

Turkmenistan's studio Pottery: Neolithic, eneolithic, and bronze ages

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Turkmenistan occupies its independent, peculiar place in a broader area of Central Asia's early agricultural communes. The historical heritage of the Neolithic, Eneolithic and Bronze Ages is a substantial contribution to the global culture. Archeological excavations are illustrative that Turkmenistan is one of the world's oldest hearths of human civilization.

Of all kinds of arts that came into existence in the ancient times, we can examine only material evidences of creativity of the epoch that has brought its bright specimens through millenniums. Artistic handicrafts occupy particular position among the monuments of human creativity. Ceramics, which had been forwarded esthetic demands yet at those times, is one of the most important technical achievements of the ancient man.

The first component and the initial stage of technological process of ceramics production are the technology of raw materials: selection and handling of material, and the making of required earthen masses of different sorts.

Clay is the basic raw material. Clays have different chemical compositions, physical properties, contents of mineral mixtures, etc. Of great importance are the mineralogical composition and structure of clays, which condition behavior of clays under the drying and baking and influence considerably upon plastic properties of masses. In terms of chemical composition, there are distinguished clays with a high content of iron compounds. These so-called "iron" clays are distinguished for their fusibility and fatness and are highly plastic. Plasticity is the most important property of clays used for the making of ceramic works. Yet in ancient times, craftsmen applied different methods to obtain earthen masses of the required quality and property. One of such spread methods was the maturing of clays known from either ancient manuscripts or ethnographic data. Many modern Central Asian ceramists also make clays 15 to 20 days before use and sometimes let clays mature within 30 days.

The ceramics starts with the selection of raw materials while the birth of the very finished product starts with the forming of a to-be item and the making of a certain hollow form of earthen mass. The following technical methods of forming of vessels are known in the historical development of the ceramics: hand clinging, the making on potter's wheel, the pressing, and the forming.



At the initial stage of the ceramics technological process, vessels were formed by hands, using primarily the ribbon method. The potter's wheel invented as an instrument of production in the

Bronze Age is either one of the greatest achievements of humankind at the dawn of civilization or one of the lengthiest and most actively used technical phenomena. Its history accounts around 6,000 years.

Turkmenistan's handicraft industry has ancient traditions. The ceramics is one of the kinds of handicrafts that emerged in the Neolithic and reached certain successes at the time. The birth of early primitive kinds of ornament and images also dates back to the Neolithic.

Turkmenistan's Neolithic monuments are settlement Jeitun north of Ashgabad, Pessejikdepe, Chopandepede and Togolokdepe in the Geoktepe region; Bami at a railway station of the same name in the Bakharli region; Monjuklydepe and Chagyllydepe in the Mean region, and Chacha in the Kaakhkin region, etc. where slightly glazed and ornamented ceramic vessels have been preserved. It is to conclude from all these monuments that one of the most ancient places of residence of settled population was the Akhal Oasis, a narrow long strip clutched by the ridge of Mountain Kopetdag in the south and the sands of desert Kara Kum in the north. Some authors indicated that the cultures of Neolithic tribes inhabiting area north of the Kopetdag foothills had deep local roots, which had been established on the cultural basis of the Caspian Mesolithic type (Jebel, Dam-dam Cheshme, etc.).¹



The Jeitun period ceramics are made by ribbon method of hand modeling, which is detectable well at thick-walled vessels. The surface of vessels was glazed thoroughly; sometimes, traces of glazing are visible. A considerable volume of cut straw was mixed into the composition of clay. That thermal regulation was not sufficiently high at the time is to conclude from dark and light spots in the middle of crock and at sidewalls of vessels. Proceeding from these data, it is assumable that vessels were baked at an open fire. However, V. M. Masson, who examined the settlement, believes that "...it is to conclude from the quality of crock that vessels were baked in primitive furnaces or kilns".² In this connection, it is sufficient to recall potter's furnaces of complex construction in North Mesopotamian settlement Yarim-Tepe, which is dated back, like Jeitun, to the 6th millenium BC. Here, furnaces had arched overlapping of chamber; a typical peculiarity of such furnaces is either perfection of its constructions or that they were located primarily outside living houses in the same settlements. With this circumstance in mind, it is quite grounded to believe that Yarim-Tepe the First was a special center for the making of ceramics.³ The ceramics from Chakmaklydepe "...despite being handmade, look very elegant. The majority of ceramic items have very thin walls; they are made of well-washed red light clay with a mixture of shallow sand".⁴

The Neolithic ceramic forms consist of flat-bottomed and rounded cups, cylindrical-conic large earthenware pots with a strut in its near-bottom part, and rectangular and latticed vessels of different sizes. Pot-like vessels appear at the middle stage of the Jeitun culture.

