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ON THE ROAD

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The mania of the time

Falconry and bird brooches at Uppåkra and beyond

WHILE FORMULATING ISSUES associated with Lars Larsson, lots of possibilities arose in my head. The theme should have connotation with his lifestyle, his abilities and broad interests. Why not a Stone Age theme? As a first-year student I took part in Lars' earliest excavation at the Maglemosian site of Ageröd in central Scania, south Sweden. Or why not a highly theoretical one? One alluding to our talks over many years about doing archaeology, and our research topics? Maybe something about our agreements and disagreements?

But, since Lars is a traveller, I will use travel as a metaphor for his broad interests in all kinds of research fields, and for his lifestyle. Being a rambler myself, I think that physical movement is also a mental journey that gives force and energy. The bird brooches trigger this mental research journey, passing through periods of time, between the past and the present and around the world, in order to find keys to understand their beauty and art. This journey sets off in Uppåkra, near Lund in southern Sweden, where Lars initiated metal detector surveys at the beginning of the research project, resulting in thousands of finds (e.g. Larsson 2003). Among all these finds were the bird brooches.

Bird brooches in Uppåkra

After several seasons of metal detector surveys at the Uppåkra site around 130 bird brooches were found (Uppåkra database 2005, the Historical Museum, Lund University). The objects are of very high quality, made of copper alloys; some of them are embellished with silver or gold, and decorated with stones or gems. Ribbons, bands, and a male head sometimes decorate the back of the bird. The pictorial language signals a bird seen from its back. The beak, the head, the wings, the claws, and the tail are depicted on the front of the brooches.

Fragments of a pin or a pin anchor on the back of the bird's head indicate that the items were worn as brooches. Many of the brooches are perforated in the tail, as if they also were used as pendants.

The finds are without context as they were discovered in the plough soil over a very large area. Presumably, they are not fragments from a former cemetery as the total archaeological material found during the surveys does not indicate the existence of a cemetery. Instead the large of amount of metal is interpreted as metal scrap (Hårdh 2003). The mixed alloys in Uppåkra indicate advanced knowledge and exper-

imentation by skilled craftsmen, similar to metalwork at Helgö (Hjärtner-Holdar *et al.* 2002). Whether the bird brooches were robbed from graves, or taken from/given by living persons, and brought to Uppåkra is of course impossible to know. Apparently, they were taken out of circulation, and later on, they were going to be remoulded into something else. If not, the bird brooches could have been manufactured at Uppåkra, even if no identical cast bird brooches were noticed (*e.g.* beak-shaped brooches in Hårdh 2001).

Looking through the brooches together with the ornithologist Professor Thomas Alerstam, Lund University, we noticed typical characteristic of the bird brooches, a theme with variations. Evidently, the typology of the brooches by Mogens Ørsnes expresses the variations (Ørsnes 1966:101ff), all of which could be noticed in the Uppåkra material already many years ago when just 44 examples were known (Branca 1999).

However, the pictorial language communicates a bird body. The question is what kind of species is represented, and if it is possible at all to identify bird species from an art object? The perspective of the bird is an artistic design created by the artisans' skills and perception. The bird constitutes a sign with codes and elements of some understandable and recognised forms for people at that time (e.g. Sonesson 1992).

Surely, the brooches had messages to the viewer. Yet, how could we as modern people decode this message in fragmentary survivals of ancient cultural material? The following interpretation of the bird brooches and the bird images is an associative argumentation between different archaeological and written sources in Scandinavia and the continent, besides my own fascination with birds and falconry.

Ravens or birds of prey?

The bird brooches have been interpreted as ravens, with connotations to Odin's ravens, Huginn and Muninn (Petersen 1991:55, 2005; Uppåkra exhibition 1998). They could also be understood as representations of birds of prey (Jennbert 2006a). Within the field of archaeology dealing with the finds in question there is caution about attributing the pictorial image to any species. The question is whether it at all is possible to find out if they represent ravens or birds of prey, or something else?

