Systemizing the Past

Papers in Near Eastern and Caucasian Archaeology Dedicated to Pavel S. Avetisyan on the Occasion of His 65th Birthday

Edited by
Yervand H. Grekyan
Arsen A. Bobokhyan

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Cover: Front cover illustration: Bird pendant of bronze, *ca*. 1400-1300 BCE,
Late Bronze Age tomb no. 613, Karashamb Cemetery (in the background), Armenia.

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Avetisyan Pavel

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Foreword

Pavel Avetisyan, a modern leading Armenian archaeologist, a specialist with wide international recognition, was born in Tbilisi, Georgia, but spent his childhood and youth in Talin, a town in Aragatsotn Region of the Republic of Armenia. After graduating from Yerevan State University in 1980, the paths of his life was connected mostly with archaeology. As a researcher Pavel Avetisyan began his scholarly career at the 'Erebuni' Museum of History of Yerevan, continued his scientific research at the Chair of Archaeology and Ethnography and Scientific Research Laboratory of Archaeology at the Yerevan State University. Since 1993, he has been a member of the Institute of Archaeology and Ethnography, National Academy of Sciences of the Republic of Armenia, the main scientific research centre for Armenian archaeology. As a result of his extensive publication record, practical field experience, proven ability to develop local and external collaborations, as well as deliver research of international excellence he was appointed as Director of the Institute of Archaeology and Ethnography, a role he has been serviced since 2006.

The scientific legacy of Pavel Avetisyan, represented by several books and more than a hundred articles, can conditionally be divided into two main categories. The first category is comprised of published field and laboratory reports covering the vast number of ancient cemeteries and settlements he excavated during the last 30 years. Pavel's field projects were focused on the study of Bronze and Iron Age sites of Armenia (*c.* 3500-500 BC) and represent the main sphere of his scientific interests. The first excavations directed by Pavel were carried out in 1980s at the Mastara and Talin necropoleis located on the slopes of mount Aragats. In fact, these excavations formed an integral part of his scientific worldview. Another important stage was the excavations of Agarak, a Bronze and Iron Age multilayer settlement which was excavated under Pavel's directorship in 2000s. The excavations of this rock-cut settlement and sanctuary significantly contributed the field of landscape archaeology in Armenia. Pavel's contribution is essential to the works of the Armenian-American project 'ArAGATS', which began in the early 2000s. For the first time in the history of Armenian archaeology 'ArAGATS' realized regular intensive and extensive research projects, including the excavations of several important settlements and surrounding burial mounds in the Tsaghkahovit plain in northern Armenia. Among the numerous projects directed by Pavel, the excavations carried out at the Early Bronze Age high altitude settlement Tsaghkasar and the expansive excavations in the Middle and Late Bronze Age cemetery of Karashamb are of particular importance. These endeavours provide a fundamental basis for understanding the socio-political developments during the Bronze Age in Armenia.

Pavel Avetisyan's contribution to the study of Neolithic and Chalcolithic period sites (*c.* 6000-3500 BC), such as the agro-pastoral settlement of Aratashen in the Ararat Plain, has also been significant. Since 2004, Pavel has co-directed the Armenian-French joint expedition at Godedzor, a semi-permanent settlement located in southern Armenia. Research at Godedzor has revealed phases dated to the transition from the end of the Chalcolithic and the beginning of the Early Bronze Ages and has provided additional evidence on the question of the local origin of the Kura-Araxes cultural phenomenon. At the same time, it has clearly demonstrated the relations and connections that existed during the end of the Chalcolithic phase between Armenia, the Iranian Plateau, and other regions of the Near East. Research conducted at these settlements has greatly advanced our understanding of the establishment and development of early agricultural societies in the Armenian Highland.

The above-mentioned projects, particularly ones focused on the Bronze and Iron Age sites, formed the bases of Pavel's theoretical framework. Problems concerning the chronology and periodization of Armenian archaeological cultures is especially worthy of a mention. Until the end of 1980s the Armenian archaeological periodization was guided by the famous work of Harutyun Martirosyan based on the Bronze and Iron Ages of Armenia and published in 1964. It was only in the 1990s that Armenian archaeologists, among them Pavel, began to re-examine both the available data and enrich the existing record with new researches bringing the investigation of periodization into a higher theoretical level. The results of this work were summarized in his Ph.D. and Habilitation theses entitled 'Chronology and Periodization of the Middle Bronze Age of Armenia' and 'The Armenian Highland during the 24-9th Centuries BC: The Dynamics of Socio-Cultural Transformations, according to the Archaeological Data'.

In contradiction to other scholars investigating the problems of chronology and periodization, Pavel formed his theories on the basis of a great number of radiocarbon data and by creating a corresponding theoretical and methodological background. For the first time, he introduced the problem under consideration in context of common developments of the corresponding periods, transformation of social environments and culture sequences, which naturally made his theories towards chronology and periodization more probable. Instead of basic evolutional

theory he argues for the use of modern sociological methods, which infer not only logical sequences of cultural developments but also their coexistence and crossings in various niveaus of time and space.

Pavel Avetisyan's research contributions to the fundamental archaeological problems of Ancient Armenia gradually shifted the accent to meta-archaeological levels. So, for clarifying the position of the Armenian Highland in context of the Ancient World and the Ancient Near East, in particular, Pavel recurs to the 'World-System' theory and its main concepts (such as borderland, marginal zone, and frontier).

His theoretical interests also touch problems concerning the formation and development of complex societies in the Armenian Highland, demonstrating the features typical to regional shifts within the common Near Eastern context.

Pavel has also investigated and written about various topics dealing with ceramic typology, burial rites, palaeo-demography, sacred landscape, and others.

Pavel's contributions are notable by the integration of present-day theoretical approaches, the application of scientific methodology, and the multidisciplinary nature of his research. And it is also in this regard that Pavel Avetisyan's research stands out by its scientific value and rises Armenian archaeology to an international level. Hundreds of references of his publications both in Armenian and international scientific circles are testament to the undeniable value of his academic contributions.

Pavel's archaeological activites coincided with the recreation of the Armenian statehood and along with this the radical change of direction of scientific relations and worldviews. In this sense, Pavel Avetisyan's name undoubtedly lies at the basis of new archaeological school of Armenia.

We would like to thank all participants of this volume, our colleagues and friends from all over the world, as this publication would not have been possible without their valuable contributions.

We express our sincere gratitude to David Davison from Archaeopress, who kindly met us in realising this publication.

Finally, we would also thank Kristine Martirosyan-Olshansky for her kind help during the process of edition of this book.

Yervand H. Grekyan

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Yerevan July 2021

‘Axe-Bull’:
An Iron-Age Iconic Anagram

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Abstract: Obscure bronze artifacts found in the Iron Age burials in Armenia, pendants and decorative pins, are interpreted as iconic anagrams of a plot which has parallels to the Mediterranean ritual-mythological story of the bull-headed master of the labyrinth slayed by his half-brother Theseus, whose name is related to the Hurrian god of Thunder Tessub with ‘axe’ in his name and iconography. Possible origins of these paired prestigious adornments are traced back to the Middle Bronze Age vessel decorations and petroglyphs and reliefs depicting horn animals.

Keywords: iconic anagram, ‘axe-bull’, labyrinth, prestigious adornments, oral narrative, memory transfer

In this article, I will discuss obscure artifacts found in the Iron-Age burials in different regions of Armenia, mostly from the site of Shirakavan.[1] Those are bronze pendants consisted of three, sometimes of two circular strips, which form concentric circles, having in its center a protrusion of ambiguous configuration (Figures 1, 2, 3A, 3C). The concentric circles resemble labyrinth, while the protrusion resembles both a stylized bull’s head and an axe. At first, I spotted an axe following the interpretation by the archaeologists who published these objects from Shirakavan.[2] Then Hamlet Petrosyan (personal communication) pointed me to a bull’s head resemblance of this protrusion. Combining these two interpretations, I propose to name it ‘axe-bull’. Hence the composition of the pendant could be called ‘The axe-bull in the labyrinth’.[3] The composition could refer to the theme of the Minotaur, the monstrous bull-headed prisoner of the Cretan labyrinth, who was killed by his half-brother Theseus evidently using axe as the weapon of the slaughter. In any case the labyrinth derives its name from the double axe labrys, a word of unclear etymology, while Theseus bears in his name, according to the credible reconstruction by Armen Petrosyan,[4] a root related to the Indo-European root *tek’s-, on the base of which the terms meaning ‘axe’ and actions involving the axe are derived, including the name of the Hurrian god Tessub and Urartian god Teiseba, the both depicted as axe-bearing gods of Thunder.

Figure 1. Pendant from a burial in Shirakavan, diameter 12 cm (after Torosyan *et al.* 2002: Table LXX/8).

Figure 2. Pendant from a burial in Shirakavan, diameter 9.2 cm (after Torosyan *et al.* 2002: Table LXXI/2).

[1] Avetisyan *et al.* 2018: 30-31.
[2] Torosyan *et al.* 2002: 106.
[3] This was the title of my earlier short publication in Armenian (Abrahamian 2004). By not accepting this interpretation in general (Avetisyan *et al.* 2018: 41), the authors present it incorrectly: it turns out that I follow D. Vardumyan’s assumption that the composition of the pendant is a labyrinth, while I just thank him on another occasion, for drawing my attention to the word *bavigh* (‘labyrinth’ in Armenian); it is not clear why I suggest seeing in the center of the composition ‘a stylized depiction of a man yoking a horned animal’, while no word is said about it; finally, the main ‘axe-bull’, the Minotaur-Theseus hypothesis is not even mentioned.
[4] Petrosyan 2002: 251-253; 2012: 147-151.

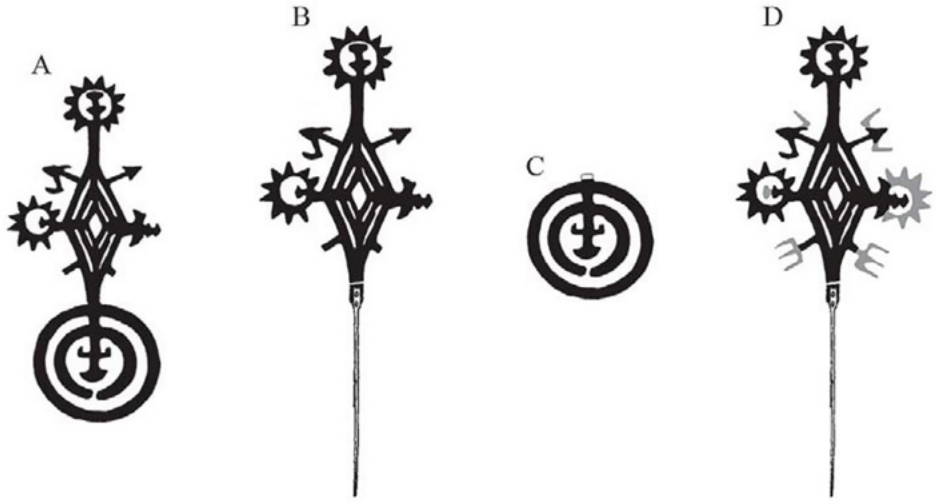

Figure 3. The artifact from Nor Bayazet (height 22.5 cm) reconstructed by P. Avetisyan *et al.* (2018: 46–49). A) The model in its entirety; B) the upper part of the model as an incomplete pin; C) the lower part of the model as an incomplete pendant; D) final reconstruction of the pin (after Avetisyan *et al.* 2018: Figure 9).

Thus Theseus who bears 'axe' in his name, realizes his main heroic action, kills Minotaur in the labyrinth related to the double axe labrys. One may suppose that the composition of the pendant presents an anagrammatic image of the mentioned plot. Anagrams refer to words, composed by letters' rearrangement, so that the original word which is hidden in this way in the text would be heard indirectly. This principle was especially used in sacred texts which had to hide a secret or a tabuated name.[5] For example, the name of the Vedic goddess of speech Vāc is not present but is heard anagrammatically in Rigveda's mandala X.125 dedicated to this goddess.[6] The old Indian, especially Vedic poetic tradition in general preserves many features of the Indo-European mythopoetic tradition, including the anagrammatic principle of constructing sacred texts.[7] It is noteworthy that the Armenian *Song of Vahagn*, which is considered to present one of the most ancient Indo-European poetic texts,[8] seems to be constructed with anagrammatic principle as well.[9]

I suppose that in a similar way the artifacts under discussion present visual or iconic anagrams, composed by images hinting the original meaning of the anagrammatic image.[10] Thus we have a protrusion repeating the form of small axes known from archaeological finds of the same period (Figure 4) and at the same time shaping the head of a bull, while the

Figure 4. Small axe from a burial in Shirakavan, height 18.8 cm (after Torosyan *et al.* 2002: Table LX/14).

name of the bull-slayer has a hidden (etymological) axe-related meaning, which is deciphered by modern researchers, who add one more level in the anagrammatic interpretation of the original composition.

The expression of the anagrammatic image is conditioned by the pictorial context. Thus, 'axe-bull' protrusions decorating from outside the rhomb-shaped pins (another reminiscent of a labyrinth) (Figure 5), possibly, accentuating the 'axe' meaning, may reflect the victorious end of the narrative, when the bull-slayer gets out of the labyrinth and is 'glorified', placed inside 'radiant nimbuses' (Figures 3A, 3B, 3D). Rhomb-shaped decorative pins are found in the burials of the same time, in some places together with the pendants.[11]

[5] On the theory and analysis of anagrams see Ivanov 1998 (with the history and literature of the question) and Toporov 2004.
[6] Toporov 1966; Yelizarenkova and Toporov 1979: 63-67.
[7] Yelizarenkova and Toporov 1979.
[8] Ivanov 1969.
[9] Petrosyan 2019.
[10] I am grateful to Vardan Hayrapetyan and Sergey Sokolovskiy for the useful discussion of this phenomenon.
[11] Avetisyan *et al.* 2018: 30.

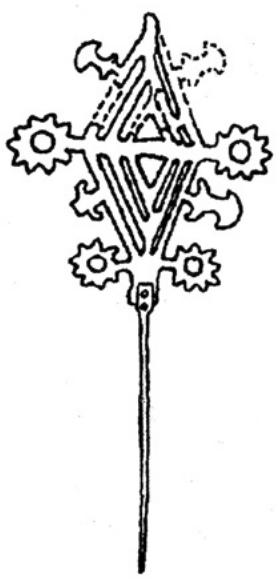

Figure 5. Decorative pin from a burial in Shirakavan, height 36 cm (after Torosyan *et al.* 2002: Table LXXV/17).

This last artifact (Figure 3A) acquired by Yervand Lalayan from Nor Bayazet (Gavar) in 1906, as it turned out recently, gained its unique two-part composition (which became the subject of many arbitrary astronomical interpretations[12] later in the museum, when the two pieces of Lalayan's acquiring (a pendant and a broken decorative pin) were joined together.[13]

Thus, this newly created mysterious object returns to its original, more understandable, but no less mysterious form (Figures 3C, 3D).[14] If we consider that both components of this 'deconstructed' artifact, like many other pendants and decorative pins, are involved in the same 'labyrinthine' mythological field, then the pendant component reflects the plot in general, while the pin component 'glorifies' the victorious bull-slaying hero.

The proposed interpretation is purely semasiological, we cannot make a definite conclusion about the perception of these two adornments by their wearers. The fact that both adornments were sent to the other world with the dead, who according to the available data were high-class equestrians,[15] can only testify the fact that these adornments were of considerable importance, regardless of the meaning seen in them by their wearers and by those who did the burial. The adornments do not have to be prestigious because of

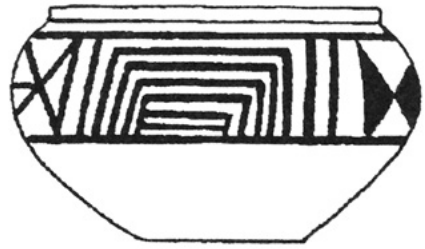

Figure 6. Vessel from a Middle Bronze Age burial in Shirakavan, height 14.4 cm (after Torosyan *et al.* 2002: Table X/8).

their original meaning. There are many examples when the signs with symbolic meaning used to be perceived as pure adornments (for example, some bas-reliefs of medieval Armenian monasteries). There are also many examples when signs with semantic content are used centuries, even millennia later, in a different form but with the same semantic structure. Such is, for example, the three-parted mirror-symmetrical birth-giving scheme, the versions of which are found both on the Kura-Araxes vessels of the 4th millennium BC and in the composition of medieval khachkars.[16] However, the last example refers to the universal archetypal schemes, while the labyrinthine anagrammatic image of the Iron-Age adornments refers to a concrete narrative, though also with a birth-giving, or rather, regenerating plot.

