

Morphological Change of a Republican Capital: The Case of Ankara, Turkey

Melike BOZ GÜNAY¹, Ayşe Sema KUBAT²

¹ Istanbul Technical University, Turkey

² Istanbul Technical University, Turkey

Abstract

Capital cities have special meanings by their symbolic characters of their countries. Historical periods and planning decisions affect the forming processes of these cities. Ankara, Turkey's capital city, carries the effects of these critical periods on its urban morphology since the declaration of the republic. This study considers the question of whether the unique areas which give a city the role of being a capital, have continued their characteristic meanings until today or not. By morphological assessing the analysis of a capital city, this research will contribute to understand its special urban structure.

Ankara's main planning periods and its development process are analysed by using two different morphological methods. The Space Syntax model, which provides a quantitative framework for evaluating the changing urban form, is used in the analysis of the city's main planning periods from macro/urban scale. As a result of the Space Syntax analysis, Ankara's monumental and characteristic urban axis still exists in today. However, the commercial and administrative potential of the formerly formed republican axis lost its importance and replaced by a newly developing western corridor according to the current economic and political demands of the city. Evaluating these findings, in the second phase of the study, the analysis of the changing urban structure is discussed from a micro scale. Typo-morphological approach is enhanced to research the effects of the capital city's changing process on its special and monumental urban axis from an architectural perspective. The findings of the typo-morphological analysis verify that the symbolic and historical places of the capital Ankara are significantly differentiated or even completely lost today.

This study examines a capital city's changing urban form with two different morphological methods. The importance of analysing cities' spatial development processes morphologically is emphasized with this research by studying a special capital city from Turkey.

Keyword: Urban Morphology, Space Syntax, Typo-morphology, Capital City, Ankara

Introduction

Cities are in an inevitable process of change and development. As cities evolve and change, their morphological structures are affected by these processes. The economic, political, cultural and social demands that are changing over time bring about the research of the process of change in cities (Hall, 2006). Evaluating the phenomenon of urban change in a capital city, allows analysis of the impact of historical and planning periods of a country on a variety of scales. Capital cities have unique meanings by their symbolic characters of their countries. Turkey's capital city, Ankara, carries the effects of special historical periods on its urban morphology since the declaration of the republic.

Analysing a capital city's changing process is researched morphologically in this study. The aim behind this research is to explain the effects of being a capital city on the city's urban form. Thus the study considers the question of whether the unique areas which give a city the role of being a capital, have continued their characteristic meanings until today or not. By morphological assessing the analysis of a capital city, this research will contribute to understand its special urban structure.

Theoretical Background

City, considered as a system, consists of many social, economic, political and historical approaches (Rapoport, 1977). The conceptual background of this research is framed by the urban morphological approach, which has a variety of perspectives to the analysis of the urban form. Examining the sample studies in literature about capital cities' urban form, contributed the study's morphological point of view.

Capital cities have symbolic meanings and their spatial formation processes are affected by their countries' political decisions (Lefebvre, 1991). Tankut (1990) defines the reflections of the political, economic and social factors on urban development phases of the capital cities. The examples of capital cities, Ankara, Canberra, Brasilia and Islamabad, the effects of political decisions can be observed in the planning periods of these cities (Tankut, 1990). These four special examples of capital cities have a common meaning in shaping their urban formation model; nationality. Considering in that background, capital cities' special urban areas or urban axis shaped by this framework (Figure 1).

