



ARSLANTEPE
I. ULUSLARARASI ARKEOLOJİ SEMPOZYUMU BİLDİRİLERİ
ARSLANTEPE
PROCEEDINGS OF THE I. INTERNATIONAL ARCHAEOLOGY SYMPOSIUM

Yayına Hazırlayanlar / Edited by
Neslihan Durak - Marcella Frangipane





İnönü Üniversitesi ve Roma La Sapienza Üniversitesi İşbirliğiyle
With the Collaboration of İnönü University and Roma La Sapienza University



İnönü Üniversitesi Yayınları/*İnönü University Press*: 71

I. ULUSLARARASI ARSLANTEPE ARKEOLOJİ SEMPOZYUMU BİLDİRİLERİ

I. INTERNATIONAL ARCHAEOLOGY SYMPOSIUM PROCEEDINGS
4-6 Ekim 2018 / 4-6 October 2018 Malatya

Yayına Hazırlayanlar / Edited by
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Grafik - Kapak Tasarımı / Graphic - Cover Design
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©2019 İnönü Üniversitesi/*İnönü University*
ISBN: 978-605-7853-28-8

Sertifika No/ *Certificate No*: 26607

Baskı / Printed by
İnönü Üniversitesi Matbaası/*İnönü University Press*

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Uluslararası Arslantepe Arkeoloji Sempozyumu
International Arslantepe Archaeology Symposium
4-6 October 2018-Malatya / Turkey

SETTLEMENT PATTERNS IN THE MALATYA PLAIN AND METALLURGICAL DEVELOPMENTS AT ARSLANTEPE: THE ROLE OF SURROUNDING COMMUNITIES

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Atf için / Cite this publication

Di Nocera G. M., 2019. "Settlement patterns in the Malatya plain and metallurgical developments at Arslantepe: The role of surrounding communities". *I. Uluslararası Arslantepe Arkeoloji Sempozyumu / I. International Arslantepe Archaeology Symposium*, 4-6 Ekim 2018 / 4-6 October 2018 Malatya, 269-284

SETTLEMENT PATTERNS IN THE MALATYA PLAIN AND METALLURGICAL DEVELOPMENTS AT ARSLANTEPE: THE ROLE OF SURROUNDING COMMUNITIES

GIAN MARIA DI NOCERA

Introduction

The research project revolving around settlement patterns in the Malatya plain by the Italian Archaeological Expedition at Arslantepe started to be implemented systematically in 2003 (fig. 1)¹. Previous surveys by Salvatore Maria Puglisi, Paolo Emilio Pecorella and Mirjo Salvini date back to the 1960s²; moreover, the area had already been investigated by Charles Burney at the end of the 1950s³. At the end of the 1960s and 1970s, the construction of the Karakaya, Gölköy, Karababa and Bedir dams along the Euphrates required further investigations in the area⁴. Surveys by Ümit Serdaroglu, Veli Sevin⁵ and especially those carried out by the University of Istanbul, led by Mehmet Özdoğan, were extremely significant⁶. Investigations by Jak Jakar and his team also date back to that period⁷.

Research on local ancient metallurgy started in Arslantepe and was soon connected to the entire Malatya area. The initial project was led by Alberto Palmieri and participated by several research centres⁸; the project's activities still continue today, with the collaboration of the Bergbau Museum in Bochum. Over the years, other archaeological metallurgy surveys have been carried out to identify metal deposits, together with key laboratory tests aimed at characterising the rich set of metal objects, ores, and slags found at the Arslantepe excavation site⁹.

This lecture is my attempt – hopefully, a successful one – to investigate how settlement patterns and metallurgy are closely intertwined, using Arslantepe and its extraordinary archaeological sequence as a background. To do so, it is vital to suggest a common denominator which may serve as tangible evidence of cultural changes occurring over time. In this case, I will analyse the subject from the point of view of the various forms of power manifesting themselves in Arslantepe and the surrounding areas.

¹ Di Nocera 2005a, 2005b, 2005c.

² Puglisi, Meriggi 1964.

³ Burney 1958.

⁴ Burney 1980.

⁵ Serdaroglu 1977; Sevin 1986.

⁶ Özdoğan 1977.

⁷ Yakar, Gürsan-Salzmann 1979.

⁸ Caneva, Frangipane, Palmieri 1985.

⁹ Palmieri, Sertok, Chernykh 1993; Caneva, Palmieri, Sertok 1990; 1991.

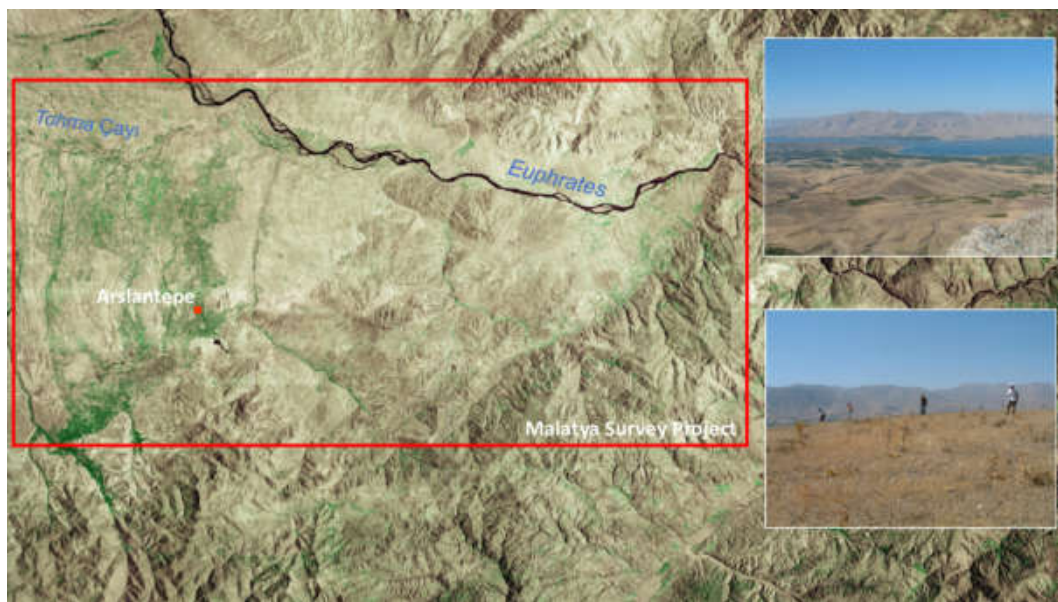


Fig. 1 - Sojuz Satellite Imagery (1989) and the Malatya Survey Project area.

