

Ethnoarchaeology of Horse-Riding Falconry

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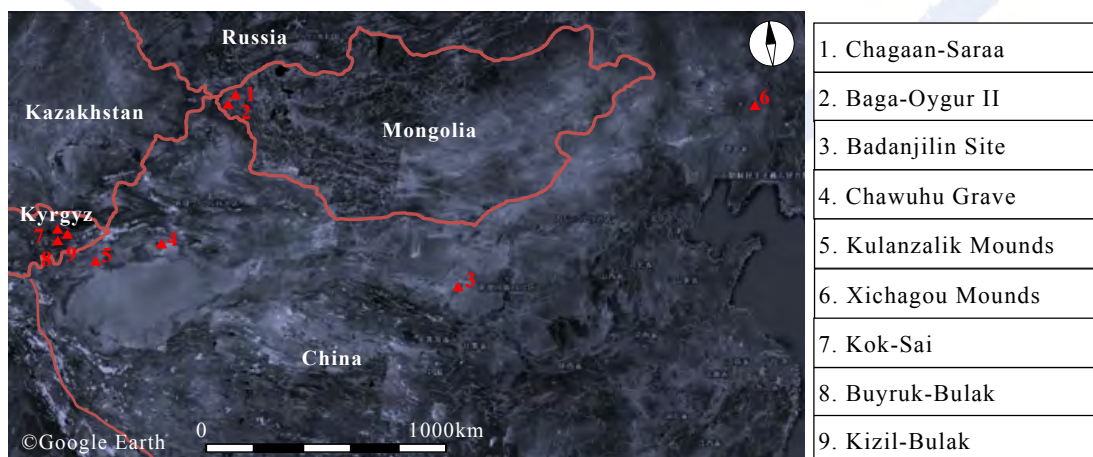
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The logo for the International Association for the History of Science, Technology and Environment (iafor) is centered on the page. It consists of the lowercase letters "iafor" in a light blue, sans-serif font. The text is enclosed within a circular graphic composed of two overlapping, thick, brush-stroke-like lines. The outer line is light blue and the inner line is light red, creating a sense of depth and movement.

1. Introduction

The origins of the art of falconry still remain ambiguous. According to an old hypothesis, developed by German ethno-agriculturalist E. Werth (1954), the cultural sphere of falconry, so to speak “domestication of large-sized raptors”, was overlapped to that of “spade-used agriculture” due to the necessity for domestication of large-sized herbivores. In the Victorian Age some British falconers thought that the origins of falconry were dated back to ancient Egypt due to the presence of mural paintings. In contrast to “The Egyptian Origin Theory” of falconry, H. Epstein (1943: 497-509) almost for the first time mentioned the fact of the existence of falconry during the reign of Sargon II (722 B.C. ~ 705 B.C.) in the Assyrian Empire. J. V. Candy (2002: 161-201) also stated that the history of falconry may date back to around 2000 B.C. in reference to the falconer motif at Kültepe site in middle Anatolia (Turkey). In fact, one of the earliest images of a falconer can be seen in “*Silver Vessel terminating in the Forepart of a Stag*” (a fabulous ryton-style cup) made by ancient Hittites at Bogazköy (Hattusha) during 14th~13th centuries B.C. (The Metropolitan Museum of Art: 1989.281.10), and the “*Stella of Tarhunpiyas*” (the grave stone statue) probably made at Marash in Southeastern Anatolia in 8th century B.C. (The Musée du Louvre: AO 19222). However, one general scientific viewpoint of the origin of the intangible culture of falconry has been hardly specified only by archaeological findings.



