

A BRIEF EVALUATION ON THE PLANT DEPICTIONS IN THE HITTITE DECIPTION ART

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Abstract

The Hittite Empire is one of the most important civilizations that contributed to the field of art through numerous artworks. The diversity of motifs in the Hittite artworks makes them unique. Although there are many researches about the illustrations on the Hittite depicted-artworks, the absence of a detailed study on botanical motifs has accelerated this study. A lot of subjects and motifs have been depicted on the artworks and botanical motifs occupy an important place among them. The botanical motifs on the artworks shed light on the Hittite art. In the light of these studies, it is seen that there are pretty much botanical-depicted Hittite works. The examples regarding the botanical-depicted artwork in this paper include only some instances of the works. Many of the Hittite Period works were searched and analyzed and then the relation between the plant types in these works and modern-day plant types was studied. The botanical motifs in the artworks, which have different details in each piece, take places in specific compositions in depiction fields. Those motifs have been applied sometimes on their own and sometimes with figures of people, animal or god. The plant motifs on the artworks was used as decorative elements on occasions and they were sometimes used as signs in the hieroglyph writing system. The plants frequently used by the Hittite people in the daily life were imaged on the artworks, so it can be said that the Hittite social life was depicted on the works.

Keywords: *The Hittite, Plants, Types of Plants, Flower, Tree, Herb, Depicted Artworks, Seal, Pot, Sphinx.*

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Hitit Tasvir Sanatında Bitki Betimleri Üzerine Kısa Bir Değerlendirme

Özet

Hitit Devleti sanat dünyasına sayısız eserler katmış önemli uygarlıklardan biridir. Hitit Sanat eserlerindeki motif çeşitliliği eserleri eşsiz kılmaktadır. Hitit tasvirli sanat eserleri üzerindeki betimler hakkında pek çok araştırma yapılmışken bitki motifleri üzerine yapılmış detaylı araştırmanın olmayışı bu araştırmanın yapılmasını hızlandırmıştır. Sanat eserleri üzerinde pek çok konu ve betim işlenmiştir ve bunların içinde bitki betimleri önemli bir yere sahiptir. Eserlerde yer alan bitki betimleri Hitit sanat dünyasına ışık tutmaktadır. Çalışmalar ışığında bitki betimli Hitit eserlerinin oldukça fazla olduğu görülmüştür. Bu makalede yer verdiğimiz bitki betimli eserler de çok az bir kısmını oluşturmaktadır. Hitit Dönemine ait pek çok eser taranarak incelenmiş ve eserlerde yer alan bitki tipleriyle günümüz bitki tipleri arasında bağ kurulmaya çalışılmıştır. Eserlerde her biri farklı detaylar içeren bitki motifleri tasvir alanlarında belirli kompozisyonlar içinde yer alırlar. Bazen tek başlarına bazen de insan, hayvan, tanrı figürleriyle işlenmişlerdir. Motifler genelde çiçek motifleri olmakla beraber farklı bitki tipleri de betimlerde yer almıştır. Eserler üzerinde bitki motifleri bazen dekoratif bir öge bazen de hiyeroglif yazı işareti olarak kullanılmışlardır. Hitit halkı tarafından günlük yaşamda da sıklıkla kullanılan bitkiler sanat eserlerine de yansıtılmış ve Hitit sosyal hayatı eserler üzerinde betimlerde yerini almıştır.

Anahtar Kelimeler: *Hitit, Bitki, Bitki Tipleri, Çiçek, Ağaç, Ot, Tasvirli Sanat Eserleri, Mühür, Kap, Sfenks*

1. Introduction

The Hittites is an important civilization that settled in Anatolia at around second millennium BC and it transformed political and social balances in the region. When the Hittites came to Anatolia, the indigenous Hattian culture had prevailed in the district. Therefore, the Hittite art was based on this Hatti culture. In the course of time, the Hittite State increased its influence so much that its impacts could be traced in the adjacent regions like Cyprus, Syria, Mesopotamia even in Egypt. Alongside its political power, this great state came to the front in terms of its culture and its culture became a far-reaching one. The Hittites' relations with their neighboring area cultures were prominent factor in their cultural and artistic dissemination. As a consequence of relations with the surrounding cultures, in addition to the native motifs, different motifs took place in the artists' repertoires. A multifarious structure that was composed of Native

Hittite style, the traditional Hittite style and the impacts of the surrounding cultures can be seen in the Hittite depiction artworks. The variety of styles and motifs in the Hittite artworks stemmed from this multicultural synthesis. The plant depictions in these unique works comprise significant parts of all motifs and the manner of designation varies widely in each piece. Hittite works with plant depictions had an important place in the Hittite period and today we are sure that only a very few parts of these works have been unveiled.

2. The Plant Depictions in the Depicted Hittite Artworks

The Hittite Period (1650-1207 B.C) (Bryce 1998, list. XIII) works, in artistic ways, had been influenced by the works of the Assyrian Trade Colony Period (2050-1685 B.C) (Kulakoğlu, 2011, pp. 1014-1019) and they became new artistic motifs by substantially conveying features of the Assyrian Trade Colony Period and being improved by other artists. For instance, plant motifs such as flower, tree and scrub imageries are almost the same with the ones in the seals that belong to the Old Hittite Period. The climate and vegetation cover cannot entirely change in few centuries. Thus, the motifs are generally similar even though subjects of the works alternate from time to time. There are not so much novelties in the way chevrons, rings depicted and their usages with flowers, trees and herbaceous plants except for the artists' imaginative artistic contributions.


