

Impact of Rapid Urbanization on Urban Morphology of Coastal Cities- The Case of Alanya City

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Abstract

Rapid urbanization comes after push and pull factors of urbanization. These factors are considered as employment, greater opportunities and better facilities. It consequently brings high demand on built facilities which consequently bring several problems comprising reduction of forest and agricultural lands, lack of transportation and infrastructure, and mental health issues. In addition rapid urbanization has often led to unplanned urbanization and unconscious decisions of urban planners. These kinds of development is facing with dramatic changes on urban morphology. This study through typomorphological analysis tries to find out the outcomes of rapid urbanization in coastal city of Alanya. Also the study tries to provide an opportunity for its planned transformation for the future development.

Keywords: Rapid Urbanization; Urban Morphology; Coastal cities; Typomorphological analysis.

1. Introduction

“Asia is the foremost victim of rapid urbanization on the global forum and it is happening throughout the region with great pace” (Malik & Wahid, 2014). “Kavafis says in a poem, “This city will come from behind.” (Beyhan cited by Kaya, 2017). Turkey as one of the Asian countries to experience this huge migration of new comers into cities. According to Stephen Karam’ unprecedented pace of urban growth analysis, urban population of Turkey has grown from 25% (1950s) to 75% (2015) (Karam 2015). In fact several cities in Turkey came from behind. First, population movement and employment, followed by an effort to create a livable city. This means the formation of crooked, unplanned and complex cities” (Kaya, 2017). This rapid urbanization not only has transformed the country demographically and economically but also it was affected on urban morphology of the cities. However rapid urbanization have changed the cities both positively and negatively over time. Positive aspects of this change employment, greater opportunities and facilities. After all, it causes increase in some structures, such as hotel, commercial building and residential unit. This issue is visible in the city of Alanya as a popular holiday resort on the Mediterranean coast which rapid urbanization

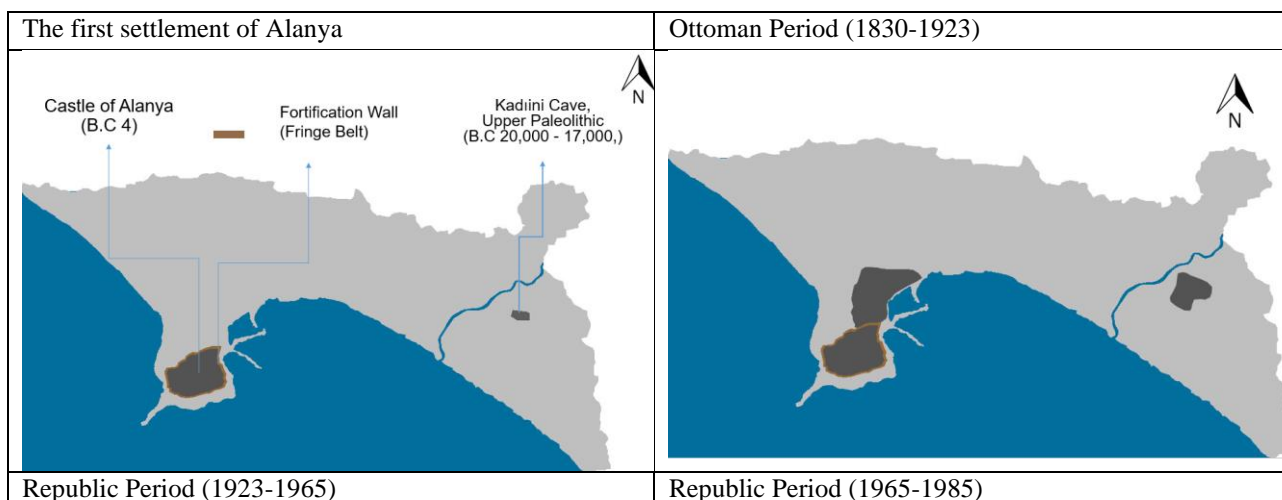
dramatically changed the appearance of the city within last 15 years. Unplanned and unconscious growth in the city has changed the city's morphology in a negative way.