Map. 1 Archaeological Sites mentioned in the Paper

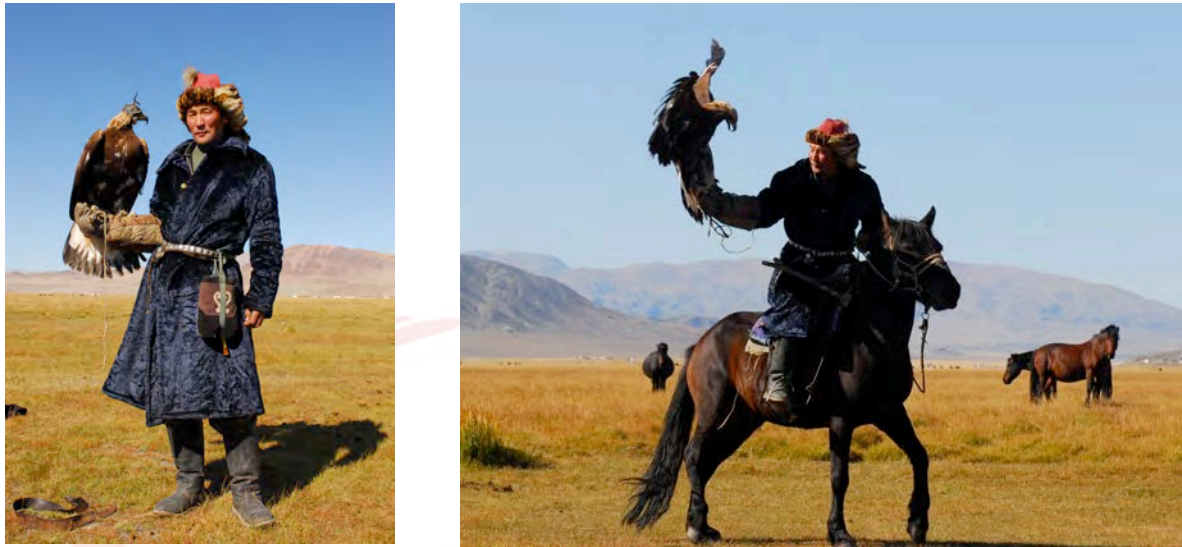


Fig. Altai-Kazakh Falconer

The study of falconry culture is still in little progress, especially what concerns its classical style and context. Taking into consideration these ambiguities, this paper analyzes the classical style of Asian falconry culture and its potential origins based on the archaeological findings mainly from northern and central Asia. This study also shows ethnographic interpretations of these discoveries from anthropological and some ornithological points of view. One of the main objectives of this study is to contribute to the understanding of the socio-cultural importance of falconry in the history of mankind and to develop a special program to sustain this culture for future generations.

The standing point of this research is ethnoarchaeology based on two steps – archaeological compilation and ethnographic interpretation: (1) Archaeological images of raptors' predatory scenes and horse-riding falconers are collected mainly from northern and central Asia (map.1), and reviewed according to their chronological order (All figures in this paper are originally drawn from cited images with own observations). (2) Some ethnographic interpretations are given for individual figures and motifs; ethnographic information is derived from own fieldwork from 2006 to 2011 which was carried out around the Lake Issyk-kul in Kyrgyz (Soma 2007, 2008) and Altai-Kazakh (Mongolian) communities in Mongolia (Fig.1) (Soma 2011a, 2011b, 2011c, 2011d).

The study attempts to shed light on the classical style of falconry, which differs from its current practice. As a result, its long-lasting tradition basis for intangible heritage is also clarified from ethnoarchaeological point of view.

2. Early Representations of Birds of Prey

from 3000 B.C.

2.1. Raptor Hunting Scene in the Northern Altai Mountains

It is extremely difficult to establish whether there was actually falconry in ancient times basing only on archaeological evidences. However, there are numerous ancient rock engravings of birds of prey in northern Asia (Кубарев, Цэвээндолж & Якобсон. 2005: 556). Predatory scenes of birds of prey were one of the most important themes in ancient times in the north Altai Mountains regions (Western Mongolia). It seems no coincidence that there are different kinds of rock carvings of raptors in these areas, along with the preserved tradition of eagle-tamed falconry by local Kazakh animal-herders. These depictions are thought to date back to 3000 B.C. ~ 2000 B.C. It is understandable whether they have falconry custom or not, predatory scenes of raptors were paid great attention as the subject matter for rock art representation.