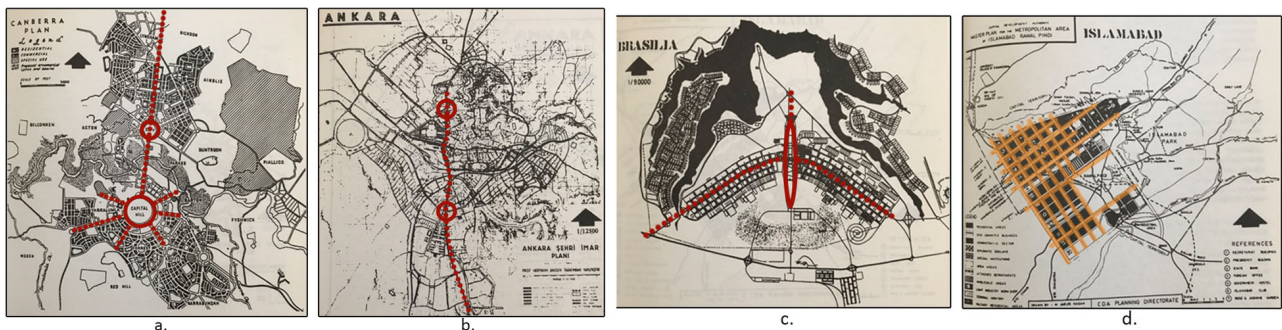


Figure 1. Four sample development plans of national capitals. (a. Canberra, b. Ankara, c. Brasilia, d. Islamabad; schematized by the author from Tankut, 1990).

The other leading example (Holanda et al., 2015) for this research focuses on Brasilia's morphological development process and characterizes its' urban system morphologically. An analytical method, Space Syntax, is used in this example. Thus the changing centrality functions of the capital city Brasilia with mathematical parameters. In addition, an urban axis's and urban centers' changing processes are observed by this method (Figure 2).

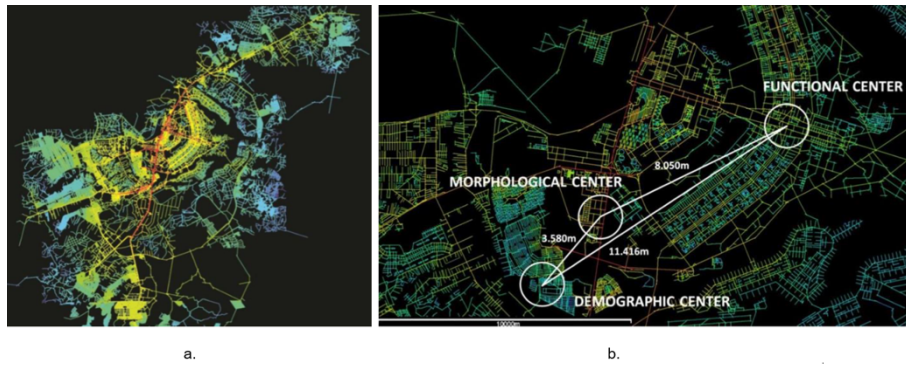


Figure 2. City maps of Brasilia obtained by Space Syntax analysis. (a. Urban core of Brasilia; b. Location of functional, demographic and morphological centers in the city (Holanda et al., 2015).

The case of Ankara, for the research, is a unique capital city by reflecting a special historical process and the Republican Period. Evaluating urban morphological approaches and methods, Turkey's capital city, Ankara's urban form is analysed with this research.

Methodology

Kropf (2017) describes urban morphology as a way of thinking, researching and studying as a planning and design tool to understand the environment. Four different approaches are related to urban morphology in the analysis of urban form: typo-morphological, configurational, historico-geographical, spatial analytical (Kropf, 2017). Each approach in this statement of Kropf (2017) presents significant urban morphological methods that focus on different aspects of urban form and research tools. Examining the morphological development process of a capital city on both an urban scale and an architectural scale is aimed in this research. This study considers the question of whether the unique areas which give a city the role of being a capital, have continued their characteristic meanings until today or not. By two morphological methods both urban and architectural scale used in this study to analyse of a capital city's special urban structure.

