

Xiongnu Carpeting Traditions and Pattern Designs

Munkhtsetseg BAYANZUL

This article aims to reveal the history of traditional Mongolian carpeting techniques and their development and application based on archeological findings as well as related research from field researchers. Furthermore, the article highlights some of the ancient traditions in modern carpet decorative motifs and pattern designs. The paper focuses on traditional carpeting techniques, decoration motifs, pattern designs, and representations of embroidered felt carpets from Xiongnu Dynasty (209 BCE – 48 CE) elite burials. Main themes for this research are: 1. Traditional materials and techniques for making Xiongnu carpets. 2. Xiongnu embroidered felt carpet pattern designs, decoration motifs, and representations. 3. The development of modern Mongolian carpet decoration motifs and pattern designs. This research considers archeological evidence and socio-cultural factors together to hypothesize that traditional Xiongnu embroidered felt carpet techniques, main featured motifs, and pattern designs are widely used in modern Mongolian carpet design and have a significant influence on its development.

Keywords: felt, pattern design, decoration motif, embroidered felt, decoration motif, Mongolia

Introduction

The study of the history and culture of the Xiongnu, particularly of their vast variety of artifacts, different art forms, and handicrafts, has a significant role in understanding and reconstructing the socio-cultural relations between ancient nations along the Silk Road. Among the rich heritages left by the Xiongnu, a significant number of artifacts indicate that they had several traditional techniques for processing organic fibers, such as wool, hair, and leather, further applying them to craft their daily necessities and passing their traditional techniques to future generations through their daily application. The Xiongnu embroidered felt carpet is one of the most renowned artifacts of the period. At the beginning of the 20th century (1913), a Xiongnu burial site was discovered at the mountainous range of Noyon Uul (sometimes referred to as Noin Ula, meaning Ноён – *Noyan* – Lord; Уул – *Uula* – Mountain), which is located at the intersection of three soum areas: Bornuur and Batsumber Soums of the Central province and Mandal Soum of the Selenge province and has been put into scientific circulation as one of the greatest discoveries of the 20th century (Erdene-Ochir 2020b, 44).

Among the most precious and rare findings, the famous Noyon Uul textile collection includes woolen and, particularly, embroidered felt household items from blankets, carpets, and different types and sizes of rugs, to “yurt curtains” (аравч – *arubči*) and “yurt felt layers” (accordingly shaped inner and outer felt covers for roofing (дээвэр – *degebür*) and wall sides (туура – *туура-а*) that were discovered from the burials and put into scientific circulation. Additionally found items include: pieces of clothing/attire, namely hats, robes, caftans, pants, shoes, socks, animal husbandry items, horse/cattle saddles, and “saddle blankets” (тохом – *toqum*)—felt cushion to put under the saddle to protect the horseback from rubbing by the wooden and metal parts of the saddle made by Xiongnu people.

Contemporary Mongolian nomads have inherited and further developed their essential artisan skills and techniques for using their livestock’s organic fibers and raw materials in many aspects of their daily life. Furthermore, they have developed “embroidered felt crafting” as an independent art/craft form while inheriting animal wool and hair processing techniques from the Xiongnu over and above various unique rituals related to felt that were developed, explicitly for felt production and “the felt making” (эсгий – *isegei* – felt; хийх – *kikü* – making) ritual as well as a variety of expressive taboos and the etiquette of using felt (Batchuluun 1999, 499). One of the most significant types of the craft is “Embroidered Felt Carpet” (ширмэл ширдэг: ширмэл – *sirimel* – embroidered with a unique stitching trough technique to make a material last longer or to beautify; ширдэг – *sirideg* – a rug or a carpet, embroidered with a unique stitching technique trough felt).