For example, a fish-hunting scene by a predatory bird is found at Chagaan-Saraa (Цагаан-Салаа) petroglyph site (Fig.2). In terms of ornithological analysis, piscivorous (fish-eating) raptors are not very abundant in the western Mongolia. Falconry birds such as Golden Eagle (*Aquila chrysaetos daphanea*), Northern Goshawk (*Accipiter gentilis*), Saker (Falco cherrug) and Peregrine Falcon (*Falco peregrinus*), etc are rarely considered to be usual fish-hunters in this region. It is highly probable that this motif was either Palla's Fish-Eagle (*Haliaeetus leucoryphus*) or White-Tailed Eagle (*Haliaeetus albicilla*) which are the only two usual fish-eating migratory birds visiting this area once in a while (Gombobaatar & Usukhjargal. 2011: 42-43). However, in early autumn some local Altai-Kazakh falconers often feed their tamed-eagles with river fish (dace, trout, etc.).

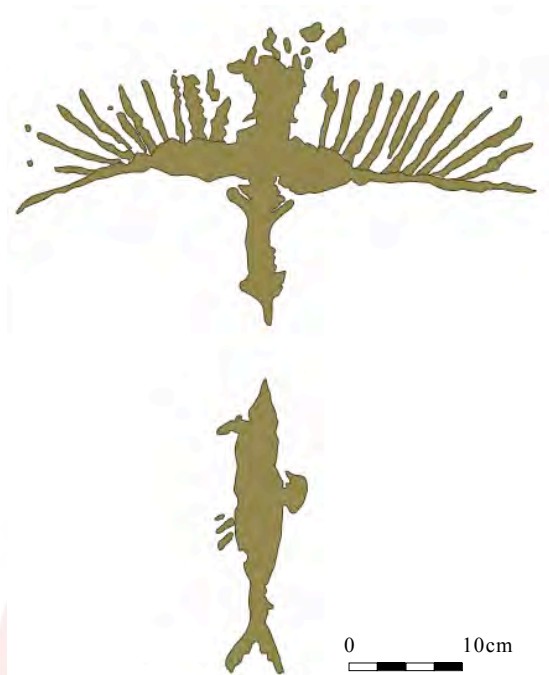


Fig. 2 Predatory scene at Chagaan-Saraa

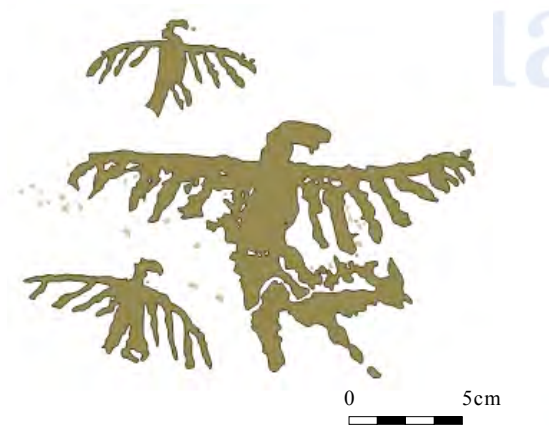


Fig. 3 Predatory scene at Baga-Oygur II



Fig.4 Petroglyph at the Badanjilin Desert

Furthermore, there is a unique hunting scene at Baga-Oygur II (Baga-Oйгура II) petroglyph site (Fig.3) (Кубарев, Цэвээндолж & Якобсон . 2005: 366). Three eagles are chasing an herbivore (rabbit or deer), despite the fact that one can rarely meet them in local natural surroundings. Golden Eagles and other hunting birds usually do not attack their prey with other birds due to exclusive possession of their own territory. Gordon (1973: 156-157) tells that Golden Eagles sometimes hunt cooperatively in pair or with several other members in August and September, although it is not usual case in Scotland. In connection to this fact, a falconry operation by Kyrgyz and Altai-Kazakh falconers is inevitably carried out with plural eagles and falconers. The roles of hunting participants are divided into falconer(s) and prey-searcher(s) based on a local tradition. This kind of hunting cooperation has been established to prevent zero-hit situations and poor-catch. If the primary attack by the first eagle