

THE ROLE OF ARCHITECTURAL COMPETITIONS IN ACHIEVING URBAN TRANSFORMATION IN BERLIN ^[1]

MİMARİ YARIŞMALARIN BERLİN KENT DÖNÜŞÜMÜNÜN BAŞARILMASINDA ETKİSİ

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ABSTRACT

Berlin is a city that takes as an important place as well as being a model with its competition mechanism due to having a traditionalized form in terms of architectural and urban competition. It has also been often referred among rationality-based practices and discourses regarding 'modern' cities that take places in the geography where modernity was born. This study addresses that how the city of Berlin, where important political, economic and cultural breaking points are experienced at first hand, puts into practice the notion of rationality, which plays important role in the background of notion of modernity that can also be considered as an action plan of enlightenment and positivist perspective, by associating with the concept of 'consistency' and 'language' via architectural competitions and to what extent a common wisdom is decisive in cultural and intellectual processes in Berlin. In this context, study is based on the argument that "Competitions are used as an instrument for 'Urban Rationalization' in the context of the discourse of 'consistency' in modernity. Firstly, Berlin has been analyzed both in respect to the texts that condition the city form and from the point of view of embodied urban-architectural pattern through competition projects that is determined in the light of the competition texts. With the assumption that the concept of rationality is a fundamental value of modernity, the concept of language and the theoretical framework based on the consistency in language and in accordance with linguistics methodology which is derived from this framework. Secondly, comparative analyses are evaluated. With the aim at introducing of the transformation of the city from 20th century onward and reflecting the idea of modernity on both consistency and inconsistency concept to the city form, assessments of entries in architectural competitions held between 1945-2014 during 3 sub-periods (1945-1961,1961-1989,1989-2014) defined by critical political, economic, cultural inflection points are made using cartographical method of urban analysis.

Keywords: Berlin, Architectural and Urban Competitions, Modernity, Rationality, Consistency

ÖZET

Berlin, hem mimari ve kentsel yarışmaların geleneksel hale gelmesi nedeniyle yarışma mekanizmasıyla örnek teşkil eden, hem de modernitenin doğduğu coğrafyada yer alarak, 'modern' kente dair rasyonalite odaklı pratik ve söylemler açısından pek çok kez referans verilen bir kenttir. Bu çalışma, önemli siyasi, ekonomik ve kültürel kırılmaların birinci elden hissedildiği Berlin kentinin, Aydınlanma ve pozitivist bakış açısının eylem planı olan modernite düşüncesinin arka planında önemli yer tutan rasyonalite olgusunu, 'tutarlılık' ve 'dil' kavramıyla ilişkilendirerek, yarışma projeleri aracılığıyla nasıl hayata geçirildiği ve tüm bu kültürel, düşünsel süreçlerin arkasında ortak aklın ne derece olduğu konusunu irdeler. Bu bağlamda çalışma, "Yarışmalar, Berlin kent dönüşümünde bir rasyonelleşme aracı olarak kullanılır ve bu kapsamda Berlin tutarlılık iddiasını doğrular" savı üzerine kurgulanmıştır. Rasyonalite olgusunun modernite düşüncesinin temel değerlerinden biri olduğu kabulünden yola çıkılarak, 'dil' kavramı ve dilin içerisindeki tutarlılıklara dayalı kuramsal çerçeve ve bu çerçeveden türeyen dilbilimsel metodoloji doğrultusunda Berlin, gerek kentin biçimini koşullandıran metinler, gerekse bu metinler ışığında belirlenen yarışma projeleriyle somutlaştırılan kentsel-mimari doku açısından önce ayrı ayrı, sonra ise karşılaştırmalı bir analize tabi tutulmuş ve sonuçları değerlendirilmiştir. Berlin kentinin 20.yy ortalarından itibaren gözlenebilen dönüşümü ve modernitenin kentin fiziksel biçimlenişine yansıyan içsel tutarlılık - tutarsızlıklarını göz önüne sermek amacıyla Berlin kentinin dönüşümü; Berlin Duvarı inşası öncesi, sırası ve sonrası kapsayan 1945-1961, 1961-1989 ve 1989-2014 olmak üzere üç farklı zaman kesitinde kategorize edilerek, kartografik çalışmalar üzerinden değerlendirmeler yapılmıştır.

Anahtar Kelimeler: Berlin, Mimari ve Kentsel Yarışmalar, Modernite, Rasyonalite, Tutarlılık

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1. INTRODUCTION

Urban morphology is at the highest level of cultural artifacts, comprising an intellectual and logical structure as a spatial unity made up of buildings as architectural constructs in their own right, and as constructs of open space between buildings, revealing its mathematical linguistic structure. It is possible to see this mathematical structure in a framework which extends from the culture's smallest artifact to its design of the largest of urban settlements, from its literature to its oral traditions and even its music (Adams & Steadman, 2004a;

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Adams & Steadman, 2004b; Adams, 1986; Gomez 1983). Mathematical structure can be expressed as the result of linguistic studies from a post-structuralist view, and has been grounded in scientific knowledge (Gomez 1983). Berlin, like many other cities, does not only reflect this structure clearly, but it also displays a mathematical inconsistency in all aspects of its culture. In addition, its structure shows significant changes and permanent breaks within a very short period of time. As in many apartheid cities, Berlin manifests these breaks in a physical wall and spatial formations that have been changed around it. However, unlike other apartheid cities, Berlin has a unique characteristic that, first, transforms the conflict of socio-economic and political orders, and reveals two different forms of existence in economic and political terms, and then reconciles them spatially into a palimpsest. In this sense, especially the transformation in the city center region, which is divided by the wall, is a significant area that has to be examined as conflict between different overwritten languages. At this point, it can be said that competition has an undeniable role in the urban language, which has been formed by regular structures in urban transformation.

In addition to the comments on the urban language formed during the periods of this study (1945-1961, 1961-1989, 1989-2014) and the conflict between these languages, the 'Hobrecht Plan', prepared in 1862 and which is important both in terms of Berlin's city planning and contemporary urban planning, will be compared with today's Berlin layout, and evaluations will be made. Although the Hobrecht Plan is outside the periods within the scope of the study, the reasons for its inclusion may be explained as follows:

It can be said that the first Hobrecht Plan formed the foundation for 'modern' urban language, and the Hobrecht Plan can be seen as a substrate of these conflicts (palimpsest). Therefore, evaluations can be made in the context of the consistency of languages reflected in urban morphology as a result of significant changes and breakthroughs of Berlin's urban transformation. Modernity derived its rationale from the Enlightenment and the French Revolution, and materialized with the British Industrial Revolution towards the end of the 18th century (Kumar, 1999). Berlin has become a metropolis which, on the one hand, represented the most typical forms of 'modern' relationship produced by the Industrial Revolution at an atomic level, and on the other hand, represented the highest context of the reciprocity of those relationship forms. As the market system was formed by industrialization provided economic transformation, Metropolis became the most basic medium of the transformation of the urban form in which the political, ideological approaches and resolutions were put forward in a new system as well as the economical structuring and the outcomes of this structuring. The idea behind the plan - or in other words mathematics - is important in terms of understanding the 'modern' urban language due to the preparation of the Hobrecht Plan for the evolution of the urban form in response to dynamics such as increase in migration, accordingly an increase in housing demand and land speculation after the Industrial Revolution in Berlin. The Plan, which is an infrastructure project, is built on a mathematical order, which will be in compliance with the expansion axes, sewerage/sanitary/infrastructure and transportation network after having the analysis of the urban topography (Arin, 2003). This planned infrastructure work was based on the construction of urban parks and squares in the context of Berlin's public spaces. In this framework, the Hobrecht Plan may be considered as a reference in the context of the construction of the public area understanding of modernity. The relationship of Berlin's present urban form with this plan is built up with Hans Stimmann's inspiration of this plan in the 1990s (Berlin Senate Archive, n.d.) and the fact that the Hobrecht Plan is considered a reference by the Senate of Berlin in terms of being a starting point for land use plans. In this way, it is confirmed that this plan is important in order to test the consistency of the language of urban transformation from the starting point of modernity to present in line with the objective of establishing the consistency of urban planning transformation in Berlin.

A characteristic, which makes the city of Berlin unique in terms of this study, is that the presence of preliminary studies that condition this structuring and written texts of these works as well as the architectural practices and their configuration which are the main elements having contribution in the formation of the city. In this sense, Berlin's urban pattern offers the most suitable experimental environment for studying the relationship between city and language.

In this study, the urban morphology of Berlin will be examined within the framework of two axes determined in accordance with its initially defined structure. The first one is the texts ('discourse') that determine the urban form, and the second is the system that makes it physical ('action'). Within the scope of this study, the structures that determine the urban morphology were limited to the constructions designed/built through competitions in line with the thought that the competitions become a tradition of building made by the invited architects in Berlin, and the competition mechanism is one of the most important driving forces in the formation of the urban form as a kind of rationalization in Berlin. In addition, it is thought that there is a close relationship between the architectural competitions which first started in the 1800s (Sudjic, 2006) and the rational thought system based on the idea of Enlightenment and Modernity which is the action plan of Rationality.

In a study by Çağlar (Çağlar, 2013), which asked, "Is it possible to make theoretical assessments on architectural practice and its environment through architectural design competitions entitled "Are the competitions of architecture good (or not)?", the competition mechanism, which is the main topic of this study, is emphasized to have a potential to give a wide range of information on architectural practice. The cartographic method, which is the method of study, is also suggested as a method for studies to be carried out in this direction.

2. PERIODICAL EVALUATION OF URBAN TRANSFORMATION BY CONSIDERING THE COMPETITION TEXTS AND COMPETITION PROJECTS

In this section, the transformation of the city of Berlin, the specifications of the competitions in the urban dimension, the competition reports, the texts about the competitions and the plan decisions which are the basis of the competition specifications, were analyzed with the prediction that the city was formed by the rules which were set forth by the competitions during the categorized three sub-periods. Secondly, the relationship between the city and linguistics was discussed by carrying out cartographic studies in line with the planning principles derived from the textual context.

Analytical maps were prepared by the maps prepared for the Biennial of Venice Architecture in 2000 (Berlin Senate Planning Department Archive, 2014), maps to which the map of the last period added by the Berlin Senate City Planning Department in 2014 and Bien & Giersch maps (Luftbildkarte Berlin, 2005) showing the historical transformation of Berlin.

