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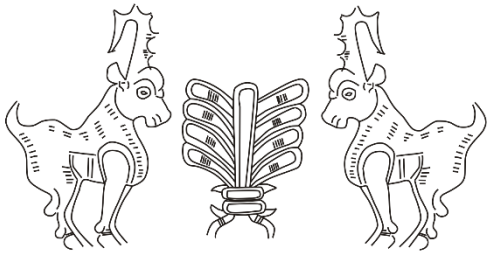

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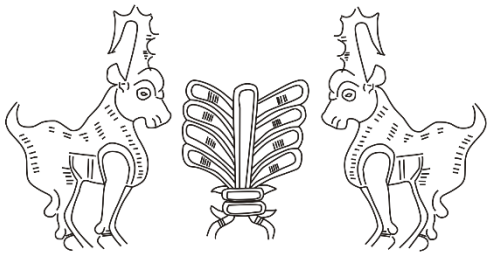

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GEOGRAPHY AND CLIMATE ON THE SITE SELECTION OF ARCHAEOLOGICAL SETTLEMENTS: EXAMPLES FROM KURA-ARAXES SETTLEMENTS IN THE UPPER EUPHRATES-MALATYA BASIN

Umut PARLITI[*]– Eyüp CANER[**]

Abstract

Climate and geography play a significant role in the mobility of people, affecting their economic pursuits, eating and clothing habits, architectural construction techniques, and the selection of building materials. In this context, the geography-climate conditions in which civilizations are born and flourish become the prevailing elements that determine their socio-cultural characteristics. Within this scope, this paper explores and presents a brief evaluation of the Kura-Araxes settlements in the Upper Euphrates-Malatya Basin through the key mounds. The earliest findings regarding the urbanism of the archaeological settlements in the region date back to the 4th millennium. However, as the Keban and Karakaya Dams submerged the archaeological site, general assessments about these settlements could only be made with the available archeological data afterwards. Besides, since the rescue excavations were carried out swiftly, there was confusion in the evaluation of the results and the comparison of the data. Moreover, as the settlements have not been completely unearthed and the inconsistency experienced in the chronological plane still exists, new evaluations are needed about these settlements. To this end, landscape analysis of the Kura-Araxes settlements, which are among the noteworthy mounds of different scales, was conducted, and the results regarding the geographical distribution problematic in the location selection of the settlements were analyzed. In addition, even if it was incomplete, the significant data about the architectural texture of the settlements were evaluated on the common denominator.

Keywords: Upper Euphrates-Malatya Basin, Kura-Araxes Settlements, Geography, Climate, Settlement Archeology.

Arkeolojik Yerleşimlerin Yer Seçiminde Coğrafyanın ve İklimin Etkisi: Yukarı Fırat-Malatya Havzası'ndaki Kura-Aras Yerleşim Örnekleri

Öz

İklim ve coğrafya, insanoğlunun yeryüzüne dağılışını, ekonomik uğraşlarını, giyimini, beslenme alışkanlığını, mimari yapı teknikleri ile yapı malzemesini, kültürlerini ve karakterlerini etkileyen önemli bir unsurdur. Bu bağlamda uygarlıkların doğduğu ve var oldukları coğrafya-iklim koşulları, uygarlıkların sosyokültürel özelliklerini belirleyen ana unsurdur. Bu çerçevede makalemizde, Yukarı Fırat-Malatya Bölümü'ndeki Kura-Aras yerleşimlerini anahtar höyükler üzerinden kısa bir değerlendirilmesi yapılmıştır. Yukarı Fırat-Malatya Bölümü'ndeki arkeolojik yerleşimlerin şehirciliğine dair en erken bulgular MÖ IV. binyıla dayanmaktadır. Ancak bu bölümün arkeolojik potansiyeli Keban ve Karakaya Baraj Gölleri altında kaldığından yerleşimlerin genel değerlendirmeleri sonradan yapılabilmiştir. Kurtarma kazıları hızlı yapıldığından sonuçların değerlendirilmesinde ve verilerin karşılaştırılmasında karışıklıklar yaşanmaktadır. Hem yerleşimlerin tam anlamıyla açılmamış olmaları

[*] Dr., Atatürk University, Faculty of Letters / Department of Archeology, Erzurum-Turkey, umutparilti62@gmail.com, ORCID ID: 0000-0001-9895-4926.
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hem de kronolojik düzlemde yaşanan tutarsızlık nedeniyle anahtar yerleşimler üzerinden bu sorunsalların tekrar ele alınması gerekmektedir. Bu nedenle farklı ölçekli anahtar höyüklerden Kura-Aras yerleşmeleri bulunanların peyzaj analizi yapılarak yerleşimlerin yer seçiminde coğrafi dağılım sorunsalına dair sonuçlara ulaşılmaya çalışılmıştır. Ayrıca eksik olsa dahi yerleşimlerin mimari dokusu hakkında önemli görülen veriler ortak paydada değerlendirilerek coğrafya ve iklimin, yerleşim merkezlerinin konumlandırılmasındaki faktörlerine dönük sonuçlar okuyucuya sunulmuştur.

Anahtar Yerleşimler: Yukarı Fırat-Malatya Bölümü, Kura-Aras Yerleşimleri, Coğrafya, İklim, Yerleşim Arkeolojisi.

Introduction

When we take a glance at the archaeological past of humanity, it is evident that humans have had to adapt to the topography and climatic characteristics of the land they inhabited in order to survive since their existence to the present day. In this direction, Paleolithic people created their toolbox with materials available in the nature like stone, wood, and bone. They utilized plant flora, animal fauna, and the main resources such as water, earth, and fire for subsistence (Lewin 1997: 5, 40-44). It didn't take long for human beings who specialized in the use of these tools to realize that they could be in harmony in the site they lived in by adapting to its topography and climate through experiencing its advantages and disadvantages. This analysis made people's living standards more effective and of high quality and led them to the question of how they could make it more sustainable in the historical development process (Güvenç 1999: 148, 184, 185-186). These questions are still valid seeking new answers with developing technology and inventions, and the latest standards for land use are getting more sophisticated each day.

In fact, it has not been straightforward to attain these standards. It has been made possible through exploration, understanding, analysis, and then consolidation of these standards. The adventure of human history was initially sustained by enduring the forces of nature. Learning how to strive against the obstacles in nature, humans have confronted the hurdles through their innate capacity and the means they have created based on their needs. At first, they began to benefit from nature with simple methods. They have become aware of how they can use and exploit the mountains, hills, rivers and valleys that make up their natural habitat along with the opportunities and challenges these resources offered to them. Primitive people, who constantly followed atmospheric events, observed that there were multiple variables in the main structure dynamics depending on human and physical conditions (Suner 2011: 86). This analysis drove them to change their dwellings. In this direction, they started to make some judgments about the strengths, weaknesses of their environment and their capabilities. It is plausible to state that these initiatives are the first survey studies, the first SWOT analyzes of humankind. Our ancestors, who were faced with unprecedented problems, utilized the basic materials in their immediate vicinity to cope with the challenges in their life. They enhanced their tools as their needs increased and exploited them accordingly. Thanks to the array of tools they fashioned from the first day they encountered the elements of nature in the physical world, these communities began to diminish the impact of harsh and adverse conditions that could emerge from environmental forces. Our ancestors began turning their circumstances in their favor with technological progression (Turan 1973: 47-58; Turan 1974: 13-16).