Turkmenistan's Neolithic ceramics is divided into painted and non-painted ones. The Jeitun non-painted ceramics usually have brownish-red or brown surface. The ceramics have the forms of large earthenware pots and cups. Some large earthenware pots have a distinguishable edge in near-bottom part, sometimes have spherical form and resemble a big cup. Cups have a distinguishable edge and sometimes are semispherical. Of painted ceramics, there is widely spread the form of a small earthenware pot with walls bent slightly under the rim. All such vessels are flat-bottomed and have a small ledge at the transition toward body's walls. The number of painted ceramics is smaller than that of non-painted ones but represents one of the most expressive features of the whole culture's image. Though the painting was put with one and the same red color, the painted ceramics represent specimens of various color gamma due to different conditions of the baking. Painted ceramics most often are dark brown or wine-colored.

One of considerable achievements in the Neolithic is the invention of paints produced from minerals and plants and later on, the invention of painting on walls and ceramics. Traces of the grinding of paints were detected on a number of stone instruments. For example, a stone mortar discovered in a utility room in Jeitun has kept remains of the grind ochre inside the bottom.⁵

On the example of Turkmenistan's Neolithic ceramics, it is possible to trace the birth of those ornamental principles and schemes, which later on determined, to a significant extent, the image of applied arts of early agricultural tribes. Despite the entire limited nature and simplicity of elements of painting, ornamentation has several kinds. The decor of Jeitun-period painted ceramics was put straight onto crock with no preliminary engobing and consisted of the following seven types of primitive ornamentation: laminar, stapled or cellular, reticular, vertical-lamellar, horizontal-lamellar, oblique-lamellar and silhouette triangles. The first two aforesaid types of ornamentation are met most often. Sometimes, a stapled painting with straightened lines turns into a reticular drawing while "the pressed staples" turn into a cellular ornament.

The laminar ornamental motive was spread most of all at that period and represented wavy vertical lines, sometimes interlaced, put freely on a smooth background. Scientists believe that in those countries where there were painted ceramics with its rich, complex ornamentation, a number of signs of early written language can be equated to the symbolism of pictographic schemes. The triple broken line – zigzag in the Sumerian and Elam written languages – means "water-canal-river".⁶

Stapled or cellular ornament consists of vertical rows of staples forming several horizontal belts. There are met different options of this kind of ornamentation ranging from geometrically formed ones to freely shifted ones resembling wavy painting.

A unique specimen is a painting with silhouette triangles, the favorite motive of the Eneolithic early agricultural vessels of the Anaus culture.

General chronology of Jeitun culture monuments of our interest is, according to V. M. Masson, as follows: “...in the last one third of the 7th millennium BC, there had appeared the early ceramics that was spread widely since the 6th century BC when there were established “painted ceramics cultures” archeologists are accustomed to so much”.⁷

In schematizing and summarizing visible things, the Neolithic man made a great step forward in his



ability to abstract and realize general principles of forming. Nevertheless, the ornamentation of vessels and crockery in South Turkmenistan got its real development in the Eneolithic, following the appearance of the notions of rectangle, circle and symmetry. In the 5th-2nd millenniums BC, South

Turkmenistan joined the circle of highly developed cultures. Study of the so-called Anaus or Namazgin cultures of the Eneolithic and Bronze Age allows specifying South Turkmenistan’s ceramics concretely.

The South Turkmenistan’s Eneolithic monuments are as follows: Northern Hill Anau, Namazgadepe, Geoksur Oasis’s monuments-Dashlyjadepe and Yalangachdepe, Karadepe at Artyk, Yasydepe at Kaakhk, Yilgynlydepe, Monjluklydepe and Altyndepe at Mean, Akdepe at Ashgabad, etc.

The ceramics improved and prospered considerably in the Eneolithic. First of all, there is a sharp increase of the number of ceramic forms though crockery continues to be clung by hand. Simultaneously, there appear several forms of thin-walled cups where the ribbon method of making is displayed not as brightly as before. I. S. Masimov believes that “...probably, these vessels right then were made of one piece of clay”.⁸ The ceramic items overwhelmingly are engobed from both sides. They have a smooth surface, an indication of wide use of stone polishers. But the most important thing is an increase of the variety of ornamental motives, basis of which contains easily detectable traces of the preceding period.