Doing archaeology is a never-ending adventure, and



FIGURE 1. Species of bird - raven or bird of prey? Bird brooch U 560 from Uppåkra, Skåne, Sweden. Photo: B. Almgren, Historical Museum, Lund University. Length: 58 mm.

when an amateur sets off into the world of birds, to find out about the descriptions and habitats of different species, it has clear travel associations. The raven has a relatively long and curved bill, long pointed wings with obvious separation of primaries while soaring, and a long graduated or wedgeshaped tail. Falcons and hawks are broad-chested, and have a heavy curved bill, long, broad, pointed wings, and heavy feet with sturdy claws, and long tail which can be rounded, straight and wedge-shaped.

Ravens and birds of prey have different habitats and behaviours. While ravens follow predators to scavenge on leftovers and carrion, birds of prey, depending on which species, hunt in different ways. Gyrfalcons (Falco rusticolus) fly low and surprise prey on the ground. They force it low or high and exhaust it. Gyrfalcons strike prey or drive it to the ground, rather than grasping it in the air. Peregrine falcons (Falco peregrinus) search out the prey from a perch or while they fly, and dive on it from high above and strike it with the feet, or pursue it from behind. The prey is killed by a bite in the neck. Goshawks (Accipiter gentilis) perch silently, waiting and watching for prey. They follow prey rapidly through forest vegetation. (Pers. comm. Thomas Alerstam, Lund University; All about Birds, Cornell Laboratory of Ornithology, Cornell University, New York).

Both ravens and different species of birds of prey change body position and feathers depending on what they actually do. Thus, the examination of bird brooches to identify species is an ambiguous job. Looking through all the bird



FIGURE 2. The helmet from the boat grave Vendel XIV, Uppland, Sweden, reconstructed by Olof Sörling (Stolpe and Arne 1912, Pl. XLI).

brooches found at Uppåkra, taking into account that the objects are not taxonomic species but artistically moulded, the different elements (Figure 1) – such as the feet and heavy claws, the shoulders of the wings, e.g. the wrists, the pointed wings, but above all the shape of the body – signal birds of prey. The bills are straight, and similar to either a raven or a bird of prey. The tails are varied; they can be straight, rounded, or wedge-shaped.

A general trend is that they have marked eyes, and the wrists have "eyes". The ornaments on some of the objects show ribbons between the bird's head and the body, and between the wings on the body. A few have a male's head between the wings.

In conclusion, a close study of the ornaments reveals an interpretation based on the form and stance of the bird's body. The stout aerofoil of the shoulders and the folded wings with the claws in diving position suggest rather that the image represents a bird of prey. On the other hand, it is possible to interpret it as a raven seen from the back.

The ornaments give the impression of a tamed bird of prey, hunting its quarry in a straight diving position. It could be a goshawk or a peregrine falcon, but further identifications are worthless, and impossible to do. Thus, the iconography of the bird brooches signals birds of prey, with connotations of falconry, a special lifestyle. The question is what kind of information about the bird brooches and similar pictorial perspectives comes from their archaeological context, and what association can be made with practising falconry?

Archaeological contexts

The bird brooches belong to the south Scandinavian material equipment of the 7th century, usually as single finds, as in Scania (Strömberg 1961:116f) and Öland; a few are also found in Norway and south of Scandinavia (Ørsnes-Christensen 1955:105). However, especially on Bornholm, there are brooches in female graves, in pairs or single as a part of a jewellery collection on the woman's breast. (Vedel 1886:163f; Ørsnes 1966:101ff; Højlund Nielsen 1987: table 4; Jørgensen 1990:31f; Jørgensen and Nørgård Jørgensen 1997).

In quite another part of Sweden a similar perspective of a bird is created on the helmet found in the boat grave Vendel XIV, Uppland in eastern central Sweden (Figure 2). A bird flying down with the wings held together, and with "eyes" on the wrists composes the nose guard. Foils with warriors and birds on their helmets, and with swords, shields and spear also decorate the helmet. The male grave is one of many extremely rich equipped boat graves. Hjalmar Stolpe dated Vendel XIV to the later part of the 7th century, but Birgit Arrhenius places the grave earlier, between 560 and 600 AD (Stolpe and Arne 1912:53ff; Arrhenius 1983)

The south Scandinavian female jewellery expresses the same animal art style and decorative elements that are found on helmets, weapons and button-on-bow brooches in the Mälaren region and Gotland during the 7th century. The similar animal art style with clear female connotations in south Scandinavia has connections with men in central Sweden. The bird brooches belong to phase IC and D, and the typological element groups (EKG) 2 and 3, which have no geographic delimitation in Scandinavia, are dated to 600–680/700 (Højlund 1991).