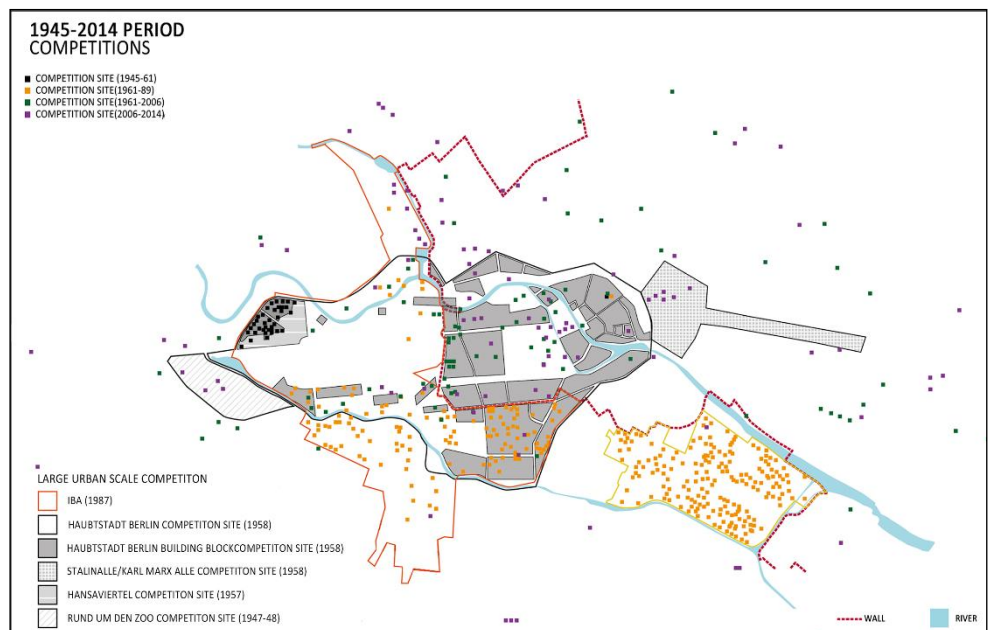


Figure 1. The analytical map of competition projects over the period of 1945-2014 (Eris, 2016; Eris & Ozer, 2016)

2.1. An Evaluation Over the Period of 1945-1961

After the Second World War, the destruction of the city increased the need for transformation and therefore the need for architects. As a result, the governing body made a ministerial decision on the construction of 'public buildings' through the competition (Kuhnt, 2015). This shows how the competitions have become traditional in Berlin.

It can be seen that the understanding of space in this period, in which almost all of the city was destroyed and can be regarded as a tabula rasa to be rebuilt, was generally devised on the 'Collective Plan', which was prepared by Scharoun in 1946 and based on the Athens Treaty (based on CIAM 'Functional City' principles) after the Second World War, in particular for West Berlin (Arin, 2003; Berlin Senate Planning Department Archive, n.d.). Scharoun's Collective Plan, which was prepared at the time when the Eastern and Western blocks were not physically separated, is a plan drawn on the principles of urbanism in West Berlin that are associated with capitalist ideologies, in which the whole of the city is gathered under a single concept. Organizing of 1957 Around the Zoo, 1957 IBA Hansaviertel Area and 1958 Hauptstadt Berlin competitions according to this planning acceptance are important since the Collective Plan principles determine the major language of these competitions.

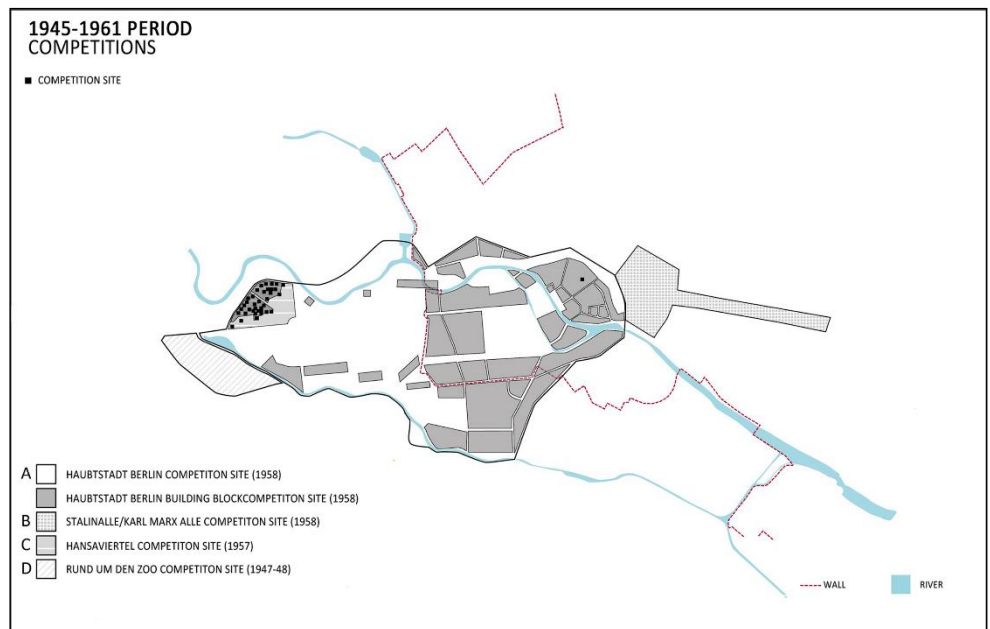


Figure 2. The analytical map of competition projects over the period of 1945-1961 (Eris, 2016; Eris & Ozer, 2016)

The first competition organized in 1947 in the light of the Scharoun Plan is 'Around the Zoo' Competition. In 1954, the winning project was the Council Guidelines in the competition, which was organized for the purpose of the transportation network design of the surrounding area of the Central Zoo in West Berlin and Breitscheidplatz, and in this way, the design of the new city center of (West) Berlin (Neumeyer & Ortner, 1997). This development is important in that it is a decisive text in the West Berlin land-use plan prepared between 1950 and 1965, which became a guide with the competition specification and report. It also has vital importance as a preliminary text that constitutes the language infrastructure that would determine the form of the city after 1961.

A call for projects was given in 1957 by IBA, which is another organization that determines the basic approach to urban planning in West Berlin, in the area of Hansaviertel reserved as a housing zone in accordance with the Scharoun's plan. IBA made this project call with the slogan 'New Modern Germany' in response to the expectation of creating a "City of Tomorrow" by rejecting the Senate's understanding focused on socialism and traditionalism and that would represent Western authenticity and freedom (Mahler, 1952). In the texts, this call for projects is interpreted as an opposing propaganda in response to the East Berlin Stalinallee project, and it has characteristic features in terms of revealing the differences of East-West Berlin urbanism (Mahler, 2001; Bodenschatz, 1996; Schulushe, 2016). Although IBA Hansaviertel Area specifications do not have rules on building dimensions, it can be

interpreted that a new morphological urban language composed of elements such as cadastral pattern, street-block structure and hierarchy of public space network usage was described when considering the change in land use plans (parceling scheme) and the density specified. The city is now transformed from a sense of urban pattern/context where the building blocks define the streets to object-buildings within spaces. Together with this, a new and different understanding of monumentality was formed.

The Hauptstadt Berlin Competition was held in 1958 in order to spread the new understanding in this area to the whole city of Berlin upon a tremendous impression of the competition text, which was designed in the context of the West Berlin urban planning language and its outcomes. However, since it was not possible for the city to be considered as a whole with the construction of the Berlin Wall in 1961, this competition eventually remained as a project, which was not (could not be) carried out. Although this project was not (could not be) carried out, it is important because the Hauptstadt Berlin Competition, which includes the East Berlin region, was actually a competition for the implementation of the basic planning principles of the Hansaviertel Area Competition in the whole city, and which revealed the understanding of capitalist urbanism. In the foreword to the Hauptstadt Berlin Competition specifications Konrad Adenauer referred to the competition as "a structural and urban transformation project, which aims to express spiritual and intellectual role of the new urban image of Berlin, Germany's modern metropolis, through international cooperation and democratic ideas". This thought has discourses parallel with the West Berlin planning principles (Sonne, 2006). Therefore, it can be suggested that the intention of creating capitalist city planning principles and network/hierarchies for the use of public spaces all over the city and the language of the whole city through the street-block structure, parceling and cadastral order were not realized in these years.

The German Democratic Republic (GDR) defines the Guidelines as the 16 Principles of Urban planning in 1950 in response to the IBA'57 Hansaviertel Competition on which the International Style and CIAM principles are applied, and in order to create a socialist city, and they have organized the Stalinallee Competition which is based on these guidelines (Ockman & Ergen, 1993). It is possible to observe the 16 Principles of Planning from the choice of the central axis as a competition site in the beginning of competition to the projects designed at the end of the competition. This is an effect of how the political and economic policies of the city are reflected in the city through architecture. The TV Tower Competition, which was started in 1959 in Hauptstadt East Berlin and is included in the literature, serves the desire to make the highest building in the sense of their own monumentality as a power manifestation of Stalin's dream of socialist policies, in other words, capitalist-based politics, and as a challenge to the ways of urbanization of these policies (Werner, 1969; Giedion, 1969; Müller, 2005; Müller, 2001). As a result of the competition, Herman Hanselmann's design was evaluated as a design that would meet the 16 Principles of Planning, pay regard to the Marx-Engels-Forum, which was designed by Gerhard Kosel in 1955, and respond to Stalin's desire to build a higher structure. From this point of view, it can be noticed in concentration of the consistency concept. However, manifesting the power by making the highest building in the competition had become the aim of the competitions. This is in fact contradicting the concept of anonymity, which is the basis of thought of the eastern bloc societies operating with the socialist system, and describes a very basic incoherence of the spirit.

This is an important period, particularly in the context of the creation of the city's new language. In this period, although the Wall does not separate the city physically, it is seen that the city form is shaped through competitions and two different languages presented as the 16 Principles of Planning and CIAM in the context of urban planning criteria. It can be said that Berlin urban language principles can be seen through five basic criteria, which are the common points on which the rules underlying these texts are based. These criteria are road network hierarchy, building-building block relation and parcel usage, green (open) area uses, the relationship between existing building and new building interventions and continuity of historical elements. When the urban language is considered according to these criteria, the most distinctive difference is the transformation of building-building block relations, parcel and green (open) area usage. In the scope of this study, only these criteria will be evaluated.