Since “Urban morphology is the study of the form of human settlements and the process of their formation, development and transformation” (Conzen 1960), this research attempt to define the formation of the urban pattern of Alanya city through history by considering urban demography. Also this research through typomorphological analysis tries to find out the effect of rapid urbanization on Alanya city. Morphological studies cover many different approaches depending on the characteristics of the theme and the scale of study. For the purpose of this reseach, street network, public space including solid-void relations and block typology, which form the urban pattern of Alanya city will be considered and analyzed. These effects include, reduction in urban spaces (square, green area, coastal use), street network, formation of plot typology and coastal view. Consequently this research tries to provide an opportunity for Alanya’s planned transformation for the future.

2. Evolution of the urban form of Alanya city

The history and urban development of Alanya date back to the Palaeolithic period. Although the city developed through three particular period, population growth (figure 1) was effective in development of Alanya city as it is shown in table 1.

Table 1. Evolution of Alanya until 2018



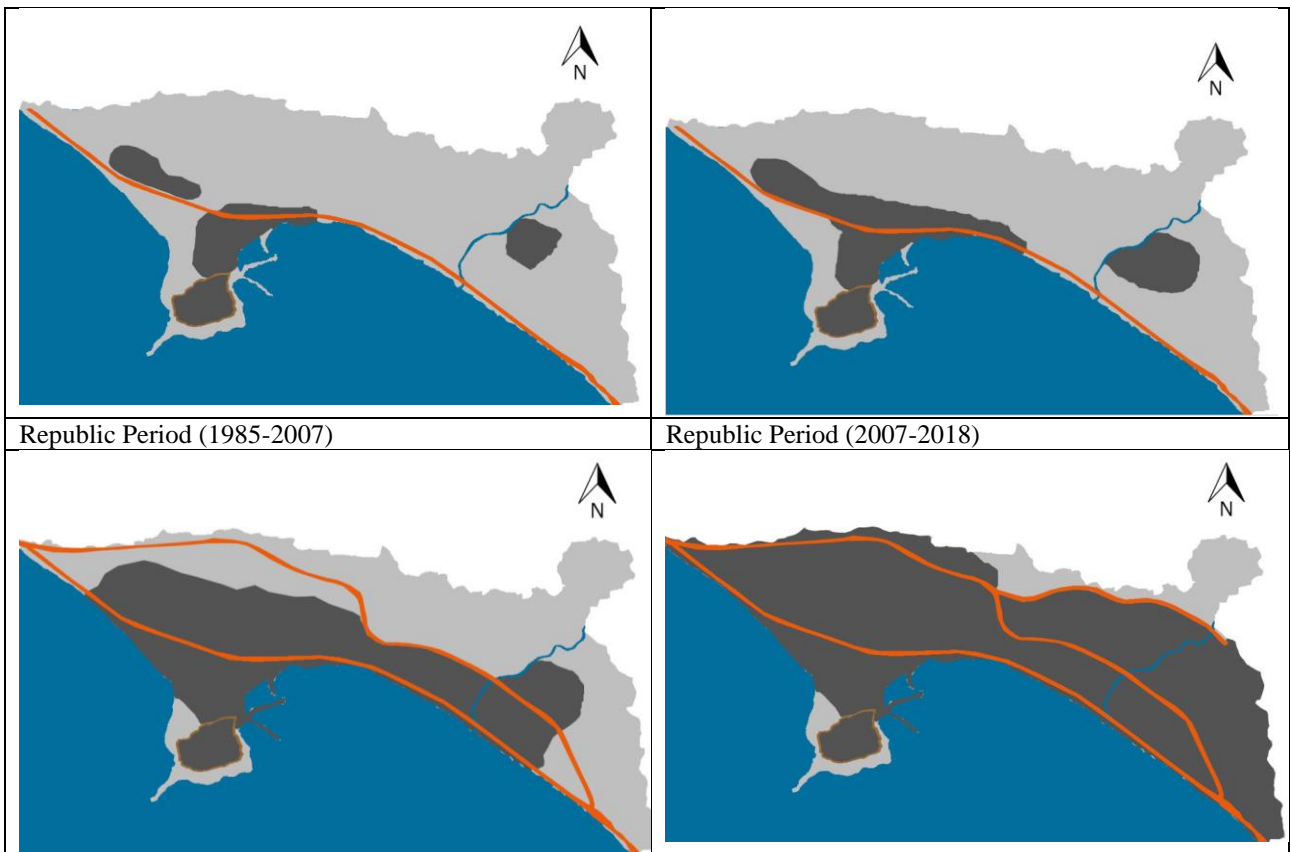


Figure 1. Population growth from 1935 till 2018

As it was seen, due to dramatic change in the population of city in 1997, Alanya was expanded toward North and East.

