

## **Continuity of the Spirit of a Place Case of a Historic Town**

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### **INTRODUCTION**

Throughout the history, geography played an important role in shaping settlements. Cities have been set up and developed according to determinative geographical factors such as natural thresholds (altitudes, rivers, agriculture areas etc.), topography (exposition to sun, sight, directions of wind, etc.) security (steep rocks, water elements, etc.). Development direction of the settlement areas are limited according to natural thresholds, buildings are oriented according to slope, sun and features of scenery. Thus, in settlements with different geographic features, different structure characteristics appear which in turn reveal the spirit of the settlement.

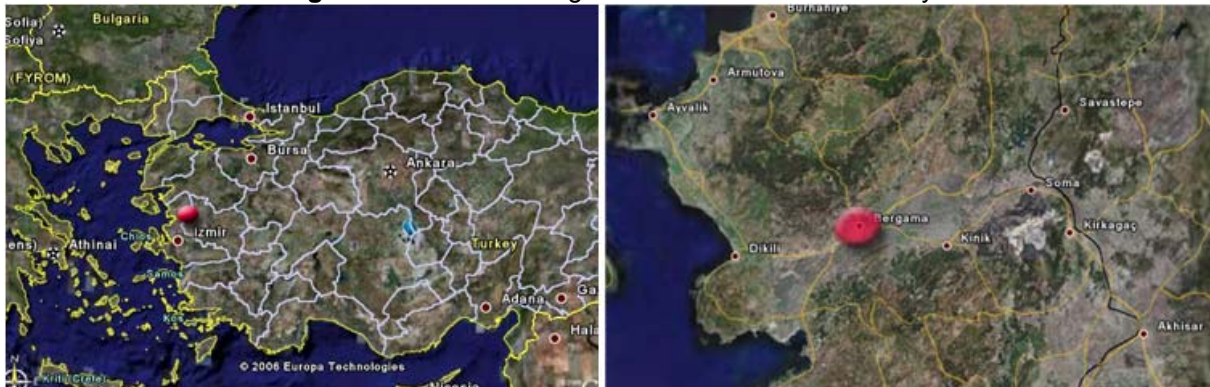
In Pergamon, existing since Antiquity and developed within the influence of different civilisations, the geography has been effective in the macroform of the settlement.

The aim of this study is to investigate the development process of the historic and geographic buildings of Pergamon, its typology, features of the physical structure and to examine the effects of the geographical data on the form of the city by investigation of urban fabric. In this context, in the following section geographical conditions, which effected the development of the form of the city Pergamon are mentioned. These are natural thresholds, such as the location of the settlement, forests, water surfaces, characteristics of the climate and fruitful agricultural areas. In the third section, information has been given about the historical development process of Pergamon settlement by indicating different characteristics of the urban structure arising out of the influence of geographic conditions. In the conclusion , taking into consideration the geographic factors, suggestions have been made about how to evaluate different characteristics of urban structure today, which reflect the spirit of the settlement.

### **GENERAL CHARACTERISTICS OF BERGAMA SETTLEMENT**

Bergama (Pergamon) is one of the ancient civilisation centers established in Western Anatolia in the north of the plain through which Bakırçay is flowing in to Aegean Sea (Figure 1). As a natural frontier, the district of Bergama is surrounded by Madra Mountains in the North, Geyikli Mountains and plateau of Kozak in Northwest, Yaylacık Mountain in Southwest, Kalarga Hill in the West, Yunt and Soma Mountains in the East.

**Figure 1** Position of Bergama Settlement within Turkey



Source [www.googleearth.com](http://www.googleearth.com)

One of the most important water sources of the settlement is Bakırçay, who springs from Davullu Mountains, which is located 30 km south of Balıkesir and which is raised by the streams coming from Madra and Yund mountains. Selinos stream, which is a branch of Bakırçay, passing Southwest of Bergama city center, is flowing to North with a weak movement through the city center. Selinos stream springs from Madra Mountain, passing the South foot of the Acropolis, dividing Bergama into two parts and flows into Bakırçay.

Modern Bergama is located in the plain of Bakırçay, on the fruitful agricultural land. Main agriculture products grown here are stone pine, cotton wool and olives. 45.396 hectares of the total area (1.688 km<sup>2</sup>) is suited for agriculture (27%), of which 68310 hectares are forest, 20000 hectares are pasture-grass, pasture and 35093 hectares are unsuitable areas. Stockbreeding is carried out on 14.242 hectares of the land. Selinos Stream flowing through the city and the fruitful agricultural soil as geographic threshold is effecting the formation of the city (Research Project).