is failed, then the second one is made to fly, in case if it also fails, the third one flies to assault on the quarry (Soma 2007, 2008). It is thus considered that cooperative hunting by eagles engraved in Baga-Oygur II does not happen very often in nature except of the falconry scene. An implicative scene is also found in a petroglyph at the Badanjilin Desert of Alaşan District in Inner Mongolia Autonomous Region (Fig.4) (Gai 1998: 76). It seems to be a more concrete scene of hunting by two horsemen, who chase a prey with a flying bird. However, the exact date

when this drawing was made is unclear.

The cooperative way of hunting by birds is also known in a technique of fishery with cormorant in China and Japan (Laufer 1931). The way is thought to be a unique derivative custom from "bird domestication for hunting" in a human history.

2.2. Predatory Raptor Motif in Scythian Metalworks

The archaeological evidences of a real hawk's bone imply more concrete connection between humans and raptors. In the southern foothill of the Tianshan Mountains (contemporary Xingjian Uygur Autonomous), a set of actual four hawk talons are unearthed from funeral goods in a group burial chamber (M113) at the Chawuhu Ancient Graveyard No. 4 (察吾呼 4 号墓地) established in ca. 10th century B.C. (Heqin Prefecture, Bayangolin Autonomous) (Xingjian Wenwu-Kaogu Yanjiusuo. 1999: 80). This was probably the set of talons taken from a right or a left leg. In addition, some hawk skeletons were also found at the Kulanzalik Burial Mounds (庫蘭薩日克古墳群), made during 5th century B.C. (Aheqi Prefecture, Kizil-su Kyrgyz Autonomous) (Xingjian Wenwu-Kaogu Yanjiusuo. 1995: 20-28). It was estimated that all these bones belonged to 12 individual hawks in total, which were buried together in a small mound (93AK-M5) situated in the northeastern side of so called "Adult males' mound". Besides, a gold plaque depicting a hunting scene of a predatory bird on deer was found in the other burial chamber (93AK-M5; no. C) (Fig.5). It may be the potential evidence of captive predatory birds in this period and area.



