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## ITEMS FOR HUNTING WITH BIRDS OF PREY IN THE CULTURE OF NOMADIC PEOPLES



*Artículos de caza con aves rapaces en la cultura  
de los pueblos nómades*

*Artigos de caça com aves de presa na cultura  
dos povos nômades*

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## ABSTRACT

Hunting birds has a long history and is of important cultural importance for many modern countries in the Central Asian region, so the study of hunting objects will allow examining this process in detail and preserving the cultural legacy of modern countries. The purpose of the study is to examine what equipment the nomads used for hunting birds and consider the importance of this kind of activity in society. In the course of the study, a number of methods of theoretical cognition were used. As a result of the study, the following conclusions were made: it was determined that hunting birds was not only an element of life, but also influenced the worldview and culture of nomadic peoples. The main element of the equipment was the tomaga, which was a leather cap that was put on the bird's head and had five types. The boo is equipment for keeping the bird at a distance and was mainly used for training, and the variety depended on its length. This study will be useful for ethnographers investigating the culture and way of life of nomadic peoples to deepen their knowledge.

### KEYWORDS

Baldak, boo, cultural importance, tomaga, tugur.

## RESUMEN

La caza de aves tiene una larga historia y una gran importancia cultural para muchos países modernos de la región de Asia Central, por lo que el estudio de los objetos de caza permitirá examinar este proceso en detalle y preservar el legado cultural de los países modernos. El objetivo del estudio es examinar qué equipo utilizaban los nómadas para cazar aves y considerar la importancia de este tipo de actividad en la sociedad. En el transcurso del estudio se utilizaron varios métodos de cognición teórica. Como resultado del estudio, se llegó a las siguientes conclusiones: se determinó que la caza de aves no solo era un elemento de la vida, sino que también influía en la cosmovisión y la cultura de los pueblos nómadas. El elemento principal del equipo era la *tomaga*, que era un gorro de cuero que se ponía en la cabeza del ave, y tenía cinco tipos. El *abuqueo* es un equipo para mantener al ave a distancia y se utilizaba principalmente para el adiestramiento, y su variedad dependía de su longitud. Este estudio será útil para que los etnógrafos que investigan la cultura y el modo de vida de los pueblos nómadas profundicen en sus conocimientos.

### PALABRAS CLAVE

*Baldak, boo, importancia cultural, tomaga, tugur.*

## RESUMO

A caça de aves tem uma longa história e uma grande importância cultural para muitos países modernos da região da Ásia Central, pelo qual o estudo dos objetos de caça permitirá examinar esse processo em detalhe e preservar o legado cultural dos países modernos. O objetivo do estudo é examinar que equipe utilizavam os nômades para caçar aves e considerar a importância deste tipo de atividade na sociedade. No transcurso do estudo utilizaram-se vários métodos de cognição teórica. Como resultado do estudo, chegou-se às seguintes conclusões: determinou-se que a caça de aves não era só um elemento da vida, mas também tem influenciado na cosmovisão e a cultura dos povos nômades. O elemento principal da equipe era a *tomaga*, um boné de couro que se colocava na cabeça da ave, e tinha cinco tipos. O *abuqueo* é uma equipe para manter a ave à distância e se utilizava principalmente para o treinamento, e sua variedade dependia da sua longitudude. Este estudo será útil para que os etnógrafos que investigam a cultura e o jeito vida dos povos nômades profundizem nos seus conhecimentos.