The social structure of a society is the reflection of power in its various forms. Wealth, prestige, status, numerical predominance, and organisational efficiency are all forms of power. It can be stated that “power is everywhere”: even the societies without actual institutions are perfectly aware of what power is. Rather than being described¹⁰, power can be investigated in its manifestations by analysing the way it functions and prompts individuals to behave in a certain way¹¹. Settlement patterns reflect how the use of land has changed over time, based on how those in power have changed their way of controlling agriculture and livestock rearing. Likewise, the social role of metal has evolved over time and its use and ownership in different ages have been increasingly identified with power. This is the reason why the evolution of the role of metal and the change of settlement patterns over several periods may be observed in parallel.

This point of view can be applied perfectly against the background of the Upper Euphrates area, especially the Arslantepe site and the Malatya Plain. Archaeological excavations carried out at Arslantepe for more than half a century allowed to understand the significant changes taking place over time in the organisation of society and its forms of power. Although the Arslantepe site offers only a small amount of evidence regarding a very vast area – the Malatya Plain – the knowledge of Arslantepe’s archaeological history allowed to establish a connection between the many events observed at the site and life in the surrounding Plain, where a diverse set of landscapes¹² has been shaped over time by changes in population patterns and in the use of land.

The most ancient layer found during the systematic excavation of Arslantepe is Period VIII. However, we are aware of even deeper archaeological layers at the site which are still unknown to us. Period VIII is associated with Late Chalcolithic 1-2. C14 dating techniques place this period between 4700 and 3900 BC¹³. The site’s architecture recalls the agglutinative style typical of the Anatolian tradition and shows some

¹⁰ Weber 1922: 603-613.

¹¹ Foucault 1977.

¹² Marcolongo, Palmieri 1983.

¹³ Vignola et alii 2019; Di Nocera 2000.



similarities with the Late Ubaid settlement of Değirmentepe¹⁴. It consists of housing structures, with kitchens equipped with large circular ovens around a yard. There are no emerging structures or buildings. Metal objects – mostly work tools – are extremely rare. Although the excavated area is not very large, archaeological clues seem to indicate that a decentralised power system was in place during Arslantepe VIII. Only a small number of sites in the Malatya Plain date back to the same period (fig. 2): two are built on *tells*, one on a *tabular summit* and one on a *glacis*¹⁵, that is, a level with a very slight slope connecting detrital sediments and the wide valley floor, strongly connected with water springs. None of these sites has a dominant character.

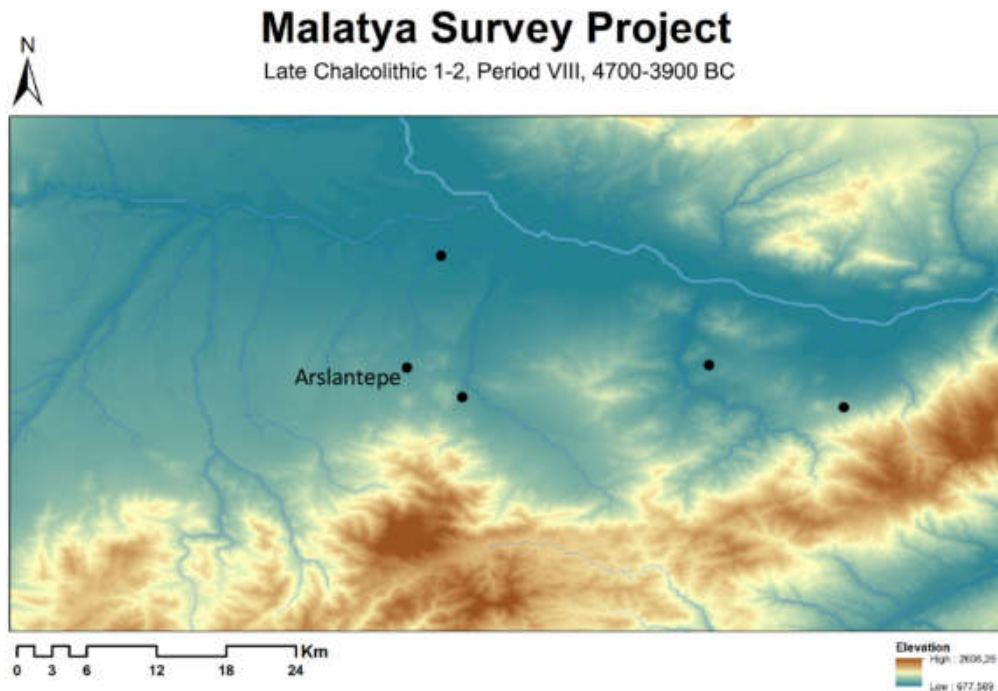


Fig. 2 – Distribution map of Late Chalcolithic 1-2 sites, Period VIII, 4700-3900 BC.

During Period VII (*Late Chalcolithic* 3-4, 3900-3400 BC) Arslantepe became a complex site, with two monumental ceremonial buildings and housing for local *elites*, resorting to mass production of pottery (which probably documents that food supplies were provided to staff employed in activities involving the local community)¹⁶. The presence of *cretulae*, a clue of administrative activities taking place at the site, together with archaeological documentation provides – for the first time in the area – evidence of a social organisation based on a centralised form of economic power. Data on the fauna provide an interesting overview of Arslantepe VII. Among domestic animals, there are similar percentages of cattle and caprovines, followed by pigs, which are less easily manageable in large numbers but have a much faster reproduction rate than all other livestock: this makes them the ideal livestock in a subsistence economy. Moreover, pigs do require forage, but not necessarily pastures of excellent quality¹⁷. In this period,

¹⁴ Balossi Restelli 2008; 2010.