The position of the proposed diving position of a bird of prey has connotations of female jewellery in southern Scandinavia, and is a male warrior attribute in the central part of Sweden. What kind of relations between these archaeological contexts can be seen?

Another pictorial bird, formed during the same period of time, gives renewed perspectives: birds in profile-formed bird brooches associated with female graves, and mountings on shield and saddles in the aforementioned rich boat graves. These bird images have been interpreted as birds of prey and even as having associations with falconry by Bo Petré (Atterman 1934; Nerman 1969; Petré 1984). Birds of prey in different images connect south Scandinavian women with women and men in central parts of Sweden, Öland and Gotland, but they also have eastern and western connections, as the bird profile and falconry are known from other parts of Europe. But what about true birds of prey and ravens in archaeological contexts?

True birds in graves

Generally speaking, bones of birds of prey are found in graves, but nowhere are bones of ravens found either in graves or at settlements or ritual places. Chronologically, graves with birds of prey range over a period of 500 years, with the earliest at the end of the 5th century. They are mainly situated in eastern central Sweden, but there a few of them a little southwards, but not in southern Scandinavia. Large mounds with male and female cremations, bodies of horses and dogs, parts of sheep, goat and cattle were equipped with luxury items, partly from abroad (Vretemark 1983; Sten and Vretemark 1988).

Several species of birds of prey, the most common being goshawk (Table 1), indicate that vegetation and the land-scape scenery evoke different kinds of hunting methods and different species of bird of prey. The prey was also placed in the graves, such as crane and duck. The archaeological contexts and the bones of birds certainly indicate that falconry was a skill in the period of the bird brooches.

TABLE 1. Birds of prey and prey in 34 Swedish "falconry graves", 500–1000 AD (after Tyrberg 2002).

Species	Number of graves
Goshawk Accipiter gentilis	28
Peregrine falcon Falco peregrinus	5
Gyrfalcon Falco rusticolus	4
Sparrowhawk Accipiter nisus	3
Eagle Aquila chrysaetos	2

Eagle Aquila chrysaetos/Halianthus albicilla	I
Merlin Falco columbarius	I
Eagle Owl Bubo bubo	13
Teal Anas crecca	I
Goldeneye Bucephala clangula	I
Red-breasted Merganser Merganser serrator	I
Duck Anatinae sp.	5
Black Grouse Tetrao tetrix	3
Capercaillie Tetro urogallus	I
Hazel Grouse Bonasia bonasia	2
Crane Grus grus	5
Golden Plover Pluvialis apricaria	I
Snipe Gallinago gallinago	I
Pigeon Columba sp.	I
Starling Sturnus vulgaris	I
Crow Corvus corone	I
Fowl Gallus gallus	19
Geese Anser anser/Anser sp.	15

Falconry

Falconry is a skill, and a lifestyle. People have trained falcons and hawks for hunting for over a thousand years. Falconry is a cooperative scheme of many years' standing between the falconer and the bird of prey. Falconry is supposed to have been introduced to Europe from Eastern Europe, perhaps pictorially expressed as early as in the gold bracteates of the 6th century (Åkerström Hougen 1981).

The earliest legislation on falconry is the Salic Laws from the reign of Clovis I, the first king of the Franks (*c*. 500 AD):

If anybody steals a hawk from a tree, and he is proved guilty, besides the return (of the object) and the informer's fee, he shall be judged liable to the extent of 120 dinarii, which makes up 3 solidi. 2. If anybody steals a hawk from a perch, let him be judged liable to the extent of 600 dinarii, which make up 15 solidi. 3. If anybody steals a hawk from inside the household, and he be found guilty, let him be judged liable the extent of 1,800 dinarii, which make up 45 solidi, besides the return (of the object) and the informer's fee. *Add 1*. If anybody steals a sparrowhawk let him be judged liable to the extent of 120 dinarii, which make up 3 solidi, besides the return (of the object) and the informer's fee. (after Epstein 1943:506)

