Artefact distribution within the auxiliary fort at Ellingen: evidence for building use and for the presence of women and children

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Schlagworte: *Römische Kaiserzeit – Ellingen, Kr. Weissenburg-Gunzenhausen – Auxiliarlager – Innenbauten – Fundverteilungsanalysen – Geografische Informationssysteme – Frauen – Kinder – Keramikgefäße – Münzen – Kindergräber – Kleidung / Tracht / Schmuck – Produktionsplätze / Werkstätten – Bewaffnung / Militaria – Schreibgeräte – Textilverarbeitung – Ziegel – Gender archaeology.*

Keywords: *Roman Empire – Ellingen, Kr. Weissenburg-Gunzenhausen – auxiliary forts – inner buildings – analysis of finds distribution – Geographical Information Systems – women – children – ceramic vessels – coins – infant burials – clothing / jewellery – production places / workshops – weapons / military finds – writing instruments – textile working – tiles – gender archaeology.*

Mots-clés: *Epoque romaine – Ellingen, Kr. Weissenburg-Gunzenhausen – camps auxiliaires – bâtiments à l'intérieur – analyse de la répartition des découvertes – Systèmes d'informations géographiques – femmes – enfants – vases en céramique – monnaies – tombes des enfants – vêtements / bijoux – places de production / ateliers – armement / objets militaire – instruments pour écrire – faire de textiles – tuiles – gender archaeology.*

Inhalt

Introduction

This paper applies GIS (Geographical Information Software) analyses to the distribution of artefacts within the 2nd century auxiliary fort at Ellingen, in Raetia, to investigate for the social use of space, and particularly for the presence of women and children, within this fort. It uses GIS to facilitate rapid visualisation and analyses of large amounts of data from different perspectives and also compares the interpretations of distribution patterns with statistical analyses. This study of the fort at Ellingen is part of a wider study of 1st and 2nd century military bases in Germany and demonstrates that distribution analyses of artefacts within these military bases can enhance our understandings of the functions for various buildings and of social behaviour inside Roman military establishments.

The fort at Ellingen

The most complete and comprehensive excavations of the auxiliary fort at Ellingen were carried out between 1980 and 1982, by the Bayerisches Landesamt für Denkmalpflege, Abteilung Vor- und Frühgeschichte, Aussenstelle Nürnberg, and published by Werner Zanier[1]. The corner towers and two buildings in the *vicus*, to the east of the fort, had already been excavated in 1895, and some excavations for a field drainage system had taken place in 1979[2].

The fort probably lasted over 80 years, during which time it underwent a certain amount of rebuilding. According to Zanier, the first fort was probably founded during Hadrian's 120 / 121 A.D. visit to Upper Germany and Raetia, and replaced in 182 A.D. with a stone fort that may have lasted into the early 3rd century[3]. Thus, the fort had two main building phases: Period 1 consisted of wood and earth fortifications, with some stone foundations and with two phases of inner buildings (Periods 1a and 1b); and Period 2 had stone fortifications with rebuilt inner buildings of wood and of stone. Zanier suggested that the earliest fort had either housed a service *vexillation* or, more probably, it was a *numerus* for the 9th Batavian Cohort of the *Ala Auriana*, an auxiliary force stationed at nearby Weissenberg[4]. The construction of the later stone-built fort is dated to 182 A.D. by a building inscription which indicates that the fort was built by the *Pedites singulares*[5]. Zanier suggested that the *Pedites singulares* may also have been the occupants of the fort during Period 2[6]. There is no clear destruction level for the abandonment of the Period 2 fort. On the basis of coins and *terra sigillata* pottery Zanier dated its demise to 1st half of the 3rd century A.D[7]. A small building on a different axis from the other buildings within the fort (Building C-III) was built after this date. However, no finds dating between about the mid-3rd century and the end of the 4th century were found[8].

A significant aspect of the main 1980s excavations at Ellingen is that they were open excavations covering most of the fort area. Also, the numerous nails and structural items recorded within this fort suggest that its abandonment had been too rapid for any attempt by the departing occupants to dismantle and take building materials with them[9]. This can be compared with the almost complete removal of such material from the similar auxiliary fort at Hesselbach and the evidence for the complete removal and subsequent deposition of building material in a 1.8 m deep pit, perhaps for later retrieval, at Inchtuthil in Scotland[10]. Clearance of domestic material from living spaces seems to have been treated differently though. Van Driel Murray noted a pattern of dumping rubbish inside buildings, and even rooms, as the army departed

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[1] Zanier 1992.
[2] Fabricius 1927, 81–82; Zanier 1992, 12–13.
[3] Ibid. 157–170.
[4] Ibid. 165–166.
[5] Ibid. 160.
[6] Ibid. 168.
[7] Ibid. 163.
[8] Ibid. 164.
[9] Ibid. see esp. cat. nos C85–89 and C254–281.
[10] Baatz 1973, esp. 84–85; Pitts / Joseph 1985, esp. 279–280.

from a site[11]. Such factors are important for a study which uses artefact distribution for the interpretation of social behaviour.

The stratigraphy at Ellingen is not always straightforward. Zanier noted that the debris from the older buildings had been completely levelled when the fort was rebuilt in Period 2[12]. Thus, objects from the earlier buildings may have shifted. When the pavement of a building was not extant finds in and under this level would also have been affected. Zanier argued that this dislocation can be demonstrated by the discovery of conjoined *terra sigillata* sherds in very different parts of the site[13]. Nevertheless, Zanier felt that Ellingen was one of the few forts with favourable prerequisites for plotting artefact distribution meaningfully, despite this overall lack of precise stratigraphical information across the fort[14]. He manually plotted the distribution of a selection of artefact types, provenanced to specific locations within the fort. These included coins, brooches, certain types of *terra sigillata*, weapons, other well-preserved ceramic vessels, metal-working equipment, and whetstones[15]. From these plots Zanier concluded that combat equipment was found mainly within buildings that served as barracks – Buildings B-III, C-II, D-II and F-I[16]. He noted that the proportion of well preserved ceramic remains in Building D was relatively high compared with those among the ceramic finds from Building C,[17] supporting a view that much of the material in Building C had been redeposited. He also noted that there was a relatively high proportion of well preserved ceramic remains in Building B, and concluded that these remains therefore probably dated to Period 2. From the concentration of finds of tools, crucibles, slag and whetstones in Area G, Building C, the southern part of Building B, and Building D, Zanier concluded that these areas had been workshops[18].

Using spatial analysis, specifically ArcGIS, I have been plotting and analysing the distribution of artefacts and artefact-assemblages within 1st- and 2nd-century forts and fortresses, according to activity and gender categories[19]. Often comparisons with the material and the assemblages found in Pompeian houses have assisted in the attribution of such categories to these artefacts[20]. In particular, I have analysed the distributions of potentially female- and child-related artefacts to investigate the evidence they provide for women living within forts, and for their status and their activities, before the end of the 2nd century[21]. While it has long been recognised that wives and families, as well as tradepersons, artisans and slaves, accompanied the Roman army on campaign, the general understanding has been that, in the early Empire, only the families of commanding and senior officers were accommodated inside the fort. The Augustan ban on marriage for ordinary soldiers suggests an overall absence of soldiers' families until this ban was lifted by Septimius Severus in 197 A.D[22]. While Phang recently concluded, from a substantial body of documentary evidence, that ordinary soldiers did indeed have acknowledged families in the 1st and 2nd centuries, these documentary sources give little indication as to where such '*de facto*' families were domiciled[23]. Van Driel Murray's analyses of the size ranges and distributions of leather shoe-remains in 1st- and 2nd-century forts in the northwest provinces have shown that

[11] van Driel-Murray 1995, 8; id. 1997, 57.
[12] Zanier 1992, 151.
[13] Ibid. 155.
[14] Ibid. 104, 151–156.
[15] Ibid. 110, 115, 137–155 Figs 58–59, 61–67.
[16] Ibid. 152 fig. 64.
[17] Ibid. 153 fig. 65.
[18] Ibid. 154–155 figs 66–67.
[19] See Allison et al. 2005; Allison 2005; id. 2006b.
[20] Allison 2004a; id. 2004b; id. 2006a.
[21] See (n. 19); also Allison 2006b, 1-48.
[22] Herodotos, Histories, 3.8.4–5.
[23] Phang 2001.

women and children were very probably among the occupants of soldiers' barracks[24] and Speidel used analysis of the wooden writing tablets at Vindonissa to demonstrate the presence of female tavern-workers within this 1st-century fortress[25]. Acknowledgement that women and families were an integral part of the community inside a Roman military fort, before the lifting of the marriage ban at the end of the 2nd century, is taking root. Van Driel-Murray wrote that, "[o]nce it is accepted that women did form a significant section of the camp population, we can begin to develop material correlates by means of which their social and economic roles can be investigated"[26]. Phang called for a "full survey [to be] undertaken with careful attention to the archaeological context and dating"[27].

The date of the occupation, excavation processes and the stratigraphical information for the fort at Ellingen make it an important fort for my study of artefact distribution within Roman military forts and its social significance. This study investigates broad patterns of artefact distribution within the vicinity of the different buildings so any movement of material, as discussed by Zanier, is not likely to have a major impact on the results.

[24] van Driel Murray 1994, 342–362; id. 1997, 55–61.
[25] Speidel 1996, 55, 80.
[26] Van Driel Murray 1997, 60.
[27] Phang 2001, 128.

Chronology, building functions and stratigraphy at Ellingen

Zanier ascribed the phasing and chronology in *Table 1* (see over) to the inner buildings of the fort at Ellingen (see *Fig. 8* for the building numbers)[28].

He identified the stone foundations of Building A as a Period 2 troop sanctuary[29]. The construction of nearby Well 1 is dated, by dendrochronology to 126–145 A.D., and hence belongs to Period 1a[30]. The latest finds in this well indicate that it went out of use in the mid – 2nd half of 2nd century. Hence, all the finds in this well are from Period 1 occupancy.

Three building phases were identified by Zanier in Building B and he noted that some of the finds could be ascribed to a particular phase[31]. He suggested that the ground plans of Building B-I, in the north and south end, and Building B-IIa, at the north end, indicate that these were barracks; that Building B-IIb, in the southern part, had finds indicating a metal workshop; and that the entire Building B-III was a double barracks of Period 2. Two shafts are associated with this building. Shaft 3, on the east side of the north end, cuts postholes of Building B-Ib and was filled in the last quarter of the 2nd century, and so is contemporary with Building B-III[32]. Shaft 5, to the south of Building B, cuts earlier pits and so Zanier argued that it was also contemporary with Building B-III[33].

Building C-I was constructed at the beginning of Period 1a and replaced in Period 1b with Building C-II, in the middle or third quarter of the 2nd century[34]. Building C-II was renovated and furbished with a stone floor, probably in 182 A.D. The *terminus post quem* for the abandonment of Building C-II is provided by a *denarius* of Commodus dated 186 A.D[35]. No later coins were recorded in this building and the latest pottery is dated to the late 2nd – 1st half of the 3rd century. Building C-III was a small building constructed later near the centre of the eastern part of Building C-II and probably post-dated the fort. Zanier suggested that Building C-I was possibly a barracks or a workshop and that Building C-II was possibly a barracks built in the middle 3rd quarter of the 2nd century, with a new floor added in 182 A.D. The function of Building C-III is unidentifiable and Zanier does not assign any of the finds to it. Associated with Building C is Well 4. The dendrochronology of this well dates its construction between 182–197 A.D[36]. Therefore the finds here belong to Period 2. The latest dated finds in Building C are four sherds of relief *terra sigillata* Rheinzabern Bernhard-Gruppe IIa, dated 170/180–230/240 A.D.

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[28] Zanier 1992, 45–103, addendum 1.
[29] Ibid. 45–51.
[30] Ibid. 96–98.
[31] Ibid. 51–63.
[32] Ibid. 98–99.
[33] Ibid. 100–101.
[34] Ibid. 65–72.
[35] Ibid. 66.
[36] Ibid. 100.

Building Phase	Buildings and Wells	Date
Period 1a	Buildings B-I, C-I, D-I, F-I and Well 1	120/121 A.D.
Period 1b	Buildings B-II, C-II	c.150 A.D, end 182 A.D. (reconstruction)
Period 2	Buildings A, B-III, C-II (stone floor?), D-II, E, F-II and Wells 3, 4 and 5	- ending in 1st ½ 3rd century A.D.
Post fort period	Building C-III	finds dated end 4th – beginning 6th cent A.D.

Table 1. Building phases of fort (after Zanier).

The bedrock and soil conditions in the region of Building D made it difficult to trace the remains of this building[37]. However, Zanier isolated two successive building plans, Building D-I dated to Period 1 and Building D-II probably to Period 2. He found it difficult to distinguish between finds belonging to Building D-I contexts and those belonging to Building D-II[38]. However, some are provenanced to Level 2 and below, which suggests they possibly belonged to Period 1. Others (e.g. ceramics and coins) can be more tentatively ascribed to Period 1 on the basis of their early 2nd-century dates, and some can be more securely ascribed to Period 2 as they date later than 180 A.D. Zanier suggested that Building D-I was probably a troop barracks or a workshop, and that Building D-II was a soldiers' barracks[39].

Due to limited time at the end of the 1982 excavations, a mechanical digger was used to complete the excavation of Area G[40]. Zanier suggested that there had been a building in this area but could not distinguish its ground plan. It is also not generally possible to ascribe the finds from this area to a particular building period. Zanier suggested that there had been a workshop in the southern part of this area in the later phases of the fort, replacing the workshop of Building D-I. Therefore, a number of the finds here have been tentatively ascribed to Periods 1b-2. However, some of the pits in this area, particularly those to east, are older than Building D-II, and therefore probably belong to Period 1.

Building E was a stone-built construction of Period 2 that overlaid remains of probably two earlier structures, one possibly from Period 1b, and traces of another possibly from Period 1a[41]. The only stratigraphical information is that some artefacts were found in Level 1 and some in Level 2. It is possible that those from Level 1 belonged with the latest two building phases, Periods 1b-2, but it is unclear what structures Level 2 is associated with. Zanier identified the stone-built building as a granary.

Some of the finds from Area H may have belonged to the earlier phases of Buildings E and F but this is not clear[42]. Some of the finds in pits are perhaps more easily dated, especially pits H58 (possibly Period 1), and pit H59 (possibly Period 1b-2).

Two building phases are evident for Building F: Building F-I belonging to Period 1a; and Building F-II belonging to Period 2[43]. There are remains of a pavement in the two southernmost rooms of Building F-II. There seems to have been little other stratigraphical information for the finds from this building, except for those from pits F56 and F82, which Zanier identified

[37] Ibid. 72–76.
[38] Ibid. 76.
[39] Ibid. 76–77.
[40] Ibid. 88–90.
[41] Ibid. 79–81.
[42] Ibid. 90–93.
[43] Ibid. 81–86.

as belonging to a phase between Buildings F-I and F-II[44]. Therefore the finds from these pits probably belonged to Period 1b. According to Zanier, Building F-I has the ground plan of a barracks building. Building F-II has a corridor like a *valetudinarium* but a fort like Ellingen is unlikely to have had a hospital. Therefore, Zanier interpreted Building F-II as the commander's house. Shaft 6, is associated with Building F-II, but was also in use with Building F-I[45]. Zanier identified it as the latrine from the beginning, and found food and kitchen waste there[46]. The finds can all be dated to the period of the fort occupancy. Those in the upper levels are dated to Period 2, and those in the lowest levels possibly to Period 1a.

In various places within the fort traces of gravel from the streets were identified. Although most of this material was in use during the latest period of the fort, it is generally not possible to date the streets' construction[47]. A few finds from the street areas can be ascribed to a particular period on the basis of their date and specific context (e.g. in Pits B211 and B212). Well 2 was excavated in 1974/75, in southwest corner of fort but its precise location is unclear and the finds are not published[48].

One of the most important issues for analysing artefact distribution is the relationship of the artefact deposition to these building phases. This fort was excavated in a series of levels that did not necessarily follow the cultural stratigraphy or building phases. Thus, while the horizontal distribution of the finds and finds contexts from the main excavations is fairly clear, the vertical stratigraphy and its relationship to the particular phases of the fort buildings are not always.

There is considerable, and complex, stratigraphical information for Building C, where a large number of artefacts were found in the lower levels[49]. Five different levels were excavated in this building in 1980. The first two were above the stone floor of Building C-II and included few finds. A wealth of finds was massed under Level 2, in the lower Levels 3-5 under the stone floor. These lower three levels were renamed Levels 1–3 in 1981. The stone floor was not well preserved everywhere and was possibly disturbed by post-Roman ploughing, so it is conceivable that some later finds occurred in the lower levels.

Zanier found this wealth of finds in the lower levels of Building C difficult to interpret and argued that this mass of artefacts was the result of re-deposition under the stone floor. He observed that some of the fragments from this deposit had belonged with, or were conjoined to, fragments from the areas to the north and south of Building E, the northwest corner tower and Building D, and so he initially suggested that Building C-II could have been built on top of the fort rubbish dump. However, he felt that this did not adequately explain numerous *tubuli* tile fragments included in this material. He argued that there is no evidence that these tiles were used for heating buildings within the fort, and therefore they must have originated from outside the fort. Consequently, he concluded that soil, and artefacts, used in levelling after the destruction of Building C-I and before the construction of Building C-II was imported into fort for this purpose.

In this study, material that was found in the levels below the floor in Building C-II has been assigned to Period 1, and that above the floor to Period 2. The *terminus post quem* for the abandonment of Building C-II is provided by a *denarius* of Commodus, dated 186 A.D[50]. No later coins were recorded in this building and the latest pottery is dated late 2nd century – 1st half of the 3rd century. Zanier does not discuss any later occupation of the fort.

[44] Ibid. 87.
[45] Ibid. 101–102.
[46] Ibid. 102.
[47] Ibid. 94–95.
[48] Ibid. 98.
[49] Ibid. esp. 68–70.
[50] Ibid. 66.

Digitally plotting artefacts at Ellingen

For this study, the plans, catalogues and artefact findspots, as published by Zanier, were digitised and then activity and gender categories, and chronological data, were ascribed to each artefact so that this data could be analysed in GIS, according to these categories[51]. Only where there is precise stratigraphical or dating information are artefacts ascribed to a particular period – Period 1a, 1b or 2 (for codes see *Table 2*). Material which is most likely to date to the fort occupancy, because it is ascribed to a building, but is unstratified and undated, is assigned to Period 1–2. If, on the basis of their date or provenance, artefacts seem to be from the later period of fort occupancy then they are considered 'possibly Period 1b-2' (ZP1B_2). Material which is definitely dated to the 3rd century is assigned as such.

In his artefact catalogue, Zanier provided each artefact with a find number, and a provenance description and usually map coordinates for each of these find numbers, although sometimes he gave a range of coordinates[52]. Where he provided a range, the mid-point of this range is used in this study to plot the artefacts. This means, for example, that some items that have been plotted outside barracks B may have been found inside this building. For those provenances for which Zanier provided only a description and no coordinates, the coordinates of a midpoint of the described location are used. Stray finds are plotted just outside the fort walls: those which are from within the fort are plotted to 0/0, at the bottom left; and those which could be from either the fort or the *vicus* to 0/90, at the bottom right. All published *vicus* finds are plotted to the region of the *vicus* (100/60). There is only one occasion in Zanier's list of find numbers where the coordinates and provenance description do not concur (no. 13 21 00). In this instance the relevant artefacts have been plotted to Building C, the provenance description. However, the coordinates may be more correct (i.e. Building D) as the error may be a typographical error in the letter for the building number. For the current study this affects only one smelting item, and nine ceramic fragments consisting of sherds of utilitarian pottery and three of *terra sigillata*. The location of these particular items has little impact on this particular study.

Zanier also listed artefacts that were found in each of his "finds' complexes"[53]. However, some of his listings do not concur with his findspots in the catalogue and alternatively, some items in the catalogue are included in these contexts but are not listed in his finds' complexes[54]. I have taken his findspots in the catalogue to be the more accurate.

There is a certain amount of subjectivity in these chronological and spatial attributions, not least because of the movement of artefacts around the site, as noted above. However, some of

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[51] For details on the processes involved: see Allison et al. 2005.

[52] Zanier 1992, 175–290, 320–332.

[53] Ibid. 333–334.

[54] Items that are not in the same context in the finds' complex list as in catalogue: in finds' context 1 – B12 (Building B); C111 (Building C), C217 (Building C); C283 (various). Items ascribed to a finds' complex in catalogue but not included in the finds' complexes list: ascribed to finds' context 1 – B36, B216, C115, C221, C287, L22, EI223, EII93, EII115, EII164; ascribed to finds' context 2 – EII54, H162; ascribed to finds' context 3 – C107, C246, C249, H162, J83; ascribed to finds' context 4 – C10, C181, H119; ascribed to finds' context 5 – L24; ascribed to finds' context 11 – EI103.