The geography and climate have shifted over time and left our ancestors with new demands no matter how much they have tried to attune them since the early ages. This transformation has continued in the triangle of humans, landforms, and climate, and has existed till to the present day. Sometimes people will try to adapt to nature or resist and transform it. Although individuals, groups, and communities want to adapt to the conditions they are in or eliminate

some difficult circumstances, but nature, which is constantly in motion, will bring new challenges (Landmann 1974: 2, 5). Landforms and climate, which are the vital criteria in determining the progress of humankind, continued to have an impact from architectural elements to clothing, eating, and drinking habits. Depending on the variations in geographical formations, climate conditions constituted the foundation of human progression. People have determined their living places and life models according to the mountainous and plain landforms of their site and climate conditions such as hot, moderate, or cold (Pirenne 1972: 86; Braudel 1976: 85). In this regard, this study covers the role of geography and climate factor in the location selection of the Kura-Araxes peoples in the Upper Euphrates-Malatya Basin in light of the aforementioned criteria with an emphasis on their geographical locations and architectural structures.

1. The Effect of Geographical Elements in Human History

People must have tried to analyze the physical world they were in from the moment they began to leave their mark on the first pages of the science of archeology. Geographical constituents have also affected the population of our ancestors to a great extent in parallel with technological development. The geographical conditions of the people directly affected the population rate, living order, subsistence economy, and the architectural designs of the houses (Knowles 1974: 65). People, who have resisted the environment and the natural change of climate, have continued to design interior and exterior spaces according to their own needs for thousands of years (Slessor 2002: 32-33). However, even in the process called harmony, the environment-human interactions have never been static. The changing environment has brought about varying needs and social dynamics. This forced people to demand more from the nature. Every form of adaptation within the ever-changing interaction wheel has led to new internal contradictions both in the environment and in the living space. In this respect, we can say that the basic dynamics that make up the movement in the external and internal environment have a great impact on the emergence and diversification of the social and economic system (Aksoy 1975: 66).

The social and economic dynamics dating from the first day to the Paleolithic Ages have undergone numerous changes with the transition of people to the settled order. The effective exploitation of nature by humans dates back to the pre-era of the domestication of grain and animals (Turan 1980: 32). Since the Aceramic Neolithic period, which is the beginning of settled life, communities have chosen places suitable for life in terms of geography and climate. This phenomenon manifests itself like the shape of a fertile crescent with its surroundings in which the earliest settlements were established, and the architectural styles, and the selected materials were modified by the favored location. People first built temporary-seasonal shelters and then permanent abodes until the conditions became convenient. Considering these data, we can contend that the developmental stage in architecture is shaped by the changes in the eating habits of the communities and the environmental contingencies (Erçin 2005: 1). Moreover, the environment has a great influence on the formation of identity of a community or an individual as well as the level of consciousness in the society (Abalı-Barkul-Seçkin 1996: 56-58).

It is probable to attribute the source of the evolution in technical knowledge to the expansion in the consciousness level of humanity. There is a parallelism between the high level of consciousness of a community and the struggle for the existence of that community (Leiss 1972: 121). In the historical process, the only progress that triggered the advancement of technology has been consciousness. While consciousness impacts behavior in the environment, it also influences the human interpretation of the environment. According to Mannheim, from the very

beginning, humanity has been grounded on the margins of environmental characteristics and climate, and then, surely, by addressing the need and the economic dimensions, they have grasped and implemented the technical capabilities over time (Mannheim 1936, 68).

1.1. Location Selection of Upper Euphrates-Malatya Settlements According to Geographical Elements

Although the Upper Euphrates-Malatya Region is mountainous, it represents the smoothest part of the Eastern Anatolia Region, which has become flat with broad depression plains. Malatya-Elazığ depression plains, which are the subject of our study, form the southern border of the Eastern Anatolia Region. The plains of Malatya, Elazığ, Bingöl, Afşin, and Elbistan form the flattest areas of the Eastern Anatolia Region, which have very rough terrains. While such depression plains in mountainous terrain are unique lands for agricultural activities, they also depict an endless abundance with the surrounding streams. In addition, depression plains serve as intersections in interregional transportation. The deep valleys formed in the mountainous terrain are natural corridors for transportation and by reaching a depression plain that is a junction, people can pass through another passage, then another region after the valley (Atalay-Mortan 2007: 447; Koday-Akbaş 2016: 307-308) (Map. 1). These favorable conditions of the Malatya- Elazığ plains, which are at such a crossroads, have managed to attract people throughout history to date. In this context, Malatya- Elazığ environs, where the population number and density of the Eastern Anatolia Region are the highest today, must have maintained this density from prehistoric times to the present day. As it is today, the Upper Euphrates-Malatya Section, which forms the junction of the Caucasus and Western Anatolia of the Mesopotamian region, has been the scene of the transition and interaction of cultures (Parlıtı 2016: 317). The archaeological excavations carried out in the region support this as well (Table. 1).

1.1.1. Large Scale Mounds

Korucutepe, one of the large mounds, has a width of 500x300 m and a height of 17 m. The mound is located on a flat ground so that the main sources can be easily reached (Whallon-Kantmann 1970: 3, V, Lev. 3). In Korucutepe, 6 burnt layers that can be associated with the Kura-Araxes culture were identified. The 4th and 5th of these have small rectangular mudbrick structures. The walls and floors were plastered with mud-gypsum. It is understood that the settlement, together with other architectural structures, was in contact with both the Caucasian world and Mesopotamia-Syria. Handmade pottery was unearthed in all the Kura-Araxes layers found in these excavations. It is stated that those that are associated with the Caucasus region are undercooked and burnished. Coarse and well-fired vessels ranging from gray to orange are associated with Northern Mesopotamia-Northern Syria. These pots were dated to Early Dynasty III and the Akkadian period (2600-2100 BC). There is a mention of a defensive wall to protect the settlers during the period of houses with double stone foundations dating to the Kura-Araxes culture, 2600-2200 BC (Van Loon-Buccelatti 1969, 79, Fig. 1; Van Loon-Buccelatti, 1970, 73-77). It is known that parallels of the ornate Kura-Araxes pottery recovered at Korucutepe/Aşağı İçme were also found in Könk, Tepecik and Tülintepe (Burney, 1958: 182, 194, Map.3-270, Fig. 180-3).

