# 3. Bread offerings at Foundation IV, Helgö – further influence from the classical world?

*Ann-Marie Hansson*

## Introduction

Bread is finally becoming recognised as an archaeological artefact in its own right. Its use as a cultural marker has previously been greatly underestimated, no doubt owing to its limited preservation. The study of bread, perhaps more than other prehistoric food, offers great potential for understanding not only nutrition, crops and cultivation processes, socio-economics, etc., but also ritual and symbolic activity. Considerable effort goes into producing a loaf of bread – working the soil, sowing, harvesting, threshing, dehusking, cleaning, storing, grinding, (occasional) leavening of the dough, and finally baking. Many tools and also constructions are needed in its preparation. Consequently, it is not surprising that cereals and bread came to hold high symbolic significance regarding status and wealth, and were often seen as a euphemism for fertility and rebirth in sacral contexts. (Cf. for instance Fechner 1991; 1992; Marinval & Hansson 1994, p. 48; Samuel 1989; 1994a, b; 1999/2000; Hansson 1997 with references; André 1998; Währen 2000 references; Hansson & Bergström 2002; Bergström 2007 references; Hansson & Heiss in press.)

Hitherto, Scandinavian research into the use of bread has focused on ingredients and the bread offered in cremation burials, while bread in other sacrificial situations is little discussed. This article will deal with the bread-humans-deities connection. I am concerned here with the way that burnt bread at Helgö seems to reflect the manner in which bread features in sacrificial offerings in the classical world.

## A glimpse of bread/cereal history and bread offerings in the Near East

The cradle of the western world for the cultivation of cereals, beginning more than 10,000 years ago (Miller 1991, p. 136), is usually considered to be the region 'in the hilly flanks of the Fertile Crescent' (Braidwood & Howe 1960; cf. also Kislev 1999; Zohary 1999; Zohary & Hopf 2000).

However, 23,000 years ago, at the site of Ohalo II on the shore of the Sea of Galilee, people had collected grass seeds (caryopses) for food, from various species including the wild ancestors of our cultivated cereals (Nadel 2002; Weiss et al. 2004). But it took a long time to convert from collecting wild grass seeds to learning how to cultivate cereals. The domestication process brought a continual selection of individual stem mutants with stronger rachis, which minimized the loss of grain during harvesting. As a result selected cereals demanded both systematic sowing and efficient threshing. In this way wild grass species finally became domesticated and unable to spread themselves as wild plants and were thereby completely dependent on humans to survive.

'11,500–10,500 years ago, c. 1,000 years before the emergence of domestication, granaries, the single most important feature in increasing sedentism, were built in Dhra [in the Jordan Valley] reflecting new forms of risk reduction, intensification and low-level food production' (Kuijit & Finlayson 2009). Around 7500–7000 BC large villages developed with agriculture as the dominant economy. Around 6000–5000 BC we begin to find numerous ovens indicating bread-making and baking (Währen 1967), and numerous traces of cereal cultivation begin to appear in this region, such as threshing floors, silos and threshing tools, together with cereal remains and cereal pollen (Avner et al. 2003).

Gimbutas has suggested that, at that time, bread was one of the most sacred objects in ancient Europe, arguing that bread was equated with fertility, and bread ovens were viewed as the uterus of the Mother Goddess (Gimbutas 1989, p. 148; cf. further below).

Figure 3.1. Uvda Valley, settlement with standing stone (*massebah*) 124×121×30 cm. A stone offering(?)-table is placed 1 meter in front of the *massebah*, and in front of this are two groups of three grinding stones. Early 5th–mid 3rd millennium BC. Photo: Uzi Avner.

In the Negev desert area, once an agricultural region, and in Sinai, numerous open-air sanctuaries have been found attached to agricultural settlements (Avner 1993, p. 174 f.). These sanctuaries contain standing stones representing deities, a phenomenon also known from other countries such as Greece, India and Portugal. A number of grinding stones have been found laid out in a special pattern in front of such standing stones in the Uvda Valley (Figure 3.1). This may be interpreted as ritual offerings of grinding stones, or marking their use in the preparation of flour used in baking sacrificial bread. Perhaps this is similar behaviour to that described in the Old Testament: Jeremiah (7:18; 44:19): 'The women knead

the dough to make cakes for the Queen of Heaven', implying some fertility rite. In the Uvda Valley there is other evidence of worship of a fertility goddess. Similar rites also occurred in Mesopotamia and Egypt (Avner 1993, p. 168) (cf. also Laurent Täckholm 1951). These shrines date from the beginning of the Natufian period c. 10,500 BC until the Early Islamic Period (AD 640–969) (Avner 1993 pp. 166 ff.; 2000; 2001; 2002).

Numerous simple rock engravings occur at these sanctuaries, including the motif of an oval or circle divided by a vertical line, also found in rock art elsewhere during Neolithic times. These have been interpreted as representations of the female vulva and sanctuaries containing these symbols are considered to be dedicated to fertility worship or mother-goddess cults (Avner 1993; Gimbutas 1989, p. 148). The vulva symbol physically resembles the appearance of grains and wild fruits (Figure 3.2), which have their own association with fertility symbolism (Gimbutas 1991, p. 100). Throughout the Near East, from different periods and cultures, large numbers of voluptuous female figurines have been found: 'frequently broad ones, indicating their fertility aspect' (Avner 1993, p. 168) and sometimes also carrying snakes as symbols of fertility. The standing stones have been compared to these, whether representing goddesses or not. This large material of standing stones and figurines points to a widespread early existence of fertility cults associated with grain/cereals where we can trace different symbolical vocabularies as yet not properly deciphered.

There is one surprising find in Europe of bread as early as the Neolithic period. This is a charred round bun (very similar to my Figure 3.12) from Switzerland of the Neolithic Cortaillod culture and dated to 3,700 BC (Währen 1995). How should one interpret such an early occurrence of bread? Bread was hardly an everyday item of food in Europe at that time. Other finds from Switzerland indicate that it was more common in the Neolithic to prepare cereal based foods in the form of porridge or paste cooked on hot stones. Two charred fragments of what has been called 'bread' with visible barley grains were retrieved in 1999 during water-sieving of a Neolithic pit deposit at Yarnton, Oxfordshire, England, $^{14}$C-dated to 3600–3350 BC and considered to belong to a ceremonial offering with a flint blade (*OUG* 1999).

Bread-baking for consumption was first performed within the home. It took some time before professional bakeries were established, depending on the way each community functioned. Certain social diversification must first be attained and it was mainly those from the highest social strata who availed of bakeries. In Mesopotamia, a sophisticated bakery was discovered in the remains of a palace in the city of Mari on the right bank of the river Euphrates; a city famous during the rule of the great Sargon of Akkad in the late 3rd millennium BC. The bakery might date from as early as c. 3000 BC (Währen 1967, p. 7), before Sargon's time when other powerful local kings reigned at Mari.

At a later date, equally high status bakeries are known from places such as Egypt, where wall paintings in Pharaoh Ramses III's tomb show in clear detail the processes current at his court bakery c. 1200 BC. By that time a great range of bread types were being baked. (Figure 3.3)

Not so widely different in date, is an interesting bread find from the grave of the Egyptian architect Khà in Thebe. Khà lived during the 18th dynasty and was given a well-equipped burial, even with regard to food. For instance, numerous bread loaves

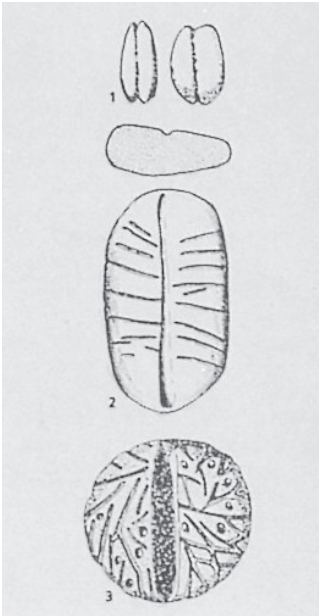

Figure 3.2. The recurring prehistoric fertility symbol of seeds from wild plants, reflecting the female vulva. 1–2: Natufian grooved pebbles c. 10,000 BC, Mallaha, Israel. 1. H: 1.4 cm and 2. H: 3.9 cm. 3: an Anatolian clay seal, mid 7th millennia BC, Çatal Hüyük. H: 2.9 cm. (Gimbutas 1989, fig. 163).

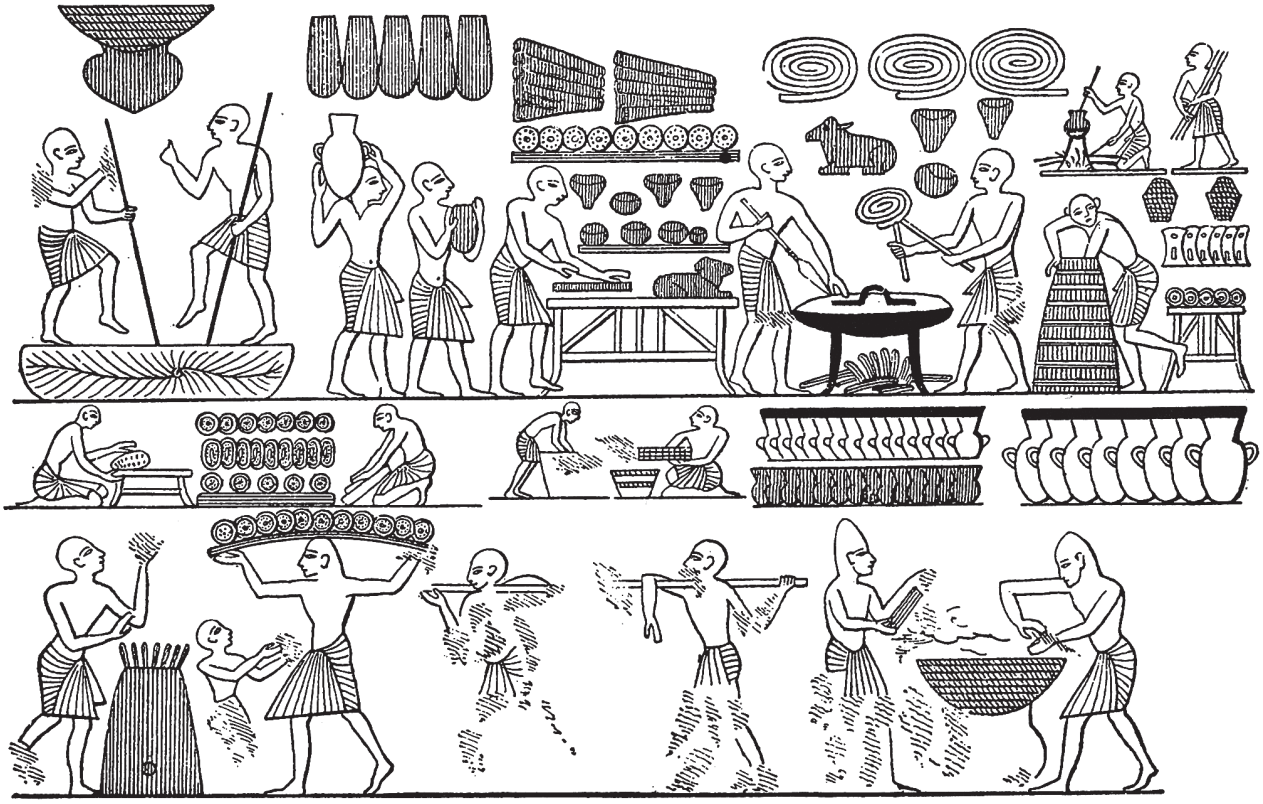

Figure 3.3. The baking process. Animal forms are included among the various bread shapes depicted in the tomb of Ramses III, Valley of the Kings, 20th dynasty (*OEAE* 2008).

in different shapes were found spread out on a table (Figure 3.4 a, b). In certain dynasties, the number of bread types to be placed in the grave was prescribed, and also where they should be baked (Laurent Täckholm 1951, pp. 65 ff.).