Building Phase	Codes
Period 1a-b	P1
Period 1a	P1A
Possibly Period 1	ZP1A
Period 1b	P1B
Possibly Period 1b	ZP1B
Period 1b-2	P1B_2
Possibly Period 1b-2	ZP1B_2
Period 2	P2
Possibly Period 2	ZP2
Definitely 3rd century	3RD_CENT
Periods 1–2 (probably from the fort occupation)	P1_2
Undated	ZZ

Table 2. Codes for building phases, as used in GIS plots.

this movement may have been the result of rubbish dumped under Building C-II. For example, two parts of the same javelin (cat. no. C4) were found in different buildings, Building C and Building E, and some conjoined ceramics sherds from different parts of the site also included fragments from Building C[55]. As stated above, it is the overall distribution patterns, rather than individual items, that are most important to this particular study.

Artefact density

As discussed, Zanier noted that there was a disproportionate number of artefacts in the area of Building C, particularly beneath the level of Building C-II, compared with the rest of the fort,[56]. and he believed that at least some of this material may have been brought into the fort from outside. It is argued below that there seems little reason to presume this. While this material may have constituted redeposited artefacts rather than floor assemblages, it can still be considered as part of the overall fort assemblage and very probably dated to Period 1.

The percentage coverage of each building within the fort and the density of the artefact distribution within each building or space are relevant to the interpretation of the distribution patterns of the various types of artefacts. *Table 3* shows the approximate areas covered by each building, including areas occupied by wells and by Areas G and H which had traces of earlier buildings but no identifiable structure, and the total area not built over (i.e. the streets). Buildings A, C and D each cover an area of c. 350–390 m^2. In contrast, Building B covers over 1,600 m^2. *Figure 1* shows the percentage area of the fort that each of these buildings or areas occupies.

Ceramic distribution

Because ceramics are the most prolific class of material at most Roman sites, ceramic distribution can be used to test the density of finds across the site, and whether different densities are related to activities and behaviours during the fort occupancy or to post- depositional activity. Of c. 16,000 recorded artefacts at Ellingen, c. 900 were fine ceramics and over 2,800 were utili-

[55] Zanier 1992, 144–145, 151.
[56] Ibid. 69–70.

Location	Area
Building A	389.93 m²
Building B	1616.21 m²
Building C	354.11 m²
Building D	371.03 m²
Building E	252.84 m²
Building F	493.71 m²
Area G	581.80 m²
Area H	236.50 m²
North Gate	203.32 m²
South Gate	158.74 m²
Well 4	19.39 m²
Well 1	7.59 m²
Total	**4685.17 m²**
Total area within walls	9113.98 m²
Area within walls not built over	4428.81 m²

Table 3. The area covered by each building.

tarian ceramics of the Roman period. The following GIS plots illustrate ceramic distribution according to sherd count[57].

Fine ceramics

Among fine ceramics provenanced to within the fort, there is a marked concentration in Building C, and lesser concentrations in the area of the North Gateway, in Building D, and in the area of Area H and Building E (*Fig. 2*). There are proportionately fewer fine ceramic finds in Building B.

In this study, dating of the *terra sigillata* pottery is based on Zanier's dates and also on Oswald and Davies Pryce's and Hartley's chronologies for *terra sigillata*, or Samian, pottery[58]. As discussed, it is difficult to analyse the distribution according to building phases, as not all building phases are equally well understood across the site. For example, fine ceramics attributable to Period 1 and Period 1a are identifiable only in Well 1 and Building C-I (*Fig. 3* – P1 and P1A) and only two sherds are attributable to Period 1b (*Fig. 3* – P1B). Less securely dated Period 1a and 1b material is scattered across the site but with a notable concentration in the Building E and Area H (*Fig. 3* – ZP1A and ZP1B). Items dated to Period 1b-2 are again scattered across the site (*Fig. 3* – P1B_2), but those more securely dated to Period 2 are concentrated in Building B and in Well 4 (*Fig. 3* – P2). Material dated to either Period 1 or 2 is again scattered across the site (*Fig. 3* – P1_2), as is material possibly dated to Period 1b-2 (*Fig. 3* – ZP1b_2). The only building that has almost no fine ware is Building F, although some was found in Shaft 5, in both Period 2 (*Fig. 3* – P2), and possibly Period 1a (*Fig. 3* – ZP1A) contexts. This pattern tends to confirm the view that the Period 1 and 1a finds in Building C constitute an anomaly, but otherwise the distribution seems relatively uniform. Only four sherds of definitively 3rd-

[57] If a substantial part of a vessel was catalogued, but no indication given of how many sherds were found, an arbitrary sherd count is used, varying from 3–8 sherds, depending on how much of the vessel had been preserved. The same sherd counting system is used for glass vessels.

[58] Hartley 1969; Oswald / Davies Pryce 1966.

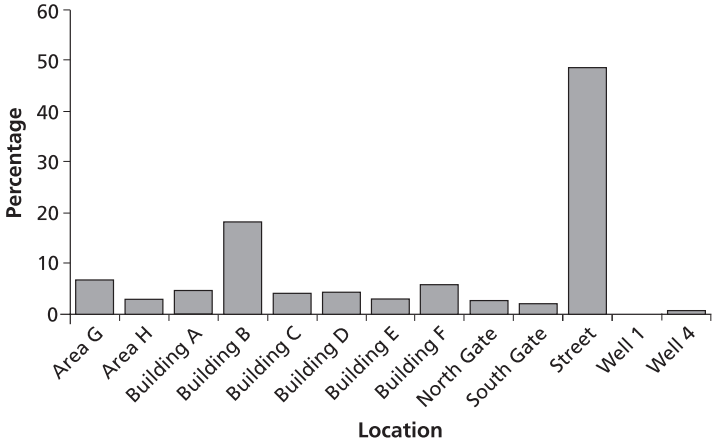

Fig. 1. Building area as a percentage of fort area.

century fine pottery were recorded: one in Building D; one outside Building B; one in the *vicus*; and the other was a stray find (*Fig. 3* – 3RD_CENT).

Utilitarian ceramics

The utilitarian ceramics are again found throughout the fort (*Fig. 6*), but are harder to date than the fine ceramics. Most of them are therefore included in the less well-dated plot covering both Period 1 and 2 (*Fig. 7* – P1_2), with other main concentrations datable to Period 1, in Well 1 and Building C (*Fig. 7* – P1), or to Period 2, in Well 4, Building F-II and Building B (*Fig. 7* – P2). The distribution patterns, both the overall pattern and the dated patterns, are similar to those of fine ceramics, except that there appear to be comparatively greater concentrations of utilitarian ceramics in the southern half of Building B than in the northern part, and in the Area H. Interestingly, neither fine nor utilitarian ceramics are well represented in Building F, except in Shaft 6. Surprisingly, though, fine ceramics seem proportionately better represented in the earlier periods of Building E, than do utilitarian ceramics. Given the lack of good stratigraphical information and the relative similarities between the distributions of these two types of ceramics much of this pattern may be related to depositional processes unrelated to fort occupancy.

Ceramic density

These patterns of ceramic distribution could also be significant to the distribution of activities within the fort. However, without a better understanding of the different users of different types of ceramics in the Roman world, the general distribution of ceramic remains at Ellingen are not particularly helpful for our understanding of the distribution of social or gendered activities. Rather, the distribution of ceramics is more useful, at this stage, for assessing the artefact density within different parts of the fort. The general distribution patterns indicate that ceramics were concentrated in Buildings C and D, Wells 1 and 4 and Area H, but relatively sparsely represented in Buildings B and F. These differences need to be borne in mind when assessing the distribution patterns of other artefact types. If they can be shown to be mirrored across all classes of material then the distribution patterns may indeed depend on depositional factors other than those related with habitation. If not, then it seems reasonable to assume that

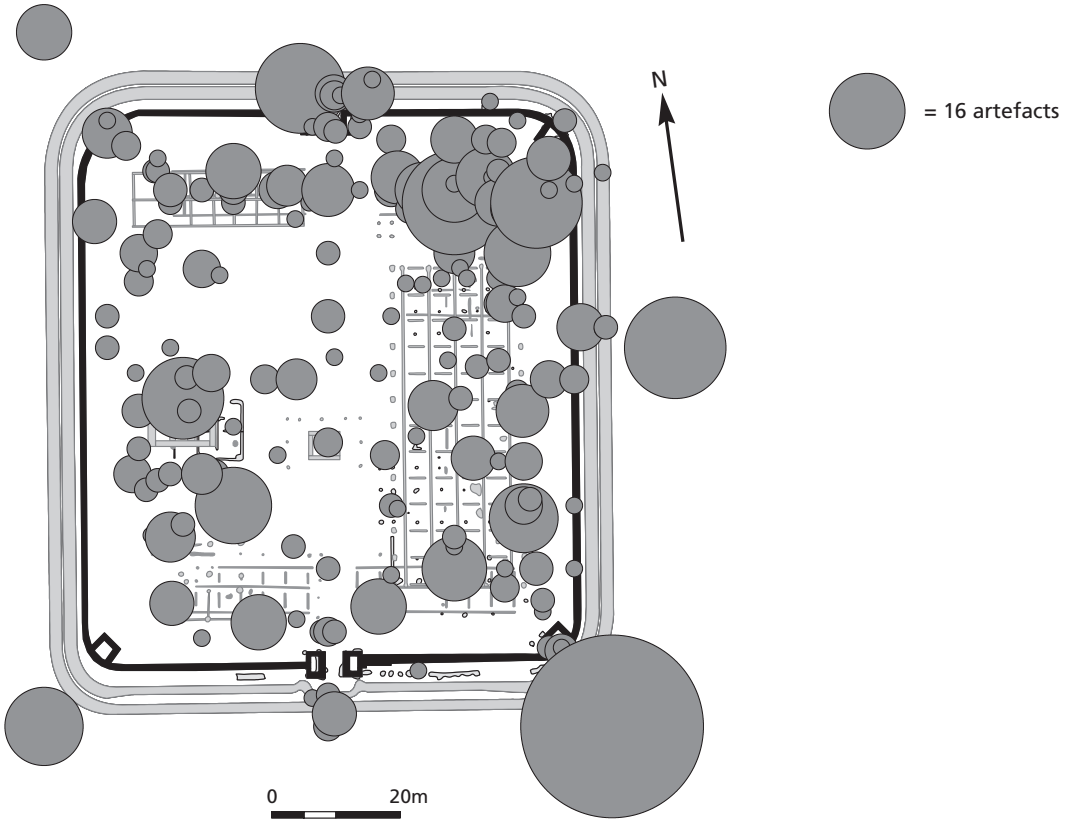

Fig. 2. Distribution of all fine ceramics.

they document different uses of different parts of the site. The differences between the distribution patterns of fine and utilitarian ceramics in Building E and the southern part of Building B, and the patterns of certain artefacts observed by Zanier, suggest that these patterns are, at least partially, attributable to the distribution of activities across the site. By analysing the quantities of fine and utilitarian ceramics, in relationship to the area of each building, we can perhaps get a better understanding of artefact density and, therefore, of the significance of these ceramic distribution patterns and of those of other artefact types.

Fine ceramics

Figure 4 illustrates the percentage of fine ceramics in each building or area. It shows that nearly 30% are found in the streets and open areas and that the main buildings for fine ceramics are Buildings B and C, each with over 15%. Buildings A and F have very few fine ceramic items. There is also a notable percentage of stray finds.

If we examine the density of finds per building, relative to each building's percentage coverage of the overall site – across all phases but excluding Wells 1 and 4 – we find a relatively low density in the street area (including stray finds – *Fig. 5*), except in the North Gateway. The main density of fine ceramics is indeed in Building C. Fine ceramics also have a relatively high density in Building E, and comparable densities in Area H and Building D, although less than half that of Building C. They are particularly poorly represented in Buildings A and F. This

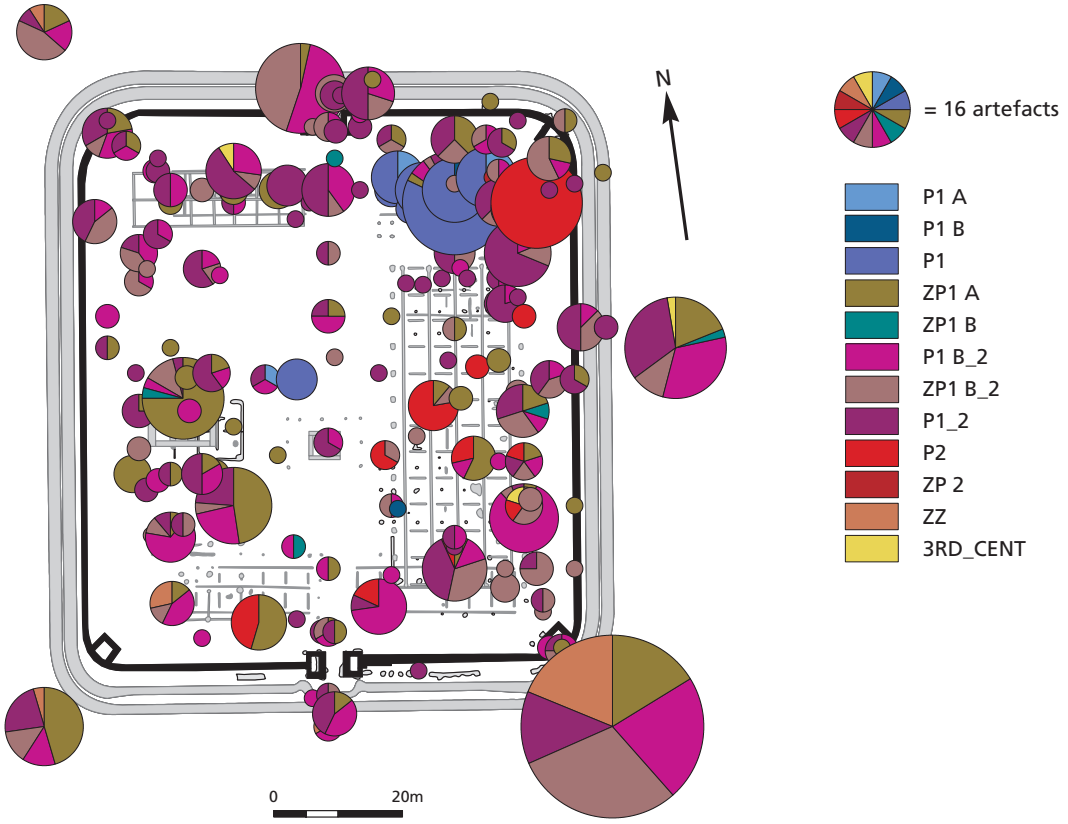

Fig. 3. Distribution of all fine ceramics, by period.

seems somewhat surprising if Building F was a commander's residence[59]. Lack of fine ceramics in the area of Building A, might support its identification as an administrative building. Much of the relatively high density in Building E may have been associated with the building Period 1 that preceded the stone-built granary here and in Area H (see *Fig. 3* – ZP1A).

Utilitarian ceramics

Figure 9 illustrates the percentage of utilitarian ceramics in each building or area across the fort. The street areas again have nearly 30% of these ceramics, Building C has c. 25% and Building B c. 15%, but Building D has only c. 7%, and all the rest each less than 5%. A notable difference between fine and utilitarian ceramic distribution is that the North Gateway has relatively few utilitarian ceramic remains, while Area H and Building F both have relatively higher percentages of utilitarian ceramic remains than fine ceramic remains. Few stray finds of utilitarian ceramics were recorded.

Building C has a density of utilitarian ceramics that is more than three times greater than that of the any other area or building (*Fig. 10*), and substantially higher than the density of fine ceramics in this building. Area H again has a relatively high density of utilitarian ceramics, and Building D and the North Gate have slightly lower but comparable densities. Building F is

[59] Cf. Zanier 1992, 86.

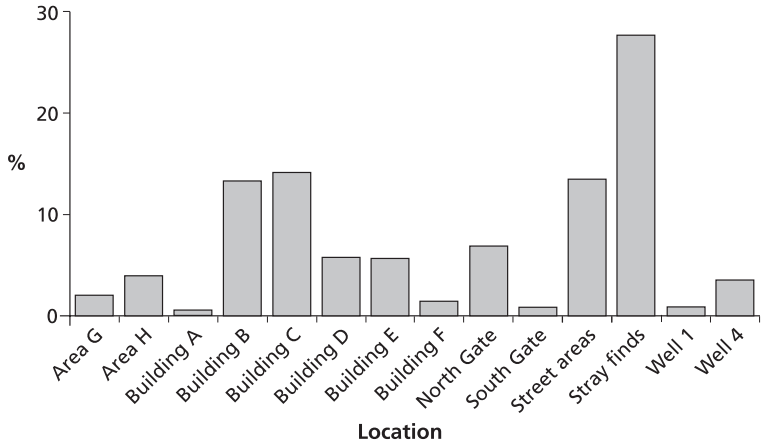

Fig. 4. Percentage of fine ceramics, by location (including stray finds).

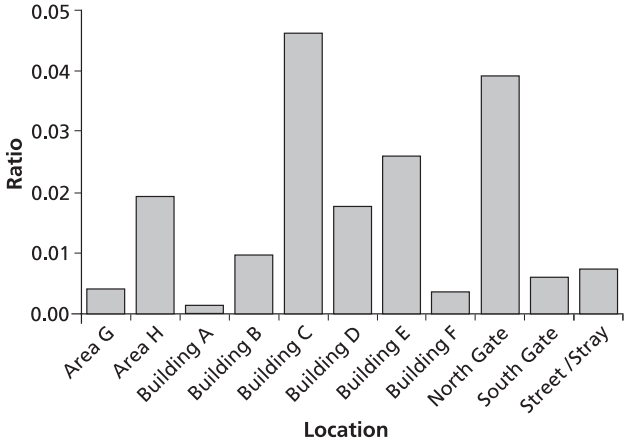

Fig. 5. Density of fine ceramics per building area (including stray finds).

not dissimilar from Building B. Building E has a notably lower density of utilitarian ceramics than fine ceramics. Building A, again, and Area G have the least. The density of stray finds and finds in the street areas is minimal. The fact that Building F has a similar density of utilitarian ceramics to Building B but less than half the density of fine ceramics may suggest that it has a more utilitarian and less residential function than Building B, and was therefore possibly not a commander's residence. The proportionately lower density of utilitarian ceramics in Building E area, suggests that, if there had also been a storeroom here in Period 1, then this material was supplied to the fort by a different process than the supply of fine ceramics. For example, the fine ceramics may have been supplied as part of the unit's military supplies and utilitarian pottery purchased locally, or indeed used by its producers at the site.

The difference in the density ratios of these two ceramics types (fine and utilitarian) is noteworthy and suggests that, while the greater concentration of ceramic material in Building C is obvious and needs to be taken into account in the analyses of other artefact types, concentrations of certain artefact types in this building and in other fort buildings, are indeed relevant

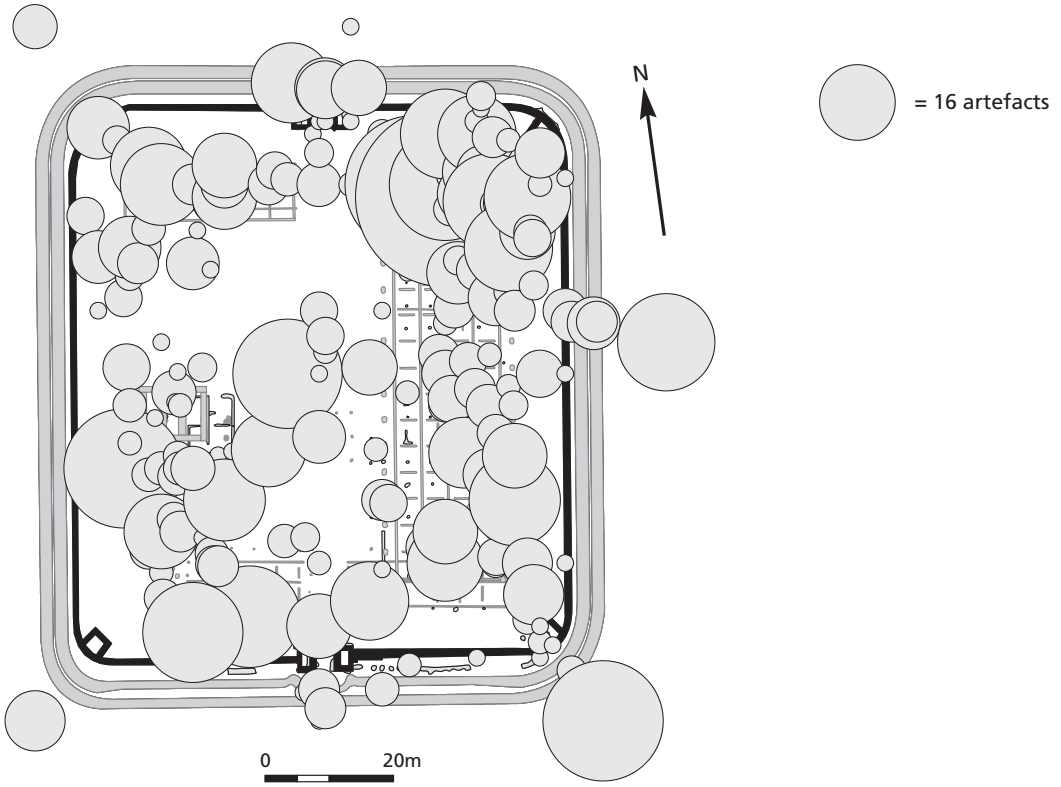

Fig. 6. Distribution of all utilitarian ceramics.

to interpretations of social and gendered behaviour within this fort. There is also a notable concentration of both fine and utilitarian wares in Buildings C and B that are datable to Period 2, and therefore not redeposited material *(Figs 3*; 7 – P2). Likewise most of the ceramics from Building F are probably from Period 2 contexts.