Fig. 5 A gold plaque found from Kulanzalik Burial Mounds

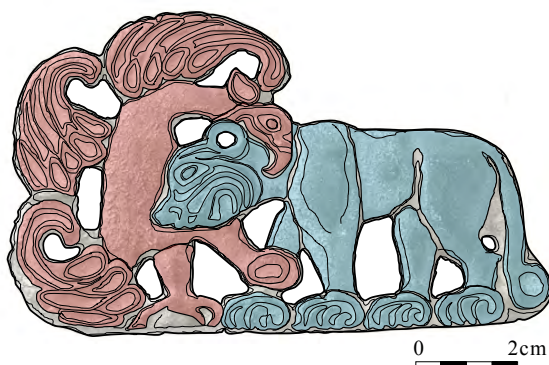


Fig.6 Eagle and Snow Leopard

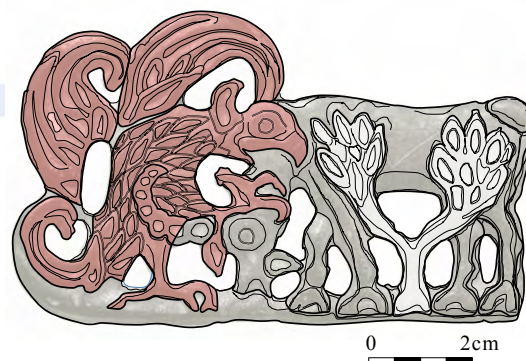


Fig.7 Eagle Predatory on Ibex

Similarly, the central concern of the Scythian art is local animals, which dwelled in the northern Eurasian steppe belt. Evidently, the art of the Scythians was derived from deep observations and analysis of wild animals and raptors. After the 5th century B.C., the animal conflict motif, such as a struggling motif of raptor and feline (probably Golden Eagle and Snow Leopard (Fig.6) (Tokyo National Museum. 1997: 126) and predatory on ibex (Fig.7) (Bunker. 2002: 103, 109), extensively characterized the main Scythian subject matters, probably made in the southern Siberia. The motif was created to describe both realistic and mystical features, of which the cultural linkage might have been succeeded from former petroglyphic art traditions. These two examples well expressed the hunting scene of the eagle on the ground, which stuck out to grab the prey by its leg. Despite no raptors naturally will try to hunt a Snow Leopard and there is no record of predatory on, it is considered that only Golden Eagle could make predatory on large-sized herbivores like Red Deer, Siberian Ibex, goat, in addition to antelope (Goodwin. 1977: 789-790) and coyote (Mason. 2000: 244-245). There were times when grey wolfs were often hunted by well tamed eagles in the local horse-riding falconry practice. Altai-Kazakh falconers sometimes capture Palla's Cat (*Felis manul*), the Mongolian wild cat. Therefore, these motifs might have been produced with an extensive imagination by ancient local people.

According to these archaeological findings, one can partially understand that ancient people in north and northeastern Asia had strong concerns for local birds of prey. And in fact, they had started to capture or tame birds nearly 3000 years ago, whether falconry was practiced or not at that time.

3. The Image of Horse-Riding Falconers from 3rd Century B.C. to 8th Century

3.1. Northern China

The visual representations of a falconer can be tracked back to the 3rd century B.C., the period during the rise of the Hun Empire and the spread of its hegemony and nomadic cultural taste along the northern territory of Eurasia

The image of a falconer was found in Xichagou Ancient Grave Mounds (西岔沟墓群) in Northeastern China



Fig. 8 Bronze belt buckle from Xichagou Mounds

(northeast Xifeng, Liaoning Province) (Fig.8). This bronze belt buckle depicts galloping two horsemen (Bunker, Kawami & Linduff. 1997: 79-80 (Fig.A112)). The latter horseman perches a hawk (or falcon?) on his right hand. This is the same