Seals quantitatively are the predominant artworks in the Hittite Period. The oldest known Hittite seals with plant depictions are dated to the end of the 16th century BC and the beginning of the 15th century. The tradition of stamp seal continues in the mentioned seals. The flower motif is the most encountered image in the Old Hittite plant motifs and it has been used widely in the stamp seals. The manner of engraving them did not differ greatly from the ones in the Assyrian Trade Colony Period. Plant images were placed in the middle area of the stamp seals. Flowers and scrub plants form the main stage in the seals (Fig. 2 and 3). Flowers and other plants are superficial and simplistic. In the samples discovered in the Hittite locations like İnandıktepe (Fig. 1) (Özgüç, 1988, p. 15, pl. 64/1 a-c), Boğazköy (Fig. 2: A-E) (Beran, 1967, pp. 19-20, pl.II/21-22, p. 20, pl.III/26; p. 23, pl.VI/53; Seeher, 2005, p. 359, fig.9), Çadır Höyük (Fig. 3) (Paley, 2007, p. 535, fig.8b), Maşathöyük (Fig. 4) (Özgüç, 1982, pl. 58/a-c), Flowers are usually depicted with petals, and short plants with short branches.

The flower motifs are the favorite ones on the utensils as well and the pot pieces belong to the Old Hittite Period. Plants like short and scrub herbs, basket or arable crops have been used with other plant or separately. In addition to the fact that it is possible to see such types of plants on many pottery fragments are found in Boğazköy (Boehmer, 1983, p. 44, pl.XVII-XVIII/60 et.al.), the plant depiction on the Boyalı Höyük utensil (Sipahi and Ediz, 2008, p. 514) reveals that it was a popular motif.

It can be seen that there is only one flower motif in the center stage of the Tabarna seals that dated back to the last years of the Hittite Old Period and the beginning of the Hittite Empire

Period. It is obvious that in the Tabarna seals that can be found enormously in Boğazköy such as (Fig. 5:A) (Boehmer and Güterbock, 1987, p. 162, pl. 32/252), (Fig. 5:B) (Schachner, 2010:312, fig.8); (Pic. 5:C) (Beran, 1967, p. 31, fig. IV/147) the flower motif has been used by itself or sometimes with triangle and bowtie motifs.

In the Old Hittite Period and the beginning of the Hittite Empire Period, short and dwarf plants such as grass and bushes, which are depicted with animal figures, were the most popular figures after flowers. This type of depictions can be frequently viewed in Boğazköy (Fig. 6) (Beran, 1967, p. 29, pl. 10/130; (Fig. 7) (Dinçol and Dinçol, 2008, p. 112, pl. 2/fig19 a-b - 21 a-b) and Oluz Höyük (Fig. 8) (Yurtsever and Beyazıt, 2014, p. 90-91, fig. 15 a-b/pl. 6-2) seals. These plants have been harmoniously depicted generally behind or in front of animals.

The most used plant motif is the flower, both after the Old Hittite Period and during the Hittite Empire Period. This motif that is similar to the flowers from liliaceae has been favorably preferred on seals. Though it is known that the motif of  is the equivalent of the syllable *Sha* in hieroglyph (Laroche, 1960, p. 225), it is not possible to conclude that whether other motifs are signs of hieroglyph or not. Plants and hieroglyph signs are interwoven as it can be seen in the cases of Boğazköy, (Fig. 9:A-C) (Dinçol and Dinçol 2008, p. 120, pl. 10/fig.100 a-b; pl.15/fig.161; pl: 21/fig. 215 a-b), Kayalıpınar (Fig. 10) (Müller Karpe, 2003, p. 112, fig. 14).

The Hittites started using double-sided and perforated seals in the 13th century (Collon, 1997, p. 15). Flowers and scrub plants are the most preferred motifs on these seals, which is obviously can be seen in the Boğazköy (Fig. 11) (Boehmer and Güterbock, 1987, p. 158, pl. 28/232), Alishar (Fig. 12) (Schmidt, 1932, p. 262, fig. 344/b2675) and Alacahöyük (Fig. 13) (Koşay, 1951, p. 94, pl. LXXVIII/3) seals.

In the 1400s BC, floral motifs continued to appear in works of art, and plant images also diversified. Flower and plant imageries are depicted together on many samples that are obtained from the sites like Büklükale (Fig. 14) (Matsumura 2016, p. 75, fig.27); Kaman Kalehöyük (Fig. 15) (Yoshida, 2006, p. 160, fig. 16). In addition to the flower and plant imageries, both hieroglyph and cuneiform script started to take place on seals (Collon, 1990, p. 5). There was not cuneiform script on the seals belonging to officials and princes (Herbordt, 2004, p. 7). On the round-printed seals which are typical royal seals, there is a flower and the name of the king written in cuneiform in the center of the works.

The seal types in which there are much more dome-shaped features are new forms of the Hittite Empire Period. Plants are used affluently and hot climate plants are applied repetitiously on surfaces on these forms. The seals of Kavuşan Höyük (Fig. 16) (Alfonso, 2010, p. 2, fig. 1-2), Boğazköy (Fig. 17: A-B) (Dinçol and Dinçol, 2008, p. 140, pl. 30/fig. 305a-b; Boehmer and Güterbock, 1987, p. 156, pl. 26/219), Panaztepe (Fig. 18) (Erkanal 1988, p. 348) are the rare works on which the hot climate plants are depicted.

On many seals belonging to the Empire Period, pomegranate is engraved on compositions excessively either with its fruit or tree. Once again, it is very hard to confirm whether the pomegranate motif on seals is a hieroglyph symbol (Laroche, 1960, p. 225) or merely plant imagery. In addition to a lot of pomegranate-imaged samples from Boğazköy (Fig. 19:A-C) (Dinçol and Dinçol, 2008, p. 140, pl. 30/fig.305a-b; pl. 25/fig.263a-b; pl. 5/fig.51a-b; Boehmer and Güterbock 1987, p. 148, pl. 18/162), a few pomegranate-imaged seal mould - Şapinuva-Ortaköy (Fig. 24) (Süel, 2011, p. 414, fig.9) and seals found at other sites such as Kayalıpınar (Fig. 20) (Müller Karpe, 2003, p. 112, fig.13), Korucutepe (Fig. 21) (Ertem, 1988, p. 5) Kavuşan Höyük (Fig. 16) (Alfonso, 2010, p. 2, fig.1-2); Boğazköy (Fig.22) (Dinçol and Dinçol 2008, p. 139, lev.29/fig. 303a-d, pl. 30/fig 303e); Cyprus (Fig. 23) (Kozal 2002, p. 655, fig.1) reveal that this imagery was one of the significant motifs at that time.

