TO DEAL WITH COMPLEXITY. ISTANBUL CITY OF MUSES. ARCHITECTURE, INFRASTRUCTURE, ARCHAEOLOGY: SPREADING THE CULTURE OF TRANSFORMATION

Antonella CONTIN, Assistant Professor
Politecnico di Milano, Italy
antonella.contin@polimi.it,

Alessandro FRIGERIO, Politecnico di Milano, Italy
alefrigerio@hotmail.com

Francesca GUFFANTI, Politecnico di Milano, Italy

ABSTRACT

The aim of our research is to present a design method which may deal with complexity, enabling the development of awareness and the description and design of those urban transformation phenomena linked to a leap in scale, which has today given rise to radical changes in the building typologies and in the morphologies of urban spaces and landscapes. Our focus is re-thinking about the power of an identity image of the local space through the Milanese architectural and urban design method, beyond the Rationalist Movement, the experience of the Anglo-Saxon Urban Design and the new theories about the Recombinant Urbanism.

The Marmaray project belongs to a long-term strategy that expresses the effective dimension of the Istanbul urban archipelago and considers it as the net to enforce with intermodal nodes of urban intensivity connecting with the local nets. Among these, Yenikapi is a site where various time perceptions, infrastructure, archeology, historical urban tissue and costal park need a synthesizing operation to express the attractiveness and power of place.

We are presenting a work on the reading and interpretation of urban tissues which tries to understand and classify analytically different urban moments, emphasizing the two main urban models of the city history –roman and ottoman – which represent, other than a geopolitical and chronological opposition, even a substantial socio-cultural difference in perceiving and organizing urban spaces. If the roman model set the geographical armature, the ottoman model was based on a special equilibrium between formal and informal spaces managed through different spatial devices (mahalle, naihye, kulliye) strengthening the polycentric structure of the city. In particular, the kulliye, religious and social welfare complex, highly charged with symbolic value, represent an interesting precedent for the study of urban genetic systems able to integrate rare functions at the net-city scale. It is a model that opposes – seeming more successful – a 19th century engineering perspective and does not find innovative ideas of urban space representing a valid alternative. These elements, which operate out-of-scale compared with the close-by urban tissue, are however able to manage it granting high livability and enhancing interactions. Starting by these studies, the multi-scalar dimension that our projects for Yenikapi propose has been made to react according to the formal/informal dichotomy, which linked the landmarks and big attractors to the dominant geographical orientation through a strong geometrical approach, while it produced a small-scale urban tissue based on ottoman building practices strongly related with the context.

INTRODUCTION: *SAILING TO BYZANTIUM*

An aged man is but a paltry thing,
A tattered coat upon a stick, unless
Soul clap its hands and sing, and louder sing
For every tatter in its mortal dress,
Nor is there singing school but studying
Monuments of its own magnificence;
And therefore I have sailed the seas and come
To the holy city of Byzantium.
(SAILING TO BYZANTIUM - W.B. Yeats)

Why sailing towards Byzantium? The imagination of a place firstly comes through Geography. And Geography is above all about History, History of mental images as consensually stated to represent something which can interact with Self, but deeply rooted in the evidences of Archaeology. This is much more important now in the age of global. In this perspective Istanbul can be really perceived only through its Geography, through the imaginary perception which leads to discover its essence.

This is not a generic issue, because the description of a place to live in or to transform through an urban project inevitably takes the move from Geography. Wondering how the future Istanbulcould be, which could be the role of Yenikapi in its development cannot ignore the value of that place, its specific location, where the roman harbour was, where a land reclamation process has been carried on, where a great infrastructural revolution is taking place due to the realization of Marmaray and its tunnel under the Bosphorus. It is essential to refer to a geographical interpretation to recognize Istanbul and Yenikapi within it as a place with a strategic role for relation.

