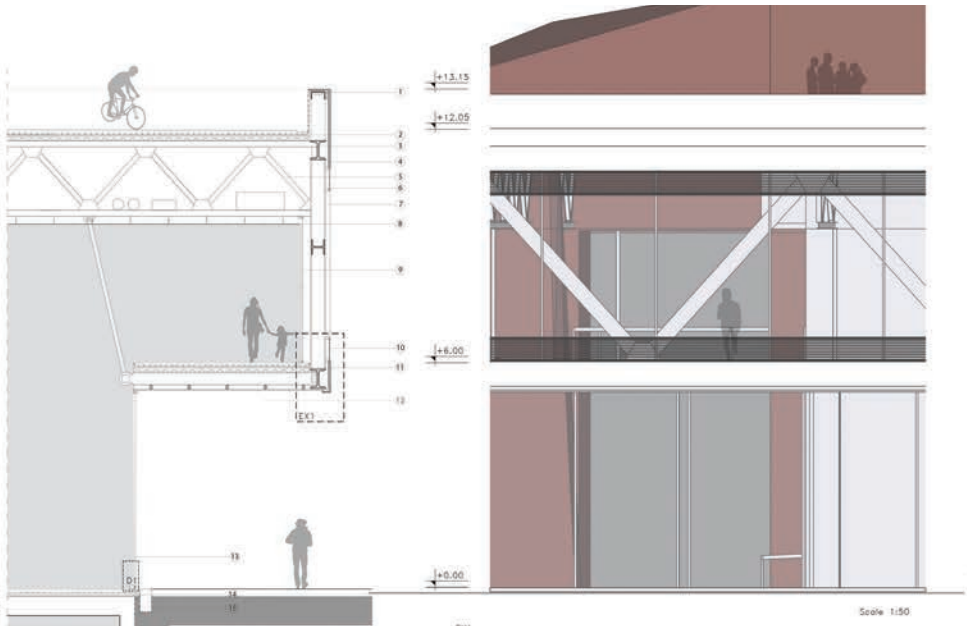
3 Main truss
4 Aluminium cover
5 Secondary truss
6 Upper vent
7 Outer glass
8 Hanging ceiling
9 Inner glass
10 Lower vent

11 1st floor layers:
*paving
*cola
*levelling material
*waterproofing
*steam barrier
*insulation
*separative layer
*reinforced concrete
*corrugated metal
*secondary beam
*aluminium cover

12 Aluminium supporting structure
13 Double glass
14 Drainage

15 Underground layers:
*paving
*cola
*levelling material
*waterproofing
*steam barrier
*insulation
*separative layer
*reinforced concrete

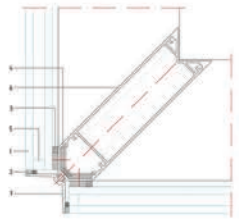
16 Underground:
*reinforced concrete
*waterproofing



Scale 1:50

EX1
Axonometric section of the facade

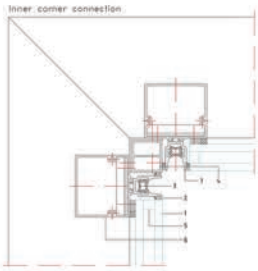
Layers:
*paving
*cola
*levelling material
*waterproofing
*steam barrier
*insulation
*separative layer
*reinforced concrete
*corrugated metal
*secondary beam
*aluminium cover



1-Glass 8mm
2-Silicone filling
3-Gomina
4-Connective element of the corner
5-Spacer
6-Vertical aluminium profile
7-Connective element of the PVC

Scale 1:5

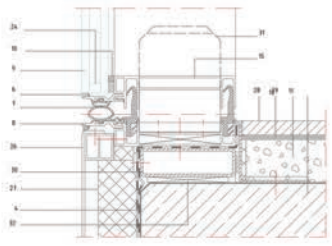
Inner corner connection



1-Glass 8mm
2-Silicone filling
3-Gomina
4-Connective element of the corner
5-Spacer
6-Vertical aluminium profile
7-Connective element of the PVC

