

## **Tappeh Pookerdväll: A Neolithic Site on the Gorgān Plain**

### **Authors:**

#### **Qorbān-‘Ali Abbāsi**

Fellow of the Organization of Cultural Heritage, Craftwork, and Tourism of Golestan Province

#### **Hamid Omrani Rekāvandi**

Fellow and Co-Director of the Great Gorgān Wall Cultural Heritage Center

#### **Majid Zayghami**

Doctoral Student of the Free Islamic University of Central Tehran

**Translator:** Kyle G. Olson, University of Pennsylvania

Translators note: The bolded & bracketed numbers indicate the beginning of a new page. I have attempted to remain as faithful to the original wording as possible; my only editorial intervention is to break long sentences into shorter ones when possible. The only diacritic mark I use is the macron to indicate long-a (ā). Passages that I was unable to confidently translate have been indicated. I use both the Persian and Gregorian Calendars to refer to dates, preferring the Persian calendar with Gregorian following in brackets.

All mistakes are my own, though advice on better translations of particular passages is always greatly welcomed! If you'd like to look at the original Persian don't hesitate to email me for a copy.

### **Abstract**

Ever since Erich Schmidt first flew over the area in order to observe its archaeological sites, the Gorgān Plain has long inspired wonder amongst scholars. This region, which is one of the most suitable regions for human habitation in Iran, is certainly home to many more ancient sites than are currently known. Tappeh Pookerdväll is one of the few Neolithic sites in the area. Unfortunately, it is under threat of destruction; indeed, the main part of the site has been subjected to unauthorized construction activities. Therefore, the site was documented using the limited facilities available and specialist analysis in order to provide materials for future studies. In this article, the authors have tried to present a clear picture of the prehistoric era of this site using the data gathered from a deep sondage.

### **Geographic Location**

The archaeological site of Pookerdväll is located at 36°50'55" North Latitude and 54°29'11" East Longitude. It is situated at the eastern edge of the city of Gorgān and along the northern side of the Jorjān Boulevard at the head of the Gorgān-Gonbad-e

Kāvvus highway. It is named after the seasonal river that passes along its eastern edge (Image 1 & Image 2).

## **Morphology**

The site of Pookerdväll is approximately circular with dimensions of 95x55 meters; it rises to an elevation of 2.5 meters above the surrounding plain. This site is bounded on the north by agricultural fields, on the east by the seasonal river Pookerdväll, and to the south and west by commercial buildings. The northern, southern, and western edges of the mound have been truncated by clearing for fields in the north and unauthorized construction of commercial buildings in the south and west (Image 3 & Image 4).

## **Previous Research**

According to the available documents, the first reports from this site indicate that it has prehistoric antiquities (5<sup>th</sup> millennium BCE) as well as ceramics from the Iron Age and historical periods (Nokandeh et al [1379[2001]]). In his book on the site of Āq Tappeh near Gonbad-e Kāvvus, Dr. Sādeq Malek Shāhmīrzādi, director of the excavations at Āq Tappeh in Spring 1379[2000/2001], also mentions this site: “during the excavations at Āq Tappeh, thanks to a serendipitous opportunity while investigating the current situation of the site of “Yarim Tappeh,” the author and the members of the excavation team visited several sites along the Gorgān margins. In the plowed lands connected to Yarim Tappeh and on the plowed-over mound called “Pookerdväll,” we collected a small number of ceramics of the Zāgheh type” (Shāhmīrzādi & Nokandeh 1379[2001]). Eventually, due to the importance of this site, on the 5<sup>th</sup> of Azar 1380[2002] this site was logged as Site #4371 in the National Historic Register under the name Tappeh-ye Pookerdväll-e Gorgān (Nokandeh et al. 1379[2000/2001]).

## **Aims**

As a result of the spread and development of the city of Gorgān, unauthorized construction has destroyed a large part of the site. In order to prevent further damage, sounding of the site was proposed in order to determine the site’s extent and integrity. Eventually, in the spring of 1386 and 1387[2007], this work was accomplished in two phases, and a map of the site was produced (Map #1).