### PALAVRAS-CHAVE

*Baldak, boo, importância cultural, tomaga, tugur.*

## Introduction

The study of the question of the variety of objects for hunting birds in the culture of nomadic peoples is an important subject since it allows preserving and understanding the cultural legacy of nomadic peoples associated with hunting using birds. Traditions, knowledge, and skills transmitted in these cultures are considered unique and require additional study. The study of this subject contributes to enriching the understanding of cultural characteristics and technologies related to hunting birds. The study of this subject has a number of problems, in particular, there is a problem of preserving the cultural legacy of nomadic peoples associated with hunting with the use of birds. Today, with the changing socio-economic and ecological environment, these traditions and skills may be endangered. Research in this area is important for preserving valuable knowledge and practices and finding ways to adapt to modern conditions. There is also a problem with understanding the meaning and role of hunting with birds in the culture of nomadic peoples. This includes an analysis of the social, religious, economic, and environmental aspects of hunting. In addition, it should be understood that there is a substantial diversity of nomadic peoples on the territory of Central Asia, among which there are differences in the context of ideological attitudes and hunting methods (Kerimkhulle et al., 2023). Therefore, when exploring the objects of hunting birds, it is important to conduct a general analysis, considering the differences among different nationalities.

The subject of investigating the objects of hunting birds among nomads is quite extensive; therefore, it has been investigated by a number of researchers. In particular, Baktygulov and Mombekova (2001) conducted a general description of falconry among nomadic peoples. Since the authors' paper is of a general nature, it did not focus on what exact functions were performed by different elements of equipment or what the types of certain items were. In addition, it should be understood that not only falcons were used for hunting, but also other birds of prey. In other hand, Mukhatova (2014) examined the issues of the development of the economy of Kazakhstan during the XVII-XVIII centuries. An important element of this study was the consideration of the subject of hunting birds since it played one of the key roles in the economy of Kazakhstan at that time. The author, in her research, did not focus on items of hunting equipment but was able to clearly explain what role this type of activity played in the context of the cultural and social development of the nomadic peoples of Kazakhstan.

Zhatkanbayev (2020) extensively examined the use of various types of equipment for hunting birds. As a result, the researcher was able to describe in detail various items of equipment. However, the researcher did not accurately describe the ways of using certain items, in particular, tugur and baldak. Regarding the detailed study of hunting objects, it is also important to note the contribution of Yrsaliev (1966), who outlined the basic concepts concerning hunting birds, including items of equipment. Also, Soma (2015) conducted a description of how the interaction between a nomad and birds of prey took place since hunting is a long process of training and raising a bird. The theses from this study are important for understanding the general process of hunting birds. As for the subject of investigating and describing individual items for hunting, Muller (2009) conducted a detailed description of a number of items; however, some inaccuracies were made regarding the description of tomaga types.

The purpose of this study is to examine and describe objects for hunting birds among the nomadic peoples of Central Asia. Another important aspect is to examine the question of what role and importance this type of activity had for nomads.

## Materials and methods

Firstly, the study of hunting objects with birds among nomadic peoples requires not only a detailed examination of individual items and inventory items but also considering many aspects. In particular, it was necessary to pay special attention to cultural, economic, social, and religious aspects. The main method that was used in this study is the method of analysis. Due to the use of this method, a detailed examination of each source was conducted, and important information was selected concerning each of the aspects of this study. Thus, it was important to conduct not just a review of the inventory items that were used for hunting but also to deeply analyze each of them. It was also necessary to determine the functional purpose of each of the individual items, their characteristics, and their types. In particular, this method was used in the study of such an item of equipment as a tomaga, due to which it was determined that it was used both during training and during hunting to calm the bird, and this item had five types.

The next method of theoretical knowledge was the synthesis method. By using this method, it was possible to combine all the information obtained during the analysis into a single result. In particular, this method of theoretical knowledge was used when considering the question of what role hunting birds played in society or what differences or similarities existed between different types of certain elements of equipment. In particular, due to the use of synthesis, it was determined that the differences in different types of gloves were due to the use of different materials. In turn, this was due to geographical conditions, since one type of glove was made from animals that lived exclusively in mountainous areas and the other from animals that lived in the steppe region.