The Lower Eneolithic ceramic forms have a comparatively insignificant diversity. Most typical specimens are as follows: wide-necked thick-walled large earthenware pots bent in the middle part, and cups with a flat or slightly concave bottom. There are also met low open forms of cups and pot-like vessels on a discus-shaped saucer. Storage vessels are cylindrical and have stick-handles in the form of semi-oval staples. Yet in this period there were born the forms of vessels with walls bent at the corner or crown or in the middle of the body; such forms were spread widely in later periods. The Eneolithic-era Anau and Altyndepe ceramics were baked under the temperature of 650°-950° Celsius.⁹

Crockery was painted largely with dark brown paint of different shades on a reddish or yellowish background; motives were rather limited and represented largely the image of rows of contoured

triangles and ornament of wide ribbons edged with narrow lines from one side. A typical detail is that small corners with points at the edge or a trident appendix were added to the lower row of triangles. Sometimes, a drawing is formed simply by interlaced lines. The evolution of painting at the Geoksur the First ceramics is a kind of specimen for the Geoksur group of settlements.¹⁰

In the Eneolithic Anau epoch, decorating crockery with painting was spread widely: almost 30% of the number of earthenware vessels were ornamented. Light gray earthenware vessels were covered with greenish-white or greenish-yellow engobe white red clay vessels were covered with greenish-white engobe containing black, dark brown or dark red paints. The following compositions of big geometrical elements dominated: vertical zigzag-shaped lines placed within a rectangular frame, reticules placed between two parallel zigzag-shaped lines; largely horizontal rows of silhouette triangles filled with oblique parallel or latticed lines wholly and triangles wholly painted from inside. Along with that, potters rather widely used drawings in the forms of arcs, saw-shaped strips, zigzag-shaped interlaced ribbons, and treelike and checkmate-shaped ornaments.

South Turkmenistan's developed Eneolithic – the second half of the 4th millennium BC-the beginning of the 3rd millennium BC – was distinguished for peculiar polychrome patterns on ceramic items.¹¹ No method of making was changed at the initial period of this epoch. The basic studied monuments dating back to this period are located largely within the Geoksur Oasis: Geoksur the First, Akchadepe, Yalangachdepe, Mullalidepe, Aynadepe, Geoksur the Seventh, Geoksur the Ninth as well as Dashlyjadepe, Yilgynlydepe, Sarmanchadepe, Ulugdepe, Altyndepe, etc.

Developed Eneolithic ceramic forms are rather diverse. They are large earthenware pots, pots, spherical vessels, cups with conic and straight walls, jar, bi-conic and kitchen crockery of different configurations and sizes and rarely khums. Cups of different configurations were spread most of all. All items are handmade. Engobe is red, greenish-gray and very rarely light yellow. Greenish-gray engobe is met advantageously at large vessels with friable porous crock.¹²

Non-painted ceramics consist of well-washed red-polished (light inside) gray clay (inside is similar to that outside) and a rougher, the so-called kitchen clay (its paste with a mixture of sand).

The ornament of monochrome and polychrome ceramics consists largely of geometrical elements. The painting was put onto the outward part located in the form of frieze in the upper part of a vessel. Very rarely there were met khums painted with triangular or cruciform elements, such as a khum from Geoksur.¹³ The paints were largely two-colored: red and black. Of beams of lines and zigzags, there were formed crowned borders, which, after having become more complex, turned into broken lines and triangles. The latter were depicted in the following different variations: with top upward, with top downward, clutched with tops, and filled with oblique reticular ornamentation. The basis of almost all such ornaments were triangles located either horizontally or vertically and later on forming rhombs,

crosses and more complex elements. Cruciform motives, which formed the basis of multi-ray ornaments, are rather numerous and diverse.

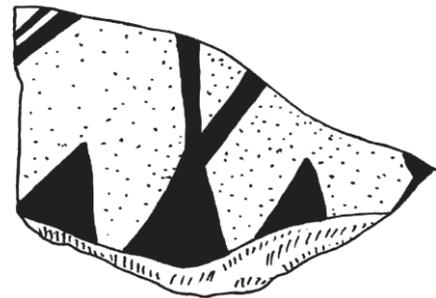
A treelike motive is met in the ceramics of the Anaus settlements of the 4th-3rd millenniums BC. In the opinion of G.A. Lisitsyna, tree images resemble conifers, more exactly "...a rose finch, which played, according to Paleobotanic data, a very substantial role in the economic life of ancient farmers in the foothill zone".¹⁴ Following the evolution, tree images turned into lamellar ornament.

Analysis of the decorative forming of vessels and it-related technological methods such as engobing and kind and technology of putting ornaments helps identify interconnection of ceramics in a separate region with the ceramics in other areas, and the exact direct of cultural links. That the above-listed



ornaments were spread in Iran, Afghanistan, Mesopotamia, North Baluchistan and other countries in the second half of the 3rd millennium BC-the first half of the 2nd millennium BC is illustrative of not genetic origin but that they were exported from outside, i.e. the territory of Turkmenistan where such drawings were used widely yet in the 4th-3rd millenniums BC.