## **A) Method of Excavation**

With attention to the essence of and principles ruling over the formation of an archaeological site, an excavation without explicitly stated goals or without the use of scientific methods and hypotheses is a destructive event that usually leads to the ruination of an archaeological site. The fostering of archaeological thinking is directly connected to scientific interpretation of archaeological materials. The scientific interpretation of these types of materials is not possible without

constructing various hypotheses to explain their connections with each other and with the society that produced them. This work is only possible if such archaeological materials and information are methodically and precisely recovered, especially as regards discerning the connections through time and space between them. For this reason, despite the familiarity of a given archaeologist with scientific methods, theories and new hypotheses for the interpretation of ancient materials, if the excavation and identification of antiquities is not correctly and methodically accomplished, no theoretical force can help correctly reconstruct ancient cultures.

[Translator's note: The following section has been loosely translated, as a one-to-one translation of the original into English would be hard to follow].

Reconstruction of the cultures of ancient communities is chronologically valid only if the materials and processes that caused the formation of the site, which today remains in the shape of a larger or smaller mound, can be detected through stratigraphic analysis (Alizadeh 1380[2001/2002]). Keeping this, as well as the financial constraints and time limitations in mind, and regarding the importance of doing accurate work on this prehistoric site, the team decided that the best method for excavation and documentation of this site would be to proceed stratigraphically layer-by-layer in arbitrary 5-centimeter levels. This decision was based on the assumption that such a method would allow for statistically controllable, repeatable, and comparable data collection that could be analyzed by any researcher.

Meanwhile, this method of recording data facilitated the directors' control over the excavations and afforded certainty over the accuracy of the crew's work. Although, practically speaking, and regarding the time constraints and the high cost that this method imposes on the team, the decision was based on the idea that levels could later be combined into 10-centimeter units or divided up on the basis of architectural levels. Furthermore, this horizontal recovery method takes into consideration not only the data and finds, but also allows for the suitable repeatability of the information, which provides for more accurate conclusion-making and statistical activities. (Figure #5 and Plan #1).

In addition to the above description, it must be said that with this method, the surface of one sondage was divided into twenty 50x50cm grids totaling 2x2.5 meters, which was applied to each 10 centimeters of digging. In this manner, for each 10 centimeters of digging including only one layer, at least 20 separate bags were kept for all of the different kinds of data. For the purposes of record-keeping, on each bag was written:

The Name of the Test Pit (TT)

The Date (D)

The Height (H)

The Number of the Layer (L)

The Number of the Grid (G)

In the case of special finds, the exact distance from the northern and the eastern edges of the unit was also recorded.

It is also necessary to explain that the finds from one 50x50cm grid with a thickness of 10 cm were not necessarily included in one bag, due to the fact that one of these units could include more than one layers (whether in width or length). It is also possible that analytical samples were taken in an additional bag with particular documentation of the grid and layer from which it came written on it, resulting in multiple bags for the same unit of excavation.

In this manner, in one 2x2.5meter sondage dug to a depth of 5 meters, we counted at least one thousand separate bags. In order to have the bags show the data, with attention to the necessary speed of action and the volume of data, for each of the grids at a particular depth and layer, 25x20cm zip-lock bags were used so that the data would never be out of the sight of the excavators. The workmen screened the soil from each grid after excavation, the soil from each grid, which was of course separated out by the probable layers. When the sondage became larger, two people were charged with taking the notes and explaining the work of the excavators inside the sondage, meaning that they recorded the qualities of the soil, and any changes in layers, as well as separating out the different grids.

## **B) Method of Recording**

As for the massive volume of data and information that was produced, it was undeniably necessary to use an information recording system that could be sufficiently powerful for processing the data. As such, we used the capacities of the software package Microsoft Access, which has the ability to correctly file and retrieve data, as well as to perform statistical analyses, to create a database including the notes listed above and other necessary notes (e.g. Table #1).

