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Antenna-Style Daggers in Northeast Asia from the Perspective of Interregional Interaction



PARK Sun Mi

ABSTRACT

This article examines the process of diffusion of bird-pair antenna-style daggers and swords in southern Manchuria, the Korean peninsula, and northern Kyushu, analyzing the distribution of the daggers and swords, classifying them, and establishing a chronology. The daggers are classified into three types and sub-divided based on blade, handle, and pommel characteristics. Each form was produced and used at different time periods and in different areas, emerging first in the Jilin-Changchun region, then expanding into the Northern Liao region, Pyongyang, and as far as Tsushima and northern Kyushu. The bird-pair antenna-style dagger of Northeast Asia is unlikely to have been a trade item imported from outside of the region. It is more likely a local development as indigenous cultures that manufactured mandolin-shaped or slender bronze daggers were influenced by the bronze cultures of northern Asia and Ordos, the upper part of the Yellow River. This new type of dagger possibly represented a symbolic or prestige good reflecting political or economic alliances within the Puyŏ state of southern Manchuria or the early Wiman Chosŏn state in Pyongyang or among the statelets of Pyŏnhan and Chinha in the Yŏngnam region. The bird-pair antenna-style daggers eventually flourished in the Yŏngnam region, where a local style developed. These daggers in turn diffused via immigration and trade to Tsushima in the mid-first century B.C.E. **KEYWORDS:** antenna-style dagger, Ordos, southern Manchuria, Korean peninsula, Kyushu, Wiman Chosŏn, Puyŏ.

INTRODUCTION

ACROSS EURASIA, BRONZE IMPLEMENTS HAVE LONG BEEN SEEN as objects of value and symbolic importance, such that their significance expanded far beyond their functional role in society. Bronze ornaments were used to embellish clothing and indicate aspects of identity. Bronze vessels had ritual roles and marked social status. Bronze weapons symbolized class and group identities and signified violence and military power, among other things. Rightfully, therefore, bronzes have been a particular focus of archaeological research. Examining variation within a single class of bronze items can help us develop a nuanced understanding of its social role and symbolic value and tease apart the complicated networks of interaction within which such implements

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were made, used, traded, and discarded. One of the fundamental contributions of close stylistic analysis by archaeologists is the construction of nuanced typologies that elucidate such networks of interaction. This article offers and interprets such a typology for antenna-style daggers of Northeast Asia.

The antenna-style daggers and swords of Northeast Asia have been considered a kind of cultural amalgamation between the local Liaoning-style (mandolin-shaped) or slender-style (also known as Korean-style) bronze daggers and Ordos-style daggers in the upper part of the Yellow River (1400–300 B.C.E.). Liaoning-style, mandolin-shaped daggers are distributed throughout Liaoning Province in China and the Korean peninsula (900–300 B.C.E.). The slender-style daggers, which developed from Liaoning-style daggers, are distributed in eastern Liaoning Province and focus on the Korean peninsula, extending to the Japanese archipelago. The antenna-style daggers and swords typologically combine the body of Liaoning- or slender-style daggers with a new kind of hilt featuring a bird decoration. In terms of production methodology, the antenna-style daggers were manufactured in the same way as that of Liaoning or slender-style daggers, suggesting that two different kinds of cultures influenced them. In order to understand the flow and direction of antenna-style daggers, it is necessary to review each specimen of the antenna-style bronze daggers and classify and date them based on archaeological context. This work can help to explain who made them and how they were diffused.

The general term used for these daggers throughout China, Korea, and Japan is *chùjiǎoshì tóngjiàn* 觸角式銅劍 [antenna-style dagger]. However, a Korean variation in nomenclature refers to the artifact type as a “bird-shaped antenna-style bronze dagger” and another name used in China is a “bird-pair-shaped bronze dagger” (*shuāngniǎoxíng tóngjiàn* 雙鳥形銅劍). The “antenna” nomenclature evidently derives from an assumed association between the daggers of East Asia and the so-called “antenna-style” daggers of the Hallstatt culture (1000–500 B.C.E.) in Central Europe. However, the style of the “antenna” on the daggers in Northeast Asia differs from those of Hallstatt and Ordos and the European daggers are not considered representative of birds. In this article, I suggest that the antenna-style bronze daggers of Northeast Asia should be called “bird-pair antenna-style daggers and swords” and that they represent a sub-class of the antenna-style dagger.

The most notable element of both the European and the Asian antenna-style daggers are paired loops that resemble the antennae of insects on the hilts. The characteristics of these antenna-style daggers vary by region, however. The hilts of Hallstatt culture daggers often end in paired loops resembling the antennae of a butterfly or perhaps the eye stalks or sensory tentacles of a snail (Fig. 1). Some hilts look like a man sitting on a chair and raising his hands overhead (as seen in Fig. 1, no. 4). Other hilts are decorated with heads of two birds facing each other. For example, the hilts of antenna-style daggers of the Ordos culture are characterized by paired bird heads rather than whole birds and some look like griffin heads (Fig. 2, no. 2).

The daggers and swords of Northeast Asia are easily distinguished from Ordos culture daggers by the presence of very realistic pairs of birds on the hilts. The two birds on this decorative hilt are positioned face to face and standing upright (Fig. 3, no. 1). The image is understood to represent the curved necks of a pair of water fowl, probably swans, positioned tail to tail with necks turned backwards to face each other (Fig. 3, no.



Fig. 1. Hallstatt culture antenna-style dagger and sword hilts, from: (1) Laténium in Neuchâtel; (2) Laténium in Neuchâtel; (3) Museum Hallstatt; (4) Landesmuseum Württemberg (all photos by author).



Fig. 2. Ordos culture antenna-style dagger and sword hilts, from: (1) Longhua Museum, Chengde (photo by author); (2) [Dongbug-a and Naemong-go 2006:108](#); (3) Longhua Museum, Chengde (photo by author).

3, no. 4). This stylized bird-pair forms the decorative hilt of the dagger or sword, and they are shown facing each other with necks curved and heads resting on their own backs (Fig. 3, no. 2, no. 5). The two different bird-pair designs became increasingly stylized over time in similar ways. In the case of the Northeast Asian antenna-style daggers (including long swords), the paired loops of one form features a series of



Fig. 3. Northeast Asian antenna-style dagger and sword hilts: (1) courtesy of Jilin City Museum; (2) courtesy of Keio University Museum; (3) [Kim 1972: fig. 82](#); (4) [Hallim 2007:5, fig. 6](#); (5) [Yŏngnam 2010:iv, fig. 4](#); (6) National Museum of Korea (photo by author); (7) [Chosŏn 1925: fig. 71](#).

striations on what would correspond to the backs of the birds, probably to represent the contours of feathers ([Fig. 3](#), no. 2). Stylized curving bird heads resemble the paired loops referred to as “antennae” in European daggers. In short, both the daggers of Northeast Asia and Europe commonly had paired loops. I call the daggers and swords of Northeast Asia “bird-pair antenna-style” daggers and swords.

Beside these examples, other antenna-style bronze daggers have been found in the Korean peninsula. One dagger is said to have come from South Ch’ungch’ŏng Province and the other is said to have come from Kyŏngsang Province ([Fig. 3](#), no. 6 and no. 7). These two daggers are dissimilar to those described above. The former is not a bird-pair-shaped antenna-style dagger, but more like Hallstatt daggers in closely resembling the antennae of insects, while the latter is a typical Ordos Culture bronze dagger. These characteristics suggest that they may not have been manufactured locally, but were instead acquired via extra-regional exchange. Although they do not belong in the bird-pair antenna-style category, these daggers are believed to represent the influence of Ordos Culture.