The dry climate in Egypt provides excellent preservation for organic matter, and desiccated bread has been found not only in graves but also in settlements, for instance in the workmen's village in Amarna, Middle Egypt (New Kingdom c. 1350 BC), belonging to the new Egyptian capital founded by Pharaoh Akhenaton. The town was in use for only a short period and was abandoned after Akhenaton's death. Here too, the bread loaves show evidence of advanced baking traditions, occurring in many different shapes (Samuel 1989; 1994a; 1999/2000). The two basic cereal ingredients in Egyptian bread were emmer-wheat and barley. For grave bread, emmer-wheat was mainly chosen, though figs, dates and coriander were sometimes also included (Samuel 1994a, p. 308). A most interesting discovery was made when analyzing starch granules with scanning electron microscope (SEM), to identify morphological changes. The starch granules in the emmer wheat grains showed traces of germination and enzymatic breakdown (Samuel 1994a, p. 53), suggesting a treatment of the grain for deliberate nutritional improvement.

That bread was of great importance both for symbolic offerings and for nutrition, as can be understood from the written symbol for food in Egyptian hieroglyphs – the triangular 'common, everyday' loaf, called *ta* (Adrario 2002, p. 2).

In Egypt, Isis was considered to be the goddess who taught man to bake bread and her husband/brother Osiris was considered to be responsible for spreading this knowledge (Wretzinsky 1926).

In other parts of the Mediterranean, such as Greece, while the art of cultivating cereals was long known, the baking of bread came later. Exactly when it began is uncertain though it was early in European terms. It is from here that bread-making passed on to the Roman Empire. In Greek mythology, it was Demeter ('Mother Earth'; Day 2007, p. 30), who ruled over the crops and their growth, and is supposed to have brought the knowledge of bread to man (Buxton 2007, p. 72). One of her names was Demeter Thesmopho-

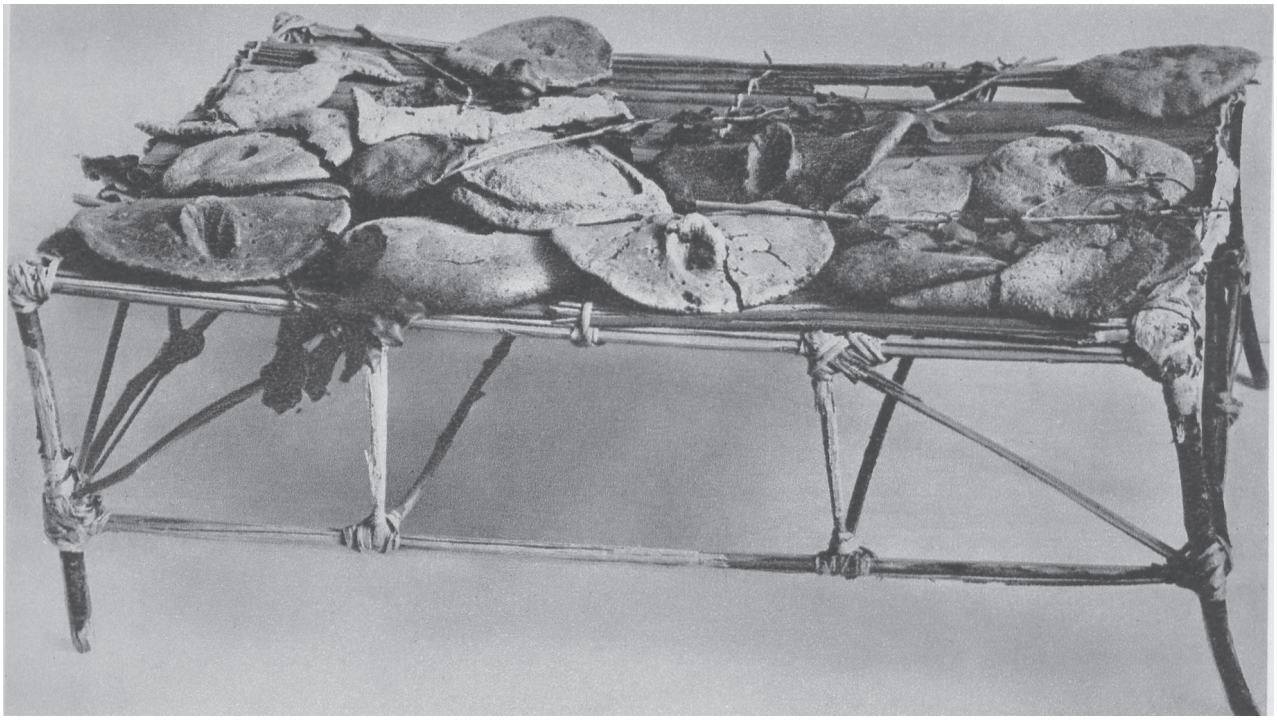

Figure 3.4 (a). Bread from the architect Khà's tomb laid out on a table (Laurent Täckholm 1951, p. 65).

Figure 3.4 (b). Some of the bread was shaped into lilies and stags (Laurent Täckholm 1951, p. 66).

ros 'Demeter the law-giver'. Her greatest power was over barley, the most important of provisions. Snakes (fertility) and piglets were often associated with her. Demeter's daughter Persephone, also known as Kore ('virgin' or 'maiden'), was worshipped as the goddess of birth and death. As Kore, Persephone was believed to be the power of growth within the seed or cereal kernel (Day 2007, p. 72; see Hansson & Heiss in press).

The Roman equivalent to Demeter was Ceres. She is often illustrated together with her daughter Proserpina (Persephone), with a garland of ears of corn around her head. Pliny the Elder tells us in the first century AD, that 'Ceres introduced corn, the acorn having been previously used by man for food; it was she, also, who introduced … the art of grinding corn and of making bread, and other similar arts …; and it was from these circumstances that she came to be regarded as a divinity.' (Pliny *Nat. Hist*. 7.57; transl. Bostock 1855; cf. Währen 1972, p. 2.)

During classical antiquity, the Mediterranean area was relatively densely populated. The inhabitants had now become dependent on the products of cereal cultivation and pulses, and bread had its given place both in daily life and within religion. Bread is men-

tioned in all kinds of written sources from this period, often within quite specific and personal accounts. In Rome, professional bakeries came into existence relatively late, c. 171 BC (Furger & Schneider 1995, p. 72). Previously, the common dish had consisted of *puls (pulmentus*): a gruel of roasted, pounded and boiled barley or wheat. During the first centuries BC the highest social strata changed their food habits and started to consume actual bread. However *puls* still provided the main nourishment for the simple farmers and the poor. In *puls fabata* field beans (*Vicia faba*) was used (André 1998, 31; see also Pliny, *Nat. Hist*. 18.117 f.). As to the place of bread in religion, Roman house altars included bread offerings (e.g. Währen 1972, p. 4).

*Thesmophoria*

Greek religion, cult practices and deity and hero worship, have been extensively researched, and it seems clear that the same deities could have an assortment of sanctuaries (Østby 1993; Marangou 1998, p. 9). Most relevant to Helgö are the ceremonies known as Thesmophoria. These were the most widespread of the open-air festivals in honour of Demeter and Persephone, aside from the well-known Eleusinian mysteries. The festival focussed ritual attention on the various processes critical to a successful crop, particularly on sowing, by persuading the gods to favourably influence the natural cycle of growth and fertility with specific regard to cereals.

Thesmophoria ceremonies were surrounded by mysticism and secrecy. Little is known of the exact ritual because no men were allowed to attend (Bookidis 1993, p. 50); and since men recorded history, very little has been written about this exclusively female event. What we know is clothed in legend and somewhat diffuse. For example, the drama of the Greek playwright Aristophanes entitled Thesmophoriazusai ('The Women of the Thesmophoria') is a parody of the festival. It would seem that during the festival, the women re-enacted aspects of the myth of Demeter as she searched for her abducted daughter Persephone (Stroud 1968, p. 322; Sammarco 2008 and references therein). Hades, emerging through a chasm from the underworld in his chariot drawn by horses or winged creatures, found Persephone picking flowers in a pasture and, infatuated, swept her away with him. A swineherd, Eubuleus, was minding his herd close by and was swallowed up into the chasm together with Hades and Persephone. The main source of information on the myth of Demeter and Persephone is the Homeric poem 'Hymn to Demeter' (Binder 1998; Björkeson 2004).

Thesmophoria festivals were related to the very important autumn sowing in October. It commemorated the time of year when Demeter resumed her role as goddess of the harvest and growth, having spent the parched summer months, when vegetation dies and rain is lacking, weeping and searching for her abducted daughter.

This fertility feast lasted five days in all, including two days for purification and a concluding celebration of the reunion of Demeter and Persephone. The exclusive participation of women in the central rituals on these occasions was no doubt due to women's culturally accepted role as bearers of the secrets of fertility (Brumfield 1981, p. 239 f.). The participating women camped out for three days and two nights on Themophorion, the hillside sanctuary of Demeter. In contrast to other Greek deities, whose temples were situated on high, open places, Demeter was worshipped in sanctuaries under the earth.

Each day had its own name, reflecting the day's activity. The first day involved making one's way up to the sacred space of the sanctuary, and the setting up of crude shelters.

The second day was devoted to grieving and fasting on pomegranate seeds. This was in commemoration of the fate of Persephone who, when ordered to fast while waiting to leave the Underworld, had unintentionally eaten pomegranate seeds, thereby committing herself to return for a number of months each year.