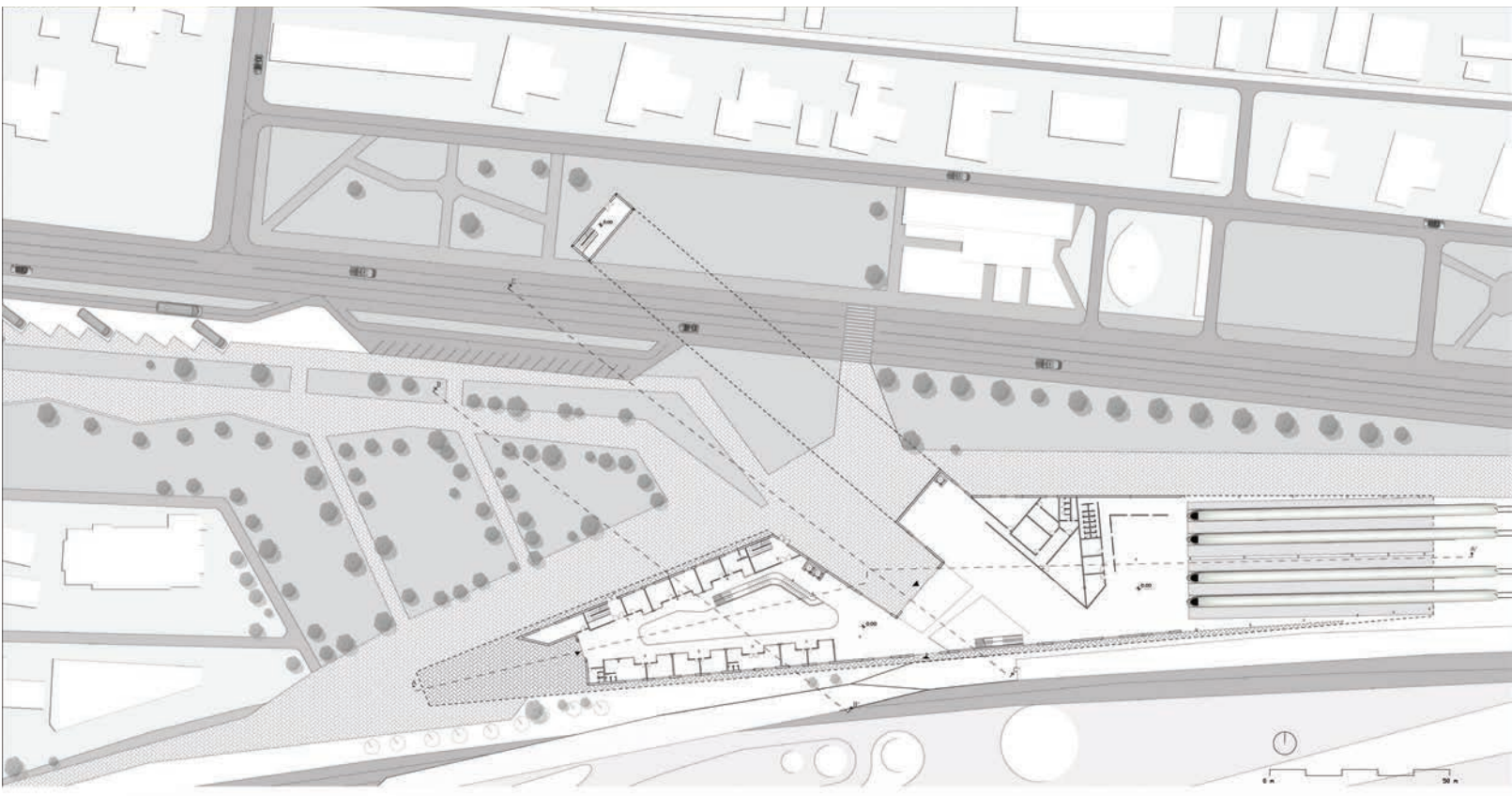
Scale 1:5

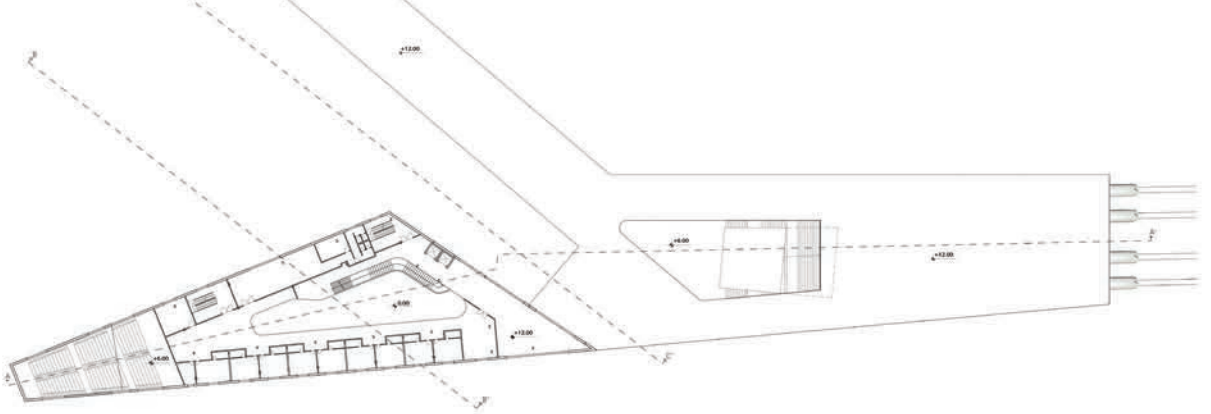
Ground connection

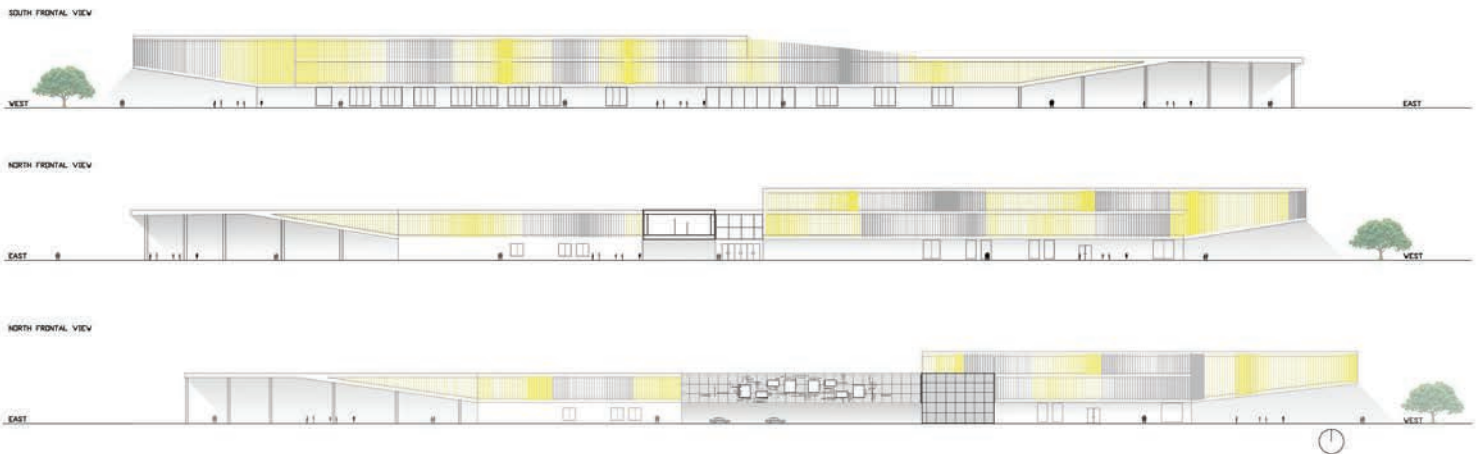


Scale 1:5

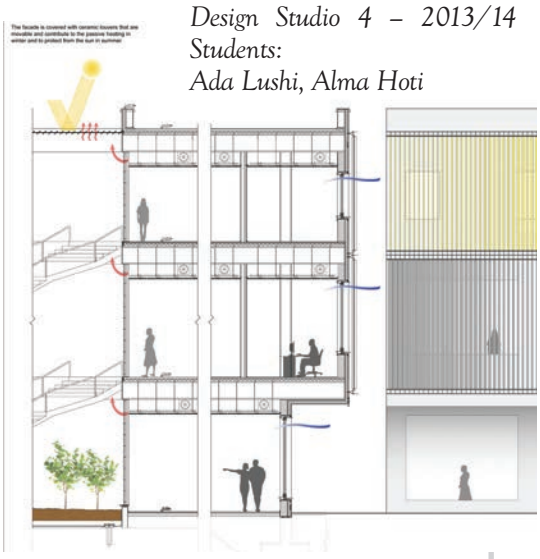
1. KAPUC I PARAPETIT
2. FLETE FIKSUESE E KAPUCIT TE PARAPETIT
3. ELEMENT MBULUES I VESHJEVE
4. HIDROIZOLIM
5. TERMOIZOLIM
6. MBUSHJE SILIKONI
7. GOMINA
8. ELEMENT LIDHES PVC-U
9. XHAM
10. GOMINE E XHAMIT
11. SHTRESE BETONI NIVELIZUESE
12. SOLETE BETONI TE ARMUAR
13. FLETE METALIKE MBYLLESE
14. PANEL GIPSI
15. PROFIL ALUMINI FUNDOR I TARRACES
16. MBUSHJE SILIKONI I PANELEVE
17. HAPESIRE AJRI
18. PANEL TERMOIZOLUES
19. KRAH METALIK LIDHES ME STRUKTUREN
20. PROFIL METALIK MBAJTES I PANELIT
21. PROFIL ALUMINI HORIZONTAL
22. BULONA
23. PLLAKE E KRAHUT METALIK
24. NOAFES METALIK I XHAMIT
25. ELEMENT LIDHES
26. FLETE METALIKE MBYLLESE E DYSHEMESE
27. BLLOK MBYLLES DRURI
28. PLLAKA INDUSTRIALE
29. SHTRESE KOLLE
30. PROFIL METALIK DREJTKENDOR MBESHTETES
31. FLETE METALIKE LIDHESE
32. BLLOK MBESHTETES