Embroidered felt carpets have a distinct significance among the rich handicraft heritages left by the Xiongnu and it is rightfully considered one of the signature art/craft forms of the Dynasty, clearly expressing their unique handicraft characteristics. There were significant numbers of embroidered felt carpets found from Xiongnu burials and tombs from the territory of Mongolia and, among them, a few whole carpets were found in comparatively

good condition and registered as a “Priceless Heritage of National Value” by government decrees, prior to “The Law on Cultural Heritage Protection” (Resolution of the Government of Mongolia, 241, December 23, 1995). These designations highlight that Noyon Uul artifacts are the repositories of cultural remains from the whole epoch, as they reveal the cultural heritage of not only the first large nomadic civilization of the Central Asian Plateau to the world but, moreover, of other civilizations that had considerable socio-economic communication with the Xiongnu directly or indirectly. These are from significant ancient civilizations on the territory of China, Korea, and Iran along with Sogdia, Tocharia, and Bactria to the largest Ancient Empires, such as Egypt, Greece, and Rome. Consequently, research is continually carried out in different fields, using a variety of scientific methods, based on these artifacts.

Literature Review

There are some Major Xiongnu burial sites on the territory of Mongolia, including Noyon Uul, Takhiltiin Kho tgor, Gol Mod 1, Gol Mod 2, and Egiin Gol along with Morin Tolgoi and Baga Gazriin Chuluu in the Tuul River valley and many more (Elihina 2017). Among them, the Noyon Uul burial site is the earliest and is considered one of the largest archeological discoveries in the world (Rudenko 1962). The burial site was first accidentally discovered in 1912 by A.Y. Ballod, a “Mongolor” gold mine Russian engineer, during gold deposit drilling works (Teplouhov 1925; Borovka 1925; Elihina 2017). Later, between 1924 and 1927 the “Mongolian and Tibetan” geographic expedition led by the Soviet researcher P.K. Kozlov followed further by another group of Soviet researchers, S.A. Teploukhov, G.I. Borovka, A.D. Simukov, Y.D. Talko Gryntsevich and continued thirty years later in 1954-1955 by leading Mongolian researchers, Historian Kh. Perlei (1911-1982) together with archaeologist Tsogdanzang Dorjsuren (1923-1994) and Hungarian archaeologist I. Erdel put the Noyon Uul artifacts into scientific circulation by conducting major excavations at the site and publishing their results (Dorjsuren 1961).

Significant research results from different angles were conducted based on Noyon Uul artifacts in various fields, such as history, culture, ethnography as well as in material science. The earliest research, namely by K.V. Trever (1932), S. Umehara (1960), E.I. Lubo-Lesnichenko (1961), and S.I. Rudenko (1962), still serves as the main reference for today’s researchers. More recently, between 2006 and 2015, a joint Mongolian-Russian archeological and ethnological expedition led by N. Polosmak conducted excavations using new scientific methods on the remaining eight elite burials in the Noyon Uul mountains—mounds No. 11, 20, 22, and 31 from Sujigtiin Am valley, also four of the cortege burial mounds of the elite burials in the Zuramtiin Am valley (Erdene-Ochir 2020a). Numerous classical artifacts have been unearthed, which are considered some of the earliest in the world, such as Western-style silver decorations and carpets of South Asian origin, and many of the artifacts are listed as historically and culturally priceless found from the territory of Mongolia (Erdene-Ochir 2020b, 51).

Overall, multiple excavations at Noyon Uul have unearthed a large collection of various archaeological objects that were subjected to multidisciplinary studies: skillfully embroidered felt carpets and curtains, textile remains with the distinguished application of human faces; gold and jade decorations and jewelry, gold-plated coffin decorations; animal husbandry tools made with bronze, silver, gold, and precious stones; gold and multi-colored glass beads; gold and silver earrings, belt loops and buckles; carriage parts in whole; and ceramic pots and vases. Researchers have highlighted that these artifacts are elaborately designed and skillfully mastered with advanced techniques, mostly decorated with animal motifs.