The Myth tells about a woman, named Europe, disputed by two lands, one of Asia and one on the other side, the first one willing to protect her and the other one, for the will of Zeus, interested in taking her away on the waves of the sea, towards West, where she would finally go, riding a white bull. And then there is History, which set Costantinople in a precise geographical point, the Bosphorus, enforced by Epos and its stories of conflicts between East and West and which offered it the way to be the hub of a whole world as new centre of gravity, able to keep together the former Rome, the next Rome, different religions and different ethnic groups.

Geography, History and Myth combine today with an underground railway that for the first time links East and West giving the contemporary interpretation of this set of relations. Air and rail connections represent our specific way to relate the local and its topographical values to space and time issues which are completely detached, throwing into crisis the local world of common relations which then require proper and innvovative mediations. Through the contemporary transformations the geographical topographical value and the strategical hystorical relational vocation have to be preserved and strenghtened: geography and history have to deal with the lighter but determinat issues of a brand new business idea.

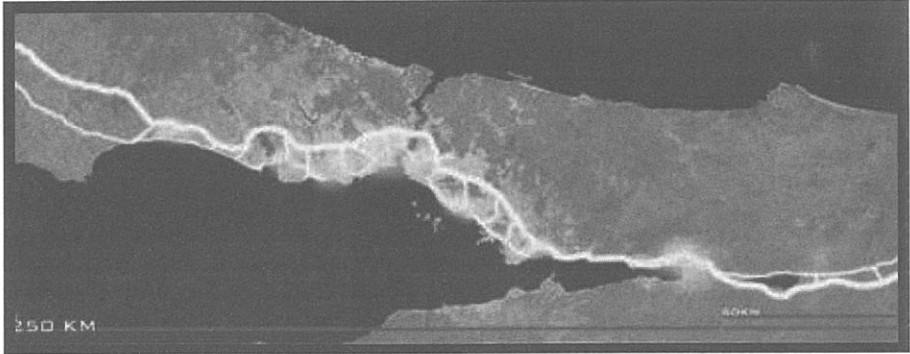## NET-CITY AND CULTURAL HERITAGE, DYNAMIC STRATEGIES FOR URBAN TRANSFORMATIONS

Figure 1 - The linear regional system (A.Frigerio)

Istanbul today is an urban region with 12 million inhabitants, centered on the Bosphorus and stretching linearly on the axis linking Sofia to Ankara, Asia and Europe (Figure 1). Its strategical position makes it an ever-changing centre of gravity for the relation between continents, countries, ethnic groups, religions. Its historical peaceful interaction among diversities is structured on original urban solutions jointed to social archetypes transposed in recognizable spaces. Istanbul is a city of intersections and diffused mobility. Saskia Sassen (Urban Age Congress, Istanbul 2009) explores these themes from a socio-economical perspective stressing how these inimitable qualities make it one of the worldwide most attractive cities. Its geography and history set it at the centre of a flux of capitals and people, in the interaction between Asia and Europe, which produces forms of knowledge that are fundamental to understand the heart of the networked flows in this age of different cultures articulation. Cities like this are cultural repositories of human capital, but in the interlacing between the *global* and a weaker and weaker *local* the final sense, according to Sassen, risks to be the one of*cityness*. This is the result, among other things, of an urban design school which hurriedly and passively accepted a western urban terminology on public space (*Ömer Kanıpak,2009*) and consequently ignores the characters of dynamicity and un-planned of the ottoman public space structures, which in Istanbul is – and could continue to be - the effective socio-spatial matrix to decline the local/global relation *(Güvenç and Ünlü-Yücesoy, 2009)*. Moreover, a progressive loss of power of the place is brought by big real estate investments oriented towards excessive iconic mega-projects or a senseless ottomanesque revival style (Sarkis, 2009).