¹⁵ Di Nocera 2008.

¹⁶ Frangipane 2016: 8-10.

¹⁷ Bartosiewicz L. 2010.



metal was certainly produced on site, as shown by the presence of crucibles. Objects mostly include ornaments and work tools¹⁸. In the Malatya Plain, sites dating back to the same age belong to different geomorphological categories, as in the previous period (fig. 3): 2 are built on *tells*, 1 on *glacis*, 2 on *flat land* and 1 on a *complex of hills*. The impression is that, although some forms of administrative power started to emerge at Arslantepe, the economy of the site and the surrounding area was still family-based and enjoyed a certain amount of independence¹⁹.

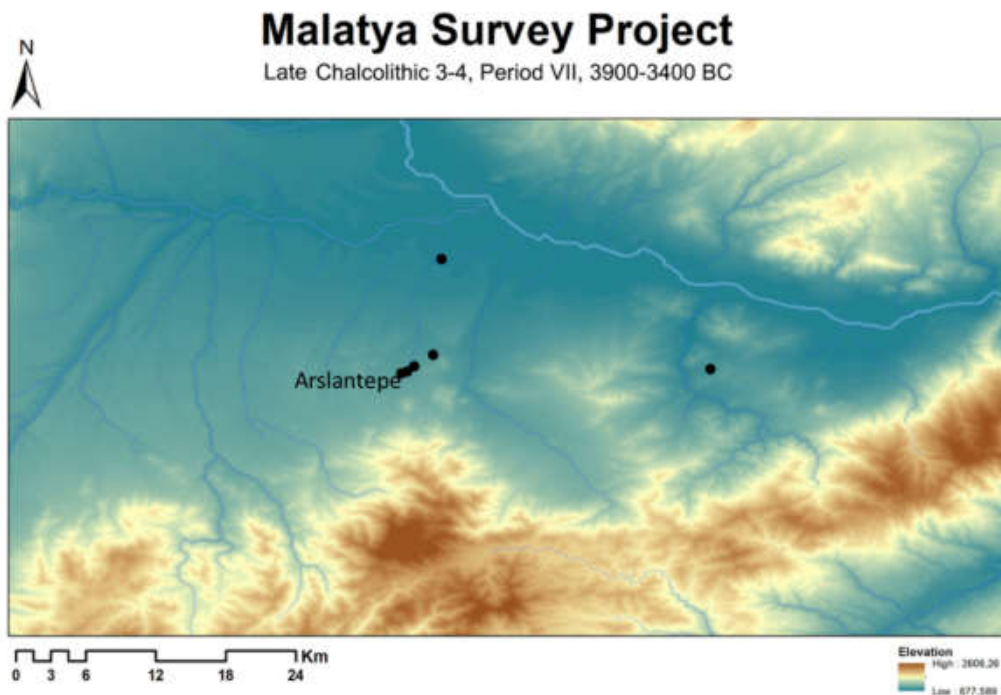


Fig. 3 - Distribution map of Late Chalcolithic 3-4 sites, Period VII, 3900-3400 BC.

A radical change can be observed in Late Chalcolithic 5, Arslantepe VI-A (3400-3100 BC). Monumental architecture now dominates Arslantepe²⁰: ceremonial buildings, storerooms for food, a water canalisation system, monumental access gates. These are all signs of centralised activities and the presence of a local and personal *elite* related to them. In Arslantepe VI-A the experience documented by the use of *cretulae* in the previous period became a mechanism aiming at controlling economic activities, mostly carried out on an intensive basis and at the local level. In this period, metal started to play a vital role. A room in the Arslantepe “Palace” contained 9 swords and 12 spearheads²¹. These objects are made of arsenical copper and, in some cases, are decorated with inlaid silver triangles²². The manufacturing of these weapons shows the extraordinary ability of the armourers at that time, but it is also evidence of radical changes occurring in hand-to-hand combat. Indeed, it is in this period that swords are introduced in fighting for the first time, and, undoubtedly, in Arslantepe metal became

¹⁸ Di Nocera 2013.

¹⁹ Di Nocera, Frangipane 2012.

²⁰ Palmieri 1973; Frangipane 2012; 2016, 10-17.

²¹ Frangipane, Palmieri 1983: 394-407.

²² Caneva, Palmieri 1983.



the ideological expression of an administrative system which implemented power in several ways, including the use of force. Weapons are confined in the hall of the “Palace”, whose access was probably limited to a few authorised individuals²³.

At the end of the fourth millennium, subsistence economy in Arslantepe changed substantially over the past. The presence of storerooms and *cretulae* on the site shows that agricultural activities were controlled centrally and mainly consisted of the cultivation of naked barley (*Hordeum vulgare*) and spelt (*Triticum monococcum* and *dicoccum*)²⁴. Another change can be observed in livestock rearing: pigs are now bred in small amounts and the percentage of cattle is similar to the previous period, while caprovines prevail. Transhumance, an activity which is regularly carried out in different seasons, may have taken place on traditional paths such as those leading to the Caucasus, the Black Sea’s coastal areas, and Central Anatolia²⁵. According to investigations carried out in Arslantepe, these areas were also the place of origin of metal finished products or polymetallic ores used on the site. The rural landscape changed. Settlements disappeared (fig. 4), and the area’s inhabitants mostly moved to Arslantepe, the only economic and political centre in the Plain. A synoecism process altered the structure of the surrounding countryside (fig. 5). The reason why there were no signs of pottery or sites corresponding to Arslantepe VI-A in the Malatya Plain was largely debated. The outcomes of all the survey projects led by several research teams from the 1960s until today have not led to new findings in this regard. Between 2005 and 2007, archaeological and geological surveys were carried out in the 500 metres surrounding the Arslantepe mound (fig. 6). At the borders of this perimeter, corresponding to a large basin of alluvial sediments, some fragments of wheel made bowls (typical of pottery mass production in the period VI-A) and a fragment of a footed bowl belonging to Arslantepe VI-A were found²⁶. Besides, the results of research carried out in cooperation with the Institut für Ökosystemforschung of Kiel University, although they are not final, provide reliable data on the thick layer of alluvium which must have covered the area surrounding the mound in its very proximity²⁷.