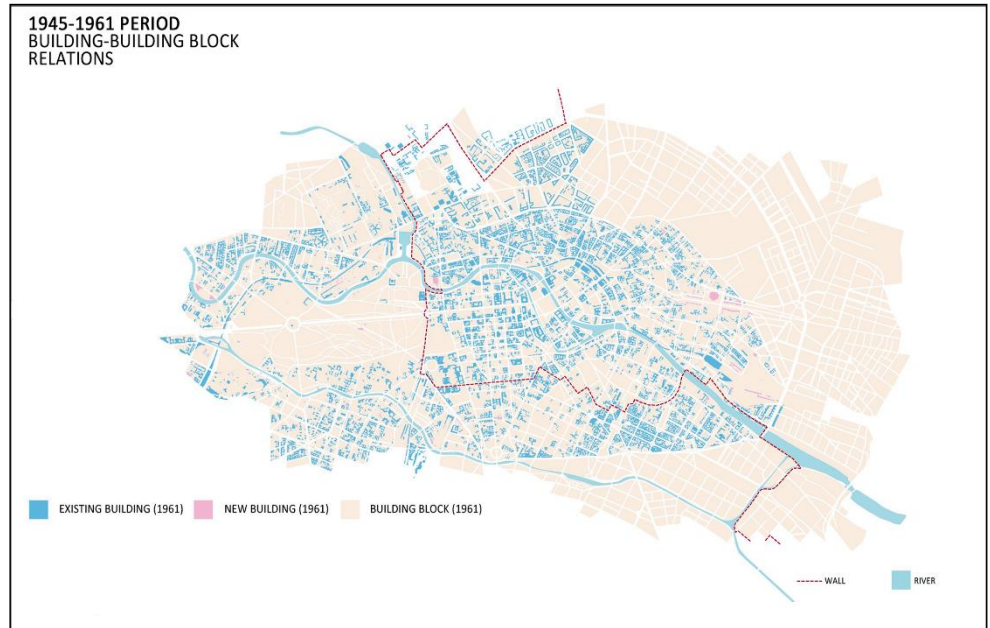


Figure 3. The analytical map of building-building block relation over the period of 1945-1961 (Eris, 2016; Eris & Ozer, 2016)

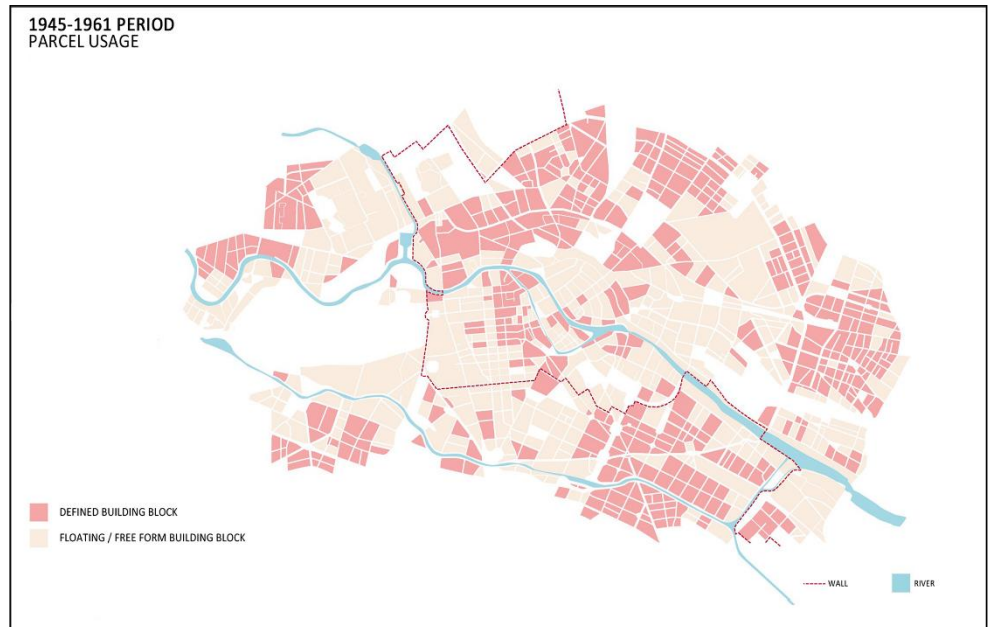


Figure 4. The analytical map of parcel usage over the period of 1945-1961 (Eris, 2016; Eris & Ozer, 2016)

When it is looked at the building-building block relations and parcel usage in this period (see Fig. 3,4), it can be seen that the building block, which are defined as 'floating/free form of building within building block' in the scope of the article and which are composed of freestanding buildings within the boundaries of the building block as an objects in space, have been intensified instead of 'defined building block' of which walls and peripheral blocks have been previously defined and built around the courtyards. Especially in the regions where competition projects have become increased in this period, the distinction between this 'defined building block' and the 'floating/free form of building within building block' is very clear. The competition proposals and solutions for the typologies that constitute the 'floating building block' in the new competitions are at the forefront, and they are clearly defined in the competition texts.

When the green areas are considered (see Fig. 5), large parks in the west, north-east and south-east of the city were observed to be composed of green spaces (which have irregular and amorphous formations between organic city building block and defined buildings) left in the courtyards (these greens usually have patterns of defined Euclidean geometric shapes) and its surroundings of the multi-particulate and peripheral block (the structure that defines the defined building block) typologies of green texture in the city center. Although the main park areas of the city were largely preserved after the war, it was exposed to considerable destruction and fire. For this reason, it can be assumed that the

city's green areas are not dense and display a fragmented syntax. Interestingly, these small and fragmented green spaces, which focus on the area where the wall line will be put later, exhibit a rather dense but discontinuous language. Large green areas pointing to the large park areas, even though they are divided by road networks passing through them, they have integral and therefore continuous characteristic. It can be concluded that the river shores are deprived of green areas, so water and green continuity is not available for a period of time.

When looking at the analytical map of the competitions distribution (see Fig. 2), it is observed that the competitions of this period, which dealt with the Berlin city, which is not yet divided by the Wall, in the direction of east-west axis, show holistic approaches. Although these competition areas offer amorphous form, the building block of the Hauptstadt Berlin Competition dated 1958 shows a Euclidean subdivision in accordance with the road network. Therefore, it contains some kind of consistency with the criteria determined in the competition texts. It draws attention with its Stalinallee Competition and its axial geometry. Even though this competition area, which represents a politically important differentiation, and its morphological characteristics show inconsistency within this period, it may be suggested that particularly their rigidity and parallels observed in road network and building block layouts in following periods point to a holistic balance in terms of the internal consistency in the city's transformation language.



Figure 5. The analytical map of green pattern/areas over the period of 1945-1961; Eris & Ozer, 2016)

2.2. An Evaluation Over the Period of 1961-1989

In this second sub-time period, the planning decisions, which determine the formation of city within a time period expressing the polarization between two opposing intellectual, political, economic and social structures, the linguistic structures of the competition specifications and logical structure between them will be evaluated.

When West Berlin does not have as strict limits (Neumeyer & Ortner, 1997) as East Berlin on borders related with the enlargement of city, it can be seen that the city was constructed on a transformation-oriented planning system that does not expand the boundaries of the city through approvals accepted in CIAM Athens agreement such as the allocation of city centers to commercial functions (private sector) as the most profitable areas, settlement of residential areas to the suburbs and connection them to centers by means of transport network (car-focused transportation). The place of the Around the Zoo Competition is to create housing-based suburbanization and transformation-centered planning, which means the city's basic zoning plan by determining the car-focused transportation network.

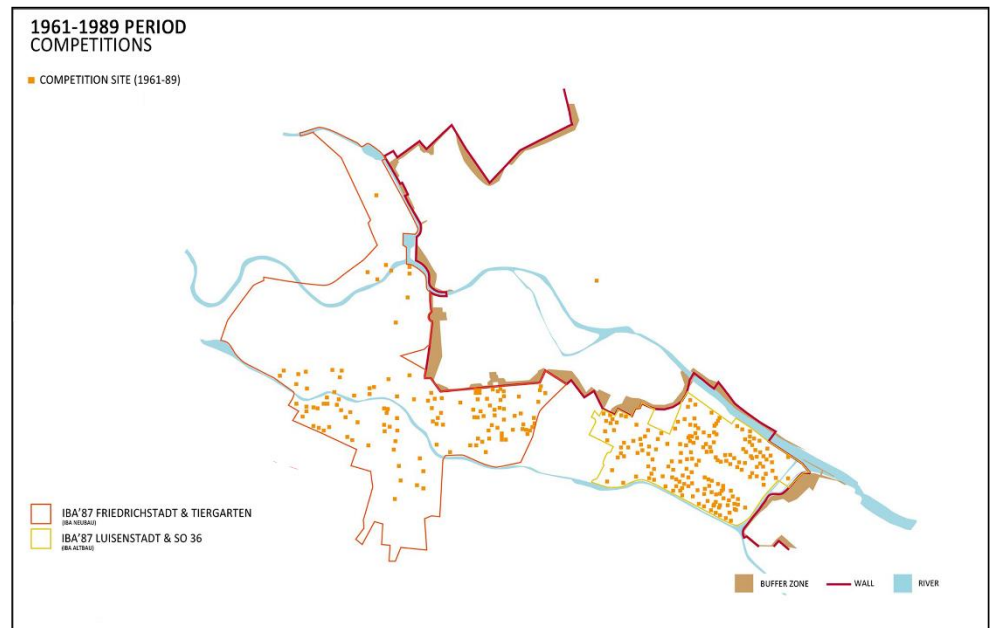


Figure 6. The analytical map of competition projects over the period of 1961-1989 (Eris, 2016; Eris & Ozer, 2016)

Following the Hansaviertel Competition, the Hauptstadt Berlin Competition and the West Berlin Planning Principles' desire to spread throughout the city of Berlin suggest that the unrealized dream came true in the sub-texts of West Berlin IBA. In other words, since the IBA method has the flexibility to be used in different realities (when the Wall physically exists and does not exist in the city), it is possible to see IBA with its partial/singular building projects as a stage in which the whole is spoken and to describe it as a set of superior/masterminds decisions in the morphological form of the city. In the article "IBA Models for a City; Housing and the image of Cold War Berlin" (Miller, 1993), Wallis Miller compared the IBA'87 organization with the Hauptstadt Berlin Competition. He claims that no theoretical plan is assumed for the whole Berlin as in this competition, however; nevertheless the designs of the city are made through the concept of 'ideal city', not through their current situation (the reality of the Wall's existence). This discourse of Miller legitimizes the formation of the region, which became the city center after the demolition of the Wall, by the 'livable city center' motto of IBA'87, and proves its internal consistency although the Wall was physically existent in the city at that time and the projects were constructed within the borders created by the Wall reality. The approach, which Willer describes as a search for the 'ideal city', makes its existence felt through the superior/master mind seeing IBA as a matter of creating the image of the city in the call which was made by the IBA'87 in 1977 with the thought that the unique, holistic urban image of Berlin was distorted (Siedler & Kleihues, 1977). Beneath this thought, there is a close link between the creation of the image of the city and the concept of universality. In other words, it is possible to talk about IBA'87 in terms of creating a new identity or creating a new language - in terms of the terminology associated with the argument of this work.

When the building-building block relations and parcel usage are considered in this period (see Fig. 7,8), it is seen that the 'building block with floating/free form of building ' defined in the previous period are also seen more in both the Eastern and Western part of Berlin. Despite this formal similarity, it is understood that this coincidental similarity has emerged in the direction of different dynamics when looking at the reasons of formation. East Berlin had the 'building block with floating/free form of building' pattern, which was a ruinous structure due to the inability to complete the destruction of war easily and quickly, and had a building-building block related urban morphology language whereas West Berlin had a 'building block with floating/free form of building' urban typology that was consciously and deliberately adopted in the direction of the specified reconstruction principles, but this time formed of new and planned structures.