My colleague Mark E. Byington and I previously researched the significance and function of the antenna-style daggers of Northeast Asia to suggest that the bird-pair daggers and swords functioned as symbols for elite networks ([Park and Byington 2012](#)). This new type of dagger possibly represented a prestige good or political or economic alliances within the Puyŏ polity of southern Manchuria and Wiman Chosŏn in the Korean peninsula, both of which were early states in ancient Korean history, or among the statelets of Pyŏnhan 弁韓 and Chinhan 辰韓, which were chiefdom societies in the Yŏngnam region in Korea. The bird-pair antenna-style dagger eventually flourished in the Yŏngnam region, where a local style developed. These daggers diffused in turn to Tsushima in the mid-first century B.C.E. by immigration and trade. I have also reviewed them from the perspective of East-West exchange to suggest that the bird-pair dagger or sword of the Korean peninsula was developed by local polities such as Old Chosŏn and Puyŏ to emulate the arched necks of a pair of waterfowl, a symbol representative of the culture of the Ordos region, then amalgamated with local dagger cultures including the Liaoning-style bronze dagger and the slender bronze dagger. I raised the possibility of direct or indirect

connections among polities in the West and East (Park 2016). This article analyzes the distribution of bird-pair antenna-style daggers and swords in southern Manchuria, the Korean peninsula, and northern Kyushu, classifying them, and establishing a chronology in order to further examine the process of diffusion.

A BRIEF HISTORY OF DISCOVERY

It is not easy to determine how many antenna-style daggers and swords have been discovered in Northeast Asia because some early excavation reports in China are very brief and lack information regarding archaeological context or even what kinds of burial goods were found *in situ*. Based on a review of relevant documents, however, I believe that approximately 40 specimens have been discovered so far: 18 in southern Manchuria, 16 on the Korean peninsula, and 3 specimens in northern Kyushu. Two other specimens were found in the Maritime Province of Siberia (Primorsky Krai in Russian), and one unprovenanced specimen is stored in the collections of Keio University Museum in Japan (Table 1). The 40 specimens are distributed throughout the northeastern part of southern Manchuria and the southeastern part of the Korean peninsula connecting to Tsushima (Fig. 4). The antenna-style daggers and swords center on Jilin Province in China and North Kyōngsang Province in Korea. It is said that a fragment of a dagger hilt was discovered at Yongji, Liangbanshan, Jilin (Chen 1984). I do not include this fragment in the present study because details of the artifact and its discovery are unclear and there are no known photographs of the hilt.

A bird-pair antenna-style dagger now held in the British Museum was the first specimen to be discovered. It is part of the George Eumorfopoulos collection and was purchased from a Chinese source, but there is no information about when and where it was discovered (Koop 1924:63, fig. B, fig. B63). Another dagger was excavated at an archaeological site in the late Meiji period, presumably 1912, in Kashiwazaki in northern Kyushu. This was the first time that an antenna-style dagger was found in archaeological context, as recorded by Takahashi (1925:69–70). He suspected that the dagger was brought to Kyushu from Central Asia via China and the Korean peninsula based on the typology and the method of manufacture of slender daggers, which were the standard dagger type of Korea between the fourth to first centuries B.C.E. The blade of the Kashiwazaki dagger resembles those of the slender dagger culture of Korea and was manufactured in the same way of those of the Ordos culture. Takahashi's opinion was supported by Okazaki (1982:204–205). Further specimens were discovered or excavated in Pyongyang and Tsushima in the 1930s. Researchers who compared the daggers mostly assumed that bird-pair antenna-style daggers found in Japan had been imported from Central Asia or China by way of Korea (Nakayama 1950; Tatsutani 1939:40–42; Umehara 1927:616–617, Umehara 1933:114–115). However, Kayamamoto and others raised the possibility that the daggers had been locally produced in Korea and Kyushu (Egami 1948:148–149; Kayamamoto 1936:406–408).

After these discoveries there were no new antenna-style dagger finds until the early 1950s, when additional bird-pair antenna-style daggers were recovered from archaeological excavations in Jilin, Liaoning, Kyōngju, and Tsushima. A specimen from a stone coffin tomb was discovered at Sakadō in Tsushima in 1953 along with many bronze objects such as flat rings, cross-shaped and square-shaped tools, and a slender spear head (Mine-Chō-Shi 1993:285–287) (Fig. 4, no. 30). Another was found

TABLE 1. ANTENNA-STYLE DAGGERS AND SWORDS FROM NORTHEAST ASIA

MAP LOCATOR NO.	SITE NAME	NUMBER FOUND	PROVENANCE	DATE DISCOVERED	BURIAL TYPE
Northeast China					
1	Daling	1	Acheng, Heilongjiang	May 1990	
2	Wulajie	1	Wangtun, Jilin	Summer 1981	
3	Yanglidi	1	Jiaohe, Jilin	June 1986	
4	Xihuangshan A	2	Huadian, Tomb 1, Jilin	1979	Cremation
4	Xihuangshan B	1	Huadian, Xihuangshan, Tomb 3, Jilin	1979	Cremation
5	Xichagou	4	Xifeng, Xichagou, Liaoning	1956	Pit tomb
6	Changxingcun	1	Dongliao, Shiyi, Jilin	1983	Pit tomb
7	Cailancun	1	Dongliao, Shiyi, Jilin	1979	Pit tomb
8	Dachuanyan	1	Liuhe, Jilin	Unknown	
9	Longtoushan	1	Wangqingmenzhen Tomb 2, Xinbin, Liaoning	2002	Dolmen
10	Wafangcun	1	Fushun Shiwenzhen, Liaoning	1980	
11	Piaopu	1	Benxi, Liaoning	April 1994	Stone coffin tomb
12	Jinchangzhen	1	Tonghua, Jilin	2000	Pit tomb
13	Feijiling	1	Gangouzi, Changbai, Jilin	June 1986	Near tombs
Northeast China subtotal		18			
Korea					
16	Pyongyang A	1	Trad. Pyongyang	Unknown, before 1936	Hilt only
17	T'osŏng-dong	1	Pyongyang, Tomb 486	1994 or earlier	Wooden chamber tomb
18	Talchŏn-ni	1	Kap'yŏng	2002	Wooden coffin tomb
19	Trad. Ch'unghnam	1	Trad. Southern Ch'ungh'ŏng		
20	Trad. Kyŏngsang	1	Trad. Kyŏngsang Province	Unknown	
21	Pongmu-dong	1	Taegu, Jar coffin tomb 1	2007	Jar coffin tomb
22	Shinsŏ-dong	1	Taegu, Tomb 8	2010	Wooden coffin tomb

(Continued)

TABLE 1. (Continued)

MAP LOCATOR NO.	SITE NAME	NUMBER FOUND	PROVENANCE	DATE DISCOVERED	BURIAL TYPE
23	Yongjŏn-ni	1	Yŏngch'ŏn	April 2004	Wooden coffin tomb
24	Naeri-ri	1	Kyŏngsan, Tomb 9	February 2009	Wooden coffin tomb
25	Imdang-dong	1	Kyŏngsan, Imdang Tomb 132	1997	Wooden coffin tomb
26	Chisan-dong	1	Taegu	Unknown	
27	Pisan-dong	1	Taegu	August 1956	Stone coffin tomb?
28	Chogong-ni	1	Pohang, Tomb C-3	2012	Wooden coffin tomb
29	Changhyŏn-dong	1	Ulsan, Tomb 39	2010	Wooden coffin tomb
	Trad. Korean peninsula	1	Tatsuma Kōko Siryōkan 辰馬考古資料館	Unknown	
	Trad. Korean peninsula	1	George Eumorphopolous collection in British Museum	Early 20 th c.	
Korea subtotal		16			
Japan					
30	Sakadō	1	Nagasaki, Tsushima	1953	
31	Taka-matsunodan	1	Nagasaki, Tsushima	1954	
32	Kashiwazaki	1	Karatsu, Saga, North Kyushu	Around 1912	
Japan subtotal		3			
Maritime Province of Siberia					
14	Nikolaevka	1	Mikhailovka	2015	
15	Mikhailovka	1	Mikhailovka	2016	
Maritime Siberia subtotal		2			
Unspecified Region					
	Location unknown	1	Keio University Museum; previously private collection of Yamamoto Yadoji 山本 梯二郎	Unknown, likely early 20 th c.	
Total		40			