3. Urban problem of the city

Under this topic, problems in urban spaces in Alanya will be determined. The urban spaces to be examined are: square, green area, and coastal use.

3.1 Urban public space

The squares are the open and wide spaces of the cities, which become a major social and focal point. Also, the squares are the most important places for the development of social relations. These urban spaces are used by local people for social, cultural and political purposes in special days. Physical design of urban public spaces can only be successful if safety, comfort, engagement and satisfaction of users are provided. Memluk (2013) summarized the basic design principles for urban squares as: 1- creating sense of place and identity 2- promoting public participation 3- encouraging social use, activities and social integration 4- enhancing environmental characteristic 5- creating legible, enjoyable and long lasting public square 6- creating accessible public space from both physical and social aspects 7- achieving sustainability and environmental friendly design strategies 8- promoting art and cultural activities.

Although there are two famous squares as public space in Alanya named as Atatürk square and Kızıll Kule Square, due to lack of necessary quantities and principles which was mentioned by Memluk (2013) it is not possible to consider them as public space. Atatürk square depending on its location within City Governor's and Municipality is considered as a formal public square. This square due to poor design and relation within the nearby street is not considered as accessible and permeable public space it is considered as passing way (Figure 1). It seems urban planners had neglected to consider the vertical dimension of planning, instead focused on paper. As Sitte (1965) mentioned in his book, *City Planning According to Artistic Principles*, this approach hindered the efficiency of planning in an aesthetically conscious manner.



Figure 2. Atatürk Square

Kızılkulle Square is also considered as one of the other important squares in Alanya city center. It is located just behind the harbor. This square has the most beautiful views of the city, which allows to see the Red Tower, Shipyard and the Castle at the same time. Design of Kızılkulle square once in 2002 criticized by Manisa (2002). The criticisms in this narrow sense can be distinguished not only from aesthetic point of view (the historic value) but also from physical and functional terms. Kızılkulle Square has lost its quality as a square due to activities and parking lots. The square is completely under pressure of vehicles (Figure 2).



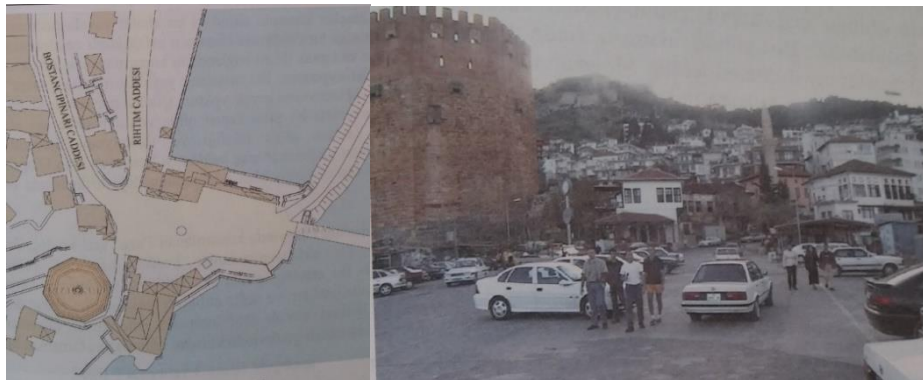


Figure 3. Kızılkulle (Red Tower) Square (2000-2018)

3.2 Urban green space

Green spaces play an important role in the cities where individuals can be away from daily stresses and spend their leisure time. Several scientific studies on urban green space emphasized the multiple benefits of parks and other green areas (Konijnendijk et al. 2013, Lyytimäki and Sipilä, 2009). There are two important park classes for cities such as district parks and urban parks. The district parks are open spaces that works with other units (housing, offices etc.) and respond to the needs of the people within a district. These spaces appeal to all segments of society. Urban parks are defined as delineated open space areas, mostly dominated by vegetation and generally reserved for public use. Urban parks are mostly larger than district parks. Table 2 shows minimum criteria of urban green space within a city.