Another method that was used in this study is the historical-comparative method. The essence of this method is to collect data on the specific features of hunting among different nomadic peoples. In particular, this method was used when considering the question of which species of birds were used by different nomadic peoples. Thus, it was possible to determine that representatives of the nationalities who lived in the mountainous area mainly used eagles for hunting. Nomads from the steppe hunted with falcons. In addition, through the use of the historical-comparative method, it was determined which types of tomaga were used by different social representatives, considering their economic situation. Also important for the implementation of this study were the methods of concretisation and generalisation. The first of these methods was used to focus on certain aspects and information that are essential in the context of considering the subject of the study. In particular, during the consideration of the general aspects of hunting birds, it was important to focus on what role and importance this type of activity had for nomadic peoples.

## Results

Hunting with the use of wild birds has been practiced in the countries of the East since 4000 BC. Hunting was of great importance for nomadic and semi-nomadic peoples, as it provided them not only entertainment but also means of survival, such as meat, hides, and furs. Preparation for hunting included the performance of rituals, and there were beliefs associated with the success of hunting. For example, hunters believed that hunting would be successful if they went out on Thursday, whereas Fridays were considered a bad day for hunting. Friday was the day of prayer for Muslims, and the Karategin Kirghiz, who converted to Islam before others, adhered to this belief. They also considered Hazredi Zamchi Palwan, a relative of the prophet Doot, the patron saint of hunting. However, the Kyrgyz living in the Ata-Tau mountains did not observe such beliefs and went hunting under favorable weather conditions. They also had their own pagan traditions and rituals associated with hunting. For example, they considered Chegir bayan, a deity in Turkic mythology, the patron saint of wild birds and hunting dogs (Baktygulov and Mombekova, 2001).

Hunting with birds has been of great importance in various societies, particularly among nomadic civilizations. Falconry, the practice of hunting with falcons, has been deeply intertwined with the cultural identity of Bedouin and Arabian societies. Nomadic civilizations, such as the Bedouins, relied heavily on falcons to find food in the challenging desert environments (Lerner et al., 2019). This tradition has been passed down through generations and is considered a vital link to their cultural past. Additionally, hunting with golden eagles is a national tradition of the Kyrgyz, Kazakhs, and Mongols, dating back to ancient times when it was a primary means of obtaining food. These practices have not only served as a method of obtaining food but have also held cultural significance, teaching virtues such as patience and trust. The influence of hunting with birds on the worldview of nomads is evident in the enduring nature of these traditions, which have been passed down for thousands of years and have become integral to the cultural identities of these societies. The practice of falconry has also been recognized as an Intangible Cultural Heritage by UNESCO (Golding, 2014), underscoring its cultural significance.

A tomaga (*Kyrgyz*) is a leather cap that is put on the head of a hunting bird to close its eyes and avoid visual stimuli. It also calms the bird, which, without a tomaga, can inflict wounds on itself with its sharp claws. Falconers who hunt using birds often put tomaga on the heads of a golden eagle and other hunting birds to prevent attacks on people and pets (Mukhatova, 2014). If the bird does not wear a tomaga, it reacts to various visual stimuli, which makes it difficult to use it on the falconer's hand, especially when riding (Figure 1).

**Figure 1.** Tomaga on the bird

*Figura 1. Tomaga en el ave*



Source/fuente: Radcliffe (1971).

Immediately after the capture and killing of prey, a tomaga was put on the heads of hunting birds to prevent them from attempting to attack their owners. The tomaga is made exactly according to the size and shape of the bird's head and is sewn from soft tanned leather. It consists of several parts, including the crown (*tobo*), the eyecup (*kozduk*), the part covering the back of the bird's head (*zheltsy jeeginen*), a brush made of leather on the crown (*chachik-chugunan*), and a leather braid (*sagak*). There is a hole in the front of the tomaga where the bird's beak extends so that the nostrils are outside. Tomaga is one of the most expensive items of equipment, as it is decorated with ornaments and embroidered with gold, silver, and copper. Making and sewing a klobuk (the second name of a tomaga) requires a certain skill and patience. Usually, the klobuk is made by a special "klobuk master" and not by a falconer who teaches falcon hunting. A well-made klobuk should be dense enough to keep light out of the bird's eyes and simultaneously soft so as not to cause any discomfort to the bird. The ideal klobuk is considered to be one that a bird can easily drop, but simultaneously sits firmly on its head and cannot be removed by a predator. Zhatkanbayev (2020) highlighted the five main types of klobuk:

- Oval-shaped *klobuk* with convex contours above the forehead, a two-layer occipital part, and a crown brush closer to the occipital part. Made from soft leather or suede, it can be decorated with gold or silver bells.
- Straight-contoured *klobuk* with straight contours in the anterior and occipital parts, center-located crown brush. Made of soft leather or suede, it is considered the best type.
- Simplified shape *klobuk* without an occipital part features an upper part with a



- rounded shape.
- Single-piece leather *klobuk* is sewn from a single piece of leather, with a convex top and the option to be decorated with gold or silver bells.
  - Thread-sewn two-part *klobuk* consisting of two parts sewn with threads from animal tendons, featuring an upper part with a sharp shape and the possibility of gold or silver bell decoration.

Boo (*Kyrgyz*) is equipment for keeping hunting birds, consisting of putts of different lengths and widths. They are fixed on the paws of the bird and are used to hold it on the arm, stand, and perch. The putts are made of rawhide and are divided into short (*lob boo*) and long (*uzun boo*). Short putts, reaching a length of 1-1.5 m, are used to train birds to hunt. Long putts with a length of 30 to 60 m are used during hunting. Artificial targets are also used in the training process so that the birds learn to feed from the hands of the owner. Some falconers train their birds to take food while sitting on a horse (Yrsaliev, 1966). Short putts are made of soft leather or suede, so as not to rub the paws of the bird. They consist of two straps connected by a leather braid. At the end of the putts, rings are put on for fixing, with a diameter of about 2 cm.

The glove is another important piece of equipment needed to carry hunting birds on the hand. Gloves are made of strong, soft leather or suede and protect against the sharp claws of birds. For small birds, short gloves or leather pads are used between the thumb and forefinger. For medium and large birds, long gloves are used to protect the falconer's hand and forearms. The glove also plays an important role in training the bird to leave its prey. Without a glove, it is impossible not only to carry a bird in the hand but also to develop the necessary skills. When feeding hunting birds by falconers, tools such as zurna, kernai, or tambourine to search for birds are often used (Figure 2).

**Figure 2.** Glove and boo  
*Figura 2. Guante y abucheo*



Source/fuente: Radcliffe (1971).

The first type of glove was made of whole leather, removed from the necks of mountain goats. This allowed us to avoid spending time and effort on the sewing. The gloves were of sufficient length and size to be worn on top of the sheepskin and fur coats. The leather cuff could cover the hand to the third of the forearm. For reliable fixation of the gloves on the hand, ties were provided around the wrist, passing through the side holes of the gloves. The inner side of the gloves, where the fingers were placed, and the part where the thumb was located, were sewn together from soft leather obtained from cow skin. This inner layer protected the hand from the sharp claws of the bird and provided additional thermal insulation. Thin leather straps were used for sewing gloves. The second type of glove was made of whole leather, removed from the neck of a roe deer. The skin, after cleansing and dressing, acquired a light-yellow hue. The second type of gloves did not differ from the first, except that in such gloves, the index finger and middle finger were placed in one compartment, and the ring finger and little finger were placed in another. That is, the hand was divided into two equal parts. Ties around the wrist were also present in this type of glove, but they passed through four holes and were tightly tied for secure fixation. Soft and elastic leather obtained from cattle or felt was used for the interior decoration of gloves (Golding, 2014).

Another piece of equipment is a *tugur*—a stand on which a bird sits in an aviary or yard (Figure 3). It is usually made from curved tree trunks. The top of the stand is upholstered with a *kishma*, and a ring is fixed on it, to which the putts are tied. There are many forms of stands, the size of which depends on the size of hunting birds. For example, for birds of relatively small size, stands were prepared in the form of pillars about 1 m high, planted in the ground, to which horizontal long poles or whole wooden pieces were attached.