Another key center, Norşuntepe, with a width of 500x300 m and a height of 35 m, is located on a flat surface overlooking its surroundings (Hauptmann 1970: 103; Hauptmann 1979: 53-54). It is stated that the Kura-Araxes settlement of Norşuntepe could not be earlier than 3000 BC and that this settlement had a cultural relationship with Arslantepe VIB (Nocera 2000: 75, Fig. 3a). With this process, ceramics reflecting the communication with both the east and the south were reached in the settlement. The main reason why very little data on the floors in which

these vessels with black polished incised decoration and strip-shaped handles were recovered is due to the destruction caused by the thick fortification wall of the late phase (Hauptmann 2000: 420-421). In the Kura-Araxes culture layers, well-fired, fine wheel-made yellowish, light grayish green terracotta pots were found, indicating uninterrupted communication with Syria and Mesopotamia. Kura-Araxes-type ceramics reflecting the communication with the Caucasian world continued to be found extensively (Hauptmann 1970: 111, Lev. 6). It is likely to understand from the round architectural structures and terracotta pots that the communication with the Caucasian world increased, which indicates the middle and last phases of Kura-Araxes (Dikkaya 2003: 22). In one of these examples, a front room was added in front of the main room of the house that was unearthed on Floor 17. Architectural remnants of this feature were also detected in the Kvatskhelebi, Amiranis Gora (Georgia), and Shengavit (Armenia) Kura-Araxes levels (Hauptmann 2000: 423). In this process, we can understand from the small number of ceramic samples that Norşuntepe's communication with the Mesopotamian world came to a standstill. It is stated that the Mesopotamian-influenced ceramics were replaced by Kura-Araxes ceramics (Hauptmann 1982: 26). At the sixth building level, late Kura-Araxes, a palace-like center with warehouses and workshops covering an area of 2,700 m² was unearthed during the excavations (Hauptmann 1982: 17-18).

Könk Höyük, another large-scale crucial settlement, rises in the southwest corner of Altınova with dimensions of 500x350 m and a height of 18 m. It is located in a flat area with the village settlement covering it. The terracotta pots collected from the mound consist of Kura-Araxes and painted ones (Whallon-Kantman 1970: Könk). This large and high mound is surrounded[1] by smaller mounds such as Kuruçayır Tepesi, Peylik, Şaykatepe, and Haceri Körtepe. In this case, although the center of Könk is a mound, smaller-scale mounds, which we can call satellites, are lined up around it.

Tepecik Höyük is located on a flat plain with a width of 300x200 m and a height of 17 m (Burney 1958: 193-194; Esin 1997: 1760-1761). Architectural structures belonging to the Kura-Araxes peoples were unearthed on the 2nd and 4th cultural floors of the southern terrace of Tepecik. It is understood that the mud-brick houses belonging to the 4th level were built from mud-brick walls without stone foundations. It is also observed that stone foundations were used from time to time on these large walls and their tops were built with mud bricks. The large structure with two rows of foundations made of large stones protrude outward at intervals (Esin 1970: 154; Esin 1972: 145). It is stated that a close resemblance of the terracotta stamp found in the 4th layer is very similar to the ones made of steatite in the Tarsus Early Bronze Age[2] II layers (Esin 1974: 48-49). In addition, excavated triangular foot fragments similar to the hearth legs known from Pulur and Güzelova were found. Aside from the Kura-Araxes type terracotta artifacts, light beige wheel-made vessels were also found, indicating that communication from the south direction continued (Esin 1970: 154-157). Apart from the architectural structures and small finds unearthed on the south terrace, the large fortification wall of the same period was reached. This defensive line, probably consisting of two bodies, was supported by buttresses. The houses made of mudbrick were planned adjacent to the said wall system in a rectangular plan (Esin 1979: 89-90, Lev. 46, 50; Esin 1982: 81-82, Lev. 61, 65, 67). In another sounding, this stone-founded building with two chambers and a later annexed room, dated to the EBA, was thought to be a warehouse. There were hearths inside the adjacent adobe-walled building.

[1] For detailed information, see Seçen-Dirik-güvener-Tuncer 2021: 2, https://www.academia.edu/11491186/Keban_Project.
[2] Hereinafter, it will be abbreviated as EBA.

The base of the hearth is made of broken-furnished painted pots and jars. In the latest settlement dated to the Kura-Araxes culture, wheel-made, matt black, and brownish-gray wares were found together with Kura-Araxes wares. During the EBA I period, together with Kura-Araxes ceramics, light beige-buff, red burnished ware groups, and Chaff-Faced Simple Wares were found together (Esin 1974: 40-41,44).

1.1.2. Medium Scale Mounds

Tülintepe, one of the medium-sized mounds, is 250x200 m wide and 16.60 m high, located on a slight mound (Esin-Arsebük 1974a: 137). This is an indication of a location selection to overlook the area. During the excavations, it is understood that the monumental architecture dated to the EBA was a defensive wall surrounding the mound. It has been found that the surrounding wall is large enough to limit the EBA settlement. In addition, a well with a diameter of 3.60 m, which was built in a single row of smooth raft stones, was uncovered. A large number of Kura-Araxes-type pottery was unearthed from this well. EBA pots, stove legs, bone awls, obsidian and flint tools, polishing stones, spindle whorls, and many bovine bones were found (Esin-Arsebük 1974b: 66, 68, Fig. 5, 8-9).

Yeniköy Höyük, one of the northernmost settlements of the Upper Euphrates, had dimensions of 200x150 m and a height of 15-20 m. The mound was located on the skirt of a natural hill (Koşay 1976a: 175-176). A one-roomed building with a single row of stone foundations, possibly dated to EBA III, was opened in Yeniköy. Although the interior of the room is plastered, there is a low bench along the wall. In the deepening, two rooms with mudbrick walls were unearthed, this time dating to EBA II. The houses are twin rooms. The rooms have an oven and a grinding bench. A honeycomb-shaped warehouse was opened to store grain (Günay 1976: 183-185).

Another medium-sized mound, Arslantepe, measured 200x120 m and was 30 m high. Unlike the other mounds in Malatya, it was settled on the plain in the Malatya Basin. With this feature, it is a key Kura-Araxes settlement on the roads opening from north to south and east to west (Frangipane 1992: 183; Marro, 2011: 292, 296-298, Fig. 12.1). It was determined that Arslantepe had cultural relations with the settlements in the area where the Kura-Araxes peoples were located and the surrounding regions. In Period VII, architectural structures with magnificent public features were unearthed. Among the most notable of these are the longhouses with a rectangular plan and the complex that include both administrative and religious activities. These structures were built of stone and adobe. The monumental structures held the commercial networks of the settlement (Frangipane 2000: 443-445, Fig. 1). During the VIA process, it can be said that while Arslantepe's relations with Malatya, where it is located, and its close neighbor, Elazığ, continued, it established closer cultural connections with the Caucasus region (Burney 1993: 311-312).