In order to separate the data from each sondage, an excavation number was assigned to each trench, which included the units into the thousands. This means that the excavation numbers of the first trench ran from 1000 to 1999, whereas the numbers from the twenty-second trench ran from 22000 to 22999. It is necessary to explain that in the case of the largest trench, number twenty-three, it was necessary to use more than 1000 numbers, so the excavation units were numbered from 23000 to 27999.

Thus, each bag that was assigned to grid-square of a 10cm depth, could be encompassed by one to several excavation numbers, increasing in value according to the greater depth of the excavation unit in the trench.

Each day, once the artifacts had been washed, an assigned individual entered the information into the Access database. In order to keep track of the ceramics and other artifacts such as stone tools, each piece was numbered with not only the number of the excavation grid from whence it came, but also its own unique

identifier separated by a comma, so as to not have the artifacts get completely mixed up when taken for separate analyses. For example, if the excavation number of some sherds of a depth from 0-10cm and from layer 1 in Trench 1 were 1000, the pieces of ceramics would be labeled in this manner: 1000,1 and 1000,2 and 1000,3 and so forth. In this manner, should some the finds from different units become mixed up after having been selected for typological analysis, there would be no problem, and all of the information would still be retrievable.

### **C) Methods of Ceramic Typology**

The ceramics were grouped together with each other based on similarities in the following categories: color of paste, color of internal and external surface, type and color of external and internal slip, method of decoration, type of motifs used and their color on decorated ceramics, types of temper, inclusions in the paste, sorting of inclusions, roundness and sphericity of inclusions, and the shape of the sherds. The different types were then separated out and given standardized descriptions (Orton, Tyers, and Vince 1993). It is clear that the precision of making a typology this way, more than any factor, depends on the ability of the ceramicist to accurately identify the technical features of the ceramics under consideration as well as to know well the ceramics from the surrounding region and to separate them into types on this basis (Image #6).

### **D) Method of Description**

One of the main problems that exists in the study of ceramics is the inherent relativity and individual specificity of the descriptions. Or in layman's terms, description is largely the interpretive endeavor of one viewer. Hence, as regards the differences in various individual's interpretations on a topic, their descriptions will also likely vary. These variations can impinge upon the general understanding and extendibility of such descriptions to similar topics. The best solution for this kind of problem is to use the Munsell Soil Color Charts, which has a standard format for describing colors (Image #7).

As regards the above explanation, in order to standardize descriptions using the available resources, a descriptive vocabulary has been put into place, which will hopefully help to mitigate the problems of relativity and individual analytic variation.

For example, in the case of the weight of the ceramics, first "weight" (in order to get at net mass) we used the terms "heavy", "dense", "medium", and "light", which allows for a better understanding of each description. We believed that these standardized feature description forms will allow us to compare our typology with those produced by similar research activities across the Gorgān plain region (Orton, Tyers, and Vince 1993).

With one such descriptive method, the technical description of ceramics falls under one framework, which aids the possibility of comparison between our finds and those from various sites. Of course, it is necessary to mention that this comparison will be possible if the selected examples for comparison are described using the same method, or at least in one that is more or less similar.

## **Cultural Materials**

As a result of these sondages, data from four different cultural periods were identified, from oldest to youngest: (1) the Ceramic Neolithic, (2) the Bronze Age, (3) The Historical Iron Age (Parthians), and (4) The Islamic Period.

Excepting for a single remaining architectural feature, the data consisted primarily of ceramics and tools and artifacts made of stone. Only one piece of metal was found. The ceramic finds, on the other hand, total above 6400 pieces.