Some researchers claim that the symbol of flower is related with health, peace and happiness. By reason of the fact that garnet is known as the representation of fertility even today, it was presumably a sign of wealth and fertility of the country at the Hittite Period as well.

Most of the Empire Period seals characteristically have sun disk on them. Moreover, there is a flower motif on the top of the winged-sun disk which is a part of the Hittite works. The flower motif proceeded to be used on several works belong to the Late Hittite Period as well (Darga, 1992, p. 318/fig. 304)².

In addition to the already known flower, tree and herb motifs from the Early Hittite Period, new types of plants are used and diversification in plant species stands out at the Hittite Empire Period. The reason behind that diversification should be the political developments rather than the climate change. Expansion of the country due to political approaches, launching expeditions to the new lands, encountering with novel trees, flowers and other plants grown in different climate types provide the application of new motifs on artworks. Palm-like trees, broadleaves, scrub plants which are grown in the south and mostly in the marine climate have been implicated in the motif repertoire. Though processing of the trees is more detailed when compared to the works from the previous period, their shapes are more simplistic than Assyrian type trees.³ Palm and date trees are represented through a few examples. Palm and date trees are the favorite ones in the Babylonian and Assyrian arts (Parrot, 1969, p. 14, fig. 17, 179). The fruit of date tree symbolizes the continuity of life. Date wine has been used not only in medicine but also in religious ceremonials in the Babylonian lands (Giaviono, 2007, p. 28-30).⁴

Fantastical trees combined with local motifs have become prevalent depictions at the Hittite Empire Age. The trees similar to the fantastical ones from the Empire Age can be found on the Assyrian seals (Parpola, 1993, p. 200/fig. 348,439-440). Boğazköy (Fig. 25) (Boehmer

² The following ones: on the head ornament of the Maraş stela; on the skirt of the king Warpalawasstela, Bittel 1976, p. 288, fig.330-331-Bor; on the top of the winged sun disc of Sakçagöz Orthostates, Bittel, 1976, p. 268,fig.306; on the sphinx crown of the chained orthostates, Darga, 1992, p. 284, fig.281-282; on the crown of the goddess depicted on the Kargamış Kubaba orthostates, Darga, 1992, fig. 257, 304 etc.

³In order to compare with the Assyrian Period trees see Parrot, 1969; Giavino, 2007; Parpola, 1993.

and Güterbock 1987, p. 156, pl. 26/216) and details of the fantastical tree depictions on the seals from the Adana Museum (Fig. 26) (Dinçol, 1983, p. 188, pl. IX/9) can obviously be observed.

The Hittite State has carried its artistic values to the new lands it occupied. The Hittite Period depicted-artworks found in other centers are almost the same with the art traditions in the Capital. The seals from Ugarit (Fig. 27) (Schaeffer, 1956, p. 25-26/ fig. 32-33) and plate found in Alalah (Fig. 28) (Barnett 1957, p. 230, pl. CXXIV.) are very similar with the artworks discovered in the Capital Boğazköy (Fig. 29) (Neve, 2001:pl. 38/b) in terms of their artistic functions.

Apart from being artistic figures, the plant depictions enabled to create new styles on works. The adornment style named *floral ornament* has been used on some works. This style stands out on the Alacahöyük orthostates (Fig. 30) (Bittel, 1976, p. 200, fig.228) depicted with deer ornaments, the figure on which a lion hunts a calf, the Sivas Altınyayla stel (Fig. 31) (Müller Karpe, 2003, p. 361), the hand-shaped rhyton in the Boston Museum (Fig.32) (Güterbock and Kendall, 1995, p. 45-60) and a bull depiction on a seal that belongs to the King Muwatalli. Likewise, the floral ornament can be seen on the Megiddo plate on which bulls described (Kantor, 1957, p. 145-162).

Sphinx was one of the foremost motifs and works in the Hittite art. Many researchers argue that this motif, which has been observed alongside local ones from the Assyrian Trade Colony Period onward, has its origin in Egypt and Mesopotamia. Baltacıoğlu states that “*Hator style haircut and Mesopotamia-originated horned-crown were used together and the original Hittite style was created by adding flowers on top of the crown.*” (Baltacıoğlu, 2014, p. 75-101). Flowers are the only plant motifs that have been used on sphinx. The single flower on the heads and necks of the sphinx from Alacahöyük (Fig. 33) (Darga, 1992, p. 120), Boğazköy (Fig. 34:A-B) (Darga, 1992, p. 120, fig.124-125) attracts the attention with their petals. As in the case of seals, flowers, trees, herbs and bush-like plants have been frequently applied on the Hittite Empire Period potteries (Fig. 35) (Emre and Çınaroğlu, 1993, p. 684, fig.23) and pot pieces (Fig. 36) (Umurtak, 1996, pl. 32/3), rhytons (Fig. 37) (Akurgal, 1997, p. 136, fig. 44a-d; Darga, 1992, p. 37, fig.16) and discs (Fig. 38) (Kantor, 1957, pl. XX-XIII, fig.1-3). Palm trees and voluted-plants with new style can be seen often on works (Fig. 39) (Uzunoğlu, 1979, p. 179-192; Akurgal, 1997, p. 136 fig.44a-d). These motifs known through the works of Egyptian and Syrian Art have been transferred to the Hittite Art at the Hittite Empire Period as a consequence of intense relations with the surrounding cultures.

The plant motifs have been depicted with gods and goddesses on the rock-cut reliefs from the Empire Period. The plant motif used on İmamkulu Rock-Monument Relief is a flower (Fig. 40) (Alexander, 1991:170, fig.5) whereas there are wheat and barley on the rock-monument relief of Yazılıkaya (Fig. 41) (Bittel, 1975, p. 173, fig.40).