In the architecture of Arslantepe period VI-A, monumental buildings associated with community or special functions prevail, while housing facilities are scarce. Probably, the houses of farmers and shepherds were located at the foot of the mound and in the surrounding areas, where most handcraft activities and daily life in general took place. The area’s inhabitants were not sparsely distributed: the power of the local *elite* must have acted as a magnet, a centripetal force, attracting people towards the only central place in the area, thus altering the nature of the rural landscape.

²³ Di Nocera 2018.

²⁴ Balossi Restelli F., Sadori L., Masi A. 2010.

²⁵ Palumbi 2010.

²⁶ Di Nocera 2009: 145-147.

²⁷ Dreibrodt *et alii* 2014.



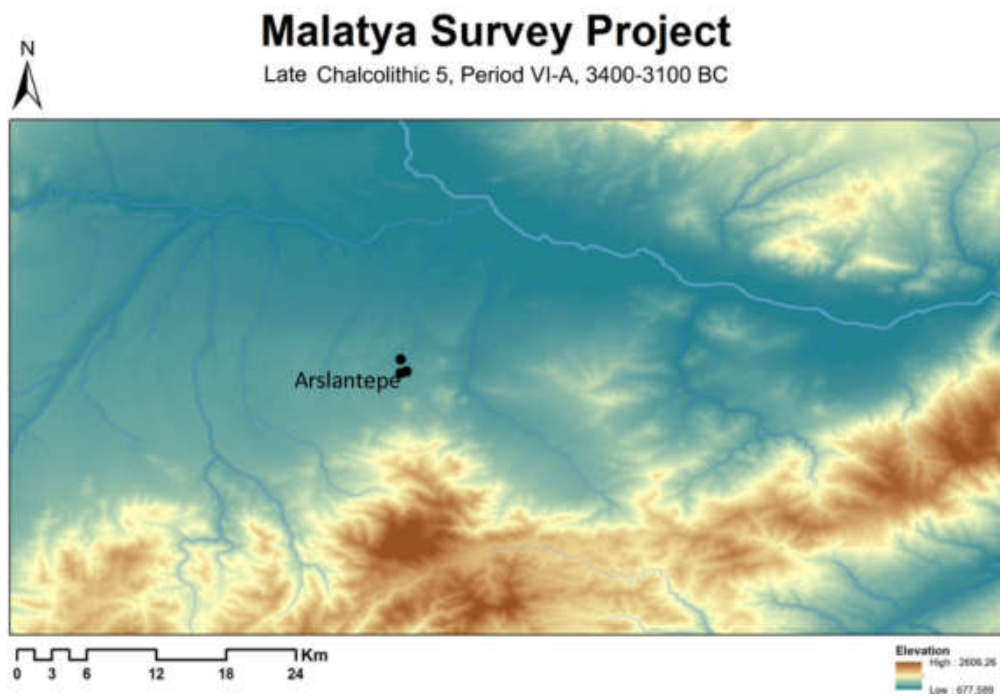


Fig. 4 - Distribution map of Late Chalcolithic 5 sites, Period VI-A, 3400-3100 BC.

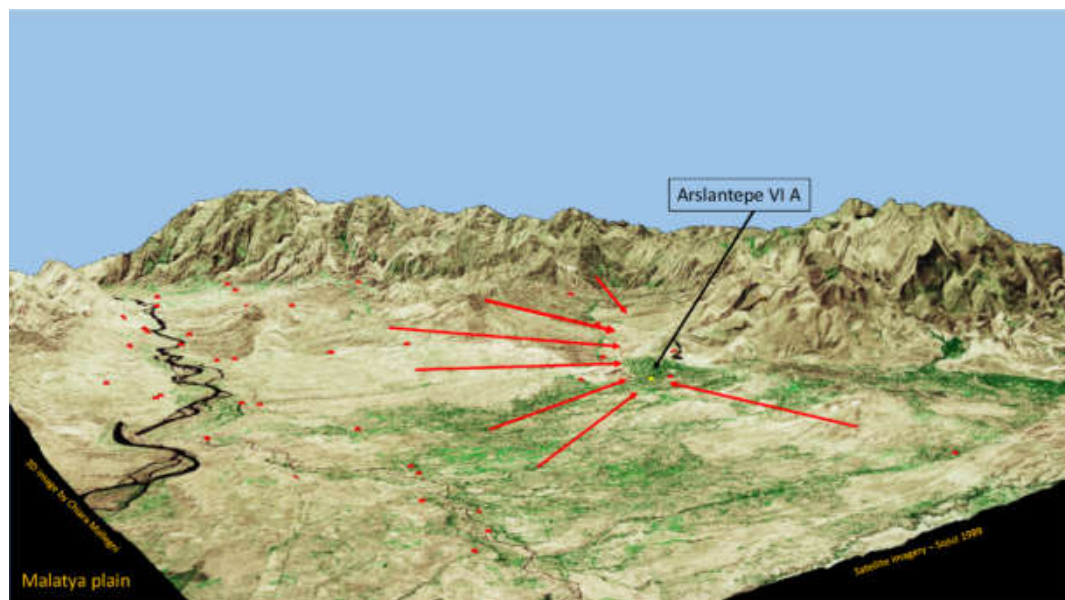


Fig. 5 - 3D imagery. Arslantepe act as a magnet, attracting people towards the only central place in the area (period VI-A, 3400-3100 BC).





Fig. 6 - Archaeological surveys carried out in the 500 metres surrounding the Arslantepe mound.