The changes in the morphological structure of the city and the stages of urban development process are evaluated with a mathematical method. Assessing the macro scale decisions and its' urban effects, Space Syntax is used. Space Syntax method analyses morphological structures of the cities provably and it presents an analytical approach (Jiang, 1998). The analytical method based on the spatial relations of the city and evaluating the main historical periods with this framework are effective using Space Syntax in capital city Ankara. The periods affecting the historical development of Ankara are determined and axial maps are created for each period. Historical plans and main planning decisions have been informative for the formation of these maps. The parameters of connectivity, integration and choice offered by the method are analysed for each examined historical periods. These measurements provide a definition of an urban system and an explanation of the spatial relations (Hillier and Hanson, 1984). Determination of the capital city's unique urban character being possible with Space Syntax's quantitative analyses.

Understanding the capital city's development process from an architectural scale, typo-morphological approach is used on the other phase of the study. Although there are different typo-morphological perspectives in urban morphology approaches, they commonly emphasize that it should be considered in three basic dimensions: "time, form and scale" (Moudon, 1992, p. 308). Thus the data obtained from the Space Syntax results is evaluated together with the building scale, Caniggia's definition of the typological process, and city scale from the Conzen's approach.

Morphological Change of Ankara

Ankara reflects the process of declaration the Turkish Republic and a new social practice being the capital city. Many studies define this new period as the city's future thoughts, its' role reflecting modernism and the symbol of national identity (Bayraktar, 2016; Cengizkan, 2009; Işın, 2009). The main historical periods that create and transform the morphological structure of Ankara are significant in investigating the special character of the city.

The Republican period has a special meaning for capital city Ankara with its' critical transformative process. This period's political, economic, social and cultural effects can be observed on the Ankara's urban structure. This research investigates the main historical periods that have been effective in the forming process of Ankara. Therefore, a period before the declaration of the Republic is analysed with the Republican Period. In addition, the main historical planning periods of Lörcher (1924-28), Jansen (1928-32) and Yücel-Uybadın (1957-70) are analysed in this research. Finally, the present situation of capital city Ankara is examined comparatively with historical periods. The examinations of the determined six periods analysed with methodological framework by historical maps (Figure 3).

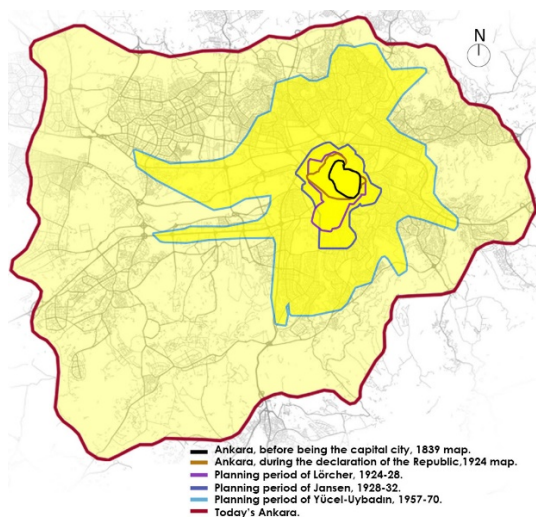


Figure 3. Ankara's historical periods' borders. (schematized by the author from Ankara Municipality's maps.)

In the analysis of research periods with the Space Syntax method, the existence of an important urban axis is observed. This axis is a critical urban component that connects the historical centers of the city and carries

many historical places. This axis known as Atatürk Boulevard and it can be defined as a monumental connector in historical periods for the capital city Ankara. However, in the Space Syntax analyses, the strong potential of this axis has diminished and replaced by another newly developing axis in the city. The parameters offered by the method are effective in the analysis of this evaluation.

The axial maps are analysed for the connectivity values of each period (Figure 4). Atatürk Boulevard maintains its' potential in all historical periods with the highest connection degree; however, this value loses its' strong character in today's map.



Figure 4. Ankara's historical periods' axial maps (a.1839, b.1924, c.1928, d.1932. e.1957, f.today)

From the segment maps, the parameter of integration is examined for each period. It provides an information for the accessibility values of each network on different spatial scales. In the analysis of a global integration stage Ankara's historical centers and monumental axis's values have decreased, as well as the city growths, is observed. Another informative parameter, choice value is examined for each map. The choice parameter investigates the preferability level of street networks. Contrary to the integration value' results, the choice levels of the newly developing city axis, which have become stronger today, are low is observed.