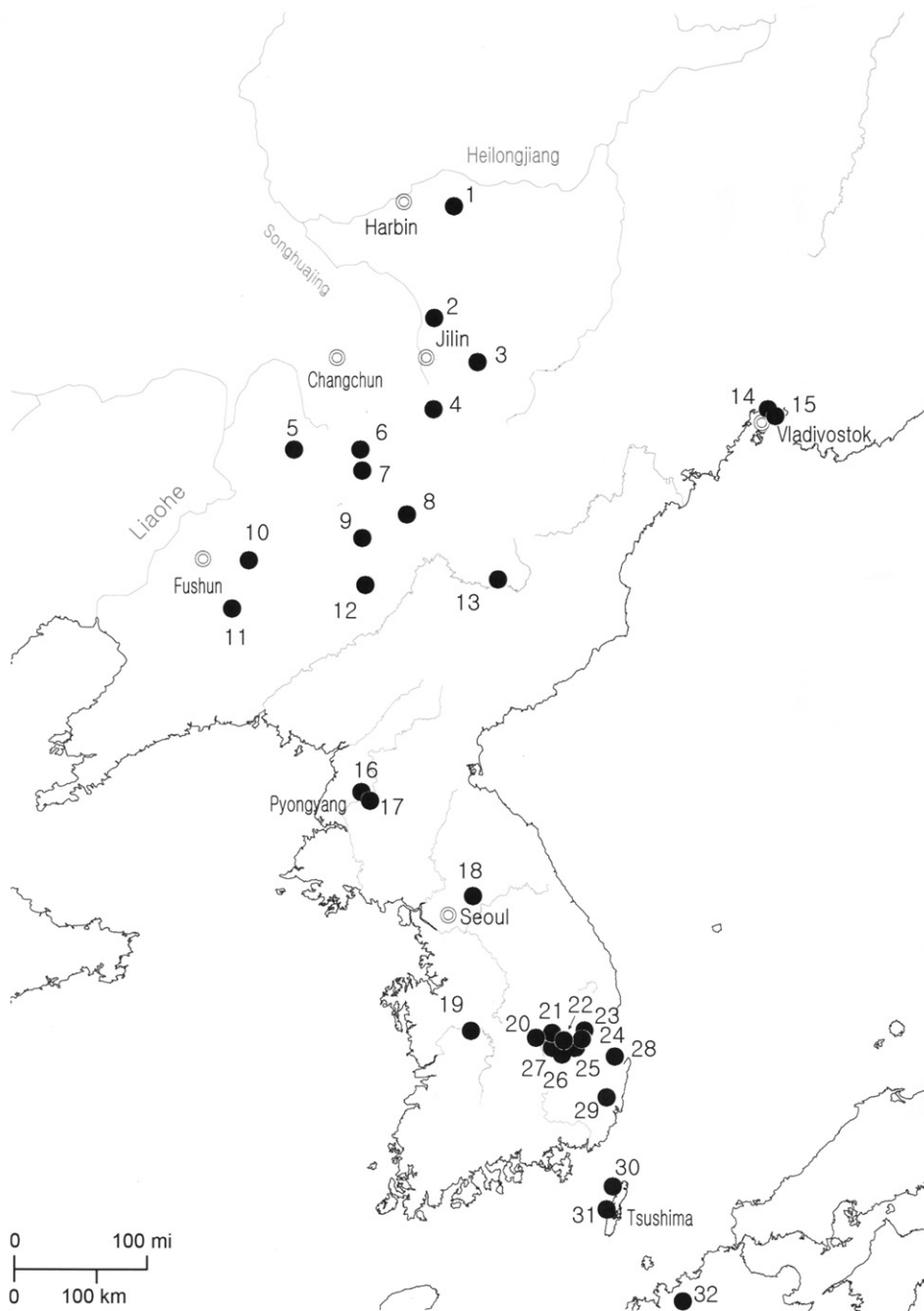


Fig. 4. Map of sites of antenna-style dagger and sword finds: (1) Daling; (2) Wulajie; (3) Yanglidi; (4) Xihuangshan; (5) Xichagou; (6) Changxingcun; (7) Cailancun; (8) Dachuanan; (9) Longtoushan; (10) Wafangcun; (11) Piaopu; (12) Jinchangzhen; (13) Feijiling; (14) Nikolaevka; (15) Mikhailovka; (16) Trad. Pyongyang; (17) T'osŏng-dong; (18) Talchŏn-ni; (19) Trad. Ch'unghnam; (20) Trad. Kyŏngsang; (21) Pongmu-dong; (22) Shinsŏ-dong; (23) Yongjŏn-ni; (24) Naeri-ri; (25) Imdang-dong; (26) Chisan-dong; (27) Pisan-dong; (28) Chogon-ni; (29) Changhyŏn-dong; (30) Sakadō; (31) Taka-matsunodan; (32) Kashiwazaki.

in 1954 among the burial goods of a stone coffin tomb with a Han-style bronze mirror at Taka-matsunodan (Fig. 4, no. 31), which is close to the Sakadō site (Mine-Chō-Shi 1993:277–279). In 1956, a few well-preserved bird-pair antenna-style swords were discovered at the Xichagou site in Xifeng, Liaoning Province (Sun 1960) (Fig. 4, no. 5). Excavators assumed that the swords had been buried in tombs, but the pit tombs had been destroyed by locals and only four specimens were reported. In the same year, another dagger was discovered with its scabbard accessories and 50 bronze and iron grave goods at the Pisan-dong site in Taegu, Korea (Kim 1970) (Fig. 4, no. 27).

Kim Wŏn-yong of Korea examined these daggers and swords, compared them with those of the Hallstatt Culture, and suggested that the bird-pair antenna-style daggers combined the antenna decoration practices of Hallstatt with the animal decoration practices of the Scythians ca. ninth century B.C.E. The practice of incorporating animal motifs on dagger hilts initially influenced the Scytho-Siberian and Ordos cultures, then finally arrived to southern Manchuria, the Korean peninsula, and the Japanese archipelago in the form of bird-pair antenna-style daggers (Kim 1970). Kim also proposed that the dagger in the British Museum collection had been manufactured in Korea or Japan. Kim Chŏnghak supported Kim Wŏn-yong's ideas and claimed that the realistic bird-pair daggers appeared earlier than those decorated with stylized aviform elements (Kim 1972:128, 143–144).

Over the last 40 years, bird-pair antenna-style daggers and swords have increasingly been unearthed in Jilin and southeastern Korea. Three specimens were excavated from the Xihuangshan site in Huadian, Jilin Province in 1979 (Jilinsheng and Jilinsi 1982) (Fig. 4, no. 4), three more specimens were unearthed from the Wulajie site in Wangtun in 1981 (Chen 1984:1, 191) (Fig. 4, no. 2), and others have been found at the Yanglidi site in Jiaohe and at the Feijiling site, Gangouzi, in Changbai in 1986 (Dong 1987:33–34; Jilinsheng 1986:124–125, fig. 7) (Fig. 4, no. 3 and no. 13). Further specimens have been recovered from: Daling site, Acheng, Heilongjiang in 1990 (Jin 1992:15) (Fig. 4, no. 1); T'osŏng-dong tomb no. 486 in Pyongyang in 1994 (Yun 1994:18–22) (Fig. 4, no. 17); Imdang tomb no. E-132 in Kyŏngsan in 1997 (Han'guk Munhwa 1998) (Fig. 4, no. 25); Jinchangzhen site, Tonghua, Jilin in 2000 (Wang 2008: 32–33) (Fig. 4, no. 12) Talchŏn-ni site in Kap'yŏng in 2002 (Hallim 2007) (Fig. 4, no. 18); Yongjŏn-ni site in Yŏngch'ŏn in 2004 (Kungnip 2007) (Fig. 4, no. 23); Pongmu-dong site in Taegu in 2007 (Yŏngnam 2010) (Fig. 4, no. 21); Naeri-ri site in Kyŏngsan in 2009 (Hanpit 2011) (Fig. 4, no. 24); Changhyŏn-dong site in Ulsan and Sinsŏ-dong site in Taegu in 2010 (Ko and Yi 2011; Kyŏngsangbukto 2011; Ulsan 2011, 2013) (Fig. 4, no. 29 and no. 22); and Chogong-ni site in Pohang in 2012 (Yŏngnam 2014) (Fig. 4, no. 28). Another bird-pair antenna-style iron sword was recovered from tomb no. 2 at the Longtoushan site in Wangqingmenzhen, Xinbin county, Liaoning (Xiao 2010) (Fig. 4, no. 9). Besides these specimens, one bird-pair antenna-style dagger and one bird-pair hilt were recently found by local people at the Nikolayevka and Mihailovka sites in Russia in the Maritime Province of Siberia in 2015 and 2016 (Kang 2016) (Fig. 4, no. 14 and no. 15). Interestingly, they are similar to the one found in tomb 486 at T'osŏng-dong in Pyongyang.

