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THE IMAGE AND CULT OF A CAMEL IN THE LIFE OF THE KAZAKHS

Camel and camel breeding has an important role in the traditional way of the life of Kazakh people. The camel was considered the wealth for the Kazakhs. The Kazakhs considered the possession of camels (tuye) as a prosperity sign. The place and role of the camel in the life of the Kazakhs is the foundation. Since ancient times, in everyday life of the nomadic population, the camel acted as the main vehicle. Especially in deserts, this animal with its qualities as patients to the water, courage, and strength was the main assistant of man. With the help of camel caravans, they conducted a trading business. The power of the camel was used for the cultivation of land, the extraction of water and for the transport of goods. In particular, during the dragging of gravity people used male camels, his work was very highly effective for people. Among the nomadic population, there were different traditions, folk knowledge, belief associated with a camel. And among the people there is a broad relation to the camel as a kind and helping spirit. Indeed, the traces of the belief associated with the camel as a kind and helping spirit, are still preserved in certain customs. The camel is seen as a spirit, a symbol of death, and therefore in folk legends, there is an interpretation of it related to the appearance of cemeteries and secular places and places of pilgrimage. Attention is drawn to the rituals associated with the camel and its origin in pre-Islamic relics. Problems in camel ethnography are written on the basis of primary sources and field expedition materials.

Key words: Camel, traditional way of life, cult, tradition, belief.

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The image and cult of a camel in the life of the Kazakhs

Түйе және түйе шаруашылығы қазақтардың дәстүрлі өмірінде үлкен роль атқарады. Түйе қазақтар үшін байлық, молшылық болып саналған. Қазақтар түйе бағуды өркендеудің белгісі деп санаған. Ежелгі дәуірлерден бері көшпелі қауым өмірінде түйе күш-көлік қызметін атқарған. Әсіресе шөлді, құмды жерлерде, түйе өзінің шөлге шыдамдылығымен, күшінің көптігімен адамның көмекшісі болды. Керуен мүшелері түйе керуенінің көмегімен сауда ісін дамытты. Түйенің күшін жер жыртып, өңдеуге, тереңнен су шығаруға, зат тасуға пайдаланған. Әсіресе, ауыр заттарды тасуға атан, үлек түйенің күшін қолданған, олардың күші адам үшін тиімді болған. Көшпелі халықтар арасында түйемен байланысты наным-сенім, халықтық білім, түрлі ғұрыптар қалыптасқан. Солардың бірі түйеге о дүниелік рухтың көмекшісі деп қарау болды және бұл ғұрып қазіргі таңда да сақталып отыр. Түйені о дүниелік өмірде желеп жебеуші рух деп қаралады, сондықтан киелі, қасиетті, тәу ететін жерлер мен қорымдарда түйемен байланысты халық арасында тараған аңыздар көп кездеседі. Түйемен байланысты ритуалдардың исламға дейінгі діни реликтермен астасып жататындығы назар аудартады. Мақаладағы түйе этнографиясы мәселесі алғашқы жазба деректер және далалық этнографиялық экспедия материалдары негізінде жазылған.

Түйін сөздер: түйе, дәстүрлі шаруашылық, жайылым, наным сенім.

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Образ и культ верблюда в быту казахов

Верблюд и верблюдоводство имеют большое знаение в традиционном быту казахов. Верблюд считался богатством для казахов. Казахи считали обладание верблюдами (tuye) как знак процветания. Место и роль верблюда в жизни казахов является фундаментом. С давних времен в бытовой жизни кочевого населения верблюд выполнял роль основного транспортного средства. Особенно в пустынях, это животное со своими качествами, как терпеливость к воде, смелость и сила, было основным помощником человека. С помощью верблюжьих караванов вели торговые дела. Сила верблюда использовалась при обработке земли, добыче воды, на извозе товаров. Особенно во время перетаскивания тяжести люди использовали верблюдов мужского пола, его труд был очень высокоэффективен для людей. Среди кочевого населения бытовали разные традиции, народные знания, верования, связанные с верблюдом. И среди народа существует отношение к верблюду как к доброму и помогающему духу. Действительно, следы поверия, связанного с верблюдом как с добрым и помогающим духом, до сих пор сохраняются в некоторых обычаях. Верблюд рассматривается как дух, символ смерти, поэтому и в народных легендах существует толкование его, связанное с появлениями кладбищ и светых мест, мест паломничества. Автор обращает внимание на ритуалы, связанные с верблюдом и его происхождением с доисламскими реликтами. Проблемы в этнографии верблюда обозначены на основе первоисточников и полевых экспедиционных материалов.