Artefact distribution and its social significance

The following discussion analyses the GIS distribution plots of a number of artefact types found at Ellingen and also the activities and genders with which these artefact types are likely to be associated. These artefacts are plotted variously according to functional categories, gender associations and building phases (see *Tables 2; 4–5* for codes)[60]. The size of the dots in these plots is dependent on the number of artefact present. That is, the smallest dot usually indicates the presence of a single item, the next sized dot two items, and so on. Pie-charts are used when there is more than one type of item in a single location.

[60] For further information on the processes used to assign gender and activity categories to these types of artefacts see Allison et al. 2005, section 8; Allison 2006b.

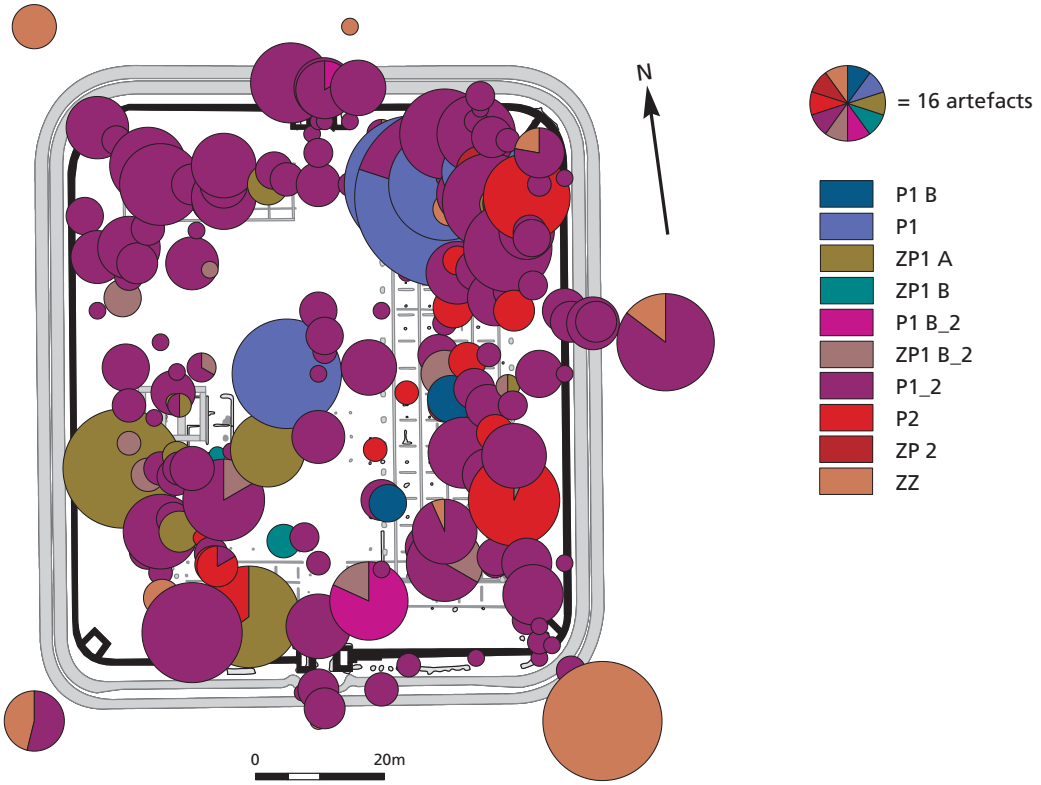

Fig. 7. Distribution of all utilitarian ceramics, by period.

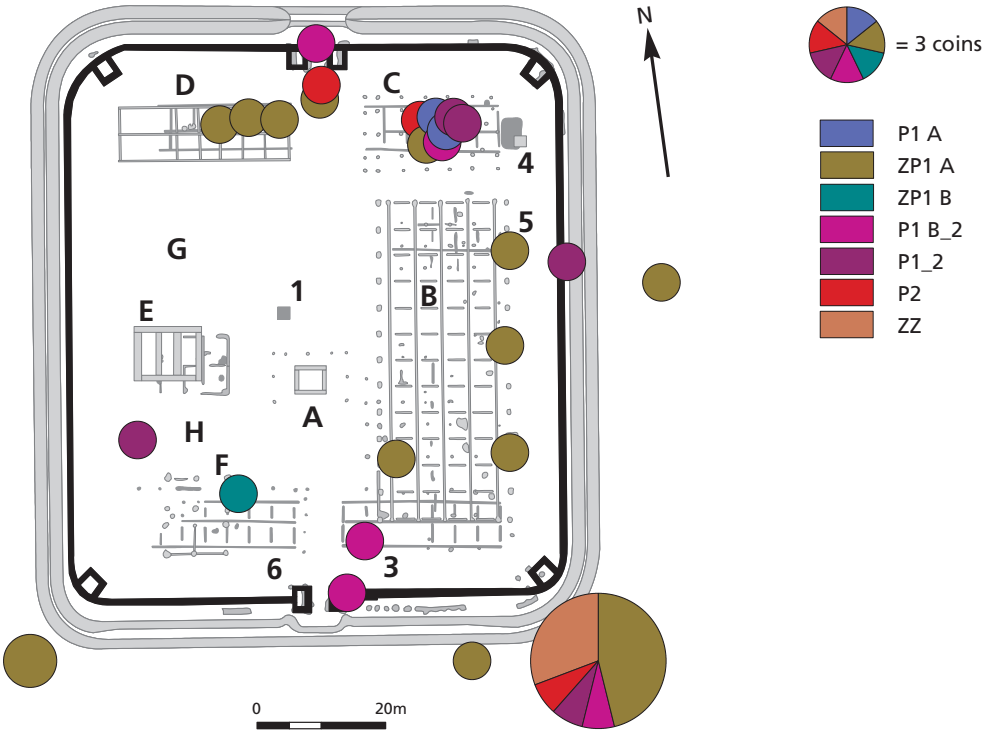

Fig. 8. Distribution of coins, by period.

Activity categories	Activity category codes	Activity categories	Activity category codes
agricultural	A	dress ? / music ?	ZD_Mu
cloth production	C	dress-combat equipment	DE
cloth production ? / toilet ?	ZC_T	food	Fo
coins	Q	food ? / miscellaneous ?	ZFo_M
combat equipment	E	food ? / miscellaneous ? / gaming ?	ZFo_M_G
cutting and sharpening	CS	food ?	ZFo
dress	D	gaming	G
dress ?	ZD	gaming ? / miscellaneous ?	ZG_M
dress ? / cloth production ?	ZD_C	horse equipment	H
dress ? / cloth production ? / toilet ?	ZD_C_T	human remains	Sk
dress ? / cloth production ? / writing ?	ZD_C_W	stone and metalworking	SM
dress ? / combat equipment ?	ZD_E	tableware and serving ? / toilet ?	ZTS_T
dress ? / combat equipment ? / horse equipment ?	ZD_E_H	toilet	T
dress ? / horse equipment?	ZD_H	toilet ?	ZT
dress ? / miscellaneous fittings ?	ZD_MF	wood and leatherworking	WL
		writing	W
		writing ?	ZW

Table 4. Activity codes ascribed to artefacts, as used in GIS plots.

Age and Gender	Gender category	Abbreviation
Male	male	MA
Possibly male	male ?	ZMA
Possibly male or female	male ? / female ?	ZMA_FE
Female	female	FE
Possibly female	female?	ZFE
Possibly female or children	female ? / children ?	ZFE_CH
Children	child	CH
Possibly children	child ?	CH ?

Table 5. Gender codes ascribed to artefacts, as used in GIS plots.

Coins *(Fig. 8)*

One might expect coins to have a fairly arbitrary distribution pattern across the fort and its environs, given that they are easily lost items. Of the thirty-nine coins recorded at Ellingen, twenty-two have secure provenances within the fort. These were concentrated in Buildings D and C, and the North Gateway, with a scatter around Building B. Of these twenty-two coins, twelve have Period 1a minting dates or earlier. This includes all three from Building D (two minted in 98 / 117 A. D. and one in 69 / 70 A. D.) and all four from the area of Building B and Shaft 5 (one minted in 32 / 31 B.C., one in 69 / 70 A. D., one in 85 / 89 A. D., and one in 132 / 134 A. D.). Two of the seven coins within Building C were reported from a Period 1 context, one minted in 161 / 176 A. D., and two others have Period 1 minting dates. Only one of the coins in Building C must belong to Period 2 (minted in 186 A. D.) but three others were minted after 161 A. D. and must belong to Building C-II, and two were possibly minted after 150 A. D. This means that six of the seven coins from Building C probably belonged to Period 1b or Period 2 and were no doubt deposited later here than the redeposited material.

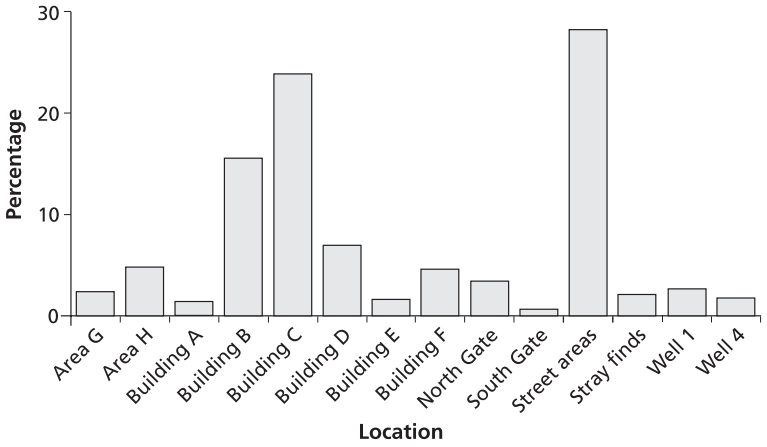

Fig. 9. Percentage of utilitarian ceramics, by location (including stray finds).

Ten of the sixteen stray finds were also minted in the Antonine period or earlier, and four are undated. This means that some twenty-two of the total thirty-nine coins were likely to have been minted before the mid-2nd century A.D. This relatively high proportion of pre-Trajanic coins may give clues to the length of occupancy and abandonment processes of the fort. Zanier suggested that this high proportion was because the later layers on the west side of the fort are missing and because there would have been more circulation of later coins in the *vicus*[61]. However, of the seventeen stray coins, and coins from outside the fort or from the *vicus*, eleven were Hadrianic or earlier, four were undated and only two were Aurelian or Septimian, the latter being the only possible 3rd-century coin from the site. Although the overall quantity of coins is very low[62], this high proportion of early coins suggests that either: the later phases of the fort were occupied for a shorter time; there was a small unit there during the later phases; these coins were in circulation for a considerable length of time; or the cleaning up was more systematic[63]. As mentioned above, the quantity of nails found throughout the fort suggests that abandonment was rapid. It is most likely that these coins were in circulation for a long time. Reece observed that coins minted from 70 A.D. appear to have stayed in circulation in Britain until c. 260 A.D[64].

Animal bones[65] *(Fig. 11)*

As noted by von den Driesch and Liesau, animal bones were relatively evenly spread across the buildings within the fort, with particular concentrations in Building C, Shaft 6 and Wells 1 and 4[66]. It was not possible to plot the precise locations for these remains as, unlike other artefact types, they were not published with find numbers but provenanced to buildings only. According to von den Driesch and Liesau they were mainly found outside these buildings. It

[61] Zanier 1992, 106–107.
[62] Ibid. 104.
[63] See Reece 1995; see also Gardner 1999.
[64] Reece 2002, 42–46.
[65] Some of the bones catalogued under worked bone in this study no doubt repeat some of those catalogued as animal bone but this is difficult to verify this because the provenances are recorded differently; cf. Zanier, 1992, 276–277, 295–299.
[66] von den Driesch / Liesau 1992, 293.

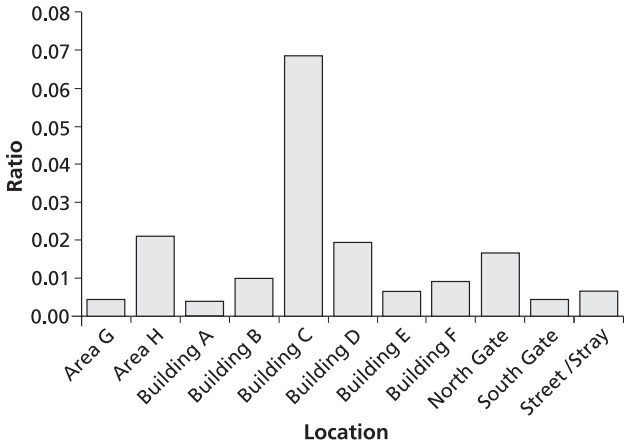

Fig. 10. Density of utilitarian ceramics per building area (including stray finds).

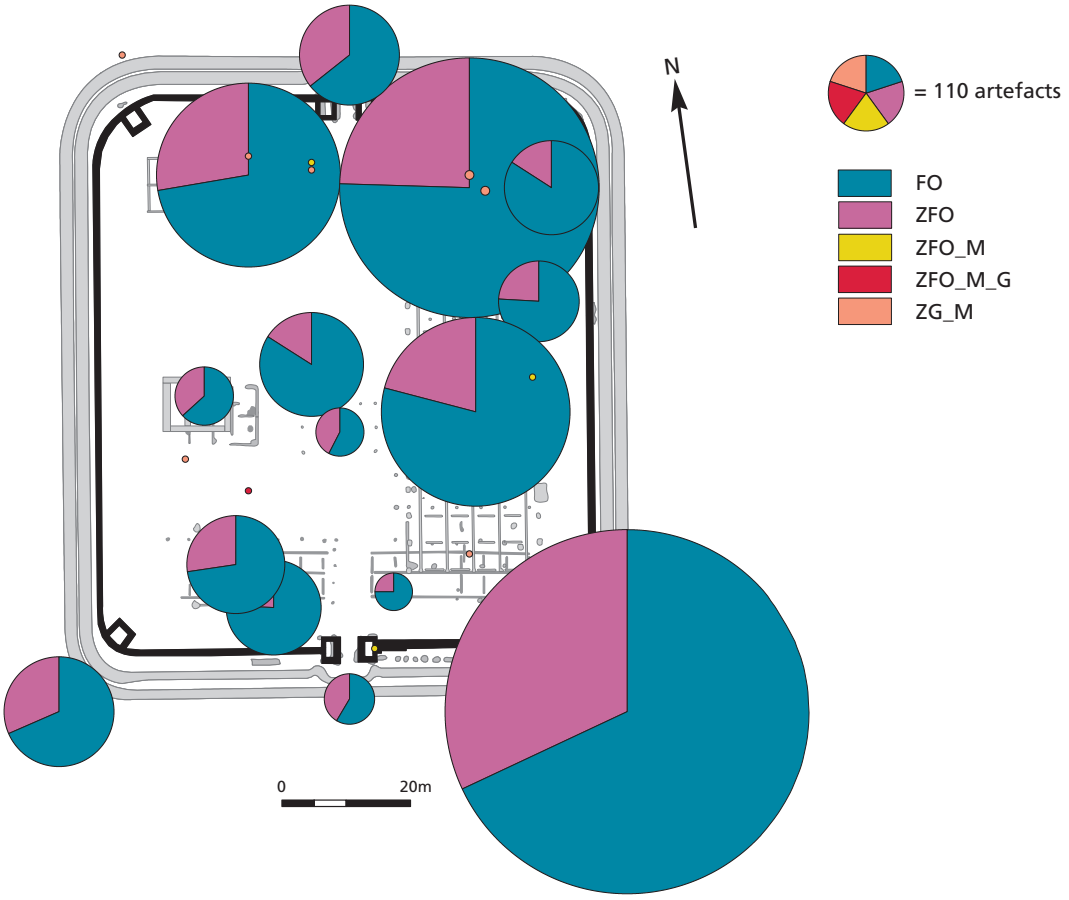

Fig. 11. Distribution of animal bone.

is notable that none seem to have been reported in Areas G and H, suggesting that these were not food production or food consumption areas. However, there was a substantial quantity of stray finds that could conceivably come from these areas. While there are more bone animal remains from Building C than from anywhere else in the fort they do not seem substantially more prolific here than in Building D. If rubbish had been dumped in Building C, one might expect a much greater concentration of animal bones here. Possibly more preparation and consumption of meat took place in Building D.

Human skeletal remains

Up to twenty finds of human skeletal remains were recorded within the walls of the fort, another was made outside and one was a stray find (*Fig. 12*). Some of them were originally classified as animal bones[67]. These remains are concentrated in Building C, including Well 4, where eleven finds of skeletal remains were recorded. They were also reported in Well 1, Buildings B and F, Areas G and H, and in the North Gateway. None were recorded in Buildings A, D or E.

The adult remains consisted mainly of bone fragments, all skull fragments, but ten of the reported finds of skeletal remains provenanced to within the fort, and another stray find, consisted of more complete remains of perinatal infants – that is, infants aged between 8 lunar months since conception and three months since birth. Five were from Building C, one from Well 4, one from Building B, one in the street to the east of Building B, one from Area G and one from Area H.

Adult skeletal remains from Period 1 contexts, or earlier, included three adult skulls and a lower jaw fragment under the floor of Building C-II, and possibly an adult skull fragment found in the lower levels of Well 1 (*Fig. 13*). Other, less identifiable and less datable, adult remains included another skull fragment in Building C, skull fragments near the North Gateway and outside the north of the fort, and three further, possibly adult, skull fragments near Building F and one in Building B (*Fig. 14*). Zanier believed that the skull fragments from Well 1, of a young adult, and in the North Gateway, were from individuals who had been killed, probably in battle[68]. The most substantial adult remains were the three skulls, seemingly in a pit that Zanier argued probably belonged to a phase between Buildings C-I and C-II[69]. However, according to Schröter the C14 (Hv-16570 2170 ± 155 BP) dating of cervical vertebrae gives these skulls a calibrated date (1σ) for the range 385 BC–20 BC[70]. If we can accept this date then these skulls would belong to earlier occupation of the area, preceding that of the fort.

More substantial than these adult human remains were the perinatal, or infant, skeletal remains. Such remains found from Period 1 levels in Building C included: the skull fragment of a 0–3-month-old infant (more than 10 lunar months) found in a posthole; and the skull, lower jaw bone, ribs, both scapulae, clavicles, both humeri, radius, ulna, pelvis, tibia and both fibulae of another perinatal infant; and another neonatal ulna (*Fig. 13*). Other perinatal remains, probably from Period 1a contexts included: the brow bone, ribs, scapula, humerus, ulna, pelvis and tibia of a perinatal infant found in either pit C83 or C84 in Building C; a femur found in soil above bedrock in room 16 of Building B; and a skull fragment found in Pit H58 in Area H (also

[67] In the table of animal bones (ibid. 299 Table 16 n.3), an adult femur is recorded in Building B, but the only human remains identified from Building B is ‚the femur of an 8–81/2 lunar month neonate' (ibid. 305 no. 4). This may be the same femur. Remains of an adult skull recorded from Building F in Table 16 may be the same as the skull fragment no. 6 in Schröter's list of human remains (Schröter 1992, 306). There is also a stray find of a neonate in Table 16 that is not in Schröter's list (cf. von den Driesch / Liesau 1992, 299 Table 16 with Schröter 1992, 305–306). All these finds have been included in *Fig. 12*.

[68] Zanier 1992, 97 and 147–148.

[69] Ibid. 70–71.

[70] Schröter 1992, 305 no. 5a.

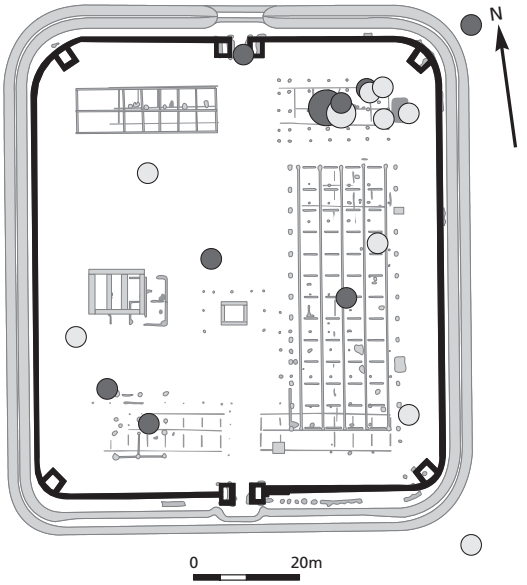

Fig. 12. Distribution of human skeletal remains.