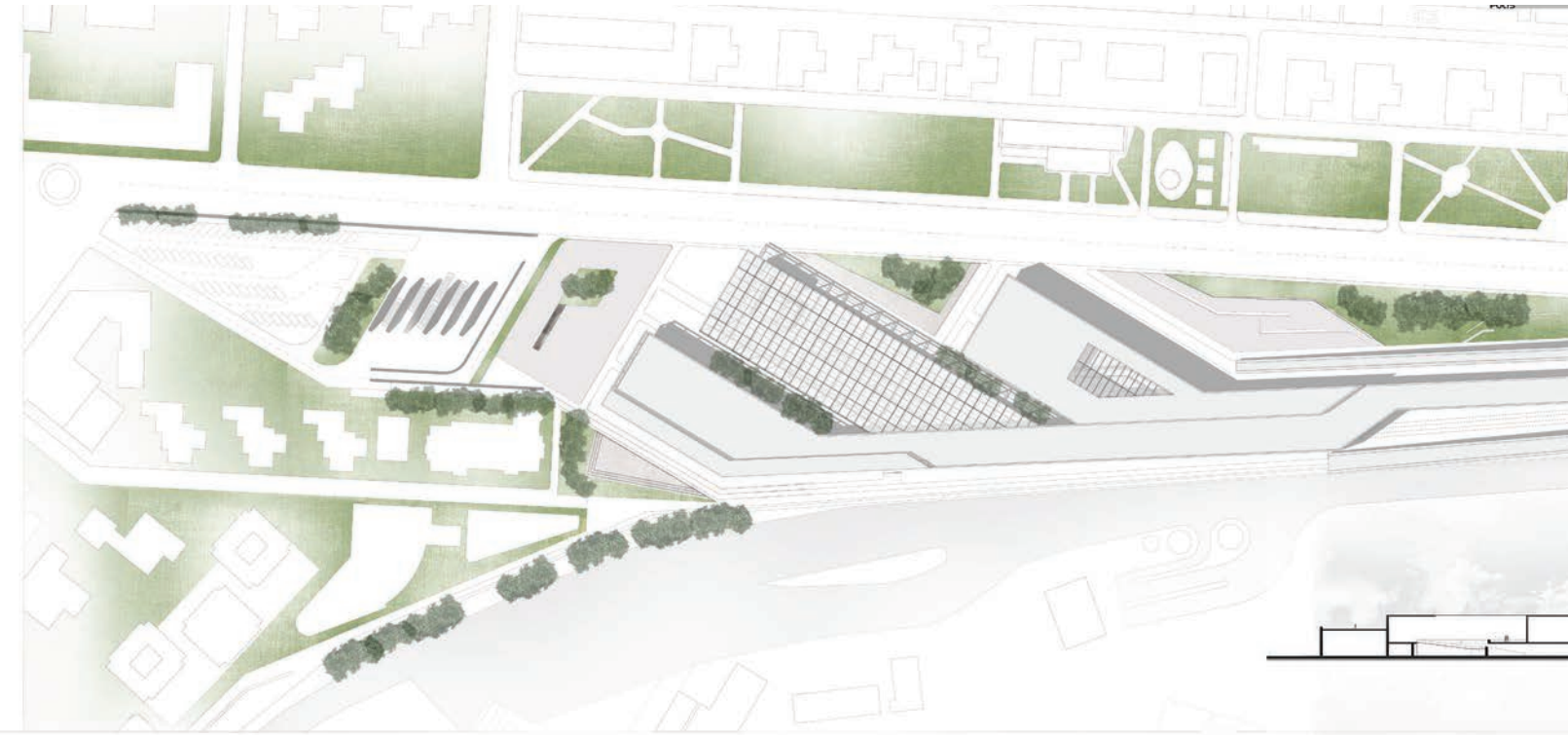


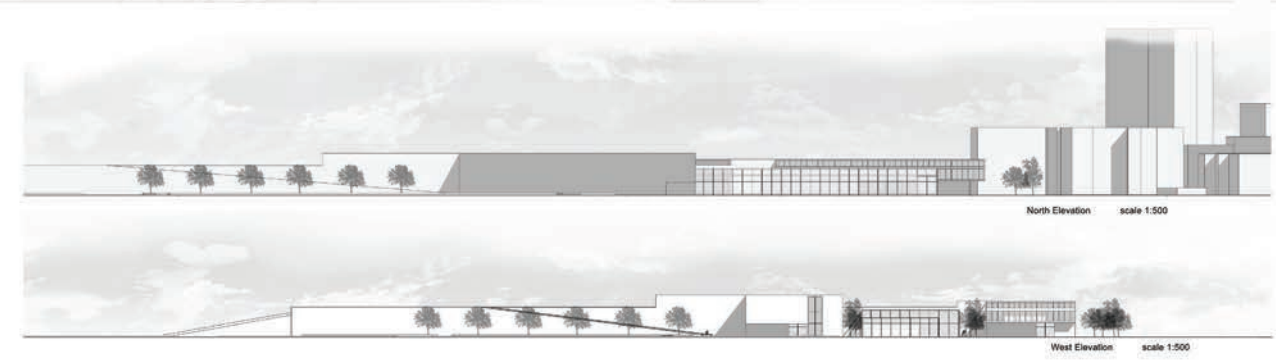


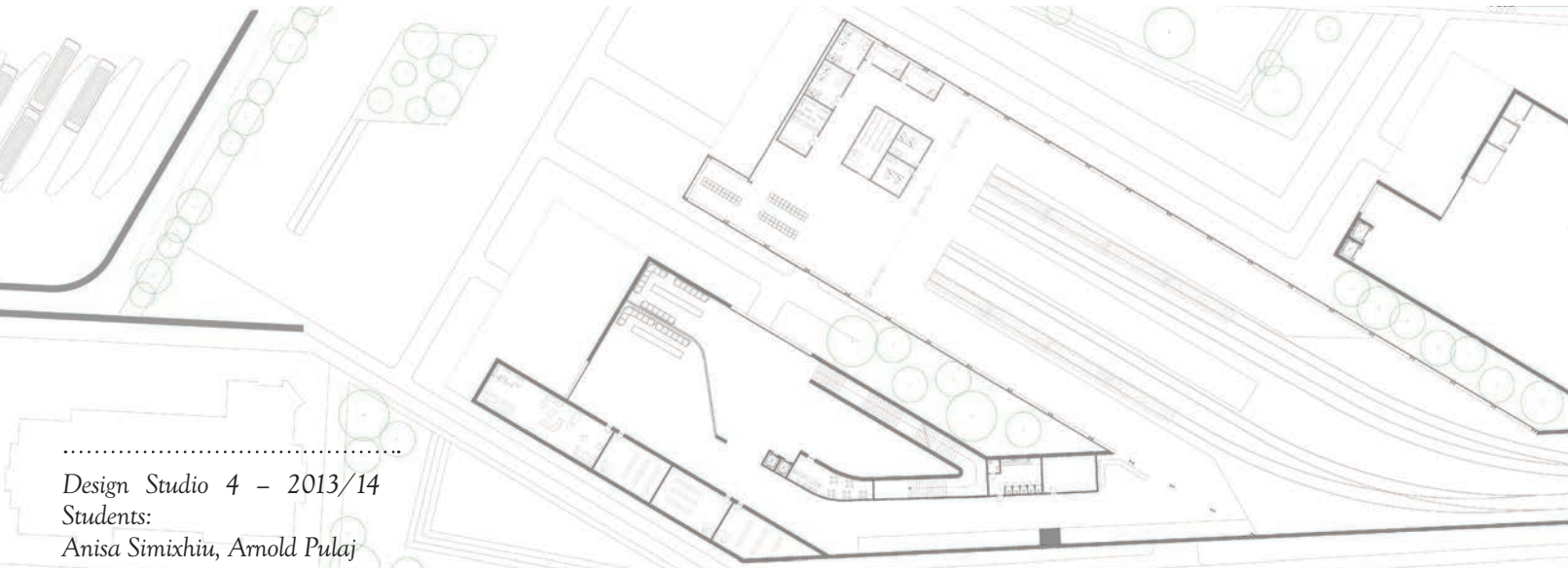


Design Studio 4 – 2013/14
Students:
Ada Lushi, Alma Hoti

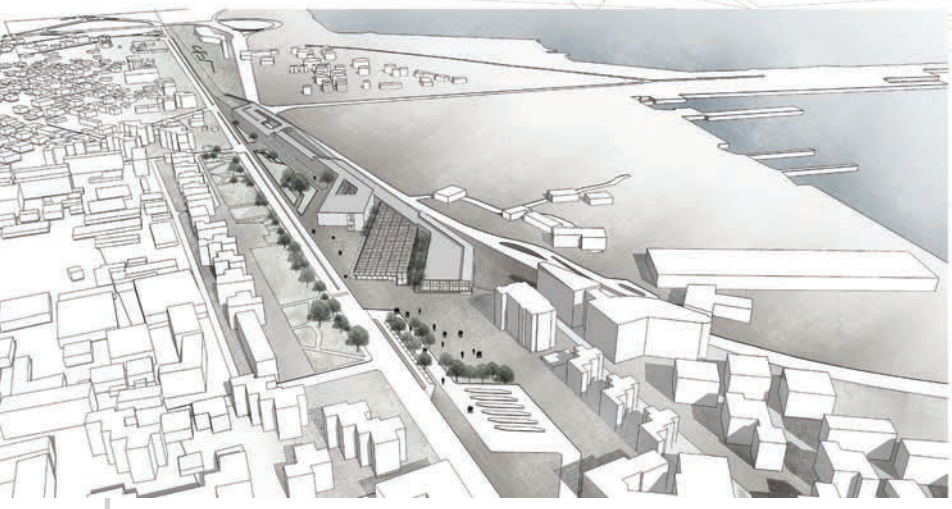


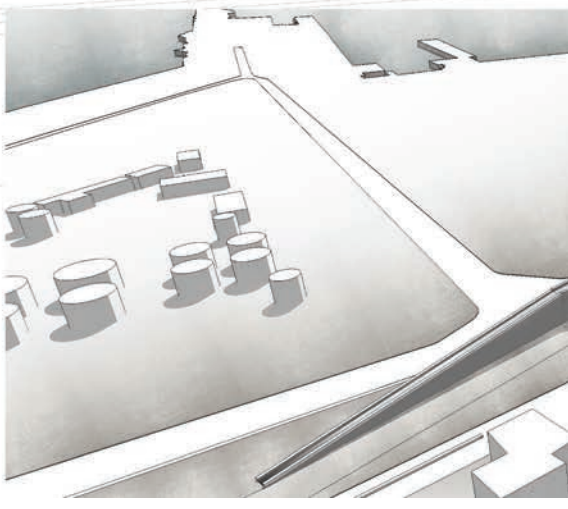


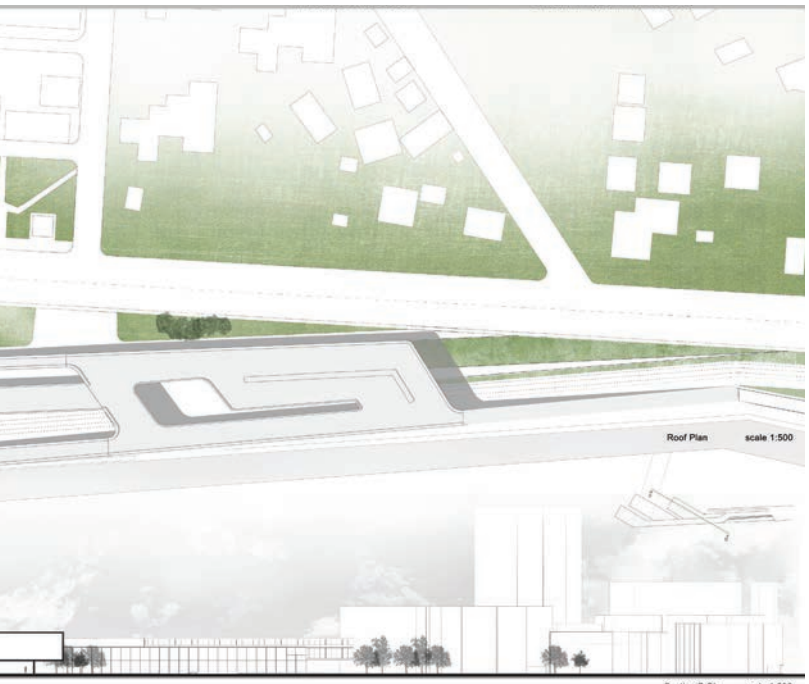




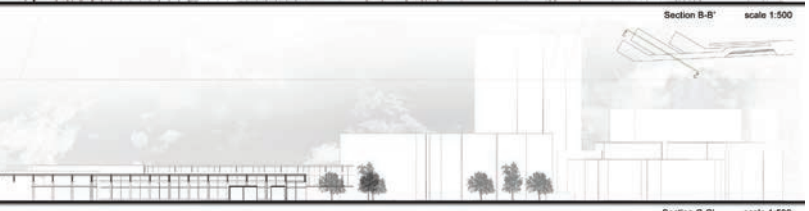
Design Studio 4 – 2013/14
Students:
Anisa Simixhiu, Arnold Pulaj