It is noteworthy that in the older images (on the vessels of the first half of the 2nd millennium BC) (Figures 6 and 7) there are often compositions that can be considered a stylized expression of the double-bitted axe (labrys) iconography of the labyrinth,[17] the rhomb-shaped section located between two 'labryes' being comparable to the observed 'labyrinthine' decorative pins. The vessels with such schematic compositions were widely spread in the Middle Bronze Age in the same area, but were further greatly reduced.[18] R. Torosyan, O. Khnkikyan and L. Petrosyan[19] relate these vessels to some ethnic group that appeared in the area after the period, when the life in the early Bronze Age was interrupted for a while. We may suppose that this new pottery tradition with 'labyrinthine' theme was brought by a people with an appropriate narrative about the double-axe bearing hero/deity.

If we proceed from our juxtapositions, we can say that in the first half of the 2nd millennium BC there was an important plot in the territory of present-day

[12] Avetisyan *et al.* 2018: 39-41.
[13] Avetisyan *et al.* 2018: 46-49.
[14] It is not clear why, proving convincingly the artificial (if not forgery) nature of the New Bayazet (Gavar) model (Avetisyan *et al.* 2018: 46-49), the authors nevertheless offer a new astronomical version of the two-parted model disguised by themselves (Avetisyan *et al.* 2018: 44-45).
[15] Avetisyan *et al.* 2018: 50-51.
[16] Demirkhanyan 1982; Demirkhanyan and Abrahamian 1995.
[17] Cf. Khachatryan 1975: Figures 53-54, 57, 61-62. It was Pavel Avetisyan who drew my attention to this circumstance in 2004 during one of my first reports on the topic of labyrinths.
[18] Avetisyan *et al.* 2018: 42.
[19] Torosyan *et al.* 2002: 137.

Figure 7. Vessel from a Middle Bronze Age burial in Harich, height 24 cm (after Khachatryan 1975: Figure 60).

Armenia related to the axe-labrys and the labyrinth, which in ancient Greece had a detailed parallel ritual-mythological narrative about the monstrous Minotaur living in the Cnossos labyrinth in Crete and finding his death from his half-brother Theseus, whose name, weapon of the slaughter and place, where slaying takes place, were probably related to the Hurrian axe-bearing and also fratricidal Thunder god Tessub of Asia Minor.[20] It is difficult to say what was the connection in content and chronology (if there was any) of the local plot anagrammatically depicted on the archeological finds and the well-known Mediterranean plot. We can only assert that centuries later, in the Iron Age, it suddenly appears in the form of the 'axe-bull' anagrammatic images in the same area, in the country of Etiuni, shortly before the conquest of that country by the Urartians.[21] It is noteworthy that at that time the Urartians replaced the axe-bearing Hurrian god Tessub by Teiseba, also an axe-bearing god, who had probably already 'forgotten' the deeds of his early past, the echo of which was depicted in the ornaments of the conquered people.

Could the labyrinthine pins of the Iron Age be the direct descendants of the rhomb-shaped images of the first half of the 2nd millennium BC? There are no data to assert such transition. The search among the petroglyphs for images resembling figures on the decorative pins, such as astral bodies and praying men[22] seem to be out of the labyrinth context I am discussing here. While petroglyphs and vishap stelae reliefs, proposed as the origin of the pendants' composition by Armen Petrosyan[23] and P. Avetisyan, R. Dan, A. Petrosyan,[24] could serve as iconic models for shaping the image (petroglyphs) and forming its sacrificial meaning (vishap stelae reliefs).

Another riddle is the appearance of the paired (pendant and pin) elite adornment in Etiuni shortly before the Urartian conquest. It could reflect appearance of some elite equestrians in this country from Western areas, where, I hope, in the future some copies or versions of these adornments will be found. However, this move has no other evidences yet. Another possibility is supposed by Armen Petrosyan (personal communication): these adornments could be the sign of the warriors who have passed initiation rites.[25] For this version, the sign would have exclusively local origin[26] with vaguely imagined meaning reflecting the Middle Bronze Age symbolism, a combination of ancient images used by the 'designer' who was commissioned to create this sign marking the initiation passage. I propose that the sign could also reflect anagrammatically the labyrinthine narrative as well, which, probably, was circulating only orally at that time.

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[20] Petrosyan 2002: 251-253; 2012: 147-151.

[21] P. Avetisyan, R. Dan and A. Petrosyan (2018: 50) recently suggested the precise date for these finds to be from the 9th/8th to the 7th/6th centuries BC, while R. Torosyan, O. Khnkikyan and L. Petrosyan (2002: 90-115) date them since the 11th century BC.

[22] Avetisyan *et al.* 2018: 51.

[23] Petrosyan 2015: 23-29.

[24] Avetisyan *et al.* 2018: 50-51.

[25] On the initiatory aspects of the Cretan labyrinth see Vidal-Naquet 1986: 112, of the labyrinth in general – Abrahamian 1995.

[26] See Armen Petrosyan in this volume.

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Armenian Standing Stones as an Object of Archaeological Study*

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Abstract: This study is dedicated to the problem of definition of standing stones and their types in Armenia. In the academic literature, these stones are considered as burial monuments (erected in memory of famous persons or events), boundary stones or road guides, altars, places of judgment or purification. The article focuses on criteria for the definition and typology of Armenian standing stones, according to their formal and contextual features. The emergence of the perception of 'standing stones' can be attributed to the early agricultural societies, although their clear existence is visible between the Bronze and Iron Ages. These monuments still play an important role in the world outlook of local communities.

Keywords: Armenian Highland, Bronze and Iron Ages, standing stone, menhir, obelisk, stela, transitional form

Introduction

In recent years, in the pages of academic literature, much attention has been paid to the research of megalithic monuments, particularly menhirs and menhir-type monuments, so-called *standing stones*. Moreover, the issue often goes beyond the academic sphere and becomes a subject of wider scientific and social discussions, dealing with interdisciplinary issues, even in the sphere of identity (for example, the Stonehenge in England and Zorats Karer in Armenia). In this sense, the study of standing stones and the clarification of their significance is anessential issue in Armenian archaeology.

Stones and stone stelae have been worshiped in Armenia since the earliest times. The connection between the cults of stone and ancestors is mentioned by Agatangeghos in the 5th century AD.[1] In mythology, fairy tales, and epics, a number of mentioned monuments can be identified with menhirs and their complexes (stone or column at the crossroads, a stone under which the master is buried,[2] a stone on top of which a light emanates).[3] There are also references that can be identified with natural or man-made standing stones, which are regarded as petrified giants (Getashen), with underground roots (Samshvilde),[4] and tombs of saints (Great Abul).[5] The alignments of menhirs (Zorats Karer, Nemrut, Kanaker) were analogued with petrified armies[6] or herds of cattle (Minor Masis, Vaspurakan).[7] Examining the Armenian myth about the petrified Queen Shamiram, Gh. Alishan considers it as a reference to a menhir.[8]

The scientific documentation of standing stones dates back to the 19th century. In particular the menhirs of Harzhis were known. It is mentioned that monuments of this type form a system that branches through almost the whole territory of Vayots Dzor (Khachik, Amaghu, Keshishkend (Yeghegnadzor), Karmir Vank (Areni).[9] The study of the megalithic complexes of Zorats Karer begins in the 19th century and continues into the 1920s by S. Lisitsyan,[10] in 1970-1980 by O. Xnkikyan, and in the 2000s by A. Piliposyan. Rows of menhirs, cromlechs, their combinations are also found in Gegharkunik (Kuri Kharaba, Mrtbi Dzor),[11] Vayots Dzor (Sultan Kelesi).[12] Standing stones are also documented in the context of tombs. Several of them were documented by Ressler among the tombs of Gandzak region.[13]

A. Kalantar had the greatest contribution in this field. In 1923-1924 he investigated megalithic monuments in Syunik, Aragatsotn, Shirak and Lori and proposed a typology scheme for these monuments.[14]

In 1920-1930s T. Toramanyan mentions the menhirs located in the village of Shamiram, Aragatsotn region, and describes their structure.[15] Here in 1969 a tomb was excavated by R. Torosyan, with a menhir placed on it.[16] Since 1970s the systematic excavations of Shamiram under the direction of G. Areshian revealed new menhirs, which allowed to clarify the archaeological context of the previously known ones.[17]

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[1] Agatangeghos 1909: 172.
[2] Gulakyan 1983: 82, 156, 304-305.
[3] Gulakyan 1983: 156.
[4] Djeyranov 1898: 64.
[5] Rostomov 1898: 25-26.
[6] Haxthausen 1857: 215-217; Lalayean 1898: 174-175; Srvandztyants 1874: 47-48.
[7] Tsotsikean 1917: 413-414.
[8] Alishan 1910: 45.
[9] Bayern 1871: 308-309.
[10] Lisitsyan 1938: 709-721.
[11] Ivanovski 1911: 20; Lalayean 1908: 63.
[12] Lalayean 1904: 246.
[13] Ressler 1904: 44-46, 59.
[14] Kalantar 1926: 210-211, 221-222.
[15] Toramanyan 1942: 8.
[16] Materials are not published and are kept in the Historical-Ethnographical Museum of Etchmiadzin, Inventory no. 2766-2771/40.
[17] Areshian 1978: 503-504.

One of the earliest megalithic monuments was discovered in 1950-1960s during the excavations of the Early Bronze Age settlement of Shengavit, from the rectangular dwellign no. 1. It is a cylinder stone monument with a height of 230 cm.[18] Sometime later, at the beginning of the 3rd millenium BC the Mokhrablur temple was built, on the top of which a menhir-type basalt monument stood.[19]

The question of the origin and cradle of the megalithic monuments still raises many hypotheses. From the 17th century onwards, it was common to attribute megalithic monuments, in general, and menhirs to the Classical period,[20] ascribing them a local origin (O. Magnus, O. Worm, T. Corret).[21] Since the discovery of megalithic structures in other regions since the 19th century, two main theories have been formed on their origin and distribution: multi-centered and single-centered.[22]

The views on the possible functions of menhirs, with all their diversity, can be divided into several groups: a) menhirs as burial monuments,[23] b) erected in memory of a famous person or event,[24] c) boundary stones or road guides,[25] d) altars,[26] and e) places of judgment or purification.[27]

Definition Criteria of Armenian Standing Stones

According to elaboration

According to the stone processing technique, standing stones can be classified into three groups:[28] 1) Stone processing, which was achieved by removing individual fragments of appropriate size and shape from the natural outcrops without any further modificaiton of the stone (e.g. Lusakn 2, Dzoraglukh, Shamiram 13, Figure 1); 2) Partially modification (it is documented in most standing stones), where in the surface of the stone was roughly processed to have a smoother appearance (Figure 2); c) Extensive modification, which is identified in Harzhis 21 and Gomk. While the Harzhis example is in a displaced state and its archaeological context cannot be reconstructed, the Gomk example is still in its original location, placed on top of a damaged barrow (Figure 3). There is a certain resemblance to the stone fragments unearthed in one of the tombs excavated nearby Golovino, which probably belonged to the cromlech of the tomb.[29] Among the standing stones, a group can be distinguished, in which the first and second versions of elaboration are combined. More often, they are slightly elaborated laterally (e.g.

Figure 1. Shamiram 13, preliminary elaboration of standing stone.

Figure 2. Bazmaghbyur, rough elaboration of standing stone.

[18] Sardaryan 2004: 295.
[19] Areshian 2005: 83-84.
[20] Jones 1655: 5, 40-47, 65-66.
[21] D'Auvergne-Corret 1797: 24; Magnus 1558: 22; Worm 1643: 4-5.
[22] Bayern 1871: 314; De Morgan 1925: 239; Uvarova 1900: 197-198.
[23] Lebeuf 2012: 41; Magnus 1658: 13; Worm 1643: 4.
[24] Ferguson 1877: 52; Lisitsyan and Bayburdyan 1928: 20-21; Magnus 1658: 11.
[25] Rowe 1830: 190.
[26] Lebeuf 2012: 41; Lisitsyan and Bayburdyan 1928: 20.
[27] Lebeuf 2012: 41.
[28] The stages of stone processing are presented according to Berlin *et al.* 1979: 40.
[29] Tumyan 1937: Figure 30.

Figure 3. Gomk, fine elaboration of standing stone.

Figure 5. Harzhis 21, preliminary elaboration of the backside of the standing stone.

Figure 4. Shamiram 1, preliminary elaboration of the side part of the standing stone.

Shamiram 1, Garnarich 1, Harzhis 8 and 25, see Figure 4) or transversely (e.g. Bandivan, Attash 3, Harzhis 21, see Figure 5) which may indicate that the object was intended primarily for viewing from one side only.[30]

According to architectural traits

Considering the standing stones as small architectural objects, it is necessary to mention a number of features, which refer to both the general structure and the structure of the body and the top. The largest group of standing stones has straight proportions (Figure 6). In some cases, the standing stones may be sloping (Agarak, Nerkin Sasnashen; Figure 7)[31] or bent (e.g. Ambari Gyol, Harzhis 14, Rind 1; Figure 8). It should be noted that this feature is often found on vishapoids.[32]

The next component of the standing stones is the structure of the body. In the case of pre-elaboration, the body is mostly shapeless, while the more elaborate monuments have a shape of parallelepiped. Slab-shaped stones can be distinguished in this type of monuments (Harzhis 14 and 16, Krapashti Tner 2;[33] Figure 9). The next group consists of pyramidal (e.g. Shamiram 8, Navur 2; Figure 10) or trapezoidal stones (Nerkin Sasnashen;[34] Figure 11). The smallest group consists of stones with a cylinder or rounded body (Bazmaghbyur,

[30] V. Stukeley notes that the frontal parts of the stone are better elaborated at Stonehenge (Stukeley 1740: 15).
[31] Cf. in Denmark (Worm 1643: 62).
[32] Bobokhyan *et al.* 2015: 299. For curved or inverted proportions of vishap stones, see Tumanyan 2015: 101.
[33] Cf. Alto Alentejo, Portugal (Pope and Miranda 1999: 112), Kechili, Trache (Özbek 2006: 87).
[34] Cf. Pyramidal megaliths at Devil's Arrows, England (Aubery w.d ..). The body is slighly narrowing on some of menhirs of Stonehenge (Jones 1655: 60), but V. Stukeley notes that the slight narrowing to the top is not enough to qualify the form as a pyramidal (Stukeley 1740: 23).

Figure 6. Lernakert 3, straight standing stone.

Figure 7. Agarak, standing stone with a sloping body.

Figure 8. Ambari gyol, standing stone with an inverted body.

Figure 9. Harzhis 16, slab-shaped standing stone.

Figure 10. Navur 2, standing stone with a pyramidal body.

Figure 11. Nerkin Sasnashen, standing stone with a trapezoidal body.

Figure 12. Metsadzor, cylinder standing stone.