## **BERGAMA- A HISTORIC TOWN**

### **Historical Development Process of Bergama**

Pergamon has been established on the volcanic hill of 330 meters, which is located between the streams of Selinos and Kestel, two branches of Bakırçay. This area has been attractive for many settlements due to the fruitful agricultural lands, which reach out from the South of this hill down to Bakırçay. This situation can be seen as the history of settlement, which goes back to the Neolithic Age. Stone axes and pots and pans, which can be seen at the Archaeological Museum of Pergamon today, go back to 5000 B.C.

Pergamon is a settlement, which has hosted many civilisations. After 334 B.C., upon defeat of the Persians by Alexander the Great, West Anatolia has started to live the Hellenistic Age, which has been a mixture of Greek culture and local culture. Since 280 B.C., Pergamon has become one of the centers of this civilisation (BTO, 2002).

Money, the commercial changing tool in Pergamon, has been first minted in the 5th century B.C. This was the reason why diverse kingdoms and tribes were continuously after this place. Under the 530 years hegemony of the Romans, the city has started to expand in direction of the plain at the slope of the hills of the Acropolis during the Eastern Roman period. The city's population reached to 180.000 in the 2nd century A.C. (Cebeci, 1995).

During this period;

- for the water supply of the city, the valleys and the slopes have been crossed with two - three level aqueducts,
- the Asklepion, where psychological diseases were treated with water, has been set up,
- within the frame of a plan, temples, theatre, library, gymnasium, palace and agora have been build at the Acropolis.

Since the beginning of the 14th century, the city has been under the sovereignty of the Turks. During the period of principalities and the Ottoman period, mosques, theological schools, large commercial buildings, bathes, covered bazaars have been improved and shops were set up to liven up the trade.

During the Ottoman Empire, Turks, Greeks of Anatolia, Armenians and Jewish people lived in the city. It is being understood, that according to the information about the population of 1899, Bergama's total population was 23.590. Out of this number, 17.139 were Turks, 3585 Greeks of Turkish citizenship, 281 Armenians, 495 Jewish and 74 of other minorities (BTO, 2002).

Today, according to the data of 2000, Bergama has a total population of 106.536 people. 49% of the population is living in the city, whereas 51% lives in the rural area. Majority of the villages connected to the center are villages settled in plain and most of the population is residing there just because of the effective agricultural opportunities in these fields. Rural settlements with the lowest population are to be found at the Madra and Yund mountains, which are mountain villages.

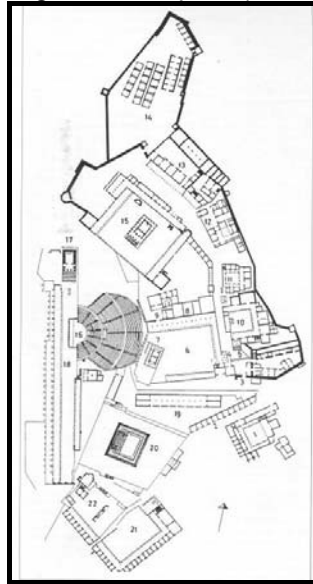
## **Characteristics of Structure Arisen During the Historic Development Process**

### **Hellenistic Period**

During the Hellenistic Period, majority of the Western Anatolian cities have been constructed according to the Hipodamos (grid) plan. In contrary to this, the Acropolis of Bergama has been developed according to conventional plan. City walls surrounded it. The buildings of Bergama Acropolis have been lined up from South to North due to the positioning caused by the difficulties of topography. However, main fronts/façades are directed to West in order to create an effective silhouette. In terms of city layout, Bergama is unique. As it can be seen from Figure 2, the Agora (21), the Zeus Altar (20), the Athena Temenos (6), the palaces (10,11) and the Hellenistic structure, which was located in ancient times in Tranianus Temenos are looking to the same direction, to the plain (Akurgal, 1996).

The architectural structure of Bergama Acropolis shows similarities with Büyükkale in Hattuşa and Toia VI. In each tree centers, the buildings consist of units with courts for one family. And the cities are arranged in the form of circled terraces overlapping each other. Most important buildings located in Acropolis, the city walls, the Zeus Altar, the Propylone of Athena Temple (4) and the related stoas, the library (8), the Amphitheatre (18) and other works and buildings of former periods have been expanded or completed during the course of time. During the big development period, existing Athena temple and the theatre have been protected and the new city has been established according to a plan of a fan form at three sides of the core (Akurgal, 1996).