Taşkun Kale, 150x150 m in size and 20 m high, is located right at the end of the slope overlooking the valley. Its location overlooks the region. During the excavations at Taşkun Kale, EBA remains were found under the medieval destruction layer (Whallon-Kantman 1970: Taşkun Castle; French-Mitchell 1972: 46, 50). The EBA settlement with the small rectangular grooved building technique was unearthed (McNicoll 1973: 168-169, Fig. 10).

İmamoğlu, one of the medium-sized mounds, measures 150x140 m and is 16 m high. The mound is located on the upper part of a stream bed (Özdogan 1977: 38-39; Uzunoğlu 1983: 131). The most important EBA structure of İmamoğlu is the "house with stairs". This place is entered through the door in the room with the stairs in the west. There is a large domed oven, a horseshoe stove with an ashtray, and a grinding trough in this house. There are two kitchens in the house. The oven, grinding bench and pottery finds match exactly with the kitchen of

Yeniköy Höyük. In the house with stairs, Kura-Araxes-type ceramics and paint decorated pottery dated to the EBA III phase were found. The stone-walled terrace wall was reached during the excavations carried out around the house with stairs. A trapezoidal-rectangular window was detected during the depth sounding. Inside the windowed space, there was a domed oven and a horseshoe hearth. The ceramics recovered here are dated to EBA II. On the floor just above the terrace wall, a slightly protruding, flat rimmed, keeled, flat base Kura-Araxes vessel dated to EBA I was found. There is a relief chevron decoration on the belly of the pot (Uzunoğlu 1988: 210-211, Fig. 13).

1.1.3. Small Scale Mounds

One of the small-scale mounds, Taşkun Mevkii measured 130x130 m and was approximately 2.5 m high (French-Mitchell 1972: 46, 51; Sagona 1994: 5). It is possible to say that this settlement was a satellite mound since it is 1 km southeast of Taşkun Kale. At Taşkun Mevkii, 4 important stratigraphic levels have been identified that can be associated with Kura-Araxes. The top floor, Level I, is mostly known for its painted ceramics. Although Level IA is defined by pits, traces of a structure built on a substantial stone foundation were found just below these deposits. The walls are mostly 0.75 m and 1.00 m thick (Sagona 1994: 5, Fig. 8). There was a main room in the middle of the knitted, basket-woven, and plastered houses in Taşkun Mevkii. Inside the main room, there was a hearth and a horned andiron. Opposite the back wall of the main room of the house, there was an entrance and a mud bench with a niche in the corner of the room. This house reflects the common cultural influence in Transcaucasia and Eastern Anatolia Region. It is also possible to compare the architectural structures and other finds in Arslantepe VIB1, Değirmentepe III and I, Norşuntepe XXII-XIV levels in Anatolia. The origin of this architectural structure is sought in Shida Kartli, which is known for its kurgans in northern Georgia. It is also associated with the rounded structures of Khizanaat Gora and the rectangular structures with rounded corners of Kvatskhelebi. It has been reported that it is possible to see reed/branch plastered structures further south in Samtskhe and Dzhavakheli in Azerbaijan, in Kakheti, Baba Dervish I in Sioni, and Haftavan Tepe in Northwest Iran (Sagona 1994: 6).

Another center Pirot, which prospered on the banks of the Euphrates, measures 140x95 m and is 25 m high. It was located on an elevation formed by the coastal embankment of the river (Serdaroğlu 1977: 119; Karaca 1981: 109-110). In this respect, although both mounds are strategically located on the crossing point of the roads, the river must have also been utilized. The structures in which compacted earth and large mud bricks were used during the excavations in the North Section were dated to EBA III. Dark paint-decorated pottery on a greenish beige, the pinkish beige slip was found on this level. Along with the space opened during the sounding excavation, the hearth and the furnace were exposed. A Kura-Araxes-type bowl and an andiron fragment were found inside the hearth. Just above the building level dated to EBA I, Kura-Araxes and straw-faced fragments were found together. In the building level dated to EBA I, the hidden slipped decorated ware group was more abundant (Karaca 1983: 72: Karaca 1985: 39-40, Fig. 8-13).

Another small mound, Değirmentepe, is 130x120 m wide and 11 m high. It is a hillside settlement on the edge of a ridge on the bank of the Euphrates (Duru 1979a: 14, Lev. 2; Duru: 1979b: 2, 5; Duru 2001: 108). Değirmentepe is located in a place that will partially provide protection needs in the geography where it is located. It can be said that it exhibits a settlement feature aimed at meeting basic needs comfortably. Because when the first settlements were established in the Prehistoric period, Değirmentepe was located on the south bank of the

Euphrates on the slope on which it leaned. Over time, the Tohma Stream merged with the Euphrates and caused great damage to the northern part of the mound (Esin 1981: 91-92). Of the Kura-Araxes levels (IV-I building levels) of Değirmentepe, the IV building level represents the oldest floor. Remains of foundations and rooms with rooms of this floor were unearthed. The floors and doorways of these 2-4-room houses were identified. It was determined that the walls of the houses belonging to phase IVa were made of smaller stones compared to the early periods. The walls on the building III level are made of pise technique (mud) or fences. Houses with rooms were found on the building II level. The walls of the houses are made of regular adobe rows starting from the foundation (Duru 1979b: 11, 18). The building I level is located 50-60 cm above the building II level. It was determined that the walls of the house were built in the same way as in the fenced huts technique on the floor III. It was determined that some sections were mud-plastered. The walls of the houses with at least 2 rooms are made of adobe (Duru 1979b: 12). The mudbrick structure, which is thought to be the perimeter wall, must have protected these settlements and the mud-brick section (Esin 1981: 94).

Köşkerbaba Höyük measures 135x75 m and is 37 m above the river level. It is located about 100 m west of the Euphrates River, where the flat plain narrows (Bilgi 1980: 113, Fig. 1). The Kura-Araxes culture level is understood from the architectural remains unearthed at two different levels. One of the architectural structures unearthed has a stone foundation consisting of large stones with the pavement. While the base of the architectural structures here is made of compacted soil, one of the walls is covered with mud plaster from small stones (Bilgi 1981: 118). The walls of one of the architectural structures, sometimes up to 2 m, were found preserved and painted. The wall paints are black at the bottom of the wall and whitish at the top. On the south wall, another mid-level wall, a group of painting with red dots and black motifs on an unidentified cream surface are applied. The other building has survived to the present day in a highly damaged form. A large platform made of adobe was identified. Under this platform, the remains of the 3rd building were unearthed. According to reports, this building was built on a stone foundation with mudbrick walls. It consists of a rectangular house, which is thought to be a living place for people, and a semi-round structure where animals live (Bilgi 2001: 113-114).