The main object of this paper, then, is to explore the pattern design and decorative motifs of an embroidered felt carpet discovered at mound No. 6, Sujigtiin am, Noyon Uul (Figure 1). Soviet researcher G.I. Borovka first identified its decorative motifs and depictions as inspired by Scythian-Siberian animal motifs (Borovka 1925) and many contemporary researchers agree with this conclusion. In this research, we aim to discuss and pay more attention to the material choice, fiber processing, decorating techniques, and, further, to the pattern design and decorative motifs to put forward a unique depiction that was not specified in earlier research, namely “tree depiction” (23-33).

1. Traditional Materials and Techniques for Making Carpets of Xiongnu

Modern Mongolian embroidered felt carpeting has many common features, along with applying and keeping present the traditional Xiongnu embroidered felt carpeting techniques, pattern designs, and decorative motifs. In order to make this clear, it is worth briefly mentioning the “Felt Culture” (Эсгий – *isegei* – felt; Соёл – *soyul* – culture; culture connected to felt) of Mongolian nomads and its origin. Xiongnu traditions to process organic fibers, such as sheep wool, “loose wool” (хөөвөр – *kögebür* – naturally loosened and detached during spring shading of cows, yaks, and horses, mostly), cashmere (ноолуур – *noluur* – finest inner wool of goats, mostly), and hair (үс – *üsii* – hair; хялгас – *kilyasu* – longer hair, such as a horse mane and tail), further applying them to craft their daily necessities by developing their techniques passed to them from the ancient nomads of Central Asian plateau – the “Ancestors of Xiongnu.”

The Xiongnu’s first and greatest nomadic empire by uniting nomadic civilizations of the Central Asian plateau, according to reliable research data and formed by the Huns, existed under the name Xiongnu 8,000 years ago, at the end of the Mesolithic Era (Amar 1989, 19-30; Ganbaatar 2008, 62). From here, we can conclude that the ancestors of the Xiongnu applied, developed, and passed the Xiongnu felt culture to them, well before the formation of the Xiongnu Empire. Modern Mongolians also inherited this ancient culture, developing it further and applying it to their daily lives up until today. It is proven with many artifacts, including woolen and felt pieces of clothing/attire, shoes, and socks; household items, bags and sachets, blankets, carpets, and different types and sizes of rugs; and animal husbandry

items, such as “saddle blankets” (тохом – toqum), from the territory of Mongolia as well as the Xinjiang Autonomy Republic, PRC, Russian Federation (Tseveendorj and Molodin 2007; Xin and Bian 2014).

Felts are pieces of adhesive-bonded fabrics made of sheep wool by humidification, heating, and forcing. As for embroidered felt carpets, sheep wool is the main fiber for felting, and “loose wool” (хөөвөр – kögebür), cashmere (ноолуур – noluur), and hair (хялагас – kilyasu) from other domesticated animals (goats, cows, yaks, camels, and horses) serve as side fibers/raw materials for decoration and embroidery. Sheep wool differs from the wool of other animals as it has a unique structure and substance, which promotes bonding and makes it suitable for felting, especially sheep wool from the Central Asian plateau sheep because of the extremely cold, dry climate and harsh weather conditions. The handmade felt production process includes wool collection, drying/cleaning, cleaning/fluffing, and rolling/shaping activities.



Figure 1. Quilted felt carpet. Mound No. 6 of Sujigtiin, Noyon Uul,
Batsumber Soum, Central Province.

Wool, felt, and silk. 150cm × 258cm. The Xiongnu period (209 BCE – 48 CE).

Photograph from Eregzen 2020.

Wool Collecting or Sheep Shearing (Хонь хяграх хонь – qoni – sheer; хяграх – kirγaγu – shearing):

Embroidered felt carpet production involves a well-ordered step-by-step process with precise guided activities and rituals, from wool collection/sheep shearing and felt making to

felt carpet embroidering, which is all community-based cooperative labor. For example, an auspicious day for wool collecting/sheep shearing is scheduled in advance and announced to all nearby families and households. On the appointed day, people from the neighboring families will prepare for the event, come with their wool collecting/sheep shearing tools, and, together, shear the sheep of the host family. This way, all the families take turns shearing their sheep together with the help of the entire neighborhood.