This is a central issue, because the scale growth of the urban structure should be managed without damaging the socio-economical structure and the image/structure of the city: a conscious management of the landscape and the built cultural heritage is essential to preserve public interests even in this phase of prevalent private development of cities. According to Portugali: :"*Cities should be seen in terms of networks stretching in time and space. For Portugali cities are at the very same time an interactive network of internal (cognitive) representations of the external environment, and external (material) representations of internally represented concepts, categories and images. So, the network evolves and develops by an interactive sequential interplay*

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*between its internal and external elements, whose consequence is a sequential space-time, diffusion-like, process."*This vision is particularly interesting if we consider it as an important criticism towards a purely economical or ecological vision of urban developments. *"For both models reality is an arena where plants animals individuals and collectivities compete and fight for survival and in a similar way for both the city is the arena for the urban process by which people as individuals and collectivities compete over the urban land use, either by means of an interplay of spatio-economic districts, or by means of ecological invasion and succession processes identified by means of Chicago type factorial ecologies (Berry and Horton, 1970)".*

The destruction of territory and city as urban phenomenon consists of the incoherent detachment between Geography and the ways of structuring the city and its mechanisms. This depends on not-sustainable dynamics produced by irresponsible developments driven by modern and contemporary utopias based on the value of speed. The contraction of time often bringsto neglect the value of place, leading first to a denial of location (modernism *tabula rasa*) and then to self-oriented network logics whose interfaces are frequently badly managed.A project for the contemporary city needs a clear comprehension of its structure and dynamics in a multilevel analysis able to understand the laws of its urban metabolism and to produce a sustainable dynamic strategy to manage and to drive it. The scales ambiguity that prevents from naming casually aims and results of urban planning for the net-city implies the rooting of any attempts in a multidisciplinary frame which may support a complex decision-making process driven by a strong vision.

Understanding the power of a place means going through its history to grasp how the original ground was first inhabited, thus reinforcing its geographic endorsement (geography); how the population developed its settlements following ecological, economical, social and cultural dynamics, as showed by the evidences blended in the city texture (urban biography); how the fluxes of net-society, with their own logics, envelop access nodes located in the city, determining complex interfaces of various spaces and times (technology).

Designing the complexity of these urban transformation nodes considering them as heterotopias (Grahame Shane, 2005) allows to manage a wide spectrum of simultaneous scales of time and space through their typical characteristics: heterotopias are multi-pockets, able to host and relate variety in unity; they work through mirror-logics, reversing codes in terms of space and time; they are built by miniaturization of types and forms of the surrounding context. In this way they are able to offer new spaces to meet, exchange, live the city. Through these logics of complexity even the short-circuit determined by the archaeological remains, which do not belong anymore to the time of History, can find a place in the contemporary city, fostering positive and innovative interactions for the urban project.

In this perspective, a deep comprehension of urban metabolism may allow to proceed by results of analysis and present data, through objectives, to a powerful vision representative of the power of the place. The vision project, in fact, which is a cultural project, should be verified according to an ecological equilibrium to state its sustainability, according to an economical equilibrium, to state its feasibility and according to the equilibrium of fluxes in order to state its efficiency. Only thanks to a powerful vision it is then possible to build consensus among the actors and a virtuous

dynamic of interaction between public administrations and private investors able to deal with the dichotomy local/global.
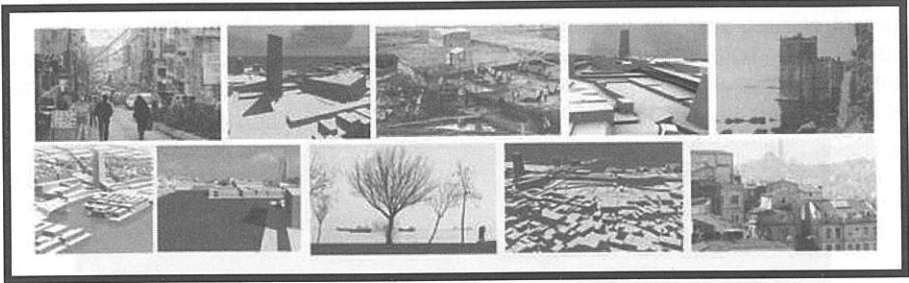