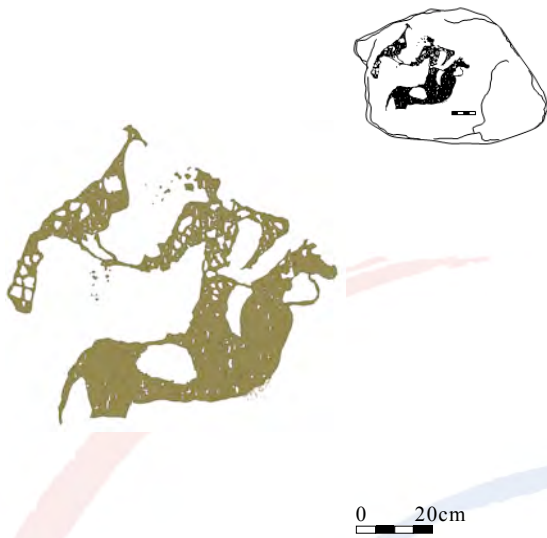


Fig. 9 A figure at Kok-sai

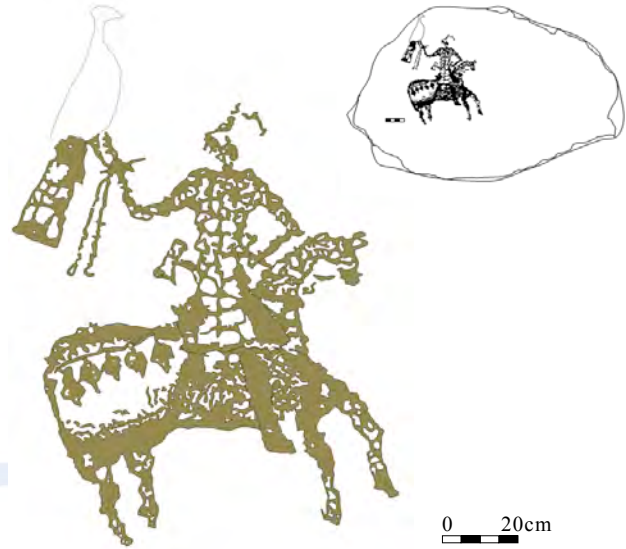


Fig. 10 A figure at Kok-sai

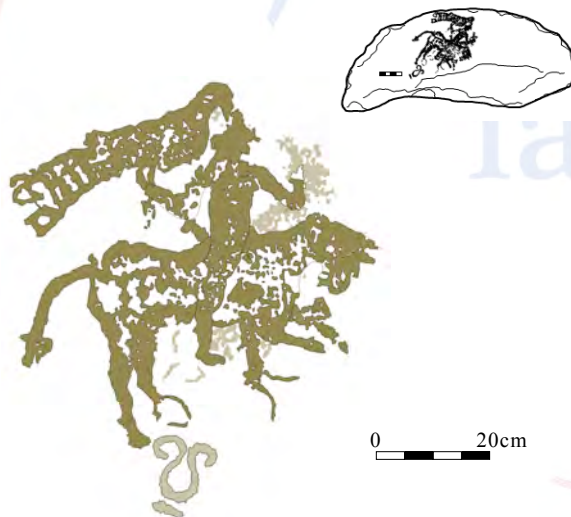


Fig. 11 A figure at Kok-sai



Fig. 12 A figure at Kizil-Bulak



Fig. 13 A figure at Buyruk-Bulak

style as horse-riding falconry in the Kyrgyz and the Kazakh communities. The buckle is thought to be the artifact of nomadic taste produced about 3rd century B.C., the end of the Warring States Period of China. This is therefore probably one of the earliest figures of the horse-riding falconer in Asia.

3.2. Tien-Shan Mountains (of Eastern Kyrgyz)

This kind of images became abundant after the Turkic (Göktürk) period (6th century) along the Tianshan Mountains regions. In the Khaganate Period (during 7th ~ 8th century), falconer images were depicted on rock canvas at Kok-Sai (Кёк-Сай) (Fig.9, 10, 11), Buyruk-Bulak (Бёйрёк-Булак) (Fig.12) and Kizil-Bulak (Кызыл-Булак) Petroglyph sites (Fig.13) in Kyrgyz Republic (Табалдиев & Солтобаев. 2002: 68-73; Табалдиев & Жолдошов. 2003). These rock carvings of hunting scenes with birds of prey are very similar in their style to the contemporary practice of the Kazakh falconry (see Fig.1). Some falconer's equipment is also recognized in these pictures. In Fig.9, a head of the eagle is rendered in round shape as if covered by hood (called *Tomoga* in Kazakh) before hunting (Fig.14). In Fig.10, a clear depiction of jess (*Ayak-baw*), a set of leather leg straps to hold a raptor, is observed as if the eagle is just in the flight motion (Fig.15). In Fig.11, there is an unclear depiction of an arm-brace (*Baldak*). It is



Fig.14 Eagle's hood (*Tomoga*)



Fig.15 Eagle's jess (*Ayak-baw*)



Fig.16 Arm-brace for horse-riding (*Baldak*)



Fig.17 Falconer's gantlet (*Bialai*)

Y-shaped pillar to put a right wrist on being on a horseback, used only by Kyrgyz and Kazakh falconers (Fig.16). In addition, the falconer's gantlet (*Bialai*) should be inevitable to perch the eagle on, despite the fact that it is unrecognizable from the images (Fig.17).