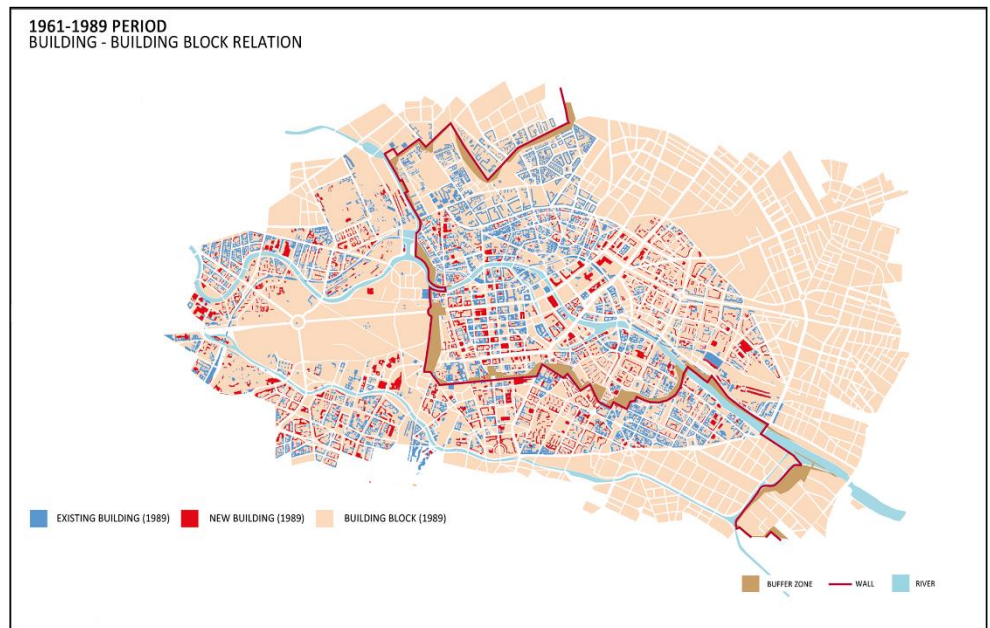


Figure 7. The analytical map of building-building block relation over the period of 1961-1989 (Eris, 2016; Eris & Ozer, 2016)

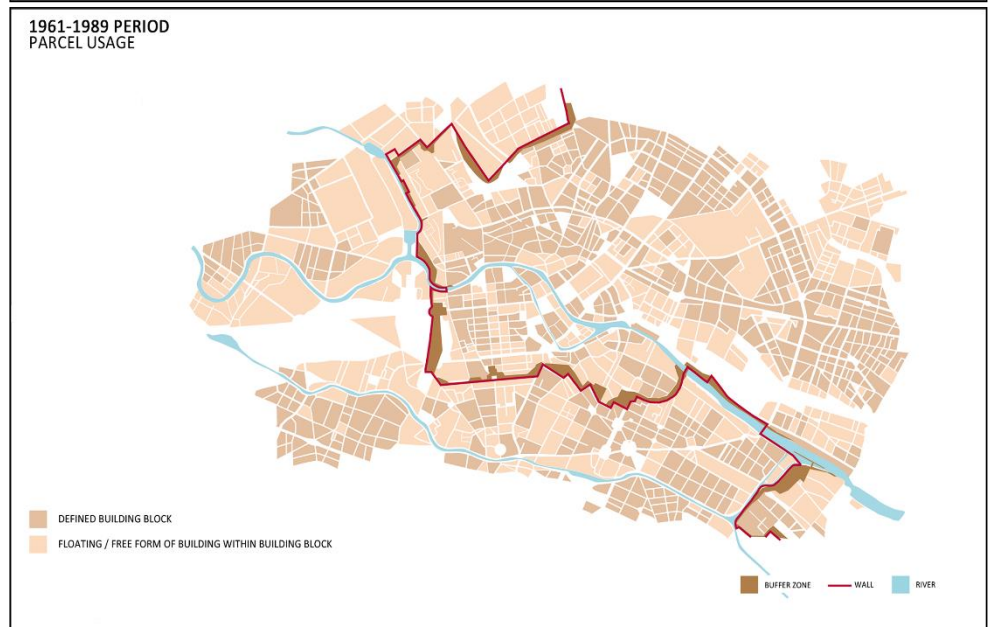


Figure 8. The analytical map of parcel usage over the period of 1961-1989 (Eris, 2016; Eris & Ozer, 2016)

When the green areas of the period are examined (see Fig. 9), it is observed that the fragmented green pattern in the city center increasingly became infrequent, and consisted only of regular courtyards within some peripheral blocks. It should be stated that this development is in the eastern part of the city divided by the Wall. Around the large green areas, the emergence of new fragmented geometric fringes is noteworthy. It can be argued that this situation is dense in the eastern part of the city divided by the Wall. Regarding this, there is a discourse about green areas that "green areas should be included "sufficiently" by considering the reality of city life" in the article on green areas in 16 Principles of Planning. It can be mentioned that this discourse, the determined major rules and the language, which is formed in the green pattern of the city, are consistent. In this period, it is observed that green areas were increased on the riverbank called Landwehrkanal, which is located in the south of the city center and hence in West Berlin. These green areas connect two banks of the river, thus forming geometric shapes that provide continuity and the pedestrian flow. Therefore, it can be said that this describes a consistent transformation in accordance with the principle of "considering rivers and quays as important arteries in riverside cities" included in the 16 Principles of Planning. It is also possible to observe a language composed of irregular green elements with amorphous geometry that took place between the organized building block periphery and the contours of the geometric buildings in the newly formed green areas. This formation is more intense in the Western part. It is

also observed that the green areas consist of the remaining areas from the floating/freestanding buildings when considered that the most basic principle determining the building-building block relationship in West Berlin is the building blocks that are freely separated in the green areas. From this point of view, when compared to the previous period, there is an increase in the western part in terms of green density. On the other hand, a partial green pattern consisting of courtyards draws attention on the East Berlin side, which distinguishes the green language morphologically between the two regions during the division process. It is also remarkable that the places where these green areas are increased especially in parallel with the cities of Friedrichshagen and Kreuzberg where the IBA'87 projects were implemented.

When looking at the analytical map of the competition (see Fig. 6), it is seen that IBA competitions are of remarkable value in this period. The Alexander Platz Competition, which was opened in 1964 in the East Berlin region, attracted attention as a single competition whereas it is clear that the IBA'87 competitions started in West Berlin and are very effective in the remodeling of almost the whole West Berlin and the reshaping of the urban language as it can be seen on the map. While the parts of these competition areas in the northern part of the city include an urban scale and open space arrangements, single building projects were focused in the middle region extending in the east-west direction in both sub IBA areas. It can be stated that it showed a consistency with the competition distribution tendencies in the previous period. It can be argued that the single building/building scale competitions in the IBA'87 Luisenstadt region showed a more Euclidean order although the building scale competitions in the IBA'87 Friedrichstadt & Tiergarten region showed a more amorphous distribution, and they are different from each other in this sense. However, when the infill project distribution in existing building-new building interventions was considered, it is noteworthy that both regions displayed a noticeable consistency over similar time periods.



Figure 9. The analytical map of green pattern/areas over the period of 1961-1989 (Eris, 2016; Eris & Ozer, 2016)

2.3. An Evaluation Over the Period of 1989-2014

In this period following the demolition of the Berlin Wall, it can be clearly seen that the competition' sites/areas are slowly shifting towards the eastern part of Berlin. It can also be observed that the increase of the competition, which shows matches (and therefore consistency) with the building-building block relation map showing the distribution of the infill projects in the city center, is predominantly singular structures. The competitions are increased in the area between Pariser Platz, Potsdamer Platz and Leipziger Platz, which are just east of Wall and above-mentioned places coming from the buffer zone of the Wall and breaking the continuity of this buffer zone (see Fig. 10). When the content and context of these competitions were considered, it can be noticed that the structures were chosen,

which will turn the city into a consistent structure as in the beginning by associating the discontinuities with these projects (For example: 91 Potsdamer Platz Competition, 96 Sony Center Competition, 96 Zwei Park am Potsdamer Platz Competition, 94/97 Holocaust Memorial, 98 Cultural Forum Competition vb).

In fact, there was a decision taken in 2006 regarding the transformation of the city during this period, which was previously called 'The Wall of Shame' and ignores the Berlin Wall and turns it into a basic concept in urban development plans (Klausmeier & Schmidt, 2004). Therefore, it can be suggested that the texts, which constitute the character of the period between 1989-2014 and the rules of the competitions, should be examined in two different periods as 1989-2006 and 2006-2014.

The competitions were increased during the period 2006-2014 in the eastern part of Berlin, and they moved away from the Wall and focused on Alexanderplatz and Museum Island, which were the old political and cultural centers of the city. Obviously, as can be seen on the map, it can be observed that the building-scale competitions are distributed in other regions as well (see Fig. 10). A concentration was also observed in the Friedrichshain region. This can be seen as one of the last rings of the chain process on the connection of the region, which gained importance in the first period and became different, to the whole city at the end of the process. In the competitions of the western part of the city, an increase towards the Wall area, especially the northern part, becomes noticeable. All these competitions are in parallel with the filling patterns of the building block-typology analysis in the same period.

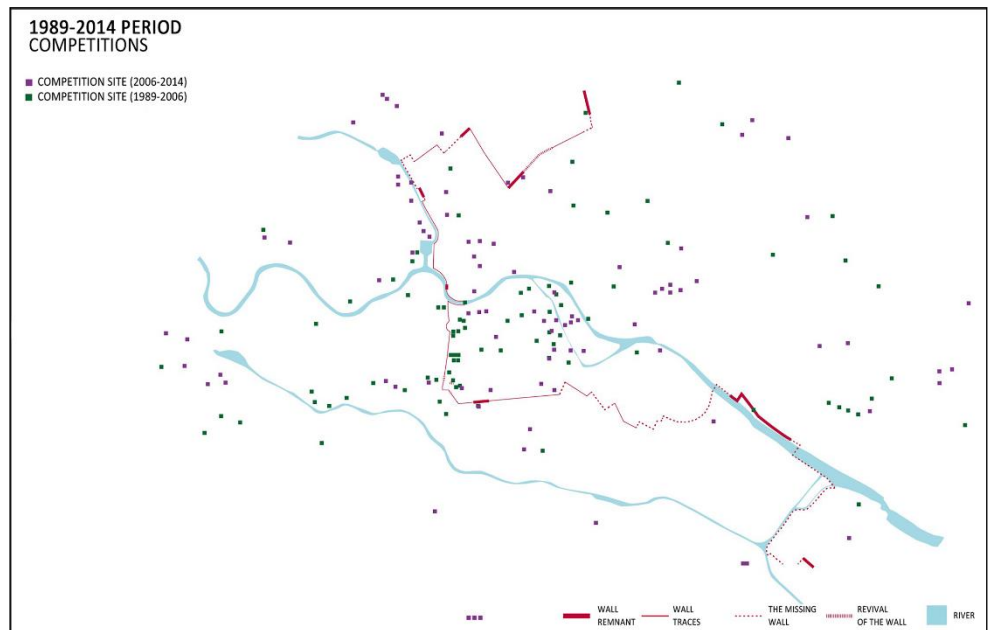


Figure 10. The analytical map of competition projects over the period of 1989-2014 (Eris, 2016; Eris & Ozer, 2016)

When the green areas of this period are examined (see Fig. 15,16), it is possible to see that the new little green fragments/areas that have completed the numbered gaps in the previous period are sometimes in the amorphous and sometimes in defined geometric forms. Green continuity was completed in every sense as it can be seen on the map that all the green areas in the process overlapped. The most interesting green areas of this period are the linear green bands, which define the main arteries. They are elements, which had an important role in establishing the mentioned continuity. Thus, it can be argued that they are the main actors in establishing a coherent language. Designing the Berlin Wall and the buffer zone around it, which defined the new city center and in other words became one of the main arteries considering the plan of 'Grünes Band Berlin/Mauergrünzug' (Berlin Senate Planning Department Archive, 2006), as a green area, of which concept work started in 2006 by the Berlin Senate and planning was completed in 2012, shows an approach that is consistent with the existence of linear green areas in this map. In this last period of time, which has reached the present day, a more controlled and therefore planned green area design was observed to be used. Although at first sight it seems to be a consistent approach of linking green spaces and planning cycling and pedestrian ways by the Berlin Senate in this continuity, it is seen that the green areas are reduced undeniably in this period when the

green area maps of this period and the previous period are compared. This can be perceived as an inconsistency with the Senate decisions. On the other hand, considering the increase in housing in the same period and the distribution pattern of the infill projects, it can be judged that it is not possible to make this decision of inconsistency by looking only at the decrease of the green areas. Furthermore, it can be concluded that the consistency - inconsistency case should be assessed by the accumulation in all time periods, not just one or two period comparisons by assuming that these on-going greening projects to support this vision will complete this continuity and staging.