Figure 2 Affective scenes from Yenikpai: past, present, future. (A.Frigerio)

Therefore, the duty of architecture will be to build an affective scene; the one of planning will be setting a close relation between public-city enhancement and real estate development (Figure 2). This could strengthen the feeling of adequacy between place and inhabitants, beginning to consider as a value, even an economical one, urban landscape as cultural built heritage, essential element to deeply understand the term 'public good'. *"Tangible and intangible values in urban landscape are important for local citizens as carries of meaning and identities."* ... *"In the above meaning the cultural built heritage is defined as a public good."*... *"Strong conjunction between development planning and real estate development which increasingly have to be in the hand of local developers. Urban development planning has to be concerned with place rather than with space."* ... *"So the knowledge about individual preferences is critical for the valuation of urban landscape as a cultural built heritage and for understanding its public good characteristics" (Portugali).*

According to these ideas setting an architecture project for the key transformation areas of the city means acting for the renewal of the whole urban structure and its infrastructures and therefore involving important economical efforts and a cultural vision. A project which involves such a complex combination of economical, energetical and cultural investments of a territory must necessarily become the symbol of its vitality, its coat of arms.

MARMARAY YENIKAPI: A SYMBOLIC PROJECT FOR ISTANBUL

From the very beginning Costantinopolis was planned as a Gosstadt,
set on a wide scale for what concerned the general urban plan as for the details..
(Krautheimer)

The Marmaray project belongs to a long-term strategy that expresses the effective dimension of the Istanbul urban archipelago and considers it as the net to enforce with intermodal nodes of urban intensivity connecting with the local nets (Figure 3). The Yenikapi area project is for Istanbul a great symbolic operation which will become a medium of urban regeneration. The roman city, the ottoman city, the modern city, the armenian presence, the archaeological heritage coexist in an unbalancedhierarchy which currently puts modernization and infrastrucure above all the other values. In an urban metabolism perspective, the area is in a particular transformative condition to ride with the aim of developing its full potential. Potential of new urbanity with a dense grain

based on a layered thickness of signs (geographical endorsment, urban biography, infrastructural net) able to activate richer symbolic interactions. The theme has been proposed to young project-architects from Politecnico di Milano and worked out as a project of integrated functions, an interlace of urban tissues with different times and spaces, a comprehension of the urban biography, the conception of an urban scene set on a section strategy; all this in a perspective of creative redefinition of a complex and etherogenous urban landscape.

Figure 3 The metropolitan archipelago and its mental image. (A.Frigerio)

The great work of the Bosphorus tunnel, that in Yenikapi will have one of the most important epicentres, will join for the first time the two shores and worlds in alternative and synergy with the bridges. The project comes in this perspective: estabilished on the past and enlivened by the present desired actions. It is a project of public space not only linked to a function, as multiscale and multifunctional hub, but moreover as conception of an attractive place, endowed by an affective value not only for inhabitants, but even for city-users, able to link real and surreal according to innovative lifestyles. It is a place which can be reached by the sea, from the different urban tissues that build Istanbul, but, today, especially from the underground level of the stations bringing there the movements linked to the net of the world cities. Moreover, the project will determine a new design for the coastline, will attract big investments becoming an economical node. Again, in the history of Istanbul it will be a place able to give a built form to the values of the place, revealing them to everyone as new psychological landscape. (Focillon)

Understanding Yenikapi means thinking about it as a harbour located at the foot of a hill and with the city looking towards the other site. This point, through the new layered infrastructural nets, will be for the first time in its history equidistant from various places of the world and for this reason potentially similar to other nodes of the global net-city.