The third day, Kalligenia, consisted of a celebration of a meat feast. There are several interpretations of the name Kalligenia, such as 'born beautiful' or 'mother (goddess) of a beautiful child' or 'beautiful birth'. This might also reflect the rejoining of mother and daughter. It has been pointed out that the term 'Kalligenia' appears in no other contexts and has no counterpart among the Olympian deities, perhaps further emphasizing the archaic, pre-Olympian nature of this festival (Gimbutas 1984, p. 214) On this third day, commemorating Demeter's search in the darkness for Persephone, a torchlight ceremony was performed at night. The women, ritually purified with sexual abstinence and bathing, descend into the caverns, the megara of Demeter. These could be trenches, pits or natural clefts in the rocks. The pur-

pose was to remove the decayed matter (piglet corpses) thrown down on an earlier occasion. These were now sprinkled with seeds and placed on the altars. This mixture was subsequently spread over the fields to promote the growth of the crops. Information concerning when and how the piglets (and other offerings) were thrown down into the megara is missing. According to one description, this was during other ceremonies in relation to fertility and crop generation which were held some months earlier at the time of threshing, called Skirophoria. Here, young maidens were given sacred and magical objects, skira, to be deposited at the sanctuary of Demeter Thesmophoria (Brumfield 1981; Gimbutas 1984, p. 214). These sacred offerings included bread in different shapes such as snakes and phalli (Brumfield 1981, p. 79, 232).

Besides actual piglets, Thesmophoria ritual offerings could also include pine cones, votive pigs and terracotta figurines representing Demeter cradling a piglet in her arms (Burkert 1985, p. 242).

Some classical writers suggest that the Thesmophoria rituals shared similarities with ceremonies recalling the sufferings of Osiris in Egypt. The Thesmophoria thus might belong to a widespread rite in Western Asia and in Europe, which focussed on grief at the annual decay of vegetation and rejoicing at its rebirth. The central role of a 'vegetation deity', and rituals concerning the life-cycle of cultivated foodcrops, had its roots in the Near East (cf. above and Winbladh 2004, p. 74 f.).

## Two 'bread terraces' in Italy

It should be pointed out that the idea of a connection between bread offerings, sacrificial terrace practices in the classical world and Helgö Foundation IV was conceived by the present author in the early 2000s after receiving M. Ciaraldi's article about such sites (Figure 3.5) which made sudden sense of the description in *Excavations II* as a site for offering the bread of the living in contrast to bread offerings in graves. My exposition of this discovery was intended for an earlier volume of *Excavations* (written jointly with L. Bergström, cf. Hansson & Bergström manus 2004).

Two continental sanctuaries, with sacrificial terraces may be associated with Thesmophoria, other female solidarity ritual, fertility and burnt bread sacrifices, shall be discussed in some detail as a possible background to Foundation IV at Helgö.

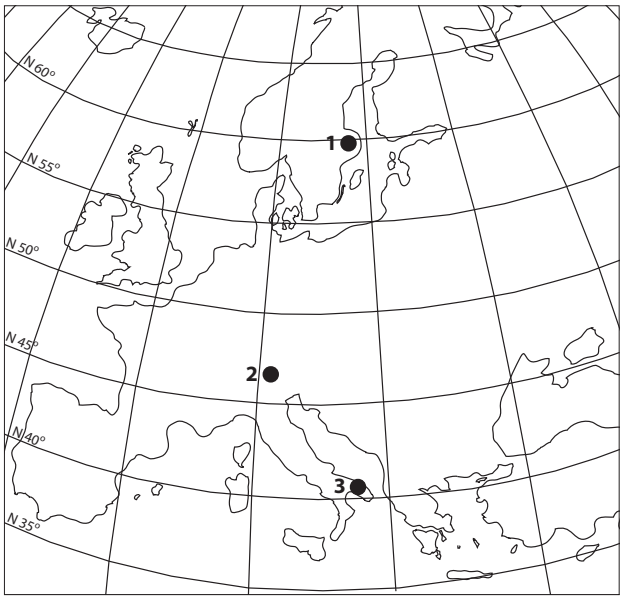


Figure 3.5. Location of the sites mentioned in this paper. 1: Helgö, 2: St.Walburg/S. Valpurga, 3: Monte Papalucio. Map drawn by Mats Regnell.

The first to be discussed is an Iron Age cult site located in St. Walburg (S. Valpurga) in the Ulten (Ultimo) valley in southern Tyrol/ northern Italy (Heiss et al. 2005; Heiss 2008, pp. 97–115). The Ulten valley is basically U-shaped, but the section between St.Walburg and the mouth of the Ultental is formed by two deep gorges cut out of the rock by Pleistocene glacial movement. Access to the valley was restricted until modern times with the construction of an access road in 1904–1907 (Heiss et al. 2005, p. 63). The Ulten valley was commonly considered an uninhabited area before the Middle Ages, because of its difficult topography and also because of a lack of archaeological finds of prehistoric date. In 1967, Iron Age pottery sherds were found in Kirchbichl, St.Walburg, indicating an ancient settlement. Later, artefacts including traces of Mesolithic activity were found at several mountain passes (Heiss et al. 2005, p. 69).

A large-scale excavation at St.Walburg revealed an Early Iron Age settlement which had been continuously inhabited during the Hallstatt periods Ha A1/B1, c. 1200–1000 BC until Ha D2/3, c. 500 BC. After the settlement was abandoned in the 5th/6th century BC, it was built over by a ritual site for burnt offerings. This latter was a massive sanctuary established atop an artificial terrace c. 70 × 15–25 meters and fortified by supporting walls. Five altars were found aligned in a row, as well as two large stone circles,

and a parallel row of eleven clay slabs with scorched surfaces (altars). The structures were all embedded in immense layers of carbonised material, c. 50 cm deep. The sanctuary was in use from c. 500–200 BC (Heiss et al. 2005, p. 70). The structure of the site is unique to the Alpine region (Weiss 1997, p. 189), but artefacts found in other small burnt-offering sites in the area, point to Mediterranean archetypes (Nothdurfter 1992, p. 46; Heiss 2008). However, there are no parallels in the area to the clay altars from St.Walburg. The only known parallel is Lavinium at Pratica di Mare with its 13 altars, dated to the 6th–2nd centuries BC, a vast sanctuary situated c. 30 km south of Rome, and the central sanctuary for Latin mountain tribes (Nothdurfter 1992, p. 58). Etschtal, a parallel valley to Ultental, has produced finds of imported metal objects (Dal Ri 1992, p. 77). The site of Nonsberg in the same neighbourhood has produced handles from hydriai or water jars of the late 6th and 5th century BC, which possibly indicate female activity in the area. One type of hydriai had a large rounded body, small neck and three handles of which two were horizontal at the sides for lifting and one vertical at the back for dipping and pouring. Fetching water was one of the duties of women in classical antiquity (Dal Ri 1992, p. 78). Miniature *hydriai* (?) were also found in the Italian sanctuary in Monte Papalucio, described below.

Plant-macrofossil analysis was performed on the burnt organic material from the St.Walburg sanctuary by Andreas Heiss. The results revealed that the analysed carbonised deposits consisted mainly of fragments of cereal-based gruel or bread, together with some animal bone fragments, ceramic sherds and a few artefacts. Cell-structure analysis by SEM revealed that it was indeed gruel/bread and two plant species were identified: foxtail millet (*Setaria italica*) and einkorn/emmer (*Triticum monococcum/dicoccum*).

Cereal grains and seeds were also recovered lying in the cultural layers, and included seeds from the Fabaceae family and from the oil plants flax (*Linum usitatissimum*) and poppy (*Papaver somniferum*); all species of possible local origin. Collected berries and nuts from wild plants were also found (Heiss et al. 2005, p. 71; Heiss 2008, p. 104).

*Monte Papalucio*

The second sanctuary for comparison is Monte Papalucio, situated on the northern slopes of Oria, Apulia, southern Italy (Sammarco 2008). The village of Oria was established around the 7th century BC. The discovery of some Mycenaean pots in Late Bronze Age deposits (14th–10th centuries BC) indicates early contacts between the area around Oria and the coastal site of Salento, which had regular contacts with the Mycenaeans (Ciaraldi 1999, p. 75).

The sanctuary lies on the western face of a naturally terraced hill 150 m above sea level and overlooks cultivated plains. Two terraces separated by a containing wall were excavated. The upper terrace lay in direct contact with the rock wall into which a cavity had been cut (Sammarco 2008). Two main phases were discerned: phase 1, Late Archaic (mid 6th–early 5th century BC) and phase 2, Hellenistic (late 4th–early 3rd century BC). During the 6th–4th centuries BC we see the emergence of the native/Greek sanctuary of Monte Papalucio (Ciaraldi 1999, p. 75). Many figurines of enthroned goddesses, miniature hydriai, and inscriptions were found during excavation. These finds indicated that the sanctuary was dedicated to the cult of Demeter and Persephone and the agricultural cycles and fecund rituals of the Thesmophoria (Brumfield 1981, p. 2, 70).

The emergence of the sanctuary seems to coincide with a general re-organisation of the village of Oria as well as with a more extensive exploitation of the surrounding countryside. Similarly, phase 2 is connected with a new and more vigorous impulse in agricultural activities, which is probably related to new demographic growth (Carter et al. 1985, p. 281). The Monte Papalucio sanctuary was important as a religious centre for the various populations of south Italian Greeks (Ciaraldi 1999, p. 76).

The stratigraphy at the site was rather complex and disturbed. During the Hellenistic period, reuse of the area created large middens from the accumulation of discarded offerings. These middens then provided a floor surface during Hellenistic times. Charred plants and food remains (mainly cakes and biscuits) were recovered during the excavation of the cult area and these have been interpreted as discarded, and in some cases in situ, charred offerings (Ciaraldi 1999, p. 76).

Plant-macrofossil analysis performed by M. Ciaraldi, recovered by dry sieving, revealed cereal grains, pulses, fruits and oil plants. Most interesting, however, were the various small flat cakes of different shapes and composition that were identified.

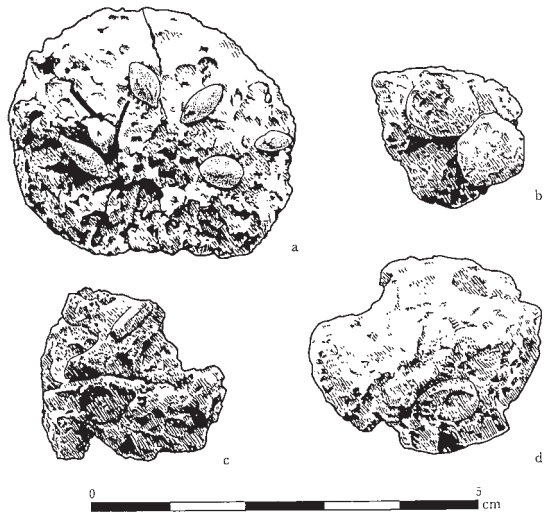


Figure 3.6. Bread from the sacrifical terrace at Monte Papalucio. Barley was used to decorate cake *a*. The edging knobs on cake *b* resemble '*popana*'. Cakes *c–d* are of uncertain 'figured?' shape (Ciaraldi 1999, fig. 7).