## **The Neolithic Period**

### **Ia: Architecture**

The only architectural structure found in these excavations was a circular adobe structure (with plant material used as a binding agent) with a diameter of 1 to 1.5 meters, 40% of which came from the eastern corner of Trench F.VIIa. Altogether, 80 centimeters of its height still remained, but above that its walls were diminished due to burning. The bottom of this feature was flat and made in the same way as its wall, and indeed was connected to them. The upward-drawing handprints that were visible on the inside of the walls of the structure give us an idea of the construction and formation of this feature. Except for a few limited grains, and some very small pieces of charcoal, no burnt remains or ash that would speak to the use of this feature as a kiln or a household hearth were discovered. With attention to the circular shaped ground-stone tool found inside the structure, however, it seems that it might have functioned as a granary or something similar (Image #8).

### **Ib: Ceramics**

The ceramic finds connected with the Neolithic period compose 38% of the total ceramic finds from the excavations. As a result of preliminary study of these ceramics, we can say that there are at least 20 types among the identified pieces, which provides very useful information for comparison with other sites in the adjacent regions. In this article we will present a brief description of some of these types.

#### **a) Decorated Red Wares**

One of the indicative types of Neolithic ceramics is the handmade ware with a red paste and a thin red slip, which are decorated with brown to black painted designs.

The inclusions in the paste of this ware are primarily chaff, which along with the quality and type of firing they underwent, has led to these wares being rather brittle and fragile. The format of the motifs of this type of ceramic is mainly checkered strips in combination with wavy horizontal lines. Also an important decorative trait in this group of wares is triangles or scallops on the interior lip edge, which is one of the fundamental distinctions of Neolithic pottery in the region (Image #10, Plate #1, Drawing #1-#6).

### **b) Decorated Buff Wares**

One of the other important types of ceramics of this period are the hand-made wares with brown to red pastes that have been slipped on their outer surfaces with yellow clay. They have decorations that range from brown to reddish brown. Similarly to the previous group, the temper in the ceramic matrix of this type of pottery is primarily vegetal, but as these wares are made from well-levigated clay, they are structurally more solid relative to the previous group.

The decorative characteristics of this type are irregular latticed designs that encompass approximately the whole of the outer surface of the pot (Image #11, Plate #1, Drawings #7-#12).

This type of pottery is associated with the only architectural feature identified at the site, which was discussed above. In the layer immediately following this layer (the one with the feature and the Decorated Buff Wares) a very important type of ceramics have been identified that, should they be properly studied, could provide a clear picture of the changes related to the end of the Neolithic and the beginning of the Chalcolithic in the region. A brief description follows below.

### **c) Buff Wares with “Standard Pookerdväll” Decorations**

This type of pottery includes the sherds with the pale brown paste and the thick yellow slip on the outer surface. These pieces are painted; the designs are executed in a brown that ranges into red. The temper material used in this type of wares is also vegetal and like the Decorated Buff Wares, these wares are very well levigated. This type of ware is very well made; as regards the forms of the vessels and the precision of construction, it is possible that they might be wheel-fashioned, though it is also possible that they were made on the slow potter’s-wheel. They are well fired, as no indications that there were deficiencies in the firing or the control of the kiln are observed in any of the available pieces (Image #12, Plate #1, Drawings #13-#26).

The decorations on this type of ceramics are mostly relatively thin horizontal lines that appear under the lip and also above the corners connected to the bottom of the vessels. The motifs used are primarily geometric, though of course the forms of the geomorphs and their execution on the vessels are done in an exceptionally creative and original manner.

The decorative motifs of this type of pottery fall into three groupings that include simple geometric designs, complex geometric designs, and combinations of the first two. The simple geometric designs encompass the entire form of the vessel with simple lines that may be parallel, wavy, or zigzagging in form. Checkerboard patterns are also observed.

The complex geometric designs include beautiful abstract patterns that are created from geometric motifs, such as: successive arches, and the “Pookerdväll Standard” motif (Plate #3).

*Repeating Arches*: Including rows of curving arches similar to the drawing of a bow in alternating rows, repeated all across the surface of the pot (Plate #2, Drawing #26).