Around 3000 BC, the existing economic and religious power structures of Arslantepe, rooted in a centralised society of Mesopotamian tradition, definitively collapsed. The palace was hit by a devastating fire; a new form of power emerged from the Palace's ruins, with different features from the previous one²⁸. This event marks the beginning of Period VI-B1 (3100-3000 BC), when a form of mixed political-military power manifested itself in Arslantepe. Groups associated with the Transcaucasian tradition built wooden huts directly on the ruins of the buildings dating back to Period VI-A²⁹. However, the top of the ancient mound hosted a large hut, separated from the rest of the settlement by a wooden fence: it probably housed the chief of the village or one of the settlement's prominent figures. A monumental building with a thick mud brick wall for religious-ceremonial functions was built nearby. Its architecture is in total contrast with the temporary structures in the rest of the village. This contrast is also evident in the so-called "royal" tomb, a sepulchral cyst probably dating back to the end of this period, whose rich set of grave goods, complexity of the burial ceremony, and wealth of weapons and ornamental objects in metal suggest the presence of articulated social forms³⁰. Several material aspects of culture have significantly changed. On the other hand, metallurgy clearly shows connections with the previous tradition and several objects, especially weapons, must have been connected to craftsmanship circles probably linked to the Caucasian and Central Anatolian world. Besides, it is possible that in this period a net separation between armourers (seen as actual forgers) and blacksmiths (a less prestigious role) emerged. This hypothesis has been documented on the ethnographic plan³¹ and underlines how the hierarchical structure of society may symbolically reflect itself in some metal objects, maybe manufactured by different artisans, with different skills and roles. Some clues can be inferred by sophisticated alloys and complex decorations used to manufacture some objects.

²⁸ Frangipane 2001.

²⁹ Frangipane 2015.

³⁰ Frangipane *et alii* 2001.

³¹ Rowlands 1971: 219.



Most of this level was also destroyed by a violent fire and replaced by a village made of lanes, mudbrick houses and their respective yards. In this phase, there is no prevailing architecture except a massive mudbrick defensive wall with stone foundations. Metallurgy played a very important role in this period: Arslantepe became a manufacturing centre for metal objects. This can be inferred by the presence of crucibles, slags, and workshops; however, most metal artefacts found in the village are work tools. Besides, the origin of most copper ores is basically local, with the exclusive presence of chalcopyrite. Apparently, this period is marked by lack of access to the sources of raw material located on the North-East and Central regions, which had previously allowed the supply of polymetallic ores³².

In Arslantepe Period VI C (2750-2500 BC), the village lacks any prevailing architecture and is composed of an ancient phase, marked by wooden structures, and a more recent phase, with mudbrick buildings³³.

In the first half of the third millennium, this process is reflected on the Malatya Plain and its thick network of settlements (fig. 7). Several sites are distributed over the central plain and in the piedmont area, some of them along the Euphrates. 60% out of 38 sites is placed on natural mounds, most of them are characterised by single-phase settlements. The presence of numerous sites does not seem to stem from a population increase, but, rather, from an increase in mobility of the same groups who had previously inhabited the plain. Livestock rearing was still prevailing in Arslantepe; however, the control system implemented by the palatine administration subsided, and this probably caused the inhabitants to disperse all over the plain. In the second quarter of the third millennium, Arslantepe lost the role of *Central Place*, because small local power centres started to emerge in the area, probably exerting a lesser amount of control on the subsistence economy supporting the local population.

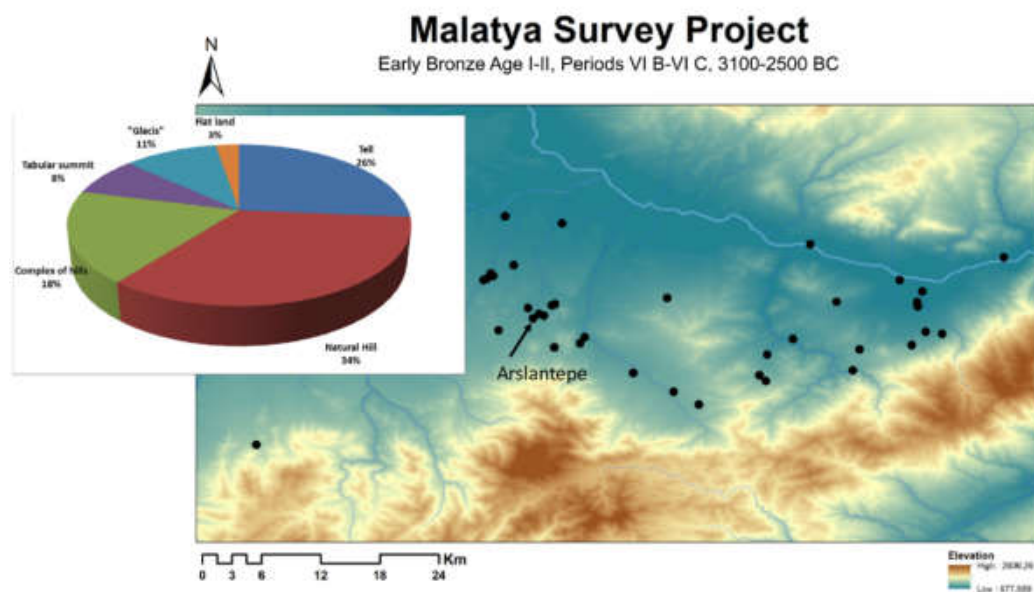


Fig. 7 - Distribution map of Early Bronze Age I-II sites, Period VI-B and VI-C, 3100-2500 BC, and site typology according to geomorphologic categories.

³² Di Nocera 2013: 121-129.

³³ Persiani 2008.



This process became more evident during the second half of the III millennium and the first quarter of the II millennium, that is, Early Bronze Age III³⁴ and Middle Bronze Age I³⁵ (Arslantepe VI-D, 2500-2000 BC; Arslantepe V-A, 2000-1750 BC) respectively. The centralised, south-Mesopotamia-style power system had been completely dismantled, and the network of cross-regional connections had further shrunk. The features of subsistence economy started to resemble once again the ones observed in Late Chalcolithic 1-4: the economy was based on cattle and – mostly – caprine livestock rearing. In the Early Bronze Age III, Arslantepe was a fortified site with an extensive residential area, constructed according to a building planning scheme³⁶. Probably, some of these buildings were part of monumental complexes built for the local *elites*³⁷. Also during the Middle Bronze Age I Arslantepe was fortified³⁸, although archaeological evidence in the residential area is scarce. Livestock rearing followed the trend of the previous period; the only difference was the prevalence of sheep over goats³⁹. In the Malatya Plain, the sites dating back to the Early Bronze Age III are distributed along the course of the Euphrates (fig. 8). 46% out of 45 sites is built on *tells*. The mounds started to form during the Early Bronze Age III and have a clearly stable nature, with several settlement phases (figs. 9-10). Although Arslantepe VI-D was the largest site in the area, some smaller power centres also started to emerge. This tendency, bringing about a slight decrease in the number of settlements, continued without interruptions (figs. 11-12) until the Middle Bronze Age (Arslantepe V-A). It seems that during this period power was fractioned and scarcely cohesive, although pottery production shows evident – and unprecedented – signs of close connections between the Malatya region and the Elazığ region, located further East. This was a crucial period, immediately preceding the Old Hittite Kingdom.