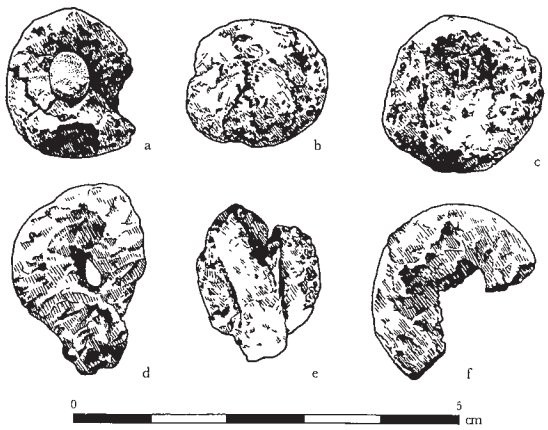


Figure 3.7. Bread from the sacrifical terrace at Monte Papalucio. Cakes *a–c*, are similar to '*photios'*; possible central knob missing on cake *c*. Cakes *d–f*, resemble modern '*tarallini*'; cake *d*, strongly resembles a convoluted snake (Ciaraldi 1999, fig. 6).

Other investigations of sanctuaries in Greece have produced ceramic votive vessels (*likna*) representing winnowing baskets filled with offerings of unleavened bread (Brumfield 1997, p. 149). Some of these are similar to those found at Monte Papalucio. There is some evidence that the baking of bread was often governed by sacred laws regulating size and content (Brumfield 1997, p. 150). Various types of small bread or cakes were associated with different gods or goddesses. One called *popana* (Ciaraldi 1999, p. 86) resembles examples from Monte Papalucio, having a series of applied rounded knobs of bread along the perimeter (Figure 3.6). A number of isolated round 'beads' of bread also found there resemble the knobs described above, and could either have become detached or be a tiny type of bread known as *pyramis* (Brumfield 1997, p. 156; Ciaraldi 1999, p. 88).

One very small piece of bread-like material was also found at Poros, Greece, at what was interpreted as an altar to Poseidon. This might well have been a similar type of decorative knob to those in Monte Papalucio (Hansson 2009). A similar loaf was found in Egypt, but here the knobs are only indicated (Samuel 1994b). No bread with this morphology has as yet been found in Sweden.

The various breads from Monte Papalucio were baked with three different kinds of dough. Those baked with the first type resemble carbonised modern layered filo-pastry. The presence of layers could be related to a high fat content (Ciavaldi 1999, p. 86). Antiphanes (4th century BC) describes *plakous*, one of the cakes offered to Demeter as consisting of 'honey and goat's milk cheese alternating with thin layers of pastry dough inside a firm shell' (Brumfield 1997, p. 152). This *plakous*-morphology is compared by one classical author to 'the seed pod of the domesticated mallow, which also had a ribbed structure and a central knob on top' (Brumfield 1997, p. 151).

The second type of dough was more compact and porous with small bubble cavities, possibly indicative of the use of a leavening agent. Buns formed as snakes are of particular interest (Figure 3.7). Some of the ring-shaped pieces were also made with the second type of dough and a similar bread called '*tarallini*' is still made in Apulia (Ciaraldi 1999, p. 86, 87). A bread resembling a loaf from Monte Papalucio, but larger, has also been found in Egypt, of unknown context, dating to the Ninth Dynasty (1500 BC) (Samuel 1999/2000, p. 28, fig. 1). The shape is however very common and easy to form, which means that these two bread loaves may have been formed without any connection with each other. At Monte Papalucio one bread cake with a central knob was made from this type of dough (Figure 3.7:a), as also one with knobs around its rim (Figure 3.6:b) together with impressions of seeds, including poppy (*Papaver* sp.).

The poppy (*Papaver somniferum*) is associated with Demeter (Sager 1910, p. 103). Excavation of a 5th century BC sanctuary of Demeter and Kore at Acrocorinth produced three fragmentary Corinthian decorative bronze/silver plates showing scenes presumed to be associated with Demeter and Persephone. One fragment shows the upper part of a female in profile, holding a flaming torch and a stalk of grain (symbols strongly connected to Demeter) in her outstretched left hand. The smaller fragment shows the lower section of a female head (Demeter?) in profile, with a poppy capsule held close to her mouth (Stroud 1968, p. 302). Furthermore, a Syracusan coin shows Persephone with a wreath of corn ears interwoven with an oak leaf and a poppy capsule (Jenkins 1972, p. 165, fig. 396). It seems very clear that the use of poppy as a pain killer and a sleeping drug was known at this time. Since Persephone is also viewed as a goddess of death, perhaps the poppy was also known as a death drug.

At Monte Papalucio, the second type of dough often contained a high percentage of fig seeds, suggesting that fig was the main ingredient. Barley and emmer grains were sometimes used for decoration.

The third type of dough was very compact and lacked bubbles or cavities indicating the probable absence of any leavening agent. Flour made from broad beans may have been one of the ingredients (still in use among south Greco-Italian groups) (Ciaraldi 1999). North-European parallels exist for the use of pea flour, though of later date. One such is the small bread from a cremation grave dated to the late Vendel Period at Ljunga, Östergötland, Sweden, made almost exclusively of pea flour. Some other prehistoric Swedish bread is known to contain peas though not to such a large extent. (Rosendahl 1912a, b; Hjelmqvist 1990; Hansson 1995.)

## Bread in early Sweden

Prehistoric bread in Scandinavia has survived because it was carbonized; accidentally or intentionally. The oldest bread in Sweden is from the Late Roman Iron Age and is that found in Helgö Building Group 2, Foundation IV. The majority of the finds of prehistoric bread come however from cremation graves of the Late Iron Age (c. AD 500–1050, equivalent to the European early medieval period). These finds have an almost exclusive concentration in east central Sweden and those from graves and settlement areas at Helgö and Birka dominate almost entirely, with Helgö producing the largest collection of bread from non-burial contexts. Further individual discoveries have been made during excavations of cremation burials, settlements, and enclosed or 'henged' hill-top sites, almost all dating to the later Iron Age. (Hjelmqvist 1984; 1990; Hansson 1997; 2001; Viklund 1998; Hansson & Bergström 2002; Ahlström 2003/2004; Schierman 2005/2006; Bergström 2007.)

The first archaeological discovery of bread in Sweden was made during Hjalmar Stolpe's late 19th-century excavations of cremation burials in Viking-Age Birka. One of the earliest studies was that by Holmqvist on the Helgö bread and bread ovens (Holmqvist 1963).

Bread is very rarely found on settlement sites, partly because it is so dependant on suitable preservation conditions to survive, and partly because it was normally made to be consumed. We know very little about the extent to which people ate bread in Late Iron Age/early medieval Scandinavia. We also do not know if porridge was common in the normal diet at this time, nor if products intermediary between bread and porridge such as gruel and grain paste (sometimes fermented) were also eaten. We only know that they were common in 19th century Sweden (Liby & Nelander eds 1994; Hansson 1994).

On the other hand, small 'buns' and 'biscuits' of bread seem to have been fairly common as grave goods (Bergström 2007, p. 53). They occurred in about 8% of the cremation graves at Birka (Hansson 1996, p. 76). The ingredients in burial bread may have been specifically selected and need not have been the same as those used for the daily bread of the living. The bread excavated from graves in Europe and Egypt was not necessarily baked for human consumption (Hajnalova 1989; Samuel 1994a; McLaren et al. 2002). The same goes for bread made for offerings (cf. e.g. for Thesmophoria, below).

## Foundation IV at Helgö – a terrace with ritual bread offerings

Foundation IV consisted of a thick cultural layer covering an area 16 × 16 meters but lacking distinct boundaries or any structures indicative of buildings.

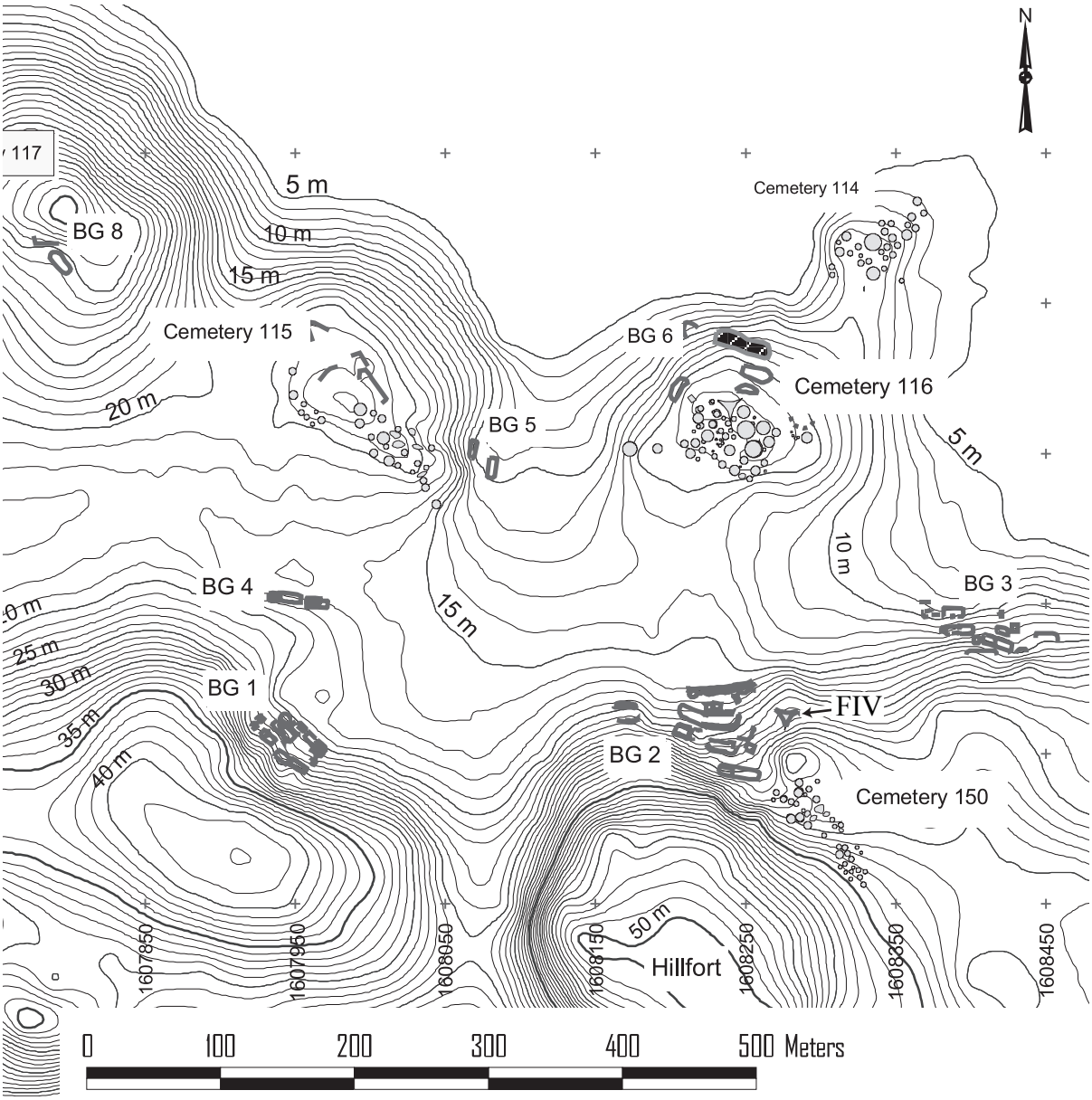


Figure 3.8. Location of Foundation IV (FIV), the ritual terrace at Helgö, later replaced by the triangular stone setting. It held a dominant position at the foot of the 'bare rock' outcrop close to Cemetery 150 and overlooking the other sites, especially the mainly later Building Group 2. (After Kitzler, *Excavations XVII*, p. 14).