Ключевые слова: верблюд, традиционный быт, культ, традиция, верование.

Introduction

Kazakhs considered the possession of camels (tuye) as a sign of prosperity. Basically, camels were property of the tribes living in the middle and low course of the Syrdaria river, around the Aral sea, in the sandy deserts of Mangistau, Kyzylkums, Karakums and Borsyk. The camel was the best of four sacred domestic animals: camel, horse, oxen, sheep. Many versions of the oral folk lore preserved epithets, quips and proverbs concerning camels. The saying «Protected is the one who has got a camel» only emphasizes the exceptional values of this animal. Sometimes the camel is named «the highest among the animals»; and the camel shepherd was venerated as «the wrangler of the highest» and to him, during summits, was given the place-seat of honour. A camel godfather is called Oisyl-kara, or Kausyl-kazy; a camel herd is called kele, and their pasture *matau*.

Camel for work force and transport

The traditional Kazakh life style was shaped under the influence of four types of domestic animals (Imamura, 1916; Gallacher, 2006; Sala, 2017; Faye, 2008).

Looking for good pastures, Kazakhs moved from a winter camp (*kystau*) to a spring camp (*kokteu*), then to a summer camp (*zhailau*) and an au-

tumn camp (*kuzeu*). Camels were beasts of burden and owners of camels and horses could implement long-distance migrations (Geyns, 1898: 248). Were present 10-12 camels in rich families, 4-6 in average families, 2-6 in poorer groups. Along the Syrdaria course, camels were used for riding and as draught power; in the Tarbagatai and Karkaraly regions only as draught power, while in steppes of Black Irtysh women rode only camels. Kazakhs, migrating for long distances and roaming on sandy terrains, never used carts (*arba*) but were carrying loads on camels (Argunbayev, 1969: 64) (Pictures 1-2). Carts, pulled by horses or bulls, were practical only for short-distance migrations.

For migrating processions, Kazakhs decorated camels with attractive ornamental saddlecloths and blankets with fancy fringes of tassels and bells. Camel heads and necks were adorned with various pendants (Kostenko, 1880: I, 340; Geyer, 1909: 43; Krasovsky, 188: III, 41-42). In the Syrdaria region such items were called *asmaldyk* and utilized during travels, weddings, and other festivities.

Some rich people decorated their packs and camel seats with ostrich and peacock feathers purchased from merchants. Such caravans were called *«a move with karkara»* (Pictures 3-4a,b). G.N. Potanin wrote that similarly was named a trip when four feathers of pheasant were attached to a *kebezh* (coffer for jewels) (Potanin, 1916: 109). Bearing in mind that in the Syrdaria region the pheasant hunting was a popular

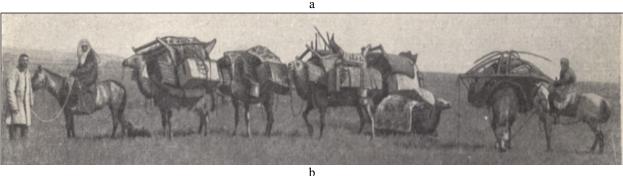
occupation, we may suggest that pheasant feathers were one of the attributes of a festive move. Applying bird feathers is directly linked to a belief of protection from the evil eye. Nowadays, the Syrdaria Kazakhs attach the pheasant heathers to a carpet,

which is a relic of ancient Kazakh customs (Picture 4c). Everywhere in the Kazakh steppes a festive solemn travel was in the focus of people's attention. This travel's solemn character stems from concern about a trouble-free migration and safe transfer.