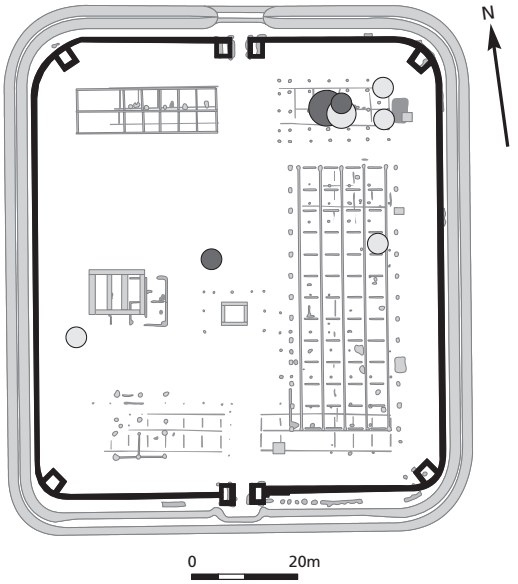

Fig. 13. Distribution of human skeletal remains definitely and possibly datable to Period 1.

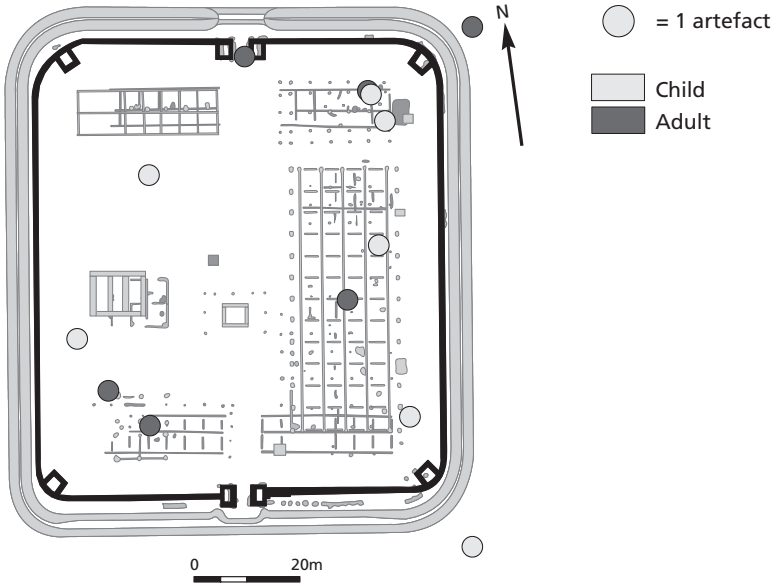

Fig. 14. Distribution of human skeletal remains not clearly dated.

Fig. 13). The perinatal skull fragments and partial skeleton found in pits in Building C and Area H may have been infant burials, as were possibly the more complete skeleton from Building C and the remains in Building B. It is not clear, however, whether burials in Building C would have been made during Period 1, or were dug into these lower levels during later periods. The ceramics found with the skull fragment in Pit H58, could conceivably belong to a burial and date this burial to Period 1a[71]. An articulated partial perinatal skeleton from Well 4, consisting

[71] Zanier 1992, 92.

of two skull fragments, ribs, radius and fibula, and found below the uppermost level, must date to Period 2, when this well was constructed (see *Fig. 12*). Less datable perinatal skeletal remains (*Fig. 14*) included: three ribs, humerus, radius, ulna, femur and tibia, found together in a deposit in the *via sangularis*, to the southeast of Building B; part of a skull, ribs, vertebrae, scapula, clavicle, both humeri, radius, ulna, both haunch bones, seat bone, both femurs and tibias of a neonate of 0-3 months, found in pit G14 (most probably dated to Period 1b-2); a femur near a hearth in Building C (probably also dated to Period 1b-2); and a stray find of a skull fragment. Two of these, at least, are relatively complete and possibly infant burials.

In summary, the perinatal skeletal remains at Ellingen include at least five partial skeletons and another six more fragmentary remains. Of these, at least four were found in what were probably pits, and may have been infant burials. Another found in Well 4 is likely to have been deposited in this well as a complete skeleton. The other two relatively complete skeletons, from Building C and from under the *via sangularis*, were also likely to have been infant burials. Thus, at least seven of the eleven recorded finds of perinatal skeletal remains appear to have been infant burials or the disposition of a complete individual. At least one of the burials in the pits in Building C and another relatively complete skeleton were below the stone floor of Building C-II.

Zanier identified at least two perinatal skeletons from Building C and suggested that the other remains belonged to these two individuals[72]. He argued that the incompleteness of the perinatal skeletons in Building C indicated that they belonged to levelling for the construction of Building C-II and that they were probably from infant burials outside the fort, perhaps unexcavated cemeteries or from the *vicus*. While such perinatal remains were concentrated in Building C, in what Zanier believed was intrusive material, they also occurred in other parts of the fort, indicating that they were not exceptional to the fort assemblage. The likelihood that the two comparatively complete skeletons in Building C would have survived any re-deposition of the soil, in which they were initially buried, is most improbable. It is more likely that these infants had been buried in pits under the floor of this building.

Schröter commented that the presence of infant burials within the fort at Ellingen suggested practical hygiene removal[73]. While Zanier noted that the phenomenon of perinatal burials was common at other Roman fort areas, and often confused with animal bones, he stressed that the remains at Ellingen gave no evidence for the presence of women within the fort[74]. Conversely, von den Driesch and Liesau argued that these perinatal remains assume the presence of pregnant women within the fort[75].

Of the twenty-seven occurrences of human skeletal remains within the confines of the late Roman fort at Portchester Castle, in Britain, only one was not of an infant skeleton[76]. Nine of these infant skeletons have been identified as prenatal and seventeen as neonatal, up to about eighteen weeks old. At least thirteen were interred in pits with a selection of animal, bird and fish bones. Infant burials were also reported under the floors of officers' quarters at South Shields, dating to the early 3rd century, and under the barracks at South Shields and Malton, dating to the 4th century[77].

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[72] Ibid. 72.

[73] Schröter 1992, 306.

[74] Zanier 1992, 72.

[75] von den Driesch / Liesau 1992, 294–295, cited similar finds of infant burials at the fort of Eining, near Neustadt on the Danube, and probably dating from 170–260 A.D. However, these remains were actually from the vicus area of this fort: see Lipper 1986, 87.

[76] Hooper 1975, 373–376.

[77] Bidwell 1997, 62, 64–65; Hodgson / Bidwell 2004, 154.

The burial of perinatal skeletons outside community cemeteries but within settlements and under house floors was reportedly a frequent phenomenon in European and Mediterranean pre- and early history[78]. In Roman Italy deceased infants were not cremated[79], but traditionally buried under the eaves of houses[80]. Struck noted that the burial of children within settlement sites in Roman Britain, rather than in outside cemeteries, was much more common than for adult burials[81]. She noted that over 70% of such burials were of pre-neonates to six-month-old infants, and that they were mainly buried within houses. The predominance of infant burials within the fort at Ellingen is, therefore, not an unusual occurrence for what is ostensibly a settlement site with residential buildings. The infant burials in later forts, mentioned above, were all under the floors of residential buildings within these forts. Watts felt that such infants did not warrant a formal grave because no value was placed on them[82]. However, Esmonde Cleary argued that this type of burial for new-borns was a symbol of 'accomplished fertility'[83].

It has often been assumed that perinatal burials were associated with infanticide, for the disposal of unwanted and illegitimate babies, but no such correlation is evident in the archaeological record[84]. Indeed, Scott has argued that such a perception stems from what she terms the 'Romano-Victorian' anachronistic perspectives of many scholars[85]. Given the high mortality rates of prenatal and neonatal infants there is no reason to view evidence for infant deaths as infanticide, and nor should all infanticides be associated with illegitimacy in the Roman world.

Thus, the distribution pattern for the perinatal skeletal evidence at Ellingen points to the occupancy by women of Buildings B and C. Conversely, it might be argued that it was the fathers' choice in the disposal of infants that resulted in their being buried under 'his' residence inside the fort, rather than in the settlement outside where the mother might be assumed to have resided. However, such an argument would seem rather convoluted and to stem from the premise that no women could have been resident within these buildings. Considering other evidence for female presence within the fort, discussed below, this would seem an unnecessary attempt to explain away the evidence these burials provide for women's residency within the fort.

The precise dates for the infant burials at Ellingen are not clear. Many would appear to be in Period 1 contexts but these may well have been in pits cut through to this level, particularly in Building C. Only one, in Well 4, can be definitely dated to Period 2. Whatever their precise date, these burials appear to document the presence of pregnant women within the fort, very probably before the 1st quarter of the 3rd century A.D. These burials are mainly in Building C but they were also in Building B, both identified as soldiers' barracks. None are found in Building A, identified as an administrative building; Building D, identified as a workshop; Building E, identified as a granary or storehouse; or, indeed in Building F, identified as the commander's house, although they were found in Areas G and H. This suggests that such women were likely to have been most prevalent in Building C but also to have resided in Building B.

There is no reason to assume that these women were killing their unwanted babies. The possibility that at least two infants may have survived until three months of age would surely negate any suggestion of infanticide. The death of infants up to 18 weeks old at Portchester

[78] Scott 1999, esp. 1, 4, 90–108; see also Watts 1989, 372–373.

[79] Pliny N.H. VII, 16, 72.

[80] See references in Wheeler / Wheeler 1936, 138; and Struck 1993, 315 n. 21; see also Watts 1989, 372–373; Scott 1999, 115–117.

[81] Struck 1993.

[82] Watts 1989, 373.

[83] Esmonde Cleary 2000, 135–136.

[84] Scott 1999, 66–80.

[85] Ibid. 110.

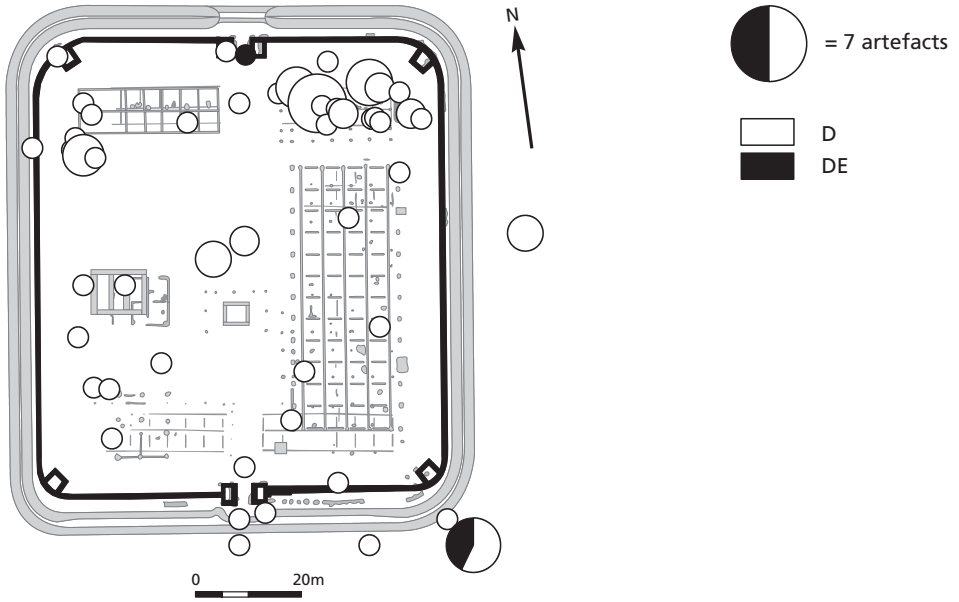

Fig. 15. Distribution of all definite dress items.

Castle suggests that these were the burials of babies who died of natural causes in the first few months of life. It seems more probable that some of the infant skeletons at Ellingen were of premature or still-born babies. In summary, these infant remains document the presence of women and families within the barracks of the fort but cannot be used to argue for their surreptitious presence.

Dress-related artefacts

Definite dress items, by activity

Definite dress-related artefacts are divided into those that were for ordinary dress (D) and those that were specifically for combat dress (DE) (see *Table 4* for codes). Such artefacts were concentrated in Building C, but they were also prominent into the west of Building D, Area H and the gateways and central open area (*Fig. 15*). Interestingly, of the seventy-five dress-related artefacts found within or near the fort area, only one in the North Gateway and three unprovenanced ones can be specifically identified as combat dress (e.g. items from armour and soldiers' apparel such as belt fittings). This contrasts sharply with the legionary fortress Vetera I, where fifty-seven of the 217 dress items within the fort were combat dress items[86]. That is, about a quarter of the dress-related artefacts at Vetera were associated with combat dress. While this could be related to the different abandonment processes of the two sites, it accords well with the identification of the troop stationed at Ellingen as being a non-combatant unit.

[86] See Allison et al. 2005, section 8.2.

Definite dress items, by gender

Six of these dress items are categorised as definitely female-related (bronze beads, hairpins and brooches[87]), all found in the area of Building C and in Well 4 except one from the *vicus* (*Fig. 16*). The greatest concentration of the twelve possibly female-related dress items, provenanced to within the fort, was also in Building C but two bone pins were also found in Well 1. Belonging to Period 1 were the possibly female-related items from Well 1, and probably six of the seven possibly female-related items and the two possibly female- or child-related artefacts from Building C. Those from Building C could conceivable have originated from elsewhere in the site. However, two definitely female-related dress items in Well 4 belong to Period 2. Another definitely female-related dress item, and a possibly female-related items, from Building C and the street and North Gateway nearby, probably date to Period 1b-2 (*Fig. 17*). The possibly female- or child-related dress items in Building B, in Area G, and the northwest tower, and in the North Gateway *(Fig. 16)*, are datable only to Periods 1 or 2. Essentially, the majority of definitely and possibly female-related dress items were from Building C but a number of these were from the later periods and not from the potentially redeposited layers of the earlier period. That found in the street to the west of Building C would not appear to have been in redeposited material. This suggests that these items are associated with the occupancy of this building and with female presence there between mid 2nd–early 3rd century. Those from the Period 1 levels, if indeed redeposited, may indicate the presence of women in the fort generally, during the earlier period.

Interestingly, of twenty-seven brooches reported from Ellingen only two are identified specifically as soldier's *fibulae*[88] and two as military *fibulae*[89]. Two of these are stray finds and the other two are from Buildings B and C.

Possible dress items, by activity

Of ninety-four artefacts categorised as possibly dress items, seventy-one are definitely provenanced within the fort and its fortifications (*Fig. 18*). Thirty-one of those within the fort, and possibly five unprovenanced ones and one found to the west of the fort, have been associated with combat activities (ZD_E). Another eleven, five of them stray finds, were either associated with dress, combat, or horse equipment (ZD_E_H and ZD_H). Most of these items, as for the definite dress items (*Fig. 15*), are concentrated in Buildings C and D and in the streets and open areas. Only three were recorded towards the north end of Building B and none definitely within Buildings A, E, or F. The quantity of such artefacts potentially changes the observation above about definite combat dress items. However, these artefacts are mainly small bronze strap and belt fittings, or pendants, not necessarily associated with armour but possibly parts of ordinary dress or horse equipment (see below under combat dress). Other miscellaneous fittings, which may be associated with dress (ZD, ZD_C, ZD_C_T, ZD_C_W, ZD-MF), were found in the area of Building C, in Building D, in Area H, to the west of Building F, around the periphery of Building B, and in the fortifications.

There seems to have been a relative concentration of bronze pins or needles in the region of Building F and Area H (ZD_C_T). Other items which were either for dress or cloth production (ZD_C – bone needles or pins, and lead or ceramic beads or spindle whorls) were found in the area of Building C, in Building D, the North Gateway, and on either side of Building B. Another five were unprovenanced and possibly from the fort area.

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[87] I.e. Böhme 29, 1972, 17–18, 41–43, Types 18e, 44a.
[88] Zanier 1992, cat. nos B6 and B11.
[89] Ibid. cat. nos B3 and B4.

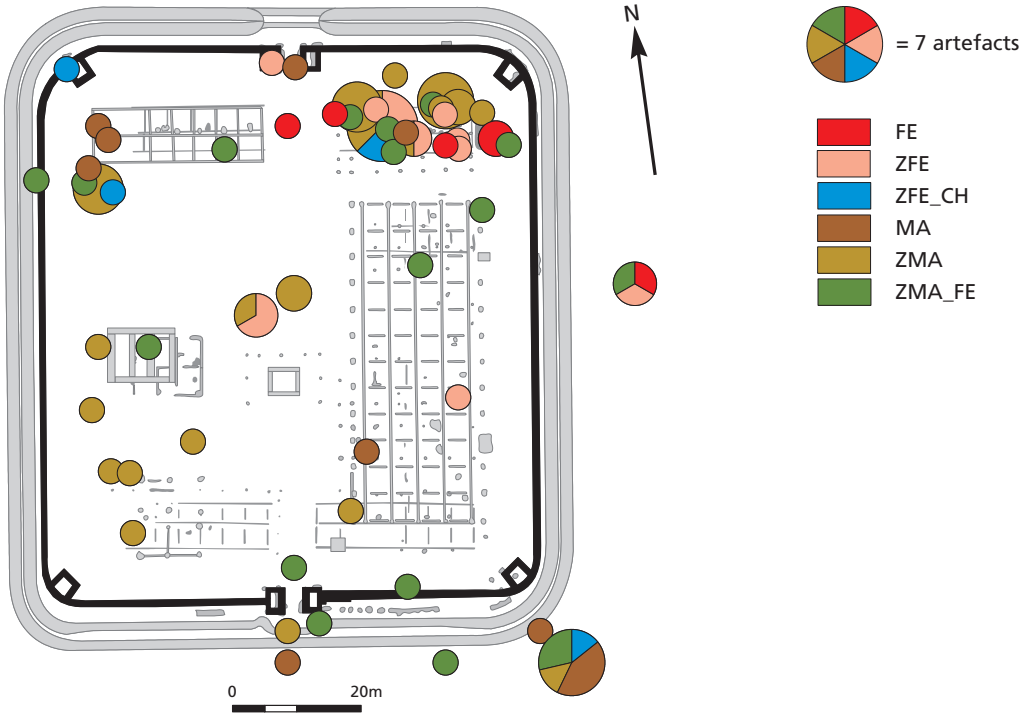

Fig. 16. Distribution of all definite dress items, according to gender.

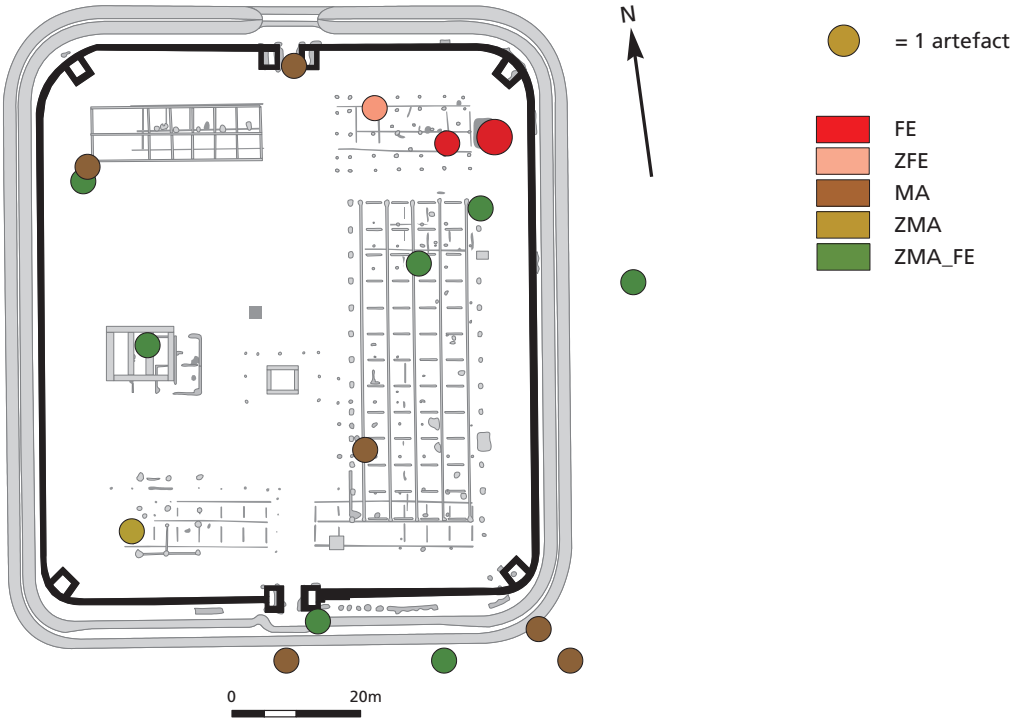

Fig. 17. Distribution of definite dress items, according to gender, definitely or possibly datable to Period 1b - 2.