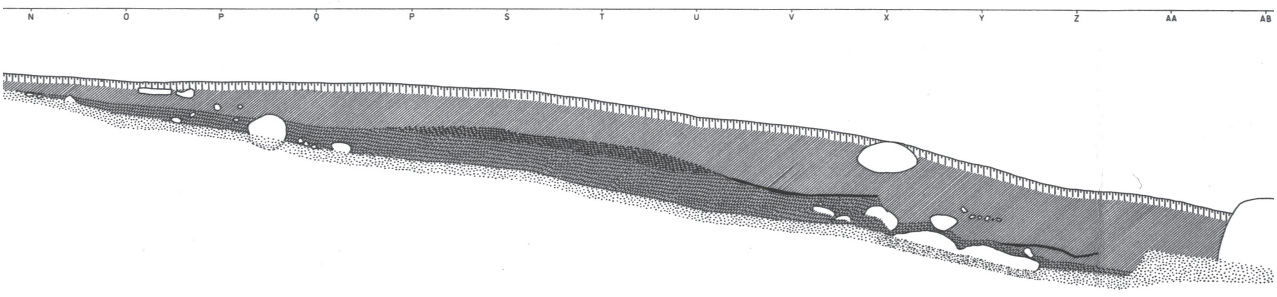

Figure 3.9. The thick cultural layer at the northern foot of the bare rock. Foundation IV, profile at 120 (*Excavations II,* pl. 73).

| Layer | Bread finds |
|---|---|
| I | x |
| II | xxx |
| III | x |
| IV | |
| V | xxxx |
| VI | xxxxxx |
| Unknown | xx |

Figure 3.10. Distribution of bread finds within the different levels in Foundation IV. Each 'X' represents one bread including its fragments (after Hansson & Bergström 2004, fig. 24, p. 47).

The culture layer was most dense, c. 0.9 meters, over an area covering 7 × 11 meters on the stony ledge below a rocky outcrop. This lay on the northern slope which stretched down to the surrounding cultivated land. On the rest of the terrace the layer was less dense but still considerable at c. 0.5 m. (Holmqvist 1964, pp. 37 f., 40, 56; Zachrisson 2004, p. 148.) (Figure 3.8.)

Recent research undertaken by Wernerson (1996) and Zachrisson (2004) provides strong evidence for the interpretation of the foundation as a place for sacrificial activities over several centuries.

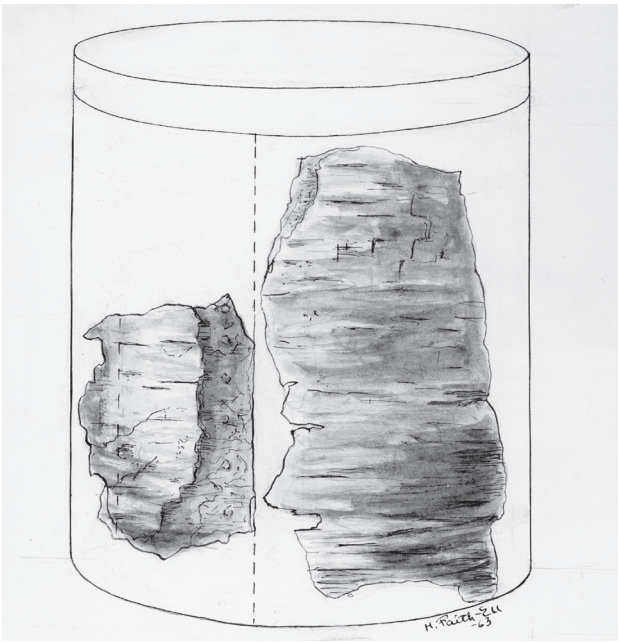

Figure 3.11. The birch-bark container from Foundation IV, for grain? 16 × 12 cm. (Drawing H. Faith-Ell. ATA.)

The thick cultural layer on the terrace of Foundation IV was interpreted as being deposited in six chronological phases, termed levels (Figure 3.9). The boundary between the two lowest levels, V and VI, was rather diffuse. The bread came from all six levels (Figure 3.10), but was dominant in the lowest ones and was spread over a wide area. No preparatory levelling or stone clearance, etc., was in evidence in the basal level (VI) and the hearths had been placed directly on the stony moraine surface (Holmqvist 1964, pp. 37 ff.).

The organic cereal-based material from Foundation IV was identified as bread at an early stage in the Helgö excavations and described as fragmentary and charred, mostly in the shape of round buns with a diameter of c. 5–6.5 cm. Thirty two finds of bread or bread-like remains were excavated from Foundation IV (Table 1). Two finds (F5548 and F5688) from level VI were submitted for $^{14}$C dating in the 1960s and produced values placing them into the Late Roman Iron Age (Lindeberg 1964, p. 143, fig. 56). According to revised calibration, their dates centre on AD 220–480 (Kyhlberg & Strucke 1990, p. 191). A further charred piece found in level V has been $^{14}$C-dated (F6049) and this also produced a date range in the Late Roman Iron Age (Bergström 2007, p. 42). This makes these three finds the oldest bread at Helgö. Foundation IV ceased to be used in the late Vendel Period.

Levels V and VI contained not only bread but also the remains of birch-bark boxes, tar, and fragments of red-burnt clay interpreted to be from ovens (Zachrisson 2004, p. 148). The birch-bark boxes would have been ideal as containers for food of some sort, especially cereal grains. Most of the box fragments came from these two oldest levels, but were too small to allow reconstruction of the original shape of any container, with the exception of two base and wall fragments belonging to a round or oval box (Lindeberg 1964, p. 140, fig. 53). (Figure 3.11.)

Partly charred animal bones were also discovered in these levels (Olson 2003/2004 and literature cited therein). Interestingly, rotary querns which are associated with the intense use of grain were found, but not saddle querns which are otherwise more typical for this period. Higher levels produced tools such as shears, knives and surgical instruments (cf. Frölich, this volume), as well as brooches and beads. A great quantity of pottery sherds were also discovered here during the 1954–1956 excavations.

Only one hearth is recorded in the top level, whereas fifteen are associated with the middle and lowest levels. The hearths together with the considerable quantities of burnt (oven?) clay could possibly indicate that bread was baked in Foundation IV as part of the rites practiced there. Bergström (2007, p. 158) considers that there is a clear association between the finds of burnt clay and the charred bread for the two lowest levels. In the upper levels, finds of bread and burnt clay are more diffuse.

This burnt clay does not occur naturally here but had been transported to the stony ledge (Holmqvist 1964, p. 41 ff.). Perhaps it could have been the clay flooring of a sacrificial area which became burnt during cult practices.

The offerings at Helgö were found spread out on the stony ledge. Zachrisson following Holmqvist observed that it seemed as if the pottery and animal bones had been thrown down from the rock onto the slope (2004, p. 148 and therein cited literature).

In her analysis of the sacred character of Helgö, Zachrisson argues that in the beginning of the Viking Age the rite at the sacrificial terrace on Foundation IV was replaced by a new form of sacrificial ritual on the same spot. A triangular stone setting with concave sides was laid out in the centre of the terrace directly over the uppermost of the six levels of cultural deposits. The setting contained no burial but was filled with fine organic-rich soil and covered with turf. It has been interpreted as an integrated part of a cult of magic and ritual deposition (Holmqvist 1964, p. 57; Zachrisson 2004, p. 148 f.). The pottery

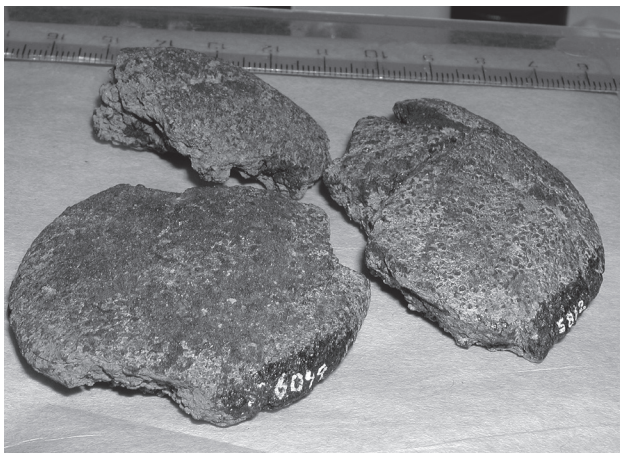

Figure 3.12 (a). Typical slightly domed surfaces of the 'buns' of bread from Foundation IV, Helgö. Detail of figure 3.12 (b) , Cf. table 3.1. Photo: U. O'Meadhra.

sherds and animal bones discovered in the fill have been interpreted as the remains of sacrifices and sacrificial meals (Wernerson 1996, p. 13 f.).

Towards the end of the Migration Period, the offering of bread at Foundation IV had been replaced at least partly by that of metal artefacts which occur so profusely in the later levels. This seems to indicate a continued sacred use of the sacrificial terrace, but in a new form. Thus a constant association with supernatural powers is an integral factor of Helgö's character and long continuity. This is also indicated by the name Helgö as 'holy island', stemming from *helagher*, the early meaning of which emphasises the sacral aspect as both protected and sacred (Zachrisson 2004, pp. 145 f.,165 f.).

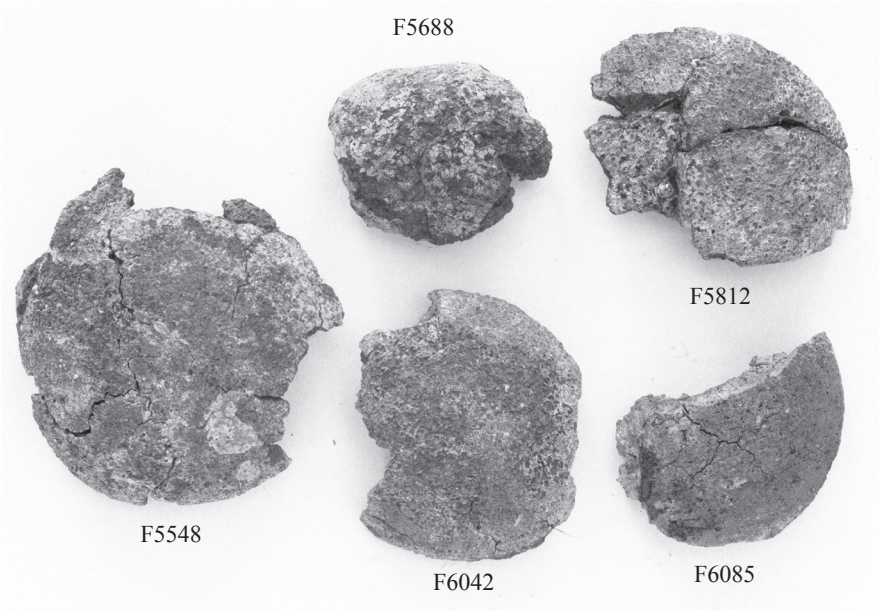


Figure 3.12 (b). The best preserved bread from Foundation IV (F6042 mistakenly identified as F6049 in *Excavations II*, p. xv; pers. comm. L. Bergström). Scale: F5548 max-diam. 6.2 cm. (Photo ATA; *Excavations II*, p.142, fig. 54).