Picture 1 – The aul (the yurt camp) in preparation for a long distance move. The RK Central Museum





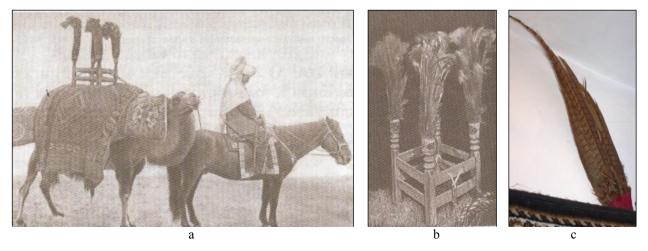
Picture 2 – a) Return of Syrdaria Kazakhs from a summer camp, from the book: «Materials on kirgiz land use» 1912: 128a; b) from: Aziatskaya Rossia, 1914: I, 157)

Camels were used to drive devices for lifting water called *«tuye shygyrs»* (Picture 5), or water wheels. Shygyrs could also be driven by oxen (*«ögiz*

shygyr») and horses (*«at shygyr*»). These three animals were also used in order to lift water from deep draw wells and also for driving mill stones (EMA).



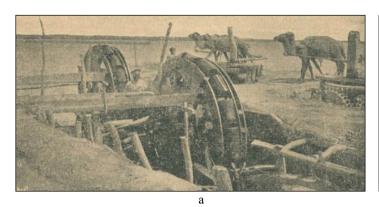
Picture 3 – Khludov N. Migration of nomads. XIX c. The RK Central Museum



Picture 4 – a) a move with decorated karkara, b) karkara fragment, RK Central Museum; c) pheasant feather (EMA).

From ancient times on camel has always been a vehicle for trade caravans. The caravan's work was organized by the *caravan-bashi* (head of caravan) who was also in charge for introducing camels into the caravan. Some rich Kazakhs bred camels with the single purpose of selling camels to caravaneers (Nebolcin, 1855: 46). Kazakh caravan navigators were called *shapars* and were in command of the caravan-bashi (Pictures 6-8). A

pack delivered by camel was charged 8-12 roubles (Pallas, 1773: 1, 580). One camel was loaded with a pack of 10 to 18 poods (1 pood = 16 kg). The cargo delivery was considered a hard job. A camel under 12-15 poods of pack walked across sandy desert 30 km per day at 3-3,5 km per hour. Camel drivers were responsible for cargo delivery as well as for the good working condition of the camels.

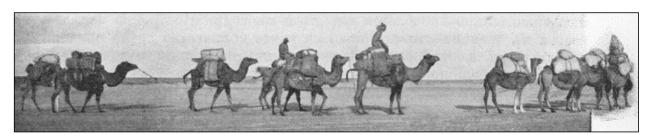




Picture 5 – a) Camel-driven water wheel. Left bank of Syrdaria, end of XIX c. Photography by M.Diakov (Aleksandrov, 1920: 19); b) the camel-driven water lift from a well.



Picture 6 – Trade caravan crossing the Darialuk takyr (dried-out terrain), end of XIX c. Photography by S. Neustruev (Neustruev, 1970: tablo 49)



Picture 7 – Mangistau. Trade caravan crossing the Kara shungyl, end of XIX c.

E. Smirnov wrote: «Kazakhs of the Kazaly, Perov, Turkestan, and Chimkent districts set up a large-scale cargo-carrying business. First of all this is favored by abundance of camels in the region. At the start this was the business of the *shomekei* tribe who carried loads on caravan routes connecting Siberia with Bukhara and Khiva; then other tribes of the Younger and Middle Zhuz got involved in this occupation. To carry load on camels is much more effective than on carts (*arba*) because a heavily loaded camel could cross without much pain

reed thickets, depressions, hilly deserts and sandy spaces (Smirnov 1887: 158). The author continues saying that, provided that the packing is done correctly, one camel can deliver 40 to 50 poods of load (Smirnov,1887: 159). A.P. Smirnov stated that the barter trade is well developed in the Turkestan, Siberian, and Orenburg regions of the Kazakh steppes, therefore Kazakhs are engaged as carriers with their own camels (Smirnov, 1897: 26-27). In absence or shortage of own camels, carriers or caravaneers were renting them.