The changes in the Ankara's special regions are determined in a measurable framework with Space Syntax method. The historical center of the city located on the monumental Atatürk Boulevard axis still has a potential for Ankara. However, as the city develop, the growth direction of the city is changed and new spatial potential areas emerged in the city's west direction (Figure 5). After leading this city scale evaluation, this research investigates the results in an architectural scale. Morphological changes, lost spaces and differentiated areas occurring in Atatürk Boulevard, which is the monumental axis of the capital city Ankara, and the newly developing western axis are analysed by typo-morphological approach.

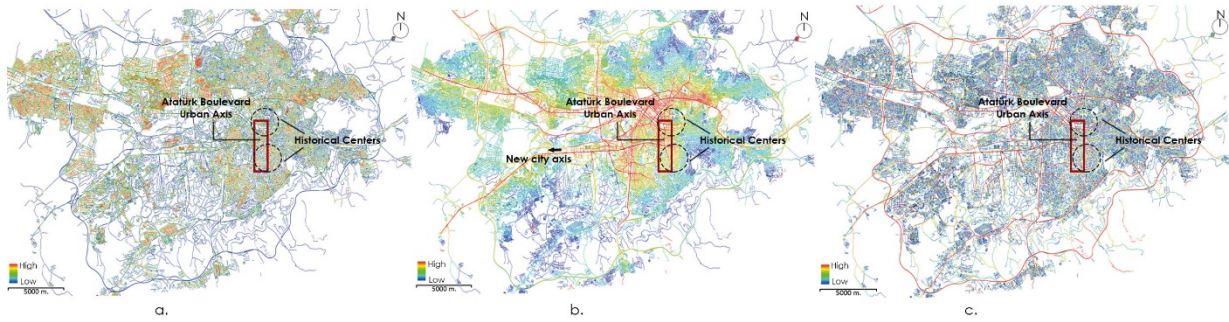


Figure 5. Ankara's historical periods' space syntax analyses in today map (a.connectivity, b. global integration, c.global choice).

The typo-morphological analyses are based on examining the urban elements in order to determine the morphological change of the historical Atatürk Boulevard axis. Thus, both Conzen's deductive city scale approach and Caniggia's inductive building scale perspective are put forward through the research areas (Figure 6).

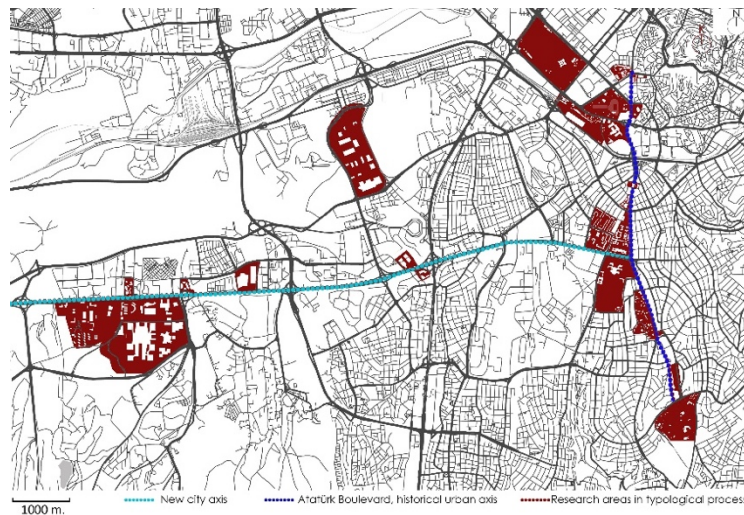


Figure 6. Typo-morphologically analyzed regions.