The next step of activity is wool drying/cleaning, each family spreads out their collected wool to dry in the sun and cleans the sweat and soil. After the wool cleaning stage is the wool fluffing event, which is also done by the neighborhood from family to family, one after the other. This way, it is a custom for every family to do each related activity from wool collecting/sheep shearing to felt carpet embroidering with the help of all neighboring families. During the whole felt production process and related events people only communicate with positive, polite words and good-wish phrases, blessing and wishing to make sure that the whole process runs smoothly and successfully. There is a well-set tradition for the host family to offer food and drink to everyone who comes around to help and, at the end of the long, hard-working day, to invite them all to play and feast to express their gratitude.

Felt making is the most complex and extensive part of all the various felt production procedures, so the rituals are also more extensive than in other events. Usually, wool collection is done twice a year in early summer and in early autumn. Wool collected in early summer is called long wool and that of autumn is called short wool. Long and short wool are both used as a felting fiber for embroidered felt carpets, each with their respective roles and importance (Figure 2a).

Wool Cleaning or Fluffing:

This is a pre-felting process to clean the wool from dirt and soil and to fluff the wool, preparing it for felting. The wool drying/cleaning process is done before the chosen wool fluffing day and wooden sticks are prepared according to the number of people who will take part in the fluffing process. Upon the arrival of neighbors to the wool fluffing event, the hosts greet and treat them with respect. Next, women take two wooden sticks, one in each hand, and sit around the prepared platform facing each other while men spread the wool evenly on the platform. The man of the house, or the eldest man in the family, puts on his hat, takes his place on the south side of the prepared fluffing platform with a cup of fresh cow's milk or fermented mare's milk, and sprinkles some milk onto the wool as an offering while saying a blessing and well-wishing words. With this ritual complete, all start the fluffing process at once, beating the wool together (Figure 2b).



a. Wool collecting.



b. Wool cleaning/fluffing.



c. Wool spreading.



d. Wool rolling.



e. Felt shaping/dragging.



f. Readying felt.

Figure 2. Traditional technique of felt production, “felt making.”

Photographs from <http://www.myuvs.mn/a/77>, <http://www.touristinfocenter.mn>

“The Felt Making”

For the felt production process, it is especially important to select the right wool, choosing a suitable time, location, and manpower. In terms of timing, the autumn season is the most suitable, usually sometime in the middle of August. Each year, three different types of wool are used for felt production, including the long and short wool kept from the last year’s

wool collection of the male sheep and yearlings and the current year's short wool of the lambs. Most of the families do not use female sheep wool for making fine felt for carpets. Approximately twenty kilograms of wool is used for a 2×3 meter felt carpet. Above, the felt-making process is shown step by step. (Figure 2c-f).



a. Selecting felt.



b. Yarn spinning.



c. Embroidery materials.



d. Embroidering process.

Figure 3. Stages of embroidered felt carpet making. Photographs by author.

The Use of Felt and “Embroidered Felt Carpet”

Felt properties, such as moisture resistance, wind resistance, and heat preservation make it the most favorable, practical, and common textile material in the lives of Mongolians and other nomadic cultures. Mongolians divide their felt products into two groups, “felt ware” and “felt crafts.” Felt wares are made with pure felt, without any tinting or decoration details. On the other hand, felt crafts are products that are made with tinting or unite felt and decoration using different techniques and materials such as quilting or embroidering. Yurt felts, such as roofing, walling, or roof window covers of the Mongolian yurt are considered “felt ware” so

they are made with plain felt with no decorations. Items in the “felt craft” category” include: yurt doors; as well as household items, such as wall curtains, carpets, rugs, blankets, and other upholsteries; pieces of attire, such as hats, robes, socks, and shoes; different types of bags, sachets, and holders; and animal husbandry items, such as saddle blankets, which are all beautified and richly decorated with various techniques.