*“Pookerdväll Standard”*: This motif is expressed as thin bands of paint that are horizontal ovals created in negative, through which thin lines pass. This design, which is more complex than the others, involves the repeated combination of different motifs, which must have required a great deal of creativity (Plate #2, Drawing #25).

The combined geometric design forms refer to those that bring together the simple geometric designs with the complex geometric designs (Plate #2, Drawing #24). In this type of pottery, in addition to the properties of the other decorative features of the designs, using the applique technique, prominent parallel double bands are depicted along with intersecting triangles on the surface of the pot. Given the small size and dimensions of the surfaces of the available pieces for study of this type, it is hypothesized that these features may have been used as a belt in the middle of the vessel and had more than just a decorative function, but rather, also played a structural role. In any case, these prominent bands are used as another axis of decoration and in reality, are among the most beautiful types of designs found on these pots, especially when found in conjunction with the simple geometric zig-zag motif that is only found used on these prominent bands. This type of pottery makes up approximately 9 to 14% of the total amount of pottery recovered.

The most common form of vessel found in this type of ware was vessels with open mouths and out-curving lips that have been recovered in differing quantities. In the case of some of them, the curvature is observable, though a complete vessel of this type has not been found. But with attention to this fact, as it regards the identified pieces, it seems that at least some of these vessels had corners along their bases, that were not always completely covered with a yellow slip. Regarding the available pieces, it is difficult to discern whether these corners led directly to the base or were only a connector between the base and the body.

#### **d) Bi-chromatic Wares**

Some of the most interesting Neolithic wares collected in this region are the decorated wares with two different colors of paint, red and black, which have a light brown paste tempered with organics and are covered in a cream-colored slip. Due to the limited number of recovered examples of this type, we cannot say whether this type of ware was wheel-made, but the matrix of the sherds shows that the clay used in making these pots was not well levigated. For this reason, on most of the pieces of this type, the inner surface slip has crumbled away, due to a lack of structural integrity (Image #13, Plate #4, Drawings 27-32).

As has been mentioned the method of decorating this type of pot was to use two different colors of paint: red, which was only used for creating wide separated strips, and black which was used for making motifs. The motifs found on these pots include three complex geometric designs:

- 1) The 'Pookerdväll Standard' design – With the same features as described above.
- 2) Successive Triangles – Rows of triangles set next to each other, as well as columns of triangles set point to base.
- 3) Fish Scales – Created by using wavy lines, arranged such that the peaks and troughs of the waves coincide to create the illusion of scales (Plate #2, Plate #4, Drawing #32).

Unfortunately no pieces were found that could help give us an indication of what the shape of these vessels might have been like.

In addition to the types found, a decorated type with wavy lines and straight horizontal lines, undecorated ceramics, and ceramics entirely covered in a slip were also found, the latter of which is quite unique, and remains one of the least studied Neolithic types of ceramics in the region due to its exceedingly small number of recovered samples.

In addition to ceramic finds from the Neolithic, there were also other artifacts recovered:

## **Ic: Stone Tools**

### **a) Grinding Stones**

The most indicative stone finds, grinding stones, were related to the Neolithic layers that were approximately spherical in shape that had been ground down to a hemisphere. As regards the small amount of these artifacts, it seems that given that a grinding stone was found inside the only identified architectural feature, that these artifacts can be explained as being in some way associated with the function of this feature (Plate #4).

### **b) Flaked Stone Tools**

During our excavations of the two prehistoric periods (Neolithic and Bronze Age), in total we found 170 pieces of stone tools that, without exception, are made from flint. The different types of tools found are as follows: small blades, flakes with and without retouching (some of which bore use-wear markings indicating their use in harvesting crops), borers, and cores. The color of the flints ranged from brown (dark, light, and shading into yellow or red) to grey (dark, light, and grading into black) (Image #14).