CLASSIFICATION AND CHRONOLOGY

Here I present an overview of the classification and dating of bird-pair antenna-style daggers to see if they were actually reinvented by local craftsmen who had intercultural contact with the external world. Bird-pair antenna-style daggers and swords are

classified according to different characteristics observed in the three basic components of these implements: hilt, handle, and blade.

As suggested above, the design of the hilt can be divided into two categories: one category involves realistic depictions of birds and the other has stylized aviform features. The design of the handles can then be divided into three categories. The first type category shows a roughly trumpet-shaped or flared pommel (鐔), a bronze handle, and a well-defined pattern between the hilt and handle. The second has a trumpet-shaped pommel and an iron handle, but lacks a defined pattern between hilt and handle. And the third has a collared pommel and a bronze and wooden handle. Finally, blade design can be used to divide these implements into three categories: late Liaoning or slender bronze daggers, iron swords, and iron daggers.

Given these design characteristics and based upon variation in composition and method of manufacture, at least three general forms of these artifacts may be distinguished. Form I and Form II are distributed primarily in the Chinese provinces of Liaoning and Jilin; I refer to these forms as the “southern Manchurian type of bird-pair antenna-style daggers and swords.” I refer to Form III, which was distributed and manufactured in the Yöngnam region centering on Taegu and Kyöngsan, as the “Yöngnam type of bird-pair antenna-style daggers and swords.”

Form I is a bronze implement consisting of a dagger handle, hilt ornament and blade, cast as a single unit (Fig. 5). A sub-classification of this class of artifact distinguishes among the forms of hilt ornamentation. Form Ia is easily distinguished by the presence of a hilt decoration depicting a very realistic pair of birds. The dagger discovered at Yangli in Jiaohe is the only known specimen of this subclass (Fig. 5, no. 1). Form Ib features a much more stylized aviform element (Fig. 5, nos. 2–9, 12). The hilt consists of a pair of loops formed by the arching necks of the birds, which seem to be sitting tail-to-tail with their necks arched backward and heads resting on their own backs. The backs of the birds feature a series of linear patterns perhaps intended to represent the contours of feathers. Beneath the bird elements is a prominent T-shaped perforation. Form Ic features a design variation in which the ornamental hilt has departed significantly from the aviform decoration of the other subclasses. Only two specimens of this type are presently known (Fig. 5, no. 10 and no. 11). The antenna element is still present, though the uppermost sections of the paired loops are connected by a horizontal bar. The T-shaped perforation is still present but is less prominent.

Form I (Fig. 5) is distributed in southern Manchuria. Form Ia was discovered at Jiaohe (Fig. 4, no. 3; Fig. 5, no. 1), while Form Ib is distributed in the relatively narrow zone stretching north-south through the center of Jilin Province. Outside of this zone, a single specimen was found in Pyongyang (Fig. 4, no. 17; Fig. 5, no. 6) and another at Kashiwazaki in Kyushu (Fig. 4, no. 32; Fig. 5, no. 5). At least two others are known from collections in the British Museum (Fig. 5, no. 4) and the Keio University Museum (Fig. 5, no. 8). Form Ic has only been found in the southwesternmost edge of the zone of distribution in southern Manchuria (Fig. 4, no. 11 and no. 12; Fig. 5, no. 10 and no. 11).

In addition to the paired-bird decorative element, blade morphology provides a possible index for estimating relative chronology. Although some portions of Form I blades have broken off, most specimens of this form tend to survive fairly intact. Form I blades seem to combine elements of late Liaoning-style daggers and slender style daggers, suggesting that like those other dagger types, Form I daggers were



Fig. 5. Form I bird-pair antenna-style daggers and swords (scale varies): subtype Ia found at (1) Yanglidi (Zhu 2002:94, fig. 3); subtype Ib found at (2) Daling (Miyamoto 2002:249, fig. 4); (3) Wulajie (Zhu 2002:94, fig. 3); (4) British Museum (Kim 1970:6, fig. 2); (5) Kashiwazaki (Chiba 1974:296); (6) T'osōng-dong (Miyamoto 2002:246, fig. 3); (7) Feijiling (Jilinsheng 1986:125, fig. 18); (8) Keio University Museum (Kim 1970:10, fig. 5); (9) Xihuangshan (Zhang 1984:746, fig. 4); (12) Nikolaevka (Kang 2018b:77, fig. 5); subtype Ic found at (10) Piaopu (Liang and Wei 2005:89, fig. 3); (11) Jinchangzhen (Wang 2008:32, fig. 1).

manufactured in the middle bronze or early iron periods (ca. sixth to second centuries B.C.E.).

Form II is a long sword consisting of a wrought iron blade set within a bronze handle-hilt component (Fig. 6). The handle and hilt are cast together. It is possible that the iron blade was manufactured first and the tang of the blade was incorporated into the mold prior to the casting of the handle and hilt, though at least one specimen (from Longtoushan) suggests that the blade was inserted into the handle-hilt after casting and secured by driving small iron wedges into the space left between the tang and socket (Fig. 6, no. 6). The bird elements of this form are very similar to Form Ib above, but Form II lacks the T-shaped perforation in the handle.

Form II specimens all have iron blades and all date later than Form I. The distribution of Form II swords is presently limited to the southwestern quarter of the overall distribution zone of the bird-pair antenna-style daggers in southern Manchuria, extending from Fushun in the west to Dongliao in the east. The majority of specimens of this form were recovered from the Xichagou cemetery in Xifeng (Fig. 4, no. 5; Fig. 6, no. 4). Given their distribution primarily in the Chinese provinces of Liaoning and Jilin, I refer to Form I and Form II collectively as the “southern Manchurian type of bird-pair antenna-style daggers and swords.”

Form III is a multi-component dagger in which the bird element is simply a hilt ornament affixed directly to the handle (Fig. 7). Multi-component casting occurred only in Liaoning-style and slender-style daggers. This ornamental cap features several perforations, including a circular collared hole at the bottom, another large rectangular one at the top directly opposite the collared hole, and a small circular perforation at front center. Most of the interior of the cap is hollow, particularly its lower half.

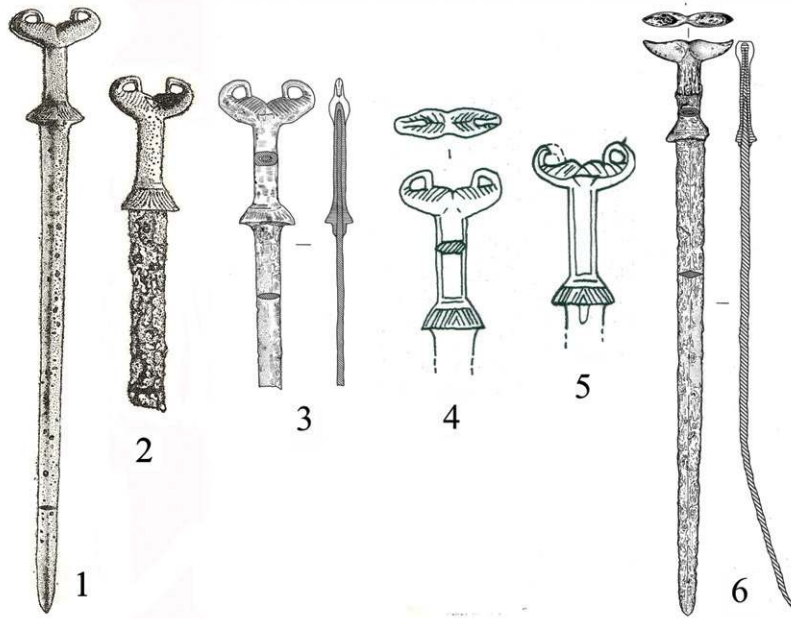


Fig. 6. Form II bird-pair antenna-style daggers and swords (scale varies): (1) Cailancun (Liu S. 1983:252, fig. 102); (2) Changxingcun (Liu S. 1983:252, fig. 102); (3) Wabangcun (Xiao 2010:144, fig. 10); (4) Xichagou (Lin 1993:260, fig. 1); (5) Dachuanan (Zhu 2002:94, fig. 3); (6) Longtoushan (Xiao 2010:144, fig. 10).

