

## A CASE STUDY OF THE THIRD BRIDGE: AN EXPLORATION OF THE IMPACTS OF THE TRANSPORTATION INFRASTRUCTURE ON THE CITY'S GEOGRAPHY

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### **Abstract**

Istanbul is a constantly mutating city due to the rapid and random shifts that occur in its macroform. These shifts are usually associated with mega projects. Their significance in today's politics is not a surprise since mega projects have always been present in the city's ancient urbanization history. As the city's urban fabric has transformed through these projects, so did its natural characteristics and borders. Today, transportation projects have significance amongst the mega projects due to the fact that they determine the trajectory for the prospective built environment of Istanbul. The process of their construction usually follow a cycle where the project is justified and building legislations become prone to change according to municipal ambitions and political concerns. Later on, land speculations are triggered and development of new urban areas follows. In this respect, this paper will focus on the Third Bosphorus Bridge through a geo-urbanistic framework. While the significance of human activities and urbanism upon the Earth's surface in the age of Anthropocene is acknowledged, the irreversible impacts that the construction of the Third Bridge will have on the northern regions of the city cannot be overlooked. Keeping in mind the aftermath of the previous bridges built over the Bosphorus, the possible effects the Third Bridge might have upon the city's built environment will be approached within the term *ad hoc geo-urbanism*. According to experts, the insertion of another bridge on the northern regions of the city is unnecessary in solving the city's infrastructural problems. However it will definitely bring the deletion of an essential part of the natural reserves that will have grave effects on the city's ecology. Therefore the term *ad hoc geo-urbanism* will address the paradox of transforming the geography of the city with motives solely for the present time and advantages merely for a few actors, while avoiding the long-term consequences it will generate on the city and its inhabitants.

**Keywords:** Geography, Transportation, Geo-urbanism, Istanbul, Third Bosphorus Bridge

## INTRODUCTION

Istanbul is one of the most appealing cities with a population of 14.16 million, a history going back to 8000 years and a strong will to progress. Today, it is a constantly mutating city due to the ongoing and anticipated megaprojects that constitute the main discourse of the current governing party in Turkey. The abundance of transportation projects amongst these megaprojects proves the significance of transportation amongst the agenda for governance and municipal services. As the transportation routes determine the future trajectory of Istanbul's built environment, the macroform of the city transforms. Following these transformations, the natural form of the city changes as well. These conditions arise many questions and issues that are critical for the positioning of Istanbul on a global scale. In this respect, this paper will focus on the construction of Third Bosphorus Bridge\* and the irreversible impacts of its construction. The natural reserves like northern forests, water basins, agricultural lands, flora and fauna, in other words all the elements the city needs in order to maintain a sustainable life, are situated in the northern regions of Istanbul. Therefore, the construction of a Third Bosphorus Bridge is seen by experts as a threat posed at the ecological life of Istanbul. Later on, the aftermath of these effects on the whole city and its territory will also be addressed. It will suggest that through the construction of Third Bridge, artificial but also physical new geographies will be created. Therefore the construction of the bridge will be regarded as a form of geo-urbanism that enables the face of the Earth and its geological layers to be shaped according to specific wishes and needs of the humankind. The human activities act as a geophysical force that transforms the Earth's surface. In the specific case of Istanbul, these wishes and needs are frequently united with the agendas of the current governing party. This will lead to the exploration of transportation infrastructure in Istanbul used as a dispositive for creating land speculation. The cycle of making uncommodified lands a commodity in order to include them in the real estate market will be evaluated. The cycle will consolidate the catalyzing impact of the bridge as a 'quick and visible' solution for economical stability behind a network of many conscious and unconscious actors involved throughout its construction. This paper will conclude by asserting the risk factor in constructing for the sake of current economical situation, current government and current epoch, or in short the currency itself. Ultimately, the paradox of constructing another bridge over the Bosphorus with motives solely for the present while avoiding the long term effects it will reflect on physical, social and cultural geographies of the future will be emphasized.

## MEGAPROJECTS IN ISTANBUL

It can be argued that the city of Istanbul always had a tradition of constructing mega-structures and mega-projects throughout its history. Whether it be a way of proving dominion of mankind over nature through artifice or another tool of visibility for the competence of the emperor and the sultan over his people; structures like Hagia Sophia, Hippodrome of Constantinople, the Valens Aqueduct, land and sea walls or Süleymaniye Mosque and many more can be considered as megaprojects of former times. These man-made structures created new landscapes and territories within the city. Furthermore they superimposed an urban fabric which merged with the natural form of the city and transformed its geography. Eventually, the city as a hybrid synthesis of natural and artificial geography was created.