Metsadzor, Khnus, Shamiram 2; Figure 12).[35] The round elaboration of body is typical of some vishap stones.[36]

One of the most striking details of the architectural composition of standing stones is the structure of the upper part. In case of a variety of body designs, the elaboration of the top can often be a distinguishing feature. In general, the upper part can be straight (e.g. Khnus, Ghukasavan 2, Shamiram 7, 9-11, Ujan 1, Balak 4; Figure 13), sloping (e.g. Ghukasavan 1, Dzoraglukh 1 Shamiram 3, 6, 8, 12, 14; Figure 14), humped (e.g. Ghukasavan 3, Agarak, Aparan, Shamiram 4 Garni 3/2, Harzhis, 13; Figure 15), beak-shaped (Harzhis 17, 20, 24; Figure 16), curved (Yeghegnavan, Bazmaghbyur, Dashtadem 2, Dzoragyugh, Bnunis 1; Figure 17),[37] pentagonal (Bandivan; Figure 18), or triangular (Shamiram 2, Harzhis 10; Figure 19).[38]

By standing stones, in some cases, the lower part is narrowing or triangular (Agarak, Pemzashen, Ishkhanasar, Harzhis 13, 23, 24, Aylakh 1; Figure 20). Rare are those with pedestal or widening lower part, which are documented in Harichavank 3, Harzhis 5, 6 and Gomk (Figure 21).[39]

[35] Similar columns are known from Denmark (Worm 1643: 64). It is possible that the columns found in Psekup (Western Caucasus) represent the same type of monuments (Kamenev 1867).
[36] Bobokhyan *et al.* 2015: 299.
[37] Menhirs with curved tops are documented in Scandinavia (Magnus 1558: 24). The upright or rounded upper part is typical of the Urartian *pulusi* type stelae (Avetisyan 2016: 112-113).
[38] The group of standing stones with a hexagonal top is similar to the statues with hexagonal heads separated by H. Martirosyan (Martirosyan 1961: 82-84). Cf. Teishebaini, Lernapat, Tsaghkalanj (Martirosyan 1961: 83; Yesayan 1980: Table 41/1, 3-4), Argishtikhinili (Martirosyan 1974: 162). It should be noted that such a top is typical to the monuments of the 1st millennium BC. Hexagonal heads have also the anthropomorphic standing stones (Kornidzor, Lake Al). Perhaps this feature can be considered a sign of anthropomorphization of the standing stone.
[39] Square and cylindrical pedestals are attested in a number of phallic and human shaped monuments (Lchashen, Karmir Blur, Dvin, Oshakan, Gunesh-Tepe), cf. Yesayan 1980: Table 53/6, 54/1-3, 6, 55/4, 8; Gnuni 2004: 124, on the phallic pipe-bowl found from the 'worshiped ox' tomb cf. Lalayean 1931: 151.

Figure 13. Ghukasavan 2, standing stone with a straight top.

Figure 16. Harzhis 17, standing stone with abeak-shaped top.

Figure 14. Dzoraglukh 1, standing stone with a sloping top.

Figure 17. Dzoraglukh, standing stone with a curved top.

Figure 15. Ghukasavan 3, humped standing stone.

According to sculptural peculiarities

Holed stones are the most common (Yeghegnavan, Ghukasavan 1, 3, Agarak, Aparan, Artik 1, Artavan, Selim 2, Harzhis 7-9, 12, 15, 17, 24; Figure 22). The holes are usually made on in the top of the standing stone. An exception is Harzhis 15 (Figure 22) as well as the menhirs of Krapashti Tner 1, where the hole is located in the central part of the stone. The holes are mostly horizontal, rarely handle-shaped (Ghukasavan 2).[40]

The next sculptural element are the cupmarks and deep holes which are more rare on menhirs. Cupmarks and deep holes are present in the frontal part of Shamiram 1, Harzhis 10,[41] Metsadzor, Ghukasavan 2 menhirs (Figure 12). A cupmark is present in the central part of Shamiram 10 menhir (Figure 23). It is noteworthy that the hole on the Soylan's menhir (which is turned into a khachkar/crosstone) is located at the top, which was probably intended for certain pourings, while in Tsitsernavank and Harzhis 23 menhirs, the hole was on the floor, probably to strengthen the standing stone (Figure 24).[42]

[40] Similar holes are documented in Bratsigovo, Bulgaria (Mishev 2016: 316-322); in Cornwall (Bottrell 1873: 31-32), in Stonehenge (Stukeley 1740: 61).
[41] Avetisyan *et al.* 2019: 595.
[42] Similar cupmarks are also attested in European monuments (Auden 1907: 7; Holmes 1907: 205-207; Škorpil 1905: 380, 383; Stukeley 1740: 63; Wilson 1888: 588).

Figure 18. Bandivan, standing stone with a pentagonal top.

Figure 19. Harzhis 10, standing stone with triangular head.

The sculptures of standing stones can be divided into three groups, according to the technique of their preparation: engraved sculpture (in Ghurt Tapa with bent lines, ingraved rectangles; Figure 25), bas relief concentric circles (Harzhis 5, 23, 24; Figure 24), haut relief grooves (Lernarot; Figure 26), snake-shaped (Khnatsakh 1)[43] or anthropomoprhic images (Harzhis 27).[44]

[43] Avetisyan *et al.* 2015: 200.
[44] Similar objects have been attested in Scandinavia and Spain (Gobo *et al.* 1995: 59; Magnus 1558: 23; Magnus 1658: 12-13).

Figure 20. Harzhis 13, standing stone with trianglular lower part.

Figure 21. Harzhis 5, standing stone with a pedestal.

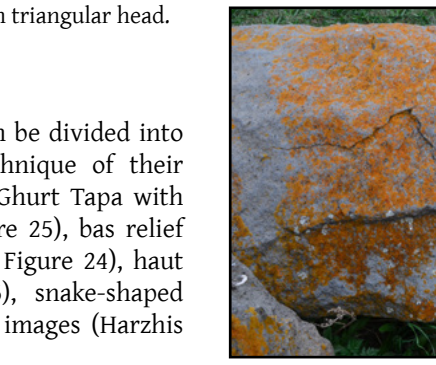

Figure 22. Harzhis 15, standing stone with a hole in the central part.

Figure 23. Shamiram 10, standing stone with a cupmark in the central part.

Figure 24. Harzhis 23, standing stone with a hole curved in the lower part.

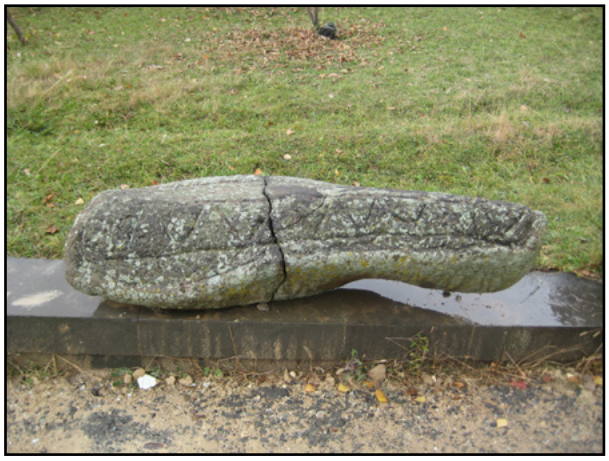

Figure 25. Ghurt tapa, standing stone with an engraved sculpture.

Figure 26. Lernarot 2, grooved standing stone.

At the same time, in some cases, the standing stone gets anthropomoprhic (Al Lake[45]) or phallic (Krapashti Tner 1, Geghashen) countours (Figure 27). Anthropomorphic standing stones are also known (Kornidzor, Khoznavar).[46]

According to spatial principles and archaeological context

The standing stones could be placed in isolation, in rows, in a stone circle (cromlech), in parallel rows (alley) and grid rows,[47] they can appear also in groups (menhir forests). Determining the location of the

[45] Avetisyan *et al.* 2015: 66.
[46] Mkrtchyan 2015: 135.
[47] Aubery 1862: 320; Bayens 1905: 8-10; Ferguson 1877: 51.

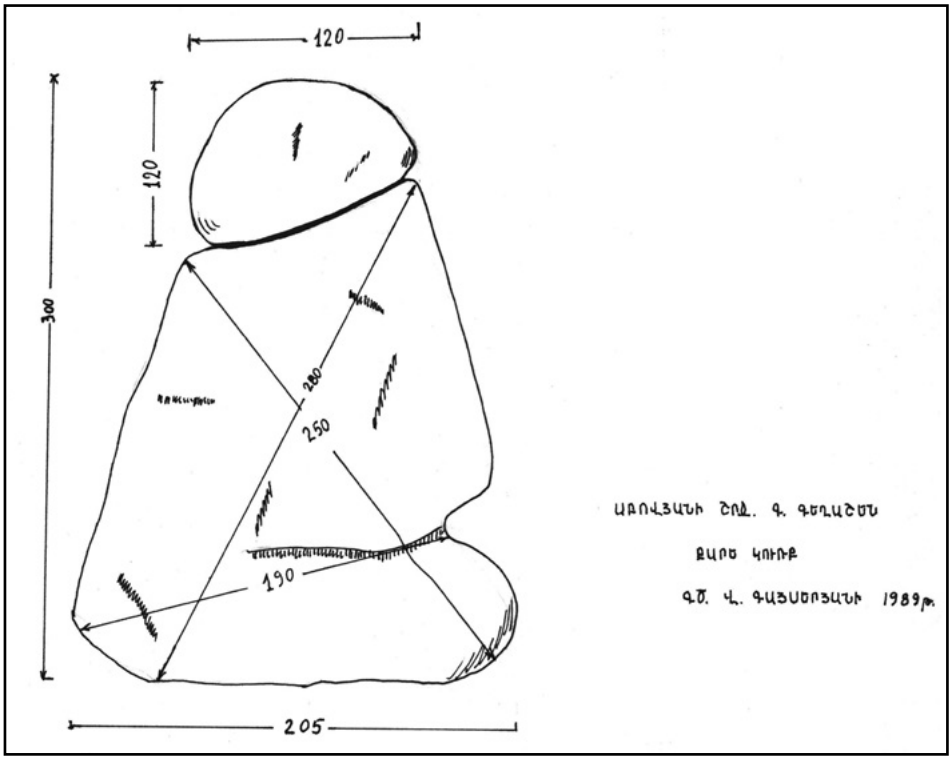

Figure 27. Geghashen, standing stone with a phallic head (Drawing: V. Gayseryan).

isolated ones is quite difficult, as it can not be excluded that the monuments for some reason were moved in later periods. They are archaeologically documented in Mokhrablur and Shengavit, located in places of worship[48] or erected isolated on ritual platforms. To this group should be added the idol placed on top of the tower of Ardar David.[49]

The next method of placing standing stones is the forest of menhirs, which also occur in cemeteries (Shamiram, Harzhis).

Alignments of standing stones are attested both inside of the necropolis (Aygeshat, Norakert (megalithic towers are built here), Zorats Karer, Krapashti Tner[50]), outside of them (Khnatsakh 3[51]) and in the context of cyclopean fortresses.[52] In some cases, the alignment was subject to some logic. Thus, the tallest phallic menhir at the complex of Krapashti Tner (currently knocked down) was placed in the center of the row.[53]

Menhir alleys[54] (parallel alignments) are documented in Ashotsk, Hartashen (in context of a necropolis; Figure 28),[55] Novoseltsovo.[56] The Berdik complex is worth mentioning, where the alignment of standing stones rise on separate tombs. In the central part of the necropolis there was a monumental structure with a cyclopean arrangement.[57] Although surface material typical of the Late Bronze and Early Iron Ages has been found here, the contemporaneity of the stone alignments and tombs is questionable. In this regard, the so-called 'ritual barrow' no. 36 in Khanlar deserves a special attention. There were rows of boulders and stone circles on the top of the hill. According to Y. Gumel, there was also a large Bronze Age structure nearby.[58]

The next method of placing standing stones is the closed one (cromlech).[59] Cromlechs often surround tombs (Khnatsakh 5, Zorats Karer, Golovino), but are attested also on ritual platforms (Aylakh). The

[48] Areshian 2005: 83-84; Sardaryan 2004: 295.
[49] Investigations by L. Mkrtchyan.
[50] Avetisyan *et al.* 2015: 216; Gnuni *et al.* 2017: 31; Torosyan 1971; Piliposyan and Avagyan 2016: 15.
[51] Avetisyan *et al.* 2015: 216.
[52] Hmayakyan *et al.* 2010: 29.
[53] Cf. Beneteau-Douilard 2006: 570.
[54] Menhirs placed in this way are called by J. Aubery procession roads (Aubery 1862: 320). This hypothesis is confirmed by the example of Aruch 2, where a range of standing stones led to tomb N 5 (Areshian and Tumanyan 1991: 24-25).
[55] Hmayakyan *et al.* 2010: 28-33.
[56] Investigations by G. Sargsyan.
[57] Avetisyan *et al.* 2015: 102.
[58] Hummel 1940: 75, 77, 103-105.
[59] This term has been clarifying since the 17th century. It is true that in this sense the term 'stone circle' was more applicable at that time. The word 'cromlech' was often used to describe the central altar of the circle (Borlase 1769: 193). Nowadays, the word 'cromlech' often refers to any stone rows around the tomb (see Bayburtyan and Lisitsyan 1928: 20).

Figure 28. Hartashen, alley of standing stones.

alignment approaching the total square of the area forms a grid (Lezk).[60]

As a separate type should be considered the combinations of chomlech and alignments (Kuri Kharaba).[61]

An Attempt of Typology of Armenian Standing Stones

The standing stones can be classified into the following groups, which being similar to each other, anyway form several groups and differ both in structure, chronology and archaeological context.

Menhirs

All standing stones are often presented as menhir,[62] with the main feature being the size of the stone (up to 3-4 m) and the elongated form.[63] In addition to these features, the fact that it is roughly processed or unprocessed is often mentioned.[64] Thus, being roughly elaborated is the main feature of menhirs. Almost all of the menhirs are straight, while the bodies are shapeless or in the form of a parallelepiped (Figure 29). The sculpting is limited to holes or cupmarks. The dating of the menhirs raises serious issues. The excavations of Shamiram menhir no. 1[65] and Aruch tomb no. 5[66] suggest that they were more widespread since the mid to the end of the 2nd millennium BC.

Figure 29. Harzhis 8, menhir.

Obelisks

The next large group of standing stones are obelisks.[67] The obelisk is usually defined as a square column that narrows upwards. However, the authors of this definition refer to the Egyptian monuments as an example.[68] In general, this group is distinguished by fine processing.[69] They are attested in Golovino,[70] Gomk and Harzhis (Figure 30). The Gomk example is neatly cut, almost square in horizontal section, the lower part is slightly widened in form of a pedestal. It is noteworthy that in the looted chamber there are fragments of pottery typical to the Early Iron Age. The Harzhis obelisk generally resembling the example of Gomk, bears a sculpture of a concentric circle surrounded by cupmarks.[71] This sculpture can specify the period of the existence of these monuments. This ornament is

[60] Hmayakyan *et al.* 2010: 30.
[61] Ivanovski 1911: 20. This type is attested in early works on megalithic monuments (Aubery, w.d. 20; Rowe 1830: 194; Tsonev 2010: 51).
[62] Brey and Tramp 1990: 155, 232.
[63] Barkhudaryan 1935: 33; Martinov and Sher 1989: 9; Matyushin 1996: 36.
[64] Lisitsyan and Bayburdyan 1928: 20.
[65] Materials are kep in Historical-Ethnographical Museum of Etchmiadzin, inventory no. 2766-2771.
[66] Areshian and Tumanyan 1991: 26.
[67] O. Magnus mentions separately the pillars (obelisk) (Magnus 1658: 11). J. Auberry places images of well-elaborated stone steale in the necropolis at the site of Devil's Arrows, along with rough stones (Auberry n.d. 38, Figure 2). Similar stelae (*yak* and *booz*) to be mentioned in the Bible (3 Kings, 7, 22-23). Although this type of monument is usually identified with menhirs, some researchers consider it a separate type (Cambry 1805: X; D 'Anna and Pinet 2002: 580; Rowlands 1766: 48; Scorpil 1905: 372-373).
[68] Brey and Tramp 1990: 179.
[69] Obelisks are mentioned in Northern Europe erected in memory of heroes, events or on tombs (Magnus 1658: 11-13).
[70] Tumyan 1937: Figure 30.
[71] Avetisyan *et al.* 2017: 5, Figure 5/15.