Pulur Sakyol, one of the northernmost settlements of the Upper Euphrates, measures 120x75 m and is 20 m high. Located on a natural hill at an approximate height of 9 m, this mound could easily overlook its surroundings (Whallon-Kantmann 1970: 5, XII; Koşay 1970, 139; Koşay 1976b: XVII, Lev. 1, I). The detection of many storage wells in the settlements of Pulur, which can be associated with the Kura-Araxes culture, shows that the region was at an advanced level in dry agriculture during the mentioned periods. The hearths, mortar, grinding stones, and dough basin found in the settlement provide important clues about the use of the dough obtained from the grain. Chief idols were found under a collapsed ceiling. Apart from individual religious elements, clay idols showing that two rooms were used as temples were also identified. To the east of the rooms, a round ceremonial table was found on which Kura-Araxes-type vessels with winged birds and geometric patterns placed on the outer surfaces (Koşay 1970: 140-141, Photograph. 4-6). The "Anatolian Type Architectural" plan seen in Pulur-Sakyol consists of two rectangular rooms. The horseshoe-shaped hearths, stone foundations, and mud-brick walls that sustain the architecture in these rooms are remarkable. These data reflect the craftmanship reached by the settlers who lived in the first phase of Kura-Araxes (Erarslan 2006: 82).

Han İbrahim Şah Mound was located on the plain of a natural hill between two streams, measuring 125x60 m and 12 m high. This mound, which is geographically very well-matched, was located at a strategic transition point (Whallon-Kantman 1970: Han Ibrahim Şah; Ertem

1972: 63, Lev. 40/1; Ertem 1982: 2, Lev. 1,3). The architecture of the mound, which can be associated with the Kura-Araxes peoples, is based on irregular stones. Mud-brick pieces were also found in ruins. In line with this, we can say that the walls were constructed by building mudbrick on a stone foundation (Ertem 1974: 60). This building is a residence consisting of rooms. The stones forming the stone foundations and stone walls were used without processing (Ertem 1982: 19). The burnt barley, wheat, and chickpeas stored in the 5 cubes that survived the fire in this layer and the undisturbed honeycombs show that the region has achieved an advanced level in agriculture and beekeeping (Ertem 1972: 66, Lev.43, 2). In addition to the Kura-Araxes sherds recovered in the 10 layers associated with Kura-Araxes, sherds decorated with brown and cherry rot paint on a beige surface were also found in the mound. Another group consists of geometric decorations made with black paint on a beige surface (Ertem 1982: 14). Parallels of geometric motifs from the pottery were reached in Pulur Sakyol I-VIII, Kalayciktepe V, Tepecik EBA levels. Pottery with this feature was found together with Kura-Araxes ceramics. In addition, the circular form of the horseshoe-shaped hearths unearthed in the mound and the closest parallels of the idols carved on them were found in the XI floor temple in Pulur Sakyol, area A2 (Ertem 1972: 65).

The Şemsiyetepe mound, measuring 70x65 m and having a height of 6 m, is located right on the edge of a small pebbly/conglomerated mound, overlooking its surrounding. In this respect, it overlooks the plain to the east and south (Darga 1981: 53; Darga 1984: 91; Darga 1987a: 291-292). In the lower levels of the Şemsiyetepe Mound, which has a courtyard with a porch, two or three pieces of EBA I painted pots, and a large number of Kura-Araxes-type kitchen vessels were found (Darga 1984: 95). In addition to the Kura-Araxes ceramics, local Altınova ceramics were also found (Darga 2001: 116). In Şemsiyetepe, local limestone foundations of EBA III residence remnants, undergoing several floor repairs on top of each other, and stone sequences denoting the boundaries and plans of the rooms to the east were unearthed. Remains of a horseshoe-shaped mud hearth and mobile/portable hearth foot fragments and Kura-Araxes ceramics were found in A I. There are differences in the paste, firing, and decoration of the painted ceramics, while the monochrome ones are of Kura-Araxes type as in the previous floor (Darga 1980: 27). In addition, it has been reported that the houses of EBA III A-B phases were built of stone and ceramics and small finds reflecting this period were found inside (Darga 2001: 116). There are plenty of Kura-Araxes ceramics and a hearth reflecting this culture in the room, in the wooden pillared structure that is located far from each other, which can be found when descending to a depth of 3 m 60 cm in Şemsiyetepe. It is understood that the roof or roofing layer of this large room would not be closed without wooden pillars (Darga 1987b: 159).

2. The Effect of Climatic Factors in Human History

Climate is the average atmospheric movement over a period of time in a large area with certain characteristics. And the environment is the natural setting in which people sustain their daily life and meet their biological, sociological, and economic needs. In order for people to continue their vital functions by adhering to both climatic and environmental factors, they must first meet basic needs such as food, drinking, clothing, and shelter. The excess or scarcity of these requirements varies in every corner of the world as the blessings of nature are different for living things. Like other creatures, humans have shaped their life according to the climatic factors, geological and physical structure of the area they inhabited. Before the hunting and gathering groups settled down, climatic conditions triggered the beginning of agricultural harvesting and led to an increase in production (Erçin 2005: 1, 3, 11). Climate has affected communities with its long-term changes in the environment. This effect also played an active

role in the circulation of people on earth. Climate has been one of the most important determinants that define the way people trade depending on agriculture and industry (Erol 2011: 1-2).

We understand the significance of the climatic factor from the fact that even in the earliest times when people started to build primitive shelters, they preferred openings that could receive the sun's light and heat, and they chose caves facing the directions where they could be protected from the wind that could have a negative effect. In this case, we can assert that there is an indispensable coexistence between site selection and climatic conditions. It is seen that functional and climatic factors have been considered as a whole in the determination of these primitive spaces where people have been sheltering since the first ages (Erçin 2005: 2). Because people primarily prefer environments where they can lead a prosperous life. The climate, which creates positive and negative effects on the environment, is an indispensable element for the technical development of humanity. The use of solar energy has been the main source of our technical development since the early ages (Güzer 2001: 50-53). People who want to benefit effectively from the heat and light of the sun first tried simple applications in their architectural units and built the first examples of livable houses. The climate directly affected the topographies, and the topographies affected the living conditions of people together with the permanent settlements and population growth (Erkün 1993: 4).

It is necessary to analyze the inseparable link between climate and settlement, and regarding the choice of place for settlement, they should be taken as a reference (Atalık-Baycan 1993: 7). After the first people in Mesopotamia and the east of Anatolia met their need for shelter, they started to construct buildings and urban-scale living and application units suitable for climatic characteristics. These first structures in the field of architecture technically date back to the end of the 4th millennium and the beginning of the 3rd millennium BC.