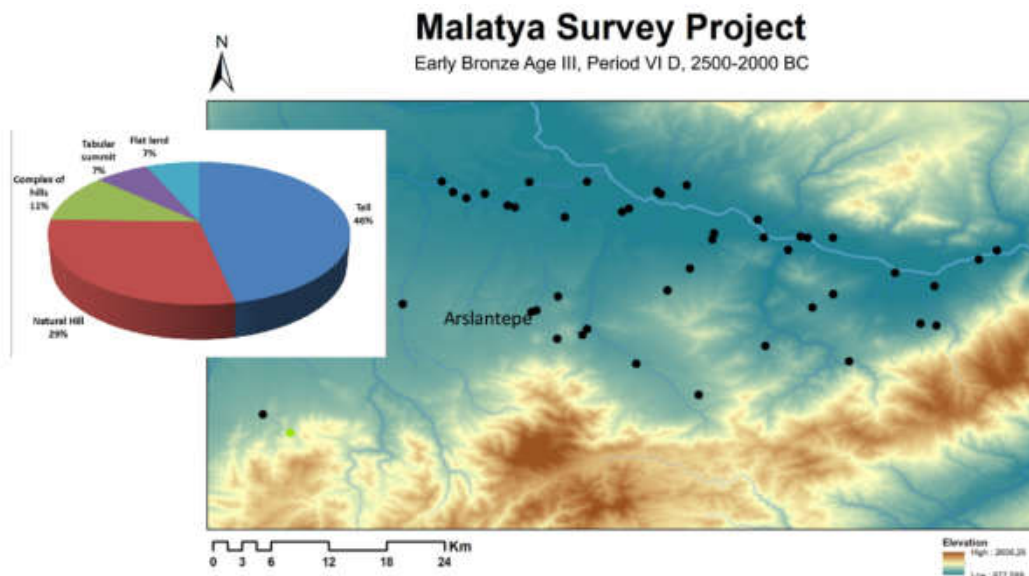


Fig. 8 - Distribution map of Early Bronze Age III sites, Period VI-D, 2500-2000 BC, and site typology according to geomorphologic categories.

³⁴ Conti, Persiani 1993.

³⁵ Di Nocera 1998.

³⁶ Palmieri 1984: 74, fig. 6; 1985: 29, fig. 1; Conti, Persiani 2008.

³⁷ Di Nocera 2013: 130-135.

³⁸ Di Nocera 2001.

³⁹ Siracusano, Bartosiewicz 2012.





Fig. 9 - Süleyman Tepe, site 27. Stratigraphy and Early Bronze Age III painted pottery.

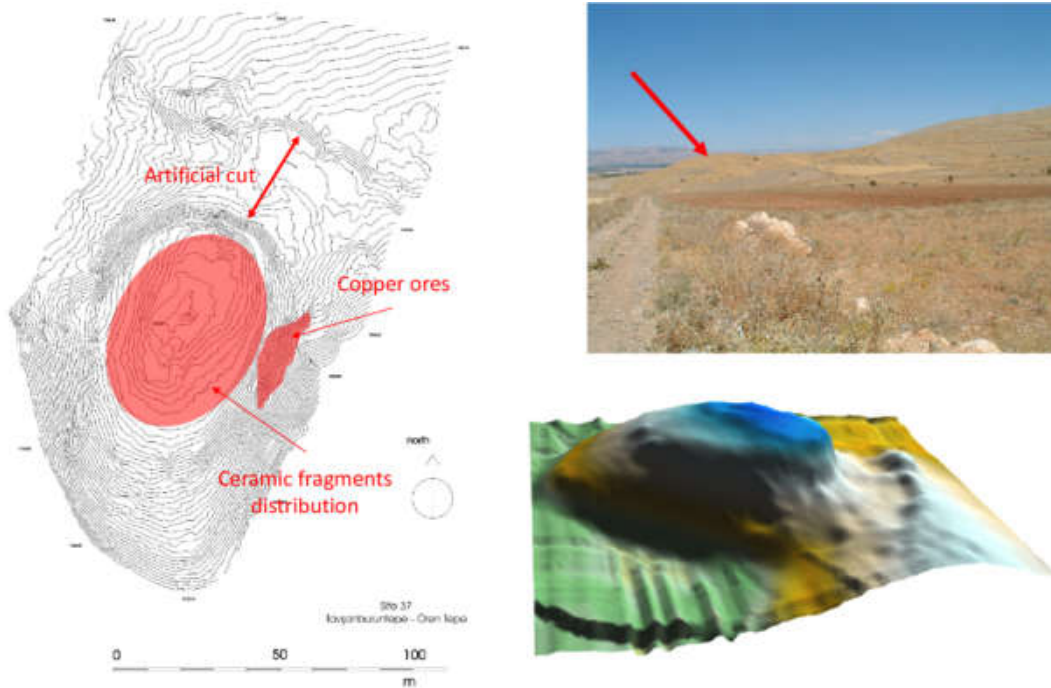


Fig. 10 - Early Bronze Age III. Site 37 – Ören Tepe. Topographic reconstruction and 3D model.