Afterwards, the plant motifs of the Empire Period have been used at the Late Hittite Period especially on orthostates, sphinx heads, plinths and monumental tombs (Bittel, 1976, p. 272,

fig.304-305; Darga, 1992, p. 222, fig.229 et.al.) and the plant fashion has continued by transforming from time to time.

3. Conclusion

The plant motif can be seen in most of the works produced in 2nd millennium BC. Most of the motifs consist of flowers, plants and trees and they constitute a particular type of group along with their sub-types. Most of the plants depicted in the works belonging to the Colonial Age and the Hittite Age are natural plant types. The trees grown in Central Anatolia, arable crops and decorative flowers are the most significant motifs in the 2nd millennium art. Additionally, the motifs shaped by personal artistic preferences and fantastic imagination are applied on works as well.

In addition to the decorations belonging to the Assyrian Trade Colonies Period, it is clear that new species have entered the plant repertoire since the end of the Old Hittite Period and the beginning of the Hittite Empire Period. The Egypt-originated new types are voluted plants and plants with pedestal. The increasing intense political relations and as a consequences of this fact the cultural interactions like donations, marriages etc. caused the emergence of new decorative styles besides local motifs. Additionally, commercial activities serve a great function in spreading cultural features beyond boundaries. Hybrid plant types started to develop in Central Anatolia although they are non-native there. There are numerous such hybrid types particularly on the Hittite Empire Period works. All sorts of plant types have been possibly produced as it was inspired by adjacent cultures' geographies and masters.

Flowers are at the forefront once again in the almost all of the depicted artworks dated back to the Hittite Empire Period. Hot climate flowers and pomegranate were added to the flower motifs of the previous ages. The pomegranate motif appears especially on seals by the 15th century BC and it is depicted on coins frequently. The Hittite people have started to know pomegranate probably through their relations with the surrounding cultures and geographies. Pomegranate was an important fruit grown in the Eastern Mediterranean region particularly at the Bronze Age and used as an ornament element in the depicted artworks. This motif entered into the art repertoire possibly at the Hittite Empire Period at which there were intense relations with the South. Pomegranate comes on the stage in the decorative arts by the 4th millennium BC and afterwards it has been used as an ornament element in many places in Iran, Egypt, Cyprus, Continental Greece (Ward 2003, p. 533-534).⁵

The eventual matching of the plant motifs used on the Hittite Age depicted artworks with modern types shows that the plants from vitaceae (Asmagiller), asteraceae (Papatyagiller), caryophyllaceae (Karanfilgiller), iridaceae (Süsengiller) families have been used constantly.

⁵ There are pomegranate ornaments on the utensil found in Uruk (Mesopotamia), the terra-cotta tokens in Iran, wall paintings of tombs in Egypt, Ugarit metal utensils, Alalah ivory pyxis, many remnants found in Cyprus and Greece. Besides these, the seeds of pomegranate have been discovered in many settlements in Mesopotamia dating to 2nd millennium.

Ferula Communis (Çakşır Otu), *Barassica Juncea* (Hardal Otu), *iris versicolor* (Mezarlık Zambağı), *centaurea tchihatceheffii* (Peygamber Çiçeği), which are even today used as medicinal herbs, *porvende rmedicaco* (Yonca), the symbol of abundance and fertility *punicagranatum* (Nar), arable plants like *hordeum vulgare* (Arpa), *triticum aestivum* (Buğday), *cupressus marcocapra* (Servi), which is the pinaceae (Çamgiller) family, *cedrus* (Sedir), *Pinusnigra* (Karaçam), *abies* (Kökner), and *fenix* (Palmiye) are the potential plant types used on the artworks. The simplistic tree styles was applied in the decorative art since the Assyrian Trade Colony Period. Palm-like trees, pomegranate, the voluted plants which we can name as hybrid ones have taken place in the Hittite Depiction art in later periods circa beginning of the 15th century. Many plant motifs were used in neighboring regions in the 2nd millennium BC. Many of these plant descriptions were used in Hittite products with schematic and local features. The local characteristics can be seen on the sacred tree motifs on the Syria-originated cylinder seals and printings from the Assyrian Trade Colony Period (Erkanal, 1993, p. 144, pl. 53-V2-X/05; X-X/02), the palm trees depicted in the Old Assyrian style (Özgüç, 2006, p. 62, pl. 2/CS259), the Anatolian-style seals and the works (rhytons, pieces of potteries) belonging to the Early and the Late Hittite Periods. Lotus (Erkanal, 1993, p. 121) and other plants (Özgüç, 2006, p.186, pl.50/CS574) that were preferred in the Syrian style of the Assyrian Trade Colony Period did not have great impacts on the artistic thoughts regarding Anatolian-style seals and only the flowers abundantly grown in Anatolia have appeared in the Anatolia seals. The lotus was schematically used only in few examples (Dinçol and Dinçol, 2008, p. 141, pl. 31/fig. 324 a-b) belonging to the Hittite Empire Period. At the Hittite Empire Period, the pine cones and poppies (Parrot, 1969) cannot be found in the Hittite Art whereas they are plentiful on the many Assyrian stone works produced at the same period. Schematic pine trees are more common in Hittite works.

Lotus and composite tree types -like tree of life- that are used in the foreign works were not so familiar ones in the Anatolia geography while the motifs of plants, trees and flowers naturally grown in the Hittite geography was exceedingly used on the artworks produced in the 2nd millennium BC. Many plant motifs decorating the local artworks have continued to take place in artworks produced after the Hittite Period.

Bibliography

Alfonso, L. (2010). The Hittite Seal from Kavuşan höyük. *Anatolian Studies/60*, 1-6

Akurgal, E. (1997). *Anadolu Kültür Tarihi*. Ankara

Alexander, R. L. (1991). Šausga and Hittite Ivory from Megiddo.