But there were also other similar laws in other western countries, which shows that falconry already existed, but also that the sport had developed into a mania of the time (Åkerström-Hougen 1981). Evidently falconry was a custom that was widespread in the upper classes, as we also can interpret the Scandinavian archaeological contexts. In the Vallentuna burial, a very well equipped male cremation just north of Stockholm, Sweden, the grave gifts with one horse, four dogs, steaks of sheep, cattle and pig, birds of prey and their prey, luxury goods among them a dice with runes, interpreted to mean "hawk" (Figure 3). Is this possibly the name of the dead warrior, a *rinker* (Sjösvärd *et al.* 1983)?

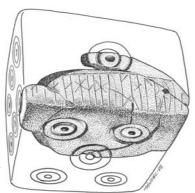


FIGURE 3. The die from Vallentuna, Sweden, c. 600 AD (after Sjösvärd et al. 1983).

The bird brooches and falconry

The bird brooches found in women's graves evoke falconry, an aristocratic form of hunting which is also attested in the bones in richly equipped graves, and the brooches and mountings with birds of prey in profile. Falconry is no doubt linked to the aristocratic consumption of game, perhaps for the table but also as an icon for wealth and social abilities.

The interpretation of the bird brooches as representations of birds of prey and falconry relies on associations between archaeological and written sources from the time in question. When bird brooches and the birds in profile on the Vendel helmets are interpreted as ravens with reference to Old Norse mythology and war, it is without considering other archaeological sources. The material culture in Scandinavia and in other areas indicates connections with Roman cavalry and an aristocratic political life to the west and the east. The ability and lifestyles must have an allembracing importance in alliances, negotiations and wars. However, it might be possible that Odin's ravens are repre-



FIGURE 4. Whose identity? Two perspectives on bird brooch U 263 from Uppåkra, Skåne, Sweden. Length: 55 mm. Photo: B. Almgren, Historical Museum, Lund University.

sented in the archaeological material, as for example the bird facing a woman and a man on the picture stone Lärbro, Stora Hammar, Gotland (Lindqvist 1941: fig. 85), flying in courtship. However, it is questionable whether Old Norse mythology gives answers to pre-Christian iconographic representations, and this is an ongoing discussion in the field of archaeology and history of religion.

The large amount of metal finds in Uppåkra has been connected to ongoing metal handicraft and production for many centuries. The use of the bird brooches as pendants, and the secondary use of them as metal scrap, indicates that the bird brooches had symbolic and economic value beyond their use in female grave rituals from the 7th century. Uppåkra was a place of impressive economic and ritual importance for many centuries in the first millennium AD (e.g. Hårdh 2002; Larsson 2002, 2004). The site also could be interpreted as a crucible, a melting pot, important in ideological changes as old items were melted down and new ones were produced.

Lifestyle and identity

The bird brooches have a changing biography, as grave gifts, pendants, and scrap metal. The burial custom could be characterised as a grave language, understood as a kind of montage, and significant for the persona of the dead but also an activator of norms and values, memories and traditions, networking and regeneration, as well as religion and mentality in everyday life. The grave is a kind of montage of lifestyle attributes, and a ritualisation of the dead. As in life, the staging of dead person and the *persona* became visible.

The graves are installations of wealth and materiality, and richly equipped burials have a large package of attributes for several lifestyles. These rich graves probably represent a grave language in its whole complexity, and they hint at interpretations of lifestyle metaphors also of persons in graves with not as much of wealth and materiality (Jennbert 2006b). So, what do the birds represent more than the proposed falconry? Certainly, the generosity and affluence of wealth was related to power and prestige. The pictorial language of the bird brooches was part of a communicating social elite. But what about the male masks on the bird brooches?

On quite a few of them a male mask is situated on the bird's back (Figure 4). Bearing in mind that the pictorial perspective of the brooches signals a physical movement of the bird, the male mask signals different messages depending of how the brooches were worn. Male masks are also formed on other objects, not only during the same period but in earlier and later centuries as well. A good example is the aforementioned brooches with a bird of prey in profile, some of these brooches a male mask is placed on the bird's hip.