From these ages until now, people have continuously tried to build houses and structures with higher living standards. The shelters built in line with the vital needs of the early periods have begun to turn into architectural trends that can be characterized as ecological, green, or environmentally friendly with the developing technology. The destruction caused to the environment was not taken into account in the construction of the first houses, which were built using solar energy, in other words, environmental sensitivity, that is, the phenomenon of harming the environment has changed in parallel with technical and technological evolution (Hullmann 2000: 14-16). Because nature has given people the skill and mastery, and thanks to this ability, they have been capable of building houses and shelters. They turned to nature by using their knowledge and took the climate and environment under their control and advanced and spread day by day (Moore 1975: 99). Thus, there has been an expansion in societies that can produce rural or agricultural production depending on the proper climate, and a transition to a social structuring dominated by urbanization and industrial production has been achieved. The increasing population both attempted to boost agricultural production and started to migrate to the regions undergoing urbanization (Marshall 1999: 632). Communities that benefited from the favorable climate conditions transitioned to agricultural production abundance, and the industrial production experienced later caused an escalation in migration movements, and the urbanization process accelerated along with it (Şahin 2009: 112).

From the most primitive state to urbanization, the perimeter walls, foundations, and interior-exterior plastering needs of architectural units depend on the weather conditions. Climate fulfills the function of sustaining the lives of communities more than playing an important role in the shaping of architecture. Local communities should give priority to climatic factors in the selection of the basic materials to be used in the construction of the façade and infrastructure-superstructure elements, as well as meeting the energy supply of these structures. Thus, climatic

characteristics undoubtedly take the first place in the selection of early period settlements in Mesopotamia, Northern Syria, and the southeast of Anatolia. People preferred the settlements in these regions in order to meet their heating needs naturally for most of the year and construct climate-resistant houses. As in these regions, people continued to struggle with the limiting and compelling conditions of the natural environment in order to find suitable settlements and to live in more affluent conditions (Fitch 1972: 16-19). While the basic needs were taken into account in meeting the vital requirements of the early period houses, which were built by choosing the place and making use of the natural promises of the location, people opted for places that could provide controlled ventilation, reduce energy losses and provide healthy living conditions in terms of air quality, together with technical and technological knowledge (Compagno 1999: 63-76).

In this process of adaptation, people have to go through inevitable changes in their environment. And also, they have to deal with new environmental challenges. People not only have to adapt to the environment but also to the changes they have created or caused in the environment (Turan 1980: 32). When people who adapt to the natural environment begin adapting to their changes, they pass to multiple life, which we can call the concept of community/society (Lukacs 1971: 234-239). The form, content, and scope of the environment are shaped by their internal dynamics independently of the human being, but outside intervention begins with primitive communities, and change becomes inevitable. While these social conditioning relations continue, people become aware that the environment outside themselves cannot be independent of them, and they begin to grasp the binding and unifying elements between them and the environment. Understanding the elements that unite the environment and people brings environmental awareness (Turan 1980: 33).

Even if primitive communities were closer to nature in the adaptation stage, they had less ability to change the environment according to their interests and purposes than those who had experienced technological expertise (Bloch 1970: 72). The first people who wanted to cope with the drawbacks of the climatic factors and tough conditions of the environment, therefore, caused more damage to nature (Hindess-Hirst 1975: 162-170). These predispositions are affected by the beliefs that influence the attitude towards nature and the nature-human dilemma conceptually generated by the beliefs (White 1967: 1203-1207). Since people are in direct contact with nature, they have skillfully responded to environmental factors. For instance, the basis of the need for shelter in humans stems from dangers that may come from the outside world. In addition to environmental relations, social relations also play a large part in this need. People have invented shelters as protective places by using the materials around them and the technological know-how because of weather conditions and life security concerns. In the first ages, they built caves, tree trunks, and similar natural shelters, and later on, they built architectural spaces using materials such as wood, stone, and adobe with the advancing technology (Rapoport 1969: 5; Turan 1977: 55-59; Göksal Özbalta 2003: 251). -255; Erçin 2005: 1). It has been determined that mud mortar was also used in this early period architecture along with adobe bricks. This material has been preferred for its easy design possibilities as well as the climatic adaptation it provides in architecture. The use of adobe mortar on surfaces and superstructures in architecture took a little more time. While indoor energy production is higher in the use of adobe, energy consumption is also less. In addition to the fact that adobe is preferred due to climatic conditions, heat loss at desired rates, plastering and renewal possibilities whenever desired, a kind of thermal insulation and water impermeability in the building envelope are the reasons for its preference.

In the developing environment created by climatic conditions, people first shaped architectural

structures for the improvement of their living standards (Entwicklungsgesellschaft 1998: 1-7). In locations with lower solar energy values compared to Anatolia and locations in the south of Anatolia, architectural elements were introduced later in time. This difficulty has also brought with it the exploitation of the environment. When nomadic communities gained technological knowledge in a challenging climate and geography, they succeeded in forming settled societies (Turan 1974: 119-120; Hindess-Hirst 1975: 169; Braudel 1976: 85-102). It is known that factors such as migration affect permanent settlement and housing. Besides, the changes in the geographical characteristics of a region and the relations with other cultures in the vicinity affected the sheltering cultures of Anatolia starting from the Neolithic Period and developed independently of each other. These different development processes of shelter cultures are also influenced by factors such as natural structure and foreign relations, apart from migration (Erçin 2005: 2).

2.1. Location Selection of Upper Euphrates-Malatya Settlements Based on Climatic Characteristics

Malatya-Elazığ plains have milder climatic conditions compared to the northern parts of the region, where harsh continental climate conditions are felt the least in the Eastern Anatolia Region. Thanks to the depression plains, this temperate course on the low altitude Malatya-Elazığ plains offers opportunities in terms of both agriculture and animal husbandry activities. While the high mountains surrounding these plains offer vast pastures in the summer months, their wetlands provide endless abundance for agricultural activities (Işıklı 2011: 17, 27, 117-118). In this context, the key settlements, which are the subject of the evaluation, are positioned at the most suitable points both strategically and in terms of geography and climate.

Korucutepe, one of the large-scale settlements of the Upper Euphrates, is located on an open, flat area where it could be exposed to external influences (Van Loon- Guterbock 1972: 13). In Norşuntepe, which is quite large in scale, it is located on a flat field in accordance with the typical layout of the plain (Whallon-Kantman 1970: 2). Again, the large-scale Könk Höyük rises on a flat place by the stream (Whallon-Kantman 1970: Könk; Duru 1979b: 2). Another large-scale center, Tepecik Höyük, is similarly located in an open area (Esin 1970: 147-148).

Arslantepe, one of the medium-sized mounds, is the only key center in the area which is located on a flat plain. For those who settled on these very fertile lands, both the land and the strategic location must have been important. Because there is no natural protection element around the mound (Frangipane 1992: 183).

Köşkerbaba, one of the small-scale mounds, is located on a plain on the field of low hills right on the edge of the Euphrates River. In this respect, we can say that it is strategically suitable but vulnerable to air currents (Bilgi 2000: 133). Another small-scale mound located on the edge of the Euphrates River is Pirot. Pirot was settled in an open area on a small elevation (Karaca 1981: 110; Karaca 1984: 103).