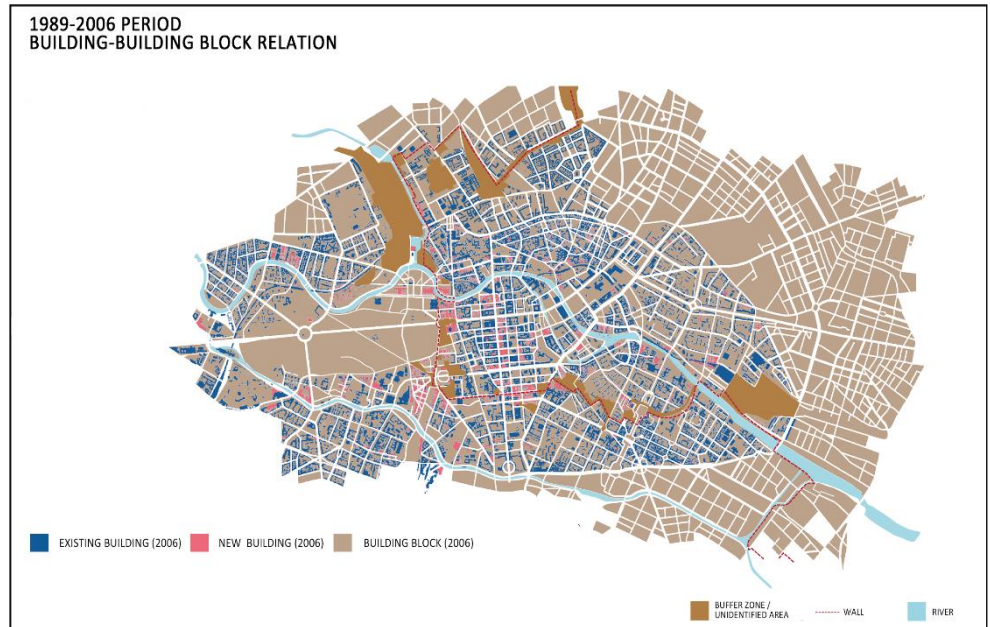


Figure 11. The analytical map of building-building block relation over the period of 1989-2006 (Eris, 2016; Eris & Ozer, 2016)

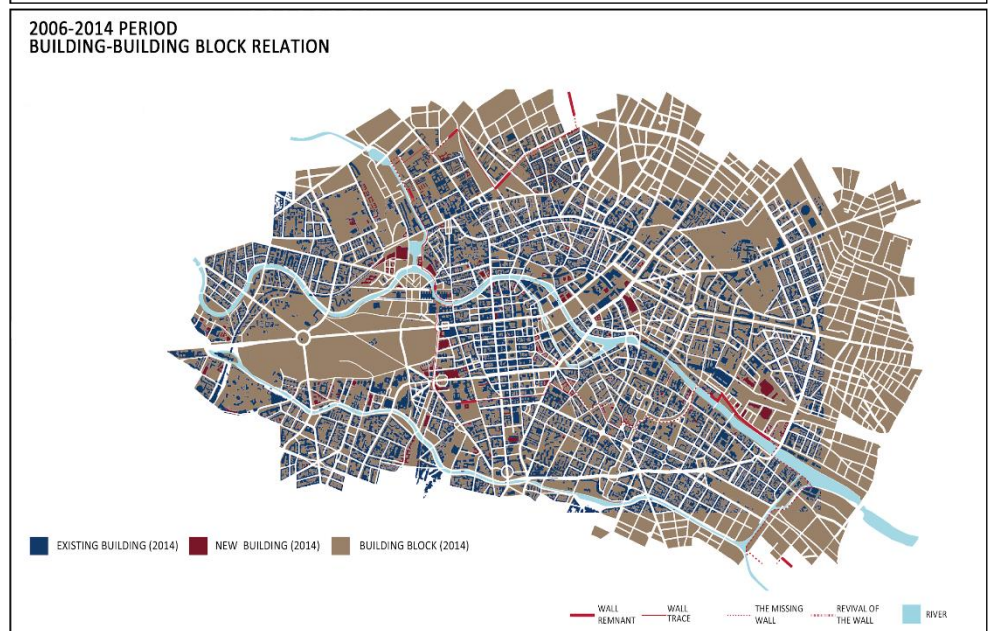


Figure 12. The analytical map of building-building block relation over the period of 2006-2014 (Eris, 2016; Eris & Ozer, 2016)

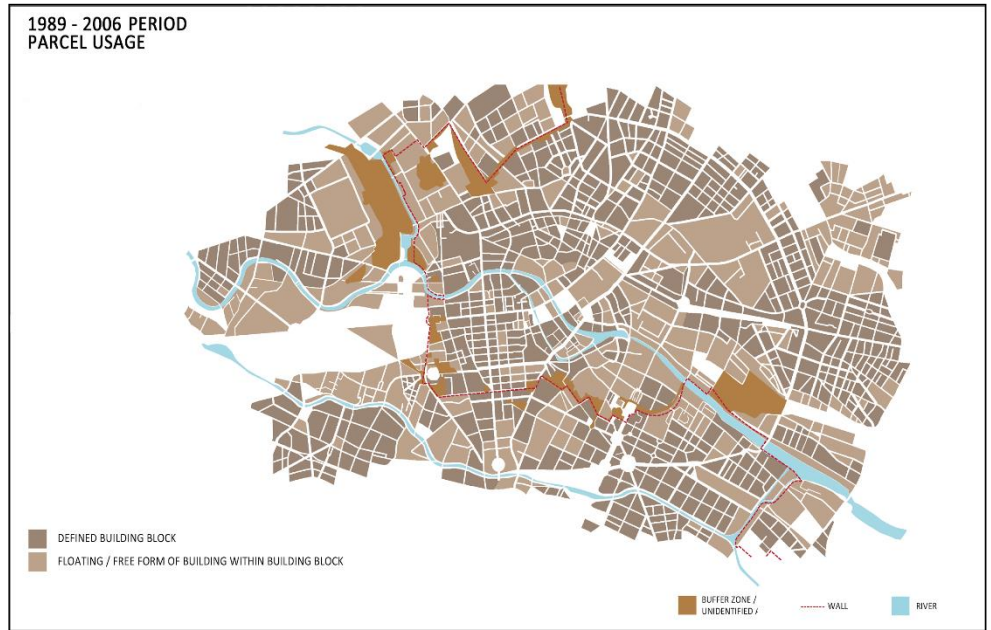


Figure 13. The analytical map of parcel usage over the period of 1989-2006 (Eris, 2016; Eris & Ozer, 2016)



Figure 14. The analytical map of parcel usage over the period of 2006-2014 (Eris, 2016; Eris & Ozer, 2016)



Figure 15. The analytical map of green pattern/areas over the period of 1989-2006 (Eris, 2016; Eris & Ozer, 2016)

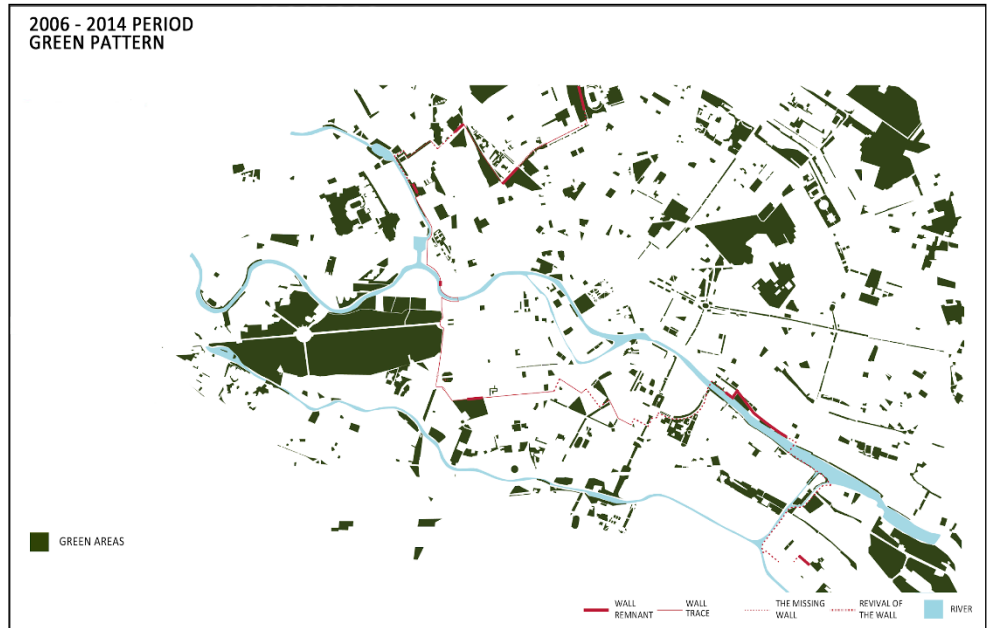


Figure 16. The analytical map of green pattern/areas over the period of 1989-2014 (Eris, 2016; Eris & Ozer, 2016)