There are various ways to decorate felt, namely, embroidery, stenciling/punching, burning, quilting, and mixing tinted felt or different colored materials during the felting process. Based on findings from the Xiongnu excavations discussed earlier, embroidered felt carpets are evidence that embroidery and quilting are the oldest techniques out of all those mentioned above. Felt carpet embroidery art is a crafting and decorating technique, which involves embroidering according to a specifically designed pre-drawn pattern design, ornamenting it with closely spaced and evenly-sized penetrating stitches. This process involves several stages—felt selection and cutting, stenciling the pattern design, yarn spinning, embroidering, and quilting (Figure 3).

Camel wool is the most common raw material used by Mongolians to prepare the yarn for felt carpet embroidering. According to previous research, the Noyon Uul felt carpet was embroidered with linen yarn. Recently discovered felt and wool fiber samples have been tested and the results show that a Xiongnu carpet kept in the Xiongnu Collection, Mongolia and Central Asia Department, State Hermitage Museum, Saint Petersburg, Russia contains yarn used for embroidery made from camel wool (Elihina 2017, 368). Furthermore, some yarns used for the quilting of other textile parts have also been compared to conclude that most match with camel wool samples and few match the linen sample. Thus, researchers concluded that camel wool and linen yarn were both used together to embroider the felt carpet.

2. Xiongnu Embroidered Felt Carpet Pattern Design, Decorative Motifs, and Representations

Mongolians greatly value felt, considering it important as a “state material,” therefore everybody takes felt production activities seriously, taking part in the activities as part of a bigger community and following all the relevant customs and rituals with great respect, starting from wool collecting/sheep shearing, “felt making,” and making felt wares and crafts to embroidering felt carpets and rugs, which has deep roots in ancient nomadic culture. We can see it clearly in the pattern design, decorative motifs, and the representation and placement of an embroidered felt carpet from a Xiongnu elite burial found in mound No. 6 in the Sujigtiin Am valley of Noyon Uul, mentioned earlier.

Many researchers who have studied Xiongnu embroidered felt carpet pattern designs, decorative elements, and animal features, have agreed that their unique animal depictions are an art heritage, which belongs specifically to the Xiongnu (Borovka 1925; Rudenko 1962; Eregzen 2020; Bayarsaikhan 2020). The decorative elements and representations are

mainly explained as meaningful interpretations by the Xiongnu about their viewpoints and understanding of life in the universe, conflicts for survival, and the protection of their land and people. Nevertheless, there have been no clear explanations found about the depictions placed between the fighting animal figures found in the embroidered felt motifs of Noyon Uul carpet (Figure 4). Researchers concluded that the animal features were inspired by Scythian-Siberian animal depictions and artistic ideas. Therefore, it is reasonable to look for the “life tree” concept of some of the ancient Siberian tribes and cultures to further look for similarities with the object of our interest found in this specific Xiongnu carpet.