Journal of Near Eastern Studies, 50/3, 161-182, The Universty of Chicago Press

- Baltacıoğlu, H. (2014) Hitit Yazılı Kaynaklarında ve Alaca Höyük Hitit Heykeltıraşlık Eserlerinde Sfenks. *Anadolu Kültürlerine Bir Bakış, Armağan Erkanal'a Armağan*. Hacettepe Üniversitesi Yayınları, 75-101
- Barnett, R.D. (1957). *A Catalogue of The Nimrud Ivories*. London.
- Beran, T. (1967). *Die hethitische Glyptik von Boğazköy*, Berlin.(Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 76)
- Bittel, K. (1975). *Das Hethitische Felsheiligtum Yazılıkaya*, Berlin
- Bittel, K.(1976). *Die Hethiter*. München.
- Boehmer, R. M. (1983). *Die Reliefkeramik von Boğazköy*. Berlin.
- Boehmer, R.M. & Güterbock, H. S. (1987). *Glyptik aus dem Stadtgebiet von Boğazköy*, Berlin
- Bryce, T.R. (1998): *The Kingdom of the Hittites*. Oxford
- Collon, D. (1990). *Near Eastern Seals*. London.
- Collon, D. (1997) (Ed.). *Ancient Near Eastern Seals*.
7000 Years of Seals, 11-30, London .
- Darga, M. A. (1992). *Hitit Sanatı*. Ankara
- Dinçol, A. M. (1983). Adana, Hatay ve İstanbul Müzelerinde Bulunan Hitit Hieroglif Mühürleri /Hethitische Hieroglyphensigel in den Museen zu Adana, Hatay und Istanbul, / *Anadolu Araştırmaları Jahrbuch für Kleinasiatische Forschun IX*, 173-249.
- Dinçol, A. & Dinçol, B. (2008). *Boğazköy-Hattuša, Die Prinzen –Und Beamtensiegel Aus Der Oberstadt Von Boğazköy- Hattuša Vom 16. Jahrhundert Bis Zum Ende Der Grossreichszeit*, Mainz
- Emre, K. ve Çınaroğlu, A. (1993). A Group of Metal Hittite Vessels from Kınık-Kastamonu. *Nimet Özgüç'e Armağan*, 675-705, Ankara
- Erkanal, A. (1988). Panaztepe Kazıları 1986 Sonuçları. *Kazı Sonuçları Toplantısı 9(1)* , 345-35
- Giavino, M. (2007). *The Assyrian Sacred Tree*. A History of Interpretations Academic Press, Fribourg, Switzerland.
- Güterbock, H. G. & Kendall, T. (1995). A Hittite Fist – Shaped Vessel , J.B. Carter & S.P. Morris (Ed.). *The Ages of Homer* içinde 45-60 Austin Texas.
- Herbordt, S. (2004). Die Tonbullen vom Nisantepe: Ein Archiv aus der hethitischen Hauptstadt Hattuša, *Alter Orient Aktuell* 5, 6-9.

- Kantor, H. J. (1957). A Syro Hittite Treasure in the Oriental Institute Museum, *Journal of Near Eastern Studies*, 16(3), 145-162, The University of Chicago Press
- Koşay, H. Z. (1951). *Türk Tarih Kurumu Tarafından Yapılan Alaca Höyük Kazısı 1937-1939'daki Çalışmalara ve Keşiflere Ait İlk Rapor*. Türk Tarih Kurumu Yayınları, V.Seri, No 5, Ankara
- Kozal, E. (2002). Hethitische und hethitisch beeinflusste Objekte aus Zypern, Aslan, R. Blum, S. Kastl, G. Schweizer, F. and Thumm, D. (Ed.), *Mauerschau. Festschrift für Manfred Korfmann, vol. 2* içinde, 651-61. Remshalden-Grünbach.
- Kulakoğlu, F. (2011). *Kültepe-Kaneş: A second millennium BCE trading center on the central plateau*. The Oxford Handbook of Ancient Anatolia
- Laroche, E. 1960. *Les Hiéroglyphes Hittites*, Paris.
- Matsumura, K. (2016). Büklükale Kazıları 2009-2014. *Kırşehir Arkeolojik ve Paleoantropolojik Çalışmalar*, 55-84. T.C. Kırşehir Valiliği İl Kültür ve Turizm Müdürlüğü.
- Güterbock, H. G. & Kendall, T. (1995). A Hittite Fist – Shaped Vessel, J. B. Carter & S.P. Morris (Ed.). *The Ages of Homer* içinde 45-60, Austin, Texas.
- Müller Karpe, A. (2003). Die Stele Von Altınyayla-Ein Neues Relief Der Hethitischen Großreichszeit, M, Özdoğan. & H, Hauptmann. & N, Başgelen (Ed.). *Ufuk Esin'e Armağan./ Studies Presented to Ufuk Esin. Köyden Kente Yakın Doğu'da İlk Yerleşimler/ From Village to Cities Early Villages in the Near East Cilt I* içinde, 313-319, İstanbul
- Neve, P. (2001). *Die Oberstadt Von Hattusa 1-2*, Mainz.
- Özgüç, N. (2006). *Kültepe-Kaniş/Neşa. Yerli Peruwa ve Aşşur-imiti'nin oğlu Assur'lu Tüccar Uşur-şa-Iştar'ın Arşivlerine ait Kil Zarfların Mühür Baskıları*, Türk Tarih Kurumu Yayınları, V. Dizi Sayı 50, Ankara
- Özgüç, T. (1982). *Maşat höyük II, Boğazköy'ün Kuzeydoğusunda Bir Hitit Merkezi*, Türk Tarih Kurumu Basımevi, Ankara
- Özgüç, T. (1988). *İnandıktepe: Eski Hitit Çağında Önemli Bir Kült Merkezi*, Türk Tarih Kurumu Yayınları, Ankara
- Paley, M. S. (2007). The Excavations at the Çadır Höyük. *Kazı Sonuçları Toplantısı 28(1)*, 519-539, 29 Mayıs-02 Haziran 2006, Çanakkale
- Parpola, S. (1993). The Assyrian Tree of Life :Tracing the Origin of Jewish Monatheism and Greek Philosophy. *Journal of Near Eastern Studies*, 52(3), 161-208, The University of Chicago Press

Parrot, A. (1969). *Assur*. Gallimard

Schachner, A. (2010). Boğazköy-Hattuşa 2008 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı* 31(4), 285-316, 24-28 Mayıs 2009.