**Figure 3.** A *tugur*  
*Figura 3. Un tugur*



Source/fuente: Radcliffe (1971).



Experienced falconers often changed the place of such stands and usually placed them on the riverbank or in swampy places where golden eagles' claws grew faster. One of the main pieces of equipment is a baldak—a special stand-crutch designed to fix the hand on which the bird sits while riding during hunting (Mohan, 2015) (Figure 4).

**Figure 4.** A baldak  
*Figura 4. Un baldak*



Source/fuente: Radcliffe (1971).

Since it was impossible to carry hunting birds on the arm for a long time, for example, a golden eagle weighing from ten to twenty kilograms, it took a special device for a comfortable position of the hand while riding with a golden eagle. Due to such equipment, it was much more convenient to carry hunting birds on the hand, and the hand was less tired. The height of such crutches was about half a meter, they were made of strong wood or a whole horn of a mountain goat. There was no generally accepted standard for making baldaks, so they had several types. To date, four types of baldak are known.

The first kind of baldak was made from the whole horn of a mountain goat. Cutting the horn required a lot of time, effort, and experience since it was difficult to grind such a hard material. The upper end had a branched shape, and the lower end was attached to the saddle or waist belt with a leather cord to ensure the stability of the stand during riding. The upper part, that is, the branched end, was covered with rawhide to provide comfort to the falconer, even when he had a bare elbow. Making a baldak from a whole horn was considered a classic example of craftsmanship. Such baldaks not only had aesthetic value but also reflected traces of totemic representations of falconers and served for a long time. The second type of baldak was made of strong wood, one end of which had a branched shape. The lower end

was attached to the lower part of the stirrup by means of a leather cord, and the upper end was attached to the front pommel of the saddle by means of a metal arc. The third type of canopy was also made of wood. The difference was that there was no additional device for attaching the upper part to the saddle. Instead, leather cords were used, through which the upper part of the canopy was attached to the saddle or waist belt of the falconer. The fourth type of baldak was distinguished by the fact that a wooden semi-circular prefix was attached to its lower end, which in turn was attached to the stirrup loops with a leather cord. As for the upper end, it was fixed in the same way as in the third type of baldak (Lerner et al., 2019).

The process of training hunting birds is of particular importance for hunting. An artificial target called *dalba* or *cherga* in the Kyrgyz language is used to train hunting birds. The word *dalba* came from the ancient vocabulary of the Kyrgyz language and once meant a bag for food. In the Vuygur language, there is a variant of *dalbai*. The word *cherga* refers to the common vocabulary of the Kyrgyz and Mongolian languages and comes from the verb *chereh*, which means “pull”; “drag”.

After completing the process of taming the golden eagle, the falconers moved on to the next stage: training the bird to hunt. They used a “running” target (*cherga*), which was made of fox skin densely filled with straw or hay. A strong, long cord was attached to it, by which a target was dragged, and a golden eagle was released to hunt it. The training of hunting birds required a lot of effort, patience, and time from the falconers. At first, hunting birds were attacking targets from a short distance, gradually increasing the interval, and this work process required certain skills and patience from the falconer. In addition, the wings of a duck, a dove, or a partridge were used as a target. Available materials were used by the falconers in the manufacture of targets (Shahu, 2019). For example, pieces of cowhide make up a small frame, densely filled with wool and felt. Then this frame was sheathed with the skin of a badger or groundhog, and the tail of a fox was tied to it. Thus, targets were made from available materials that were actively used in training the birds for hunting. Long or short cords were attached to them, behind which the target was dragged on foot or on horseback. As evidenced by the above-mentioned basic leather products for training birds of prey, hunting and the use of falcons in hunting require a lot of experience and time. Indeed, it is clear from the products and weapons that nomadic peoples were able to raise falconry to a higher level (Fedoniuk et al., 2022). However, almost no research has been conducted on the Kyrgyz hunting birds, their main causes, development, weapons, or rituals. There are practically no exhibits of artifacts and weapons in archaeological, ethnographic, and historical museums.