**Figure 2** The Pergamon Acropolis (3rd- 2nd century BC)



**Source** Akurgal, 1996

During the Hellenistic Period, the "Pergamon City Law" has been issued which is considered to be the basis of understanding of today's municipality. According to this law, main roads were not allowed to be narrow than 9 m, and the second level roads not less than 4 m. There are two separate channel systems for the drinking water supply and waste water of the city. The existence of an important infrastructure shows the development level of the city (Eriş, 2003).

### **Roman Period**

Roman emperors set up local administrations for providing the security in provinces and to continue life and started to collect taxes in the cities. This style of government caused that selected people appeared in the management of the city, which resulted in the fact that this governing class became richer in proportion to the rest of the population. Public buildings from which all population was expected to benefit were built with the sources provided by rich people. Examples of these buildings are temples, theatres, fountains, galleries and baths with colonnaded arteries. "Spending for public" was the price of the rich people in cities, paid for the political and economic sovereignty over the population, which was living mostly in rural areas. Members of wealthy families obtained prestige and high status in return of their contributions for the construction of public buildings. These social and economic conditions constituted the "Roman city civilization period" which had 300 different city settlements in Anatolia. As these cities of the Romans did not have any right to claim for political independence, they were praising themselves with their public buildings. This is the reason, why public buildings are large and fairly decorative (Rheidt, 1996).

During the Roman sovereignty period over the Anatolian cities, the city expanded over the protection walls and spread towards the plain. Beside the new temples built in the Acropolis and Asklepiion, social buildings at the plateau were constructed in this century. The Temple of Serapion was built in the North of the Roman lower city. Forum, which is the main square of the city is neighbouring north to this temple (Rheidt, 1996).

Houses of Antique Pergamon were courtyard buildings. The courtyards, which are surrounded by walls, are an open place, a place of life which provide transition to some rooms around and where economic activities are carried out. The smallest unit consists of one room, which contains all functions in one, such as living, kitchen and storage. Most

typical types are examples of courts with three or four rooms. In these houses, there is a highlighted living room of which the floor is sometimes made of cobblestone pavement or brick tiles, which have been placed with utmost care.

In most cases, at least one room is used as a depot to store the goods, the grain, oil or the wine, which shows that the economy is based on agriculture. Most of the houses have a room with oven which is used as kitchen. And also rooms which are used to store food for animals or firewood or sometimes as a shed exist seen in some of the houses (Rheidt, 1996).

### **Eastern Roman Period**

Before having re-settled under the protection of the castle, Eastern Romans, which lived in the plain, seem to have built their houses from mud or adobe soil. In this period, as also in the Roman Period, most of the houses continued to consist of one floor with courtyard.

Comparisons with other Eastern Roman houses and modern houses showed that the construction technology of the Pergamon houses and the general plan have been formed according to the intensive agricultural activity. During the Eastern Roman Period, all settlements look like villages. The handiwork and trade, which is carried out at houses are few. There are no other public buildings except the churches. Houses of landlords are just little different in terms of their sizes and decoration from the houses of the population. The general plan and construction systems are the same as the regular rural houses. Thus, it reflects a feudal society, which carries out agriculture for its own needs at a lower economic level and is based on ownership of land.

Except a domestic market where all agricultural products were sold, the "cities" were deprived of all economic functions. In spite of this, although not in the sense of the Antiquity or modernism, they were metropolises of provinces in the Byzantium. This attribute was only given because of the existence of the church. It is known that midst of the IV.th century, two churches were built; one in to the court of Lower Agora and the other on the Selinos Stream, Serapion (Kızılavlu)., As the churches and monasteries has been built Instead of the temples which were pulled down, the city of Pergamon is known as a center of Christianity. Pergamon is one of the first places where the Bible became widespread. Today, the Church of Pergamon is the only one of seven churches, which is mentioned in the Bible and of which the location is determined.