Table 2. Urban green space criteria within a city (Yenen vd., 1992)

Recreation Area	Population Criterion(da/1000)		Area Size Criterion(da)		Place in Recreation Areas
	Min	Max	Min	Max	
District Park	6	14	200	400	Single or within district parks
City Park	1	2	400	1000	The main recreational area within the city recreation tissue

By considering these criteria it is revealed that city of Alanya due to rapid migration from 1997 onward to the city, was faced with rapid urbanization. This issue caused the city faced with negative aspect of compact and high density. In the coastal city of Alanya, which is under the influence of this intense and irregular construction, green areas have started to decrease.

As Soyak (2003) mentioned in his research, by examining the existing green areas in the city, it was revealed that urban green spaces were neglected and in some quarters the land uses have been converted into residential function. Additionally, there are evidence of dramatic decreasing of

agricultural areas in the city. Due to the ongoing development towards the west several banana gardens have been converted to the hotels. At the same time, the construction activities carried out towards the east of the city and several orange garden were removed. Recently North side of the city, toward the mountains are used for residential units.

3.3 Coastline

Since the city is developing by geography (Fasli, 2014) and water is an important criterion in the site selection of human settlements, it always specified development of an urban form (Butuner, 2006). In this sense, people have tended to settle near the water source and perform several activities such as recreational, industrial related to the harbor activities and retails activities on the coastal zones. This indicates the direct relation of physical and social interaction between coastal use and society. Accordingly the visual and physical linkage between coastal parts of a city and public life is an important factor which need to be considered in planning (Soyak, 2003). In designing coastal area, the important issue which need to be considered is that new development (including buildings, signs, fences, landscaping and roads) should not block views of the coastline from public viewing points (Figure 3). It means new development in existing settlements should respond to their context and be of an appropriate scale and form (James et al. 1998).

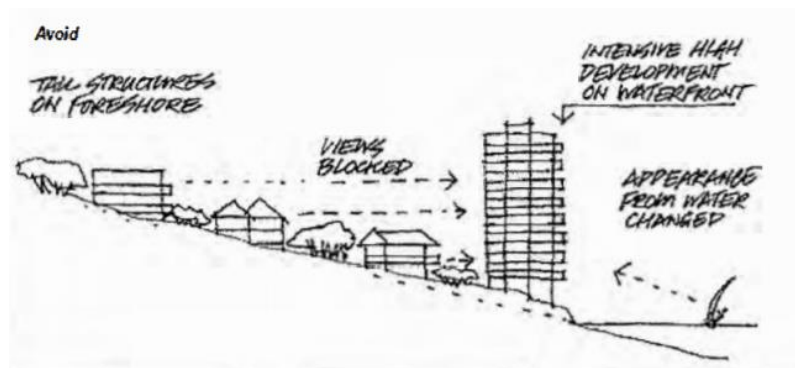


Figure 4. Structures should not block existing views to the sea or along the coast and should enrich views to the coast (James et al. 1998).

In designing some part of coastline in Alanya the importance of safety and amenity did not consider. Allocating a long path of shoreline to parking lot indicate the failure of urban designer which is related to the activities and the natural characteristics of the shoreline especially with respect to the pedestrian access. In addition in some part of the city inappropriate use of vegetation typology along the streets, caused the street view become blocked. Also in some parts of the coastline, buildings with more than

3 floors were erected or latter one or two floor was illegally added to the building which these illegal constructions cause blocking sea view (Figure 4).

Muradov (2006) in his research mentioned the coastal plain of Alanya was used for agricultural purposes until the 1970s. However, the coastal plain has become an intensive settlement with the rapid urbanization. Due to the topographic features of the districts and illegal constructions, the natural coastal areas are very limited. In some parts of the city accessibility to the coastline is difficult (Soyak, 2003). In addition the construction in some parts are very close to the shoreline which again will be threatened by marine erosion in winter time. Moreover, an urban observer due to these irregular construction on coastline cannot perceive the city as a coastal city. This matter was also confirmed by surveys which were taken from inhabitants and tourists.