Figure 30. Harzhis 6, obelisk.

often found on pottery and metal objects of the 7th-5th centuries BC[72] and has parallels in Urartian and Iranian art.[73] The mentioned obelisks of Gomk and Harzhis are similar to those known from the period of the Kingdom of Van in a number of features (e.g., fine processing, pedestal).[74] Later, in the Sasanian period, cylinder columns were placed, e.g., on the altars of Bishapur.[75] These data suggest that such monuments are typical for the beginning of the 1st millennium BC. The other type of obelisks have a shape of an upward-sloping parallelepiped (Hovhanavan).

Stelae

In context of the standing stones appear sculptured monuments (e.g. Christianized ones in Lernarot, Khnatsakh 1, Tegh, Areni; Figure 31).[76] Characteristic features can be considered relatively wide proportions, and sometimes the cross section approaching a square. A further development of this type of stelae can be considered the sculptural stelae of later periods (Yervandashat,[77] Hoghmik[78]).

Other types

Among the mentioned monuments, examples from Mokhrablur and Shengavit have a special place.[79] In contrast to the observed monuments, these two are placed in dwellings and sanctuaries. Their architectural features are not as clear as in the case of other menhirs. In addition, there are primitive phallic elements on the top of the Shengavit one.[80]

Figure 31. Khnatsakh 1, stela.

[72] Cf. bronze earrings from Shvanidzor (Xnkikyan 2002: Plate XXXII/4-5), pottery from Shikahogh (Xnkikyan 2002: Plates LXXXIII/13, LXXXVI/28), from Keren (Gnuni 2014: 163-166).
[73] Gnuni 2014: 159.
[74] Avetisyan 2016: 112-114; Grekyan 2006: 178-179; Hmayakyan 1990: 69-70.
[75] Ghirshman 1954: Table 41.
[76] Monuments of this type are sometimes separated from the general context of megaliths and are attributed to the so-called paramegaliths (Tsonev 2010: 51).
[77] Ter-Martirosov 2015: 37.
[78] Akopyan 2003: 133. According to Z. Le Rouzic, similar monuments represent a transitional stage between the 'border stone' and menhir (Le Rouzic 1921: 13; 21; cf. Hakobyan and Gnuni 2007: 92-95).
[79] According to H. Avetisyan, during S. Sardaryan's expeditions, similar monuments have been documented also in other early agricultural settlements of the Ararat Valley.
[80] Areshian 2005: 83-84; Gnuni 2006: 245-246; Sardaryan 2004: 295.

Figure 32. Artavan 2, menhir-obelisk.

Transitional forms

There are standing stones that combine various types:

1. Menhir-obelisk

On a number of documented standing stones features typical of both menhirs and obelisks are present. The latter include relatively fine processing and/or a clear quadrilaterality in the section. Thus, the lateral and the front parts of the menhir at Artavan 2 are well worked and the corners are emphasized (Figure 32). Menhirs with square, sloping, and accentuated corners are attested in a number of places (menhir-khachkar at Dadivank monastery, Kaput Khach menhir-khachkar of Abovyan, menhir-khachkar inserted in the southern wall of Barevakhach chapel of Harzhis).[81] Some examples of this type are known in settlements and necropolises (e.g. Shahumyan).

2. Menhir-anthropomorphic sculpture

This type of statue is sometimes considered one of the stages of anthropomorphization of the monument, which can be expressed by giving the object stylized human outlines while using natural stones reminiscent of human outlines.[82] A similar example was found in the rocks surrounding the Lesser Al Lake (Lake 8).[83] Although the monument is very stylized, some features (e.g., pentagonal upper part[84]) suggest that it is an anthropomorphic one.[85] Schematic anthropomorphic monuments of the classical period from Hoghmik and Tsitsernakaberd can be included in the number of further examples of this type. [86]

3. *Obelisk-anthropomorphic sculpture*

The first monument (Harzhis 27), which was temporarily exibited in the History Museum of Armenia and has now been returned to its former place (near the House of Culture in Harzhis village), has a cylindrical body (dimensions: 225 × 37 × 35 cm). The human face is depicted on the upper part of the body, on a cylinder protrusion. The presence of a cylinder base to depict the face is not uncommon in Armenian monuments (Aygeshat, Erebuni, Karmir Blur).[87] The eyes and the mouth are engraved, the forehead and the nose are depicted in relief.[88] It resembles the stela from Aygeshat, which stands out with its elongated from (205 cm) and thickness (10 cm).[89] Thus, it can be concluded that the example under discussion marks the anthropomorphization of menhirs.

4. Menhir-phallic sculpture

The idols from Harichavank 3,[90] Geghashen,[91] and Krapashti Tner 1, can be attributed to this group, which stand out with an accentuated phallic head, as well as their roughly processing.

5. Vishapoid

There is a group of isolated standing stones, that have elements of the standing stones with images of bull and fish (known as vishap stones) and menhirs. The vishapoid differs from the vishap stone by relatively small size, shape, and, most importantly, by the absence of images (Yeghnajur 1; Figure 33).[92]

[81] Avetisyan *et al.* 2015: 65; Avetisyan *et al.* 2017: Figure 5/17.
[82] Beneteau-Dovilard 2002: 570.
[83] Avetisyan *et al.* 2015: 66.
[84] There is a pentagonal upper part also in the case of some menhirs, for example, on one example from Bandivan (Investigations by A. Bobokhyan).
[85] At the same time, a certain genetic connection is observed between the menhirs and anthropomorphic statues: schematic profile representation, anthropomorphization of the menhir's head (Beneteau-Douilard 2006: 570).
[86] Hakobyan 2010: 23.
[87] Yesayan 1980: 54-55, Tables 42/1, 43/3, 46/2.
[88] Avetisyan *et al.* 2015: 51, Figure 10.
[89] Investigations by: H. Avetisyan, A. Bobokhyan, A. Gnuni, L. Mkrtchyan. Some parallels are observed in Arhz-Zelenchuk and Arghun region, where anthropomorphic stelae have been discovered (Kuznetsov 1977: 28).
[90] Khachatryan 2003: 19-21.
[91] Investigations by V. Gayseryan.
[92] Cf. Bobokhyan *et al.* 2015: 298.

Figure 33. Yeghnajur, vishapoid.

Natural standing stones

Some natural objects, such as worshiped rocks, can be classified as standing stones.[93] Among the similar natural monuments in Armenia are the worshiped rocks in Zangezur, Western Armenia, and Artsakh.[94] On these rocks some natural and man-made details are present that bring them closer to the processed stones. Among these are holes (Tasik, Kyatuk, Badrkhan),[95] phallic sculptures and carvings (Karchvan),[96] and petroglyphs (Karahunj).[97] The next group of unelaborated standing stones is represented by rocks on tombs (placed on the top of the tomb or in the chamber, cf. Aghvani, Karahunj).[98]

Conclusions

Standing stone monuments have been the subject of special attention in Armenia since the earliest times. A number of monuments mentioned in Armenian mythology, fairy tales, and epics can even be identified with the menhirs and their complexes. Standing stones have long been the subject of research, however no generalization on the issue has been made yet. In this paper, for the first time, an attempt has been made to formulate the criteria for defining Armenian standing stones (according to the processing, architectural, sculptural, spatial, contextual features), as a result of which their preliminary typology was suggested. According to this, the standing stones of Armenia can be classified into the following groups: menhirs, obelisks, stelae, other types, transitional forms (menhir-obelisk, menhir-anthropomorphic sculpture, obelisk-anthropomorphic sculpture, menhir-phallic sculpture, and vishapoid), and natural standing stones (for their distribution cf. Figure 34). These units differ in both structure and archaeological context and period of creation. The origins of the perception of standing stones can be attributed to the early agricultural societies, although their clear documentation is visible during the Bronze and Iron Ages. Many of these ancient monuments, transformed in their form and content, have survived to our times.

[93] Cf. Shirakuni 1904: 183.
[94] Mirakhorean 1885: 34, 46, 119; Shirakuni 1904: 182-217; Lalayean 1897: 188-191; 1914: 26, 28-30. Cf. Mkrtchyan 2015: 132-133.
[95] Lalayean 1897: 190-191. Cf. Mkrtchyan 2015: 132.
[96] Lalayean 1897: 191. Cf. Mkrtchyan 2015: 132.
[97] Mkrtchyan 2015: 132.
[98] Mkrtchyan 2015: 132. The descriptive reference of Karahunj is composed by E. Ayvazyan.

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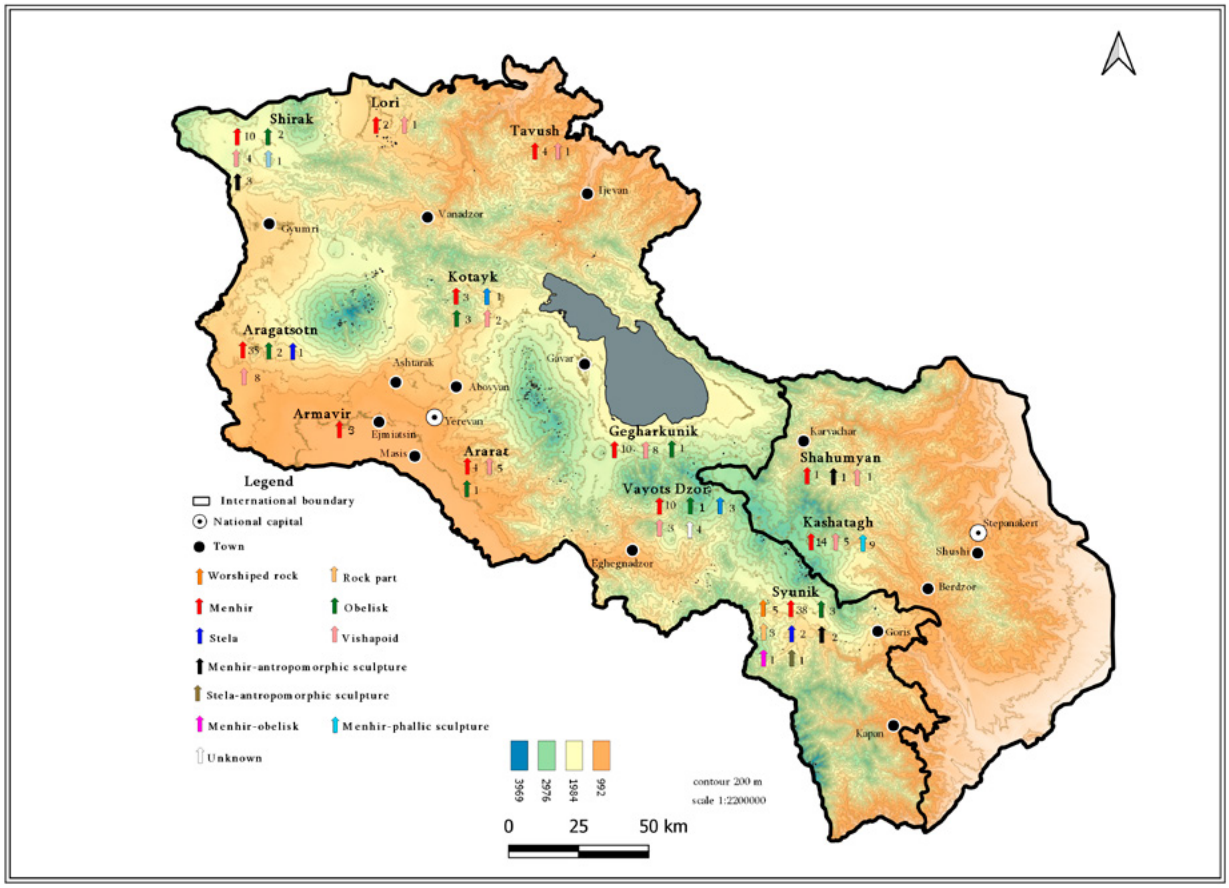

Figure 34. Distribution of standing stones of Armenia.

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Neolithization of Armenia: General Trends and Patterns of Development

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Abstract: The oldest archaeological culture in the South Caucasus based on a production economy, with the first documented examples of housebuilding, ceramic production, and metalworking, is the Neolithic 'Aratashen-Shulaveri-Shomutepe' (AShSh) culture (*c.* 6000 – 5400 BC). This Neolithic complex demonstrates an already fully developed agricultural and pastoral economy based on the breeding of cattle and caprines and the cultivation of cereals. The formation process of this producing economy and, in general, the genesis of this culture has not yet been investigated. It is clear that the formation and development of the AShSh complex took place in the conditions of active cultural and economic contacts with synchronous cultures in the west and south, which were sources and conductors of not only some exotic, obviously prestigious, items and materials, but, possibly, a number of technological and cultural innovations.

The article attempts to compare the main development trends and trace the general patterns of development of a number of Neolithic technologies in the Upper Tigris and Euphrates basins of the 8/7th millennium BC and the Ararat valley of the 6th millennium BC.

Keywords: Neolithization, Ararat valley, Aknashen, Aratashen-Shulaveri-Shomutepe culture, ceramic production, obsidian, Halaf/Samarra pottery

In the sequence of archaeological cultures in Armenia, the Neolithic 'Aratashen-Shulaveri-Shomu' (hereafter AShSh) culture has formed only relatively recently and taken its place on the periodization-chronological scale.[1] The significance of this complex, dating from 6000-5400 BC, is determined primarily by the fact that it represents the oldest culture known in the South Caucasus today, based on a production economy, with the first documented examples of housebuilding, ceramic production, and metalworking. This Neolithic complex demonstrates an already fully developed agricultural and pastoral economy based on the breeding of cattle and caprines and the cultivation of cereals (among which *Triticum aestivum* and *Hordeum vulgare* dominate).

The formation process of this producing economy and, in general, the genesis of this culture has not yet been investigated. The interval of one and a half thousand years (about 7500-6000 BC) between the AShSh culture and rare early Neolithic sites scattered over a vast territory (Kmlo-2/Apnagyugh-8, etc.) is not supported by real material. Only recently there has been a tendency toward its partial filling as a result of excavations of the site of the first half of the 7th millennium BC Lernagog at the northwestern tip of the Ararat valley/ southwestern foot of Aragats.[2] Clearly, under such conditions, both autochthonous and migration models of the Neolithization of the South Caucasus, discussed since the Soviet era, look equally probable.

Although all known AShSh settlements arose in uninhabited places and already in their lower layers there is a formed artifactual complex and an almost complete set of domesticated plant and animal species, there is still no sufficient reason to consider the AShSh horizon intrusive in the sequence of archaeocultures of the South Caucasus,[3] as suggested, for example, by P. Kohl.[4] In fact, no culture is known in the Near East that could be directly linked to the Neolithic culture that developed in the South Caucasus. Additionally, it is clear that the formation and development of the AShSh complex took place in the conditions of active cultural and economic contacts with synchronous cultures in the west and south, which were sources and conductors of not only some exotic, obviously prestigious, items and materials, but, possibly, a number of technological and cultural innovations.[5]

It should be noted that although the Neolithic settlements of the Kura basin have been studied on a much larger scale than those in the Araxes basin, these connections are more clearly manifested in the sites of the Ararat valley.