However, in Yenikapi there is much more, there is even an archeological layering which intersects with the infrastructural one: a coexistence which is respectful but not subordinate. Archeology and nets do not dialogue, but interlock themselves with their different conditionings. This determines, in the project, the coming to light of new typologies of urban entities, in which the value of functional complexity of the layer-machine emerges, and here includes even the archeological value. This is the surplus value of an architectonical depth which must include almost four different interlocked sets of layers: the railway platforms levels (pedestrian); the levels of the archeological remains; the actual levels of the urban relations (context); the new levels of the roof-gardens and top covering.

Figure 4 - Morpho-typological analysis (A.Frigerio)

This scenario reveals how the Chronicle of the present, the History of the long period, the Archaeology of the out-of-time need a syntesizing operation to foster the interaction of their specific values in order to build a new powerful identitarian image. The visioning operation brings to the evocation of the space of a multiscalar and multifunctional heterotopia which qualifies the archaeological presences, integrates the anodyne space of the nets, builds the image of a new public realm and finally localizes it as a landmark perfectly fitted in the urban landscape. Only an etherotopic/etherochronic approach can make archeology interact to build a great vivid and sensual image which can be memorized in a mental map of the worlwide net as long-distance attractive device and locally as identity symbol to be proud of. The focus of the project for Yenikapi then should be to define a map able to produce value, dialectic scenario for the future, useful to drive the urban transformations according to a sustainable vision of urban metabolism. This deals with an effort to establish and preserve a higher life-

quality based on easier accessibility to a multiplicity of urban services, rare functions and especially values in a continuous construction and deconstruction of places, relations, identities as in the multiethnic and complex history of Istanbul, against a levelling globalization. Consequently, it might be the case to wonder which could bethe real attractive function for this kind of megaform , if it still makes still sense to discuss in terms of function: market, shopping mall, station, museum are commonly known typologies that need to be reconsidered according to the stressed new complexity and scale. This new complexity requires a proper methodology for the urban analysis propaedeutic to the project. It will have to focus on urban morphology and syntax according to a landscape dimension which neglects the common relation insula/plot deconstructing the dense matrix of the city. This opens to the design of the new typological entities through innovative structural determinations, building envelope solutions, surprising inner landscapes and inside/ouside interactions.

Our works proceed through a progressive scale focus which lead from the analysis of the regional geographical relations to the urban structure and biography investigation, to the local archetypal typological issues, passing through the careful consideration of technological nets of infrastructure, needs and desires. Each scalar focus contributes to the development of the project suggesting directions, measures, intentions.
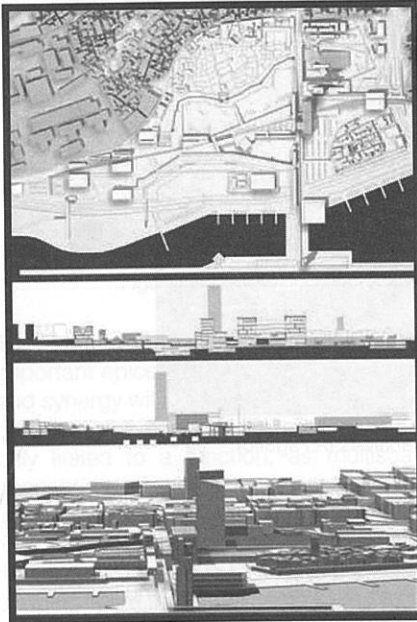
Figure 6 - North-south genetic axis (F.Guffanti)

Figure 5 - Vision and plan - Between formal and informal (A.Frigerio)

Figure 7 - Diagram: formal city (F.Guffanti)

At the regional scale of the urban archipelago, the key-point is the relation between built and un-built space: the important linear parks preserved by the urban sprawl thanks to the geographical topographical conditions have to be seen as fundamental spaces of relation among urban islands at the local scale and in an ecological network perspective at a wider scale. The linear park going along the Marmara coastline, which

coming from the western side of the city heads to Yenikapi, represents an important landscape relation interlocking with the dense tissue of the hystorical peninsula. This means for the project to explore the design of a new attractive waterfront, intended as active landscape providing innovative interactions between land and water, buildings and harbour in a multiple symbolic reading of these relations in the local history.