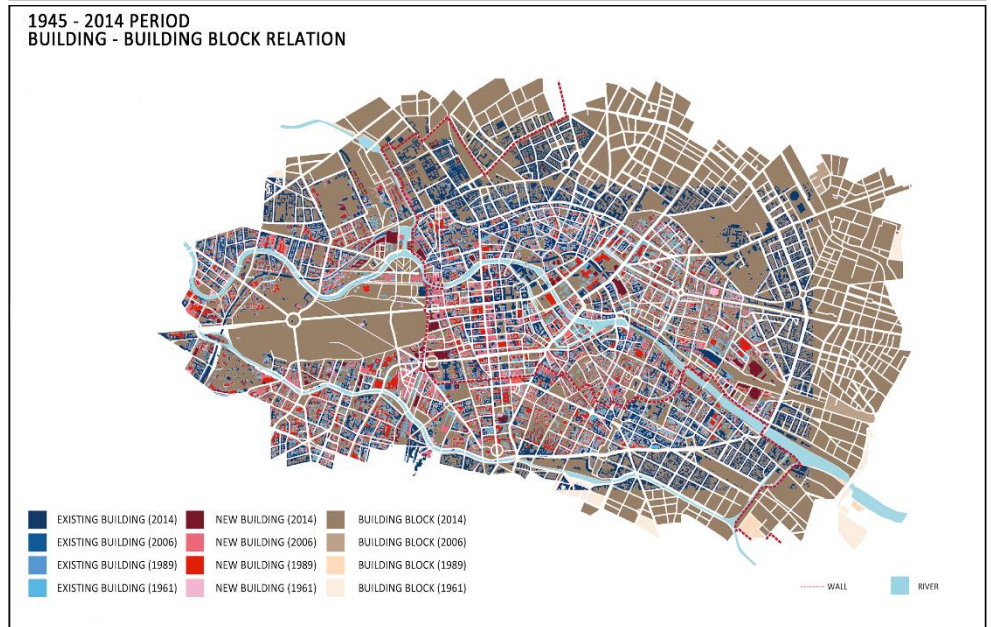


Figure 17. The analytical map of building-building block relation over the period of 1945-2014 (Eris, 2016; Eris & Ozer, 2016)

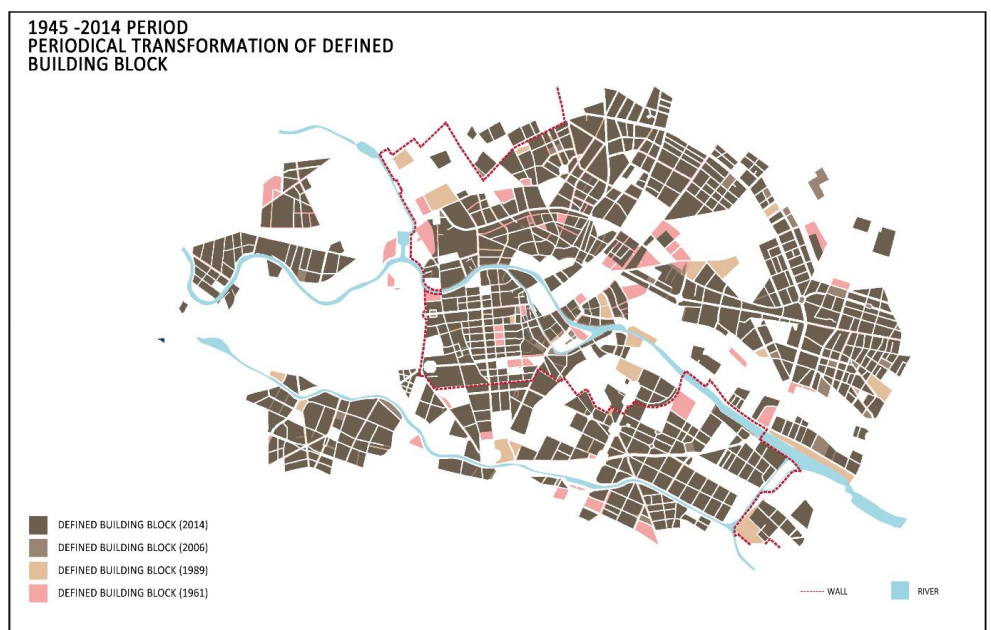


Figure 18. The analytical map of parcel usage over the period of 1945-2014 (Transformation of 'defined' building block) (Eris, 2016; Eris & Ozer, 2016)

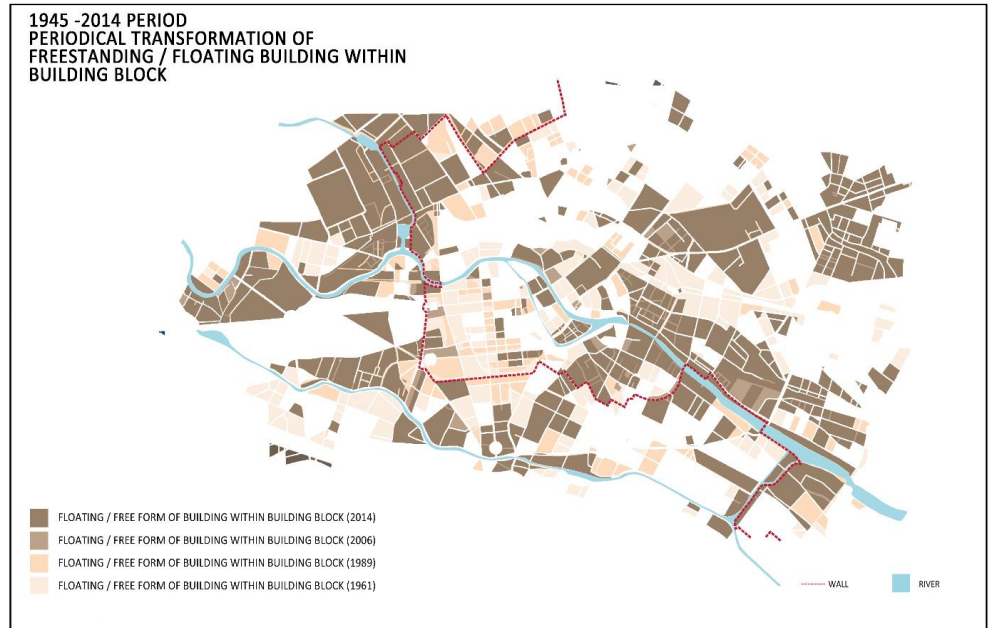


Figure 19. The analytical map of parcel usage over the period of 1945-2014 (Transformation of 'Freestanding/Floating' Building within building block' building block) (Eris, 2016; Eris & Ozer, 2016)

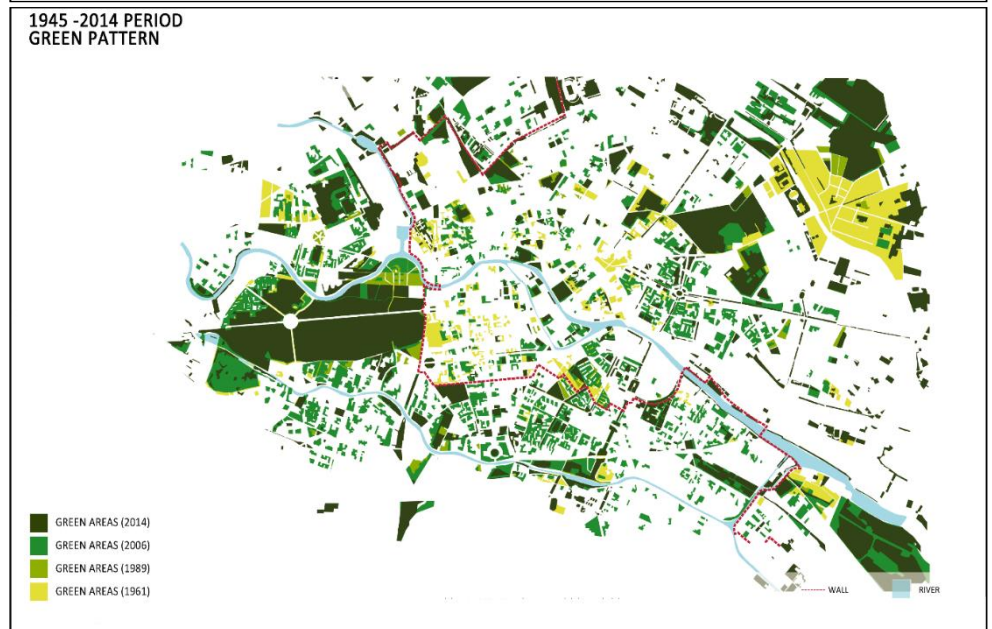


Figure 20. The analytical map of green pattern/areas over the period of 1945-2014 (Eris, 2016; Eris & Ozer, 2016)

In the evaluations with respect to urban unity, which was obtained as a result of overlapping these periods between the years 1945 – 2014 (see Fig. 17,18,19,20), it would not be wrong to say that the system of rules, which was specified in terms of specifications and can be described as abstract, is physically embodied in the city.

As a result of the analytical study conducted on the five urban language criteria, some minor irregular exceptions and therefore limited inconsistencies were encountered. Nonetheless, it is observed that the regular structures consisting of the language of urban morphology were consistently maintained in specified sub-time zones. Within the process of morphological evolution of the city, the first breaking point occurred with the construction of the Berlin Wall in 1961, and the second breaking point occurred in 1989 due to the demolition of this wall. It should be emphasized that these events are remarkable. These breakings mean the polarized political, economic and cultural changes. Especially when the period between these two breakpoints is considered as an intersection and a transitional period between the different systems, it is understood that in a city like Berlin, this process has been attempted in a very planned, systematic and rational manner by the city actors rather than the expected chaotic situation in the morphological rules there. This situation is clearly understood thanks to the texts examined in the previous section, the morphological language criteria analyzed in this section and the results obtained from the maps. In this process, it is observed that urban planning principles instrumentalize the

competition projects and the works of 'star' architects, who took part in these competitions and even some other external projects as a means of rationalization.

3. CONCLUSIONS AND EVALUATION

The number of competitions (see Fig.1), the breadth of the area spread, and the continuity of the competitions distinguish Berlin from many other cities when the whole city and the history of modern urban formation are considered. Even though the critical consistency initiatives based on the period described above are left aside, they are significant in terms of the intensity, continuity and extensity competitions becoming means for the rationalization of the city in order to realize Modernist planning principles. The staging in the increase of competitions and the correlation of this staging with the political process indicate the presence of a superior/master mind (which is a wisdom that city actors produce together and reflected on Senate decisions and other texts) behind the morphological formations. Conscious strategies that are revealed by two completely different political and cultural languages are rather parallel and therefore consistent with the distribution of competition projects and urban planning principles as well as the German Rationality and Enlightenment Language that is currently discussed at a theoretical level and the urban transformation language which was first physically separated and then integrated.

When the transformation of the competition projects between 1945 and 2014 was considered, an approach which takes the approach considering the whole city as an integral, continuous and consistent rationalization decisions in accordance with the CIAM or the 16 Principles of Planning, aims to establish a continuation in the whole city by eliminating the interruption that the city was exposed to during the building of the Wall and its existence. However, it is possible to mention the presence of an approach that uses the positive and negative aspects of the political and cultural accumulation that occurred during the period of interruption as a part of urban stratification, and adds it to the city as a tourist value. As can be seen on the map where all period competitions are overlapped (see Fig. 1), the competition process started in an east-west direction can be seen to proceed in a line which is spreading in an irregular manner after the separation first to the south and then to the north, as explained in detail above, and which is gradually developing to complete the overall holistic approach. It is clear that this approach is conditioned by a main principle included in Senate decisions and competition specifications.