## Discussion

The subject of hunting with birds among the nomadic peoples of Central Asia is quite wide and has considerable relevance among modern researchers. Considering this, today there are a number of different views concerning both the issue of hunting with birds in general and specific attributes characteristic of this process.

Soma (2015) examined the general question of what role the interaction of nomads with birds of prey plays both in the past and in the present. First of all, the author analyzes the finds of objects that were used in hunting and dates from different time periods. Thus, it was concluded that falconry was an important element of society and maintained its tradition in different time periods. In addition, the researcher argues that today, all possible measures

should be taken to preserve the tradition of this type of activity. In this context, it is important to note that the subject of this study was the ethnic group of Kazakhs living in the province of Bayan-Ulgii. Due to a number of factors, the population of this area was largely able to preserve the customs and lifestyle of their ancestors, but in many other regions of Central Asia, this could not be done (Niyazbekova et al., 2021). It should also be agreed with the author that the preservation of traditional methods of hunting birds is useful not only in the cultural context but also in the context of the conservation of populations of rare bird species.

Another researcher who has researched the subject of hunting birds and its subjects is Shahu (2019). The author was able to trace the interaction between different key tribes by investigating the finds of equipment for hunting birds. Notably, this type of activity was quite complex and required conducting various processes, from the adoption of birds to their training. For each of these stages, it is necessary to have special equipment that should have been manufactured with the highest quality. In this regard, not all artisans were engaged in its manufacture, but individual craftsmen. Thus, by analysing the finds of certain items for hunting birds, the researcher concludes that the need of certain tribes to obtain high-quality inventory prompted them to cooperate with other tribes, which as a result led to increased cooperation between them. It is necessary to agree with this opinion because, as noted in the results of this study, hunting birds for nomadic peoples had not only the importance of obtaining resources but also the development of social interaction and worldview.

An important issue on this subject is not only what kind of equipment the nomads used for hunting but also what kind of birds they took for it. In the results of this study, it was noted that falcons were mainly used for hunting, but the phenomenon of using eagles was also widespread. This question was covered in detail in a study by Mayor (2016). In particular, one of the advantages of using eagles is that eagles are usually larger in size and have greater strength compared to falcons. This allows them to hunt larger game, including medium-sized mammals such as rabbits, foxes, or even medium-sized ungulates. In addition, eagles are capable of long-distance flight, which makes them effective for hunting game that may be located far from the initial hunting position. Nomadic peoples can travel long distances, and eagles are able to fly after them and hunt game, even if it is at a considerable distance from the initial camp. It is necessary to agree with this opinion of the author; however, in this context, it should be understood that the choice of bird species for hunting did not depend on the personal preferences of the hunter but on the geographical distribution area of these birds. In particular, falcons have an advantage in prevalence in many Central Asian countries, but eagles were used in the mountainous regions of Kazakhstan and Mongolia (Karabassov et al., 2022).

The question of the variety of specific items of equipment for hunting was investigated by Muller (2009). The author describes the characteristics of a number of items that nomadic tribes used for hunting with birds, which were also mentioned in this paper. In particular, the researcher described in detail such an item of equipment as a tomaga. In the course of the description, the author claims that the tomaga usually has a long heel and a wide handle to ensure the safe grip and retention of the falcon in the hunter's hand. Tomaga allows the hunter to control the movements of the falcon and use its visual abilities to detect and hunt game. Such a description is quite detailed, but one should disagree with the author's thesis that nomadic peoples had only one type of tomaga. This opinion is not true, because, as

already noted in the results of this study, the tomaga had five typological kinds. Notably, the author notes that the tomaga had different types of jewelry and certain differences in shape, but does not state this in the context that the mentioned item of equipment had different types, but simply had differences among different nomadic peoples.