## The charred bread at Helgö with a focus on Foundation IV

*Bread finds at Helgö*

Carbonized bread and bread-like organic material was discovered during most seasons of the excavations at Helgö from 1954–1977. Each bread find was distinct and these are usually discussed in terms of 'buns' or 'biscuits' because of their preserved original shape and consistency. Forty-seven finds of bread (Figure 3.12), either whole or in fragments, have been excavated from contexts ranging in date from c. 200 to c. 800 AD. These come from Building Groups 1 (and 4), 2 and 3, and Building Group 7 (the earliest building group found as the fill of stone setting A 40 in Cemetery 118; for the bread see Bergström 2007, pp. 33, 35). Bread has also been found in the three excavated cemeteries nos 116 (Sander 1997), 118 (Melin & Sigvallius 2001, p. 9), and 119/150 (Waller & Hallinder 1970; K. Lamm 1970). A detailed description of all the Helgö bread has recently been published (Bergström 2007, pp. 250–261).

*Analyses of bread from Helgö Foundation IV*

The first to analyse the Helgö bread was Hakon Hjelmqvist who examined some of the loaves from Foundation IV using a light microscope. The results from twenty analyses were published by Lindeberg (1964, pp. 141 ff.) in the catalogue of the bread in *Excavations* II. A further bread analysed by Hjelmqvist but not included in that catalogue has now been published (Bergström 2007, p. 95).

Hjelmqvist was able to identify oats and barley as the ingredients from observing their cell structures. As some cells or cell tissues in seeds and fruits are diagnostic, it is possible to differentiate between different grain species using cell structure analysis. About twenty years later, when Hjelmqvist was studying the bread from cremation burials at Birka, he mentioned that pea flour had been found not only in some bread from Birka, but also in six bread finds from Helgö though we do not know which six (Hjelmqvist 1984, p. 271 f.; cf. discussion in Hansson 1995).

Hjelmqvist also mentions that 'Cameline' was an ingredient in one piece of bread from Foundation IV (F6027), which probably is a reference to gold-of-pleasure (*Camelina sativa*). This is a very important find, because it is the only evidence we have in Sweden of how this oil plant was used as food.

*Bread analyses at other Helgö sites*

Liselotte Bergström has also examined some bread using Scanning Electron Microscopy (SEM), but none from Foundation IV (Bergström 2007, p. 95 and pers. comm.). Fourier Transform IR-spectrometry (FTIR) has also been applied to some of the Helgö bread. The chemical method of FTIR has now been used on other Swedish prehistoric bread (Ahlström 2003/2004; Schierman 2005/2006).

While the main ingredients in the bread from Foundation IV are barley and oats, and sometimes peas, wheat has been found in some of the bread from Helgö's younger graves. In a recent analysis of three bread finds using light microscope, the present author has identified the presence of wheat in one settlement bread dating to the Migration Period (Building Group 1, sunken floor house 13, F7859 SHM 27448. Cf. Hansson 2005).

## Discussion

Is it possible to see influences from Greek sanctuaries associated with Demeter and Kore, especially Thesmophoria, in the offering traditions of the unique sanctuary at Helgö? To answer this some important traits from Helgö and the two Italian sanctuaries described above will now be compared.

*A sanctuary serving the whole region*

All three sacrificial terraces with their offerings of bread and other cereal-based food, are each unique for their own region. The Italian sanctuaries are believed to have served the population of a large area. It is not impossible that Foundation IV at Helgö held a similar function. Birgit Arrhenius has observed that Helgö is situated in the border zone between the provinces of Södermanland and Uppland (from which it is separated by Lake Mälaren) and serves as a gateway to other waterways further inland. The location would have been favourable not only for a controlling outpost and a possible customs point (Arrhenius 1988, p. 29; Holmqvist et al. 1961) but also for a sanctuary which was meant to serve the inhabitants of the entire surrounding region – as the hub in a religious wheel.

Foundation IV at Helgö had been used for ritual activities since the Roman Iron Age, and the island began to be occupied shortly after that period, which we know from pollen diagrams. Weak traces

of human activity and occupation on Helgö are indicated around 4500 BP. Pollen from anthropogenic plants shows that there was a limited occupation in the Helgö area before its rapid expansion in the Roman Iron Age. An increase in cerealia-type pollen and pollen from field weeds in that period reflect colonization of 'virgin soil' (Miller & Hedin 1988, p. 67 f.).

There has been some discussion about an earlier sacred enclosure on top of the small mountain south of Building Group 2 and Cemetery 150 (Raä 119) and such 'henged' enclosures are thought to have served a wide region (Olausson 1995, p. 89; cf. also Reisborg this volume).

Such factors would have facilitated the establishing of a place for offerings at Foundation IV.

### *Constructions at bread-offering sanctuaries*

The 'burnt-offering site' in St.Walburg had several distinct built-up structures and also a wall around the sanctuary. Such structures are missing at Helgö Foundation IV. A wall around the sanctuary is also missing at Monte Papalucio, as already mentioned. The lowest level of Foundation IV has no evidence of building structures but instead, numerous stone-edged hearths, and one single posthole in level III. Monte Papalucio was heavily disturbed so we do not know how the terraces were originally constructed, but a wall divided the two parts of the terraces. The sanctuary at Helgö was placed on virgin land, but St.Walburg's was not. As far as we know from ancient written sources the Thesmophoria festivities were practised in the open air on a hillside – a siting similar to Foundation IV.

No buildings or temples are associated with the Thesmophoria open-air sanctuaries, but some do exist at other types of sacrificial places connected with Demeter and Persephone (often involving other deities with bread offerings and ritual meals). One example is Acrocorinth in Greece, a sanctuary that was highly advanced by the 6th century BC. This massive sanctuary complex contained ritual dining rooms (fourteen have been found) and numerous buildings and workshops (Stroud 1965; 1968; Bookidis 1993; Brumfield 1997). This sanctuary seems to have developed from simple beginnings as an open air sanctuary or perhaps one merely with shelters (Bookidis 1993, p. 47).

### *Contact with the bare rock overlooking cultivated fields*

Foundation IV lies on a dark northern slope. While weather conditions etc., can dictate the position of a settlement, this dark siting is in contradiction to all other Swedish settlement sites, which are located on southern slopes warmed by the sun. This northern siting has favoured an interpretation of the site as a

Table 3.1. Bread and bread-like remains from Foundation IV. (After Lindeberg 1964, pp. 141 ff.; Lundström 1970, p. 81; Bergström 2007, pp. 254–259.) Bread types and terms following Bergström 2007, pp. 143–171 with present author's modifications: Type D = flat round 'biscuit'; Type E = figure-shaped; Type G = flat round 'cracker-like consistency'; Type I = pudding/porridge/gruel; Type J = round 'bun'. Mostly 5–6.5 cm in diam., whole.

| ***Find no. (F) SHM inv. no.*** | ***Number of fragments*** | ***Level*** | ***Bread type*** | ***Ingredients*** |
|---|---|---|---|---|
| F4717, SHM 25925 | 1 | stray | J | - |
| F4997, SHM 26142 | 2 | I–II | ? | - |
| F5108, SHM 26142 | 1 | III–IV | G | - |
| F5126, SHM 26142 | 1 | III–IV | ? | - |
| F5270, SHM 26142 | 3 | III–IV | ? | Barley |
| F5307, SHM 26142 | 3 | III–IV | J | Barley, oats |
| F5313, SHM 26142 | 1 | III–VI | ? | - |
| F5338, SHM 26142 | c. 15 | III–VI | J | - |
| F5398, SHM 26142 | 4 | I–II | ? | - |
| F5407, SHM 26142 | 2 | I–II | I | - |
| F5462, SHM 26142 | 2 | III–IV | G | Barley, oats |
| F5464, SHM 26142 | 4 | III–V | J | Barley, oats |
| F5548, SHM 26142 | 9 large + c. 3 small | VI | J | Barley, oats |
| F5553, SHM 26142 | 3 | VI | E | Barley, oats |
| F5558, SHM 26142 | 1 | III–V | ? | Barley, oats |
| F5610, SHM 26142 | 3 | III–V | J | - |
| F5688, SHM 26142 | 1 | - | J | Barley, oats |
| F5707, SHM 26142 | 2 | VI | ? | Barley, oats |
| F5748, SHM 26142 | 1 | II | ? | - |
| F5812, SHM 26142 | 2 | III | J | Barley, oats |
| F5880, SHM 26142 | 1 | I | D | Barley, oats |
| F6027, SHM 26142 | 2 | V | J | Oats (gold of pleasure) |
| F6042, SHM 26142 | 1 | - | J | - |
| F6049, SHM 26142 | 5 | V | J | Oats |
| F6053, SHM 26142 | 2 | V | ? | Barley, oats |
| F6077, SHM 26142 | 1 | VI | ? | Barley, oats |
| F6085, SHM 26142 | 1 | VI | J | Barley, oats |
| F6087, SHM 26142 | 3 | II | J | Barley, oats |
| F6098, SHM 26142 | 2 | V | ? | Barley, oats |
| F6111, SHM 26142 | 5 | - | J | Barley, oats |
| F6126, SHM 26142 | 6 | II | ? | Barley, oats |
| F8242, SHM-BY 6 | 6 | (missing) | - | - |

sanctuary, though this has been disputed, and many other interpretations have been offered over the years (cf. the various contributions in Lundström ed. 1988; Zachrisson 2004 with refs).

Both Monte Papalucio and Helgö are placed on a slope, a landscape feature which is required in the Thesmophoric sanctuary. The Acrocorinth sanctuary for Demeter though not associated with Thesmophoria, was situated on a northern slope (Bookidis 1993, pp. 45, 47). It contained three terraces with structures, with one terrace restricted to sacrifice and dedication, and the lowest one set aside for dining. There was also a hollowed-out cavity on the highest stone terrace. Monte Papalucio also contained a cavity cut into a rock (Brumfield 1997, p. 147). Monte Papalucio had 'two areas in one terrace' and one of these areas had direct contact with the bare rock. At Helgö the small ledge below the mountain amounts to a second terrace, while the association with a bare rock is very striking.

An additional feature shared by Monte Papalucio and Helgö is that their terraces overlook expanses of cultivated land. This possibly stresses the agrarian aspect of their ritual significance. This probably also applies to St.Walburg, where pollen analysis showed evidence of cultivated fields in the neighbourhood.