Two sub-classes may be identified based on the appearance of the necks and heads of the bird elements in Form III. Form IIIa clearly features long-necked birds, perhaps swans, with distinct faces and beaks, but in Form IIIb these features are so stylized they are no longer recognizable as avian. Another characteristic of this class of daggers is its wide variability. That is, Form III hilt can be combined with various styles of hand and blade. The variability of manufacture of these multi-component daggers, along with the relative complexity of the casting technology required to make the antenna hilt ornaments, indicates a high degree of sophistication in production, a fairly complex distribution network, and perhaps a deep association between these daggers and specific classes of the societies in which they were utilized.

The distribution zone of Form III is broad, though limited to Korea and Tsushima with a heavy concentration in Taegu, Yŏngnam; some are also found in Pyongyang. I refer to Form III as the “Yŏngnam type of bird-pair antenna-style daggers and swords” because of its distribution and manufacture in the Yŏngnam region centering on Taegu and Kyŏngsan.

Dating Form III is relatively complicated because most of the blades and handles have not survived. Those blades that are still intact are seem to be late slender-style bronze or iron; none are of the Liaoning-style. This indicates that Form III emerged

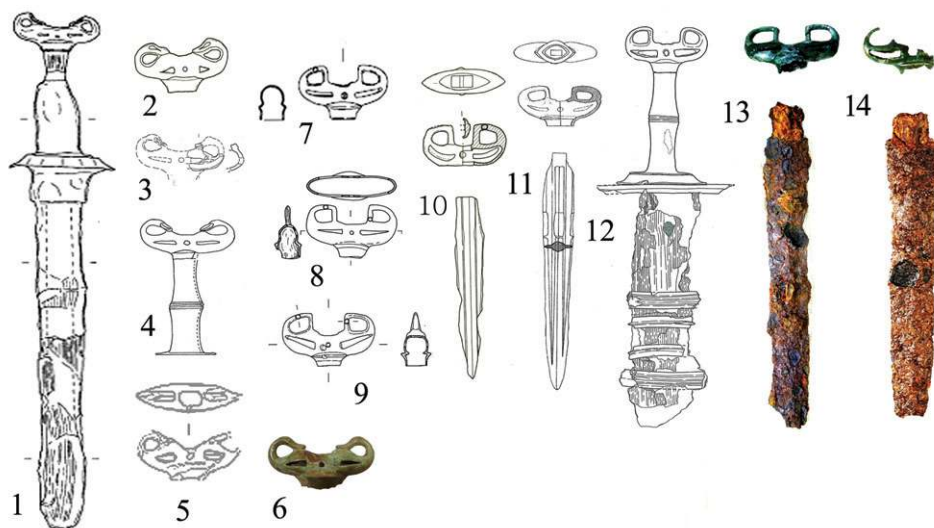


Fig. 7. Form III bird-pair antenna-style daggers and swords (scale varies): subtype IIIa from (1) Talchŏn-ni (Hallim 2007:43, fig. 8); (2) Trad. Pyongyang (Kayamoto 1936:407); (3) Yongjŏn-ni (Kungnip K. 2007:42, fig. 17); (4) Pisan-dong (Yi K. 1995:212, fig. 4); (5) Sinsŏ-dong (Kyŏngsangbukto 2011:117, fig. 59); (6) Trad. Korea (courtesy of Tsuma Kōko Siryōkan); subtype IIIb from (7) Naeri-ri (Hanpit 2011:88, fig. 51); (8) Chisan-dong (Kungnip J. 1992:71, fig. 13); (9) Imdang-dong (Han'guk Munhwa 1998:208, fig. 206); (10) Sakadō (Tsushima 1963:53, fig. 2); (11) Taka-matsunodan (Tsushima 1963:56, fig. 4); (12) Pongmu-dong (Yŏngnam 2010:30, fig. 15); (13) Changhyŏn-dong (courtesy of Ulsan Munhwajae Yŏn'guwŏn); (14) Chogok-ni (Yŏngnam 2014:xiv, fig. 14).

later than Form I, as slender-style bronze daggers developed from Liaoning-style. A few examples of Form III combined the elements of iron blades, which suggests that Form III partially overlapped Form II in chronology.

In attempting to establish an absolute working chronology, it is necessary to consider Ordos Culture animal decorations. Even though there are no bird-pair antenna-style daggers among Ordos artifacts, some daggers from the Maoqinggou and Taohongbala sites in the Ordos region do feature animal motifs which are linked to the bird-pair antenna-style daggers and swords of Northeast Asia and some even resemble the bird-pair designs of Northeast Asia. Antenna-style bronze daggers appeared in the region of Gansu Province between the seventh and sixth centuries B.C.E., then appeared in the region of Mongolia, Altai, and Minusinsk from late sixth to fifth centuries B.C.E. (Wuenyuesitu 2008:141–144).

The Form Ia bird-pair antenna-style dagger specimen from the Yangliidi site in Jiaohe is executed in a realistic style that recalls the animal motifs frequently seen in Scythian or Ordos style art; this perhaps suggests stylistic influence from the west. The handle, however, is similar in form and decoration to other Form I artifacts discussed below, which may have implications for their time of manufacture. The blade is the most diagnostic element of this artifact and on that basis it has been tentatively dated either to the early Warring States period of China (ca. early fifth to mid-fourth centuries B.C.E.) (Dong 1987; Lin 1998), or to the fourth century B.C.E. (Miyamoto 2002). The blade

clearly belongs to the so-called Liaoning-style (or mandoline-shaped) bronze dagger and has been included in various typologies. I tentatively date Form Ia, the Yanglidi dagger, as the earliest among bird-pair antenna-style daggers and swords of Northeast Asia. Given the method and criteria for dating, Form I could have been manufactured in the fifth or fourth centuries B.C.E., during which time nomadic cultures were engaged in active interchange with local Liaoning-style dagger culture in Northeast Asia. Form Ib and Form Ic, the stylized versions of Form Ia, might have lasted until the first century B.C.E., since the dagger from the Xihuangshan site in Huadian (Fig. 4, no. 4; Fig. 5, no. 9) was buried with Yan-style (fourth to third centuries B.C.E.) iron artifacts and the dagger from Piaopu (Fig. 4, no. 11; Fig. 5, no. 10) was unearthed with a mirror from the Warring States and Western Han periods (fifth to first centuries B.C.E.).

Form II daggers are more properly termed “swords” because their iron blades are significantly longer than the Form I bronze counterparts and their intended function clearly differs from that of Form I. The hilts of these swords closely resemble those of the Form Ib daggers and are understood to have been derived from them. Unlike the dagger, however, the Form II sword lacks the T-shaped perforation on the handle and there is no clear division between handle and hilt. Most of Form II swords are fairly similar in form and dimension. Based on analysis of the full range of artifacts found *in situ* from the Xichagou cemetery, which is dated from the early to mid-first century B.C.E., Form II could have been produced from the second to late first century B.C.E.. The distribution range of Form II is rather restricted and the variation in form is minor. Therefore, it appears likely that they were produced over a relatively brief span of time in a limited range of locations.

The dating of Form III daggers is relatively clear, as most of them have been recently excavated in archaeological contexts. They were unearthed with various bronze artifacts, a few iron harnesses, and pottery that have been dated from the mid-second to mid-third century C.E., with the daggers from Changhyŏn-dong in Ulsan and Chogong-ni in Pohang being specimens of later date.

As argued above, Form Ia from Yanglidi Jiaohe Jilin is the original form for Form I and Form II daggers or swords. Form III, however, may have been a prototype for a new type of dagger, even though its hilt shapes derived from the same motifs seen in Form I and Form II.