Schaeffer, C. F. A. (1956), *Ugaritica III. Sceaux Et Cylindres Hittites, Épée Gravée Du Cartouche De Mineptah, Tablettes Chypro-Minoennes ET Autres Découvertes Nouvelles De Ras Shamra*, Paris

Schmidt, E. F. (1932). *The Alishar Hüyük Seasons of 1828-1929. Part I-II*. The University of Chicago Oriental Enstitute Publications Volume XIX-XX

Sheer, J. (2005). Boğazköy/Hattuşa 2003 Yılı Çalışmaları. *Kazı Sonuçları Toplantısı* 26(2), 351-361, 24-28 Mayıs 2004, Konya.

Sipahi, T. ve Ediz, İ. (2008), 2006 Yılı Boyalı Höyük Kazısı, *Kazı Sonuçları Toplantısı* 29(3), 505-514, 28 Mayıs-01 Haziran 2007, Kocaeli.

Süel, A. 2011. Ortaköy-Şapinuva Tabarna Mühürleri, Karadeniz'den Fırat'a Bilgi Üretimleri, *Önder Bilgi'ye Armağan Yazılar*, Yayına Hazırlayanlar: A. Öztan, Şevket Dönmez, Bilgin Kültür Sanat Yayınları, Ankara.

Süel M.(2008); Ortaköy Şapinuva'da bulunan bir grup kalıp. *Muhibbe Darga Armağanı*. Yayına Hazırlayanlar: Taner Tarhan, Aksel Tibet, Erkan Konyar, 476. Sadberk Hanım Müzesi Yayını, İstanbul

Umurtak, G. (1996). *Korucutepe - II: 1973-1975 Dönemi Kazılarında Bulunmuş Olan Hitit Çağı Çanak Çömleği*, Türk Tarih Kurumu Basımevi, Ankara

Ward, C. (2003). Pomegranates in eastern Mediterranean Contexts During the Late Bronze Age. *World Archaeology* 34(3), 529-541

Yoshida, D. (2006). Mittelhethitische Siegelfunde von Kaman Kalehöyük. *Anatolian Archaeological Studies* XV, 151-162, Japan.

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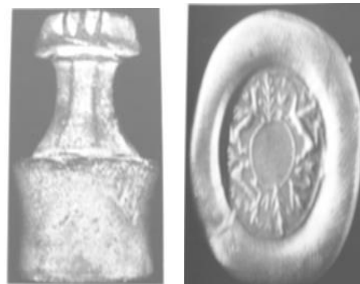


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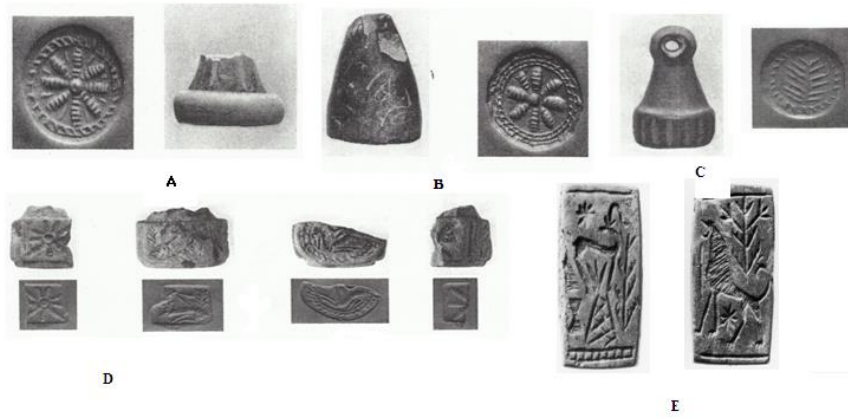


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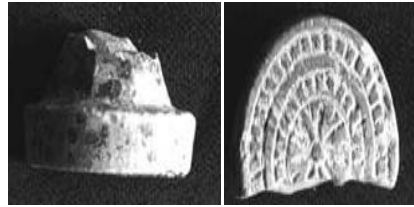


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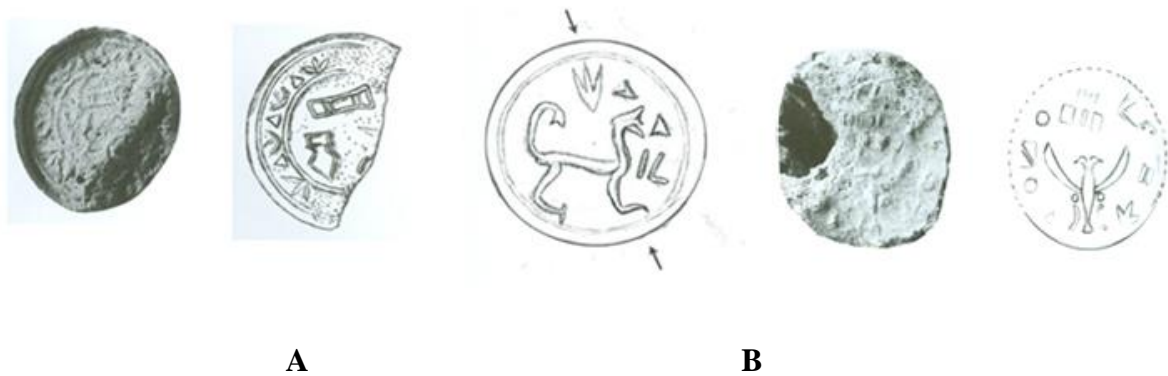