Today, megaprojects are defined as 'major infrastructure projects that cost more than US\$1 billion, or projects of a significant cost that attract a high level of public attention or political interest because of substantial direct and indirect impacts on the community, environment, and State

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\* The Third Bridge, which is controversially also called the Yavuz Sultan Selim Bridge, was met with protests considering that Yavuz Sultan Selim has ordered the massacre of approximately 40.000 Alevi in the 16th century.

budgets' (Capka, 2004). The Third Bosphorus Bridge, as a part of Northern Marmara Motorway, is also considered as a megaproject with its approximate budget of US\$2,5 billion (3kopru.com, 2014). However today, a third bridge over the Bosphorus could have much more catastrophic and irreversible impacts upon the city when compared to any former structure that has transformed the geography of the city. First of all, the construction is a *fait accompli* one since it is not approved by the preservation council and it lacks a participatory planning medium which would ensure possibilities of opposition and dispute at local levels (Gerçek,2014). Its route passes directly from natural barriers of the city like ecologically sensitive forests, water reservoirs and catchments (Güvenç et al., 2009). This is highly problematic since the experts point out that it has caused the deletion of 245 thousand trees so far (Erdem, 2013). Probably it will also have adverse effects on the areas of drinking water reserves, lead to an increase in local temperatures and cause the extinction of endemic plants and animals (Finkel, 2011). Therefore, the impact of human patterns of resource consumption as a geophysical force, land being the resource in the case of the Third Bridge, will transform Istanbul's natural form with side effects on its natural life. This poses a threat at Istanbul's microclimate and ecosystem, with an intensity that has not been preceded before.

### **THE CYCLE: JUSTIFY, LEGITIMIZE, COMMODIFY!**

Within the tradition of governance in Turkish cities, constructing mega transportation projects always involved a cycle. Initially, the project is justified with a reference to congestion by the state and its municipal organs. Later on, legislations are changed to pave the way for new developments. With new developments, a new market was created which produced an economic boom. Then, as the city expanded, the population increased and the congestion grew. In the case of the Third Bridge, the justification is that it would be a remedy for the traffic congestion that Istanbul faces since heavy-duty vehicles will be directed to the Third Bridge. This will ensure less pollution for the city center. It is also claimed that there will be less congestion in the city center, which will create a positive impact on people. (3kopru.com, 2014). However, as of now, Istanbul is considered as Europe's most congested city and as experts points out, trying to cure congestion with more capacity always results in more congestion. According to statistics, motorized vehicle ownership raised more than tenfold since 1980 and still another 84.000 more cars are added to traffic every year (Gerçek, 2014). This shows that an additional bridge will not solve the congestion problem by any means. In fact, urban planners point out that the construction of the Third Bridge is not a project to ease traffic, but a real estate project that is expected to create an economic boom (Letsch, 2014). In order to create an economic boom, the next step is changing the legislation. This is done with expertise and impudence in order to speed up transformation process in certain areas of the city (Pierini, 2013). Initially, the Law on Greater Municipalities was accepted in 2004. It extended the borders of the Greater Municipality of Istanbul to the borders of the entire city area which increased the authority of the Greater Municipality to a great extent (tbmm.gov.tr, 2004). This was followed by the Law on the Treasury Lands that Have Lost the Qualification of Being a Forest, Law on the Conservation of Nature and Biological Diversity, Law on the Protection of Water Reserves and Environmental Impact Assessment. They were all transformed and accepted within 2009 to 2013, a period of only four years (Resmi Gazete, 2012-2013). These legislative changes will bring the swift and dire transformations on the protected areas of the city, favor the sale of public land to private parties and make exemptions on certain companies and individuals. As land becomes a commodity with an expectation for absolute revenue, it starts to be favored as an object of speculation and determines the spatial expansion of the city (Keyder, 2009). Introducing uncommodified spaces like forests, agricultural lands, natural reserves, and quarries into the real estate market acts as a newfound tool for reproducing and redistributing social wealth (Çavuşoğlu, 2014). Therefore, new trajectories will

produce new areas for urban development and eventually a new market will be created. This will originate a new wealthy elite that will trigger a change in the social geography of the city. It will also probably bring about an increase in the population and ownership of private cars. Inescapably, the rise in the population will bring more congestion for Istanbul. Nonetheless, a new transportation project that will start the cycle from the beginning will probably be ready for other undeveloped areas of the city in order to elicit pending opportunities of commodification.