Picture 8 – The load carrying business. RK Central State Archive of Cinema & Photographic Documents and Sound Records

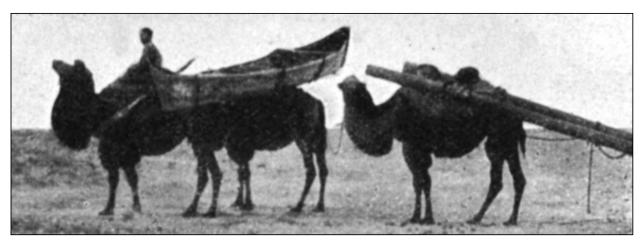
Ch. Valikhanov wrote: «Cargos are delivered across the Syrdaria on flat punts. A camel or horse pack is charged 1 tenge, or 20 kopeeks, payed in silver coins (Valikhanov, 1985: 172). Some traders hired sail assistants among locals and kept their trade here throughout the year. In 1865, 1500 camels were rented for a caravan from the Kazaly fort to Orenburg, and 7 roubles were paid for each camel. One Kazaly caravaneer charged up to 10-12 roubles per camel for carrying packs from the Syrdaria to Bukhara and Khiva. On the way back, delivering

the caravan from Bukhara to Orsk or Orenburg, its caravan-bashi charged 18 rubles in silver coins per one camel pack. At that, he did not pass the liability for the cargo to other person.

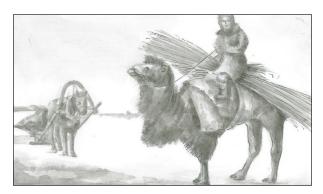
Because of the priority of camel breeding in the Aral region, in the low course of the Syrdaria camels were in use in many aspects of the Kazakh household, in particular for carrying firewood and hay and for fishing (Pictures 9-12), and also for transporting the dotal property or the body of a deceased.



Picture 9 – The ride to the Perovsk bazaar. The hay trade, October 1910 («Materials on kirgiz land use», 1912: 96a)



Picture 10 – Carrying boats on camels. Aral region, end of XIX c. (Aziatskaya Rossia, 1914: II)



Picture 11 – Ride to the Kamystybas lake to fish. Reconstruction from a photography by Zh.Shaiken

Camel was a vehicle for delivery of dead bodies to a remote burial place (if a tomb was near, the body was placed on a *kerege* (section of the wooden lattice of a yurt's wall) and in that way brought to the tomb. (Grodekov, 1889: 256; Kustanayev, 1894: 48. Picture 13).



Picture 13 – Delivery of a dead to a burial place on a camel, end of XIX c. – begin. of XX c. (Aziatskaya Rossia, 1914: I, 162)



Picture 12 – Haymaking with the help of camels.

Some features of care after camel

Around springs, places with vegetation of particular harm to the camel's stomach were avoided. For example, along the Syrdaria, spots of concentrated old dung give rise to grasses called *ireuik* and *kara soran* (black saltwort). Both of them are very bad for the camel's health so, from the start of year to the moment of appearance in the sky of the Pleiads (i.e. the 10th July), camels were guarded from such grass.

The quality of water was also a point of concern. From early May to August, camels were guarded from drinking stagnant water (yellow water) (Zagryazhsky, 1903).

Grass eatable by camel is classified in two types: *ak ot* (white grass) and *ashchi ot* (bitter grass). Of the two, the latter is the most preferable for a camel. The so-called white grass does not satisfy it and even causes it to wither, so that to the camels grazing on it was additionally given salt or some other feed in order to support their energy.

Camels suffer *katpa* (infections) from numerous bites of wasps and mosquitos, which leads to tightening and hardening of the camels' liver. Camels suffering katpa are beating their own liver with the front leg, until crushing it. In that case Kazakhs would put the camel on their knees and make it drinking a lot of cold water.

Frequent eating of *karasor* (cánnabis) and *alabota* (atriplex) causes a disease named *zhershe* manifesting in liquid stool and repeated intestinal discharge. In that case the camels are sent to graze in different pastures, or are tied to a rope and given other types of vegetation.

Camel wool and skin products

In the Syrdaria-Aral and Mangistau regions, where camel breeding is a popular occupation, the camel wool is widely used in households.

The treatment of camel wool consists of the following manipulations: damping in water, then during 7 days keeping in sour airan (kefir) mixed with water, salt and flour; then drying, rubbing and softening with a dough pin.