It has been observed how the mountain-like outcrop beside Helgö Building Groups 1 and 2, together with the bare rock and the boulder at Foundation IV, may have been employed in contacting the supernatural: 'the rock might have been viewed as a symbolic entrance to the mountain' (Zachrisson 2004, pp. 146, 162). Is it possible that the bare rock might have been a symbolic entrance to the Underworld and to a deity roughly corresponding to Hades? At both Helgö and Monte Papalucio we find thick cultural deposits below the rock. At St.Walburg there is a massive cultural deposit from a burnt offering place upon a raised terrace over an underlying settlement layer, situated in the valley between two gorges without any contact with a bare rock.

The layers of burnt transported clay at Foundation IV are very interesting. This clay does not occur naturally but had been carried to the stony ledge as part of some form of ritual cleansing (Holmqvist 1964, p. 41 ff.; Zachrisson 2004, p. 152). We find a parallel occurrence in a sanctuary in Isthmia dedicated to Poseidon (and also Demeter, to judge from the presence of two 4th century dedication inscriptions), where a thin layer of red sand was used to define the sacred area rather than to modify the natural slope of the bedrock sanctuary (Gebhard 1993, p. 157). Perhaps the burnt clay layers at Helgö were the clay floorings of a sacrificial area which became burnt during cult practices.

*Bread offering – various bread types*

It is quite feasible that venerated objects were thrown down from the rock at Helgö, which could symbolise the Thesmophoric offering of sacral objects thrown down into the *megara*. Some of the bread buns were complete, so these were unlikely to have been thrown down which would have fractured them, but were rather placed on the terrace.

Most of the objects used for offerings in Monte Papalucio were discovered in middens, but some were found in situ. In St.Walburg the objects were discovered on the offering terrace in their cultural layer. What is significant is that the bread at Helgö and Monte Papalucio had numerous shapes. As mentioned above, in antiquity there were certain religious rules for the content and size of the bread offerings (Brumfield 1997, p. 150). Bread baked in temples was sacred and designated to the goddesses at the Thesmophoria.

Thesmophorian sacred bread was formed into different shapes such as snakes, birds, animals, flowers and phalli. Seeds and seed-imprints were used for decoration. Sacred barley fields were connected with the rituals in the sanctuaries for the fecund goddesses Demeter and Persephone. The bread found at Helgö Foundation IV also showed a varied morphology (Table 1) including some pieces that seem to have been modelled into a special figure (Figure 3.13), though too little remains to ascertain what sort of figure (plant, animal or human shaped?) (contra Bergström 2007, p. 256). While these bread fragments are too small for reconstruction, it seems at least clear that they were deliberately figure-shaped. In St.Walburg, the bread-like remains were very fragmented, and it was not possible to discern any bread morphology (or even to confirm if this was in fact bread).

The ingredients in the flour used in the Helgö Foundation IV bread have been identified as mainly barley, oats and peas. Barley and oats, according to Hjelmqvist, were the cereals of daily bread. But if sacred barley fields also existed at Helgö, as indicated elsewhere in Sweden by several place names such as Ulleråker or Torsåker (Näsström 2009, p. 30), this

could be one explanation for using such 'ordinary' cereals even for the sacred bread.

The bread and cereal-based food offerings had the same character in all three places, but the Italian terraces also contained separate cereal grains, seeds from oil plants, and beans. Bread from both Monte Papalucio and Helgö contained seeds of the Fabaceae family: field beans (*Vicia faba*) at Monte Papalucio, and peas (*Pisum sativum* var. *arvense*) at Helgö. Monte Papalucio also made offerings of different sorts of fruits, and figs also occurred in the bread. At Helgö there is no evidence of individual cereal grains or other seeds or fruits being offered. However, I am convinced that cereal grains would have been found if plant macrofossil analysis had been performed there. Unfortunately this type of analysis was not the standard method in Sweden in the days when the Helgö Foundation IV was excavated. The birch bark containers (Figure 3.11) would have been ideal for holding small quantities of loose cereal grains.

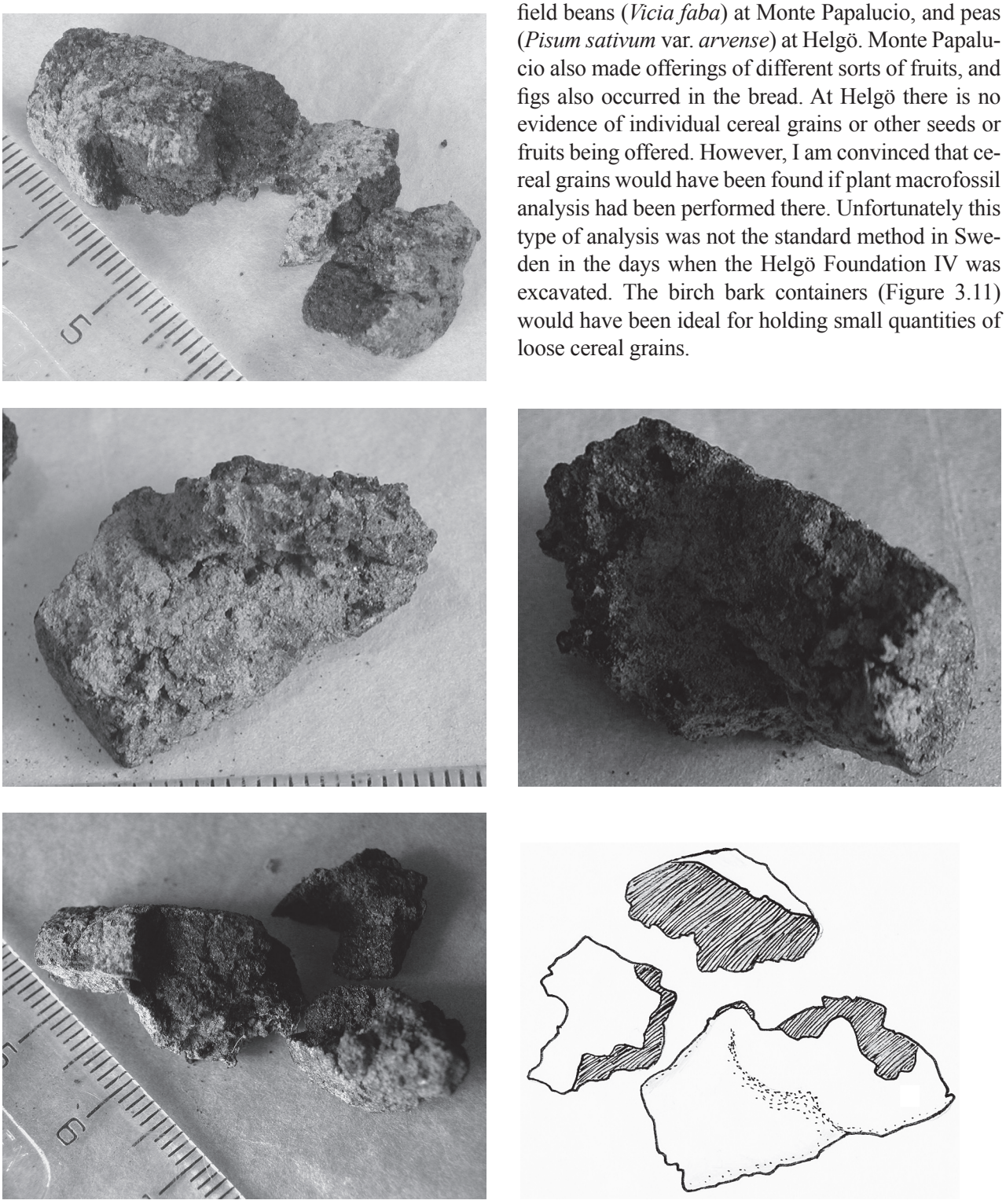

Figure 3.13. Different views of the 3 fragments, max. L 24 mm, of the one 'figure-shaped bread', F5553, from level VI, Foundation IV, Helgö. Note the narrow shaped extension, c. 6×8 mm. (Photo: U. O'Meadhra. Drawing scale 2:1, A.-M. Hansson.)

*Animal bones, domination of piglet bones?*

All three offering terraces produced animal bones, mainly unburnt. At Helgö Foundation IV cattle (*bos*) dominated, thereafter pig (*sus*) and then sheep/goat (*ovis/capra hircus*) (cf. Olson 2003/2004, p. 7). Piglets were strongly associated with Demeter, and Monte Papalucio produced an abundance of piglet bones. At St.Walburg, the bones of cattle and sheep/goat dominated over pig, which only occurred in any significant numbers at the site of the 'altar' (Heiss 2008, p. 100).

*Roman (and Greek) influence during the Roman Iron Age cereal use at Helgö*

The Roman Iron Age was a time when the communities in Scandinavia changed radically. These changes were also very conspicuous in central Europe due to the impact of the Roman Empire. This can be clearly observed, for instance, in the change in burial tradition from inhumation to cremation graves including depositions of various breads. Bread was then also used in connection with ritual meals at the grave side. It was at this time that exotic vegetables and condiments were introduced to society and are found especially in wealthy graves (Bakels & Jacomet 2003, p. 542). However it might be difficult to compare funerary offering traditions of vegetable food during the Roman Period with earlier pre-Roman traditions, as very little archaeobotanical research has been done in this field in central Europe (Bouby & Marinval 2004).

Since the bread from Foundation IV dates to the Roman Iron Age it is hitherto the oldest bread to have been discovered in Sweden, and we have thus little to compare it with in terms of the contemporary local bread culture. The introduction of bread and the rotary querns to Sweden are usually accepted as due to Roman influence. Both were introduced into Helgö at the time that the stony ledge came into use. The rotary querns found at Helgö are almost exclusively (six of seven finds) connected to the stony ledge below the rock (P. Lundström 1961, p. 239; A. Lundström & Lindeberg 1964, p. 239; Lamm 2008, p. 114 f.). Thus not only the baking and offering of bread but also the use of the rotary quern seems to belong to the rituals practised there. It has been proposed that these querns could have been used to grind the flour for the sacred bread, and that these rotary querns may have given an added cosmic dimension to the rituals on account of the symbolism of the 'cosmic quern' and its relationship to the 'world pillar' (Zachrisson 2004, pp. 152 ff.).

*A fertility cult involving bread at Helgö during the Roman Iron Age?*

Many exotic inorganic finds have been excavated from Helgö that show that the site had strong contacts with the world beyond the island. Through these channels foreign influences would have been integrated into its current ideology. Most religions are subject to change over time, adjusting to the tenets of each community. In agrarian cultures, religion often involves one or more deities who rule over all the working processes which are involved in the agricultural sphere, including the cultivated plants. To protect these processes various magic rituals were performed to ensure a good harvest.

Bronze Age examples of this in Sweden are to be found among rock carvings, such as that from Litsleby, Tanum, where we see a man with an ard holding a twig in his hand, probably conducting ritual sowing (Klindt Jensen 1956, p. 14). Ritual ploughing is known from Asa mythology but is also a feature of other religions (Näsström 2009, p. 309). Foreign influences regarding rituals in connection with cultivation must have been rather easy to accept, since there was a universal desire to protect the crops and keep fields fertile. For example, the worship of the mother goddess of classical antiquity has continued far down into the early centuries of our era (Gimbutas 1989, p. 318).