When the five city planning principles and parallels of the competition projects in each sub-period were considered, it can be observed that the competitions had a tendency to be pointed interventions to transform the discontinuities of the existing language exceptions into continuities. The justification of this hypothesis can be observed in the maps of the distribution of the competition projects over the years, as well as in being clearly stated in the concerns, which had been emphasized in the competition texts.

The evaluation of the text in three sub-time frames identified within the scope of the study and consistency - inconsistency between the texts are very important to show that the regular infrastructure of rational thought system in the geography where modernity is born, the continuity of the morphological urban language (although it never experienced significant breaking points) were stratified systematically through the rules set forth in texts (with competition texts) and consciously constructing these rules (which shows that the competition mechanism is the most important part of this system) as a result of policies followed in the city beyond the system of urban reflections of the city itself. As a result of the analyses and evaluations, it is important to understand the situations, which were studied by sub-periods in the scope of the study due to pointing out important political, social and economic breakdowns and which may cause as a dramatic change/transformation and therefore a discontinuity in the urban language after these periods, have not been reflected in the urban morphology in the context of the rules established by the Senate's planning approaches and competition mechanisms, and through the policies followed by these rules and approaches. Therefore, the continuity in the urban language has been achieved. Especially in the period following the demolition of the Wall, the policies followed are even more important in terms of ensuring this continuity. Consistencies of these texts with each other in the context of urban reflections but

dissolution of these two different political views after the destruction, and differences occurred in the transformation language of the city (even in the form of using the competition mechanism as a method) due to the experienced dramatic changes that lie behind this thought. The reason is that there was a political separation in the period of 1945-1961 although the city was not physically separated by the Wall, and therefore, the texts that caused the language differences between 1961-1989 period started to be appeared in this period, and the superior/mastermind behind the specified rules overlapped. In the late IBA'87 (1961-89) period, the aforementioned competition approaches were observed to have a transitional nature between 1961-1989 and 1989-2014 periods. It is concluded that this period, which can be described as a physical discontinuity with the physical presence of the Wall in the city, can be specified as a period which provides consistency between periods if this process is to be expressed by the city actors as a highly systematic, planned and rational argument of a thesis referring to both periods rather than presenting a morphologically chaotic situation between the period of 1945-1961 and the period of 1989-2014.

It is observed that modernity evolved into a similar point physically very consistent with the starting point by transforming into the starting principals, and thus provided a significant consistency in this sense especially when open-green pattern/areas, building masses/blocks and road network were considered in the comparison of the current Berlin map with the Map of Hobrecht (See Fig. 21,22,23), which was presented but not fully realized in the 19th century, within the context of the transformation of the city morphology of Berlin and the evaluation of these transformations in order to demonstrate their discontinuities - continuities, consistencies - inconsistencies, and establishing a connection between these transformations and the argument of 'Modernity and Rationality', which was put forward in this study. Therefore, we can say that the traces of the modernist urban pattern, which had been founded much earlier than the war, cannot be observed in the present urban language. This consistency is quite significant in terms of ensuring continuity and thus consistency between periods and perceptibility of the regular structure of modernity and rationality in present as well as the argument and hypothesis developed in this study. The dominant consistency in three sub-time periods identified and the consistency that the city had with the planning principles of the reconstruction period in the 19th century prove that the city of Berlin is a concrete example of the consistency of Modernity. It can be said that the concept of the developed city plan ('Radial City') according to the Radial City Planning/Radial Plan based on the Hobrecht Enlargement Plan visibility is out of question in the urban morphology due to the breakdown and separation in 1961-1989 periods. Therefore, it can be said that the urban language of the Hobrecht Plan was inconsistent during these periods, however, after the unification, the Hobrecht enlargement plan (radial principle) have made the present language of the city more consistent by shifting the main center of the multi-centered city to the Wall and its surroundings.

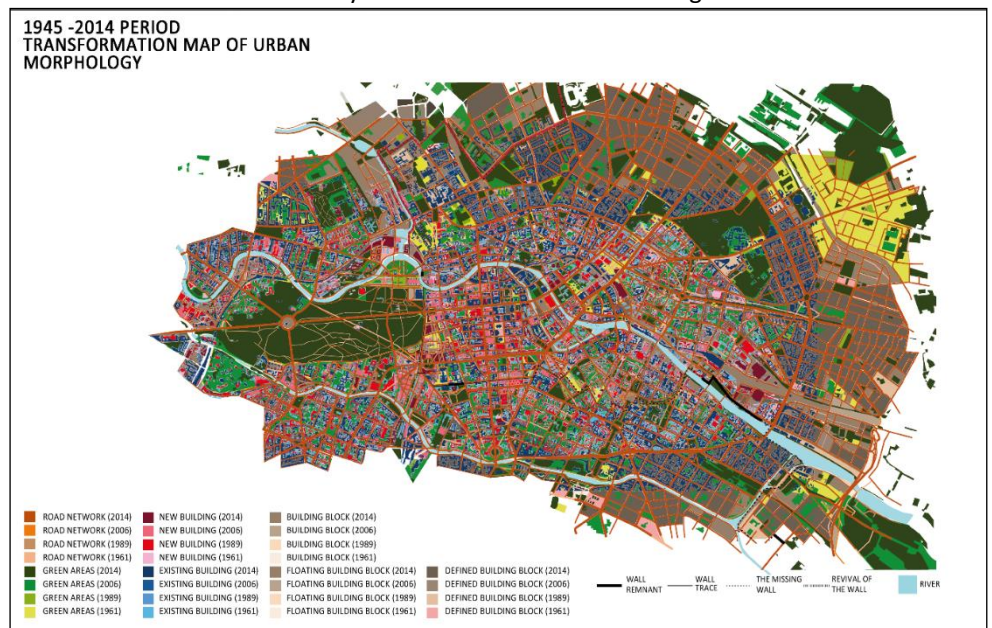


Figure 21. The analytical map of urban morphology transformation over the period of 1945-2014 (Eris, 2016; Eris & Ozer, 2016)

In the examination of the Hobrecht Plan with the Schroun's Collective Plan (see Fig. 22,23), which had a dominant role in urban morphology within the context of urban decisions and competition texts in post-war periods that determine the scope of work, it was observed that Schroun, who worked with Peter Friedrich -whose area of research was on complex mathematics-rejected the planning model in the Hobrecht Plan (Radial Urban Planning Model) and adopted a multi-centered linear planning model. This can be described as a dramatic change in the approach of planning. However, it seems that two opposite planning approaches, which are the traces of the multi-centered linear planning model of Scharoun and the radial planning approach of the Hobrecht Plan, are both read in urban language when today's common language is considered. This points to the coherence of two of these plans with the current language of the Berlin city, the layered structure of Berlin urban morphology, and the palimpsest of the city, which has been mentioned earlier.

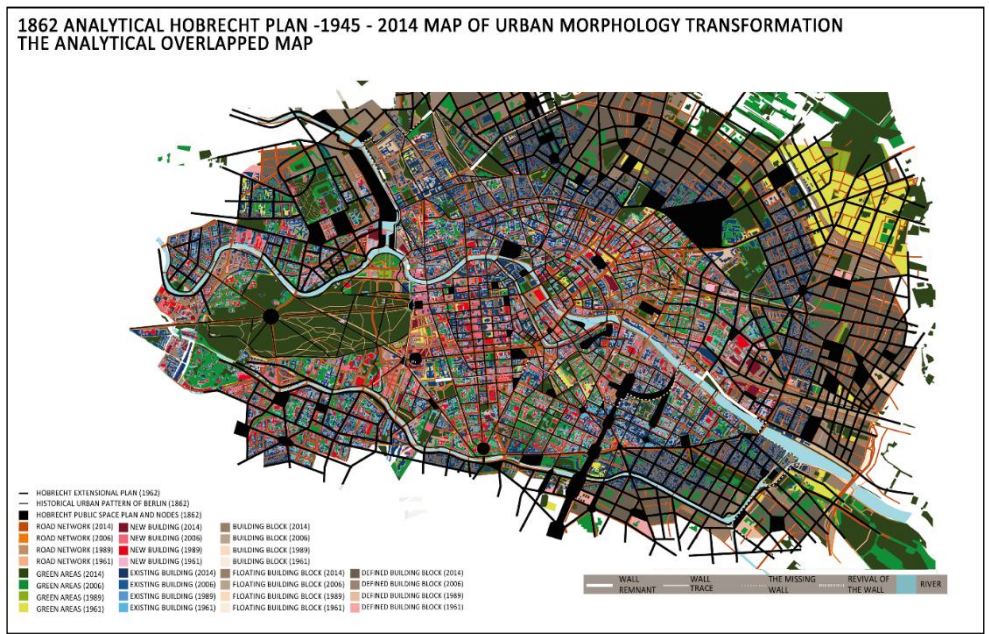


Figure 22. The analytical overlapped map of 1862 Hobrecht Plan and the analytical map of urban morphology transformation over the period of 1945-2014 (Eris, 2016; Eris & Ozer, 2016; Strohmeyer, 2000)

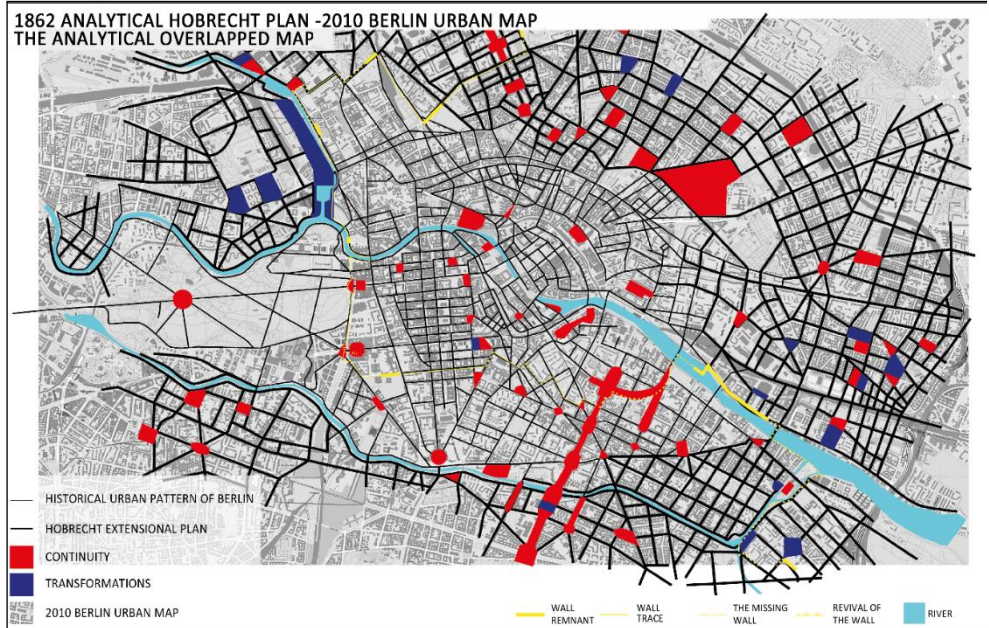


Figure 23. The analytical overlapped map of 1862 Hobrecht Plan and the analytical map of urban morphology transformation over the period of 1945-2014 (Eris, 2016; Eris & Ozer, 2016; Strohmeyer, 2000)

As a result, the role of the city of Berlin in embodying the 'consistency' phenomenon claimed to be contained within Modernity;

As a result of the studies carried out, it is concluded that the mechanism of competition has embodied modernity through the systematization in the city of Berlin (metropolitan) through a planned, regular, consistent and most importantly 'conscious' manner just as Modernity has been described as a solidifying catalyst, carrier of the idea of enlightenment

and action plan of the rationality, and the metropolis has been defined as a medium in which the political, ideological approach, solution and system of modernity are considered perceptibly. In conclusion, it is not surprising that the competition mechanism in Berlin had become a tradition and an example in many cases. On the contrary, it is associated with the fact that it is seen as a means of rationalization as one of the most important parts of the holistic approach which exists within the planning system. This study shows that the concept of consistency is addressed through the regular structures in the core of rationality, this confirms that the competitions are mechanisms that provide consistency.