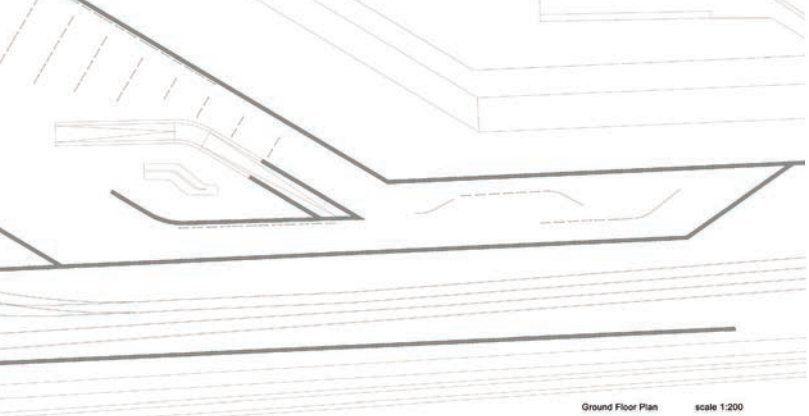
Roof Plan scale 1:500



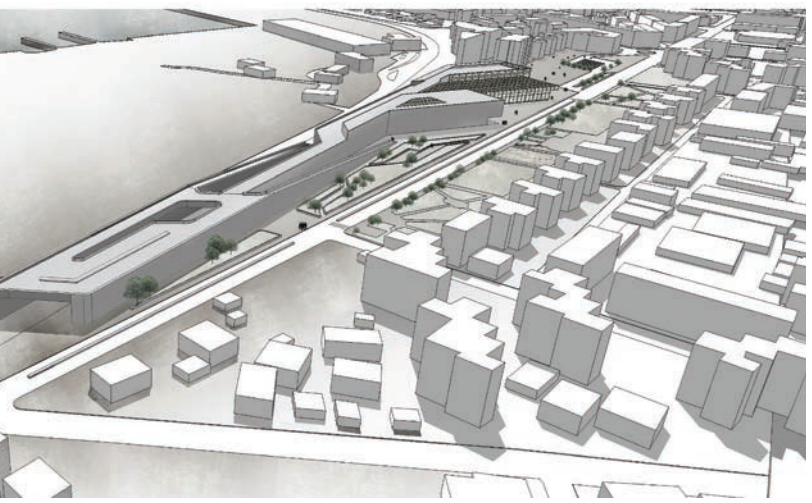
Section B-B' scale 1:500

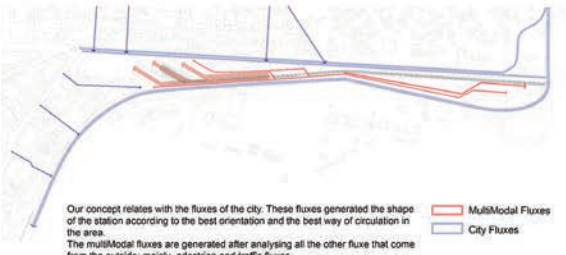
Section C-C' scale 1:500

Section D-D' scale 1:500



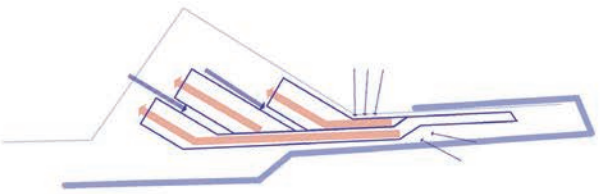
Ground Floor Plan scale 1:200





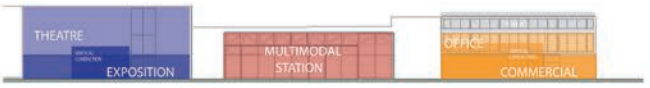
Our concept relates with the fluxes of the city. These fluxes generated the shape of the station according to the best orientation and the best way of circulation in the area.
The multiModal fluxes are generated after analysing all the other fluxe that come from the outside; mainly pdestrian and traffic fluxes.

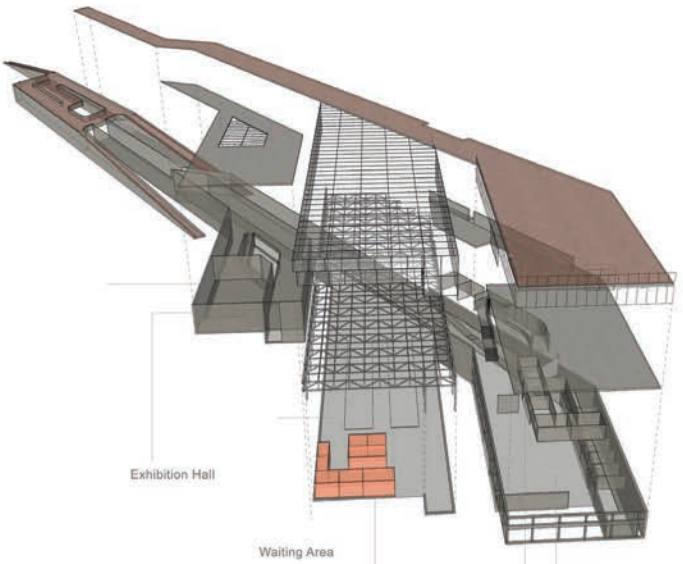
MultiModal Fluxes
City Fluxes



The Station has 3 main modules, with different functions, but simmilar approach. 2 of these modules have connection with each other, because their funtion relate as well.
The fluxes that generate the shape, become part of the inner distribution, by creating fluid interiors like human movement.

Both three modules are put in relation with the city creating a contrast from concrete facades, to opaque ones. The station, being the most important module, is made with opaque glass, to create a better connection with the city, that now is laking. The Theatre and exposition are the one that face the city, also being at the north, that do not require much lightning.