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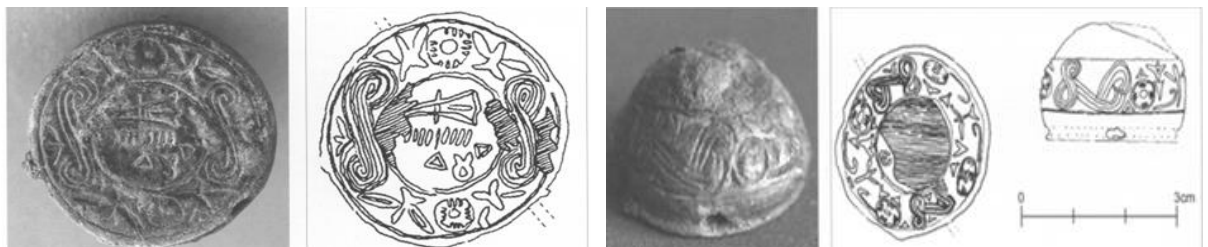


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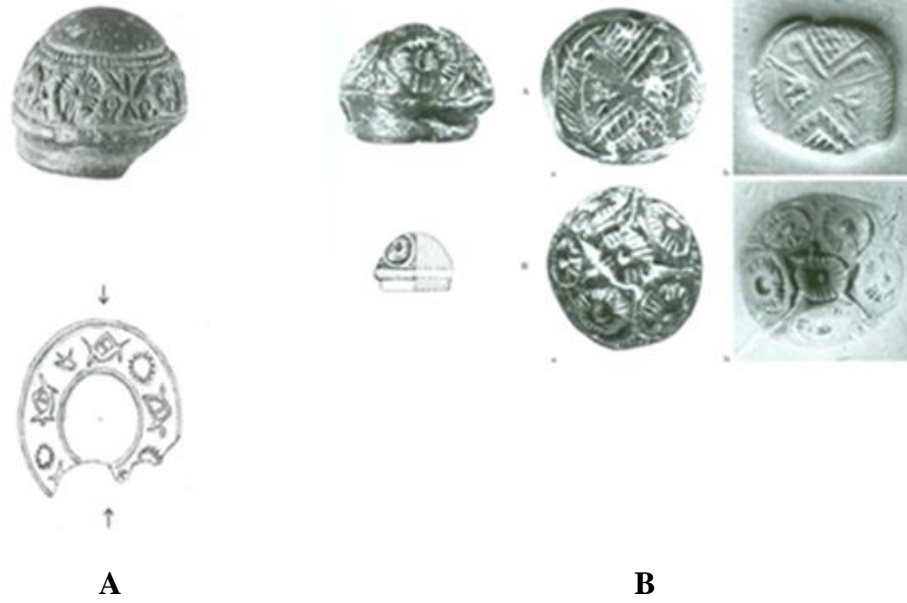


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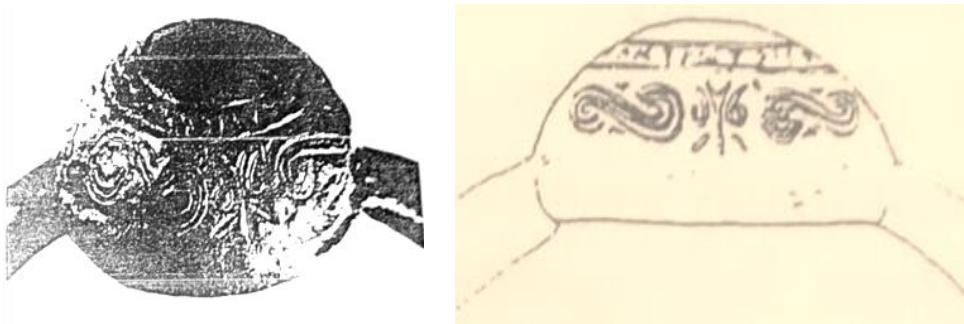


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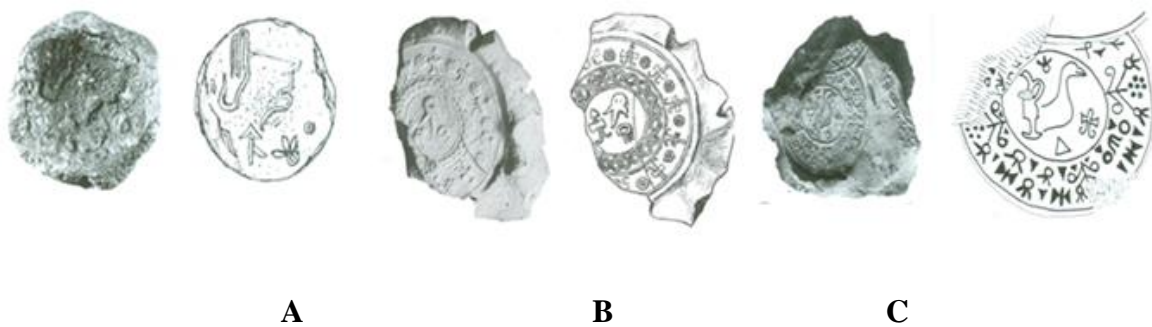


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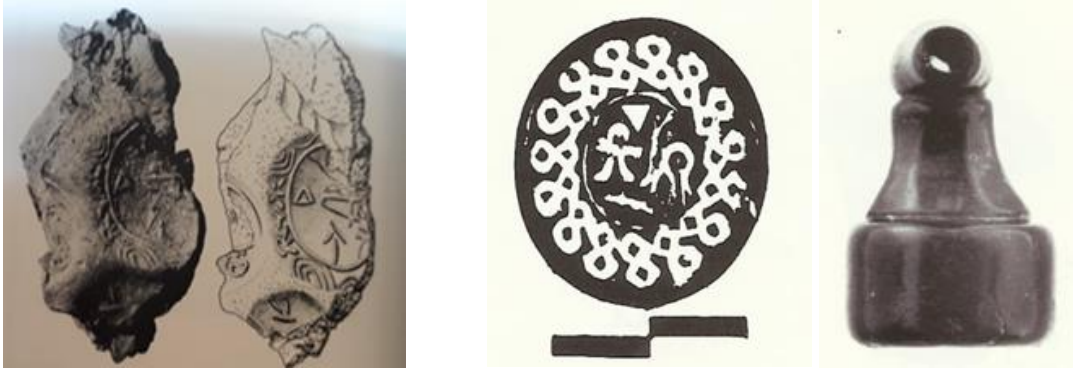