To sum up, the association between bird brooches and birds of prey, and a male face to female jewellery makes the wearer and the male person quite interesting. Whose is the prey? The bird brooches and the connotations of falconry decode both a social identity and a lifestyle, expressed in the aesthetics of the time. Obviously, the bird brooches signal a message within the social elite, between men and women, and in continental networking in eastern and western directions. The gender issues are supported with ideological preferences at the time. Thus, the large numbers of bird brooches, and other metal objects, at Uppåkra also represent contemporary travelling, objectified in the production and remoulding of elegant handicraft.

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References

- Arrhenius, B. 1983. The chronology of the Vendel graves. In J. P. Lamm and H.-Å. Nordström (eds.) *Vendel Period Studies*, 39–70. Stockholm: The Museum of National Antiquities.
- Atterman, I. 1934: Fågelformade spännen och beslag från folkvandringstid. *Studier tillägnade Gunnar Ekholm*, 169–186. Uppsala
- Branca, A. 1999. Fågelfibulor en exklusiv fyndgrupp. In B. Hårdh (ed.) *Fynden i centrum. Keramik, glas och metall från Uppåkra*, 163–175. Uppåkrastudier 2. Acta Archaeologica Lundensia 8:30. Stockholm: Almqvist & Wiksell International.
- Hårdh, B. 2001. Produktion och spridning. Näbbfibulor i Skåne. In B. Hårdh (ed.) *Uppåkra. Centrum och sammanhang*. Uppåkrastudier 3. 187–204. Acta Archaeologica Lundensia 8:30. Stockholm: Almqvist & Wiksell International.
- 2003. Uppåkra in the Migration and Merovingian Periods. In B. Hårdh and L. Larsson (eds.) Central Places in the Migration and the Merovingian Periods. Uppåkrastudier 6. 41–54. Acta Archaeologica Lundensia 8:39. Stockholm: Almqvist & Wiksell International.
- Hjärtner-Holdar, E., K. Lamm and B. Magnus. 2002, Metalworking and Central Places. In B. Hårdh and L. Larsson (eds.) Central Places in the Migration and Merovingian Periods, 159–183. Uppåkrastudier 6. Acta Archaeologica Lundensia 8:30. Stockholm: Almqvist & Wiksell International.
- Højlund Nielsen, K. 1987. Zur Chronologie der jüngeren germanischen Eisenzeit auf Bornholm. *Acta Archaeologica* 57:48–86.
- 1991. Centrum og periferi I 6.–8. årh. Territoriale studier af dyrestil og kvindesmykker i yngre germansk jernalder i Syd- og Østskandinavien. In P. Mortensen and B. M. Rasmussen (eds.) Høvdingesamfund og Kongemagt. Fra Stamme til Stat i Danmark 2, 127–154. Jysk Arkæologisk Selskabs Skrifter XXII:2. Aarhus: Aarhus Universitetsforlag.
- Jennbert, K. 2006a. Animals and the pre-Christian ideas about cosmos. In A. Andrén and P. Carelli (eds.) Odin's Eye – Between people and powers in the pre-Christian North, 96–109. Helsingborg: Dunkers kulturhus.
- 2006b. The heroized dead. People, animals, and materiality in Scandinavian death rituals, AD 200–1000. In A. Andrén, K. Jennbert and C. Raudvere (eds.) Old Norse Religion in long-term perspectives, 135–140. Vägar till Midgård 8. Lund: Nordic Academic Press.