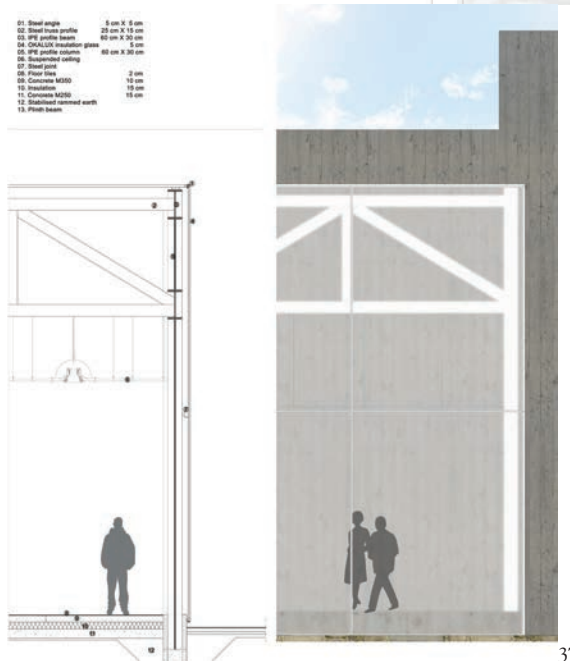


Exhibition Hall

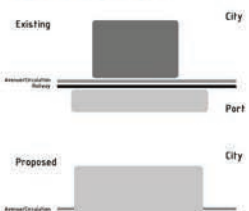
Waiting Area

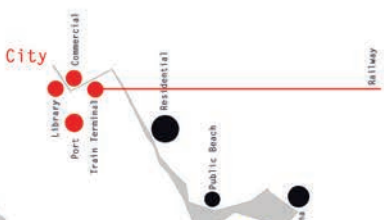
Theatre
Auditorium
Conference Room

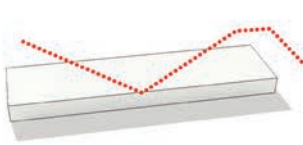
Main Hall
Station Services

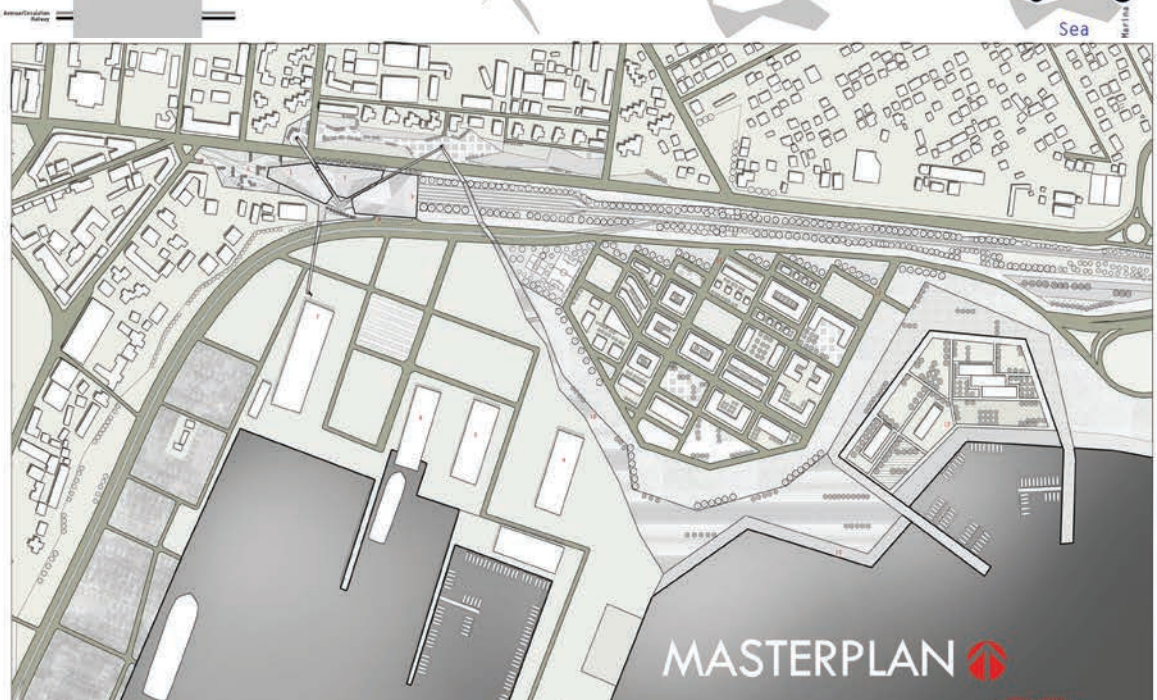


THE PROCESS

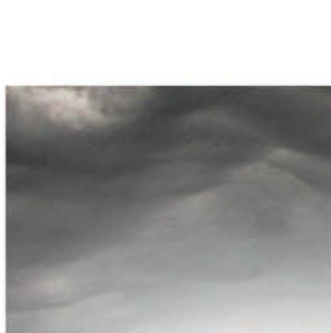


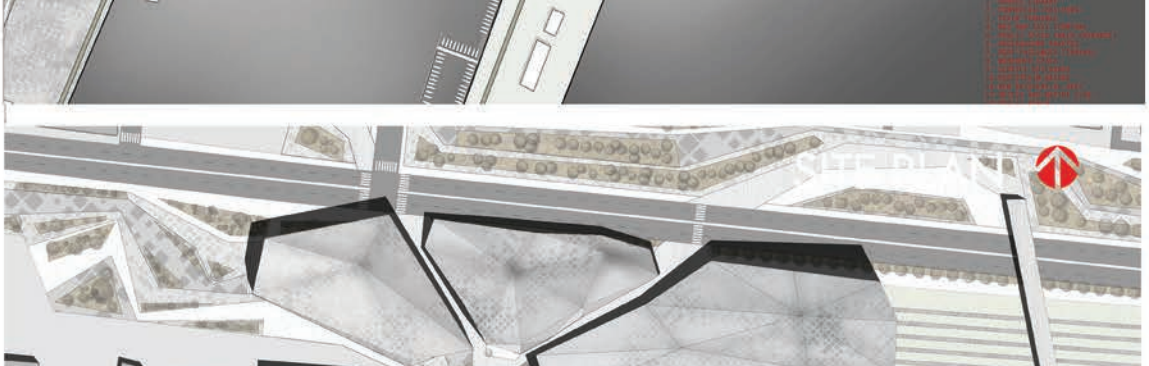


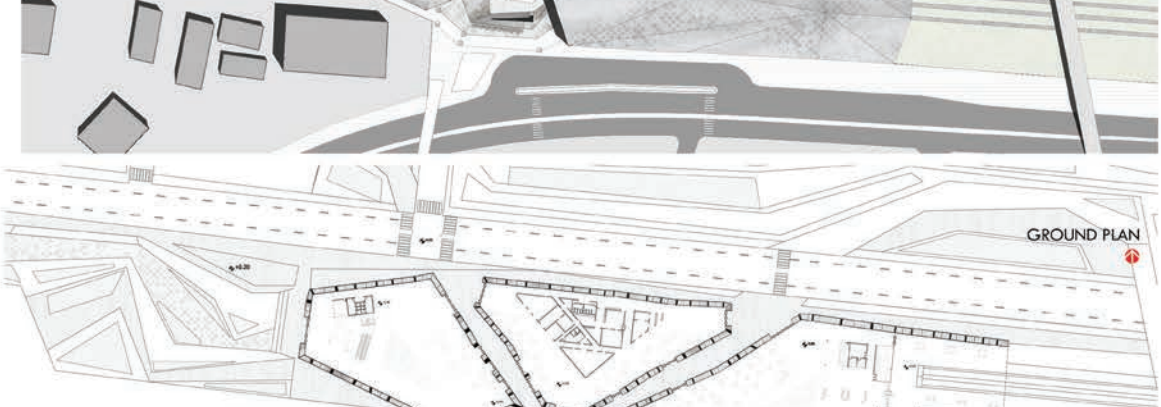


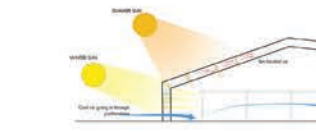


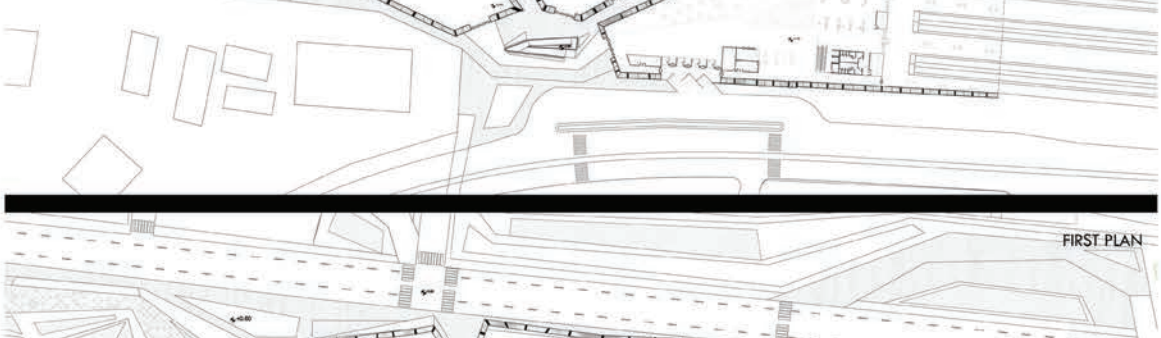
PATTERN

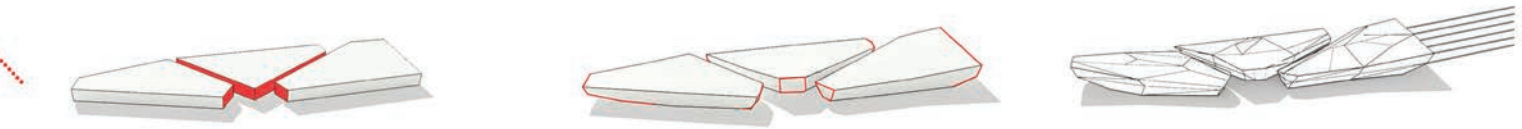


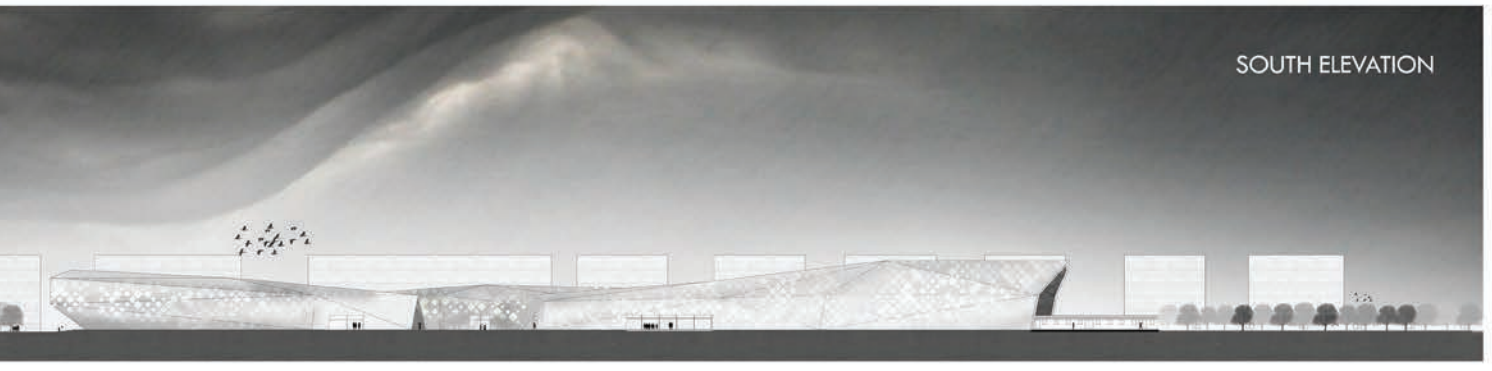




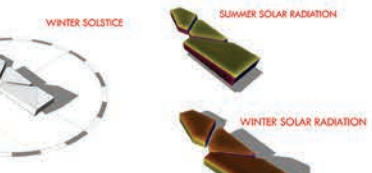