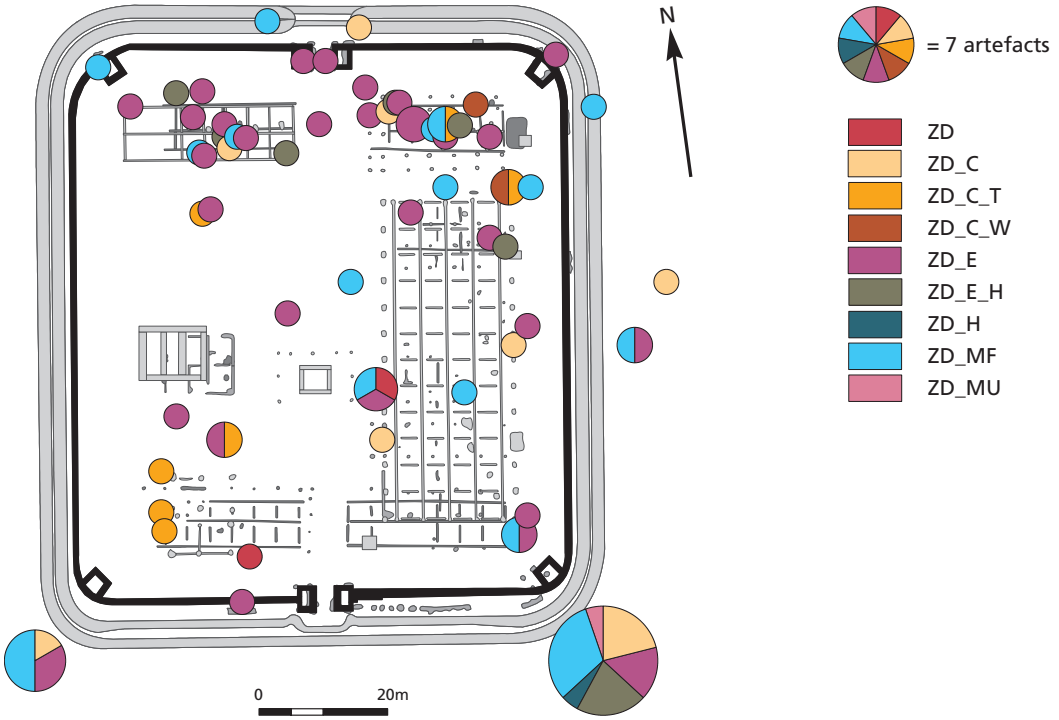

Fig. 18. Distribution of possible dress items, according to category.

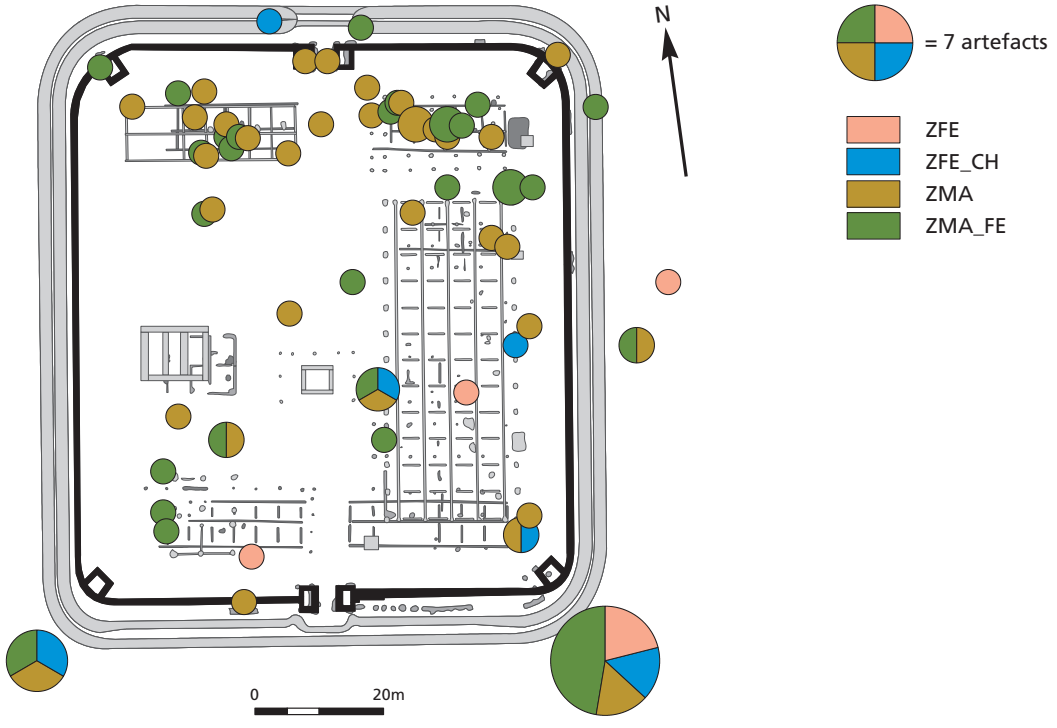

Fig. 19. Distribution of possible dress items, according to gender.

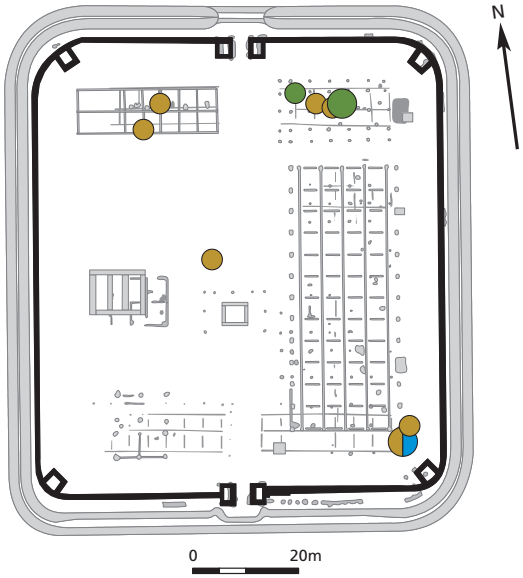

Fig. 20. Distribution of possible dress items, according to gender, probably dating to Period 1.

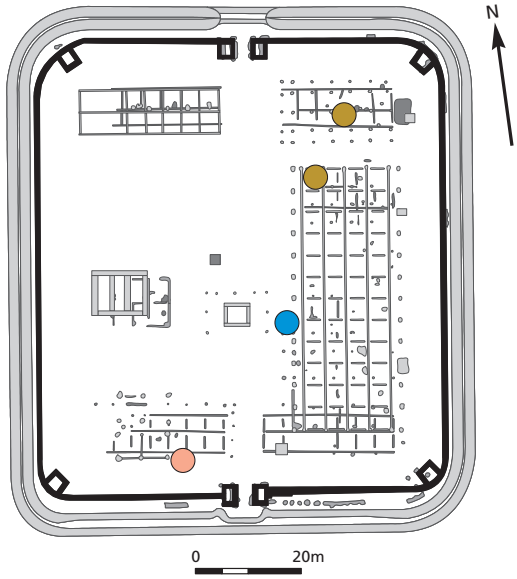

Fig. 21. Distribution of possible dress items, according to gender (Period 2).

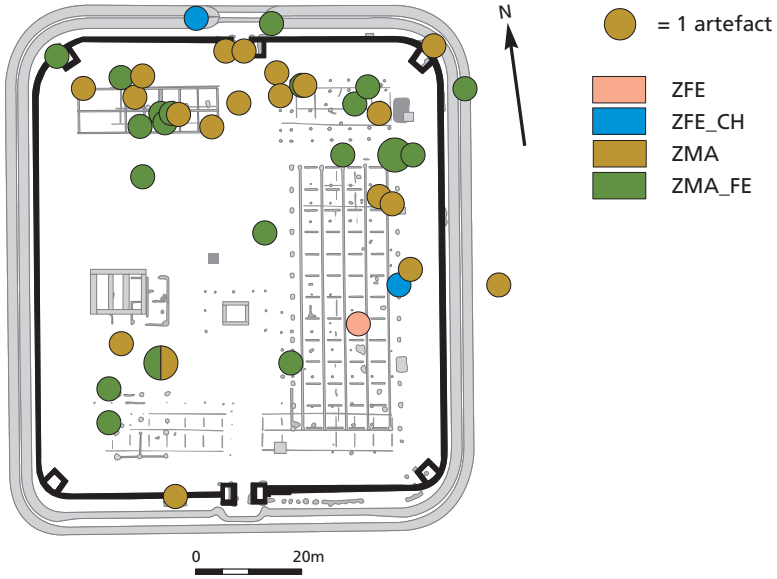

Fig. 22. Distribution of possible dress items, according to gender (Period 1 or 2).

Possible dress items, by gender

A plot of these possible dress items according to gender (*Fig. 19*), indicates that, of the fifteen items gendered possibly female- or child-related, only eight are provenanced to the fort area – two possibly female-related and six possibly ‚female- or child-related. Six other items were unprovenanced and one was from the *vicus*. Of the eight within the fort, three were associated with Building B and one with Building F, in Shaft 6, one was found in the fortifications, near the North Gateway, and others were stray finds.

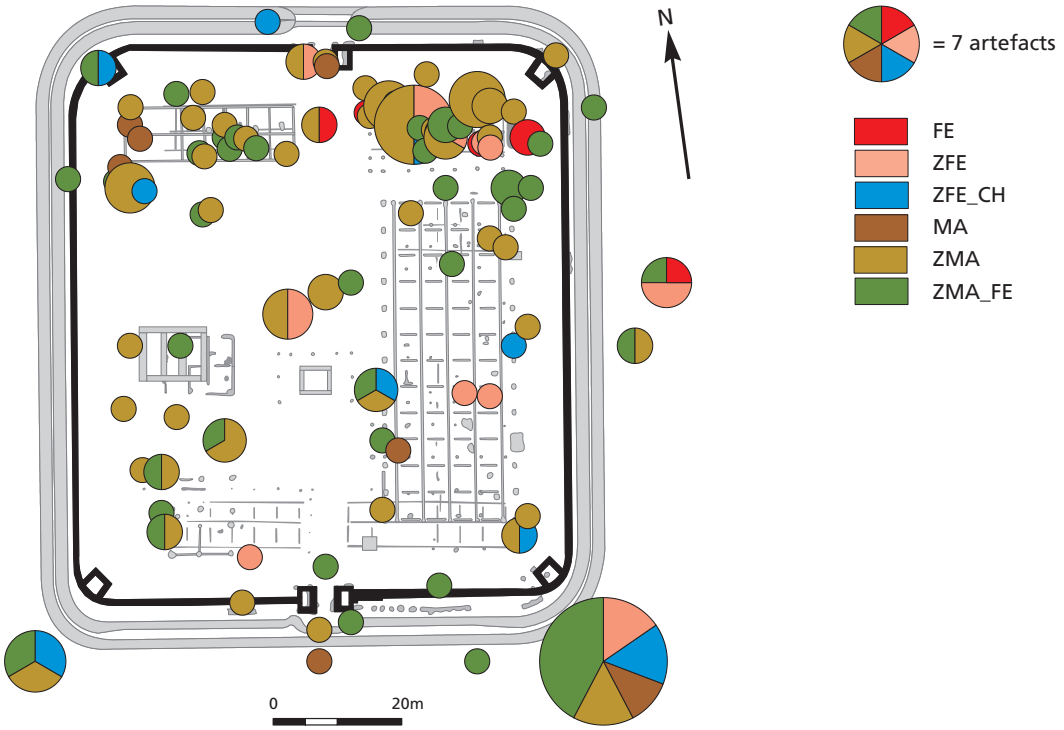

Fig. 23. Distribution of all definite and possible dress items, according to gender.

The concentration of possible dress items in Building C might not seem surprising except that only five of the fifteen items recorded here can be ascribed to the redeposited levels, none of which are seemingly female-or child-related (*Fig. 20*). Relatively speaking, possible dress items are less well represented in Building C than definite dress items and proportionately better represented in Building D *(Fig. 19)*. Unfortunately, with the exception of those from Period 1 in Building C, very few of these items can be ascribed to a particular period. To Period 2 can be ascribed two of the possibly female-related and possibly female- or child-related artefacts: one in Shaft 6 and one associated with Building B *(Fig. 21)*. The other two associated with Building B and the one in the fortifications are datable only to Period 1 or 2 (*Fig. 22*).

Thus, the distribution of possible dress-related items is not the same as that of definite dress items *(Fig. 15)*, of which there was comparatively little in Building D. This suggests that many of these artefacts may not have been dress-related and supports the view of different uses of Building D and Building C. Zanier suggested that Building D may have been a workshop in the earlier period and became a barracks in the later phase. Only one definite dress item from this building, possibly male related and from the east end, probably dates to Period 1a (*Fig. 16*), and three others, from the west half of this building, are datable only to Period 1 or 2 (*Fig. 17*). The relative lack of both definite and possible dress-related items in Building B is noteworthy, given that these are relatively easily lost items. Overall, the different combinations of these items in these three buildings hint at the different uses of each.

By combining definite and possible dress items, and plotting their distribution according to gender (*Fig. 23*), it is notable that there is a complete lack of such items in Building A, and a relative lack in Buildings E and F. The majority of the items in the latter two buildings are possibly male related, although one possibly female-related artefact was found in Shaft 6, and

two were also found in Well 1. Those found in Building D are all potentially male related, but of the fifty-one potential dress items found in and around Building C, fourteen are definitely or possible female- and child-related items and eleven are categorised as male- or female-related. That is over 27 %, and nearly 50 % of the dress items in Building C may have been associated with women. While many of these artefacts may have been redeposited from elsewhere, it is curious that this is also the part of the fort with the most female-related dress items that were not redeposited. In this combined distribution pattern there are two possibly female-related dress items within Building B, and three other in the area are categorised as possibly female- or child-related. This combined pattern reinforces that for definite dress items, in that Buildings A, D, E and F do not seem to have been areas frequented by women and children, whose presence was most notable in Building C but also evident in Building B. This distribution pattern concurs with that of the perinatal skeletal remains.

Gendered activities

Definite gendered activities, by activity

There are a number of artefacts from Ellingen that are associated with a specific activity or activities which can be ascribed a gender or a possible gender. For the purposes of this study, combat, wood-, leather-, stone-, metal-working, and agriculture are categorised as male-related[90]. Cutting and sharpening, and writing are categorised as possibly male-related. Some cloth-production activities are categorised as male- or female-related, some as female-related and some as possibly female-related. Certain toilet items are all classified as either male- or female-related.

The most prolific material across the site, that can be ascribed a gendered activity, is associated with stone and metalworking (SM)[91]. This material was concentrated mainly in Building C and in Area G but there was also a substantial amount in the southern half of Building B and some immediately south of Building E (*Fig. 24*). The next most prolific material is that for cutting and sharpening (CS). This material is most prominent in Building D, and relatively prolific in the area of Building E, to the west end of Building F, and in the southern half of Building B. It is practically non-existent in Building C, compared with stone and metalworking items here. Zanier associated these cutting and sharpening these items with the large amount of animal bone on the site (compare *Fig. 11*)[92]. There may be association between these two types of material in Building D but not in other areas. At Vetera I the most prolific gendered material was combat equipment[93], which is poorly represented at Ellingen. Likewise, weighing and measuring items were well represented at Vetera I but is not recorded at Ellingen at all. Agricultural equipment (A), writing equipment (W), wood and leather-working equipment (WL) are similarly poorly represented at Ellingen compared with stone- and metalworking equipment and compared with the material at Vetera I. Interestingly, and perhaps conversely, no definite cloth-production items (C) were recorded at Vetera I, but four, plus two stray finds, were recorded within the fort at Ellingen. Toilet items (T) seem to have been better represented, or perhaps better recorded, at Ellingen than at Vetera I.

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[90] Allison et al. 2005, section 8.6.1b.
[91] Zanier 1992, 171.
[92] Ibid. 171.
[93] Allison et al. 2005, section 8.6.2a.

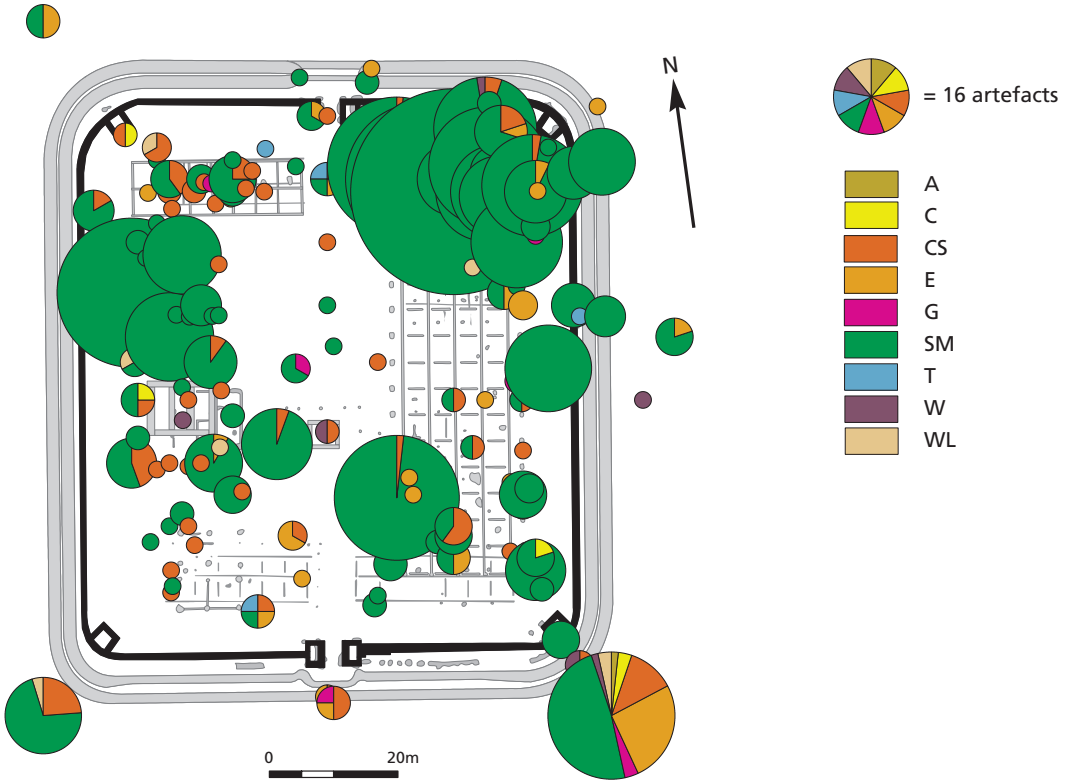

Fig. 24. Distribution of definite activities that can be gendered, according to activity.

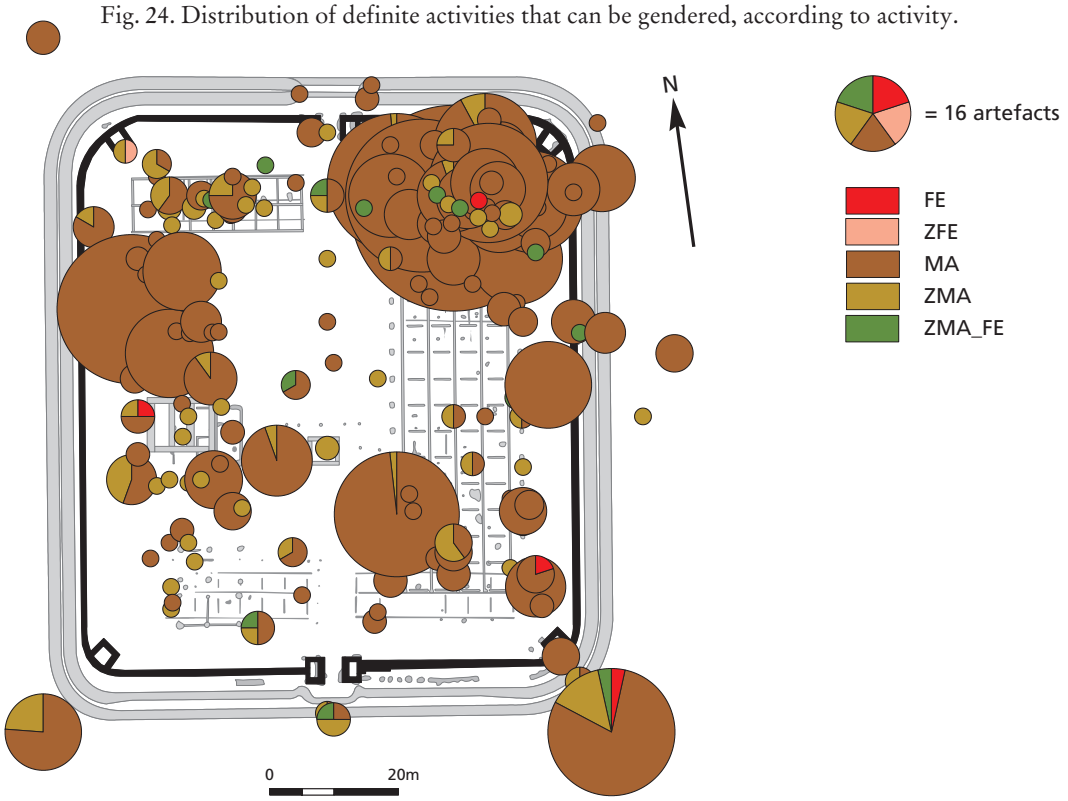

Fig. 25. Distribution of definite activities that can be gendered, according to gender.