Karyakin et al. (2015) examined the issues of certain elements of equipment for hunting with birds. In their study, the authors examined in detail various elements of the equipment and outlined their description. In particular, the researchers describe that the gloves have reinforced areas on the fingers and palms where direct contact with the falcon occurs. This reduces the risk of damage to the skin of the hands from the sharp claws of the falcon and ensures the long service life of the gloves. In addition, some gloves may have additional elements that facilitate use during falconry. For example, the fingers may have inserts made of anti-slip material for better grip and control of the falcon. The authors also claim that the gloves were made exclusively from the skin of mountain goats. It is necessary to disagree with this opinion, because, as already mentioned in this study, gloves for hunting birds were made not only from the skin of a mountain goat but also from the skin of a roe deer. In this context, geographical aspects should also be considered, since roe deer mainly existed in the steppe area; therefore, gloves made of this material were widely distributed in this part.

Amirov et al. (2015) investigated the subject of what cultural content hunting birds had for the nomadic peoples of Central Asia. The researchers claim that this type of activity was closely related to the worldview of nomads and had a number of rituals that were conducted by hunters. The authors also pay attention to the religious aspect, since pagans and Muslims had different traditions and customs in the context of hunting birds. It is necessary to agree with this opinion because, as already mentioned in the results of this study, nomadic peoples put a deep meaning into this type of hunting, since this type of activity was crucial in their lives. In general, hunting birds is one of the key phenomena in the lives of nomadic peoples, so it was developed at a high level (Okunola and Fakunle, 2021). Due to this, many pieces of equipment were created that were used in the hunting process, and various elements of this inventory had their own types.

The analysed works reveal a rich palette of views on the practice of hunting with birds among the nomadic peoples of Central Asia. Taken together, these studies emphasize the enduring cultural significance of falconry and eagle hunting, emphasizing the need for their preservation. They shed light on the complexities of gear production and the cooperative networks it created between tribes. The deeply rooted cultural meaning of hunting with birds, with its rituals and religious aspects, is emphasized as a key aspect of nomadic life.

## Conclusions

In conclusion, hunting with birds has been a longstanding and culturally significant practice in various societies, particularly among nomadic civilizations. The use of wild birds in hunting dates back thousands of years, providing not only a means of survival but also a connection to cultural heritage. The equipment and rituals associated with hunting birds demonstrate the deep-rooted traditions and skills passed down through generations of falconers. These items not only serve practical purposes but also reflect the craftsmanship and expertise required for successful hunting with birds of prey. Training hunting birds, a crucial aspect of falconry, involves the use of artificial targets like *dalba* or *cherga*, which are

essential tools in preparing these magnificent creatures for the hunt. The training process demands dedication, patience, and the use of various materials to create effective targets.

Despite the rich history and significance of hunting with birds, there is a notable lack of research and exhibits in museums, particularly concerning Kyrgyz hunting birds, their development, weapons, and associated rituals. Further exploration and documentation of these traditions are needed to preserve this important aspect of cultural heritage for future generations. The main directions of further research are a detailed examination of the finds of equipment for hunting birds, to expand their typologisation, and an analysis of what role this type of activity occupied in the economic and cultural life of nomadic peoples.