South Turkmenistan's painted ceramics is very similar to Iran's. The discoveries from Tepe-Sialk located near to Kashan are similar to Anaus ones. They are widely spread simple geometrical ornaments such as triangles, rhombs and reticular strips. Unlike the South Turkmenistan material, reticular drawings in Sialk prevail. The Sialk ceramics depict the images of animals (goats) and a much smaller number of birds, which later on turn into geometrical figures.¹⁵ Comparison of materials discovered in



Tepe-Gissar located south of Elbrus near to the settlement of Damgan to that in Namazgadepe reveals features of Upper Eneolithic ceramics most brightly. They are the images of cats, ounces and cheetahs, which gradually turn into geometrical figures and are schematized.¹⁶ In addition to this, zigzag-shaped ornament, wavy lines, rarely reticules, and the images of birds and goats are spread in Gissar. The dark gray paints were put onto light dark-brown or grayish-white background. Apart from painted ceramics, gray crockery also appeared in Gissar. The analogy of such typical elements of painting as geometrical ornaments and fauna images (goats, birds and spotted ounces) allow synchronizing Sialk from Anau and Gissar from Namazg to South Turkmenistan's Eneolithic monuments.

All above-listed elements have been preserved up to nowadays in the ornamentation of Turkmen-made carpets and carpet items. They are such patterns as atanak, charkhypelek, dagdan, tumar, gochak, gushly gel, gush yzy, chybyk-yilan and many other.

The Lower Bronze Age (the 3rd millennium BC) ceramics are represented most brightly by a complex from Kara-depe and Namazg-depe. The forms of crockery became more complex; along with the previous types, there appeared high-stem vases, which were spread widely at a later period.

The non-painted ceramics of this period is made of gray and red clay with a polished surface decorated with sculpted rolls or inset geometrical ornament.

That decor changed in this period is to conclude from the spread of complex elements of the ornament of wall-mounted and ceramic paintings discovered at South Turkmenistan's archeological monuments such as Garadepe, Geoksur, Anau, Altyndepe and other. Dominating here largely are geometrical elements and rarer vegetable and zoomorphic elements.

One of the most distinctive features of painted ceramics in the Namazg the Third is that it contains the images of animals and birds. The drawing is schematic.

Of particular interest are the discovered (at Namazgadepe) images of goats, which are the earliest depiction of animals at South Turkmenistan's painted ceramics. The body is depicted in the form of semi-oval line while legs are depicted in the form of vertical lines. The horns are depicted in the form of two twisted or semi-oval and sometimes straight lines. The animal's face is formed by sharpened edges of lines depicting horns or body. In terms of schematic nature, the images of goats resemble rock drawings.

In this period, there were spread the images of spotty animals with arched back and long bent tail. Proceeding from the very image itself, it is no possible to identify the exact kind of animal. In scientists' opinion, the authors of ceramic drawings meant the cat family animals, most likely ounces.¹⁷ The images of "ounces" are very numerous. They are met at Karadepe vessels of different forms. At deep cups, they are located in two horizontal rows. Every drawing of an animal is made thoroughly; the body and space between legs are filled with large spots. Similar drawings of animals are met at the ceramics of Iranian monuments of Tepe-Gisar and Tepe-Sialk.¹⁸

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The data of archeological excavations carried out in Margiana over several recent years are illustrative of the existence of a high civilization in the ancient period, which can be equated to that in Mesopotamia, Egypt, ancient India and China, the centers of global civilization.

Worthy of a note is that the Bronze Age is a period of relatively highly developed trade links within a large territory stretching from Mesopotamia to India. Margiana, located at fertile soils, had close links to ancient eastern territories stretching from the Mediterranean to the Far East.

In northeastern Iran, there is located settlement Gissar with the culture of gray polished ceramics; the majority of its forms and stone stamps are similar to that in Margiana. Bronze stamps in settlement Marlik in the north of Iran are also similar to Margiana's.

In the south of Iran, in the Kerman Oasis, at the southern border of salt desert Deshti Lut, there is located monument Shahdat dating back to the Bronze Age. Located at the middle of the road from India to Mesopotamia, Shahdat played the role of a staging trading post between the two civilizations. Archeological discoveries from this monument demonstrate that the northward trading road, to Turkmenistan also was established well. This is illustrated by a mass of discoveries of handicraft items made of clay, metal and stone, including semi-precious stones. Though these two monuments of the Bronze Age were very similar, they had quite an independent evolutionary development.

In the mentioned Kerman Oasis, there is Hill Yahya-tepe; the monument's upper, fourth layer is characterized by Bronze Age materials typical for Margiana. In the period of developed Bronze Age, painted ceramics was replaced by non-painted crockery of refined, enriched type.

Located in the center of Asia, at the crossroads of caravan routes, a territory of ancient South Turkmenistan not only did conserve its original culture but also enriched itself due to cultural interrelations and influences. Research into ceramic handicrafts is illustrative of not only antiquity of ceramic art but of antiquity of Turkmen ornamental trceries as well. Eneolithic epoch ornaments evolved and sophisticated to survive hitherto; mirrored in the modern folk art leaving no doubt in their local origin.

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