### **AD HOC GEO-URBANISM**

Cities are characterized through their urban fabrics and urban fabric can be defined as the 'artificial geography of structures and infrastructures that are superimposed over the natural geography' (Katsikis, 2014). For centuries, cities have been developed according to their geographies and topographies, from which topologies were created that determined the social, economic, spatial and phenomenological interactions of cities. However, it is not a surprise that in the age of Anthropocene, geography is no longer considered to be the preliminary shaping agent of urbanism, but it is urbanism that emerges through activities of humankind that shapes the geography. This could be defined with the term of geo-urbanism. The renowned urban planner Bruno Secchi claims that whenever he moves one square meter of soil from one place to another to build, he is correcting and improving natural geography. However, he also insists that these projects have to be useful and not be done just to change the world (Upmeyer, 2014). In the specific case of Istanbul, the city that has been the main focus of Turkish governance, the construction of the Third Bridge is very questionable within the framework of geo-urbanism. The project lacks transparency in its process and is opposed by experts and NGOs. It is built on the northern regions of the city which are the most vulnerable and valuable naturally and ecologically. Moreover, the laws liability to change does not promise that these regions will be protected in the years to come. Most importantly, the previous examples show that development proceeds without being faithful to any master plan.

After the construction of the two Bosphorus Bridges in 1973 and 1988 consecutively, the littoral orientation of growth within the city was utterly abandoned, only to be replaced by a highway-oriented development at full throttle. This instigated the expansion of the city towards north. Electoral interests lead to the loosening of legislations on development so that the population of Istanbul grew almost fivefold since the construction of the first bridge over the Bosphorus (ibb.gov.tr, 2001). Hence, for Istanbul, the transportation infrastructure has always been the most favored discourse of politics considering its ability to bring short term solutions to existing urban issues, create electorate for the relevant party and generate new areas of development. This is also due to the fragmented structure of authorities that are responsible for any transportation project that is going to be built in Istanbul. The Ministry of Transport, Maritime Affairs and Communications, Istanbul Metropolitan Municipality, local and national authorities all have a say in decision-making processes (Gerçek, 2014). Therefore the planning and coordination becomes difficult while imposition and fiddling proves to be easy. It can be estimated that the construction of the Third Bridge will not only initiate highway-dependent developments on the northern regions of Istanbul but will probably trigger an increase in its population as well. The 1/100.000 Strategic Plan of 2009 prepared by Istanbul Metropolitan Planning does not even include the Third Bridge. It suggests an expansion of the city on the southern regions parallel to the Sea of Marmara in order to protect the natural reserves on the northern parts. This master plan also includes the third airport on the southern parts and proposes a population of 16 million for 2023 (ibb.gov.tr, 2009). However, as it has been publicly announced, a New Istanbul is being built in the northern regions of the city and the biggest airport is also to be situated here (Megaprojeler, 2014). According to experts, as New Istanbul will be a medium-sized city, the actual population of Istanbul in 2023 will probably be more

than 20 million . Therefore, it could be estimated that, the construction of the Third Bridge will most probably cause an *ad hoc geo-urbanism*, where the surface of the Earth is transformed not for the sake of the city and its inhabitants but for the specific wishes and needs of certain actors.

## CONCLUSION

Istanbul, with Black Sea on its north and Sea of Marmara on its south, has the form of a rectangle that is 100 km in length and 30 km in width. Bosphorus Strait divides the city into two parts, Europe on the west and Anatolia on the east. The shores of Bosphorus and the southern belt parallel to the Sea of Marmara has been more or less the main development area of Istanbul until 1970s. However, after the construction of the first two bridges over the Bosphorus, this settlement has expanded towards north, parallel to the trajectory of the highways. Today, the northern regions are at risk of being developed due to the construction of the Third Bridge. A *machiavellian megaproject* by nature, the Third Bridge has underestimated costs, overestimated revenues, underrated environmental impacts and overvalued economic development effects (Flyvbjerg, 2005). However, in reality it is the part of an infrastructural corridor that endangers the ecological corridors housing the natural reserves of the city. Therefore, it is essential to recall what is at stake within this frenzy of *ad hoc geo-urbanism* where bridges are built without a solid foundation, laws are changed for more development, and the city's inherent natural form is transformed for the sake of temporary economic stability. In other words, as new geographies are being created for purposes that will serve only to certain actors for a brief period of time, the eventual long-term impacts of these newly formed geographies are being utterly disregarded.

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