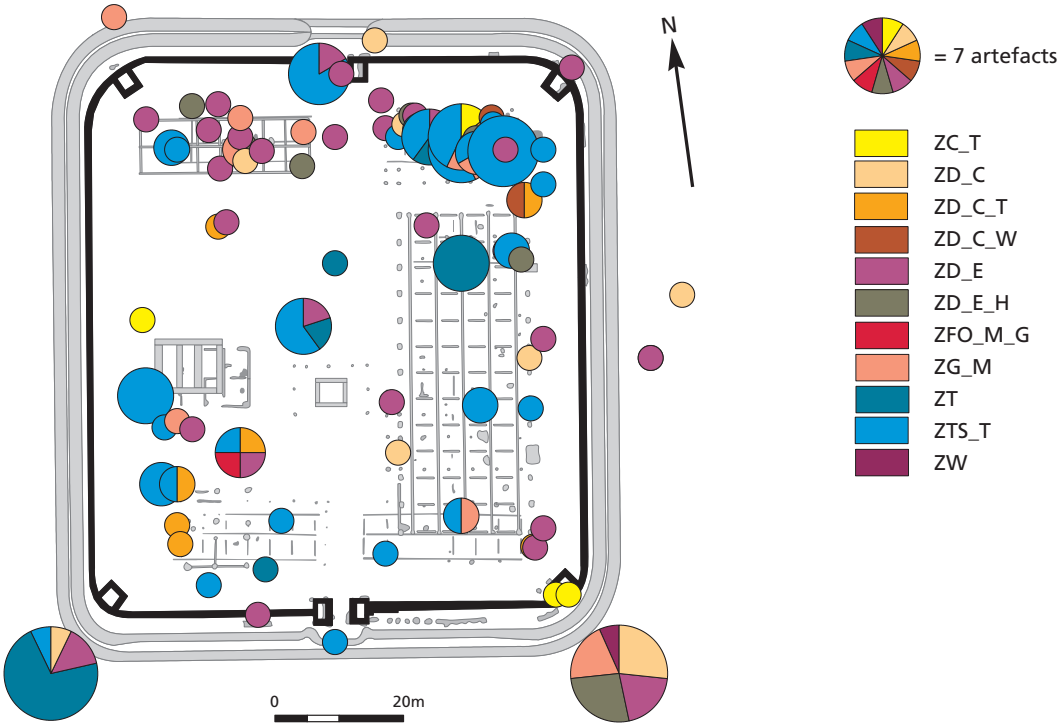

Fig. 26. Distribution of possible activities that can be gendered, according to activity.

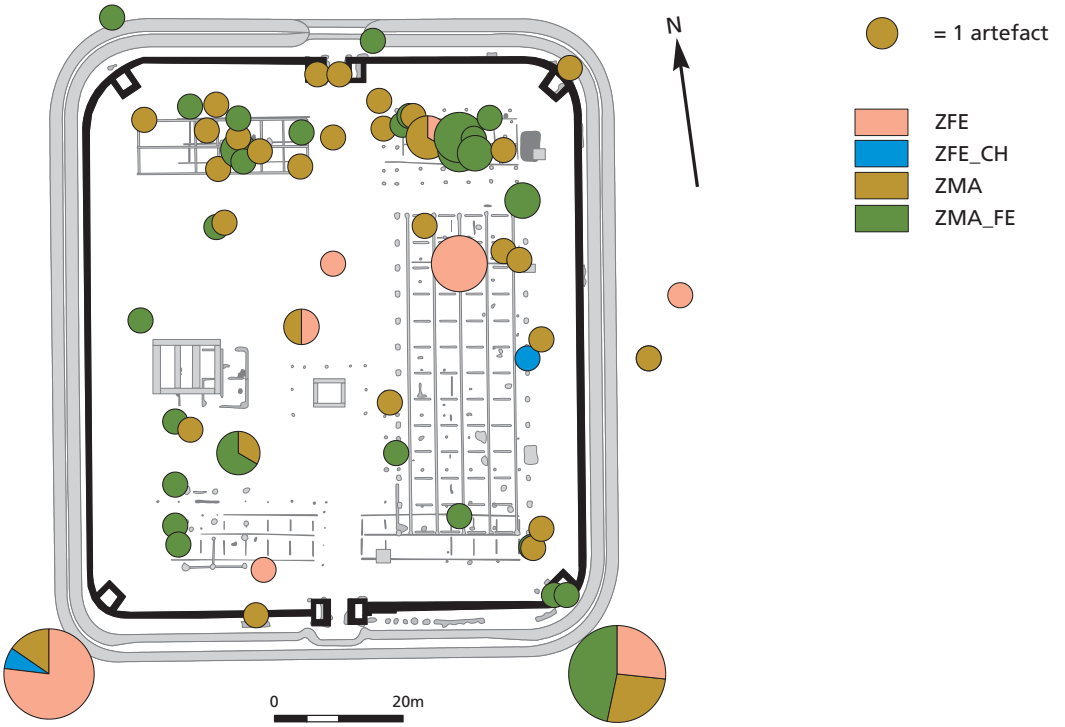

Fig. 27. Distribution of possible activities that can be gendered, according to gender.

Definite gendered activities, by gender

Given the large amount of stone- and metal-working equipment (c.1176 items), and other material related to male or possible male activities, evidence for activities that might be female-related is very slight (*Fig. 25*). Five cloth-production items are definitely associated with female activities and one possibly. These are scattered: one in the northwest corner tower; one in Building C; two outside Buildings E and B, and two stray finds from either the fort or the *vicus*. Unfortunately none of these can be assigned precisely to a building phase. Even though these remains of potentially female activities are very limited, their presence within the fort is noteworthy.

Possible gendered activities, by activity

Other artefacts that can be ascribed to a particular activity with less certainly have also been assigned a possible gender. About 163 such artefacts can be provenanced to within the fort (*Fig. 26*), most of which were possibly combat dress items (ZD_E). As noted above, there were found predominantly in Buildings C and D. These possible combat dress items occur in all phases of the fort but most are not datable. The other main types were possibly toilet items (ZTS_T, and ZT), possibly gaming items (ZFO_M_G and ZG_M), and possibly cloth-production items (ZC_T, ZD_C_T and ZD_C). Most of these artefacts are not well dated, but three of the possible cloth-production items, four of the possible gaming items, and one possible toilet item in Building C are from Period 1 contexts, and could conceivably have been redeposited.

Possible gendered activities, by gender

Of these artefacts whose associated activity, and therefore gender, is uncertain, only small glass bottles (possibly toilet items) and lead and ceramic discs (possibly beads or spindle whorls), are categorised as possibly female- or child-related (*Fig. 27*). Most of these were stray finds but they were also found in association with Building B and in Shaft 6, Well 1 and in the open central area. Items categorised as possibly either male- or female-related were found mainly in Buildings C, D and F and in the southeast corner tower. These included bronze and bone needles and pins. Of the items categorised as possibly female- or child-related, that in Well 1 can be dated to Period 1, that in Shaft 6 to Period 2, and the rest are not datable. It is perhaps noteworthy that artefacts potentially related to female activities are associated with both the first and last building phases of the fort.

Gendered dress items and gendered activities, by activity

As noted above, most dress items are found in and around Buildings C and D, and in the streets, with relative concentrations in the north end of Building B and in the region of Area H and Building F (*Fig. 23*). Dress items which most probably belonged to women and children are concentrated in Building C, but are also prominent in Wells 1 and 4. They were present in Building B, in Shaft 6 associated with Building F, to the south of Building D, in the northwest corner tower, and in the streets and gateways. Again, their presence in Wells 1 and 4 and Shaft 5, suggest that women were present in the fort in at least Period 1a and in Period 2. The concentration in Building C is noteworthy. That two such items in Well 4 can be dated to Period 2 indicates that not all the female dress items in Building C should be assumed to be redeposited material.

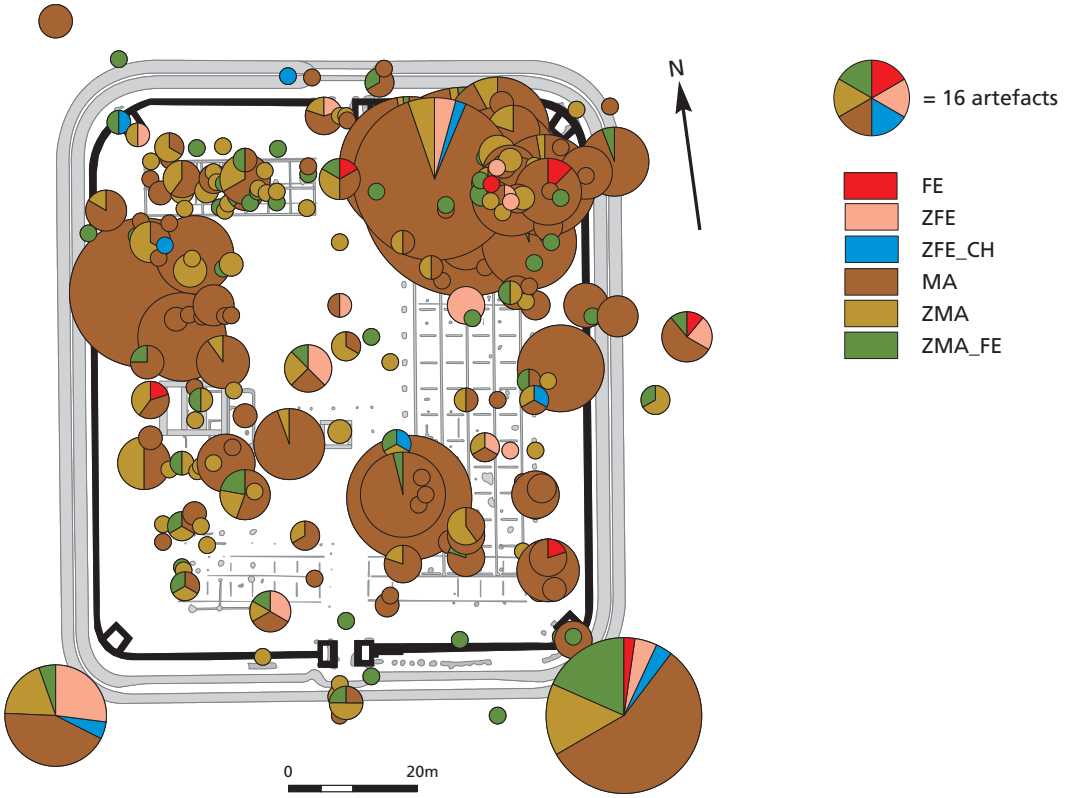

Fig. 28. Distribution of all dress items and gendered activities, definite and possible, according to gender.

A plot which combines all the gendered activities and dress-related artefacts plotted according to gender (*Fig. 28*) indicates a complete lack of any potentially female- or child-related items in Building D (with the possible exception of seven male- or female-related items), three such items in Building B, one the substantial remains of a small glass bottle, and two in Shaft 6 associated with Building F. The rest are either in Building C, Well 1, the northwest corner tower, or in the streets and open areas, including around the periphery of Building B. This suggests that the activities of women and children were concentrated in Building C and the streets, that they were present in Buildings B and F, but that they were not likely to have been associated with the activities in Buildings A, D, and E.

In total sixty-five artefacts are categorised as female-related, possibly female-related or possibly female- or child-related. In Building C and Well 4, of the fourteen such items, three, or possibly four, can be dated to Period 1. Three in Well 1 date to Period 1a. However, in and around Building C and Well 4, two belong to Period 2, and another two possibly belong to Periods 1b-2. Another two in Shaft 6 also date to Period 2. Others are less well dated and stray finds. Essentially, there seems to have been a female presence in Buildings C and possibly Building F, during Period 2 and probably earlier. Certainly women and children were using the more open or public spaces, probably during all periods, and probably Building B, at least at some stage during the fort occupancy. This again concurs with the pattern for dress items and the findings for the perinatal skeletal remains.

The following discussion looks more closely at the distribution patterns of some specific gendered activities to provide data for inter-site comparisons concerning fort activities and building use.

Combat equipment

Definite combat equipment

Fifty-six artefacts have been categorised as combat equipment (E), of which thirty-seven are javelins or spears, nine are arrowheads, six the remains of shields and four the remains of swords or daggers (*Fig. 29*). As discussed above, only one artefact in the North Gateway, categorised as combat dress (DE), is definitely from within the fort, and three others are stray finds. Definite combat items are concentrated in Buildings B and C, with a scatter in the gateways and streets, and the area of Building F. Those that are likely to date to Period 1 include four in Building C, one outside Building B and two near Building F (*Fig. 30*). Six in Building B, three in Shaft 5, one in Well 4, and one in the street nearby and one in Shaft 6 are from Period 2 contexts (*Fig. 31*). The numerous less easily datable definite combat items are also found in Building B and in Buildings C, D, and F and in the streets (*Fig. 32*).

The relative concentration of all such items in Building B was noted by Zanier[94]. Given that only one definitive combat dress item was recorded within the fort it is conceivable that these projectiles might rather have been used for hunting than for engaging with the enemy. Zanier also noted that deer was the most prolific type of animal bone found on the site[95]. Of some 1200 items identified as certain combat equipment at Vetera I only fourteen were not projectiles. Swords, shields, and daggers are no doubt more personal items, more likely to be carried away from the site by the owner, and less easily lost. Essentially, and despite the lack of combat dress, the troop at Ellingen seems to have been similarly armed as the troop at Vetera I. At Vetera I, combat equipment was found mainly in the central administrative buildings[96]. At Ellingen weapons seem to have been kept in the residential buildings.

Possible combat equipment

Less certain combat equipment consists mainly of artefacts that were likely to have been parts of soldiers' dress (ZD_E) and other fittings that could alternatively be related to horse equipment (ZD_E_H). As discussed above most of these also possible dress-related items were concentrated in Buildings C and D and in the streets and open areas *(Fig. 18)*. They have a different distribution pattern from the definite combat equipment, which perhaps indicates that these were not specifically combat items but more general dress and horse equipment.

Definite and possible horse equipment is found mainly in Buildings C and D, but also in the northeast area of Building B, near room 8 (*Fig. 33*). These potentially horse-related items, as for most possible combat equipment are generally not attributable to any particular building phase.

Gaming

Seven definite gaming counters (G) were found within the fort, associated with Buildings B, C, and D, and in Well 1(*Fig. 34)*. Another was found in the fortification trenches at the South

[94] Zanier 1992, fig. 64.
[95] Ibid. 171.
[96] Allison et al. 2005, section 8.6.2a.

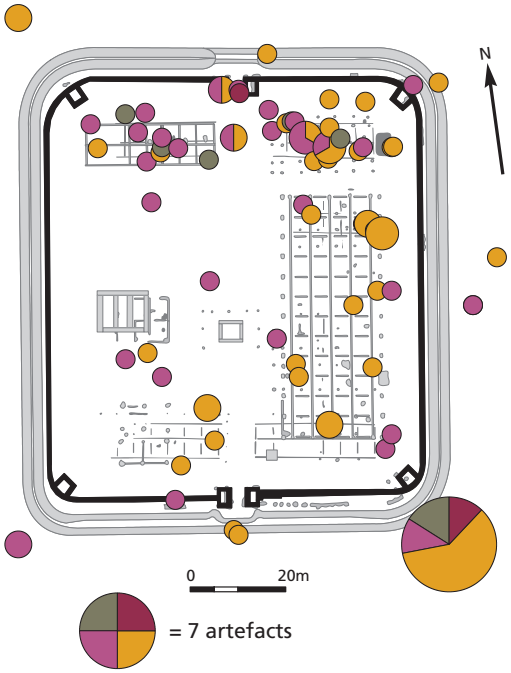

Fig. 29. Distribution of all combat equipment, according to category.

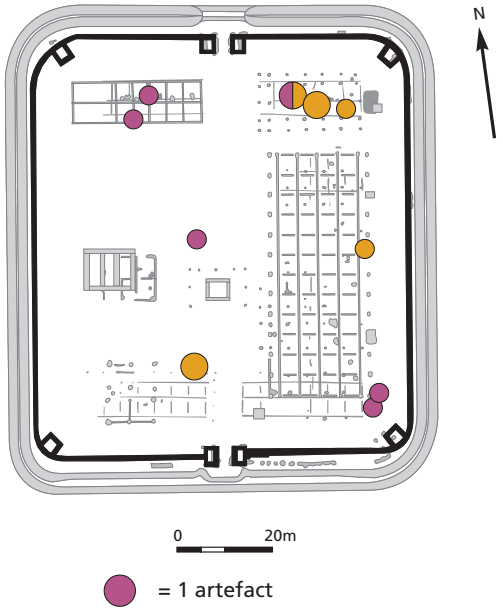

Fig. 30. Distribution of all combat equipment, according to category, probably dating to Period 1.

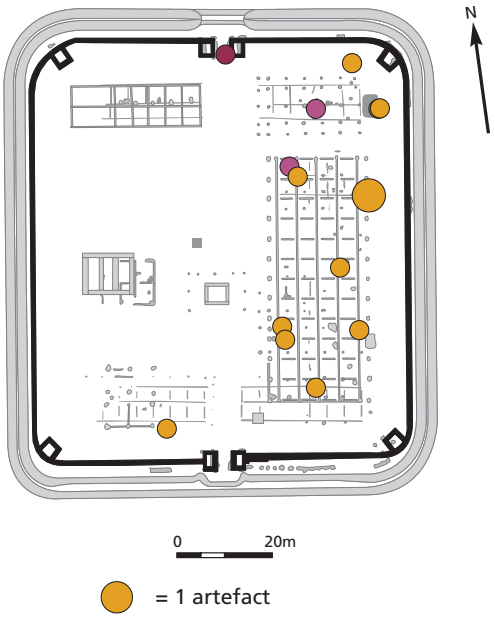

Fig. 31. Distribution of all combat equipment, according to category, dating to Period 1.

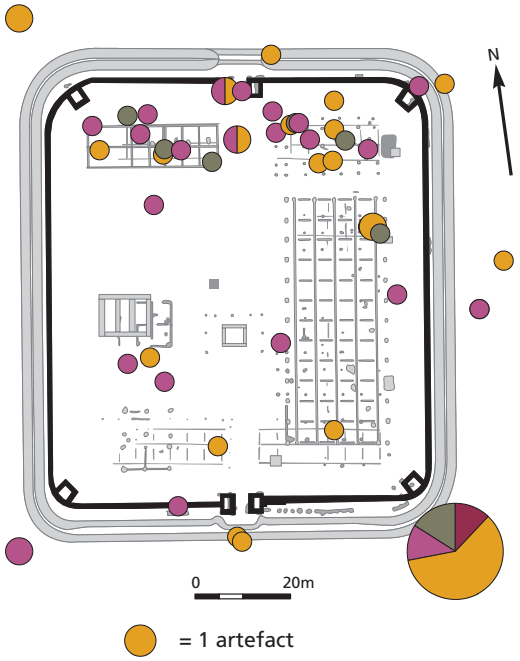

Fig. 32. Distribution of all combat equipment, according to category, not datable.

Gateway and two are unprovenanced. Two from within the fort, one in Building C and one in Well 1, are from Period 1 contexts but the rest are not precisely datable. There is nothing particularly significant about this distribution, except perhaps its concentration in what were probably barracks buildings and a dearth in Building F. While the number of these easily lost items may seem low, only eighteen gaming counters, and one possible one, were found within the excavated area of Vetera I, another twenty-six at Vetera were unprovenanced[97].

At Ellingen, sixteen pieces of worked bone, most with a longitudinal hole bored through them, may also have been gaming items (ZFo_M_G and ZM-G). Von den Driesch and Liesau suggested that these had used in a game where the bones hung off a cord[98]. Four of these were from the Period 1 context of Building C and the rest, from Buildings B and D and Area H, are not datable. If the identification is correct, the greater number of these worked bone items, compared with gaming counters, suggests that the more traditional Roman games may have been less popular at this fort.

Writing

Eight items associated with writing were recorded at Ellingen (*Fig. 35*). One of these was in the fortifications and two were stray finds. Another possible writing item (ZW), a stray find, appears to have been post-Roman. Of the seven Roman items provenanced within the fort, four were in the area of Building C, one from Building A, and one from Building E. One possible writing item (ZD_C_W) was found in the street between Buildings B and C. The evidence for these items in Buildings A and E, buildings which tended not to contain other types of items discussed here (i.e. human skeletons, ceramics, and items related to cloth-production, dress, gaming, toilet, combat), is noteworthy. Building A also had notably few ceramic finds. This evidence, though extremely slight, may point to the importance of Buildings A and E in the administration of the fort, and possibly for the distribution of supplies, although the writing item in Building E probably dated to Period 1a.

Cloth production

There were four definite cloth-working items within the Ellingen fort, and two that were stray finds from either the fort or the *vicus* (*Fig. 36*). Those within the fort were found in Building C, in the streets near Buildings B and E, and in the area of the northwest tower. They consist of one hook, probably for weaving, in the northwest tower, and three spindle whorls. Zanier was unsure whether one of the spindle whorls found in the street was prehistoric or imperial[99]. From the same provenance were at least four *terra sigillata* fragments, two dated 170/180–230/240 A.D. Zanier gives no reason for suggesting that this spindle whorl, and the two stray finds, could have been prehistoric. He may have suggested this because they are not expected finds for a 2nd-century military fort. While these types of spindle whorls may have been local types, a bone one, found in the street[100], has good parallels in Pompeii[101]. Unfortunately none of these items can be dated to a precise building phase.

Twenty-five items are classified less certainly as cloth-working items, of which eighteen are provenanced within the fort, one was found in the fortification trenches, five are stray finds,

[97] Ibid. section 8.4.
[98] von den Driesch / Liesau 1992, 295–297.
[99] Zanier 1992,145.
[100] Ibid. cat. no. G45.
[101] E.g. Allison 2006a, 246 cat. No. 1904.