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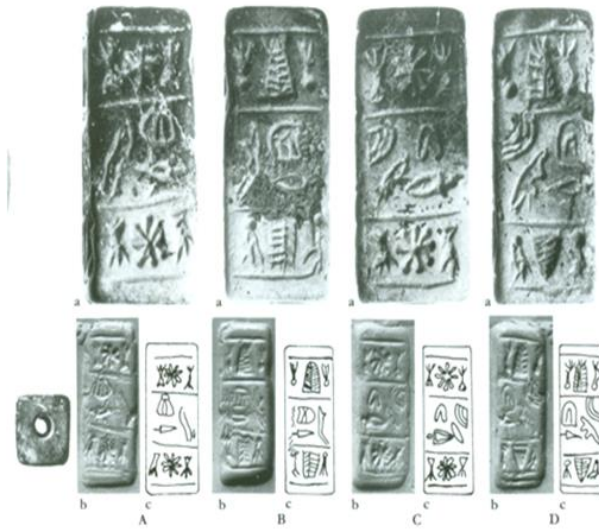


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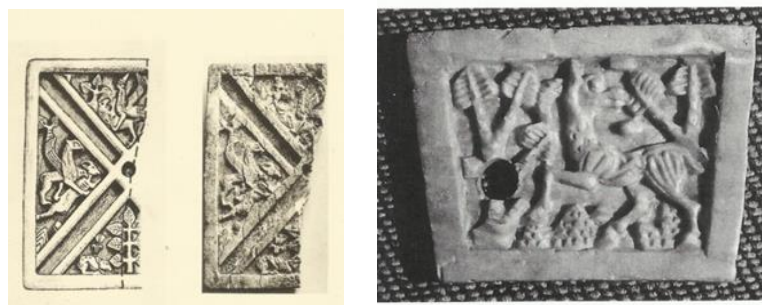


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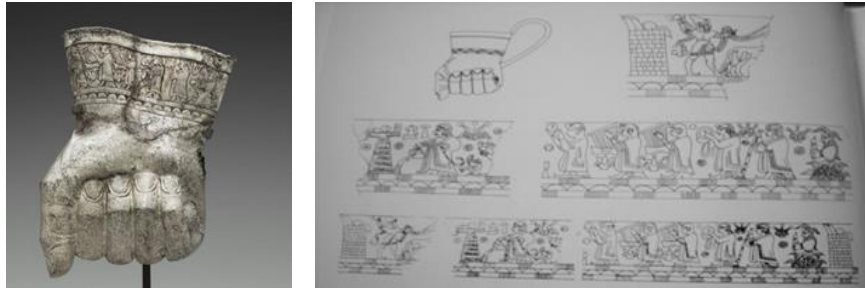
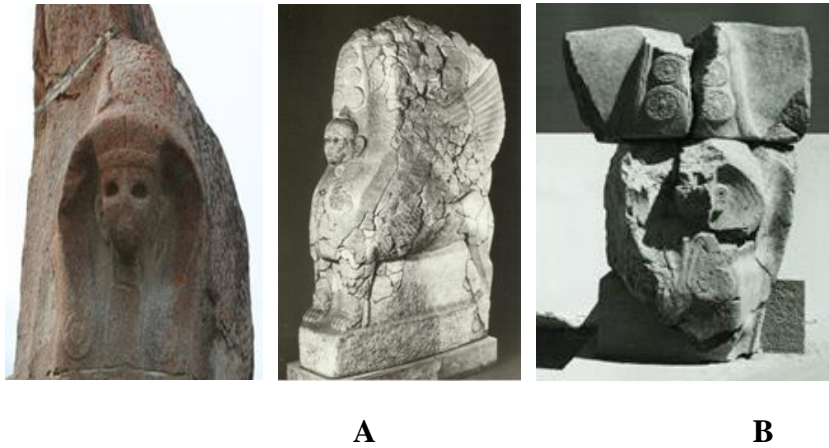


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A

B

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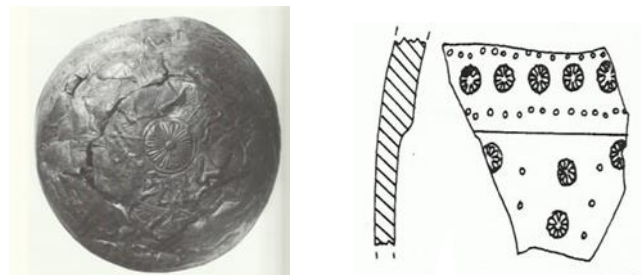


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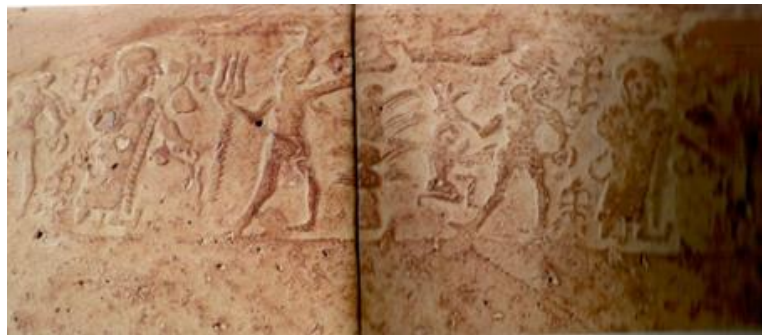


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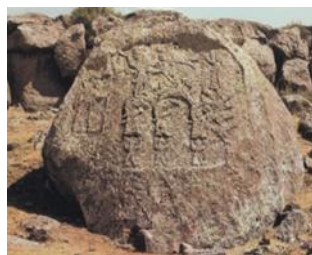


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