The metropolitan scale sets the attention on the north-south axis, which is connected physically and virtually to the new financial centre in Levent and to the road-circulation system that links the principle urban nodes withthe transformation areas. The projects relate to this system choosing to locate in specific points, linked with this north-south articulation, highrise buildings and public services, parts of a formal city layer responding to the contemporary requirements of speed and accessibility.

Coming to the urban facts, the morphological analysis of the city reveals the deep and constant topographycal roots of the urban structure, set in a definitive and enduring way by the Roman culture and still nowadays recognizable in measures and rhythms of the contemporary city. The transition between uses of space and lifestyles expressed by different civilizations have preserved the main geographical relations, which appear clearly looking at urban scenes and mental images.
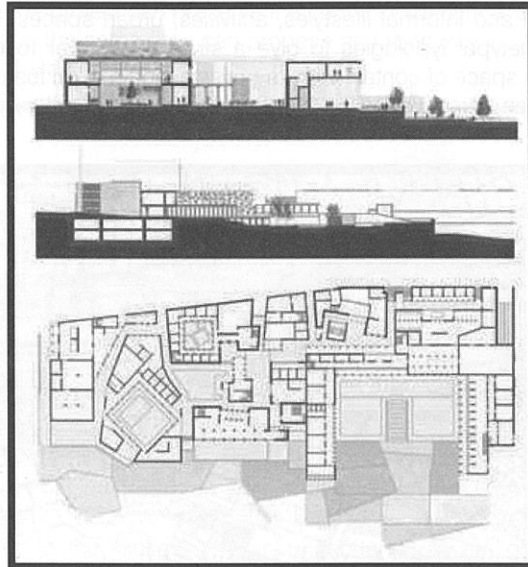

Figure8 - Designing informal spaces (F.Guffanti)

The roman city armature was rigidly measured according to the roman mile and its multiples and organized in the most efficient way in respect to the local topography. The extensive city walls included dense and sparse urban grain gathered around the fora, built with a regular rhythm on the mese, the major axis running on the crests of the hills. This system expressed a clear vision of power and society, which was totally subvertedin the ottoman period, but was preserved and interpreted as large scale urban frame. The ottoman conception of the city was based on the aggregation of private cells according to a spongy system able to host the informal expressions of urban life. This informal system was gathered around multifunctional symbolic nodes – just like the fora and often built on the fora – which were expression of the religious

power as welfare guarantor: kulliye. The ottoman urban model was based on a special equilibrium between formal and informal spaces managed through different spatial devices (mahalle, naihye, kulliye) strengthening the polycentric structure of the city. The kulliye, in particular, as religious and social welfare complex, highly charged with symbolic value, represents an interesting precedent for the study of urban genetic systems able to integrate rare functions at the net-city scale. This typological study led to the attempt of verifying the possibility of interpreting this archetypal welfare node in its authentic role of founding device to build new urban settlements and as an enclave able to concentrate various functions in a unitary symbolic experience. This attempt was possibleinterpreting the model through variations of relational intensity specially thanks to the multiplication of soils (layering) and the reinvention of building typologies.

The design of the symbolic multifunctional node and its armatures then requires the definition of the urban transformation field depending on it, which is geographically determined. The studies on the roman and ottoman solutions offered a clear vision of the polycentric system of the city as an archipelago built by the welfare nodes and their local fields, a hierarchy which we can refer to the contemporary definition of *quartier d'echange*. To interpret this dichotomy and unity, which in this case means even harmonizing formal and informal lifestyles, activities, urban spaces, our projects refer again to local archetypal typologies to give a strategic answer to the contemporary neglecting of urban space of contact with its physical and mental features, from the use of natural lights to an attractive feeling of adequacy, investigated by plan sections and models.