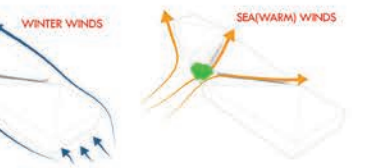


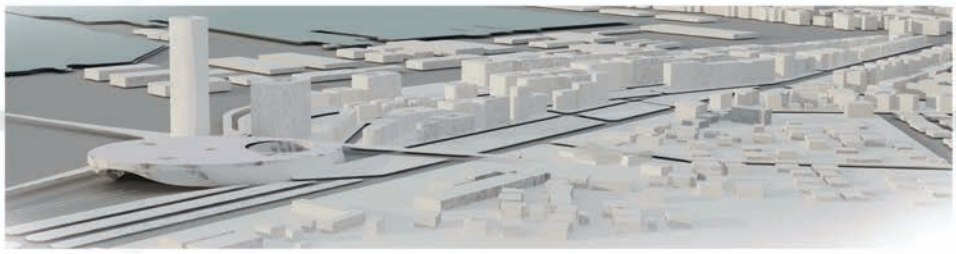




Design Studio 4 – 2012/13
Students:
Gerdi Papa, Emel Peterci



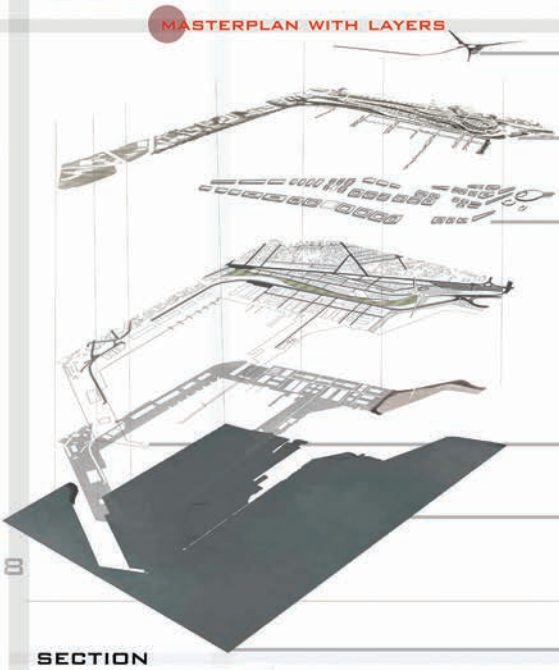




NEW SILUETE

PASARELAS FROM 0.00 TO + 5 M

MASTERPLAN WITH LAYERS



LAYER 6 — PLATFORM: SQUARE, PEDESTRIAN, AMPTHIEATRE

LAYER 5 — GREEN SYSTEM

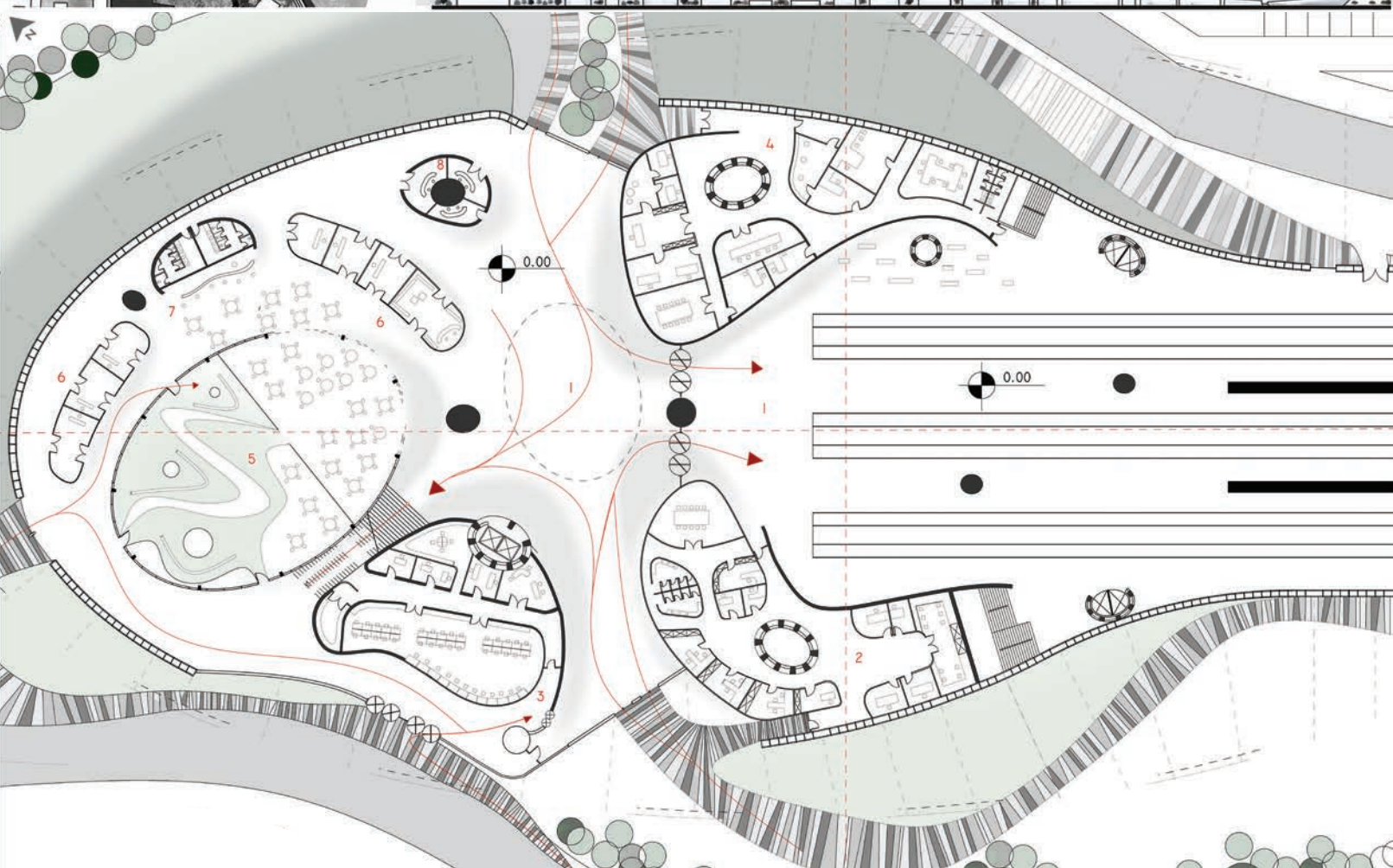
LAYER 4 — GROUND LEVEL: NEW BUILDINGS: RESIDENTIAL AREA, MULTIMODAL STATION, EXPO TOWER, POLYFUNCTIONAL CENTER

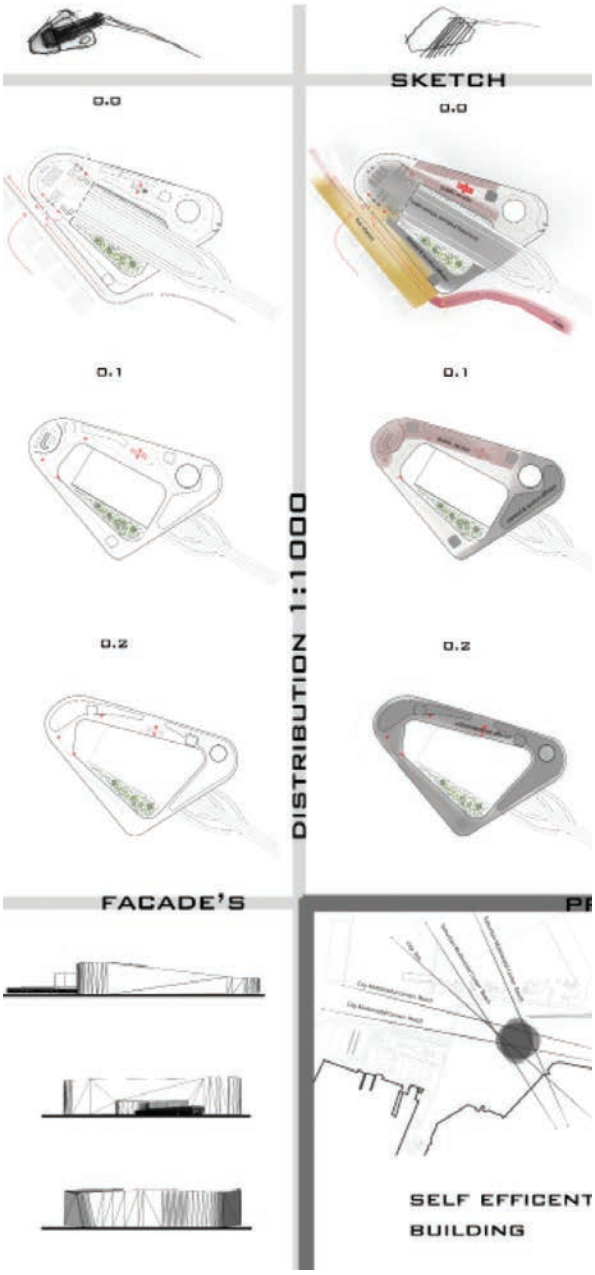
LAYER 3 — GROUND LEVEL: NEW CONNECTIONS AND INFRASTRUCTURE

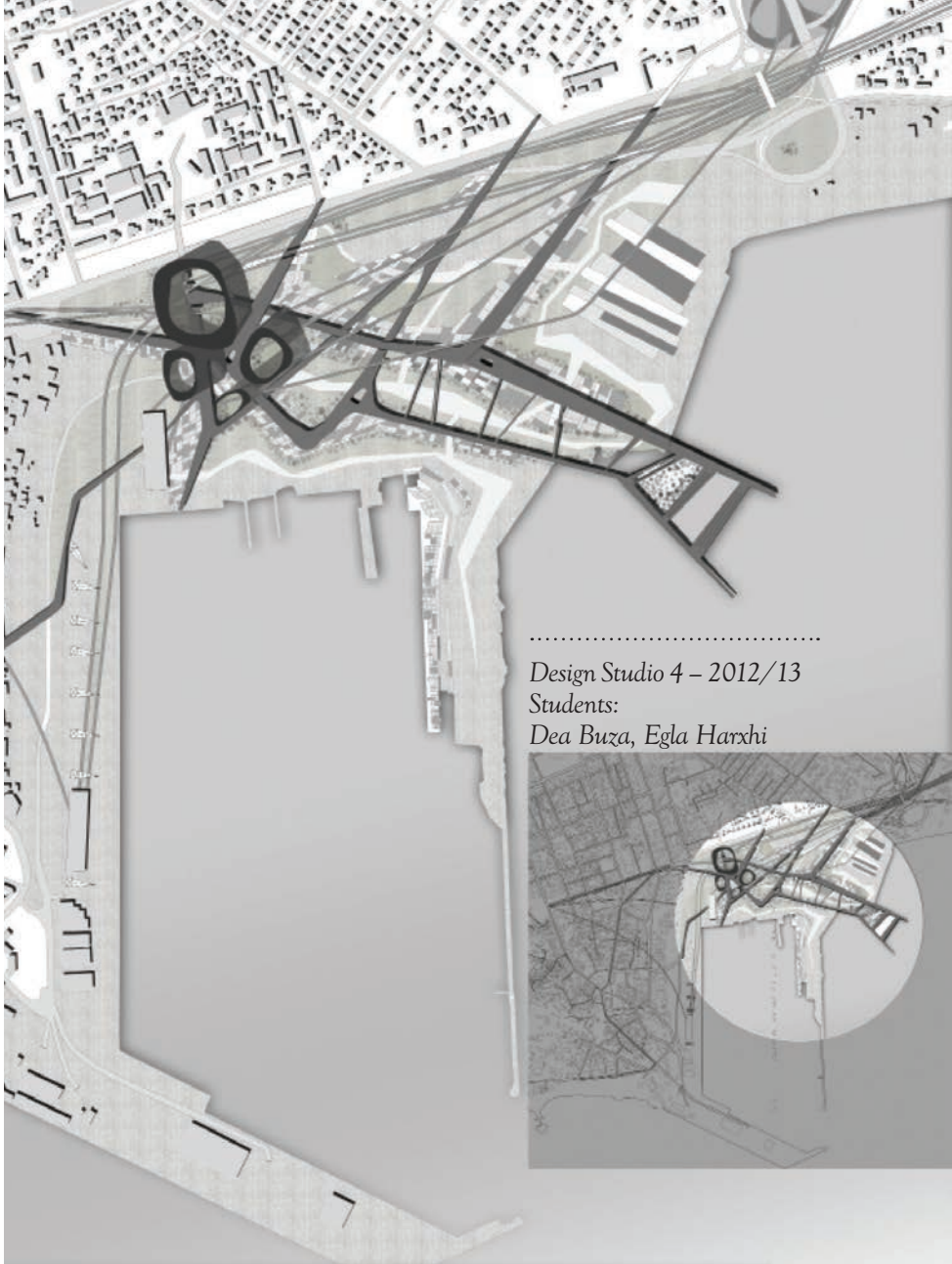
LAYER 2 — GROUND LEVEL: PORT, ROADS SYSTEM