These connections have long been documented by finds on the Neolithic sites of the South Caucasus, primarily

[1] Chataigner *et al.* 2014.
[2] Arimura *et al.* 2018.
[3] Badalyan *et al.* 2007: 60.
[4] Kohl 2007: 68.
[5] Cf. Özdoğan 2018: 15: 'besides the primary components of the Neolithic package, the rest of the material evidence of the Caucasian Neolithic is incompatible with that of the Near East, indicating that the process of neolithisation was not due to an endemic migration but rather to the transfer of technologies.'

in the Araxes basin, samples of painted Halaf pottery (Nakhichevan Kültepe I).[6] Since then, the number of finds of Halaf (and Samarra) pottery in the Ararat valley has been continuously growing with each new site and each field season (Aratashen, Aknashen, Masis Blur).[7] Aside from this visually detectable import, precision analyses have established the fact of infiltration of single obsidian samples from the deposits of the Van Lake basin on the settlements of the Ararat valley and the Araxes basin (Meidan Dağ – Aratashen, Aknashen, Masis Blur, Nakhichevan Kültepe I, Nemrut 'South' – Sardarapat).[8] Clearly, their infiltration in non-marketable and, accordingly, economically unmotivated volumes in the region, which are abundantly provided with their own obsidian outlets, was not caused by a need for raw materials. Rather, these finds reflect non-economic contacts or, at least, contacts not directly related to the obsidian trade. The direct correlation between the finds of Halaf pottery and 'imported' obsidian suggests that the latter penetrated into the sites of the Araxes basin in the course of the influx of Halaf pottery.[9]

Single samples of painted ceramics have also been found in a number of settlements in the Kura basin, in Imiris Gora[10] and Gargalartepesi;[11] however, neither the stratigraphic position nor the cultural attribution of these finds has been established. According to Narimanov, these ceramic sherds are more similar to the pottery of the Mil steppe sites.[12]

To date, only at one, the earliest, Kura site – Hacı Elamxanlı Tepe – two samples of Halaf/Samarra pottery have been discovered.[13] It is significant that obsidian from the sources of the basin of Lake Van is not represented at all at the synchronous sites in the Kura basin; even in the largest series of obsidian analyzed – 900 samples from the Göytepe – there is not a single Van or Nemrut sample.[14] The only imported sample from a source near Dogubayazit (Tendürek?) was recorded by J. Blackman's analysis in Khramis Didi Gora. Thus, there is a direct correlation between the absence/paucity of imported Samarra/Halaf pottery in the settlements of the Kura basin and the absence of Van obsidian.

The closest outpost of the Halaf culture to the sites of the Araxes basin is the settlement of Tilkitepe on the eastern shore of Lake Van.[15] The materials of its lower, III, layer show the greatest number of analogies to the AShSh complex outside the Araxes and Kura basins. Detailed similarities are evident for samples of the obsidian industry (the single-platform prismatic cores, long standardized blades), several categories of bone tools (picks, arrows, scapulas, spoons), sharpeners/straighteners, adze/axes. Because of this, Tilkitepe appeared as a potential source of Halaf ceramics found at the sites of the Araxes basin (in Aratashen, Aknashen, Masis Blur, Nakhichevan Kültepe I). However, Halaf ceramics Tilkitepe certainly differs from the findings of Halaf ceramics in the South Caucasus.[16] It should also be noted that, along with the Halaf, Samarra-related ceramics were also found at the Neolithic sites of the Kura-Araxes interfluve (Aknashen,[17] Hacı Elamxanlı[18]), which is absent from Tilkitepe.

In recent years, as a result of intensive research at 6th millennium BC sites in the Araxes and Kura basins, not only has the number of objects of various categories significantly increased, reflecting the links between the South Caucasus and the North Mesopotamian world, but above all, the number of observed patterns of development of the main Neolithic technologies has significantly increased.

The localization of possible sources of these innovations, it seems to us, shifts the focus of attention to the southwest, to the region of the basins of the upper Tigris and Euphrates.

We consider it necessary to emphasize that the purpose of this article is not to study the mechanisms of the Neolithization of the South Caucasus and the formation of the AShSh complex, nor the identification of typological analogies. Rather, our priority is to draw attention to an area whose aggregate data mark, in our view, a source of potential influence.

The Aknashen Settlement: General Characteristics of the Artifactual Complex and Its South Caucasian Analogies

The currently known sites of the culture under consideration form two clearly localized groups – two 'oases' confined to the alluvial river valleys of the Araxes and Kura and representing two main variants of the culture.[19] The northern 'oasis' in the middle reaches of the Kura River (Kvemo Kartli and Ganja-Gazakh plains) includes the settlements of Shulaveris Gora, Imiris Gora, Gadachrili Gora, Dangreuli Gora, Arukhlo, Khramis Didi Gora, Hacı Elamxanlı Tepe, Shomutepe, Toyretepe, Gargalartepesi, Göytepe, and Mentesh Tepe . The southern 'oasis,' located inside Armenia, includes the settlements Aratashen, Aknashen, Masis Blur, and

[6] Munchaev 1975.
[7] Badalyan *et al.* 2010; Palumbi 2007.
[8] Badalyan 2002; Martirosyan-Olshansky 2018b.
[9] Badalyan 2002; 2010.
[10] Kiguradze 1976: Tables 35/12, 44/9.
[11] Narimanov 1987: 121, Figure 27.
[12] Narimanov 1987: 122.
[13] Nishiaki *et al.* 2015a: Figure 3f, g.
[14] Nishiaki *et al.* 2019b.
[15] Korfmann 1982.
[16] Palumbi 2012; personal observations of the authors at the Istanbul University museum in 2019.
[17] Badalyan *et al.* 2010.
[18] Nishiaki *et al.* 2015a: Figure 3f, g.
[19] Chataigner *et al.* 2014.

Tsaghkunk, is localized in the middle reaches of the Araxes River, in the Ararat valley; the sites are confined to the left tributaries of the Araxes – the Sevjur (Metsamor), Kasakh, and Hrazdan rivers.

In the Ararat valley, the most complete, differentiated and long-lasting sequence of the Late Neolithic layers is attested in Aknashen. Its stratigraphic column with a total thickness of about 5 m, dated 5950-5400 BC, seems to reflect almost the entire chronological range of the culture and, moreover, includes a horizon (VII), the data from which makes it possible to raise the question of its formative stage.[20]

In this sequence, two complexes are distinguished, separated by a hiatus (horizon VI, flood episode) and differing in a number of important indicators. Considering all factors, we distinguish, first of all, the complex of the oldest horizon, VII. This horizon, dated 5950-5870 BC (according to the C14 dates currently available and which do not concern the deepest strata), overlies the virgin soil, is characterized by the coexistence of buildings in rectangular and circular planes erected using lumps and layers of mud/cob, the absence of local pottery with mineral and plant inclusions, a high content (compared to the overlying horizons) of imported painted Samarra/Halaf and monochrome ceramic sherds and bladelets/microblades, bullet cores and nuclei on pebbles, and microliths, as well as the predominance of barley. According to these parameters, this complex, on the one hand, differs from the overlying (V-II/I) horizons, which represent the AShSh in its fully formed form, on the other hand, it exhibits a significant degree of similarity with the synchronous (5950-5800 BC)[21] Hacı Elamxanlı settlement in the Kura basin. We regard the complex represented by these two sites as the oldest, formative, stage of the AShSh.[22] C14 dates indicate that settlements of this complex appeared and developed simultaneously in both the Kura and the Araxes River basins.[23]

Structures of a rectangular plan, in addition to those excavated in the oldest, VII, Aknashen horizon, were also recorded at the Hasansu I settlement in the Kura basin. In the lower, above-subsoil horizon of the site, fragments of the construction remains of the rectangular-square plan were revealed. According to the author of the excavation, rectangular constructions precede round-oval ones.[24] It should be emphasized that the 14C dates allow us to synchronize the lower horizons of both sites. Thus, it is clear that the rectangular plan is characteristic of the most ancient, formative, stage AShSh (approximately 6000/5950-5800 cal. BC), and is recorded more or less simultaneously on the sites of both the Ararat valley and the Kura basin.[25]

The above-lying (V-II/I) horizons of Aknashen are characterized by circular architecture; the buildings were erected using lumps and layers of mud/cob. The corresponding complex of material culture allows us to trace the process of emergence and development of ceramics, which looks as follows: in the upper level of horizon V (5780-5750 cal. BC) the first relatively few samples of ceramics with mineral inclusions[26] of local production are found (with a predominance of Grit-tempered II pottery);[27] in horizon IV (5750-5690 cal. BC), the amount of local ceramics with mineral inclusions increases sharply, the insignificant predominance of ceramics of the Grit-tempered II group in comparison with the Grit-tempered I group continues; in horizons III (5690-5600 cal. BC) and II (5600-5450/5400 cal. BC), the amount of ceramics doubles, the leading position is occupied by the Grit-tempered I group. In this horizon, ceramics with plant inclusions seem to appear for the first time. The upper horizon (I) is characterized by its complete predominance.

The first steps in ceramic production observed according to the Aknashen data clearly reflect the general laws of the process of the appearance and development of ceramics in the South Caucasus in the first half of the 6th millennium BC. Similar trends were traced not only at other sites of the Ararat valley (Aratashen, Masis Blur), but also at most settlements in the Kura basin. Thus, a comparative analysis of data from the early Hacı Elamxanlı (*c.* 5950-5800 BC) and the late Göytepe (*c.* 5650-5450 BC) shows that 'pottery was rare in the lowest levels but rapidly increased from the middle part of the sequence onward. The earlier pottery assemblages are also characterized by the almost exclusive use of mineral-tempered pottery, while the later ones showed more prevalent use of plant-tempered' pottery.[28] At the Hasansu settlement, the upper cultural layer contains relatively abundant fragments of ceramic vessels made of clay with inorganic inclusions and clay with a vegetal mixture. Below, fragments of ceramics are extremely rare and represent very small fragments of vessels

[20] Badalyan and Harutyunyan 2014.
[21] Nishiaki *et al.* 2015a; 2015b.
[22] Badalyan and Harutyunyan 2014.
[23] Chataigner *et al.* 2014.
[24] Museibli 2017.
[25] Cf. Özdoğan 2018: 23: 'however, the possibility of a short-lived earlier stage with rectangular buildings preceding the round-building phase should not be discarded.'
[26] A petrographic study of samples of clays and ceramics from Aratashen and Aknashen showed that the clays used for the production of ceramics contain a natural admixture of sandy lavas, crystals, and volcanic glass. In other words, the sandy 'admixture' could also be of natural origin, that is, be a part of the original material. In a number of cases, it is possible that a granulometrically larger sandy admixture from lacustrine-fluvial sediments was artificially added. The clay of the Grit-tempered II pottery was obviously sieved, cleaned of large impurities, after which chamotte was added, possible also manure/organic matter (Harutyunyan 2011).
[27] Harutyunyan 2014.
[28] Nishiaki *et al.* 2015a: 283. See also Nishiaki *et al.* 2019a.

(intrusion?). In the above-subsoil horizon, fragments of ceramic products were not found.[29] An extremely small amount of ceramics, with mineral admixtures, is noted in the lower layers of Shulaveri (IX-III) and Imiris Gora (VII-VI).[30] The Gadachrili Gora Neolithic complex (5920-5650 cal. BC)[31] is dominated by ceramics with mineral inclusions; an extremely small amount of ceramics with organic additives appears only at the very end of Phase I and increases from 1% in the Neolithic to 19% in Late Neolithic/Early Chalcolithic.[32]

The obsidian industry at Aknashen, like the synchronous settlements of the Ararat valley (Aratashen, Masis Blur, Tsaghkunk) and AShSh in general, is morphologically and technologically characterized by a predominance of long standardized blades and bladelet blanks manufactured from prismatic cores and used in agricultural activities.

These blanks are obtained through a combination of pressure techniques (lever and crutch), and indirect percussion. Use of the pressure technique (using a lever and/or a crutch) has been suggested also at sites in the Kura basin, such as Hacı Elamxanlı,[33] Göytepe,[34] Arukhlo,[35] and Mentesh Tepe.[36]

Outside the South Caucasian 'Oases' - the Neolithic of the Upper Tigris and Euphrates Basins

The aforementioned finds of imported ceramics in the settlements of the South Caucasus of the 6th millennium BC, being indisputable evidence of one or another form of contact of the AShSh carriers with Northern Mesopotamia, first of all reflect, as it seems, 'the result of occasional and mediated interactions with the Halaf world'.[37] Traditionally, among the evidence of contacts, but of a general nature, without a definite vector, there is also a round plan of buildings, characteristic of both the AShSh and the Halaf culture.[38] This dominant general vector at the present time can probably be expanded culturally and concretized in a geographic aspect.

Isolated finds of Samarra-related ceramics in the settlements of the South Caucasus (Aknashen, Hacı Elamxanlı Tepe), despite their small number and, accordingly, random nature, nevertheless serve to a certain extent as an additional geographical marker. The northernmost sites with Samarra and/or Halaf pottery are located in the area of the upper basins of the Tigris and Euphrates; it is this area that seems to be the most likely source of imported pottery found in the South Caucasian settlements.

Such a probability is determined not so much by the external similarity of individual artifacts, which have a very wide distribution area, but by the totality of culturally significant features of material culture and the similarity of technology development trends. Despite the fact that, at first glance, the analogies given below between AShSh and the Neolithic of southeastern Turkey seem too general, their mutual compatibility gives the observation a certain significance.

A certain similarity between the Neolithic settlements of the Ararat valley, on the one hand, and the chronologically preceding sites of the region of the upper basins of the Tigris and Euphrates, on the other, can be traced in the field of housing construction, stone industry, and ceramic production, that is, in the most innovative areas. The extent to which this similarity is accidental, whether it is a consequence of contacts or a reflection of the general patterns of development of early agricultural societies, remains to be determined by further research.

The northernmost settlements of the Halaf, in addition to the aforementioned Tilkitepe – Koruchutepe and Tülintepe – are located in the Upper Euphrates Valley. The northernmost settlement of the Samarra culture in the region is the settlement of Hakemi Use (6100-5950/5900 cal. BC) in the Upper Tigris basin.[39]

The episodic nature of the existence of rectangular buildings, recorded only at the formative stage of culture (Aknashen, horizon VII, Hasansu I) and later unknown in the AShSh area, suggests that they owe their appearance to an external impulse. It is for the aforementioned settlement of Hakemi Use that a rectangular plan of buildings is characteristic (only two buildings are found to have rounded outlines), erected in the same housebuilding technique as the buildings in the Ararat valley – lumps of mud and *pisé* without stone

[29] Museibli 2017.
[30] Kiguradze 1976. Cf. Batiuk *et al.* 2017: 196.
[31] Hamon *et al.* 2016.
[32] Batiuk *et al.* 2019. It should be noted that the data from Kültepe I of Nakhichevan clearly contradict the models observed for the appearance and the development of pottery in the South Caucasus. According to Marro *et al.* (2019: 92), the pottery, of which the absolute majority is plant-tempered, was already present in large quantity at the very beginning of the Neolithic sequence, dated to between 6200 and 6000 cal BC. The frequency was quite stable throughout the sequence, the fabrication technique had not changed, nor had the vessel shapes, except for the disappearance of carinated bodies in level 2. At the same time, to be noted is the significant morphological similarity of the Kültepe pottery with the Grit-tempered group of Aknashen and the rarity of decoration, inherent to both assemblages.
[33] Kadowaki *et al.* 2016.
[34] Nishiaki and Guliyev 2019.
[35] Gatsov and Nedelcheva 2017.
[36] Guiebeau *et al.* 2017.
[37] Palumbi 2012.
[38] For different views on the origins of round-bladed buildings and the connections between the architectural traditions of the 'Aratashen-Shulaveri-Shomutepe' complex and the Halaf culture, see Areshyan and Ghafadaryan 1996: 24-25; Baudouin *et al.* 2018; Javakhishvili 1973: 346-349; Munchaev and Merpert 1981: 193-196.
[39] Tekin 2011.

foundations.[40] At the settlement of Salat Cami Yani (6400-6200 BC) in the same Tigris Valley, rectangular *pisé* buildings are also attested.[41]

Of course, elementary morphological similarity is not enough to confirm contacts, let alone establish a genetic link between two geographically separated cultural areas. More valuable proof is the similarity in the evolution of the building techniques within these two areas, with the gradual disappearance of the cob technique to the benefit of the mud-brick in northern Mesopotamia at the outset of the sixth millennium BC matching with the appearance of the AShSh culture in the South Caucasus where both techniques are used concurrently at its beginning.[42]

This similarity of architectural plans and trends in the development of construction techniques of the above-mentioned sites of the Upper Tigris basin and the Ararat valley is accompanied by the frequency of bladelets in the obsidian industry of the Hakemi Use settlement;[43] in Salat Cami Yani also 'most of the obsidian artifacts consist of blades/bladelets;' the presence of 'some single-platform bullet cores' is noted.[44]

Clearly, in the field of obsidian industry between the regions under consideration, one can trace not only general similarities or particular analogies of a random nature. Technological innovation appears to be a more important aspect in this area. As noted above, the obsidian industry of Aknashen and AShShis generally characterized by a predominance of long standardized blades obtained through a combination of pressure techniques (lever and crutch), and indirect percussion. According to Chabot and Pelegrin,[45] 'pressure-related blade production can be usefully regarded as a marker of particular cultural traditions and of the diffusion of technical innovation.'