### **Id: Figurines**

One of the unique finds recovered in the excavations at Pookerdväll is a ceramic animal effigy with spotted decoration. In terms of its type of paste, surface covering, and paint color, the method of decoration has much in common with the buff-ware ceramics with the 'Pookerdväll Standard' motif. In terms of the shape, it seems that it was quadruped, based on a part of one of the hind-legs that remains. Perhaps if another were found that was more complete than this specimen, we might be able to determine just what kind of animal this effigy depicted (Image #15).

## **II) The Bronze Age**

As a result of continual agricultural activities such as deep plowing, as well as the unauthorized constructions on the site, the data from this era was not found in situ on any part of the site. These encroachments have completely disturbed the Bronze Age layers and have scattered the remains across surface of the site. Perhaps it is for this reason that despite the proportion of Bronze Age ceramics being 55% of the total found, we found no architectural features and no burials from this period at Pookerdväll. The finds related to this period were metals, ceramics, and stone tools.

### **Ila: Ceramics**

#### **a) Grey Wares**

The group of Grey Wares from Pookerdväll consists of well-made and well-fired ceramics. The paste of these wares is without impurities, suggesting that the maker of the pots deliberately selected clays of a suitable quality for pot-making. In terms of the technical aspects of the construction of the pots and the shape of the vessels, this group of wares is much the same as those discussed above [antecedent unclear].

As regards the dark surfaces of this type of Grey Ware, new creativity in the decoration of the pots is observed, especially in the execution of burnished designs, incised decorations, as well as bosses and combinations of these three elements. These decorations are executed in a simple geometric style, and mostly include wavy horizontal lines. The decorations of these vessels, in terms of the density and amount of decorations, is much the same as on the vessels described above.

Insofar as the pottery in the Bronze Age entered the scope of mass production, as regards the quantity, quality, and types of vessels produced, it is necessary that study of these wares be expanded, especially in the realm of understanding the changes in ceramics during this period. With attention to the lack of pedestalled vessels and vessels with incised decorations, i.e. ceramics related to the Early Bronze Age, especially as regards the similarities between the sherds recovered from Pookerdväll with those from the region under consideration (such as Shah Tepe period II), it would seem that the study of the Bronze Age ought to be concentrated on such questions (Plate #5, Drawings #34-#39).

### **b) Slipped Red Ware with Pāydār [پایدار] Decorations**

This is a description of the limited number of sherds of this type found to occur at Pookerdväll, a type that is the only kind of decorated ware found to occur co-presently with Grey Wares. This Red Ware is found widely over the Gorgān plain, and is even documented in the provinces along the southern coast of the Caspian to the west (Mahfroozi 1386[2007/08]). As regards the studies that have already taken place on this type of ceramics in the Gorgān, this type of ware bears the following describable characteristics:

These wares are made with a well-levigated red or orange clay that is relatively pure and has no observable tempering agent visible in the matrix. The paste of the available pieces, taking into account the high number of pieces and vessel forms, and also accounting for the high density and thickness of them, indicates that the clay used in manufacturing these wares was much more well-levigated than those of the above-described contemporary wares. Given the generally large size of the available pieces, doubt remains as to whether these ceramics were formed by hand or whether the visible lines on the interior surface of the vessels indicates that they were wheel-thrown. In any case, based on such evidence [not clear what the antecedent is], we can hypothesize that perhaps the larger vessels such as vats were hand-modeled, whereas the pieces connected to a number of smaller vessels in this collection were produced using the potters' wheel.

The quality of firing of these ceramics is very high, and despite the relatively great thickness of most of the pieces, there is no indication of firing temperature fluctuations, soot-marks, or burning of the paste. The outer surface of this type of ware is entirely covered with a thick red slip and polish that adhered well to the surface throughout the firing process. The inner surface of these wares is without exception quite simple, in that the handprints of the pot-maker can be easily seen, despite their not having a particular ordering and that they were only used on the internal surface.