## References

- Amirov, S.S., Betts, A., and Yagodin, V.N. (2015). Mapping ancient hunting installations on the Ustyurt Plateau, Uzbekistan and Kazakhstan: New results from Remote Sensing Imagery. *Paléorient*, 41(1), 199-219. <http://dx.doi.org/10.3406/paleo.2015.5662>
- Baktygulov, J.S., and Mombekova, Zh.K. (2001). *History of the Kyrgyz and Kyrgyzstan from Ancient Times to the Present Day*. Kyrgyzstan and MEKTEP.
- Fedoniuk, T., Zymarioieva, A., Pazych, V., Melnyk, N., and Vlasiuk, V. (2022). Indicative Features of Macrophyte Communities in the Assessment of Anthropogenic Load on Aquatic Ecosystems. *Scientific Horizons*, 25(11), 74-91.
- Golding, P. (2014). *Falconry and Hawking: The Essential Handbook – Including Equipment, Training, and Health*. World Ideas.
- Karabassov, R., Nurmaganbetov, K., Aidynov, Z., Orynbekeva, G., and Khapova, A. (2022). The Main Areas of Development of Organic Agriculture in the Republic of Kazakhstan. *Scientific Horizons*, 25(9), 105-116. [https://doi.org/10.48077/scihor.25\(9\).2022.105-116](https://doi.org/10.48077/scihor.25(9).2022.105-116)
- Karyakin, I.V., Levin, A.S., Moshkin, A.V., and Nikolenko, E.G. (18 to 24 August 2015). Saker falcon in Russia and Kazakhstan. In *XIV Ornithological Conference of Northern Eurasia* (pp. 473-530). Al-Farabi Kazakh National University. Almaty, Kazakhstan.
- Kerimkhulle, S., Aitkozha, Z., Saliyeva, A., Kerimkulov, Z., Adalbek, A., and Taberkhan, R. (2023). Agriculture, Hunting, Forestry, and Fishing Industry of Kazakhstan Economy: Input-Output Analysis. In R. Silhavy, P. Silhavy, and Z. Prokopova (Eds.), *Software Engineering Application in Systems Design. CoMeSySo 2022. Lecture Notes in Networks and Systems* (Vol. 596). Springer. [https://doi.org/10.1007/978-3-031-21435-6\\_68](https://doi.org/10.1007/978-3-031-21435-6_68)
- Lerner, J., Stark, S., and Juliano, A. (2019). *Inner and Central Asian Art and Archaeology*. Berpol Publishers.
- Mayor, A. (2016). *The Eagle Huntress: Ancient Traditions and New Generations*. <https://web.archive.org/web/20221029070048/https://web.stanford.edu/dept/HPST/EagleHuntress2016long.pdf>



- Mohan, P. (2015). *Hunting with Eagles: In the Realm of the Mongolian Kazakhs*. Merrell Publishers.
- Mukhatova, O. (2014). Kazakh Economy in XVII-XVIII Centuries. *Procedia – Social and Behavioral Sciences*, 131, 218-223. <https://doi.org/10.1016/j.sbspro.2014.04.107>
- Muller, M.G. (2009). *Practical Handbook of Falcon Husbandry and Medicine*. Nova Science Publishers.
- Niyazbekova, S., Moldashbayeva, L., Kerimkhulle, S., Dzholdoshev, N., Dzholdosheva, T., and Serikova, M. (2021). "Green" Bonds—A Tool for Financing "Green" Projects in Countries. *E3S Web of Conferences*, 244, 10060. <https://doi.org/10.1051/e3sconf/202124410060>
- Okunola, J.L., and Fakunle, S.O. (2021). Community Participation: A Pragmatic Solution to Negative Impacts of Covid-19 on Household's Socioeconomic Lives. *Insights into Regional Development*, 3(4), 21-33. [http://doi.org/10.9770/IRD.2021.3.4\(2\)](http://doi.org/10.9770/IRD.2021.3.4(2))
- Radcliffe, E.D. (1971). *Falconry: Notes on the Falconidae Used in India in Falconry*. Standfast Press.
- Shahu, M.B. (2019). Reciprocity Practices of Nomadic Hunter-Gatherer Rāute of Nepal. *Hunter Gatherer Research*, 4(2), 257-285. <https://doi.org/10.3828/hgr.2018.18>
- Soma, T. (2015). *Human and Raptor Interactions in the Context of a Nomadic Society: Anthropological and Ethno-Ornithological Studies of Altaic Kazakh Falconry and its Cultural Sustainability in Western Mongolia*. Kassel University Press.
- Yrsaliev, D. (1966). *Birds of Prey and Hunting with Them*. RuMoRGB.
- Zhatkanbayev, A.Zh. (2020). *Ancient Art of Falconry in Kazakhstan*. The Falconry Heritage Trust. <https://www.falconryheritage.org/uploads/itemUploads/2026/ANCIENT%20ART%20OF%20FALCONRY%20IN%20KAZAKHSTAN.pdf>