### **Ottoman Period**

The first Turks, who came to Pergamon, settled down at the hill of Musalla (today the neighbourhoods of Selçuk and Barbaros), known as the Forum place and prestigious housing area of the Roman period and due to its close location to the stream (Selinos), panoramic advantages and protected infrastructure. The first Turkish-Islamic building of that period is the Selçuk Mosque of which only the minaret is preserved. In 1399, Yıldırım Beyazıt instructed the construction of the Ulu Cami (great mosque), which is located at the shore of the Selinos stream and at the foot of the Acropolis and which is still being used. The neighbourhood of Selçuk continued its expansion towards East and South in the XV th and XVI th centuries. On the axis, stretching southwest of the Serapion Temple, the Cumhuriyet Street, many mosques, baths, fountains, water-tanks with fountain, small mosques which are still being used and became the elements of image of the city, have been built during the Ottoman period. At the same time, these buildings constitute the service buildings / facilities of the settlement. Housing are being developed in form of organic structure around this core. Today, as also in the Ottoman Period, the Forum place from the Roman period has continued its function of being a trade center. Many working places, markets and covered bazaars have been built in this area.

Like other Anatolian cities with defence problem existing, Bergama entered into a new progressing period and started to develop and grow rapidly from the foot of Acropolis towards the plain of Bakırçay during the late Ottoman period. With its rich natural sources, the city has excess on production in branches such as agricultural products, weaving, leather trade, flattery and it opens up to foreign markets. During this period, industrial buildings related to leather processing started to develop along the river (Research Project).

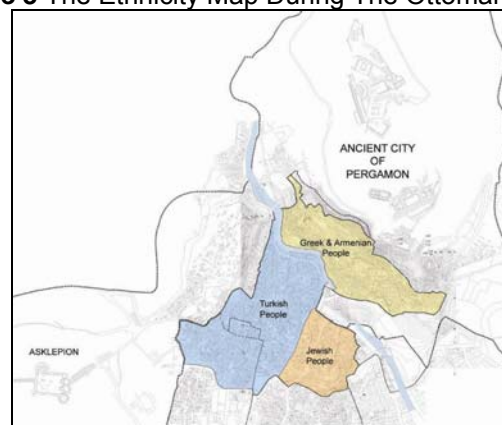
By using adobe, which is the main construction material specially used for houses in the Mediterranean and Anatolia, houses have been continued to be built in Bergama, which can be identified to be spread on an area with its Antique Hippodrome in the West, the Ulu Mosque at the cost of the North of the Selinos stream, the Emir Sultan Mosque from the same period in the East and the Kurşunlu Mosque dated 1439 in the South. In the 19<sup>th</sup> century, throughout the Ottoman Empire, the construction regulations issued within the influence of the movement of westernisation, houses out of brick and wood were started to be seen also in Bergama.

From many of the buildings qualified for protection, on which the dates indicate that they have been built in the 19<sup>th</sup> century and especially in the second half or at the end of the 19<sup>th</sup> century, it is being understood that as a result of the increase of population, the construction activities of some public buildings and housings continued until the beginning of the 20<sup>th</sup> century (Sönmez, 1998).

With reference to the protection of the features of an Anatolian-Turkish city, Bergama could be divided into two areas: the first area is the "Area of Traditional Housings" stretching from the foot of the Acropolis to the stream of Selinos and the second is the centre which continues as the extension of the housing area, crossing between Kınık Street and to the Southwest of Cumhuriyet Street. These two main areas cover approximately half of the size of the city, which it reached in the second half of the 19<sup>th</sup> century. At that period, traditional housing area was an area where mostly minorities were living. At that period, Turks were living on the plateau, the Greeks of Turkish citizenship at the foot of the castle, the Armenians at the West side of the stream and the Jewish along the stream (Figure 3) (Sönmez, 1998). The features of the street structure were;

- fairly long roads harmonious with slope,
- straight, short connection roads which may have stairs,
- dead-ends stretching to inner places of groups of houses (city block),
- special cross-section of the roads to drain the rain water,
- changeable roads.

**Figure 3** The Ethnicity Map During The Ottoman Period



Source Research Project

### **Republican Period**

During the Republican period, the constitution of population changed, since the Greeks of Anatolia left West Anatolia during the Turkish War of National Liberation and the agreements signed between Turkey and Greece in 1926 and in 1930.

In this period, the city continued its development at the surroundings of contemporary urban facilities settled on the administrative node, which was developed on a plain area at the last periods of Ottomans. Since 1950, the city continued to grow mainly on fruitful agricultural land influenced by the increasing population. In this period, in macroform, the districts continued to separate. When looked at the structure of housings, fountains decorated by the use of antique stones, massive groups of houses built of stone, located next to each other like row houses belonging to 19th century and the facades of houses built with half-timbered technique with projection create an interesting contrast. In the old area of the city, double-storey houses, which still carry the traditional appearance and the houses out of brick and wood which sometimes are double-storied and called as "Houses of Greeks of Anatolia" by the people of Bergama, are positioned next to each other or opposite to each other.