Tülintepe, which is one of the medium-sized mounds, is located on an open area on a slight elevation (Esin-Arsebük 1974a: 137). Similarly, Taşkun Kale Höyük is located in a slightly sloping area. However, this mound was located at the very end of the hill on which it was leaning. Therefore, it is noteworthy to observe its position facing the sun as well as leaning its back against strong winds (Whallon-Kantman 1970: Taşkun Castle; McNicoll 1973: Fig. 1). Having a similar position, Yeniköy Höyük is located on a gently sloping south-facing ridge. This way, it could benefit from the sun as much as possible (Koşay 1976a: 175-176, Lev. 100/1). Another small-scale mound, Değirmentepe was built on a slope rising on the south bank of the Euphrates. It must have benefited more from sunlight and heat, as well as partially providing security on the slope on which it leans (Esin 1981: 91-92).

Located in the north of the Upper Euphrates, the Pulur Sakyol mound is located on a 9 m hill consisting of sand and gravel. The fact that such a high hill was chosen deliberately on a flat field ensured that it remained high in the flora of that day (Koşay 1970: 139-140; Koşay 1976b: 17-18). Thus, they must have benefited from both sunlight and airflow. Located on a hill and between two streams concerning its surroundings, Han Ibrahim Şah mound was thus protected from the strong winds that dominated the area and inside the crevice formed by the streams. In addition, it was positioned on the flatness of a hill higher than its surroundings and benefited from the sun in the best way (Ertem 1972: 63; Ertem 1982: 2).

Evaluation and Conclusion

There are inseparable parts in the relationship between humans and nature, as well as between the settlement and the environment. People, who started to change themselves and their environment by taking advantage of the good sides of the location, have turned into communities that can analyze the climatic transitions over time. Technological development accelerated with the sedentary life that triggered the cultural revolution of the communities, and architectural units came to a level that could adapt to the harsh conditions of the climate. In the beginning, people who had a deep fear of nature, thought that they could dominate and control it (Davey 1998: 4-5). For people who shape the climate and environment according to their needs, nature has become a place where it is no longer necessary to interfere with its order and it is not feared as before. Nature has become a resource that can be exploited with its raw materials and energy resources (Şahin 2009: 113).

The scientific evidence confirms that there is a systematic interaction between nature and humans. People, who started with many shortcomings against the forces of nature, have managed to cope with it thanks to their creativity. When the act of creativity, which is the name of the resistance against nature, became integrated with the human desire to be free and safe, people gained mastery in life (Germen 1974: 5-9; Landmann 1974: 204). Hence, the place we define as the environment is divided into unique cultural lives depending on its size and climate. The boundaries of the environment are divided into certain cultures depending on the boundaries of the settlements (Özkan-Turan-Üstünkök 1979: 127-156; Ciravoğlu 2006: 55).

These approaches reveal that the concept of climate, environment, and culture is an inseparable whole. It is observable that the settlers also made a site selection based on the aforementioned reasons. Because, apart from the geography and climatic conditions of the Malatya-Elazığ plains, in terms of agricultural, animal, and mineral raw materials, it contains appealing elements for the settlement of human beings. When we look at the location of the settlements on the natural highway created by the plains and rivers that make up a large part of the Upper Euphrates-Malatya Section, we see that they are located in extremely convenient places in terms of transportation (Baştürk-Konakçı 2005: 98). These encouraging conditions brought ownership, protection, and revival of the area. In this context, the civilizations that settled in this region tried to keep the regions in their hands. The Kura-Araxes settlers, which are the subject of our article, built sheltered settlements. They built walls and surveillance centers (satellites) to protect, control and not lose the areas that are the junction of the trade and transportation network. Cooperation must have been established between the residents of large centers such as Norşuntepe, Korucutepe, and Könk and the settlers of other small settlements around them on the operation and processing of agricultural lands. The residents of the central settlement are likely to transfer their agricultural work to those in the satellite settlements and receive dividends. In this way, the residents of the large settlement could turn to other business lines (Baştürk-Konakçı 2005: 102). The analysis made by these peoples were not only about land use. To gain the welfare and trust of the people, they also built sheltered places where people residing in small-scale settlements could take shelter in case of danger. In this direction,

the Upper Euphrates-Malatya Section, where the population number and density of the Eastern Anatolia Region are the highest, has maintained this density from prehistoric times until today, as it was in the Kura-Araxes period (Table. 1).

There are discrepancies in the location choices of the Kura-Araxes settlers in the Upper Euphrates-Malatya Basin, which has unique cultural dynamics. This is also the reason why the four mounds, which are large-scale among the key settlements in the Upper Euphrates-Malatya region, rise on a flat, open terrain. These mounds were located both on the passage of the plain and by the water so that they could dominate the access roads. When we consider the positioning of these mounds, it becomes clear that there are smaller-scale mounds around them, which we can call satellite settlements. It is noted that the settlers of large-scale mounds did not choose safe places such as scree, mound, ridge due to their magnificent residences and living places, and they did not need a strategic location to avoid the negative effects of the climate. Instead, they all had defensive walls to protect the city. We can say that there is a hierarchy among the Kura-Araxes peoples based on the large-scale defense systems, architectural patterns of the large settlements and the artifacts found in the settlements. This hierarchy must have been effective both within the city and on the neighboring settlements. Because, considering the enormous architectural units that make up the glittering city landscape, it would not be wrong to say that these settlements are centers of attraction compared to their surroundings, and they determined the economic dynamics and security of the region. This yielded to economic prosperity. The economically enriched people preferred to build architectural units within the city to eliminate the negative consequences of the climate.

The fact that large-scale mounds required a defense system and sheltered architectural units proves that they did not live in a peaceful region. Another situation shows that the social structure changes and the profit-based economic system are formed through the centers that show the characteristics of the stock market. These centers were the supply and distribution bases of mineral products and all kinds of raw materials, apart from animal and agricultural products. They must have created a kind of organization system within the Upper Euphrates-Malatya Basin by arranging them first as satellite centers and then as other main hubs. At the top of this organization, there must have been the owners of both monumental structures and elite tombs like those in Arslantepe, Norşuntepe, and Korucutepe.