INTERREGIONAL INTERACTION: TRADE, DIFFUSION, MIGRATION, OR COUNTERFEIT?

I roughly divided the distribution of bird-pair antenna-style dagger artifacts into five zones: Zone A (Fig. 8), covering the Xihuangshan–Wangtun area, is represented by Forms Ia and Ib; Zone B (Fig. 9), Xichagou–Wangqingmen area, by Forms Ic and II; Zone C (Fig. 10), Pyongyang–Kap’yŏng area, by Forms Ib and IIIa; Zone D (Fig. 11), Taegu–Kyŏngsan area, by Forms IIIa and IIIb; and Zone E (Fig. 12), Tsushima–Karatsu area, by Forms Ib and IIIb. In terms of artifact assemblages for each type and area, most of the sites in Zones A, B, and C include iron products, though a few sites lack accompanying iron goods. All the daggers in Zone D were discovered with iron products, but there are no iron daggers in Zone E.

I believe that the historical flow of the bird-pair antenna-style dagger can be described as follows. With the influence of the Ordos culture, Form Ia in Zone A represents the origin of the bird-pair antenna-style dagger in Northeast Asia and

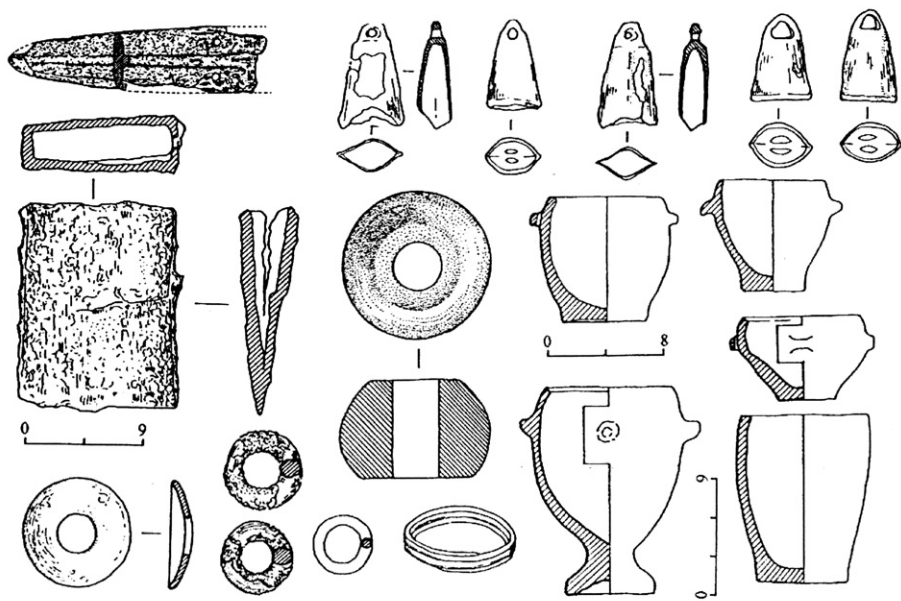


Fig. 8. Zone A artifact assemblages (not to scale) (Xiao 2010).

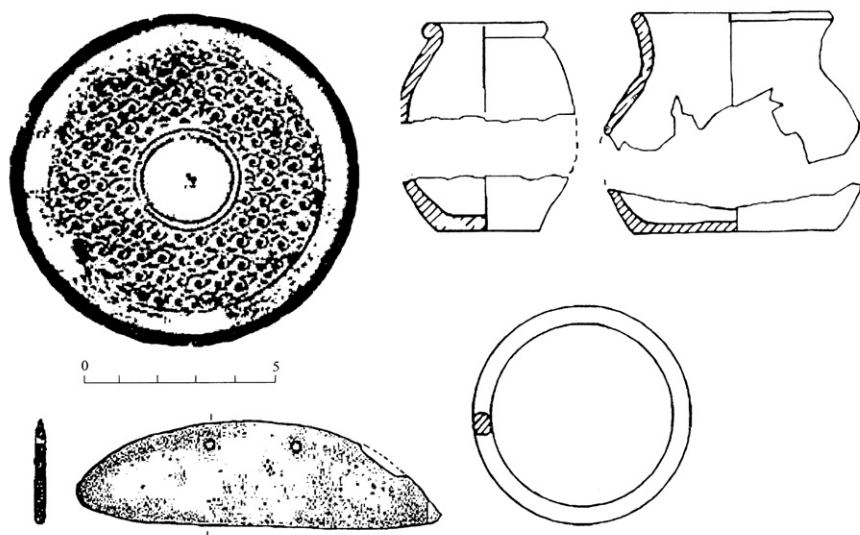


Fig. 9. Zone B artifact assemblages (not to scale) (Liang and Wei 2005).

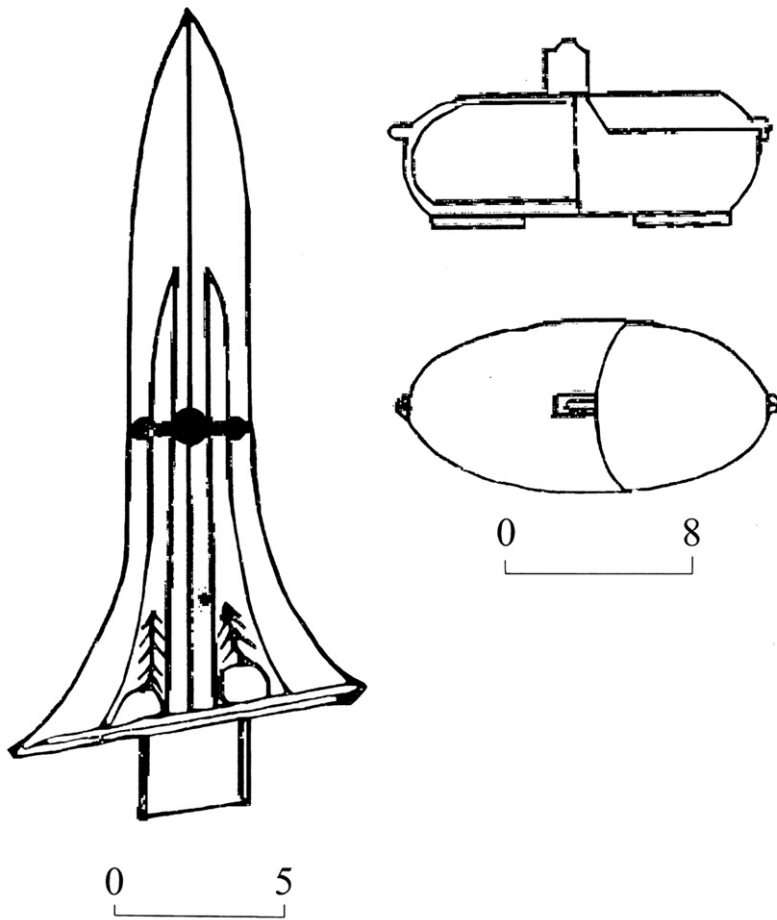


Fig. 10. Zone C artifact assemblages (not to scale) (Yun 1994).

stimulated the adoption of other dagger styles. This trend flowed forward southwestern Jilin (Zone B) and then moved on to Pyongyang (Zone C) before terminating in the Yŏngnam region (Zone D). Zone E may have been influenced through trade, migration, and so on from two sides, namely Zones C and D.

This view is well supported by earlier research. For example, a paired-loop dagger in the typical Ordos bronze dagger style was discovered in Kyŏsang Province in the early twentieth century (Chosŏn 1925:153–155, fig. 71). Additionally, some animal motif ornaments have been excavated from the Korean peninsula, showing the Ordos influence (Kang 2018a; Yi C. 1989; Yi S. 2009). Many studies in the fields of archaeology, anthropology, and history have demonstrated that the Bronze Age cultures of the Korean peninsula exerted an influence on Yayoi Culture in Japan (Byington 2018; Cheon 2009; Choi 2005; Egami 1985; Kawakami 2014; Mori 1960, 1986; Sekine 2009; Takeshue and Kim 1997).