Most of the depicted falconers probably hold a Golden Eagle of almost their body size except Fig.13. In this image the only falconer is assumed to hold a relatively small raptor (a hawk or a falcon) on his left wrist. The falconer is probably targeting four waterfowl (geese?) and one heron (or crane?) walking in line in front of the hunter. In case of Kyrgyz and Kazakh falconry, game birds are not considered to be usual objects to hunt with. In addition, it is said by local falconers that Golden Eagles are not really good at hunting for waterfowls and small mammals because of their heavy body size. In this sense, one can interpret this image as the scene of "hawking" or "fowling" by a tamed long-winged or short-winged raptor (possibly, goshawk, saker, or peregrine, etc.).

For the additional analysis, three falconers depicted in Fig.9, 10, 11 perch their birds on their right hands, and two others in Fig.12, 13 are left-handed. Horse riders normally perch their bird on their right wrist. Kyrgyz and Kazakh falconers also have the tradition of holding their raptor on their right wrist. On the contrary, European and Asian falconries in "non-nomadic societies" are usually left-handed in their style. An early Persian falconer figure is seen on a small bronze plaque made during 7th ~ 8th century, probably from post-Sasanian to Umayyad period (Fig.18) (Epstein 1943: 498 (Fig. II)). This plaque also shows left-handed style falconry which also represents a highly equipped falconer with his armour and horse bridle bells in front.



Fig.18 A bronze plaque from Iran

The difference arises in the local customs of horse riding. It is understandable from the Fig.8 that the ancient nomadic horse riders attached and hanged their bow, sword and equipments on their left when being on a horseback. Further decisive factor is based on the manner of riding a horse. The steppe people usually grab the reins firmly with their left hand before riding on a horse from the left side. Falconry is never carried out without horse-riding in a pastoralist community. According to paintings found in India, Persia and Arab regions, some noble falconers which belong to the noble class of the

society hold their predatory birds on their left wrist even while being on a horseback. Besides, falconry was also practiced both standing and horse riding in these regions. It is probable that the servants and attendants might have handed over a bird to their master after they rode on (referred to “*Prince Akbar and Noblemen Hawking, Probably Accompanied by His Guardian Bairam Khan*” (The Metropolitan Museum of Art: SL.17.2011.1.2). Namely, it is assumable that the left-handed style falconry was an alteration made by sedentary falconers, which they derived from the noble way of falconry.

According to archaeological evidences it is highly probable that the style of horse-riding falconry was carried on by nomadic pastoralists for more than 2300 years. Particularly, the tradition of eagle-tamed falconry has been continued since 7th ~ 8th century in the Tienshan Mountainous regions. It is not chance coincidence that Kyrgyz horse-riding falconry, mainly tamed Golden Eagles for fox-hunting, had been well preserved until 1990's in the same regions.

4. Socio-Ecological Significances of Ancient Falconry

4.1. Falconry and its Eurasian-Wide Adaptability

One can partially clarify inherited traits of supra-regional and strong social penetration of the falconry culture from archaeological aspects.

According to sedentary living spheres in Eastern Asia, specific records and inscriptions about falconry are scarce before the age of the Han Empire (202 B.C.). The falconry and falconer representations were seen in the magical and realistic scenes of stone carving wall (画像石) during 1st ~ 2nd century, the inside panels of funeral chamber for nobles in Syandong Province (Zhongguo-Huaxiangshi Quanjibian Jiweiyuanhuibian. 2000: 40). Afterwards, falconry was brought to the east end of Eurasia, the Japanese Archipelagos, from 6th century more or less according to haniwa figurines in the Tumulus Period. Besides, it is also ambiguously premised that falconry was transmitted to Europe after intrusion of the Hunnish people in the end of the Roman Empire. Falconry might have been started in Britain since 8th century during the reign of Ethelbert of the Saxon monarch in the year 760 by evidence from an old letter to the German King (Hamilton 1860: 172-173). Whether by cultural transmission or independent occurrence, falconry had become a stable socio-cultural domain in both ends of Eurasia until 8th century.