- Jørgensen, L. 1990. Bækkegård and Glasergård. Two Cemeteries from the Late Iron Age on Bornholm. Arkæologiska studier VIII. København: Akademisk Forlag.
- Jørgensen, L. and A. Nørgård Jørgensen 1997. *Nørre Sandegård Vest. A cemetery from the 6th–8th centuries on Bornholm.* København: Det Kongl. Nordiske Oldskriftselskab.
- Lamm J. P. and H.-Å. Nordström (eds.) 1983. *Vendel Period Studies*. Stockholm: The Museum of National Antiquities.
- Larsson, L. 2002. Uppåkra Research on a central place. Recent excavations and results. In B Hårdh and L. Larsson (eds.) *Central Places in the Migration and the Merovingian Periods*, 19–30. Uppåkrastudier 6. Acta Archaeologica Lundensia 8:39. Stockholm: Almqvist & Wiksell International.
- 2003. The Uppåkra Project. Preconditions, Performance and Prospects. In L. Larsson and B. Hårdh (eds.) Centrality – Regionality. The social structure of southern Sweden during the Iron Age, 3–26. Uppåkrastudier 7. Acta Archaeologica Lundensia 8:40. Stockholm: Almqvist & Wiksell International.
- Larsson, L (ed.). 2004. Continuity for centuries. A ceremonial building and its context at Uppåkra, southern Sweden. Acta Archaeologica Lundensia 8:48. Stockholm: Almqvist & Wiksell International.
- Lindqvist, S. 1941. *Gotlands Bildsteine* 1. Stockholm: K. Vitterhets Historie och Antikvitets Akademien.
- Nerman, B. 1969. *Die Vendelzeit Gotlands*. Kungl. Vitterhets, Historie-, och antikvitetsakademie. Stockholm: Almqvist & Wiksell International.
- Ørsnes, M. 1966. Form og stil i sydskandinaviens yngre germanske jernalder. Nationalmuseets skrifter. København; Nationalmuseet.
- Ørsnes-Christensen, M. 1955. Kyndby. Ein seeländischer Grabplatz aus dem 7.–8. Jahrhundert nach Christus. *Acta Archaeologica* XXVI:
- Petersen, V. P. 1991. Nye fund af metalsager fra yngre germansk jernalder. In P. Mortensen and B. M. Rasmussen (eds.) *Høvdingesamfund og Kongemagt. Fra Stamme til Stat i Danmark* 2, 49–66. Jysk Arkæologisk Selskabs Skrifter XXII:2. Aarhus: Aarhus Universitetsforlag.
- 2005. Odins fugler, valkyrier og bersärker billeder fra nordisk mytologi fundet med metaldetektor. In T. Capelle and C. Fischer (eds.) Ragnarok. Odins Verden, 57–86. Silkeborg: Silkeborgs Museum.
- Petré, B. 1984. Arkeologiska undersökningar på Lovö. Del 4. Bebyggelsearkeologisk analys. Studies in North-European Archaeology 10. Stockholm: Almqvist & Wiksell International.
- Sjösvärd, L., M. Vretemark and H. Gustavson 1983. A Vendel warrior from Vallentuna. In J. P. Lamm and H.-Å. Nordström (eds.) *Vendel Period Studies*, 133–150. Stockholm: The Museum of National Antiquities.
- Sonesson, G. 1992: Bildbetydelser. Inledning till bildsemiotiken som vetenskap. Lund Studentlitteratur.
- Sten, S. and M. Vretemark. 1988. Storgravsprojektet osteologiska analyser av yngre järnålderns benrika brandgravar. *Fornvännen* 83:145–156.
- Stolpe, H. and T. J. Arne. 1912. *Graffältet vid Vendel*. Stockholm: K. Vitterhets Historie och Antikvitets Akademien.
- Strömberg, M. 1966. Untersuchungen zur jüngeren Eisenzeit in Schonen I and II. Acta Archaeologica Lundensia 4:4. Lund: Gleerup and Bonn: Habelt Verlag.
- Tyrberg, T. 2002. The archaeological record of domesticated and tamed birds in Sweden. *Acta Zoologica Cracoviensia* 45 (special issue). 216–231.
- Uppåkra exhibition 1998. *Uppåkra rikedomar ur jorden*. Lund: Lunds Universitets historiska museum.
- Vedel, E. 1886. Bornholms oldtidsminder og oldsager. Kjøbenhavn: Gad. Vretemark, M. 1983. Jakt med dresserad rovfågel i Sverige under yngre järnålder. Seminar Paper. The Department of Archaeology, Stockholm University.

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All about Birds. Cornell Laboratory of Ornithology, Cornell University, New York http://www.birds.cornell.edu/AllAboutBirds.