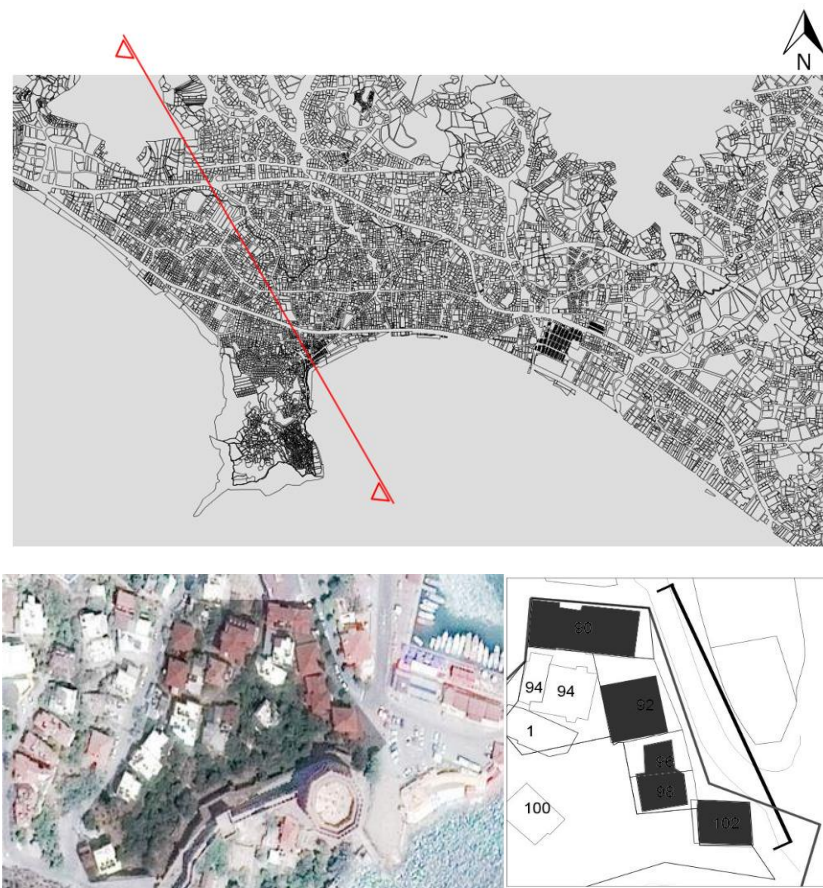




Figure 5. a view of coastalline of Alanya in historic part of the city.

4. Discussion for the planned transformation in future

Within this research some problems are encountered in the city of Alanya as: lack of urban public space, reduction of green space, inappropriate design through coastline, uncontrolled constructions. In addition to this, the existing ring road passing through the city is damaging the ecology and usage of the coastal band which also bring unnecessarily intensifies urban traffic. All these problems caused to create a city without image and character. Morphology of the city is faced with apartment more than 4 floor. The districts become mono-function and homogenized without any land mark. Illegal and unplanned constructions damaged the identical elements of the city. The constructions in city demonstrate a different structure to the character of the city. This issue is due to the lack of a master plan for urban development. As a result, development of these new districts coinciding with no architectural identity.

Accordingly, Alanya might lose its character in the near future due to the rapid urbanization and thus, it is the time for action now. Within a framework of a well-defined and proper urban planning and a consequent scenario, new developments should be harmonizing to the morphology characteristic of coastal cities, in such a way that they continue the organic pattern and the street proportions as well as the solid-void relationships. For the future development of the city urban pattern, block typology, solid void relationship, vegetation, building typology, facades, function, etc. should also be considered with a similar approach.