Although not widespread like large-scale settlements, the protection strategy has also been applied in medium and small-scale surrounding settlements. Most of the medium and small-scaled settlements sought solutions to such a need through architectural structures. When evaluated through comparative examples, it is understood that the adjacent houses found in large-scale Norşuntepe open to the courtyard in the south. This situation is related to both safety and benefit from the sun's heat and light (Hauptmann 1979: 47, Lev. 37). Similarly, the primary purpose of the Pulur Sakyol settlers, one of the small-scale mounds, is to adopt a defense strategy by building their houses next to each other, giving their backs to the outside, and positioning them on a hill. Possible threats from the outside were prevented, and thanks to the courtyard opened inside, both daily works were carried out safely and it was also protected from adverse weather conditions (Koşay 1976b: 19-20, Lev. 117). The fact that Değirmentepe, which is one of the small-scale settlements, is built on the slope of a ridge and has a perimeter wall, can be explained by the security strategy. It should not be a coincidence that the settlers of other small-scale settlements such as Taşkun Mevkii, Pirot, Köşkerbaba, Han Ibrahim Şah, and Şemsiyetepe chose places such as ridges, slopes, and hills. These satellite settlements must have been under the security of large-scale centers. So only Değirmentepe had a perimeter wall. The fact that these satellite centers are located higher than their surroundings and where they can overlook the surroundings indicates that large-scale settlements serve as observation points in a way. Another important point is that the common strong findings in all large-scale mounds

extending to Northern Syria-Mesopotamia and Transcaucasia are weak in small-scale mounds. This can be explained by the fact that the large-scale centers, which we have mentioned above, are like stock marketplaces.

Medium-sized mounds draw a very different line in terms of the layout and the determination of communication networks. The defensive wall found in Tülintepe shows that the settlers here built their defense lines since they settled in the open area (Esin-Arsebük 1974a: 139-140, Lev. 114, 122). Again, the defense wall found in medium-sized Arslantepe must have been built to provide security for the inhabitants of the mound in possible raids (Frangipane 2012: 247). Ceramic groups with both Northern Mesopotamian-Northern Syria extension and Caucasian extension were found in these settlements. The settlers of Yeniköy, Taşkun Kale, and İmamoğlu chose skirts, slopes, and mounds in site selection. It does not seem possible to find strong Mesopotamian-Syrian and Caucasian artifacts together in these centers. In this case, it is possible to say that some settlements such as Tülintepe and Arslantepe can be a kind of the main center. Indeed, it is claimed that Arslantepe and its neighbors, which are on the western border of the Kura-Araxes cultural geography, have become prosperous thanks to the trade and communication routes (Sagona-Sagona 2009: 541-542). The discovery of handmade Kura-Araxes pots dating back to Transcaucasia and "Ninive 5" ceramics of Northern Mesopotamian origin, cylinder seals, and metal objects in Arslantepe (Palmieri 1981: 111) confirms that it was the main hub for a strong commercial network.

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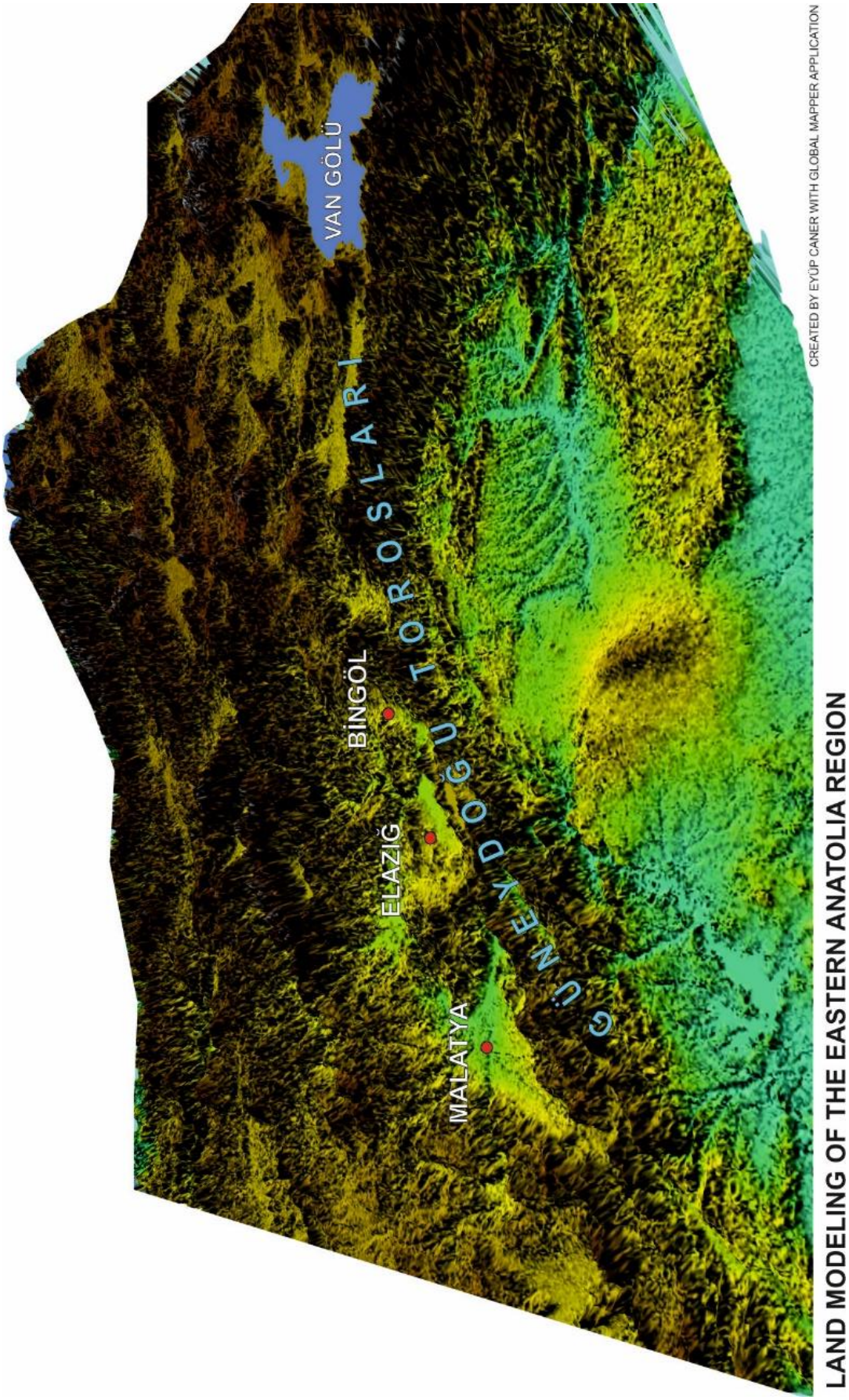

Map. 1- The Geographical Structure of the Upper Euphrates- Malatya Basin.

Settlement Characteristics	Slope / Hillside	Mound / Hill	Plane	Defense Wall	Together with the Mesopotamian-Syrian and Caucasian Influence
Korucutepe			X	X	X
Norşuntepe			X	X	X
Könk			X	?	X
Tepecik			X	X	X
Tülintepe		X		X	X
Yeniköy	X				
Arslantepe			X	X	X
Taşkun Kale	X				
İmamoğlu		X			
Taşkun Mevkii	X				
Pirot		X			
Değirmentepe	X				
Köşkerbaba		X			
Pulur Sakyol		X			
Han İbrahim Şah		X			
Şemsiye Tepe		X			

Table. 1- Characteristics of the Key Settlements in the Upper Euphrates-Malatya Basin.