Atatürk Boulevard, which has the special areas of the capital city Ankara and represents the Republican period, carries many important historical buildings. Typo-morphological analyses focus the areas that preserves their existence from past to today or completely disappeared or moved to the newly developed city region. For example; in the analysis of the historical train station building and its surrounding areas, the form and scale are completely changed today. This building has the structure of the Early Republican Period and also represents the modernization process of the first years of the Republic. Additionally, the area it surrounds can be described as some of the focal points of Atatürk Boulevard. However, today, the new station building, which builds on the same land as the historical building, has a different architectural style and mass decisions that are far from the historical periods (Figure 7).

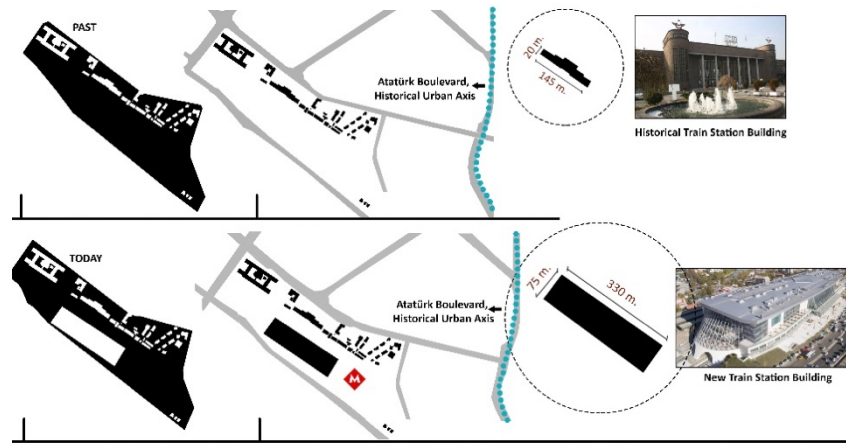


Figure 7. Sample typo-morphological analysis on Ankara's historical urban axis.

Typo-morphological analyses in defining the changing morphological structure of the capital city Ankara shows significant differences between Atatürk Boulevard, which reflects the historical city, and the western axis, which reflects the new city. The conceptual framework of this research's methodology 'time, form, scale' explains with typo-morphological approach from past to present.

Conclusions

Capital cities have special characters for their countries. This study based on morphological analysis of the historical periods affecting these cities forms and transformations. The urban form of Ankara, which is the case of this study, is affected by being the capital city and the historical planning decisions in economic, social and political issues. Analysing the changing process of capital city Ankara both city scale and architectural scale morphologically is aimed in this research.

An urban scale, Ankara's planning periods and development processes are examined through historical maps and analysed with the quantitative method Space Syntax. Evaluation from these findings, Ankara's monumental axis and historical regions have a differentiation process is observed. From an architectural perspective, these special historical regions' changing process analysed with typo-morphological approach. Thus, the process Ankara's being a capital city and the historical periods analysed with two different morphological methods in urban and architectural scales.

As a result of the historical, spatial and morphological analyses, these general inferences can be pointed for the capital city Ankara:

- Ankara, the capital city of Turkey, has changing urban character and the reflections of this transformation process can be clearly observed in its' morphological structure.
- The economic, political, cultural and social changes have critical effects on the physical structure of the city.

- The existence of historical periods, planning decisions and special monumental axis still continues; however, some regions are changing process with today's political and economic demands.
- The historical centers of the city still carries a strong potential meaning today. Atatürk Boulevard, the special administrative and monumental axis for the capital city has a changing morphological structure. It is important to preserve their morphological characters to transfer them to the future.
- As cities develop and grow, it is inevitable that they will change and that new connection lines will be articulated. The newly developed western axis is also an urban component; however, it is in an uncontrolled and completely independent growth from the historical Ankara.

From the historical periods to today, capital city Ankara's urban character have clearly affected from changing demands, periods and decisions. Within this study, the importance of analysing the city's changing urban structure by evaluating different morphological methods is emphasized by studying a unique capital city from Turkey.

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