The method of decorating these ceramics was from a highly durable black paint, which was executed by a large brush in simple and combinatory geometric motifs, from which the individual brushstrokes are discernable. As far as we can tell based on the available pieces, these painted decorations were placed everywhere on the

surface of the pot including along the length of and underneath the lip projections and all over the body and even on the base of the vessels (especially with the small vessels). Until now, an example of a decorated interior surface on any of these vessels has not been observed. Accordingly, it seems that as regards the lack of slip and other decorative detail to the interior surface of the pots, that perhaps these sherds are connected with vessels that had mouths tighter than their bodies, which forewent the need to decorate the inner surface of the vessel.

[Note: These ceramics known in the Western Literature as 'Caspian Black on Red Ware'].

This type of ware which we have described is often mistaken with wares of the Chalcolithic "Cheshmeh 'Ali" type due to its nature as a 'Red Ware with Black Painted Decorations'. Such comparisons ought to be revisited, even if only to revise the conclusions previously drawn (Image #16, Plate #5, Drawings #42-#44).

### **Iib: Metals**

One piece of bronze wire 3.3 cm long and 0.4cm in diameter.

### **Iic: Stone Tools**

The stone finds of this period, in addition to the identifiable stone tools, included: one piece of a saddle-quern, piece of broken stone implements and lumps of chert, blade tools, pivot stones, and a small semi-precious stone ornament (Image #17, Plate #6, Drawings #45-#50).

## **III) The Historical Period**

### **IIIa: Ceramics**

The finds of this period only include small, broken, and scattered pieces of red ceramics, that as regards the elegance of their construction that is very close to the [Jālingi] wares. The type of dark smears on the surface of this type of wares is evidence that this is a type of ware that might be called "Flecked Ware" or "[Avāie] Ware" (Ernie Harink 1376[1997/98]). The forms of these vessels include cups and mugs with wide mouths that have a carination below the lip, or just simple lips (Plate #7, Drawings #51-#53).

## **IV) The Islamic Period**

The only finds of this period were several small pieces of glazed ceramic sherds from the Middle Islamic Period.

### **Results:**

In terms of its geographic location, the site of Pookerdväll, was indeed one of the [Galougah-ha] connected with the southern coast of the Caspian Sea and the Gorgān Valley. By virtue of its proximity to passes through the Elborz, the site clearly has connections to the Iranian Plateau and with Turkmenistan on the other side of the Kopet Dāgh. According to the various finds recovered there, this site exhibits the features characteristic of the Neolithic on the Gorgān plain. Culturally, it is perhaps analogous to those in Turkmenistan, especially “Jeitun”, and in Iran with the “Zāghehh” or “Ancient Plateau” phenomena. Of course, it is clear that due to the existing geographic effects including the limitations on easy establishment of relations with the inner plateau, the evidence of similarities is much clearer with cultures who resided near to the Gorgān Valley, such as in the cultural region of Turkmenistan. Nevertheless, the directionality of cultural influences is still a matter of scholarly debate, albeit one that can be the subject of future empirical study.

The relatively high diversity of Neolithic ceramics at Pookerdväll in comparison with other sites such as Āq Tappeh, is of a kind that Dr. S. Malek Shāhmirzādi described thusly in his book on Āq Tappeh: “The variety decorations of the Zāghehh ceramic type at Pookerdväll were less similar to those of the Zāghehh type from Tappeh Sang-e Chakhmāq, but in fact more like those of the Zāghehh type from Āq Tappeh”. He indicates that one of the reasons for this could be the relative distance, be it closer or farther, that these sites lie to the centers of production of these types of wares (Shāhmirzādi & Nokandeh 1379[2001]).

Additionally, we can add to the case for the importance of Pookerdväll for the following reasons: its geographic and environmental location is quite favorable, and as a result, it could have played a central role in facilitating the connections between different cultures, its own role being somewhat of a notable axis [of such connections] on the Gorgān plain.