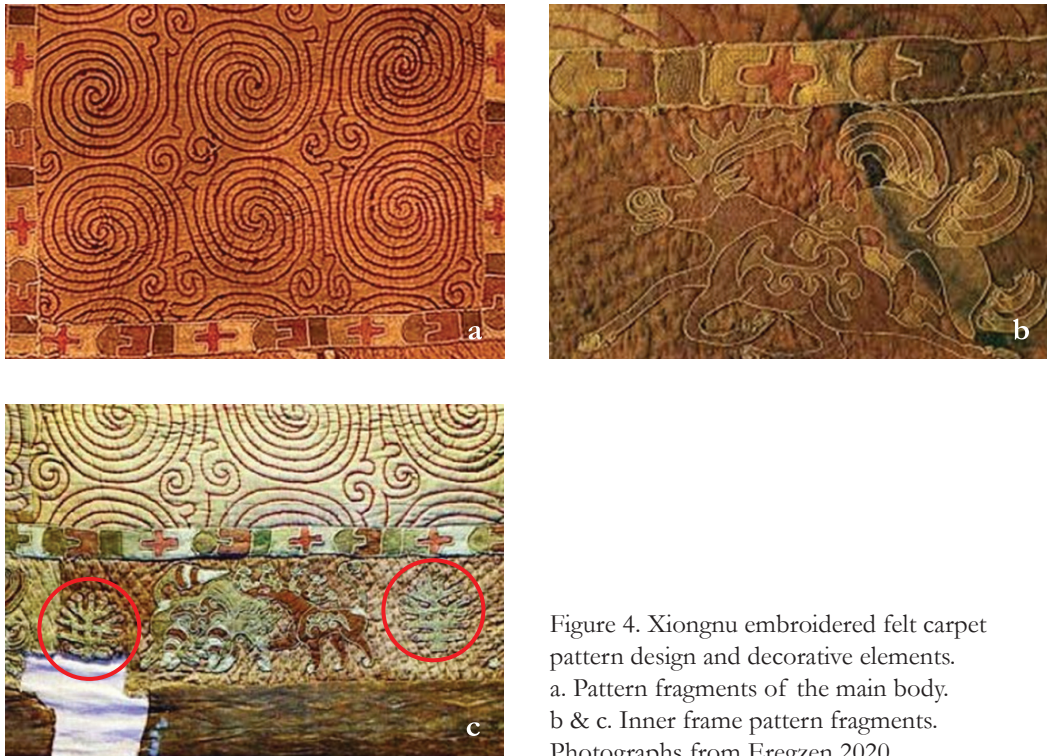


Figure 4. Xiongnu embroidered felt carpet pattern design and decorative elements.
a. Pattern fragments of the main body.
b & c. Inner frame pattern fragments.
Photographs from Eregzen 2020.

In research related to the subject, researchers have concluded that shamanist culture is the one that expressed the most comprehensive and complete conception and understanding of time, space, and the universe, out of all ancient cultures (Ailett 2004; Nam 2016; Novik and Hristoforobva 2016). As the Xiongnu had shamanism, the above conclusion is valid in their case too. Additionally, there are some assumptions that the attire revealed from the Noyon Uul elite burials might belong to a shaman. From here we can refer to Xiongnu shamanic culture to understand the tree depictions on the embroidered felt carpet from the Sujigtiin Am valley. Considering this, if the animal depictions have been inspired by Scythian-Siberian

animal depiction styles, it can be concluded that the Xiongnu embroidered felt carpet tree depiction could be somehow related to concepts of the “Universe Tree,” “Family/Ancestor Tree,” or “Shaman Tree” and their depictions in Siberian shamanic culture.

The “Universe Tree” is one of the most important concepts, which should be presented in the ancient universal model of Siberian shamanic culture. There are such interpretations that the Universe Tree has its roots and starting point from the “lower continent”/underworld, goes through the “middle continent”(earth or our world), and up to the “upper continent”(heavens), i.e, the world above us, and serves as the connector or even the solder kingbolt of all three “continents” or the entire world. Furthermore, there is a concept of the “Family/Ancestor Tree.” An example of the concept is the sacred tree of the cosmic universe, which represents the complete unification of time and space, the completeness of the universal structure, and how this deeply infuses into people’s daily lives as myths and legends as well as everyday rituals, traditions, or simply as a routine in their lifestyle. It has a profound meaning, representing and symbolizing the thriving of a family, perpetuation, and abundance with healthy, wise descendants. Every family has their own particular “Family Tree” and every branch, with leaves and buds, represents the thriving and perpetuation of the family.

In addition, there is another noteworthy concept and representation of the “Shaman Tree.” Among Buryats, Yakuts, Evenks, and tribes of the Amar River basin, every shaman must have their own tree and there is a tradition to depict their tree on their tambourine or on any other belongings and instruments. Also, the branches of the tree represent their followers or the next generation of younger shamans and it is believed that it has a great influence on their growth, development, and education. The “Shaman Tree” accompanies, blesses, and serves as an important symbol to help a soul traveling between the “three continents” and aids the shaman from the very beginning of their journey until their last days. Among Mongolians, there are phrases like “Thirteen Altai” and “Thirty-three Khuukhiis.” These phrases are related to the historical place/motherland of the Mongols and the phrase “Thirteen Altai” is still used in Uriankhai /*uriyanggai* – Mongolian tribe/ shaman’s call. Likewise, the Shaman Tree also has thirteen branches, which suggests a possibility that the tree from the Noyon Uul embroidered felt carpet is connected to Xiongnu shamanic culture and its rituals.