Beside their discrepancies in the storeys, as these houses are built in a stepped form to each other due to inclination, side views are perceived as well and the levels of eaves were always variable. As the intensively of the adjacent construction did not allow the possibility for big gardens facing to the road, the contribution of green in the streets was limited (Sönmez, 1998).

In this period, with the influence of "modernization" in Bergama, some of the mosques and small mosques and other historic buildings and most of the wooden houses have been pulled down and replaced with new reinforced-concrete dwellings. During this process, two different structures (organic structure – grid-iron structure) have started separated the macroform of the city.

### **Bergama Today**

The urbanisation movements experienced after 1950 did not only influence big cities but also small cities such as Bergama in terms of immigration from villages. Especially due to restricted work possibilities in rural areas, the population of the city centers increased rapidly and continued to spread in the plain, which reached today's macro form. In parallel to the rapid increase of population, the characteristics of the structure which is shaped by new development areas affected from the changes experienced economically, socially and technologically. The physical features of the city such as;

- . street structure which develops in grid-iron system,
- . increased intensity in construction and population,
- . multi family housing (apartments),
- . multi storey constructions,
- . constructions which ignore factors such as privacy, light and air conditioning

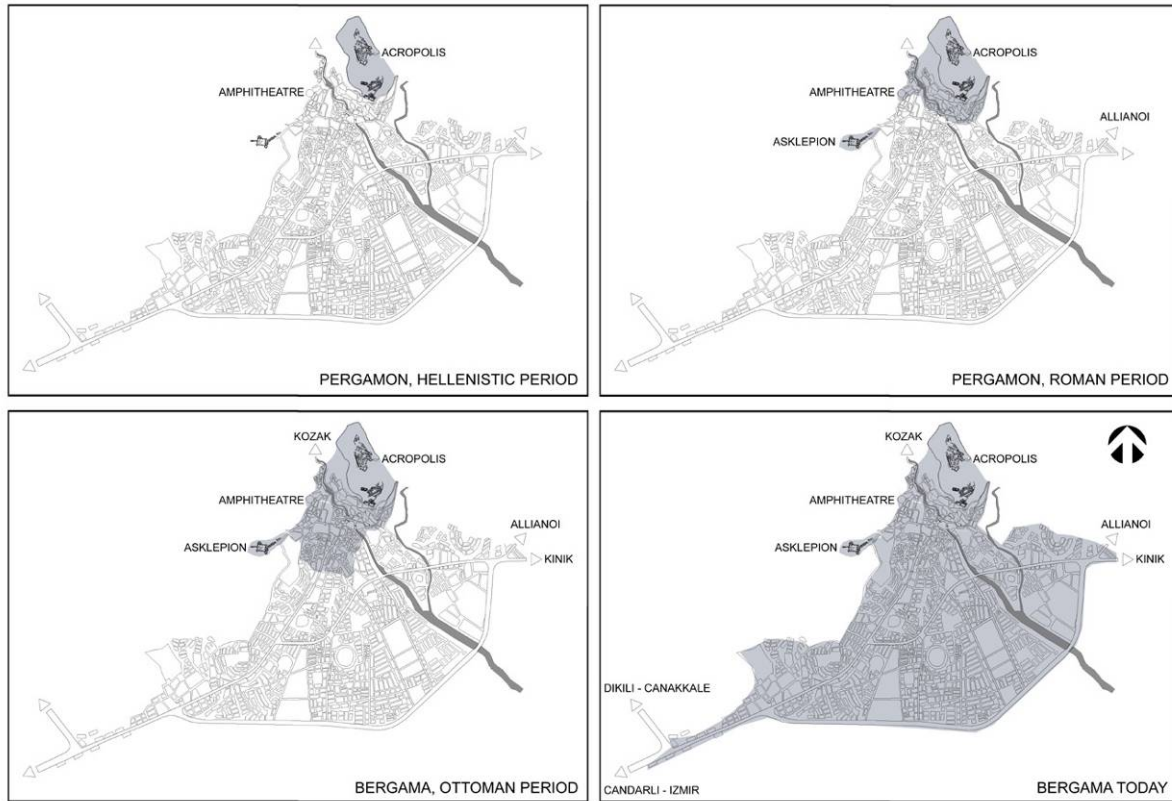
differ from former periods. One of the most important reasons for this is, that the planning of construction is abstracted from natural / geographic features and the other reason is that the macroform of the city has been shaped by the laws and bylaws issued at that period.