LAYER 1 - ZERO LEVEL SEA

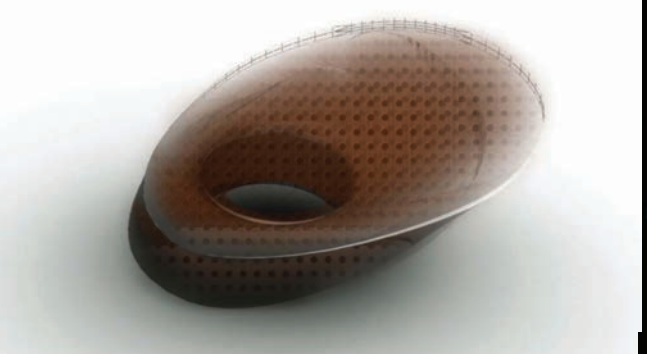
SECTION

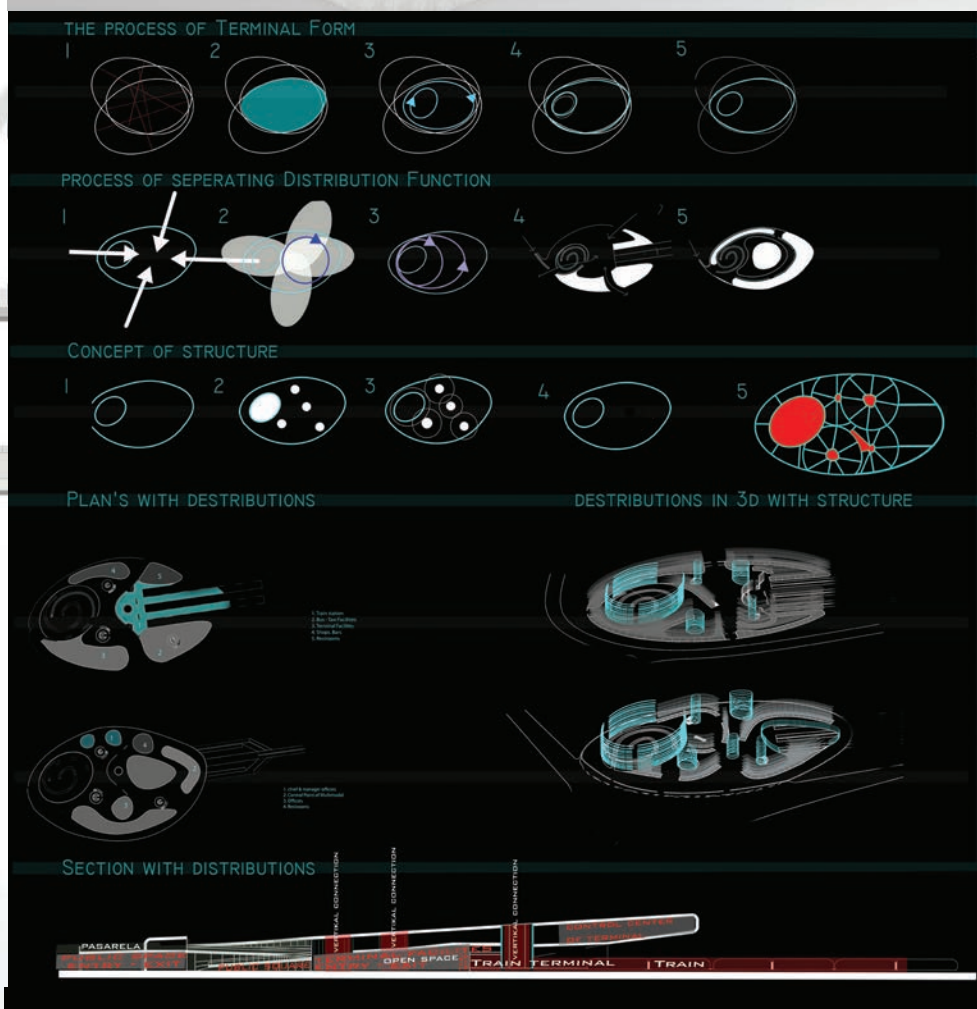


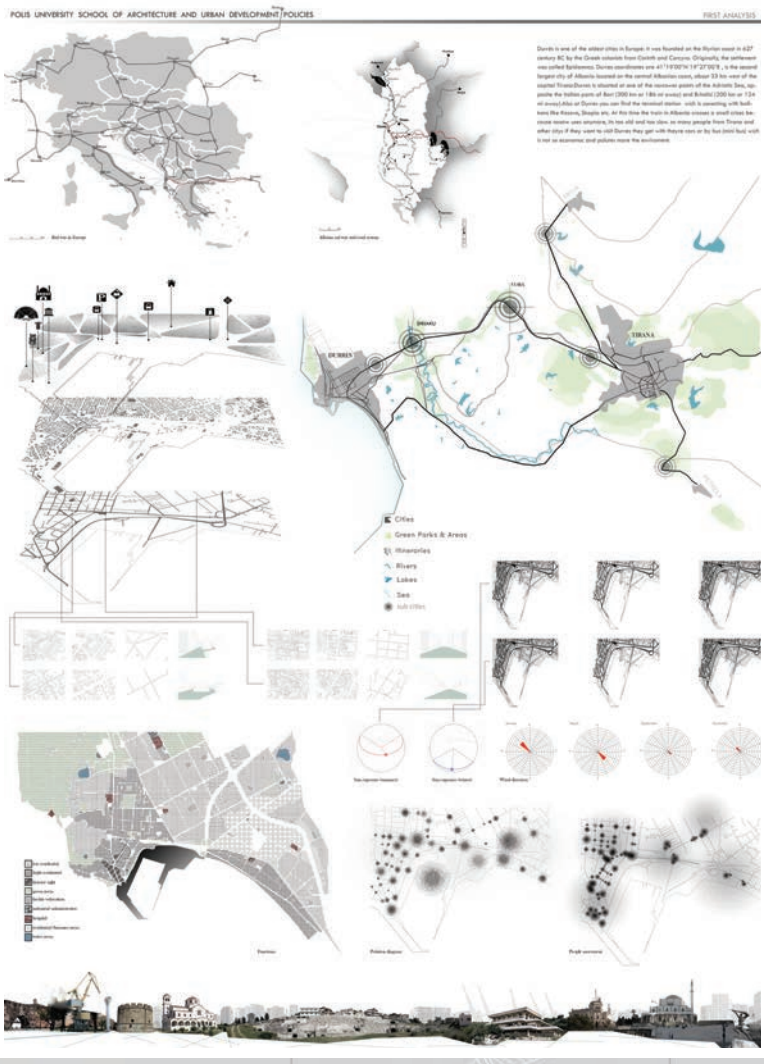


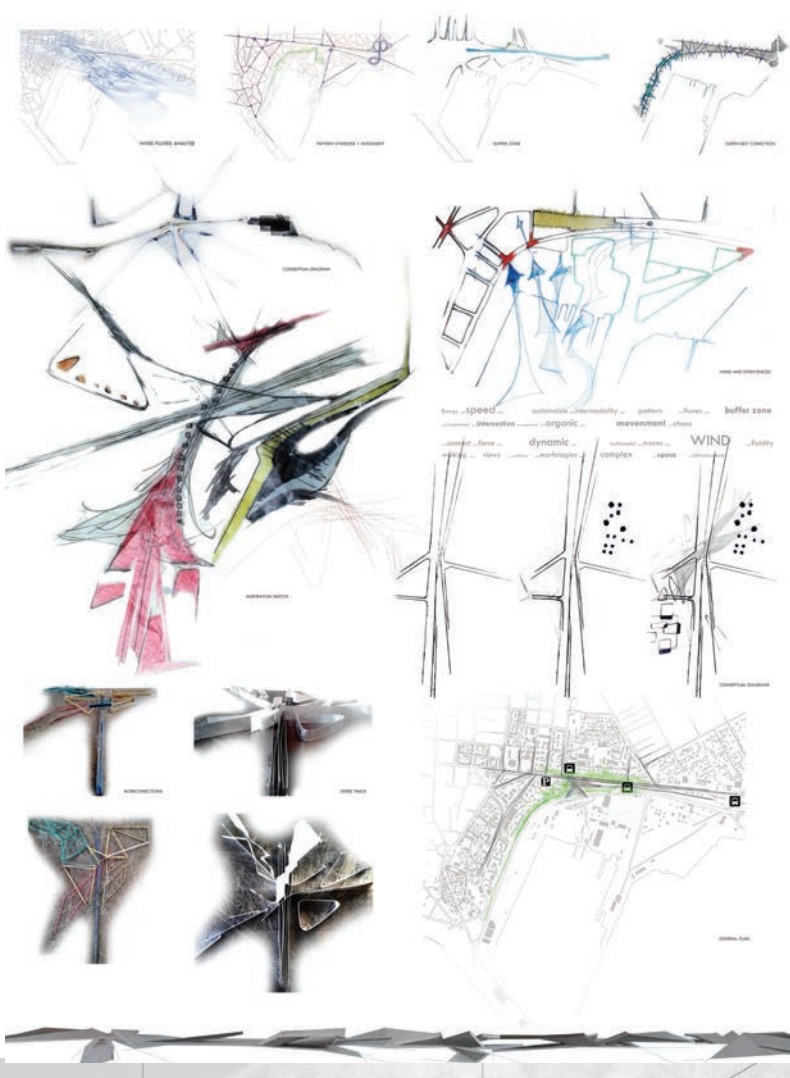


Design Studio 4 – 2012/13
Students:
Dea Buza, Egla Harxhi

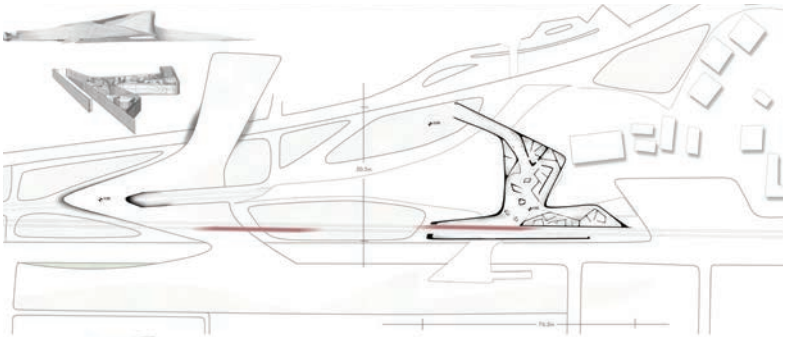