Many questions can still be raised, however. For instance, is there sufficient evidence to propose a locus of manufacture for the daggers? Who made these daggers and swords? Were the daggers traded or did people who possessed the daggers migrate from one region to another? Did the bird-pair antenna-style dagger have meaning as a prestige good or was it merely utilitarian? It is difficult to pose any simple answers to these questions since these subjects are still the focus of research. Nevertheless, there is a high probability that the groups who made and distributed the daggers were relatively distinct from a typological perspective.

There also seems to have been particular migrations from the north and south, which could have included trade. The Ordos dagger from Kyōngsang Province (Fig. 3, no. 7), mentioned above, suggests trade or exchange. A horse-shaped hilt from Yangdong-ni in Kimhae in the southeastern part of the Korean peninsula shows a combination with local and external elements (Kungnip J. 1992:65, fig. 90-3). In this case, the animal decoration signifies external influences, while the cross-shaped hilt with a knob at the center represents local innovations. Furthermore, two hilts show nearly identical bird-pair decorations and are of the Liaoning cross-shaped dagger style: one from is from Pyongyang (presumably from Kyōngju, currently held in the Soongsil University Museum) and the other from the Shige-no-dan site in Tsushima (held in the National Museum of Japanese History) (Gotō and Endō 2006) (Fig. 13). Besides this, the artifacts such as iron products and ceramics, as well as the structure of the tomb at the Talch'ōn-ni site with the bird-pair antenna-style iron dagger are of the same style as those of Pyongyang, suggesting immigration south from the northwestern part of the Korean peninsula.

The bird-pair antenna-style dagger of Northeast Asia is unlikely to have been a trade item imported by an agent from outside of the region, but more likely a local development in which the indigenous cultures that originally manufactured the Liaoning-style (mandolin-shaped) or Korean-style (slender) bronze daggers were influenced by bronze cultures of Eurasia. I suggest that in receiving influence from the Scythian and Ordos cultures, both of which are known for their animal motifs, local people recreated the southern Manchurian and Yōngnam dagger types. This view is well supported by the daggers found at Yanglidi, Jilin and at tomb 486 at T'osōng-dong in Pyongyang. Although the dagger from Yanglidi was not actually manufactured using the multi-component cast method of traditional Korea, it was made to resemble the multi-component casting of Liaoning or Korean style bronze daggers.

This new type of dagger may have been a prestige good or a symbol of political or economic alliances within the early state of Puyō in southern Manchuria or among the statelets of Pyōnhan and Chinhan in the Yōngnam region. The bird-pair antenna-style dagger eventually flourished in the Yōngnam region, where a local style developed. Approximately twenty-four statelets (小國) of Pyōnhan and Chinhan formed confederacies in their perspective regions, developing the Korean-style bronze dagger culture (Lee 2009). The bird-pair antenna-style daggers of the Yōngnam region would likely have played a role in symbolizing relations among the statelets. These daggers diffused in turn to Tsushima in the mid-first century B.C.E. through immigration and trade.

Considering the dating, geographic distribution, and typological analysis of dagger specimens, it is quite possible that Puyō and Wiman Chosōn Korea were involved in their manufacture and sponsorship. In addition, the artifact assemblage with the bird-pair antenna-style iron dagger from Talchōn-ni in Kap'yōng (Fig. 7, no. 1) implies that some

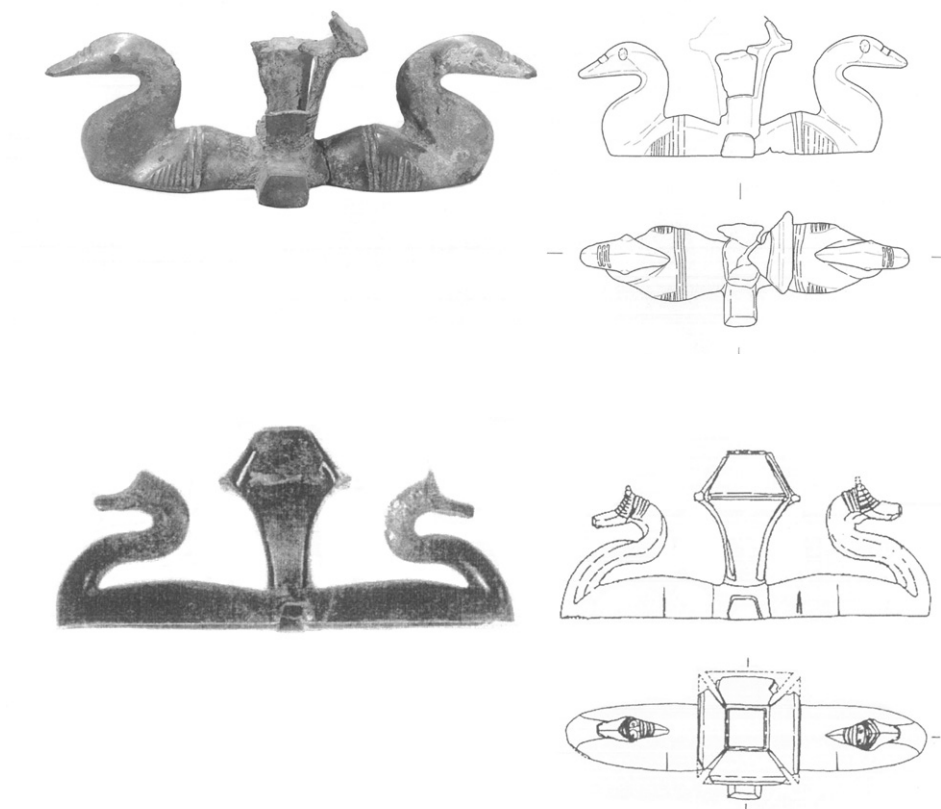


Fig. 13. Bird-pair hilts from Kyōngju (top) (after Han'guk Gidokkyu 2011: fig. 45, fig. 103) and Shige-no-dan (bottom) (modified from Gotō and Endō 2006:116, fig. 2, fig. 3).

refugees who left the ruins of Wiman Chosŏn (destroyed by Han China in 108 B.C.E.) migrated into Kap'yōng and finally reached the Yōngnam region. This view finds support in the dating of the Yōngnam-type bird-pair antenna-style daggers and swords, which are distributed and manufactured in the Yōngnam region centering on Taegu and Kyōngsan (Fig. 4, nos. 20–28; Fig. 7). Further, the bird-pair hilts from Nikolaevka and Mikhailovka in Siberia might have been trade items (Fig. 5, no. 12). The relations between the Maritime Province of Siberia and the Korean peninsula is not discussed in this article, however many Korean style bronzes such as slender daggers, axes, spears, and mirrors have been unearthed from the Maritime Province (Kim 1967). It is not known whether the Korean style bronze dagger culture of the Maritime Province was concretely involved in exchange with any part of the Korean peninsula. However, Kang has suggested that it is likely to be linked to Pyongyang (Kang 2003). The antenna daggers of the Maritime Province would likely have found their ways along the same routes as the other bronzes described above and at approximately the same time.