Archaeologically speaking, the geographical sphere of falconry culture is coincidence

with “nomad’s territory” in northern Asia from and a massive expansion of political hegemony of “the Nomad’s Empire” in the ancient times. Horse-riding custom was one of the main contributions for physical mobility. Besides, low population density in the steppe territory is rather one of contribution to ease transmission of culture and information among wider spatial range. Thus, falconry, so to speak “domestication of predatory birds”, has been deeply anchored in animal-herding life style.

4.2 Food Accessibility rather than Rituality

Anthropologically speaking, winter hunting practice is inevitable in nomadic animal-herding society to secure their food for subsistence and animal-fur for cloths and trading. It is caused by limited availability of meat and daily products, and the lack of material stuff in a pastoralist community. According to the local life in Northern Altai, livestock such as sheep, goat and cow lose 1/3 of their weight in winter. Cow milk is also reduced from 4 liters to 1 liter in average. Therefore falconry with tamed eagles has probably played the crucial role of securing food provisions in winter.

However, contemporary Kyrgyz and Kazakh falconry is/ was not practiced only for food consuming purposes, but also for fur acquisition from fox-hunting, which is used for trade and other private purposes. According to the environmental condition including avifauna, it is very hard to find waterfowls and game birds for food in winter. As far as the ethnography of Kazakh falconry was observed in the Altai regions, falconers would not also hunt lagomorphs on purpose. Similar situation was also observed at the southern shore of the Lake Issyk-kul. It is defined that the food availability of classical mode of falconry is rather less functioned in the local nature of Tienshan and Altai Mountainous regions compared to the European falconry. Therefore from its early stage, falconry is rather developed with intentions for recreation, sport-hunting, ritual or fur-acquisition which have indirect connections with food obtaining purpose in livelihood.

In connection to this perspective, figures of horse-riding falconers in the ancient times might have much more ritual and symbolic meaning, rather than daily hunting practice.

5. Conclusion:

Ancient Clues towards Sustaining Falconry for the Future

The paper is concentrated on compilation of archaeological representations of predatory scenes by raptors and figures of horse-riding falconers in north and central Eurasia. Some ethnographic interpretations are also the central theme in reference to

fieldworks about contemporary Kyrgyz and Kazakh horse-riding falconry. Ethnoarchaeological analyses bring the fact that the tradition of horse-riding falconry dates back to approximately 2300 years ago. It is also highly possible that the style was developed for rather symbolic and ritual functions than practical food securing purposes according to the local environment and avifauna.

The archaeological materials also clarify that falconry was easily over the boundary of culture, region and society. It is still hypothetical that horse-riding mobility contributed to physical expansion of falconry culture. Nowadays, falconry is recognized in more than 60 countries (UNESCO 2010: 3). Especially, the presence of figures of horse-riding falconers in the Tienshan regions confirms the fact that the tradition of Kyrgyz falconry has a long history. Whether by “diffusion” or by “independent occurrence”, Eurasian-wide falconry has been in practice for more than 1200 years.

However, these long-lasting traditions of falconry practically disappeared in the Lake Issyk-kul regions (Kyrgyz) in 1990’s (Soma 2007, 2008). Furthermore, actual hunting operations have been also disappearing in the Altai-Kazakh community in the Bayan-Ölgii Prefecture (Mongolia) (Soma 2011a, 2011b). The only contribution of this ethnoarchaeological research would be to (re)evolve a millennium long significance of horse-riding falconry, which has been transmitted from generation to generation in the Kyrgyz and the Kazakh societies for hundreds of years. Sustaining falconry culture for future generations is heavily dependent on successive conservative actions based on the criteria created by a local axiological idea.

Acknowledgement

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