REFERENCE

- Alanya Chamber of Commerce and Industry (1999), Alanya census results, Alanya
http://arsiv.altso.org.tr/index.php?option=com_frontpage&Itemid=23
- Alanya Chamber of Commerce and Industry (2007), Population and Demographic Dimensions of Alanya
http://arsiv.altso.org.tr/index.php?option=com_content&task=view&id=70&Itemid=125

- Beyhan, B., Tarih Kırılıdır, Zipsistanbul, p:6, 26, 2 May.
- Conzen, M.R.G. 1960: Alnwick, Northumberland: a study in town-plan analysis. Institute of British Geographers Publication 27. London: George Philip
- Henderson, (2002); Potts, (2012), Bertinelli & Strobl, (2003). The Relationship Between the Share of the Urban Population in the Total Population and Per Capita GDP in Turkey. Examination of The Relationship Between Urbanization and Economic Growth in Turkey by Time-Varying Causality Method. Pp. 2. <http://dergipark.gov.tr/download/article-file/430140>
- Karam, S. (April 29, 2015), Turkey Urbanization Review Rise of the Anatolian Tigers Sustainable Development Program Leader, World Bank
- Kaya, E. (2017). Research on How Rapid Urbanization Affects The City. Urbanization and Urbanised. Pp. 50. <http://erolkaya.com/wp-content/uploads/kitaplar/kentlesme-ve-kentlilesme.pdf>
- Konijnendijk C., Annerstedt M., Nielsen A. B., Maruthaveeran S. (2013 January) Benefits of Urban Parks A systematic review. A Report for IFPRA. Copenhagen & Alnarp.
- Malik, S., & Wahid, J. (2014). Rapid urbanization: problems and challenges for adequate housing in Pakistan. Journal of Sociology and Social Work, 2, 87-110.
- Manisa, K. (2002) "Turizm ve Mimarlık Penceresinden Alanya Kent Kimliği", In the context of tourism phenomenon in Turkey, an examination of the physical and urban problems of Alanya. Alanya City Identity from Tourism and Architecture Window. Akdeniz Kültürleri Araştırma Derneği Yayını:4, Araştırma Dizisi 1. p. 72-77, 83, 124, 150-151, 156, 159-160. https://www.academia.edu/7193277/Turizm_ve_Mimarlik_Penceresinden_Alanya_Kent_Kimli%C4%9Fi
- Muradov, S (2006) Urbanization and Environmental Problems. Impacts on the Urbanization Process of Tourism; Alanya Case. Master Thesis, Gazi University
- Memluk, Z. M. (2013) Advances in Landscape Architecture. Designing Urban Squares. Pp. 16. <https://www.intechopen.com/books/advances-in-landscape-architecture/designing-urban-squares>
- Onsekiz, D. (2018) Students' thoughts about the perception of the city. Uşak Urban Perception Of The Students At Uşak University. Pp. 1 http://ssdjournals.org/Makaleler/157968404_3_3-13.119%20Onsekiz_555-568.pdf

- Pawan, (2016). What Are The Cause of Urbanization And Effect of Urbanization on Us and Environment. Urbanization and Its Causes and Effects: A Review. Pp. 1. <https://www.rsisinternational.org/IJRSI/Issue31/110-112.pdf>
- Pekküçükşen, Ş.; Güleç Solak, S.; Oktay, E. (2018) Students' thoughts about the perception of the city. Karaman Urban Perception of the Students at Karamanoğlu Mehmetbey University. Pp. 2 http://www.turkishstudies.net/Makaleler/177953869_10Pekk%C3%BC%C3%A7%C3%BCk%C5%9Fen%C5%9Eerife-ifs-153-174.pdf
- Sitte, C. (1889), City Planning According to Artistic Principles, Translated by George R. Collins and Christiane Crasemann Collins. London: Phaidon Press, 1965.
- Soyak, C (2003) Open Field Formation, Usage and Example of Alanya in the Cities where Tourism Function Density. Tourism and Urban Spaces in Alanya. p. 48, 104, 170-171.
- Soyak, C. (September 2003), Alanya'da Turizm ve Kentsel Mekanlar, Akdeniz Kültürleri Araştırma Derneği Yayını:5, Araştırma Dizisi:2, İstanbul, p.137-138.
- T. C. ANTALYA GOVERNORSHIP Provincial Population and Citizenship Directorate, Alanya District Population Directorate (2018), Alanya Population by Years https://www.nufusu.com/ilce/alanya_antalya-nufusu
- Turkish Statistical Institute (2018), Address Based Population Registration System-ABPRS <http://www.turkstat.gov.tr/Start.do;jsessionid=ncd1c1tNhZgvNhvBIBhPn35J22ylNZv3xRvc3kZTJ38LJ0DVkzv0!804667189>