In the case of the site of Pookerdväll, not only are the data and the recovered finds of great importance, but also the data which we did not find at the site can help inform our understanding of the history of this region. In this regard, *not a single example* of the Cheshmeh ‘Ali (Anau IA) type of ceramics were found at the site (Hiebert 2003). As such one can begin to trace out how at the end of the Neolithic and with the beginning of the general transformations leading to the Chalcolithic (i.e. the arrival of the Cheshmeh ‘Ali ceramics), there was a hiatus across this region until the arrival of the Bronze Age and the appearance of the Grey Ware ceramic tradition.

This point becomes all the more important when we realize that the last type of ceramics present before the hiatus is that which we have called “**Buff Wares with Pookerdväll Standard Decoration**” is the most numerous among the discernable decorated ceramics. Accordingly, if we can learn the reason for the large quantity of these ceramics and their spread across the plain at the end of the Neolithic and the beginning of the Chalcolithic, then we might be able to make claims about the settlement of this site during its height and also during its contraction. Of course, with further study, we may be able to propose to investigate hypotheses based on

this settlement hiatus observed at Pookerdväll following the arrival of the culture(s) bearing Cheshmeh 'Ali wares.

In any case, following the long hiatus of the Chalcolithic, this site once again becomes inhabited at the beginning of the Bronze Age, marked by the appearance of Grey Wares. Presently, based on the typological study of ceramics at Pookerdväll, it can be pointed out that in terms of similarities in their vessel form, there are many observable parallels between the Grey Wares of Pookerdväll and those of period II at Shah Tepe (Arne 1945).

Among the Bronze Age ceramics at Pookerdväll, there also exists a decorated Red Ware, which could be key in answering many of the questions about the ceramics of this region. In published reports about this and adjacent regions, often due to the decoration of this type of wares, and also its scatteredness amongst the general collection of Grey Wares, it has only tentatively been placed in connection with the Bronze Age. In his report on Shah Tepe, Arne discussed similar wares that he found in the lowest layers of level III. Similar finds were also reported at Tappeh Anjirāb in the Gorgān (Shiomi 1976), Gohar Tappeh in Māzandarān (Mahfroozi 1386[2007/08]), Narges Tappeh in the Gorgān ('Abbāsi 1386[2007/08]). Accordingly, as regards the contemporaneity of this type of ceramics with the Grey Wares at the above-mentioned sites, and also the existence of this type of ceramics at Tappeh Pookerdväll-e Gorgān, as well as the key lack of Cheshmeh 'Ali wares at the site, we can rule out doubts about the connection between these Red Wares and the Bronze Age, as in terms of quality, technique of manufacture, form, and style of decoration, these wares have few similarities with the Cheshmeh 'Ali ceramics.

The characteristic ceramics of the historical period are mostly simple Red Wares, some of which have observable grey splotching. These wares have been called the "Flecked Ware" or "Avāie Ware" by Haerink, and are found in abundance across the Gorgān plain. These wares are comparable to those from Torang Tappeh Vb, Yārim Tappeh IV, and Narges Tappeh II. Based on the results of analysis, it can be said that these wares come from the Ashkānian [Parthian] period [247 BCE – 224 CE].

The glazed ceramics of the Islamic era, which were found dispersed across the surface of the site are comparable with the ceramics from the city of Jorjān, Narges Tappeh, and the city of Gorgān (Astarābād). These wares are probably connected with the Ilkhānid period [1256 – 1335 CE].

Without a doubt, the continuation of research at Tappeh Pookerdväll can make available a larger collection of information about the development of the Neolithic, the transition to the Chalcolithic (before the arrival of the Cheshmeh 'Ali horizon in the region) and also the transition to the early Bronze Age. In the future, targeted studies can certainly rely on the information present here, despite the fact that the development and spread of the modern city of Gorgān threatens to quickly swallow up this site. Despite our logging the site in the National Antiquities Register of our country, it seems that it will soon be no more.

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