'The production of large blades using a lever occurred as early as the second half of the eighth millennium cal BC at Çayönü Tepesi, likely between 7340 and 7080 cal BC. It was thus testified in the Balikh Valley a thousand years later, between 6100 and 6500 cal BC'.[46] Although there is currently no direct evidence of the existence of this technology in the area under consideration at the very end of the 7th millennium BC, Chabot and Pelegrin[47] believe that it is very possible that the origin of the South Caucasian obsidian pressure blade production techniques may well be found in the communities of the Upper Tigris region, around the Bingöl and Nemrut Dağ volcanoes, which lies about 250 km southwest of the Araxes basin.

Finally, judging by the aforementioned general parameters of the process of the emergence and development of ceramics in the South Caucasus in the first half of the 6th millennium BC,[48] the locally started production followed the same development path that was documented in the first Near Eastern ceramic production centers. Both in individual examples of sites in the basins of the Tigris,[49] Euphrates[50] and the Khabur valley,[51] and in the region as a whole, the same general trend in the development of ceramics technology is evident. According to Le Mière,[52] three steps can be recognized in the process of gradual pottery development: in the first, the pottery is exclusively mineral-tempered; in the second, plant temper is introduced with early mineral-tempered pottery being still present; in the third, plant temper is used alone.

Thus, for all the chronological difference, it is clear that there is a fundamental similarity, if not complete uniformity, in the process of the appearance and development of ceramics both in the settlements of the upper basins of the Tigris and Euphrates, and in the sites of the first half of the 6th millennium BC of the Ararat valley and the South Caucasus.

Conclusion

More or less massive finds of identifiable artifacts and samples of obsidian raw materials are documentary evidence of the connection between the settlements of the South Caucasus and the outside world during the first half of the 6th millennium BC. Thanks to these findings, the direction of the most intense connections is determined. One of the directions — the western one — is documented by finds on all Neolithic sites of the Ararat valley (Aknashen, Aratashen;[53] Masis Blur[54]), as

[40] Tekin 2011.
[41] Miyake 2011.
[42] Baudouin *et al.* 2018.
[43] Tekin 2011.
[44] Miyake 2011.
[45] Chabot and Pelegrin 2012.
[46] Altınbilek-Algül *et al.* 2012.
[47] Chabot and Pelegrin 2012.
[48] 'While pottery was very rare at the beginning, it began to increase in the second quarter of the 8th millennium cal BP: the initial mineral-tempered pottery soon gave way to plant-tempered pottery' (Nishiaki *et al.* 2019a: 5).
[49] Thus, in the above-mentioned settlement of Salat Cami Yani (6400-6200 BC) in the lower layer (Phase I) the density of pottery is evidently lower than in the upper two phases. The most predominant ware group is mineral-tempered. The above-laying layers (Phases 2-3) are dominated by vegetal-tempered coarse ware (Miyake 2011).
[50] At Akarçay Tepe the total number of potsherds recovered from the earliest pottery-bearing layers (phase 1) are very low. Pottery first occurs in levels 11 and 10 and only from level 9 onward is a gradual increase in the number of sherds observed. Initially, in layers 11 to 7, the pottery was mineral-tempered exclusively. From layer 6 onwards plant-tempered sherds became dominant (Cruells 2017: 14).
[51] The earliest pottery of Tell Seker al-Aheimar is exclusively mineral-tempered. Plant temper will appear later. Gradually, plant-tempered ware became the most common ware, while mineral-tempered wares decreased and disappeared (Le Mière 2009).
[52] Le Mière 2009: 75.
[53] Chataigner and Gratuze 2014.
[54] Marirosyan-Olshansky 2018a; 2018b.

well as on a number of settlements in the Kura basin (Mentesh Tepe;[55] Göytepe[56]) of a certain amount of obsidian from the sources of the Kars-Sarykamish area. However, the cultural context of the connection of the population of the South Caucasus with this area remains unclear due to the absence of any data on its Neolithic culture.

Much more evidence in the form of finds of imported painted Samarra and/or Halaf ceramics and single samples of obsidian from deposits in the basin of Lake Van points to the southwest, to the region of the upper basins of the Tigris and Euphrates. Most of these findings were discovered in the settlements of the Ararat valley and the Araxes basin. Further to the north, the intensity of the connections determined by these materials, apparently, weakens and is recorded in a smaller volume at the sites of the Kura basin.

At the 8,000-7,000 BC sites of the upper basins of the Tigris and Euphrates, those trends in the development of housing, obsidian industry, and ceramic production are observed that determined the nature of the AShSh culture of the South Caucasus in the first half of the 6th millennium BC. This observation is consonant with M. Özdogan, according to whom, 'the process of neolitisation in the Caucasus must have occurred through the transfer of technologies and commodities'.[57]

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[55] Lyonnet *et al.* 2012.
[56] Nishiaki *et al.* 2019b.
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Groups of Three Deities in Middle and Neo-Assyrian Times

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Abstract: Groups of three divine symbols and deities in Middle and Neo-Assyrian periods are investigated in two fields: art and royal inscriptions. Divine symbols as celestial bodies show combinations of three consisting of sun disk or winged sun disk, moon crescent, star or star disk, and Pleiades. This group also occurs on royal steles and slabs from private houses. Another group consists of three horned crowns, identifiable with Anu, Enlil, and Assur confirmed by royal inscriptions. The third subject from art is the winged sun disk showing three heads or busts above it in a triad-like way. Yet it still remains difficult to offer a solution for this conspicuous iconographic scheme. In the last part there is given a superficial overview over groups of three deities in the corpus of Middle and Neo-Assyrian royal inscriptions. The frequent group in art of three celestial bodies is not mirrored in the inscriptions, the Pleiades (Sebettu) lacking completely. Thus groupings of deities in art or inscriptions obviously follow different reasonings.

Keywords: Assyria, Middle Assyrian period, Neo-Assyrian period, divine symbols, deities, sun, moon, star, Pleiades, winged sun, royal inscriptions

Introduction[1]

Groups of three deities, or triads with a more specific and significant expression, play a role in many religions worldwide.[2] Concerning the Southern Caucasus we may recall the Urartian triad described by G. A. Melikishvili in 1953. Yet our focus in this contribution is Assyria during the Middle and Neo-Assyrian periods. First of all there is a strong tendency in grouping smaller and larger amounts of divine symbols, more rarely also anthropomorphic deities. Among the symbolic representations celestial phenomena are important, namely the following four: the multi-pointed star representing goddess Ištar or the planet Venus,[3] the moon, in most cases as crescent, the sun in a variety of round disks or as winged disk, and finally the Pleiades.[4] For all these four already in Middle Assyrian times (14th to 10th centuries BC) exist good examples.

Middle Assyrian Period

a) Celestial Phenomena

All four phenomena mentioned above are grouped together on a cylinder seal (Figure 1).[5] In most of the cases only three are shown, moon (crescent) and star (planet) forming a basic group, and the Pleiades or the sun may join the two (Figures 2-3).[6]

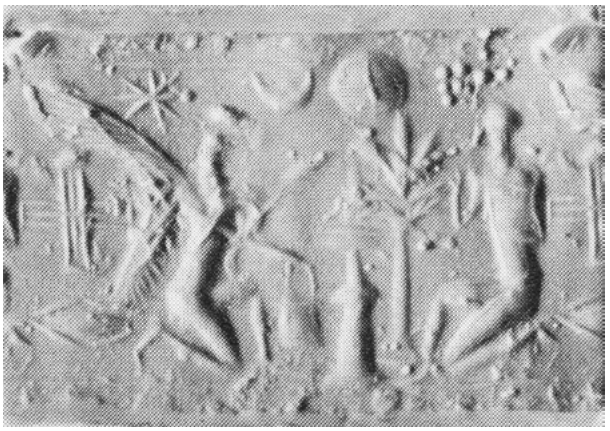

Figure 1. Middle Assyrian cylinder seal showing star, crescent, sun disk, and Pleiades (Lambert 1979: Plate VII no. 64).

Neo-Assyrian Period

a) Celestial Phenomena

During the Neo-Assyrian period (10th to 7th centuries BC) this concept is continued. Even here glyptic examples exist that show all four phenomena together, e.g. impressions of a cylinder seal on clay tablets from Assur dating in the 8th century (Figure 4):[7] Above a 'mistress of animals' crescent, star in peculiarly detailed way, Pleiades and winged disk are visible. The group of three, crescent – star – Pleiades, is very

[1] This article is devoted to Pavel Avetisyan in honouring his cooperation during the stay in Armenia in autumn 2011 and his great achievements in archaeology in Armenia. He was very helpful when Michael Herles and I were travelling through Armenia looking for a rewarding site. My thanks go to Yervand Grekyan for his support and patience during the production phase. Thanks go also to Michael Herles for many useful advices.

[2] For a detailed superb overview and discussion of the scheme from ancient Egypt to Christianity see Griffiths 1996. Cf. also Balkan 1992; Glassner 1999; Jahangirfar 2018; Khvedilidze 1982; Parpola 2000: 202-205. For other concepts of divinity in Assyria see e.g. Porter 2000.

[3] I use the word 'star' in the descriptions despite the fact that Venus is a planet (cf. Hunger 2003-2005).

[4] Cf. Blocher 2009; 2010.

[5] Lambert 1979: no. 64.

[6] Buchanan 1966: no. 568; Kantor 1958: Plate 72, no. XXII.

[7] Klengel-Brandt 2014: no. 205.

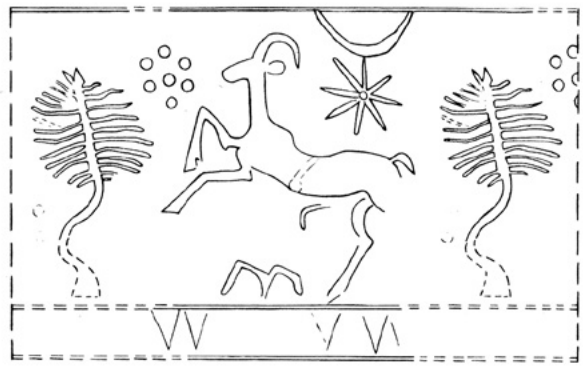

Figure 2. Middle Assyrian seal impression from Tell Fekheriye showing Pleiades, crescent, and star (Kantor 1958: Plate 72 no. XXII).

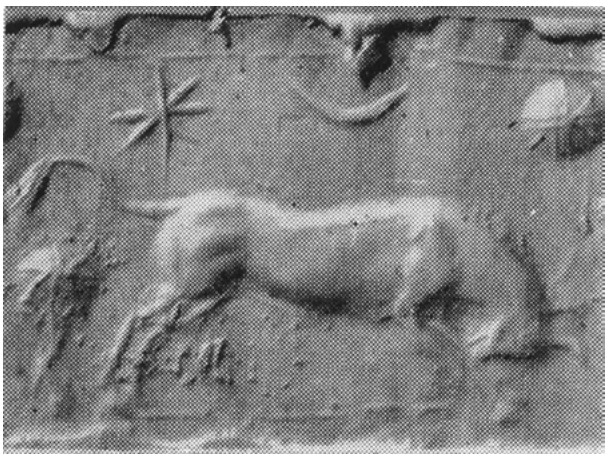

Figure 3. Middle Assyrian seal cylinder showing star, crescent, and sun disk (Buchanan 1966: Plate 38 no. 568).

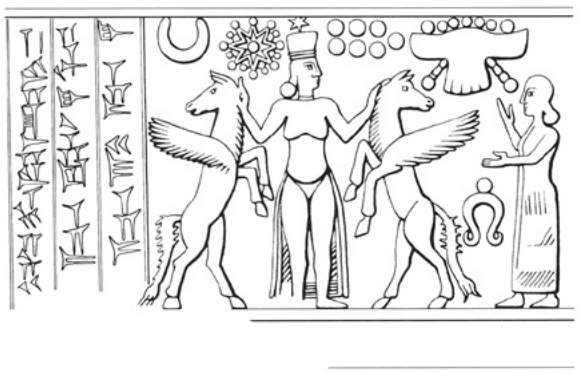

Figure 4. Neo-Assyrian seal impression from Assur showing crescent, star, Pleiades, and winged sun (Klengel-Brandt 2014: Taf. 42 no. 205).

Figure 5. Neo-Assyrian cylinder seal showing Pleiades, star, and crescent (Delaporte 1923: Plate 88, 6, A. 680).

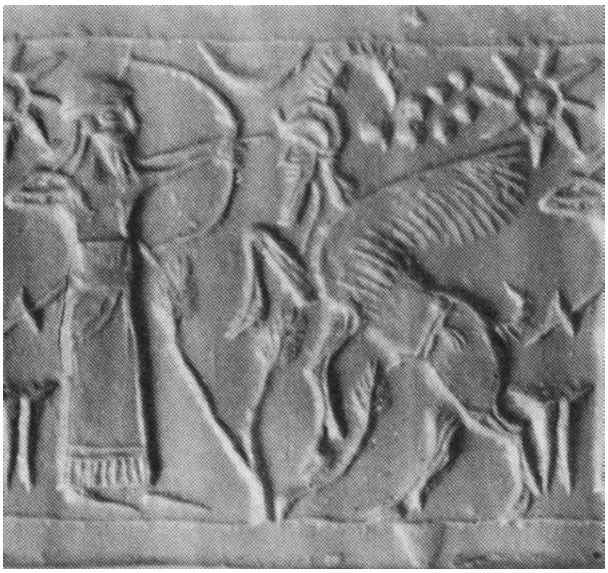

Figure 6. Neo-Assyrian cylinder seal showing crescent, Pleiades, and star (Collon 1987: 184 no. 880).

frequent above adoration or hunting scenes (Figures 5-6).[8] The sun and the symbol of the sun god are now in most cases represented as the winged disk. Two cylinder seals show table scenes with winged disks and star and Pleiades or star and crescent (Figures 7-8).[9] A hunting deity too may operate under the protection of star, winged disk, and crescent (Figure 9).[10]

We may draw different conclusions from these examples, firstly that the seal owner makes the choice of the celestial phenomena to be shown, secondly that

[8] Collon 1987: no. 880; Delaporte 1923: A. 680.
[9] Porada 1948: nos. 699-700.
[10] Watanabe 1992: Taf. 71d.

Figure 7. Neo-Assyrian cylinder seal showing winged sun disk, crescent, and star (Porada 1948: Plate CIII no. 699).

Figure 8. Neo-Assyrian cylinder seal showing winged sun disk, Pleiades, and star (Porada 1948: Plate CIV no. 700).

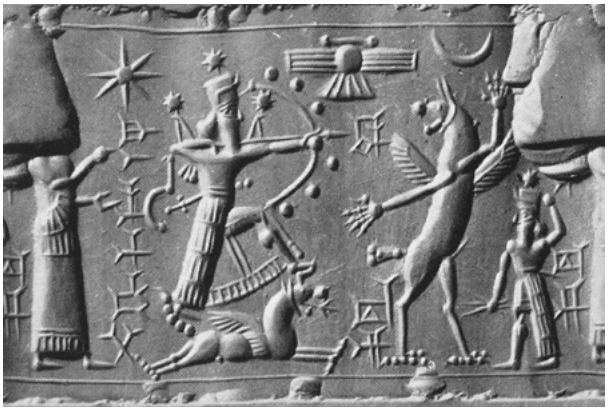

Figure 9. Neo-Assyrian cylinder seal showing star, winged sun disk, and crescent (Orthmann 1975: Figure 273 a).

the scene on the seal happens under various celestial, astronomical conditions.