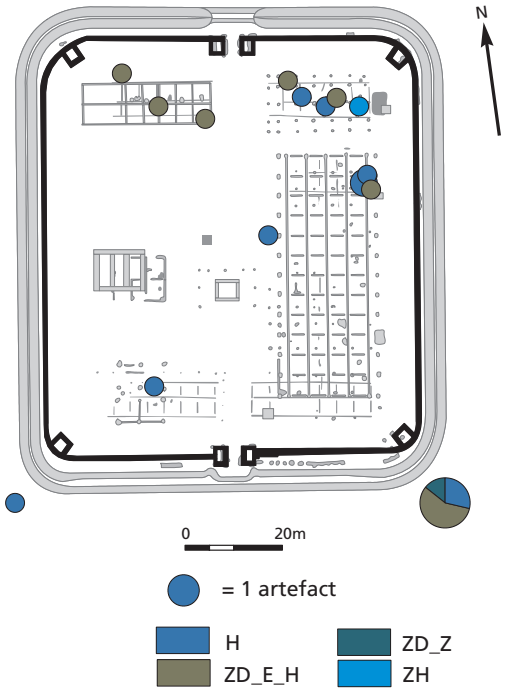

Fig. 33. Distribution of all horse equipment, according to category.

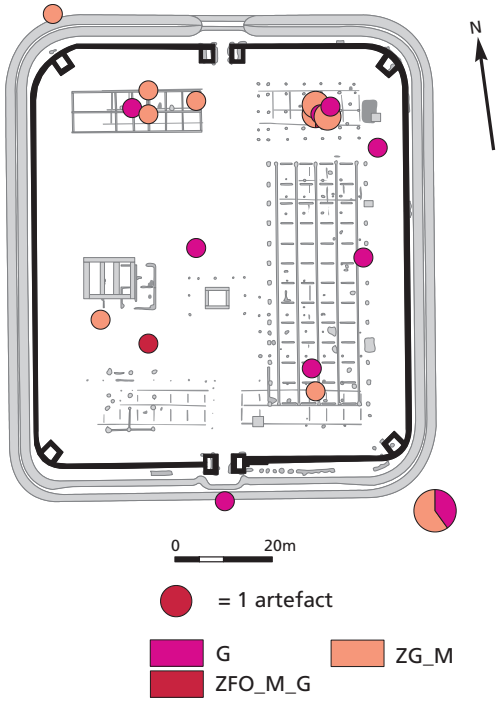

Fig. 34. Distribution of all gaming equipment, according to category.

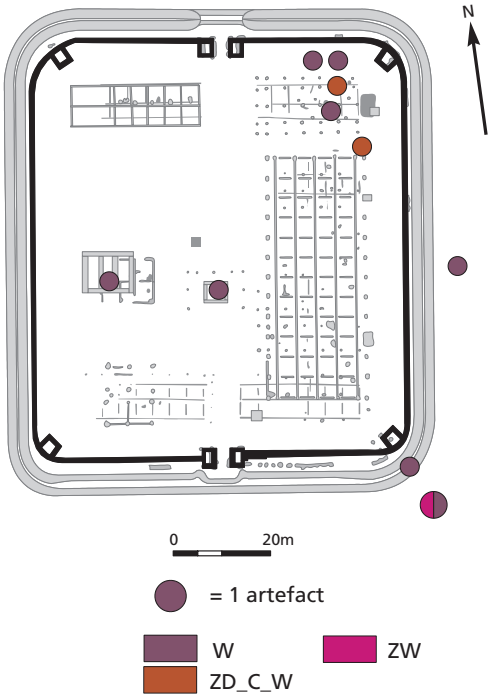

Fig. 35. Distribution of all writing equipment, according to category.

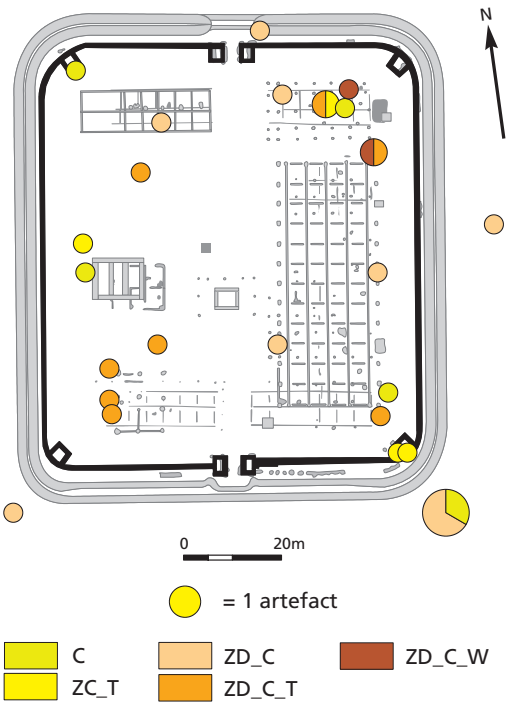

Fig. 36. Distribution of all potential cloth production items, according to category.

and one is from the *vicus*. Those within the fort consisted of four bronze needles (ZC_T), remains of four bone pins or needles, and possibly two clay spindle whorls (ZD_C). Five lead discs (ZD_C) that were stray finds are catalogued by Zanier as spindle whorls [102], but their diameters (diam. 20-34 mm) and their central holes, seem rather small for this function[103]. They could, alternatively, have been necklace beads. Eight bronze fragments, either from needles or pins (ZD_C_T), were found within the fort: four in Building F and Area H; two associated with Building B: on Area G; and one from Period 1 levels of Building C. If these items were not for cloth production then they were either hairpins or surgical implements. Whatever their function, their concentration in the region of Building F, the suggested commander's residence, is noteworthy. The remains of two bone pins, one found in Building C and one in the street, between Buildings B and C were either remains of spindles, hairpins or *stilii* (ZD_C_W). Apart from two such items found in the lower levels of Building C there is little evidence for the dating this material.

Of the four definite cloth-production items from within the fort, three are definitely female-related and one possibly female-related (*Fig. 37*). Two more definitely female-related items are from either the fort or the *vicus*. Of the possible cloth-production items, one within the fort is possibly either female- or child-related, and the remaining eighteen are either male- or female-related. But five more unprovenanced items – one from the fort area and four from either the fort or the *vicus* – are either possibly female-related or possibly female- or child-related. Anoher was a stray find from the vicus. The items most likely to have been used by women are found in Building C and in the streets.

Besides the concentration in Building C, other concentrations of definite and possible cloth-production items are in the area of Building F, around the periphery of Building B, and, interestingly, in the corner towers. The numbers are small but it is tempting to suggest that these were the main areas for cloth production. The types of artefacts in these plots are all easily lost. Interestingly, no such items were actually recorded within Building B, although they are found in the porticoes. Bu this building has a surprising dearth of finds, relative to the rest of the fort (see graphs of ceramic distribution). The discovery of two of the four bronze needles in the southeast tower is noteworthy and reminiscent of Allason-Jones' discovery of needles in the turrets of Hadrian's Wall[104].

Toilet

Seven definite toilet items are identified at Ellingen, all possibly surgical implements (*Fig. 38*). Their distribution – one in Building C (hidden in the plot), one in Building B, one in Shaft 6 to the south of Building F, three in the street and in one the fortifications – is not very informative, although there does seem to be a concentration in the area of Building C and in the street immediately to the west of this building. The one from Building C is from a Period 1 context and that from Shaft 6 is from a Period 2 context. The others are of uncertain date.

Fragments from seven small glass bottles were possibly from toilet items (ZT). These were found in Building C, the north end of Building B (substantial part of a vessel), the street and Shaft 6. A number of other fragments of these bottles were found within the fort but unprovenanced. As discussed above, under cloth production, four bronze needles, either for surgery or sewing (ZC_T), were found within the fort: one in Building C, two in area of southeast tower, and one in pit G37. Remains of another eight bronze needles or pins were also recorded within

[102] Zanier 1992,197 and pl. 38.
[103] See Allison 2006a, 380–381.
[104] Allason -Jones 1988, 197–233.

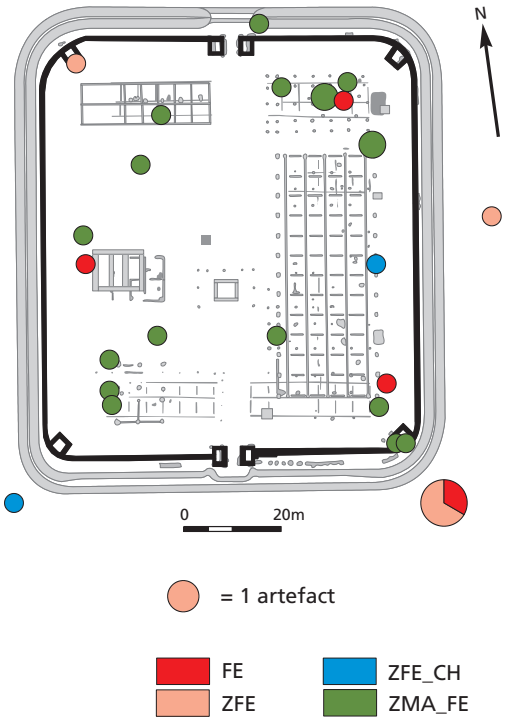

Fig. 37. Distribution of definite and possible cloth production items, according to gender.

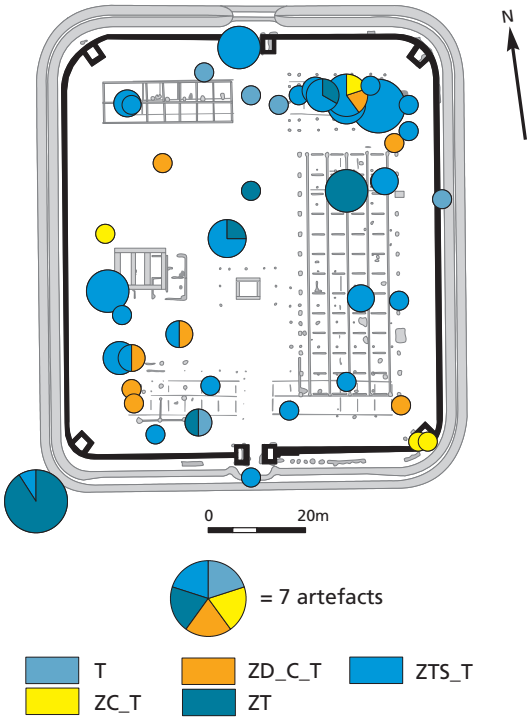

Fig. 38. Distribution of definite and possible toilet items.

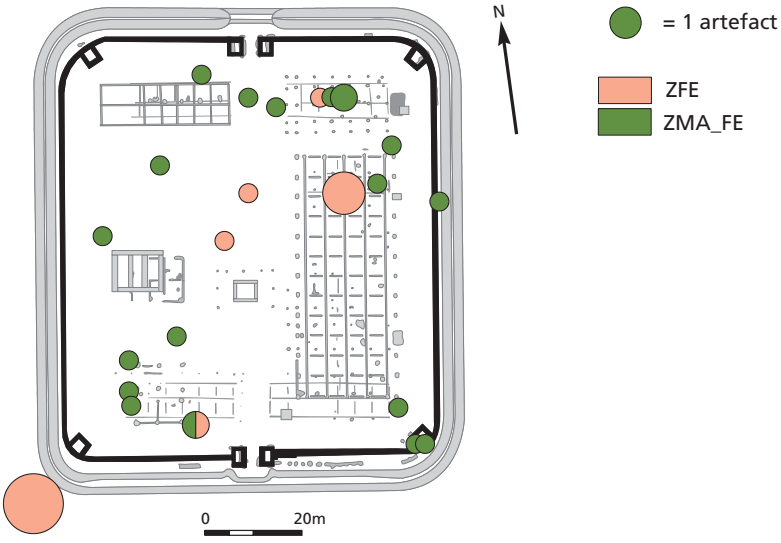

Fig. 39. Distribution of definite and possible toilet items, according to gender (excluding ZTS_T).

the fort (ZD_C_T), four of which were in the region of Building F and Area H. Remains of at least forty glass cups and small bowls have been found which could conceivably have been used for toilet, or alternatively for tableware and serving (ZTS_T). These are concentrated in

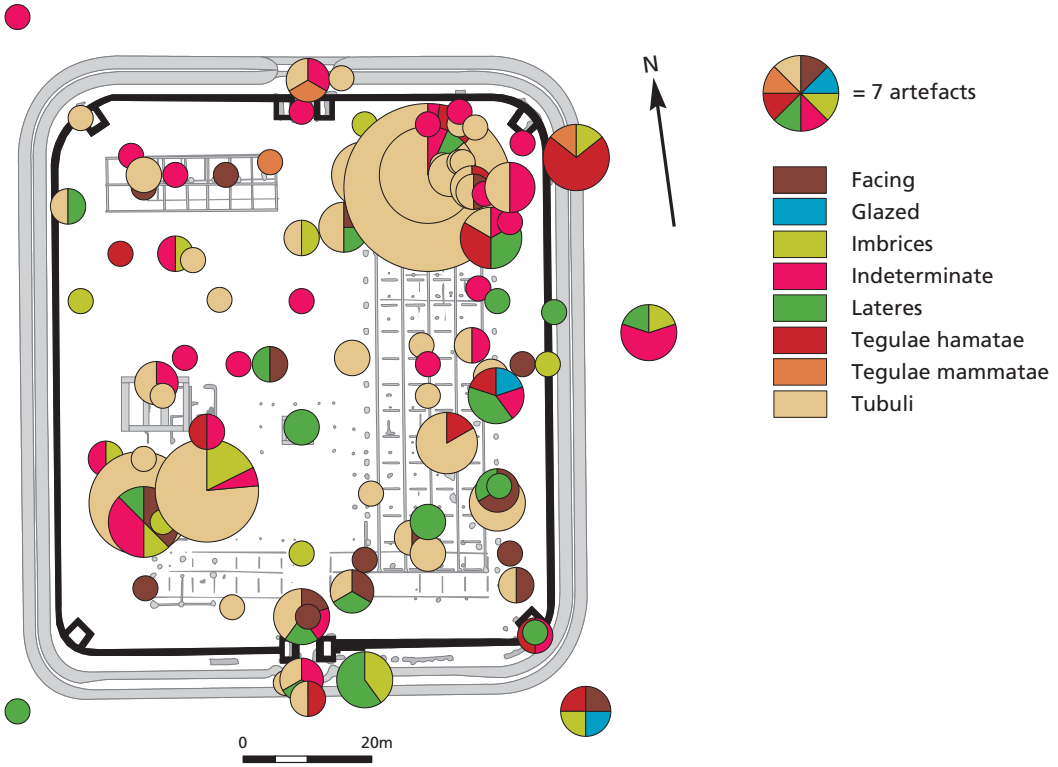

Fig. 40. Distribution of all tiles, according to type.

Building C, but were also prominent in Area H. A few were found in Building B, D and F. There is the expected concentration of toilet and possible toilet items in Building C, but there is also a notable concentration and in the region of Area H and Building F, and possibly in the northern part of Building B.

While, in general it is not possible to ascribe a specific gender to any of these types of definite or possible toilet items, for the purposes of this study, glass *unguentaria* have been considered possibly female-related (*Fig. 39*)[105]. These are found in Well 1 and the street, Building C, Shaft 6 of Building F, Building B, and there are also a number of stray finds from within the fort area. Interestingly, the provenances of these small bottles are similar to those of other potentially female items, perhaps reinforcing their predominantly female associations.

Redeposited material

Tiles

Tiles of various types were scattered throughout the fort (*Fig. 40*), most not datable. Zanier argued that the *tubuli*, tubular tiles used for wall-heating systems, which were concentrated in the lower levels of Building C (*Fig. 41*), were unlikely to have been from this building or this

[105] Such bottles are traditionally associated with perfumes and female toilet (for references see Allison 2006a, 22–23) but they also had medical uses (see Jackson 1988, esp. 74). However, there is evidence for their predominance in female graves in the late Republic and Early Imperial periods: in the graves in the region of Lake Maggiore (Mar-

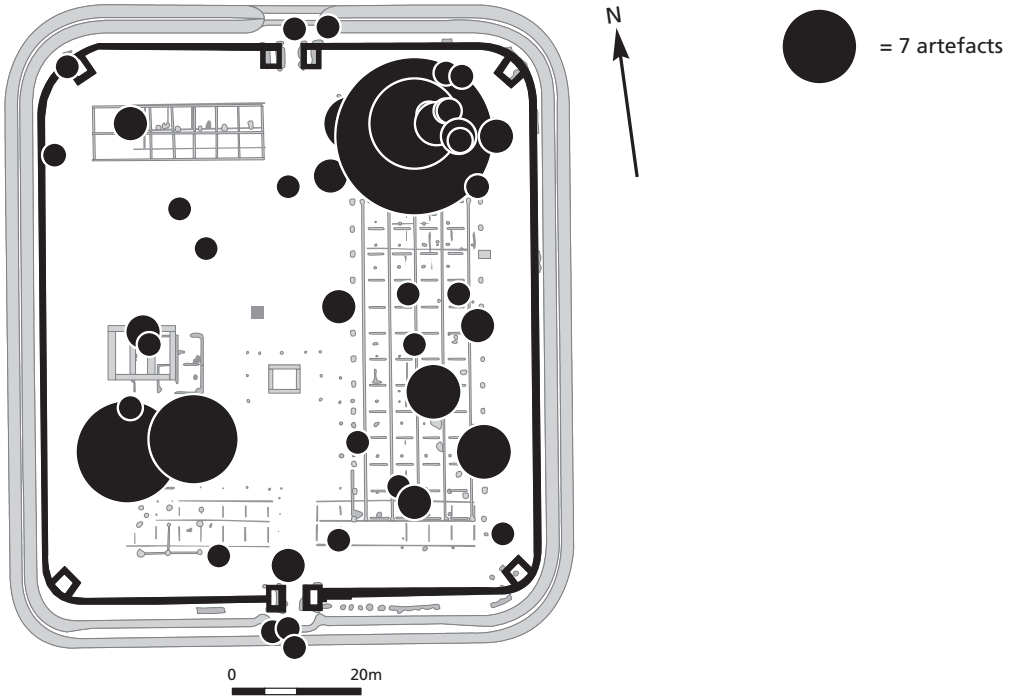

Fig. 41. Distribution of all *tubuli*.

fort[106]. He therefore suggested that these tiles, the slag and other finds in this context, including the infant skeleton remains, originated from outside the fort. As discussed above, it is most improbable that the infant skeletal remains could have been imported into the fort and redeposited. Also the character of the general assemblage in the lower levels of Building C, such as the slag and metalworking finds, is comparable to that in the rest of the fort, only differing in volume. This also applies to the *tubuli*.

150 fragments of *tubuli* were scattered within the fort and gateways, sixty of which were from Building C, thirty-two from Area H and twenty-one from Building B. Zanier had observed that these tiles were well represented in Area H and Building B but argued that the small size of the fragments and a lack of any indication for their use within the fort suggested that they were from a bath complex outside the fort. However, twenty-eight fragments from two tiles[107], and three fragments of another tile[108], were found in Building C, suggesting that, even if these tiles were redeposited, they had not moved far. The large quantity of *tubuli* found in Area H, where an earlier building seems to have been destroyed perhaps hints that they were from this building. Some may have been redeposited from here to Building C. Evidence from Saalburg suggests that channel heating systems that would have used *tubuli* could be used for wooden buildings[109].

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tin-Kilcher 1998, 191–252) and in the Kapellenösch cemetery at Rottweil (pers. comm. R. Flecher, Johann Wolfgang Goethe University, Frankfurt, July 2005).

[106] Zanier 1992,70.

[107] Ibid. cat. no. H45.

[108] Ibid. cat. no. H42.

[109] See Jacobi 1937, Nr. 11, esp. 37, pl. V; see also Baatz 1979, 31–44.

There seems little reason, therefore, to assume that the finds under the stone floor in Building C were imported from outside the fort. Even if there was a reason to import soil from outside for levelling procedures, it seems most unlikely that soil so rich in Roman period finds could be found and would be chosen for such a purpose. It seems more probable that purer soil would be available in the vicinity of the fort and would have been more suitable for such an activity. The evidence for conjoined items, both within this deposit and with material from elsewhere within the fort, points to any redeposited material having originated from within the fort. Thus, it seems more likely that, as Zanier originally suggested[110], this material constituted fort rubbish. It is also conceivable that it was indeed from the first building here, Building C-I, which was destroyed to be replaced with C-II.

[110] Zanier 1992, 69.

Presence and numbers women and children

Given that this fort housed infantry and probably *immunes*, any expectation of evidence for the presence of women and families would traditionally be extremely low. Only Building F-II, the presumed commander's house in Period 2, might be expected to provide such evidence.