We do not know if a god or goddess of vegetation, corresponding to Demeter, was worshipped during the Roman Iron Age in Sweden. If so, good candidates would be Odin and Freyja. One of Freyja's names was Hórn possibly connected with the sowing of *horr*, 'flax', which would reflect a cult as vegetation goddess (Ellis Davidson 1964, p. 116; Näsström 2009, pp. 289, 308). This could in a way correspond to Demeter, goddess of corn and plenty (Hansson and Heiss in press). Demeter's parents, Kronos and Rhea, were ancient deities, being powerful Titans. It is postulated that the father of Demeter's daughter Persephone was Zeus, Demeter's brother. Hades, the lord of the underworld, was also a brother of Demeter and Zeus. Thus Persephone was married to her own uncle. It seems rather common that certain (fertility) gods had incestuous relations. A similar situation can be found among Swedish deities, Freyja and Freyr,

who were twin sister and brother; and in Egypt Isis and Osiris, also sister and brother.

An argument for a Late Roman Iron Age cult surrounding Odin and Freyja is suggested by the less well discussed tradition that Odin, in the form of his older name *Óðr* (Od) (de Vries 1931, p. 33) was intimately connected to Freyja. Snorri tells us that Óðr was Freyja's beloved husband and that she wept tears of red gold when he disappeared (Ellis Davidson 1964, pp. 30, 115). This motif of the mourning wife has been considered to have clear similarities with several of the Near Eastern pairs of deities (Ström 1985, p. 182).

It is quite possible that aspects of the Freyja cult in Scandinavia might have been inspired by a Roman goddess, as the Romans had been inspired by the Greeks before them. Provincial Roman female figurines had been found in Scandinavia during the Early Roman Iron Age (Arrhenius 1997, p. 179, 183). When Isis was introduced into the constellation of Roman deities, she assumed much of the symbolism of earlier fertility goddesses (cf. Heyob 1975).

The ritual bread-offerings of Thesmophoria were a recurrent sacral action (Näsström 2001, p. 219), which took place in October, the time for sowing. The climate in Greece and Italy differs from that in eastern central Sweden, where most crops were sown in the spring. Maybe the offering ritual was held in the spring at Helgö. We know that later on, the ceremony known as '*blot*' was performed to favour good crops and peace, and, being connected with the sowing of seeds, this ceremony would seem to have taken place in the spring (Näsström 2001, p. 227).

### *The strong feminine element expressed in the symbolism of bread*

In the Neolithic period associations were made between bread/cereal seeds and the female genitalia and the womb. Only women took part in the Thesmophoria ceremony. Can this female element in the rituals have lived on and influenced the rites in Helgö much later?

We cannot discern any female impact in the archaeological finds during the Roman Iron Age at Helgö, but later, in the Vendel period, strong ritual? feminine emphasis can be traced (cf. further Arrhenius, this volume).

Cemetery 150 is very unusual in that it lies away from the other cemeteries at Helgö which stretch out along the other side of the island. Unlike them, it stood on top of virgin land and on a rise, and was crossed by what is interpreted as a processional way. It also contained burials that were difficult to determine by sex, either archaeologically or osteologically, and applied a female burial feature to the cemetery by marking even the men's graves with grave globes (K. Lamm 1970, pp. 218, 221–226, pl. 48; Petré 1984, p. 39; Zachrison 2004, pp. 163 ff.; see also J. P. Lamm 2008, p. 118 f.).

What is further highly interesting for us here is that the grave globe as a phenomenon has been interpreted as representing bread and a link to the cult of the dead (Christiansson 1948). It should be remembered that cemeteries 150 and 116 (cf. below) contained burial bread.

A further relevant trait in these cemeteries is the much discussed 'ritual' presence of cats. Though not related to the bread, they seem to have 'female' symbolism, and are additional possible indicators of a connection with Freyja. In popular belief cats are attributed with special powers (Sander 1990, p. 35) and were associated with soothsaying even into recent times. This might well go back to the interesting observation in Erik's Saga (*Eirik saga Rauðe*), where the Völva (seeress) dealing with *seiðr* (soothsaying, special powers), is said to have worn animal skins including gloves of catskin (Ellis Davidson 1964, pp. 115, 120; cf. Price 2002, p. 108). Cats are associated with the Asa goddess Freyja (pulled her wagon) and she is said to have introduced and to be an expert on seiðr (Ellis Davidsson 1964, p. 117 ff.: see also Price 2002). Zachricsson, developing ideas of Magnus Olsson and Nordberg, has argued that the word *seiðr* could also refer to a cooking pit (*seyðir*) and applies this to possible ritual eating at Foundation IV (2004, p. 166 f.), though does not mention bread.

A-S. Gräslund has observed that the Freyja cult might lie behind the occurrence of pig bones in graves, suggesting that some of the animals we find in graves might have been intended to help the soul through its transformation to the afterlife (Gräslund 2008, p. 79 and references therein). One of Freyja's names was Syr, 'sow; female hog', which immediately gives us an association with pigs (Ellis Davidson 1964, p. 116) while it has also been suggested that 'Syr' means 'protector' (Näsström 2009, p. 295 f.). Thus Freyja and Demeter shared an identity with this animal; piglets for Demeter and sows or boars for

Freyja. Demeter also had a specific wagon, though drawn not by cats but by snakes.

Furthermore, another interesting aspect for our study is that in the Thesmophoria rituals Demeter seems to have been connected with birth in one way or another, and in this respect too finds parallel with Freyja, who was considered to assist during pregnancy and at delivery. The elder tree (*Sambucus nigra*) is seen as special to Freyja, and is the source of a medicinal remedy for women in childbirth (Näsström 2009, p. 303).

We have already observed an association between Freyja and Odin/Od (*Oðr*). As '*Hleifoðr*', Odin/Od was revered as a 'bread giver' (*hleif*=loaf) (Bergström 2007, p. 201). However, bread was not offered to Odin, but to Thor (cf. *Heimskringla*: Olaf Haraldson's Saga, ch. 118). It is important to stress this distinction. In this context, both Freyja and Demeter were receiving goddesses: humans gave offerings to them (in Demeter's case, bread), while Odin/Od was a providing god: humans took bread from him (Hansson 1996, p. 75). In the official Asa cult Freyja was 'the goddess of offerings' (Näsström 2001, p. 149). Could Demeter's identity have been partly passed on to Freyja?

## Conclusion

A unique deposition of whole and fragmented pieces of bread, together with other artefacts, was excavated from Foundation IV at Helgö which has been interpreted as a possible place of offering on a sanctuary terrace (Wernerson 1996; Zachrisson 2004). By examining similarities in two sanctuary terraces in Italy that also produced finds of bread and bread-like remains (as well as cereals, fruits and seeds), it has been argued here that there may be traces at Helgö of a ritual borrowed from classical Rome, which itself originated in the sanctuaries used in the Greek thesmophoria festivals, dedicated to the fertility goddesses Demeter and her daughter Persephone/Kore (cf. Hansson & Heiss in press). It is hard to not be impressed by the amount of similarities between Helgö and these outdoor sanctuaries: bread offerings, bread models of animals and plants, altars on bare rocks or ledges overlooking cultivated fields, burnt clay floors, association with an important fertility goddess, piglets or sows, women's rites, and more. As already mentioned, bread is rarely found outside cremation graves and 'henged' hilltop sites in early Sweden, yet here on Foundation IV considerable amounts of bread, both whole and fragmentary, as well as diffuse bread-like remains, have been found in abundance. The uniqueness of this find cannot be overstated.

When integrating influences from a different religion, the outer ritual, that is, ceremonies, might be altered while the religious symbol is maintained as is the case here with the bread.

The archaeological study of early bread is still in its infancy and the future holds many more fascinating propositions about life at Helgö, based on a better understanding of its bread finds.

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## Swedish summary

*Brödoffer från Helgö, influenser från den klassiska världen?*

I husgrupp 2 fanns, på en brant backsluttning nedanför en bergsklippa, ett mycket tjockt kulturlager med en stor ansamling av offerfynd. Platsen hade inga huslämningar men genom sin terrassliknande struktur blev den kallad "Foundation IV". Bland offerfynden fanns ett mycket stort antal brända brödstycken, men också hela bröd, av vilka de äldsta kunde dateras till romersk järnålder. Detta är de äldsta, daterade bröd, som påträffats i Sverige.

Detta har givit anledning till att studera två fynd av likartade terrasser med offerbröd från Monte Papalucio i södra Italien och organiskt material innehållande säd, troligen offerbröd, från St. Walburg i norra Italien.

I introduktionen redovisas hur just cerealier och bröd varit karakteristiska offergåvor i den klassiska världen ända tillbaka till det gamla Egypten och brödens helighet redovisas också i Gamla Testamentet. I den grekiska religionen fanns fruktbarhetsceremonier kallade Thesmophoria tillägnade fruktbarhetsgudinnan Demeter och hennes dotter Persefone, där offer av säd och bröd spelade en viktig roll.

I St. Walburg, belägen i Ultendalen, i det trånga passet mellan branta klippor, påträffades vid arkeologiska utgrävningar en stor boplats från äldsta järnåldern. Boplatsen var överlagrad av en byggd terass med flera altaren och omgärdad av en vall. På och runt altarna fanns tjocka lager med brännoffer varibland säd och organiskt material, sannolikt bröd, samt bl.a. linfrö, bär och nötter påträffades. Platsen är daterad från 500–200 f.Kr.

I Monte Papalucio låg offerplatsen på en naturligt terrasserad sluttning mot väster i direkt kontakt med en bergvägg i vilken skapats en fördjupning. Fynden av figuriner föreställande gudinnor liksom inskriptioner visade att platsen var helgad till Demeter och Persefone. Offerplatsen är daterad från det sjätte till fjärde århundradet före Kristus. Bland fynden fanns rikligt med förkolnade sädeskorn, frön från både baljväxter och andra växter, frukter samt små brödkakor bakade på olika typer av deg. Det förkolnade materialet har tolkats som offergåvor.

Även om de ovan beskrivna platserna från Italien är flera hundra år äldre än offerplatsen med bröd funnen på Helgö, så finns det flera likheter mellan dessa platser. Även på Helgö låg offerplatsen intill en berghäll med utsikt över odlingsmarker åt nordväst. Det tjocka kulturlagret var deponerat under en längre tid från yngre romersk järnålder in i vendeltid. Bröden hade olika former och varierat innehåll. Förutom bröden fanns i kulturlagret rikligt med andra offerfynd såsom behållare av näver, som kan ha innehållit säd eller annat organiskt offer samt djurben som visar att man offrat nötkreatur och grisar.

Sannolikt har kunskapen om den antika frukbarhetskulten förmedlats via det romerska imperiet och tillhör en av de många antika föreställningar, som blev inlemmade i den urgermanska asatron.

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