Connected to this, an identical pattern design to the embroidered pattern on the main body of the Noyon Uul carpet still exists in Mongolian felt carpet embroidering and it is called “water twist pattern/ornament.” However, we see it from an angle, which shows it as a symbol of continuity and constant motion and, in the Xiongnu case, could be interpreted as a concept of the Xiongnu worldview/philosophy or a representation of the eternal motion of the universe that unites everything including the universal law and structure, origin/birth, development, and destruction of all things in the universe, not excluding itself.

3. The Development of Modern Mongolian Carpet Pattern Design and Decorative Motifs

Contemporary carpet production in Mongolia has been developing in two directions, 1) the traditional handmade production of embroidered felt carpets and 2) the production of woven carpets with modern weaving technology and machinery. If we study pattern design and decorative motifs in the carpet industry, mostly traditional geometric-shaped patterns, such as Xiongnu embroidered felt carpet patterns and motif fragments are widely used. Besides both traditional felt carpet decorative motives and classical carpeting patterns, inspired pattern designs are common in the modern carpet industry. On the one hand, this is related to consumer preferences and the national production policy to revive traditions. To explain it we need to consider the socioeconomic path of Mongolia in the 20th century.

The 20th century in Mongolia left behind all traditional and nomadic values, striving for socialist prosperity while adopting Western civilization's values and culture through a Soviet filter. Yet, modern Mongolia is trying to look back to its core roots and retrieve traditional culture and develop it further for the 21st century. Adopting classical carpet weaving techniques together with the new technology, founding the carpet weaving factory, and developing it to modern standards is one of the bright sides of 20th-century Mongolian carpet production, which needs to be highlighted here. From modern Mongolian carpet pattern designs and decorative motifs, it is clearly noticeable that it is enriched with the ancient embroidered felt carpet patterns and motifs of the Xiongnu and is evolving with continuous development.



a. Felt quilted rugs made by today's artisans.

Photographs by Luvsandorj Jamsranja (2016) of felt quilting master B. Baasanjav,

Source: <https://www.youtube.com/watch?v=bUz-gAXh6fI>.



b. Woven carpets of the “Erdenet” carpet factory.

Figure 5. The pattern designs of modern Mongolian carpets.
Photographs from Erdenet Hivs, <http://www.carpet.mn/>.

Conclusion

From the standpoint of this research, based on the pattern designs and decorative motifs of an embroidered felt carpet, which was discovered underneath the coffin of a Xiongnu elite at Noyon Uul, this paper concludes that they reveal the imagination and illustrate the main esthetic characteristics of the Xiongnu. From the composition and diction of the carpet, when they illustrate their subject they start with the current “position” of the subject, further expanding into the “four zug”/jüg – directions and “eight zovkhis”/jobkis – eight sub-directions, which represent the infinity of the space and time into the “upper,” “middle,” and “lower” continents (thinking and imagining beyond the existence of this world and aiming to the infinite of the universal space); as well as into the past (origin and prehistoric time), present (time of existence), and future (infinite and endlessly continuous time). To be precise, the inner frame depiction of fighting animals with trees between them represents the world and the nature of life in it; the main body, with its twisted pattern, represents space and the galaxy; and the narrower frame line with geometrical shapes between those two parts, could

represent and serve as the coded connector between the “World with Space,” the present time with the past and the future. Finally, the silk quilted outer frame of this embroidered felt carpet serves as an additional element of decoration, more importantly as the contouring element, which helps to keep the carpet shape right for longer.