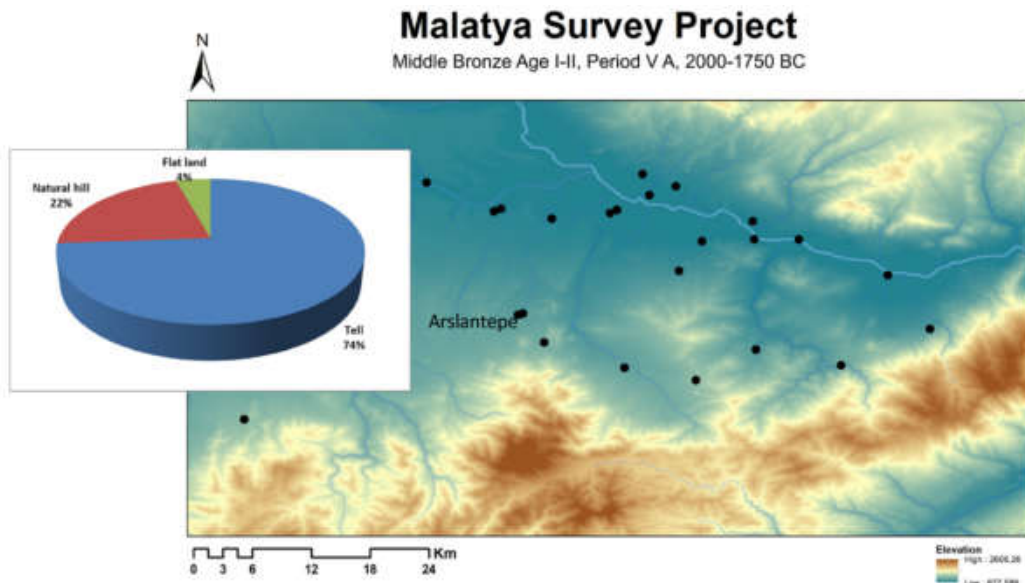


Fig. 11 - Distribution map of Middle Bronze Age I-II sites, Period V-A, 2000-1750 BC, and site typology according to geomorphologic categories.

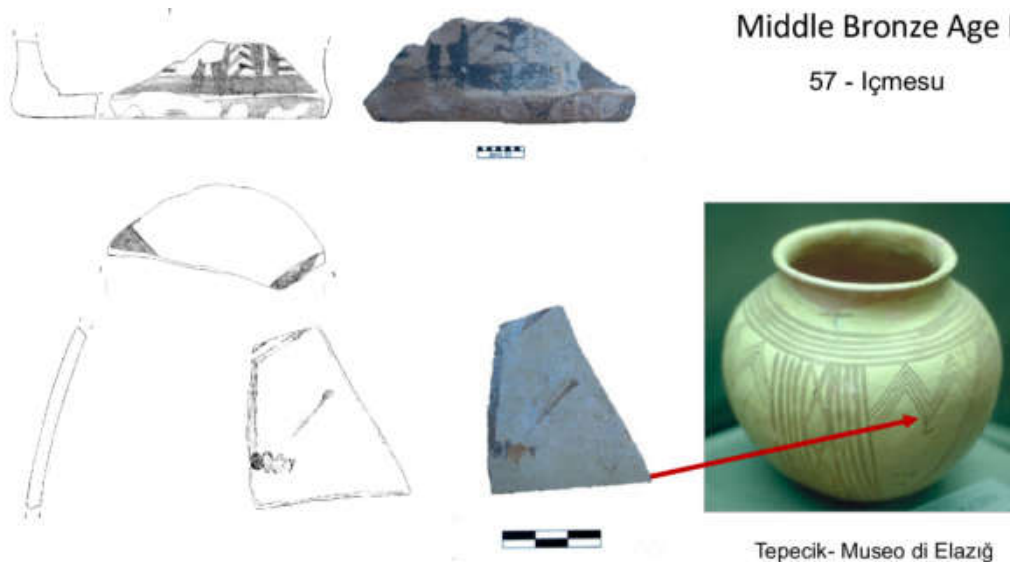


Fig. 12 - Middle Bronze Age I. Site 57 - İçmesu Tepe. Painted pottery.

During the Late Bronze Age I, Arslantepe retrieved its role as a *central place* in the Malatya area: the mound was densely inhabited and surrounded by a massive fortification structure with ramparts and city gates⁴⁰. During the Late Bronze Age II, the residential area became smaller, and so did the fortified area. These mechanisms occurring between the Late Bronze Age I and II are less easily perceived in the surrounding area (fig. 13); however, it is clear that there was a general tendency to a reduction of sites and a centripetal movement of the local population towards Arslantepe, the pivotal site in the region: the same patterns observed in the second half of the fourth millennium, although with different features and motivations (fig. 14).

⁴⁰ Pecorella 1975; Manuelli 2013.



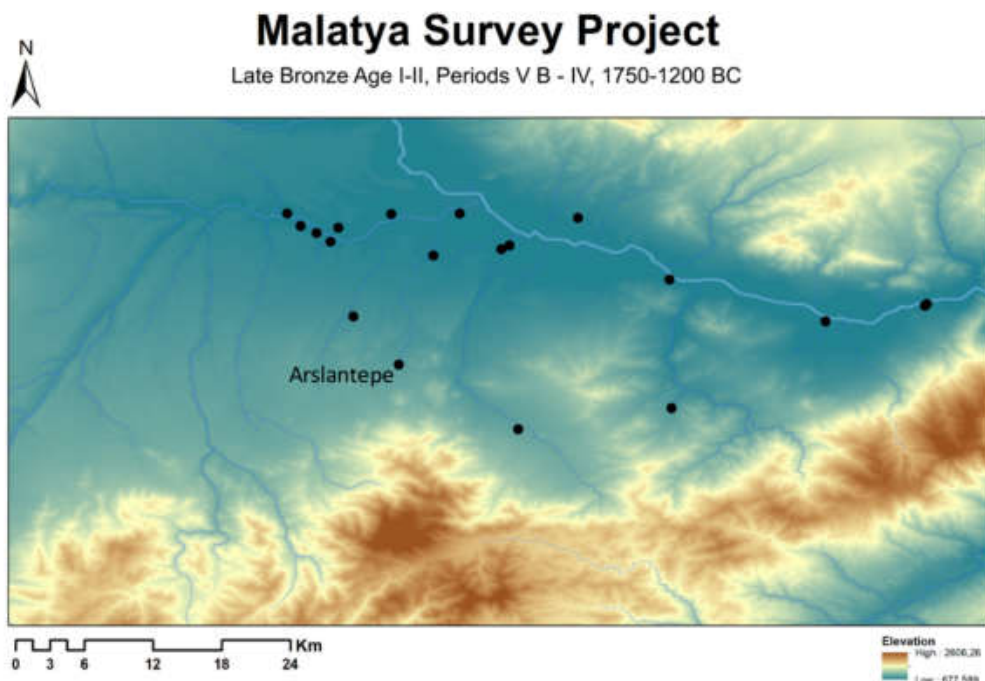


Fig. 13 - Distribution map of Late Bronze Age I-II sites, Period V-B /IV, 1750-1200 BC.