REFERENCES

- Adams, F., Steadman, A. (2004). Intentional Action in Ordinary Language: Core Concept or Pragmatic Understanding?. *Analysis*, 64, 173-181.
- Adams, F., Steadman, A. (2004). Intentional Actions and Moral Considerations: Still Pragmatic. *Analysis*, 64, 264-267.
- Adams, F. (1986). Intention and Intentional Action: the Simple View. *Mind & Language* 1, 281-301.
- Arın, C. (2003). Sanayi Devrimi Kenti Berlin I: Kent Gelişimi Sürecine Bir Bakış, *Mimarlık Dergisi*, 313.
- Berlin Senate Planning Department Archive. (n.d.). Historical Maps on Land Use Planning in Berlin, <http://www.stadtentwicklung.berlin.de/planen/fnp/en/historie/index.shtml>, 3 February 2016.
- Berlin Senate Planning Department Archive (2014). 1940/1953/1989/2001/2014, http://stadtentwicklung.berlin.de/planen/stadtmodelle/de/innenstadtplaene/sp/Schwarzplaene_1940-2014.pdf, 10 February 2016.
- Berlin Senate Planning Department Archive (2014). Schwarzplane (Abriss) 1940-1953/ 1953-1989/1989-2001/1940-2001, http://stadtentwicklung.berlin.de/planen/stadtmodelle/de/innenstadtplaene/sp/Abrisse_1940-2001.pdf, 10 February 2016.
- Berlin Senate Planning Department Archive (2014). Schwarzplane (Neubau) 1940-1953/ 1953-1989/1989-2001/1940-2001, http://stadtentwicklung.berlin.de/planen/stadtmodelle/de/innenstadtplaene/sp/Neue_Gebaeude_1940-2001.pdf, 10 February 2016.
- Berlin Senate Planning Department Archive (2014). Planwerk Innere Stadt 2010, http://www.stadtentwicklung.berlin.de/planen/planwerke/pix/innere_stadt/download/planwerk_innere_stadt_2010.jpg, 10 February 2016.
- Berlin Senate Planning Department Archive (2014). Differenz Plan 2010, http://www.stadtentwicklung.berlin.de/planen/planwerke/pix/innere_stadt/download/differenzplan_2010.jpg, 10 February 2016.
- Berlin Senate Planning Department Archive (2014). Vorlage zur Kenntnisnahme an das Abgeordnetenhaus vom 17.01.2011: Weiterentwicklung des Planwerks Innenstadt zum Planwerk Innere Stadt, http://www.stadtentwicklung.berlin.de/planen/planwerke/de/planwerk_innere_stadt/download/senat_planwerk_innere_stadt.pdf, 10 February 2016.
- Berlin Senate Planning Department Archive (2014). Schwarzplan Planwerk Innerstadt 2010 - Bestand 2010 und aktuelle Planung, http://www.stadtentwicklung.berlin.de/planen/planwerke/pix/innere_stadt/download/schwarzplan_bestand_2010_und_plw_innere_stadt_5000pix.jpg, 10 February 2016.
- Berlin Senate Planning Department Archive (n.d.). 2D Innenstadtplan, http://stadtentwicklung.berlin.de/planen/stadtmodelle/de/digitale_innenstadt/2d/download/index.shtml; http://stadtentwicklung.berlin.de/planen/stadtmodelle/downloads/2d/planwerk_m_10000_192x105cm.pdf, 10 February 2016.
- Berlin Senate Planning Department Archive (n.d.). Alexanderplatz von der Nachkriegszeit 1945 bis zur Wiedervereinigung 1990: Wiederaufbau unter neuen städtebaulichen Vorzeichen-Erste gesamtstädtische Überlegungen, http://www.stadtentwicklung.berlin.de/planen/staedtebauprojekte/alexanderplatz/de/geschichte/geschichte_1945_bis_1990/index.shtml, 3 February 2016.

- Berlin Senate Planning Department Archive (2006). Entwicklungskonzept Mauergrünzug zwischen Mauerpark und Naturpark, http://www.stadtentwicklung.berlin.de/umwelt/landschaftsplanung/gruenes_band/download/konzept_2006/mauergruenzug_gesamt_leseversion.pdf, 10 February 2016.
- Bodenschatz, H. (1996). Antworten West Berlins auf die Stalinallee. der. H. Engel ve W. Ribbe, Karl Marx Alle Magistrale in Berlin: Die Wanderung der sozialistischen Prachtstrasse zur Hauptstrasse des Berliner Ostens, Akademie Verlag, Berlin.
- Çağlar, N. (2013). Mimarlık Yarışmaları İyi Şeyler (mi)dir?, Mimari Proje Yarışmaları, Dosya 31, TMMOB Mimarlar Odası Ankara Şubesi, Ankara, 4-9.
- Eris, E. (2016). Modernitenin Tutarlılık Anlatısı Üzerinden Berlin Kent Dönüşümünün Mimari Yarışma Projeleri Üzerinden Okunması; Duvar Öncesi, Sırası ve Sonrası Karşılaştırmalı Bir Değerlendirme. Doktora Tezi, Yıldız Teknik Üniversitesi, İstanbul.
- Eris, E., Ozer, Y.S. (2016). Architectural Competitions as an Instrument for 'Urban Rationalization' in the Context of the Discourse of 'Consistency' in Modernity; the Case of Berlin. *Megaron*, 11(2), 201-216. DOI: 10.5505/megaron.2016.48243
- Giedion, S. (1956). *Architektur und Gemeinschaft: Tagebuch einer Entwicklung*, Hamburg.
- Gomez, P. (1983). *Architecture and the Crisis of Modern Science*, MIT Press, Cambridge.
- Klausmeier, A., Schmidt, L. (2004). *Wall Remnants-Wall Traces; The Comprehensive Guide to the Berlin Wall*, Westkreuz-Verlag, Berlin/Bonn.
- Kuhnt, T. H. (2015). Competition as Impetus for German Building Culture, *Architecture Competitions and the Production of Culture, Quality and Knowledge: An International Inquirt*. Ed.: Lean-Pierre Chuppin, Carmela Cucuzzella, Bechara Helal, Potential Architectural Book, Montreal, Canada, 300.
- Kumar, K. (1999). *Sanayi Sonrası Toplumdan Postmodern Topluma Çağdaş Dünyanın Yeni Kuramları*, çev. Mehmet Küçük, Dost Kitapevi Yayınları, Ankara.
- Sudjic, D. (2006). Competitions: The Pitfalls and the Potentials, In the *Politics of Design: The Competitions for Public Projects*, Ed.: Catherine Malmberg, Princeton University, U.S.A., 53-66.
- Luftbildkarte Berlin (2005). *Panorama Berlin, Über Berlin: Luftbildplane, Ansichten, Übersichtskarten von 1237 bis heute*, Verlag Bien & Giersch, Berlin.
- Luftbildkarte Berlin (2005). *Luftbildplan 1953 Berlin - Bereich: Ernst-Ruter Platz bis Stralau, Über Berlin: Luftbildplane, Ansichten, Übersichtskarten von 1237 bis heute*, Verlag Bien & Giersch, Berlin.
- Luftbildkarte Berlin (2005). *Luftbildplan 1984 Berlin mit Mauerverlauf - Bereich: Siegessaule bis Stralau, Über Berlin: Luftbildplane, Ansichten, Übersichtskarten von 1237 bis heute*, Verlag Bien & Giersch, Berlin.
- Luftbildkarte Berlin, (2005). *Über Berlin: Luftbildplane, Ansichten, Übersichtskarten von 1237 bis heute*, Verlag Bien & Giersch, Berlin.
- Mahler, K. (1952). Rede des West-Berliner Senators für Bau-und Wohnungswesen, zit. Nach *Geist/Kürvers. Mietshaus*, 3, 357.
- Mahler, K. (2001). Internationale Bauausstellung 1956: Wiederaufbau eines inneren Stadtviertels" cited in "Building Culture in Divided Berlin: Globalization and the Cold War. Castillo, G., Hybrid Urbanism: on the identity discourse and the built environment, Ed.: AlSayyad, N., Praeger Publishers, Westport, 186.
- Miller, W. (1993). IBA Models for a City; Housing and the Image of Cold War Berlin. *Journal of Architecture Education*, vol 46, no.4, Taylor & Francis, Ltd. on behalf of Association on Collegiate Schools of Architecture, 202-216.
- Müller, P. (2005). Counter-Architecture and Building Pace: Cold War Politics and the Two Berlins. *GHI Bulletin Supplement 2*, Berlin, 101-114.
- Müller, P. (2001). Zu viel altes Schema: Die Repräsentationsarchitektur in Ost-Berlin zwischen Abgrenzung und Anpassung. Ed. Heiner Timmermann, *Die DDR in Deutschland: Ein Rückblick auf 50 Jahre, Dokumente und Schriften der Europäischen Akademie Otzenhausen*, 93, Berlin, 363-80.
- Neumeyer, F., Ortner, M. (1997) Guidelines for Urban Interventions in the City West. *The Journal of Architecture*, 2, 215- 217.
- Ockman, J., Ergen, E. (1993). *Architecture Culture - 1943-1968: A Documentary Anthology*, Columbia University Graduate School of Architecture, Planning and Preservation: Rizolli, Newyork.

Schlusche, G., Stadtentwicklung im geteilten Berlin (n.d.), http://www.berliner-mauergedenkstaette.de/de/uploads/50jahrestag_tagung_dokumente/schlusche-mauer-und-stadtentwicklung.pdf, 3 February 2016.

Siedler, W.J., Kleihues, J. P.,(1977) Berlin- Modelle für eine Stadt: Nicht die Konkurse, die Fehlplanungen sind der Skandal der Baupolitik Berlins. Berliner Morgenpost, 18 Ocak 1977.

Sonne, W. (2006). Planning Twentieth Century Capital Cities. Ed. David L. A. Gordon, Routledge, London and Newyork.

Strohmeyer, K. (2000). James Hobrecht (1825-1902) und die Modernisierung der Stadt, Verlag for Berlin - Brnderburg, Postdam.

Werner, F. (1969). Stadtebau Berlin-Ost. Kiepert, Berlin.