One of the most important determinatives of the formation of the macroform of today's Bergama are the main transportation arteries which have been opened after 1985 and which cross through the traditional structure. While the city is continuing to grow upwards and intensively with constructions along these arteries at the location of former building zones, the traditional structure has experienced severe destructions.



Residential organizations of each period are based on a cause-result relation and reflect the spirit and culture of that period. While the city had her own spirit during the Hellenistic, Roman and Ottoman periods, the modern development process, which has started since 1950's, caused the lost of spirit (Figure 4).

**Figure 4** Historical Development Process of Bergama



**Source** Research Project

## CONCLUSION

Since the Antiquity, the geography has been an important determinative in the macroform of Pergamon. It has been seen that there are differentiations in terms of physical characteristics of the structure in the city, which had been initially set up on the hill and which had expanded to the slopes and plains in later periods. In the Hellenistic Period, the city was set up and developed in the Acropolis in the hill. During the Roman and Eastern Roman Period however, the city is like a small stain close to the castle settlement and to the castle, stretching out to the south slope. In this period, settlements were started around the stream of Selinos. The economy based on agriculture, geographic conditions such as the climate and slopes have influenced the shape of the buildings. During the Ottoman Period, the city started to move towards south slopes and plain, the city center grew and spread out from the castle. Upon improvement of the intercity transportation possibilities in the 20th century, the city became widespread in the plain where also the agriculture areas were located. The macroform, which had developed as an organic structure until that period, has shaped up in a grid structure since the period of Republic.

The existence of visible differences between the macro form of traditional settlement and the new improvement areas show that physically, there is a double structure. It is possible to indicate these differences as below.



<b>TRADITIONAL</b>	<b>NEW DEVELOPMENT</b>
Single family	Multiple families
Organic fabric	Inorganic fabric
Transportation by foot	Transportation by vehicles
Narrow roads	Broad roads
Big city blocks with blind alleys	Small city blocks
Form and size formed by Pedestrian access	Increasing size due to Extensive use of vehicles and extension of the distance to be reached.
Courtyard houses	Apartments, no garden
Settlement in line with the topography at sloping hills	Settlement in plain (agricultural) land
Adaptation to geographic factors (wind, light)	Regardlessness to geographic factors, Similar buildings with uniform architecture

After the 1950's, negative results of the uniform type of planning and preferences on transportation with vehicles instead of walking Bergama has entered into a development process which does not differ from the form of other settlements. As a result of this situation, it is possible to say that the historic structure has been destroyed, to better say, that the historic structure has lost its spirit and the identity of the historic city of Bergama. While walking through today's "modern Bergama" you come across apartments, which make you forget in which geography you are and which can be seen in any geography of Turkey; this situation is completely contradictive to the essence of settlement. Instead of opening new development on fruitful agricultural land and drift the city into an incomprehensible growth, the inventory of the historic structure, which has started to be abandoned, should be used and regulations preventing new constructions should be issued. Thus, Bergama's natural values would be preserved and its historic identity would be continued.

Today, beside its agricultural identity, Bergama is moving ahead with her tourism potential<sup>(1)</sup>. It is becoming an attractive focus for national and international tourists. Along with the changing understanding for tourism and within the frame of integration of the entire city to the activities related to tourism, traditional settlements prove to be an opportunity. The renewal of these areas and the continuity within the protection and usage balance stands ahead of all activities.

Along with the increasing city population, Bergama's growth towards the fruitful agricultural areas constitutes an important problem. In order to supervise the growth of the city, rural progress should be aimed to keep the population in rural areas and to avoid their immigration to the city. At the rural area, where there is a potential for alternative tourism, further than the agricultural activities, tourist activities could be carried out to develop the rural areas and to prevent the immigration of the population to the metropolitan areas.

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<sup>1</sup> See: C. Hamamcıoğlu, T. İnal Çekiç, Z. Yenen, (2006), “Disintegration Due to Mass Tourism”, paper prepared for the 42<sup>nd</sup> ISoCaRP Congress 2006.