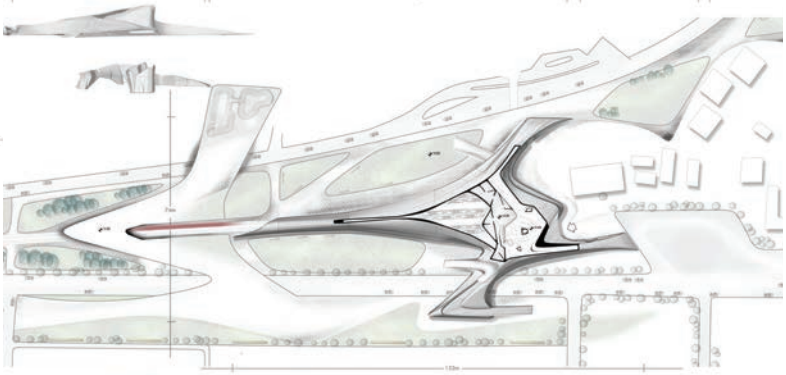


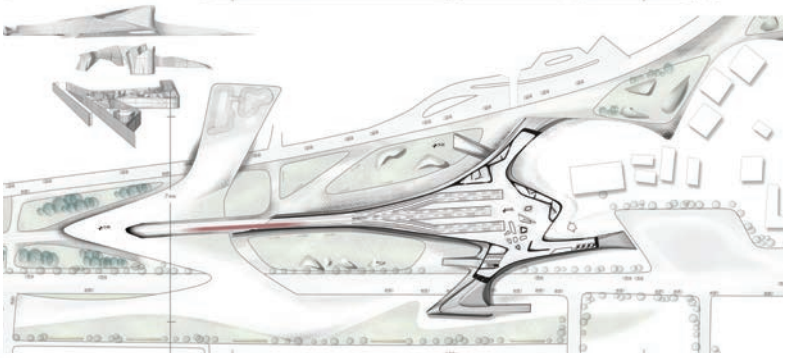


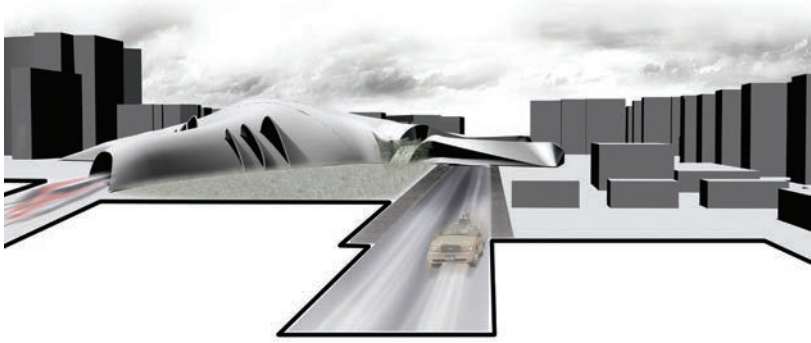


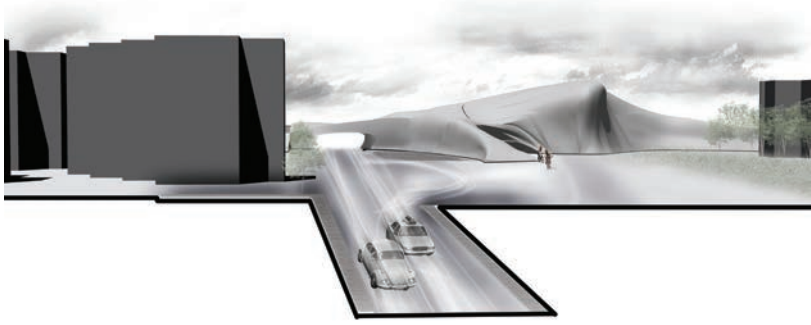
Design Studio 4 – 2013/14
Students:
Andrea Naci, Klaudio Ruci

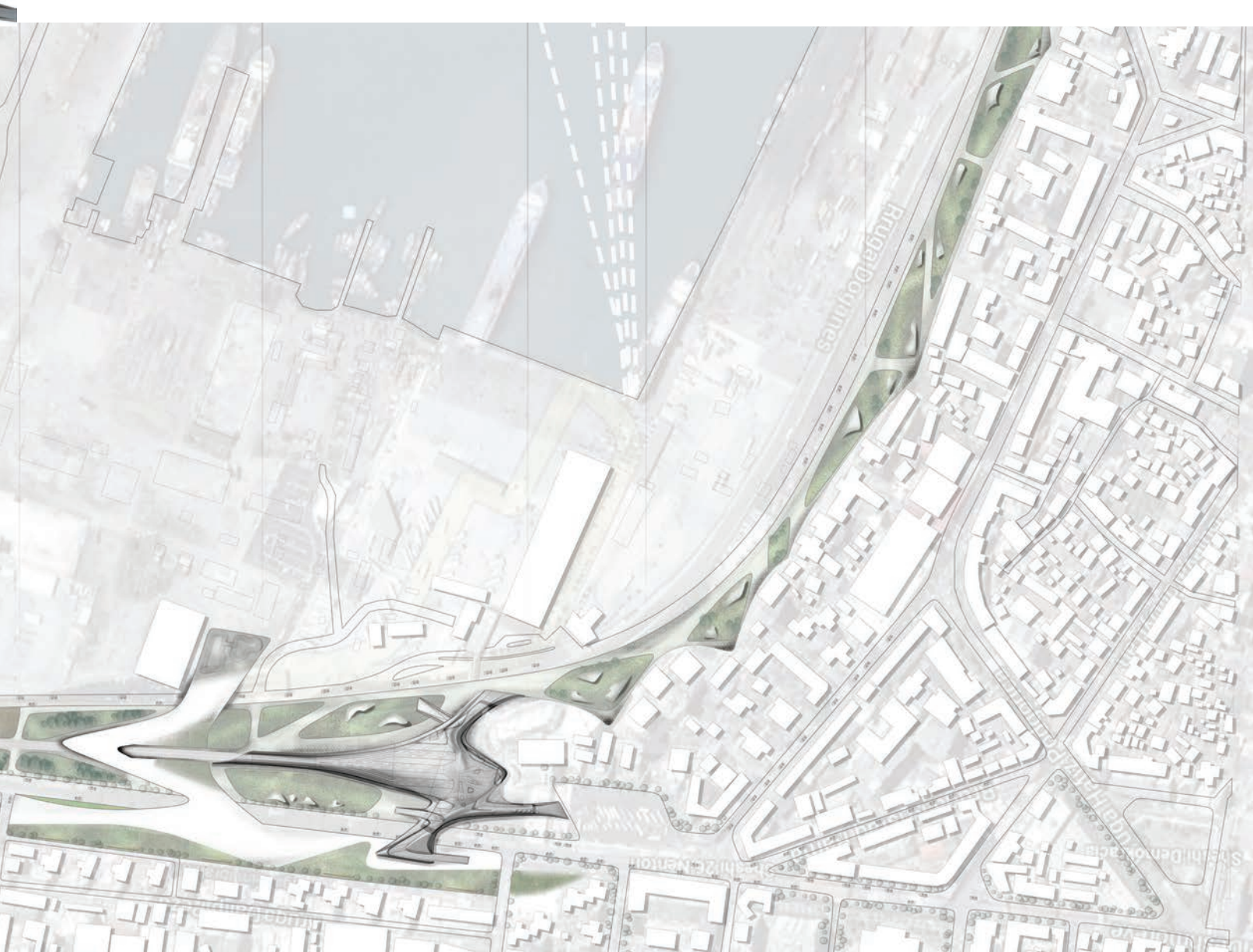








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