Interestingly, Yōngnam type bird-pair antenna-style daggers and swords were found along major transit routes easily reached via river streams. Such geopolitical

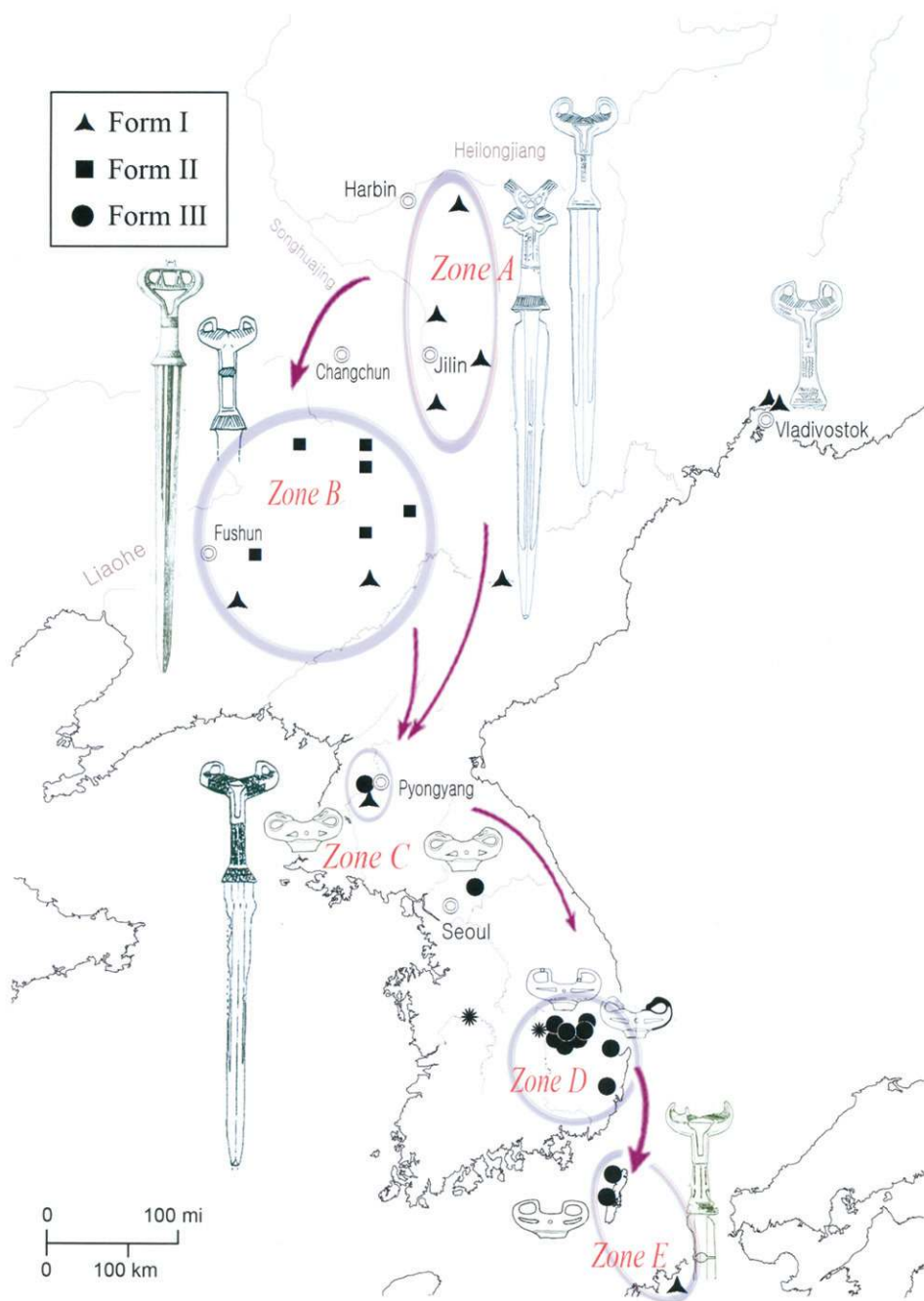


Fig. 14. Map showing interregional network of bird-pair antenna-style daggers and swords, with possible local trade units circled; * = sites of other kinds of antenna-style daggers.

factors suggest that polities in each region were mutually linked and developed local area networks. The commonality in the modes of manufacture and the similarity in the typology of the daggers and swords show that special craftspeople were sponsored by political elites and that ownership of the daggers they manufactured was restricted.

Networks involving bird-pair antenna-style daggers and swords could have been forged among polities in eastern Liaoning, Jilin, and the maritime region of Siberia. Such networks were also established among polities in the Korean peninsula so that the influence of the polities of southern Manchuria extended throughout the Korean peninsula as far as Tsushima. As a basis for understanding how these networks might have operated, I propose four interregional network units (Fig. 14). The first covered the Jilin-Changchun (i.e., Zone A or Jichang Zone 吉長地區) region of central Jilin and was the first to appear ca. fifth century B.C.E. The second network developed in the Northern Liao region (i.e., Zone B or Liaobei Zone 遼北地區) after the third century B.C.E., then expanded into the Pyongyang region (i.e., Zone C or Pyongyang Zone 平壤地區), which is where the dagger first appeared in the Korean peninsula. The third network encompassed the Yŏngnam region (i.e., Zone D or Yŏngnam Zone 嶺南地區), where the form particular to that area developed. It is quite possible that bird-pair-shaped, antenna-style daggers were brought by immigrants from Pyongyang to the Yŏngnam region. The fourth network in the Tsushima and northern Kyushu region (i.e., Zone E or Tsushima-Karatsu Zone 對馬島-唐津地區) was influenced by both the Pyongyang and Yŏngnam regions.

CONCLUSION: AN EXTENDED PERSPECTIVE ON EAST-WEST EXCHANGE

In this article, I have examined the processes of diffusion as antenna-style daggers and swords moved into southern Manchuria, the Korean peninsula, and northern Kyushu by classifying them, analyzing their distribution, and establishing a chronology. It seems that the Hallstatt, Ordos, and Liaoning cultures were all involved in developing bird-pair antenna-style daggers and that each of them either directly or indirectly interacted with the others. The shape of the hilt of the dagger (Fig. 3, no. 6) in the Pak collection is most similar to Hallstatt daggers. Furthermore, the typical Ordos bronze dagger was traded into the Kyŏngsang Province region of Korea. It is possible that peoples in Northeast Asia and Central Europe encountered each other in a variety of ways including trade or exchange; regardless of whether their encounters were direct or indirect, some kind of connection existed among the peoples of Central Europe, Ordos, and Northeast Asia.

The shapes of bird-pair antenna-style daggers and swords in Northeast Asia suggest they were influenced by the bronze arts of the Ordos culture. Animal decoration appeared in Upper Xiajiadian Culture, and this has been understood as indicative of an acculturation process involving the local bronze culture in southern Manchuria and nomadic cultures of the Ordos. One Liaoning-style bronze dagger from the Nanshangen site in Ningcheng, Liaoning is illustrative of this (Liu G. 2000). The hilt of the dagger, decorated with the naked bodies of a man and a woman (one on each side), has been called the “Yin-Yang 陰陽” dagger because of the shape of its hilt (“Yin” indicates female and “Yang” indicates Male), which is similar in shape to the Form Ia dagger from Yangliidi in Jiaohu. The Yin-Yang bronze dagger could be considered a work of art created by a local craftsman who was manufacturing Liaoning-style daggers.

Some of the antenna-style bronze daggers of Ordos feature hilts decorated with a pair of bird's heads, but none of them include the necks, bodies, or wings of birds in their designs. The Yanglidi dagger, which is considered the earliest type of bird-pair antenna-style dagger, was manufactured in the same way as the Ordos style daggers, however, though its blade was the same as that of Liaoning-style daggers (a local dagger culture of southern Manchuria and the Korean peninsula). Therefore, the Yanglidi dagger combined local culture with Ordos culture. I suggest that it was made by local craftspeople under the influence of the Ordos culture via northeastern China and stimulated the development of a local type of antenna-style daggers in Northeast Asia.

Antenna-style daggers and swords show that interaction among peoples in the past was occurring on much wider scale than previously thought. As discussed in this article, the many bronze artifacts described in archaeological surveys demonstrate a kind of cultural fusion in which nomadic cultures of northern China influenced other cultures. Many studies have suggested that people in northeastern China and the Korean peninsula could have interacted with peoples in northern China even though they might never have directly encountered each other. The antenna style daggers and swords appear in this context.

In the case of Northeast Asia, it is also interesting to see how networks involving the exchange of daggers and swords as symbols of alliances were organized and operated. In order to conduct further research on this topic, it will be necessary to compare archaeological data with historical texts and consider the Wiman Chosŏn and Puyŏ polities of this period (second century B.C.E. to first century C.E.), which are known to have developed a variety of trade networks involving their neighbors (Byington 2016; Park 2012). This very complicated subject is not within the scope of this article, but it is nevertheless clear that specific networks utilizing bird-pair antenna-style daggers and swords operated throughout Manchuria and the Korean peninsula and extended into Tsushima and northern Kyushu. Considering typology, chronology, and the distribution of the daggers and swords, these networks might have originated in Jilin and then developed toward southeastern Korea. Finally, burial assemblages suggest that elites could have been involved in these networks.

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