The wool is used to make *shekpen* (wool raincoats, water-resistant homespun caftan), *kurteshe* (jackets), *keudeshe* (waistcoats), *shulyk* (socks); the wool itself is used to fill in *körpe* and *körpeshe* (blankets, mats). A shekpen is heat and cold resistant as well: in old times, while selling a shekpen, this one was spread on a floor and poured with a basket of water to show its non-permeability. *Mutara* is a water container only found in some areas of the low-course Syrdaria: it is tightly knit from camel wool and anointed from outside with sheep grease and can keep warmth in the cold and cool in the heat (EMA).

Tuye moinak is a leather bottle made of camel's neck skin, precisely the neck skin from the throat to the ears. Since only camels have the moinak, camels themselves are called 'moinaks'. The neck skin is treated and kept longtime with salt (Pictures 14a,b). It was the material for making taspa (laces) necessary for assembling the *kerege* (the yurt's wooden lattice sections). The laces in the kerege loop are called керегенің көгі, or «the blue of the kerege» (Pictures 14c,d). Such rawhide ribbons have especially lasting durability. In ancient times, camel's shoulder-blade had a function of a writing board. Kazak children went to yurt-schools, and both students and mullah teachers wrote on such shoulderblades upon necessity, since paper didn't exist as material in the kazak society (Pictures 14f). In wintertime a camel stomach, cleaned from intestinal villi, was spread as a glass on the window frames of earthen houses (EMA).

Camel as kun, award, and exchange value

From ancient times, the Kazakh society used the camel in order to value exchanges of goods and even a human life: i.e. it was used as *«kun»* (persian word) to reward, donate, and swap goods. One camel was equated to two horses or twenty sheep.

A camel was the principal part of the kalyn mal (dowry animals) given for a bride. Its main part, bas zhaksy, consisted of 9 camels, 8 mares with colts (16 heads), 3-year mares (8 heads), 2-year horses (7 heads), 7 yearlings, a farrow pastured mare, plus a good horse or camel, and one furrow pastured mare. The final part, ayak zhaksy, was made of 1 camel, 1 horse, 1 cow and a gun (Kustanayev, 1894: 24). Besides, the groom would give the bride's mother a present called «a pay for the mother's milk», consisting of a camel and one carpet (Grodekov, 1889: 78-79). On the bride's send-off day, the groom would bring to matchmakers, besides the rest of the bribe, a 2-year camel. Because in the Aral and Kazaly regions the camel is considered a chief animal, «a camel with colt» was the principal donation in the marriage brokerage. In the Aral region, when receiving the relatives of the daughter-in-law, the husband's side donates them a *kiit*, meaning the 10-15 to 25-30 gift kits, and, in addition, if available, he promises to present also a female camel with colt (EMA).

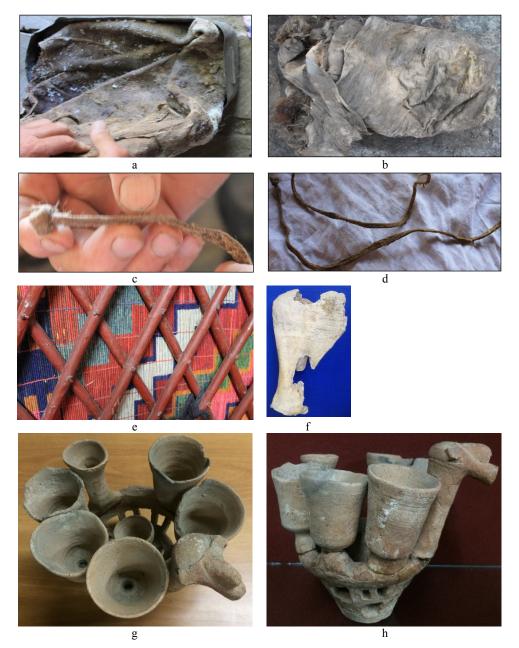
According to Ibirai Altynsarin, the relatives of a dead, when arriving to the reading of prayers, drove with themselves 2-3 and up to 10 camels or horses to compensate the funeral costs, and that was called *aza* (Altynsarin, 1870: 4). To persons who departed at a venerable age or held in high esteem was dedicated a *as*, i.e. a funeral feast with a camel as main prize.

Human murder was also penalized with *kun*. The killing of a man had to be paid with 1000 sheep, or 100 horses, or 50 camels, the killing of a woman was half-cheaper. A broken arm had to be compensated with 250 sheep or 25 horses or 12-13 camels.