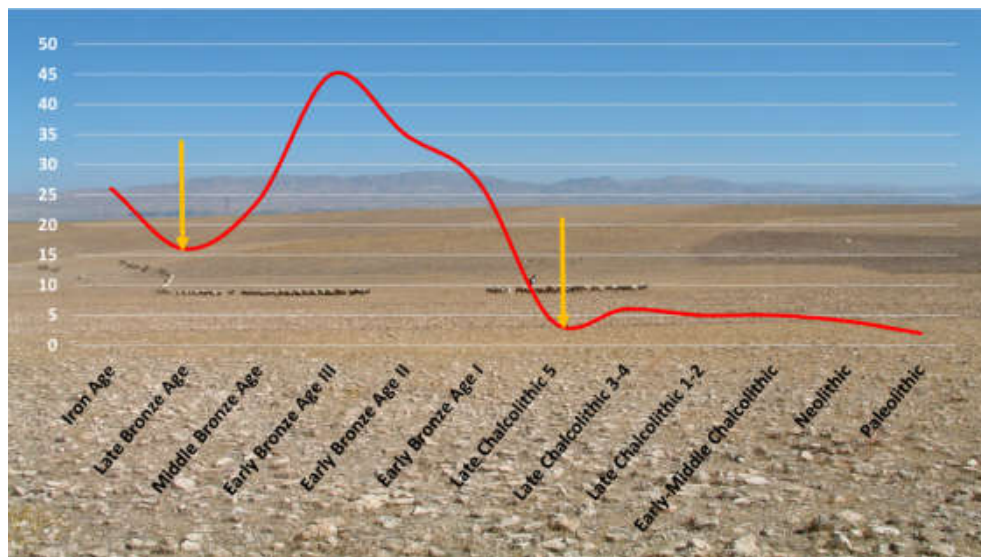


Fig. 14 - Number of sites from the Paleolithic to the Iron Age on the Malatya plain.

The following periods, Hellenistic-Roman, Imperial Roman, Late Antiquity, Byzantine and Islamic have been clearly recognised in the Arslantepe excavations⁴¹; however, the site is not the only or dominant centre in the area anymore (fig. 15). Other settlements acquired an important role under altered political and economic conditions, due to complex historical events which affected this and other areas, within and without the region. The interpretation of settlement patterns for more recent periods requires an approach encompassing and connecting archaeology, political and economic history.

⁴¹ Schneider Equini 1970.



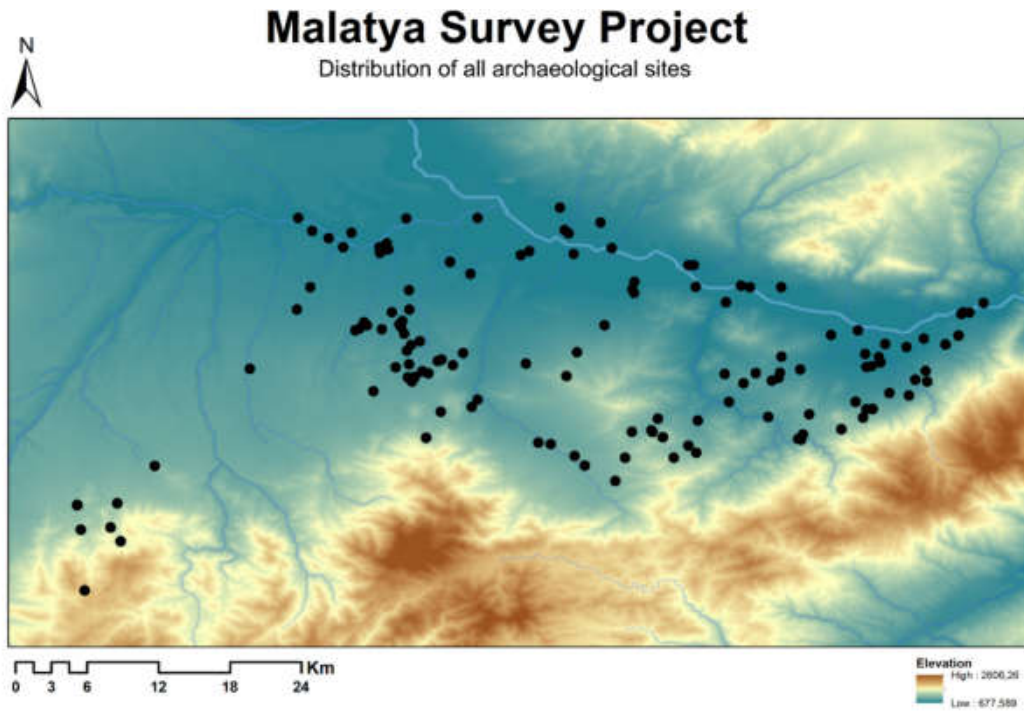


Fig. 15 - Distribution map from the Paleolithic to the Byzantine period on the Malatya plain.

The Malatya Plain is an example of how human communities, inspired by changing forms of power, can act on the landscape. Pastures and agricultural lands change over time due to the action and presence of man and his ability to shape land. The Arslantepe excavation and the geo-archaeological surveys have provided a reference framework allowing understanding some of the transformations, which affected the rural and anthropic landscape of the Malatya Plain. Although many questions remain unanswered, we can conclude that social organisation influences economic behaviours at the local level in several ways, including via the control and management of land.



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