Divine symbols are also a prominent feature of the decoration on royal stelae. As on the seals they normally appear in the upper part of the scene, in this case close to the head of the king. Thus different sizes of groups of symbols result sometimes in consisting of three symbols. In some important cases we have correlations

Figure 10. Upper part of a stele of Adad-nārārī III from Tell al-Rimah showing Pleiades, star, and crescent behind the king's head and the winged sun disk in front of it (Orthmann 1975: Figure 212).

between the divine symbols represented and the deities mentioned in the inscription.[11]

On a famous stela of king Adad-nirari III. (810-783 BC) from Tell al-Rimah (Irak) the head of the king is dividing the upper part of the stela in two fields (Figure 10).[12] In the left part (behind the king's face) we see star, crescent and Pleiades, in the right part (in front of the king's face) is the winged disk together with four other symbols.

We may assume that the decision of how to divide the upper part of the stele is not accidental.

On the rock relief of Šikaft-i Gulgul near Ilam (Iran) (possibly early 6th century BC) we see behind the king's face the same group as before – crescent, star, and Pleiades – whereas the winged disk and the horned crown are shown in front of the king (Figure 11).[13]

Again different is the situation on a relief from a private house in Assur probably from Sennacherib's time (704-681 BC) representing a god on a mixed being (Figure 12).[14] Here the winged disk is situated behind the high headgear of the deity while the crescent, the star and the Pleiades are shown in front of it. Whether the piece is fragmentary and an adorant is to be restored remains an open question.

[11] Reade 1977: 39-41.
[12] Börker-Klähn 1982: no. 164.
[13] Börker-Klähn 1982: no. 223. Despite the fact that most parts of the star disc are chipped off it is as such recognisable without doubts by the curved contour and the rest of a single point. Discussions about the dating are resumed by Börker-Klähn 1982: 215, no. 223.
[14] Börker-Klähn 1982: no. 243.

Figure 11. Upper part of the Neo-Assyrian rock relief at Šikaft-i Gulgul showing Pleiades, star, and crescent inscribed in the full moon behind the king's head and the winged sun disk in front of it (Grayson/Levine 1975: Plate X).

Figure 12. Relief from Assur showing an armed god on a mixed being, behind him the winged sun-disk, in front of him crescent, Pleiades, and star (Andrae 1977: 79 Figure 57).

One of the rare examples in the art of Assyria showing only a group of three celestial bodies – winged disk, crescent and star disk – is a small relief slab from Assur again (Figure 13).[15] Also in this case we have to ask whether further parts are to be restored on the right side.[16] The image shows a warrior god with an adorant

Figure 13. Relief from Assur showing an armed god and an adorant, above them winged sun disk, crescent, and star disk (Andrae 1938: Taf. 21c).

in court dress in front of him, standing on a low base. Above the scene the already mentioned sun, moon and star are hovering. Walter Andrae addressed the god as Ninurta.[17]

Let us add here a stele fragment of Adad-nirari III (810-783 BC) from Tall Šayḫ Ḥamad/Dur-Katlimmu[18] with yet another grouping of symbols in front of the king's head: winged disk, star and lightning (Figure 14).[19]

An extraordinary group of three symbols is shown on a relief slab from a palace of Tiglath-pilesar III (744-727

[15] Börker-Klähn 1982: no. 242.

[16] The upper right corner looks different on Andrae's illustration compared with the image at Börker-Klähn 1982: Plates no. 242 (Photo British Museum, restored state). The original photo suggests that the right upper corner has been preserved. J. Börker-Klähn's statement that on stelae of courtiers not even sun, moon, and star were represented (1982: 223 under no. 242) is to be rejected with the example of Bel-Harran-beli-usur's stela, (ibidem no. 232). The relief in Figure 13 may thus well be the work ordered by a courtier and displayed at Assur, also the base on which the courtier is standing being no problem. Following Peter Calmeyer (1973: 147, 149) a human figure standing on a base or plinth does not mean the representation of a statue but simply the use of this object by an adorant.

[17] Andrae 1938: 50, note 1, 220 *ad* Taf. 21c.

[18] Börker-Klähn 1982: no. 165.

[19] Karen Radner was able to combine this part of the stela with another, much larger one in private ownership showing the king's body and legs (Radner 2012, courtesy M. Herles), with a new edition of the inscription. Unfortunately, the part of the stele behind the king's head is still missing.

Figure 14. Part of a stele of Adad-nārārī III from Tall Šayḫ Ḥamad showing winged sun disk, star disk, and lightning bundle (Börker-Klähn 1982: no. 165).

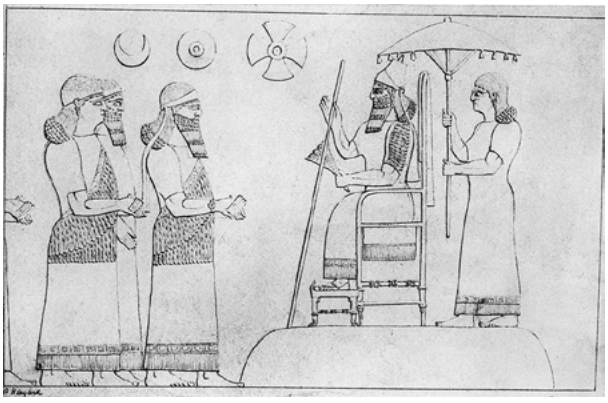

Figure 15. Relief from a palace of Tiglath-pileser III in Nimrūd/Kalḫu showing in front of the king crescent inscribed in the full moon, disk, and cross (Barnett/Falkner 1962: Plate VIII).

BC) in Nimrud/Kalḫu (Figure 15).[20] The king is sitting on a throne on a small hillock, in front of him the turtan and other courtiers, behind the king an umbrella carrier. Above the scene crescent, a disk and a cross.

From other contexts we know that the cross is a symbol of the sun respectively of the sun-god;[21] the crescent is self-explaining, so a problem is only the disk. It may stand for the star proper, morning star and evening star, the planet Venus.[22] There are many Assyrian examples showing the multi-pointed star against a disk as background (e.g., Figures 13, 14, 17, 18). The disk on the Tiglath-pilesar III slab shows either two further smaller disks or an imposed ring comparable to that on the cross. It is obvious that the cross is bigger than the two other celestial bodies. Is it also more important? The reason why there is no winged disk representing the sun or the sun-god may be that the campaign is in Babylonia where the sun is practically never represented by the winged disk.[23]

Let us now leave the consideration of groups of three celestial phenomena of bodies in the art of Neo-Assyrian times. In many cases we deal with 'accidental triads' since they often belong to larger groups of symbols. But the compositional grouping of symbols on tops of stelae behind or in front of the king's head may well be intentional and may give hints on their importance in these particular cases.

b) Three Horned Crowns

Contrary to the frequent groups of three celestial bodies in Assyria the combination of three horned crowns on seats or thrones (German *Symbolsockel*) is rare. The horned crown in ancient Near East is the ultimative hint in identifying deities. Yet the horned cap or crown in a symbolic context does not represent deities in their overallness but only the highest ones in the pantheon.

[20] Barnett and Falkner 1962: Plate VIII. This slab was only known through a drawing by Austen H. Layard (Barnett and Falkner 1962: Plate VIII), but Polish archaeologists were able to re-find this and other slabs in their 1970s excavations (Mierzejewski and Sobolewski 1980: 157, Abb. 7).

[21] Very important Calmeyer 1984; for an overview Herles 2006: 257-259. Note that also the god Nabû has been connected with the cross (Pongratz-Leisten 1994: 99 concerning a statement of Simo Parpola [not accessible to me, but fully quoted by Pongratz-Leisten]). Beate Pongratz-Leisten in this context is also quoting Suzanne Herbordt (1992: 139 with note 55) who is clearly more cautious than Simo Parpola concerning the relation of Nabû and the cross.

[22] Barnett and Falkner 1962: xvii call the symbols from left to right as 'Sin, Šamaš and perhaps Ištar' (ibidem 10 under Slab 6a). Neither Layard's drawing nor the photo of the re-found slab show any structures or details on the disk.

[23] Ehrenberg 2002: 72, is interpreting two of the symbols completely different: The cross is a symbol of Marduk and the disk stands for the sun(-god) (courtesy M. Herles). I keep following the opinion of Calmeyer 1984, because of the crosses integrated in sun representations, that the cross is a sun-symbol.

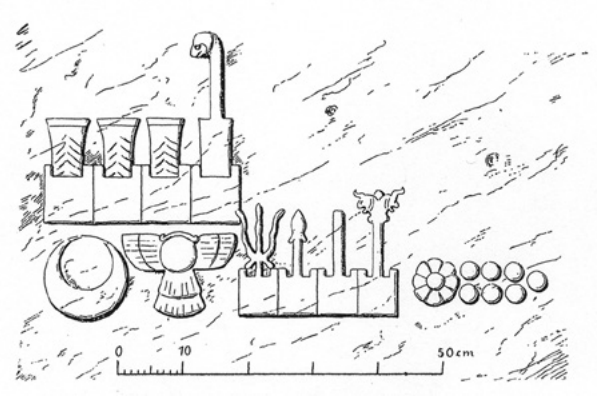

Figure 16. The group of divine symbols occurring uniformly (together with an image of king Sennacherib) in eleven niches in the garden valley of Khinnis/Bavian (Bachmann 1927: 21 Figure 15).

This is demonstrated by a few by-scripts on kudurrus of the Kassite era.[24]

In Assyrian art the horned crown means the god Aššur,[25] the group of three horned caps consequently Anu – Enlil – Aššur (the sequence is of course arbitrary as long as an inscription on the monument does not give hints on it). Assyrian examples date from the reign of king Sennacherib (704-681 BC).

Several identical rock reliefs close to the garden valley of Khinnis-Bavian show three horned crowns on seats side by side in the group of symbols (Figure 16).[26] Immediately on the left side of this group is the head of the king. He is directed to the right in all rock niches. Twelve symbols are combined, the inscription mentions eleven of them, one name being illegible.[27] Thus the three horned crowns are from left to right the representative objects for Aššur, Enlil, and Anu.[28]

Closely connected with Khinnis-Bavian are the representations on two steles from Nineveh's town area (Figures 17-18).[29] On the one stele (in Istanbul) the king is directed to the right side, on the other (in London) to the left, and the symbols are accordingly placed, i.e. the three horned crowns figure directly in front of

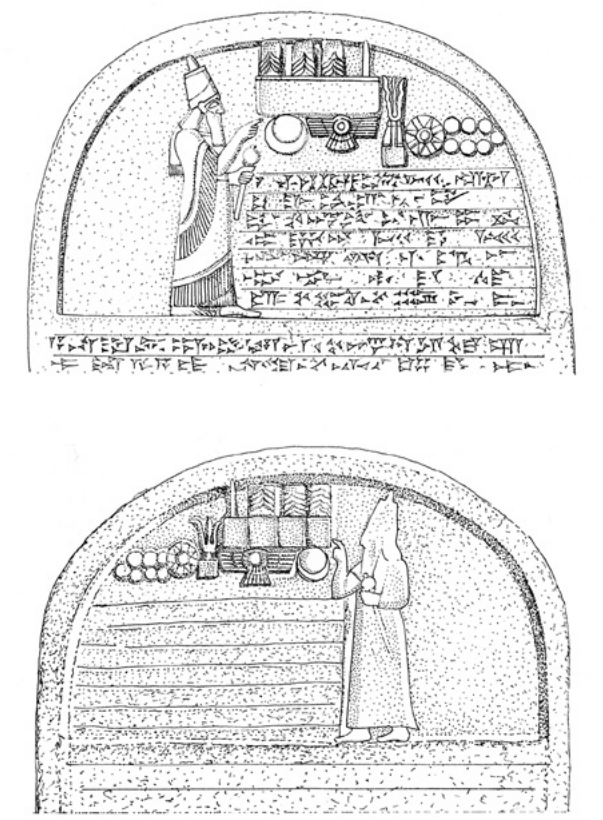

Figure 17a-b. King Sennacherib in front of divine symbols on two stelae from the town area of Nineveh. Note in the drawings the wrong stylus-like interpretation of the ram-staff beside the three horned crowns (Börker-Klähn 1982: no. 203-4).

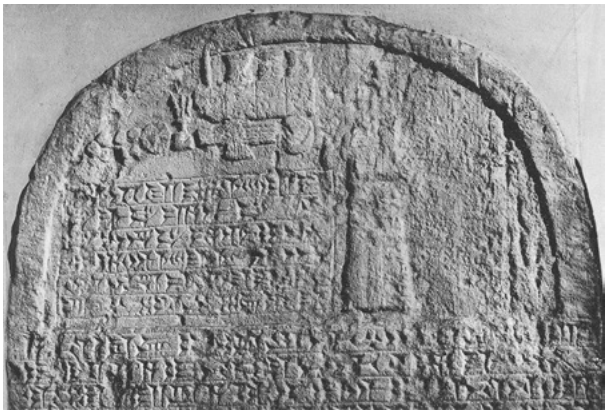

Figure 18. Upper part of the Sennacherib stele from Nineveh now in London. The ram-staff left of the three horned crowns is clearly discernible (Smith/Gadd 1938: Plate 34).

[24] Herles 2006: 212-213 for Anu; 219-220 for Enlil.
[25] Herles 2006: 213-214; Reade 1977: 38.
[26] Bachmann 1927: 21, Abb. 15; Börker-Klähn 1982: nos. 189-199.
[27] Bachmann 1927: 39, following Carl Frank. The lacuna concerns the double lion mace resp. the double mixed-being mace. Luckenbill 1927: § 331 restores for the lacking deity the name of Nusku but cf. Reade 1977: 39, note 9, who votes for Nergal. All other symbols are evident und they correspond to the current explanations. This is important for the still continuing discussion on Aššur and Šamaš (s. below) since here without any doubts the horned crown stands for Assur and the winged disk for Šamaš.
[28] Luckenbill 1927: § 331.
[29] Börker-Klähn 1982: nos. 203-204.

the king's face. Unfortunately the inscription does not mention the deities represented by the symbols.[30]

This triad of horned crowns is in all these cases directly accompanied by a fourth symbol on a seat, the so-called ram-staff.[31] This object is connected with the water-god Enki/Ea, and the inscription at Khinnis-Bavian is in accordance with the sequence of deities mentioning Ea at the fourth position.[32]

This position might be a memory of the fact that in the rare case of three horned crowns on Babylonian kudurrus the third one means Enki/Ea.[33] On the other side the ram-staff on the above-mentioned Assyrian monuments shows clearly that none of the horned crowns is representing Enki/Ea, a fact which is by the way happily confirmed by the Khinnis-Bavian inscription.

c) Winged Disk with Three Figures, Busts or Heads

We know a group of representations of the winged sun disk that show beside the central bust or head in the ring or in front of the disk two additional busts or heads on the stretched wings.[34] Is this a sun triad? Before discussing former interpretations we may have a look at some of the objects.

The so-called Sennacherib seal from Nineveh displays an adorant in front of a life tree behind which a stele with a royal representation is visible (Figure 19).[35] Above the life tree a winged sun disk with a semi-figure directed to the right is shown coming from the central ring or disk. Above the wings we see two smaller figures each directed to the central one.

On another cylinder seal the winged sun disk is supported by two scorpion-men (Figure 20).[36] Above the sun symbol we see two smaller and one bigger head to which belongs also a left arm. The bigger head wears a horned crown with a spherical end. The heads of the two smaller figures also end spherically and are thus divine headgears too. The scene is framed by an adorant and a deity or genius. A second main motif is a lord of animals.

Figure 19. The so-called Sennacherib seal from Nineveh showing the sun god in the winged sun disk and two further figures in or behind the wings (Collon 1987: 174 no. 812).

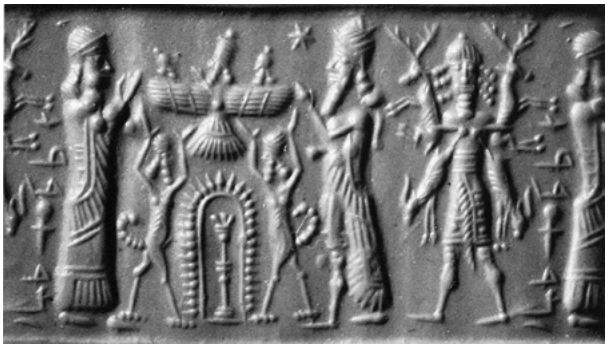

Figure 20. Neo-Assyrian cylinder seal showing three heads above the winged sun disk (Collon 2001: Plate XXXIX no. 211).