Togyz («nine») was a penalty consisting of nine animals. The list was always headed by three camels, a horse and a bull.

A good *erne* (golden eagle) had the value of 5-6 camels, a falcon of 1-2 camels, a hawk was cheaper (Narody Rossii, 1879: 21).

In the Kazakh steppes, *barymta* (herd stealing, abaction) was generally concerned with horses, while in the Aral region and in the Karakum desert it was about camels as well (EMA).



Pictures 14 – a, b) the treated camel neck skin, preserved with salt; c,d) raw hide lace, cut for the kerege loop; e) kerege nodes, made with taspa laces; f) The camel shoulder-blade used as writing board. Middle ages, Shu-Talas region. (from the findings of the archaeological expedition of the Al-Farabi Kazakh National University); g, h) A ritual candlestick that is burned after the funeral ceremony of the deceased, which is connected to the belief that the deceased is sent to the next world with a camel (Ancient Turkic period, settlement of Aktobe.

From the findings of the archaeological expedition of the Al-Farabi Kazakh National University)

Popular beliefs related to the camel

The Kazakh beliefs concerning camels are very peculiar. Fearing the evil eye, they would avoid a direct naming of the camel's name or camels' number or. Instead of «I have 5-6 camels», they would say

evasively «I have a few moinaks». It is forbidden to beat camels with a stick. A man would lead his camel keeping both hands on its back. If a she-camel resisted milking or did not accept its own colt, her eyes and udder were washed with some salt that laid on the chest of a deceased and the colt was made to cry. In cases when a *bura* (male camel) becomes extremely aggressive towards people and bites, one shall not run away but stand still, otherwise the camel would chase and trample him to death. If a camel was sold, its *bida* (lead, rope) was to be preserved or a wool lock would be cut from its hump for good luck. A buyer of the camel had to come with his own *bida* (camel's rope) made of camel or sheep's wool from spring clipping.

White camels were in special esteem and cherish by Kazakhs. A Kazakh would say about a happy day: «Ak tuyenin karny zharylgan kün», that is «the day when the white camel's stomach blew out». A

aruana (one-humped white she-camel of the best breed) was highly guarded from the evil eye by putting a neck pendant of a shoe insole (Picture 15a). It was also believed that the just born white camel colt is subject to the evil eye, and a spoke bone or a red cloth was to put on its neck as amulet (Picture 15a,c,e).

The head of a camel, killed during the winter *sogym* (slaughter) in order to preserve it from spoiling, was hanged in the animal enclosure (Picture 15b). Before migration, in order to leave behind the evil spirits in the old place, camels were threaded through fire (Picture 15d).



Picture 15 – a) a white camel with a tribal mark on its shoulder and an insole on its neck as an amulet; b) camel's skull in an enclosure (EMA); c) white colt with a spoke bone hung on its neck; d) purification of camels with fire (reconstruction of a photography by Zh. Shaiken; e) camel with amulet

Pregnant women were not allowed to eat camels' meat. This is connected to the fact that the camel is a languid dignified animal that bears its child long time, during 12 months. A woman who ate camel's meat and, as a result, experienced long birth pangs, was approached by a camel and had to step three times over the bida (camel's rope). The event was accompanied with cries: «Hey Allah, give luck, give luck!» (EMA). According to A. Divayev, in antiquity, if a pregnant woman could not deliver in time,

a *bura* (male camel) was brought to her with a white cloth around its neck, and the woman had to step over the camel's neck (Divayev, 1896: 57-58).

Sacrificial offering and prayers for help are customs rooted in immemorial times. Reading «The book of Korkyt Ata» one learns that the ancient Oguz people, when praying for progeny, sacrificed a stallion, a bura (male camel), and a *koshkar* (ram); when seeing a hungry person, they would feed him/her; when seeing a naked person,

they would provide him/her with cloths. When taking their 15-year old boys to hunt with hunting birds, in honour of that event, the boy's mother would sacrifice a stallion, a bura and a koshkar in order to wish festively the lucky start of the hunting (*«Korkıt Ata» ensiklopediyalık cinak*, 1999: 132).