Figure 9 - Yenikapi Masterplan (A.Frigerio)

The described typological and morphological approach to the urban design issues is part of a wider research on the measures and scales of the contemporary city that aims at rooting the vision on the urban future to the primary anthropological spatial experiences. Some analogies, for example, have been stressed between the classical kullyie model (Fatih Kullyie) and modern examples of symbolic enclaves, like the Rockfeller Centre in Manhattan throughout its conception process, as comparable archetypes for plan dimensions and settlement schemes. This process has the aim to stress the importance of becoming aware, thanks to a proper urban analysis, of rhythms and measures of intensivity, expression of an archetypal density of physical and mental perceptions, which can be made to interact in the project of a contemporary mediation between formal and informal urban tissues. Symbolic values are built in space-relations as sign of primitive semiotics expression, an authentic modern approach which only can consent to different times in history (chronicle, history, archaeology) to stay together multipling meanings and different spaces, intended even as different people coming from everywhere through the worldwide net, to meet and interact without feeling lost, but at the same time understanding the local specificity. The expression of this potential aims at synthesizing various categories of urban spaces so that the project can preserve the contact experience, can grant the efficiency of the nets and at the same time can propose an urban intensivity able to represent its contemporary character.
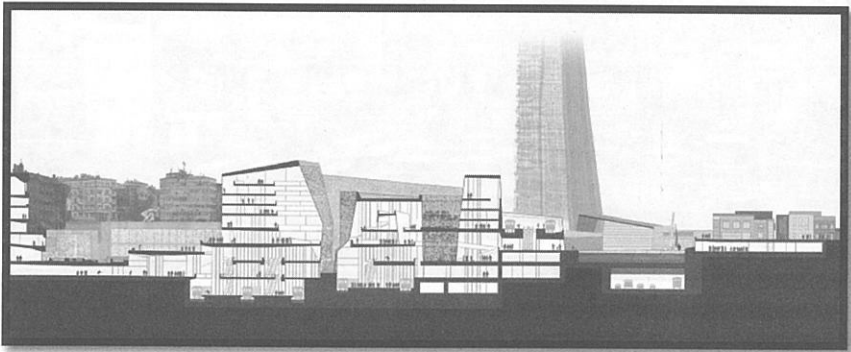

Figure 10 Into the layer-machine – Section (A.Frigerio)

Only if we refer to the Muses we can understand places, grasping their essence through the archetypal forms which conserve the urban identity. And only in this way we can transform a city in continuity with its history. Referring to the Muses means recalling to mind evocative words and figures having as aim the determination of an image which does not deal with consumerism, but with identity. Each image can be a symbolic propeller that the urban scene holds as a theatre, spatial device to linkplace and event in the mental perception. In Yenikapi the place will be the big Marmaray station which, intersecting with the archeological dig and the old armenian village and the costal park, will not become a non-place, excluding actors from the scene, but on the contrary, will transfrom the unusual mix of spaces, situations, faces in the unrepeatable element, giving value to the event. This skill of symbolic propeller which we assign to the role of image, even applied to Archaeology, can link the remains as objects hanging between chronicle, history and future to the contemporary speed of time. In this perspective our projects refer to the archetypes of the past according to

the genius of the people who designed them: the dimensions of the fora and then kullyie and mosques, understanding the transition between different cultures. This is for us a way to reactivate cultures producing new synergies because what is symbolic is deeply rooted, index of an identity which is personality. This is the specific milanese approach to the dialogue among cities. Working on the design of this mental asset of values, clearly expressed by new built form types, it is possibile to destabilize the common logic of present figures linked to infrastructures and to the stereotypes of antiquity, determining an outstanding image which is vivid, sensual and memorable.

Figure 11 Vision from the Marmara Sea (A.Frigerio)

Figure 12 Vision from the Marmara Sea (F.Guffanti)

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