References

- Ailett, S. 2004. *Shamanskii kosmos*. Moscow: AST.
- Amar, A. 1989. *Mongoliin товч туукб*. Ulaanbaatar: Ulsiin khevleliin gazar.
- Batchuluun, L. 1999. *Mongoliin esgii shirmeliin urlag*. Ulaanbaatar: Interpress.
- Bayarsaikhan, J. 2020. “Symbolic meaning on the Xiongnu carpet decoration from the Noyon-Uul.” *Studia Museologica Museum Nationale Mongoli*, Tomus XXI-I (2020): 59-69.
- Borovka, G.I. 1925. *Cultural and historical significance of the archaeological finds of the expedition of the Academy of Sciences. Brief reports of the expedition to explore Northern Mongolia in connection with the Mongol-Tibetan expedition of P.K.Kozlov*. Leningrad: Publishing House of the Academy of Sciences of the USSR.
- Dorjsuren, Ts. 1961. *Northern Hunnu*. Ulaanbaatar: State Publishing House.
- Elihina, P.K. 2017. *Ermitaj dabi Noyon uuliin erdenes*. Ulaanbaatar: Delkhiid tarkhsan mongol uv tsuvral.
- Erdene-Ochir, N. 2020a. *Noyon uuliin oldvor*. Tejyon: Kumgua Nulda.
- . 2020b. “Nooyon Uuliin dursgal.” In *Hunnu Ezent Gurnii Dursleb Urlag*, by Mongol-Solongoosiin hamtarsan sudalgaanii buteel, 44. Tejyon: Gumgua Nulda.
- . 2020c. “Noyon uuliin dursgal.” In *Hunnugiin Ezent Gurnii Dursleb Urlag*, by Mongol-Solongoosiin hamtarsan tusul, 44. Tejyon: Gumgua Nulda.
- Eregzen, G. 2020. “Hunnu shirmel shirdeg, Khunnu quilts.” Museum Education Program. National Museum of Mongolia. <http://nationalmuseum.mn/G.Eregzen>. XYHHY ШИIPMЭЛ ШИIPДЭГ МУЗЕЙН БОЛОВСРОЛЫН ХӨТӨЛБӨР 2020.
- Ganbaatar, Ya. 2008. *Hunnugiin туукб, соёл*. Ulaanbaatar: Admon printing.
- Lubo-Lesnichenko, E.I. 1961. *Ancient Chinese Silk Fabrics and Embroidery of the 5th c. BC*. Leningrad: State Publishing House, Hermitage.
- Nam, E.V. 2016. *Shamanskii atributi narodov Sibiri*. Tomsk: Tomskii gosudarstvennii univercitet.
- Novik, E.S. and O.B. Hristoforobva. 2016. *Shamanskii bubeni kak modeli bselennoi-Ola*. <http://kudes.ru/?q=node/21226>
- Rudenko, S.I. 1962. *Culture of the Huns and Noinulinsky Mounds*. Moscow, Leningrad: Publishing House of the Academy of Sciences of the USSR.
- Teplouhov, S.A. 1925. *Brief reports of the expedition to explore northern Mongolia by the Mongol-Tibetan expedition of P.K. Kozlov*. Leningrad: Publishing House of the Academy of Sciences of the USSR.
- Trever, C. 1932. *Excavations in Northern Mongolia (1924 - 1925)*. Leningrad: J. Fedorov.
- Tseveendorj, D. and B.N. Molodin ba busad. 2007. “Mongol Altain munkh tsevdgiin bulshnii sudalгаа.” *Arkheologiin sudlal* T.IV(XIV) - УБ. Bembi san: 167-188.
- Umehara, S. 1960. *Kuma Монгоору Ноён Ура кофун шүүшuu*. Tokyo: The Togo Bunka Publication.
- Xin, Xianyu and Xiangyang Bian. 2014. “The Ancient Felting Techniques in Xinjiang.” *Advanced Materials Research*, vol. 1048 (2014): 309-312.