The shape of the camel's sole (*tuye taban*) and eye (*tuye köz, bota*) are ornaments and artistic patterns applied in jewellery and embroidery. The representation of the camel in the ornaments of domestic items is a sample of sacral relicts linked to fertility cults and serves as home amulet, *oshak* (hearth). Also the custom to attach a piece of camel wool to a child's cloth is intended for protection (Argynbayev, 1975: 195-196).

Conclusion

The camel played a crucial role in the life of the Central Asia nomads. More in general, a sort of camel cult was widely spread among the peoples of the East, connected to ancient pre-Islamic beliefs and to the worships of various powers and natural phenomena.

Traditional skills of nomadic animal husbandry are well preserved in the Kazakh culture, being passed from generation to generation, so that the lasting influence of nomadic livestock breeding is imprinted on both the material and the spiritual aspects of their cultures.

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References

Aleksandrov N.N. (1920). Zemledelie Syrdar'inskoj oblasti. Chast I. Obshhie priemy zemledeliya. [Agriculture of the Syrdarya region. Part I General methods of farming.]. Tashkent.

Altynsarin Ibirai (1870). Ocherki obychaev pri pohoronah i pominkah u kirgizov Orenburgskogo vedomstva. [Sketches of customs at the funeral and funeral at the Kirghiz Orenburg department]. Mashinopisnaya rukopis'. Otdel rukopisei i redkih knih Nacional'noi biblioteki. Orenburg.

Argunbayev Khalel (1969). Kazakhtyng mal sharuashylygy zhayinda etnographicalyk ocherk. [Ethnographic essay about Kazakh livestock breeding]. Almaty: Gylym.

Argynbayev Khalel (1975). Narodnye objachai i pover'ia kazahov, sviazannye so skotovodstvom. [Embrace and beliefs of the Kazakhs, connected with cattle breeding]. V knige: Hoziaistvenno-kul'turnye tradicii narodov Srednei Azii i Kazahstana. Moskva: Nauka. S.194-205.

Aziatskaya Rossia. (1914). [Asian Russia]. Sankt-Piterburg: V tipografii tovarichestva A.F.Marsa. T.1-3.

Baimukanov A. and Meredov B. (1989) Two-humped camels, In N. G. Dmitriev, L. K. Ernst eds., Animal genetic resources of the USSR, FAO, ROME, 345-351

Divayev Abubakir (1896). Primety. Sbornik dliya statistiki Syr-Dar'inskoi oblasti. []. V tom. Tashkent: Tipo-litografiya torgovogo doma F i G. Br. Kamenskogo. S. 56-59.

Documents, Afro-eurasian inner dry land civilization collection 15:49-86.

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Faostat (2015) http://faostat.fao.org/

Faye B., Konuspayeva G., Messad S., Loiseau G. (2008) Discriminant milk components of Bactrian camel (Camelus bactrianus), dromedary (Camelus dromedarius) and hybreds, Dairy Sci. Technol. 88: 607-617.

Gallacher D.J. and Hill J. P. (2006) Effects of camel grazing on the ecology of small perennial plants in the Dubai (UAE) inland desert, Journal of Arid Environments 66 (4): 738-750.

Geyer, Ivan (1909). Turkestan. Tashkent: Izd. Kirsner.

Geyns Aleksandr (1898). Sobranie literaturnyh trudov. [Collection of literary works]. Tom II. Sankt-Peterburg. Tipographiya M.M.Stasyulevicha.

Grodekov Nikolai (1889). Kirgizi i karakirgizi Sır-Dar'inskoy oblasti. Yuridicheskiy bıt. T.1. [Kirghiz and Karakirgiz of the Syr-Darya region. Legal life]. Tashkent: Tipo-litografiya S.İ.Lahtina.

Imamura K., Amanzholova A., Salmurzauli R., (2016) Ethno-terminology of Camels by Kazakh Language, Journal of Nagoya Gakuin University, humanities and natural sciences: 52(2): 65-81

Karuts Rihard (1910). Sredi kirgizov i turkmenov na Mangishlake. [Among the Kirghiz and Turkmens in Mangyshlak.]. Translated from german by E. Petri. Sankt-Peterburg: Edition A. F. Devriyeva.