A seal impression from Assur shows the winged sun disk with three heads above a life tree, which is framed by two male figures and a crouching sphinx. A crescent is visible too (Figure 21).[37]

The motif is also part of the design of stamp seals despite a reduced space for images. Stamp seal impressions on a clay tablet from Assur show three heads over a winged sun disk supported by two bull-men (Figure 22).[38]

[30] Luckenbill 1927: §§ 473-476; *RINAP* 3/1: no. 38 (speaking of three stelae).
[31] The drawings at Börker-Klähn 1982: nos. 203-204 in both cases show small staffs with a pointed end, and accordingly Börker-Klähn 1982: 209, no. 203 calls the object a stylus. But styli look different and appear in most cases in pairs. A closer look at the photographs (quotations at Börker-Klähn 1982: *sub* nos. 203-204) reveals that the objects are doubtless ram-staffs with their bended heads reaching into the frame of the stela. So it is obvious that Enki/Ea's symbol is placed directly beside the three horned crowns.
[32] Cf. Herles 2006: 218-219.
[33] Woods 2004: 65, Anm. 211 identifies the three horned crowns on a Kudurru from the reign of Nebuchadnezzar I as the symbols of Anu, Enlil, and Sîn (instead of Ea) but without giving an explanation for this idea.
[34] Collon 2001: 80-81.
[35] Collon 2001: no. 173.
[36] Collon 2001: no. 211.
[37] Klengel-Brandt 2014: no. 195.
[38] Hrouda 1991: 101 Abb. 8. Compare the stamp impression from Assur Klengel-Brandt 2014: no. 82, and the cylinder seal with the same motif that was impressed in the way of a stamp seal, ibidem no. Ist 76. The central figure shows a star on her headgear.

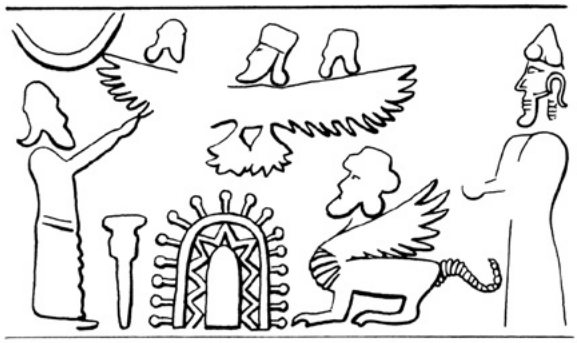

Figure 21. Neo-Assyrian seal impression on a clay tablet from Assur showing the winged sun-disk with three heads (Klengel-Brandt 2014: Taf. 40 no. 195).

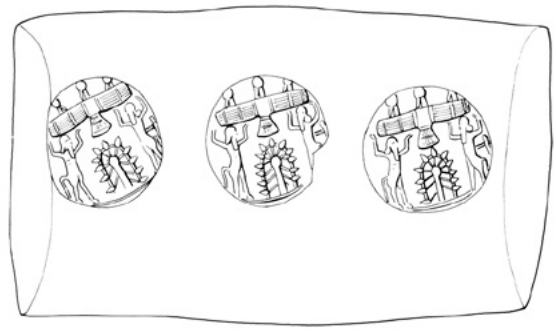

Figure 22. Neo-Assyrian seal impressions on a clay tablet from Assur showing the winged sun disk with three schematic heads (Hrouda 1991: 101 Figure 8).

A Lamaštu amulet in the Mosul museum features in the upper row five different divine symbols (Figure 23).[39] At the left probably a lightning fork/bundle, next a star disk or radiant wreath with a figure inside directed to the right.[40] In the middle position we see the winged sun disk with a figure in the central ring and ending in a bird tail. On or in front of the wings of the sun disk we see two further figures. The fourth symbol is the horned crown. At the right end of the upper row there is a moon representation with the crescent inscribed in the full moon. In the crescent is standing a half-figure directed to the right. Thus we have the very rare example of the three main celestial bodies sun, moon, and star, all with their 'manning'.

Figure 23. Neo-Assyrian Lamaštu amulet showing among others the three divine symbols star, sun, and moon, each equipped with a small figure (Amiet 1977: Figure 574).

To come back to the winged disk with figures, we may assume that the central figure stands for the sun god, but who are the smaller figures on the wings? P. Calmeyer gave an overview on earlier interpretations and an own suggestion concerning the smaller figures: They should be defined as the servant deities *Kīttu* and *Mīšāru*, 'Truth' and 'Justice', who are walking at the side of the king while the whole group means the king in his role as 'sun of justice'.[41] S. Parpola, while identifying the winged sun disk with Aššur, sees in this group Enlil/Marduk (in the center), Ninurta/Nabû (the figure whom the central god looks at), and Mullissu/Ištar (the third figure in the back of the central person).[42] The volutes on top of the disk sometimes visible may count as the two figures on the wings. Thus the whole concept is not only a triad but a real 'trinity-in-unity' and as such a component of the Assyrian concept of god (Aššur).[43]

I would like to propose another solution for this group: Burchard Brentjes (1994) suggested that the Neo-Assyrian scene with the life tree and two kings means father and grandfather of the acting king who was sitting in front of the life tree. Above the tree the winged sun disk with the sun god is shown. Accordingly

[39] Amiet 1977: Figure 574.

[40] For Ištar in the radiant wreath cf. Podella 1994: 31-34, 126-132.

[41] Calmeyer 1984: 146, note 73. Cf. also Herbordt 1992: 98-100; broadly Podella 1994: 26-31, 132-154. Ursula Moortgat-Correns kept identifying the figure in the winged sun disk with Aššur and the figures on the wings with Sîn and Ištar (1996: 159 with note 13). She argues that the smaller figures are characterised with star and crescent but this is not to be verified on the image she cites (Frankfort 1939: Plate 33e, here Figure 20). Actually there is a small star in the upper right of the seal but it has nothing common with the figure on the wing, and a crescent is lacking completely. She does not discuss the ideas promoted by Calmeyer 1984. Also Parpola 2000: 170-172 with Figure 1 identifies the god in the winged sun disk with Aššur. The article 'Sonnengott' in the *Reallexikon* presents a more recent state of knowledge (Krebernik 2009-2011, Kurmangaliev 2009-2011). For further figures who could be combined with the men on the wings cf. Krebernik, ibidem: 601 § 3. Kurmangaliev describes the two small figures as ‚seine zwei Gehilfen, vielleicht ...*kīttu* und *mīšāru*' (ibidem: 619 § 3; see also Krebernik 2006-2008: 354 § 2).

[42] Parpola 2000: 203-204 with Figure 6.

[43] Parpola 2000: 204.

I would like to suggest that the two small figures could represent the two royal ancestors in a changing status.

The group of celestial symbols on the Mosul Lamaštu amulet is important in combining all of them with 'manning' whereas normally on other Lamaštu amulets only the basic celestial bodies are shown.[44] At the same moment this is good evidence that the two small figures on the winged sun disk are subordinate to the central person and do not represent high deities like Ištar or Sîn since these are present on the same monument.

The triadic character of the figures in the winged sun disk is most important for the phenomen of triads or even trinities in the history of religions, especially when we compare it with later evidence in Christianity.[45] Nevertheless the character of the Neo-Assyrian group of three figures in the winged disk still needs further research work.

Groups of Three Deities in Royal Inscriptions from the Middle and Neo-Assyrian Periods

Among the many facets of written tradition in the ancient Near East the royal inscriptions are an attractive group of comparison, although a couple of objects investigated above do not stem from a court context, e.g. seals.[46] In each context of an inscription we would have to ask for the purpose of it, for its eventual connection with a building or a votive object in order to understand the grouping of mentioned deities etc. Compare this to the groupings on royal stelae. The purpose of the following compilation is to look whether there were groups of three deities or not.

a) Middle Assyrian Period

Starting with Aššur-uballit I (1353-1318 BC), Aššur, Adad and Bēl-šarri (RIMA 1, A.0.73.1 line 27) as well as Aššur, Adad and Ištar-*Kudnittu* (RIMA 1, A.0.73.4 lines 11-2) are mentioned.

Adad-nārārī I (1295-1264 BC) counts in three cases Aššur, Ištar and Adad (RIMA 1, A.0.76.4 lines 48-51; 14 lines 29-36; 15 lines 39-45), but once Aššur, Anu and Adad (RIMA 1, A.0.76.17 line 20).

Shalmaneser I (1263-1234 BC) speaks of Enlil, Aššur and Ištar (RIMA 1, A.0.77.1 lines 1-2) and of Aššur, Ištar and Adad (RIMA 1, A.0.77.6 lines 24-28).

In Tukultī-Ninurta's I (1233-1197 BC) inscriptions are mentioned twice Aššur, Enlil and Šamaš (RIMA 1, A.0.78.5 lines 48-9; 23 lines 56-7, 124, 135-6) as well as once Aššur, Adad and Ištar (RIMA 1, A.0.78.5 lines 111-120).

The same group of Aššur, Enlil and Šamaš figures in an inscription of Aššur-nādin-apli (1196-1194 BC) (RIMA 1, A.0.79.1 lines 5-6).

With Aššur-rēša-iši I (1132-1115 BC) Anu, Enlil and Ea are mentioned twice (RIMA 1, A.0.86.1 line 2; 2 line 1).

In Tiglath-pileser's I (1114-1076 BC) inscriptions Aššur, Anu and Enlil (RIMA 2, A.0.87.11 line 9') as well as Aššur, Šamaš and Adad (RIMA 2, A.0.87.15 lines 1-2) are mentioned.

Aššur-bēl-kala (1073-1056 BC) speaks of Aššur, Anu and Adad (RIMA 2, A.0.89.6 line 6').

b) Neo-Assyrian Period

In the reign of Ashurnasirpal II (883-859 BC) groups of Aššur, Šamaš and Adad (RIMA 2, A.0.101.1 line 104) and Anu, Enlil and Ea (RIMA 2, A.0.101.40 line 10) play a role.

Once with Shalmaneser III (858-824 BC) Aššur, Adad and the Assyrian Ištar are mentioned together (RIMA 3, A.0.102.43 line 10).

In an inscription of Šamšī-Adad V (823-811 BC) they are Aššur, Šamaš and Adad (RIMA 3, A.0.103.1 III lines 64-5).

From Tiglath-pileser's III reign (744-727 BC) groups of Bēl (Marduk), Nabû and Nergal (RINAP 1, no. 24 lines 6-7) and Aššur, Šamaš and Marduk (RINAP 1, no. 47 Obv. line 3) are transmitted.

Under king Sargon II (721-705 BC) things are slightly changing. There are 17 mentionings of the group of Aššur, Nabû and Marduk, always in this sequence (Fuchs 1994: 472[47]). Other groups, but mentioned only once, are Anu, Enlil and Ea-Ninšiku (*ibid.*) (cf. above p. 36) concerning the three horned crowns), Aššur, Ningal and Adad (*ibid.*), Aššur, Šamaš and Adad (*ibid.*), Aššur, Šamaš and Marduk (*ibid.*) as well as Sîn, Šamaš and Adad (Fuchs 1994: 474).

King Esarhaddon (680-669 BC) speaks in four cases of Šamaš, Adad, and Marduk as a group (RINAP 4, no. 104 col. III lines 9-10; 105 col. III lines 40-1; 114 col. III lines 16-18; 116 rev. line 9). In two cases it is Marduk, Sarpanītu and Nabû (RINAP 4, no. 105 col. V lines 24-

[44] E.g. Heeßel 2002: 199 no. 20, 209 no. 30.
[45] Cf. Courth 1988: 9-13 for the Old Testament. Parpola 2000: 171-172 with Figure 1, 204-205.
[46] This is a short overview over royal inscriptions using the *RIMA* and *RINAP* volumes without any claim of completeness. I was not able to check other literary, magical, theological etc. texts from these two periods. Cf. the similar list given by Parpola 2000: 168-169 note 7 in another context, concerning Aššur.
[47] Since Andreas Fuchs (1994) mentions the groups of deities in his index I simply quote the pages of his catalogue where the references to Sargon's inscriptions are registered.

5, 36-7), and in one case Nabû, Tašmētu and Nanaya (RINAP 4, no. 113 line 4).

Under Ashurbanipal (668-631 BC) we have a rich documentation mainly in the different prism inscriptions. We can note the grouping of Aššur, Bēl (Marduk), and Nabû (RINAP 5/1, Ashurbanipal 3 col. III line 10, col. VI line 40; 4 col. I line 58, col VI line 41; 6 col. II line 64'; 7 col. II line 35'; 8 col. IX line 2'''; 11 col. I line 81; 12 col. V line 3, col. VI line 8' and line 20'; 17 col. I' line 2'). In one case it is Aššur, Bēl (Marduk), and Sîn (RINAP 5/1, Ashurbanipal 4 col. III line 4).

Another combination is Aššur, Sîn, and Šamaš (RINAP 5/1, Ashurbanipal 3, col. III line 31; 4 col. III line 20; 5 col. V line 5; 6 col. IV line 10'').

There is also the group of Aššur, Sîn, and Ištar (RINAP 5/1, Ashurbanipal 3, col. V, line 76; 7 col. VI line 15).

More specific groups are Aššur, Mullissu, and Ištar from Arbela (RINAP 5/1, Ashurbanipal 23, lines 116, 119, and 160-1) as well as Aššur, Adad, and Ištar (RINAP 5/1, Ashurbanipal 61 rev. 22').

But there are also combinations of three deities without Aššur. So there are Sîn, Šamaš, and Adad (RINAP 5/1, Ashurbanipal 2, col. I line 6; 13, col. I line 3) or Šamaš, Adad, and Ištar (RINAP 5/1, Ashurbanipal 11, col. I line 6).

And finally there are groups with a local focus, as Nabû, Tašmētu, and Nanaya (RINAP 5/1, Ashurbanipal 2, col. I line 8) or Great Anu, Šarrat Dēr, and Marbīti (RINAP 5/1, Ashurbanipal 23, line 73). Note also Ninagal, Kusibanda, and Ninkurra (RINAP 5/1, Ashurbanipal 8, col. I, lines 13'-14').

In the Babylonian inscriptions we count twice Aššur, Šamaš and Marduk (RIMB 2, B.6.32.2 lines 7-8; B.6.32.14 line 4-5) and once Aššur, Enlil and Ninurta (RIMB 2, B.6.32.15 line 10).

Ashurbanipal's brother Šamaš-šuma-ukīn (667-648 BC) calls Enlil, Šamaš and Marduk (RIMB 2, B.6.33.1 line 4) a group.

Conclusions

Groups of three deities are frequent in art and royal inscriptions during the Middle and Neo-Assyrian periods.

In seals and seal impressions the celestial phenomena sun, moon, star, and Pleiades are the best documented group of divine symbols from which a group of three is choosen. The basic combination crescent and star is enlarged by sun or Pleiades. On royal and private stelae or slabs the fact that the head of the king or an anthropomorphic deity is dividing the upper field of the monuments in two parts may produce intentional groups of three divine symbols.

The three horned crowns are expectedly identified with Anu, Enlil, and Aššur as is demonstrated by monuments and inscriptions from Sennacherib's times. An important but still enigmatic group or triad proper is the winged sun disk with three human figures. The suggestion is made here that they represent sun god, father and grandfather of the king.

It is difficult to see a systematic preponderance of certain three-fold combinations of deities in the royal inscriptions. In almost every case Aššur is part of a group of three deities. In comparison with art astonishingly we never find the group of Sîn, Šamaš, and Ištar mentioned together in royal inscriptions, the Pleiades (Sebettu) lacking completely despite their frequent occurrence in art. Thus we can at least differentiate between a perspective in art, be it popular or courtly, and one in royal inscriptions. Images and divine symbols seem to have another effect on grouping as the deities proper when enumerated in inscriptions.

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