Konuspayeva G. and Faye B. (2004) A better knowledge of milk quality parameters: A preliminary step for improving the camel milk market opportunity in a transition economy: The case of Kzakhstan, Saving the camel and peoples' livelihoods, India, 28-36

Kostenko Lef (1880). Turkestansky kray. Opyt voenno-statichesky obozreniya. Turkestansko-voennogo okruga. Materialy dlya geographii i statistiky Rossii. [Turkestan Territory. Experience military statistic review. Turkestan Military District. Materials for geography and statistics of Russia]. Tom 1-3. Sankt-Peterburg: Typographiya i Hronolitographiya A.Transhelya.

«Korkıt Ata» ensiklopediyalık cinak (1999). [«Korkyt Ata» encyclopedic collection]. Almaty: Kazakh ensiklopediyası.

Krasovsky M. (1868). Materialy dlya geographyi i statistiky Rossii, sobrannyei ofitceramy generalnogo shtaba. Oblast Sibirskih kirgizov. [Materials for the geography and statistics of Russia, the collected officers of the General Staff. Region of the Siberian Kirghiz]. Part 1-3. Sankt-Peterburg.

Kustanayev Hudabay (1894). Etnograficheskie oçerki kirgiz Perobskogo i Kazalisnkogo uezdov. [Ethnographic essays of Kyrgyz Perovsk and Kazalinsk districts]. Tashkent: Tipo-Litografiya Br. Pertsebih.

Masson I. L. (1979) Origin, Evolution and distribution Of Domestic Camels, In Cockrill, R.W. ed., The Camelid: Alll-purpose animal, Proceedings of the Khartoum Workshop on camels, December 1979, Uppsala, 16-35.

Materialy po kirgizskomu zemlepol'zovaniyu. Syr-Dariyinskaya oblast. Perovsky uezd [Materials on kirgiz land use. Syrdarya district]. (1912). Tashkent: Tipo-litographiya V.M.Iliyina.

Narody Rossii. (1879). Kirgizy. Istorichesky ocherk and narodny character. [The Kirghiz. Historical essay and folk character.]. Sankt-Peterburg: Typographiya tovarishestvo «Obshestvennaya polza».

Nebolcin Pavel (1855). Ocherky torgovly Rossiyi so Sredney Aziey. [Essays on the trade of Russia with Central Asia]. ZIRGO. Knizhka 10. Sankt-Peterburg. V tipographiyi Imp.A.Sc.

Neustruev S.S. (1911). Zona iuzhnoi polupustyni. Perovskii uezd Syrdarinskoi oblasti. [Zone of the southern semi-desert. Perovskiy district of Syrdarya region]. Sankt-Peterburg.: Tipografiya Ju.N.Jerlih.

Pallas Petr (1773). Puteshestviye po raznym provintsiyam Rossiskoy imperiyi. [Travel to different provinces of the Russian Empire]. P.1. Putishestviye 1768-1769 y.y. Translation of O.Tomsky. P.2. Putishestviye 1772-1773 y.y. Sankt-Peterburg: Tipog.Imp.ASc.

Potanin Georgii (1916). Kazakho-kirgizskye i altayskiye predaniya, legendy i skazky. [Kazakh-Kirghiz and Altai legends, legends and fairy tales]. Zhyvaiya starina. T. XXV. Petrograd. Typographiya V.D.Smirnova. 45: 47-198.

Sala R. (2017) The history of camel domestication from literary sources and archaeological Documents. Afro-Eurasian Inner Dry Land Civilizasions Collektion 15. P. 49-88. Japan.

Smirnov A.P. (1897). Byt i nravy kirgizov. [Life and customs of the Kirghiz]. 2-oe izdanie. Sankt-Peterburg. Tipografiya F.Akienfieva i I.Leont'eva.

Smirnov E. (1887). Syrdarinskaya oblast'. [Syrdaryn region]. Sankt-Peterburg. Tipografiya M.M.Stasjulevicha.

Ualikhanov Shokan (1985). Sobranie sochinenii. [Collected works]. Volume 4. Almaty: Glavnaya redakciya Kazahskoi sovetskoi enciklopedii.

Zagryazhsky Georgi (1903). Ocherky Perovskogo uezda. [Essays Perovsk County]. Turkestanskiye vedomosty. Tashkent. 58: 358.