As argued above, the presence and movements of women and children within the fort can be traced through the distribution of women's and children's dress items, and women's toilet or cloth-production items, but also by the distribution of perinatal skeletal remains. Including these skeletal remains, sixty-two finds associated with women and children were recorded at Ellingen, of which twelve were stray finds from within the fort, eleven were from either the *vicus* or fort, and three were from the *vicus* (*Fig. 42*). The thirty-six finds within the fort were concentrated within the Building C and Well 4, but nearly half were scattered across the fort. The latter were found mainly in the open areas, streets, towers, and wells. Four were found within Building B (including the upper part of a small glass bottle) and another five were found around the periphery of this building, possibly in its porticoes. None were found in Buildings A, D and E, although one was found in the street outside Building E. In Building F, they were only found in Shaft 6. Nearly all the definitely female-related items and half the perinatal skeletons are found in and around Building C and in Well 4. This overall distribution implies that women frequented the open parts of the fort but also Buildings C and B, and possibly Building F. The presence of relatively complete perinatal skeletons in Building C and in Well 4, presents a strong argument that women were residing in this particular building, and giving birth. While the female- and child-related material in Building B is comparatively scattered it also hints at women's and children's occupancy of this building.

Much of the material in Building C may have been redeposited, but the fact that more than half of the material related to women and children within the fort was not found in Building C, and the general conformity of the material from the redeposited layers of this building with that from the rest of the fort, implies that this redeposited material very probably originated from within the fort, and therefore documents women's and children's presence during Period 1. Possibly female- or child-related items, that most probably date to Period 1, also occurred in Well 1 and in the south-east corner of Building B.

The perinatal skeletal remains (CH) which are provenanced to these earlier levels in Building C, in room 16 in Building B and in Pit H58 to the NW of area H, may have been burials cut into these levels. Six potentially female- and child-related finds, in Well 4, Shaft 6, and to the west of Building B, can probably be dated to Period 2. The rest within the fort are undated but are from the fort period. The evidence for Period 2 dating for some of this material, together with the possibility that some of the perinatal skeleton remains are likely to be from the later period, again negates the argument that re-deposition of material in Building C from outside the fort explains the evidence of female presence found here.

The possible women's items found in Well 1, dated to Period 1a, and suggest some female presence within the fort in this earlier period, if not residency at least frequenting the street or open area between the North Gateway and Building A. Such presence conceivably increased

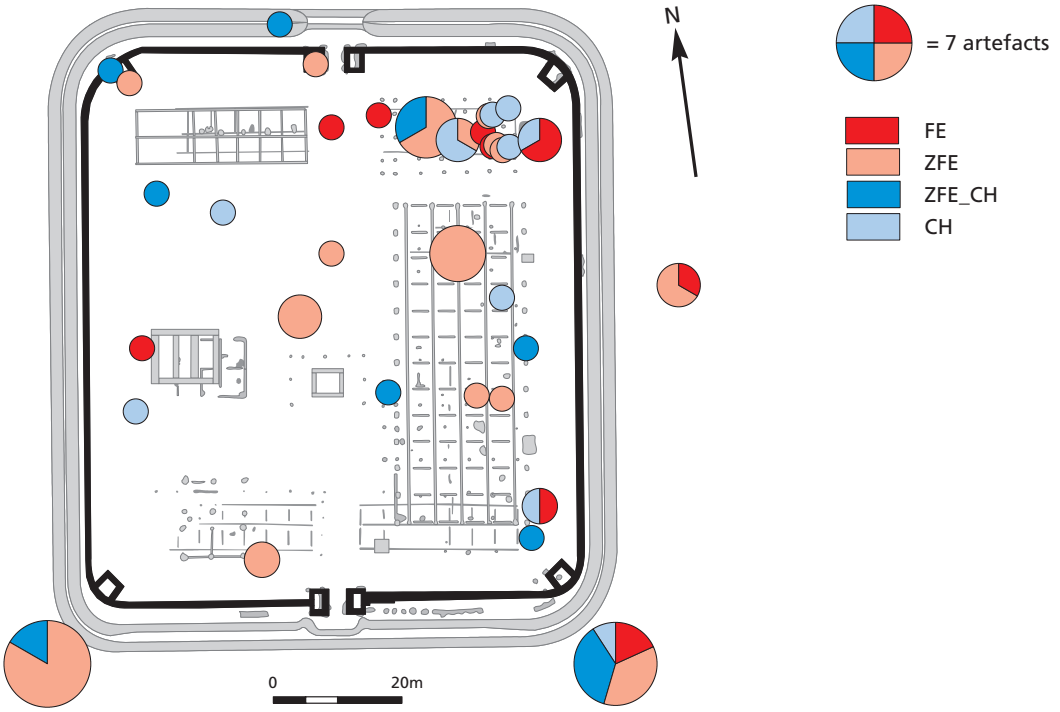

Fig. 42. Distribution of all artefacts gendered as potentially female- or child-related.

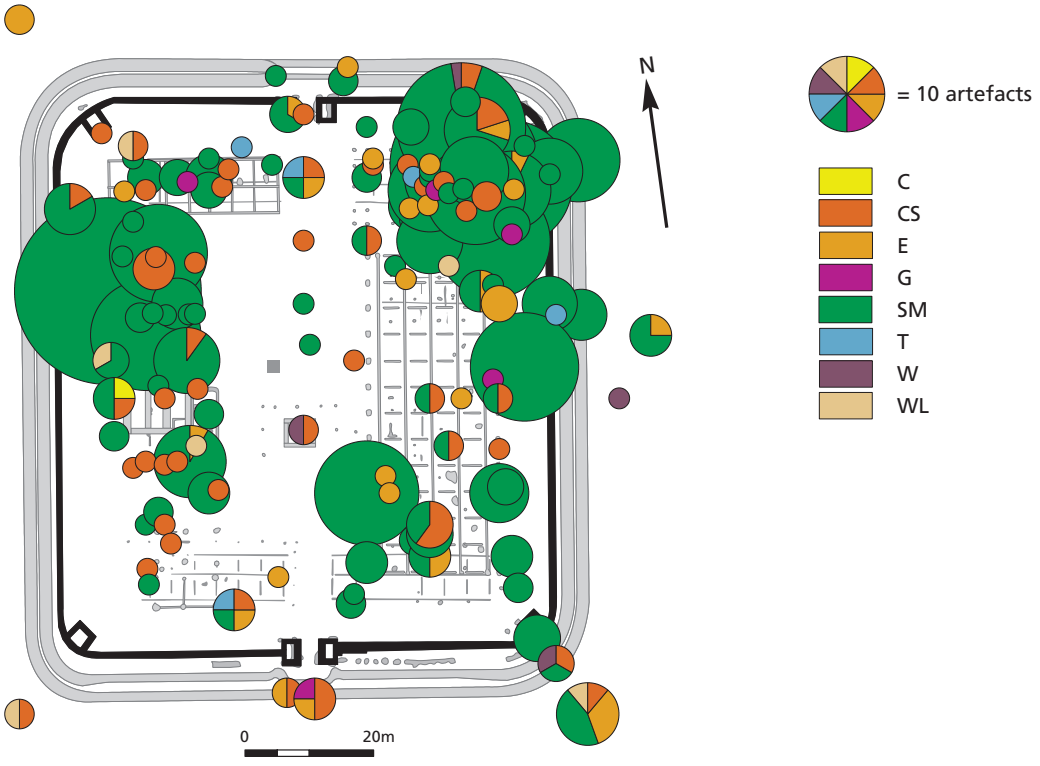

Fig. 43. Distribution of definitive activities that can be gendered, according to activity, from Period 1 b and 2 and not attributable to redeposited levels.

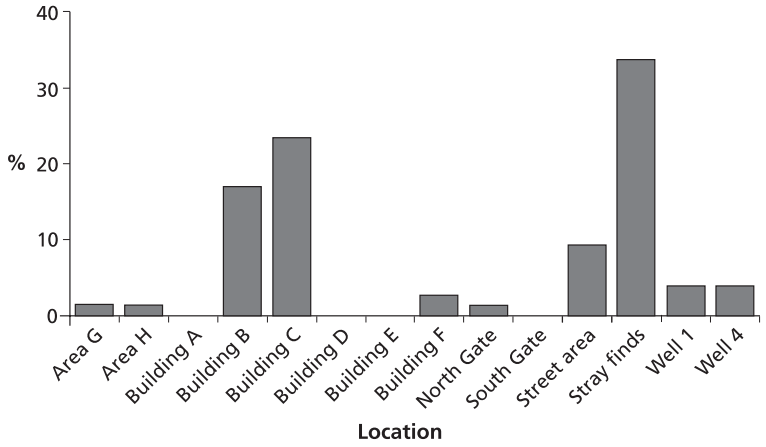

Fig. 44. Percentage of female- and child-related items, by location (including stray finds).

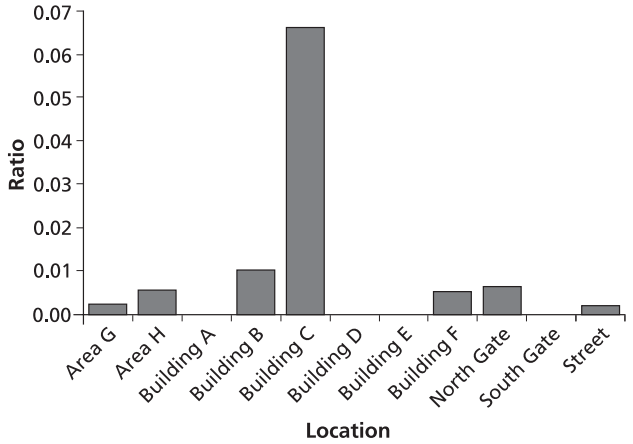

Fig. 45. Density of female- and child-related items per building area (minus wells).

during the 2nd half of the 2nd century. The perinatal skeletal remains provide strong evidence that these women were likely to have been inhabitants[111], residing in Building C, and possibly also Building B, during Periods 1b-2. The lack of such finds in Building F suggest that women were, indeed, less evident in any residence here but possibly present in Period 2. Concentrations of possibly toilet and surgical or cloth-production items in this area (*Figs 36; 38)* may point to their presence, but much of this material is less easily attributable to women *(Figs 37; 39)*.

This pattern can also be illustrated statistically. *Figure 44* indicates that the greatest percentages of items related to women and / or children were unprovenanced or stray finds (37 %). This is somewhat surprising given that stray finds were usually a minimal percentage of other categories of artefacts except fine ceramics (cf. *Figs 4; 9*)[112]. It is possible that some of these female- and child-related stray finds were from the *vicus* but many of them were definitely from

[111] See Phang 2001, esp. 9–10.

[112] Other examples of percentages of stray finds: 26% of combat items (E); 20% of gaming counters (G); 6.25% of dress items and no toilet items.

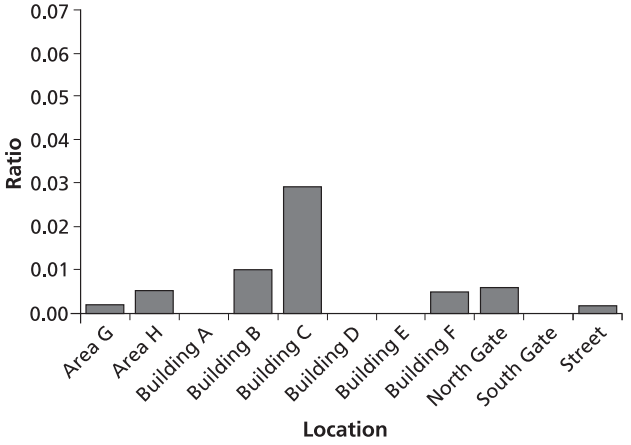

Fig. 46. Density of female- and child-related items per building area (minus wells and material from redeposited levels of Building C).

the fort. There may have been a reluctance, on the part of the excavators and recorders, to assign such finds to the fort proper. Apart from these unprovenanced finds, the main concentrations of evidence for women and children are found in Buildings B, C and the street.

Figure 45 indicates that Building C has a density that is more than five times greater than that of Building B and that Building B has a density which is at least twice that of any other area, despite the relative low density of overall finds from this building. The density in the street seems relatively low. This may imply that the women within the fort area are not so much involved in trade here, as at Vetera I[113], but rather were resident in Building C and very probably in Building B. Their presence in Area H and Building F is also evident.

To test this pattern, all potentially redeposited Period 1 items from Building C were removed from the graph, with the exception of perinatal burials which may have been cut into these lower layers *(Fig. 46)*. Without this redeposited material Building C still has a density that is three times that of the next most dense – Building B.

If we compare the number of artefacts at Ellingen that are potentially associated with women and children with all gendered items *(Table 6)*, then 64, possibly 75, can be compared with 1600 gendered items: some 4-4.69 %. If this fort held some 250 men at any one time, as Zanier surmised[114], then this would equate to 10–11.72 women and children. If we include all the possibly male- or female-related items this would increase the number of possible women or children's items to 127–150, or 7.94–9.38 %, equating to some 19.85–23.45 women and children within the fort.

However, the count of 1,600 gendered items at Ellingen includes over 1,100 pieces of slag. If, for argument's sake, we removed these, then 64–75 of the remaining 500 items were possibly associated with women and children. This would mean that 12.8–15 % of the habitants of the fort at any one time, or 32–37.5, were women and children. If we again include the 127–150 possibly male- or female-related items this would increase to 25.4–30 %, or 63.5–75, women and children.

These figures are certainly not very reliable but suggest that, at the very least, there were likely to have been some ten women living with the troop stationed at Ellingen at any one time.

[113] See Allison et. al 2005, sections 8.6.2c, 8.7.4a and 8.7.7; Allison 2006b, fig. 7.
[114] Zanier 1992, 174.

Location	Count of female?/ child? items	% of total gendered items	Count of female? / child ? / male ? items	% of total gendered items
(Artefact total = 15546)				
Area G	1	0.06	3	0.19
Area H	1	0.06	2	0.13
Building B	13	0.81	19	1.19
Building C	18	1.13	33	2.06
Building D	0	0.00	5	0.31
Building E	0	0.00	1	0.06
Building F	2	0.13	8	0.50
Street Areas	15	0.94	25	1.56
North Gate	1	0.06	3	0.19
Outside Fort	2	0.13	6	0.38
Possible Fort Area	11	0.69	23	1.44
South Gate	0	0.00	2	0.13
Street Area	7	0.44	19	1.19
Well 1	3	0.19	4	0.25
Well 4	3	0.19	3	0.19
Overall Fort	64	4.00	127	7.94
Possible Fort	75	4.69	150	9.38
Total gendered items	**1600**			

Table 6. Percentages of potential women's and children's items, with and without possibly male- or female-related items.

Similar comparisons with other forts may confirm that, of the inhabitants within auxiliary fort in the 2nd–early 3rd century, very probably at least 4 %, and conceivably even as many as 20–25 %, could have been women and children. Gechter has found that brooches identified as women's constituted less than 5 % of brooches in early imperial forts in the Rhine region[115].

[115] Gechter 1979, 77.

Roles of women

Because of the lack of exploration of women's roles in the military sphere and because of a lack of material evidence for those activities known to have been carried out by women[116], it is difficult to explore all the roles of the women at Ellingen. Undoubtedly the perinatal skeletal remains indicate that these women were giving birth, probably within the soldiers' barracks – Building C and possibly also Building B. This evidence presents a strong case for these women having been residents within these barracks, and very probably soldiers' 'wives', if in the *de facto* sense. What other roles they performed within the fort is difficult to gauge.

Evidence for women's items in the street areas and gateways suggests that women frequented these areas and may have been involved in commercial activities here, as has been argued for Vetera I[117]. However, surprisingly few coins were found in these open areas (*Fig. 8*) suggesting perhaps that these finds document the presence of women who were resident within the fort, whether or not they were involved in trade, or barter.

Certainly evidence for spindle whorls (*Fig. 36*) and other possible cloth-working items suggest that women were spinning inside the fort, especially outside Building B and possibly also in Building C. The collection of needles and pins in the vicinity of Building F suggest that, if these were not used for surgical work, then either needlework was carried out here, conceivably by women, or women had dropped their hairpins here. If indeed such needlework might be associated with women then similar finds in the northwest and southeast towers are curious. One must argue that either, even with women present in the fort there was enough weaving and needlework to involve soldiers on watch, or women wove and sewed while doing watch duty. A small bone bead also found in the northwest tower[118] might support an argument for the presence of women here.

Given that women seem to have been most evident in Building C, particularly in Period 2, and in Building B, and that most of the ceramics that can be dated to Period 2 were found in these two buildings, there may be a strong link between women and food-preparation. However, this ceramic evidence is not very reliable and more investigation of this relationship is needed.

In summary, the evidence is slight but there seems to be a strong association between women's items and the more domestic aspects of this military community, both in terms of the buildings and the finds. There is less association between women's items and the more industrial activities evident in Building D and Area G, or in the administrative and storage buildings A and E.

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[116] See Treggiari 1976,76–104. See discussion and further references in Allison 2006b.

[117] See (n. 113).

[118] Zanier 1992,cat. no. G46.

End date for the fort

Zanier felt that the date for the abandonment of the fort was problematic[119]. He argued that a poorly preserved *denarius* of Septimius Severus[120] gives an earliest date of 193 A.D., and that *terra sigillata* plates of type Drag. 32[121] also give an early end, at the latest, at the beginning of the 3rd century. Two brooches dated c. 200 - 1st half of the 3rd century,[122] another dated to 1st third of the 3rd century[123], and a decorated sheath[124] found in the street and dated from end 2nd – beginning of 3rd century, suggest that the end date was in the early 3rd century. Zanier stated that one fifth of Rheinzaber relief decorated *terra sigillata* found at Ellingen was Bernard Groups Iib–III which can be dated 170/80–260/70 A.D.[125] He therefore proposed an end of the fort in the 1st half of the 3rd century[126]. During this period were the German campaign of Caracalla (213 A.D.) and the German invasions from 233 A.D. However, Zanier found it difficult to associate the destruction of fort with the German invasions in 233 A.D.

The *denarius* of Septimius Severus was a stray find, made in 1983, and not necessarily from the fort. Within the fort excavations, the latest coins found were two *denarii* of Commodus, minted respectively in 186 A.D. and 190/191 A.D. There were only about ten reported finds of Drag. 32 plates, one a stray find, which is less than 1 % of the whole fine ceramic assemblage. The Rheinzabern *terra sigillata* that can be dated c. 170/80–260/70 A.D.[127] represents c. 11 % of all the relief decorated *terra sigillata* pottery but those that can potentially be dated AD 210/30–260/70 represent only c. 1.5 %.

Although parts of the upper surface of the Roman levels were missing from the west side of the fort, the very limited amount of specifically 3rd-century material from a rapidly abandoned fort, most strikingly coins and ceramics, suggests that the end date was probably closer to 200 than 250 A.D. If this were the case this means that the presence of women in the fort is unlikely to relate to Septimius' lifting of the marriage ban. Their presence in Period 1 reinforce this conclusion. However, it might be possible to argue, that their presence may have increased after c. 200 A.D. It is certainly possible to argue that soldiers' 'wives' were not housed outside the fort walls, at least in Period 2[128].

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[119] Ibid. 162.
[120] Ibid. cat. no. A34 – dated 193/211 A.D.
[121] Ibid. cat nos. EII 456–470.
[122] Ibid. 111, cat. no. B7–8.
[123] Ibid. 113, cat. no. B9.
[124] Ibid. 162, cat. no. C52.
[125] Ibid. 130.
[126] Ibid. 163.
[127] Ibid. 126.
[128] See Phang 2001, esp. 35, 127–129.

Observations on building use

These analyses of the artefact distribution patterns do not demonstrate any major changes to Zanier's interpretations of the uses of each building, in each period, but they do add more detail and some possible alternative interpretations. The following discussion investigates the assemblages associated with each building.

Building A

Zanier identified the extant stone building as a troop sanctuary[129], no doubt built in Period 2. Some fifty fragments of animal bone were recorded here (*Fig. 11*), a quantity comparable to that found in other buildings, relative to area. However, over 250 pieces of animal bone and a skull fragment of a young adult human were also found in nearby Well 1, dated to Period 1a and conceivably associated with Building A's predecessor. No gaming (*Fig. 34*), toilet (*Fig. 38*), cloth-working (*Fig. 36*), combat items (*Fig. 29*) or dress-related items *(Figs 15; 18*) or coins (*Fig. 8*) were recorded in Building A, although some were found in Well 1. Also no *tubuli* were found in this area (*Fig. 41*). In contrast, one of the only eight identified writing items from within the fort was reported here (*Fig. 35*), and an iron knife. A whetstone and slag was found in Pit A25 but this was probably from Period 1a. Building A also had the lowest density of both fine and utilitarian ceramics *(Figs 5; 10)*.

This relatively limited assemblage, compared with other buildings within the fort, would seem to verify that this was not a residence, at least in Period 2, and neither was it an area frequented by women. If it was indeed the troop sanctuary then the quantity of animal bones recorded here is conceivably informative about religious practices, as may be the writing item and iron knife. However, this evidence is very scant.

Building B

Zanier identified the northern part of this area as a troop barracks in Periods 1a and 1b. He suggested that there was probably a metal workshop in the southern part in the earlier phases, but that there was also evidence of a barracks there, particularly in Period 1b. By Period 2 the whole area formed Building B-III which took the form of double barracks.

Building B has about the same quantity of animal bone as Building D but from a much larger area (*Fig. 11*). Relative to size, it would also seem to have less animal bone than Building F. This suggests that a lot less meat processing took place here than in other parts of the site.

Zanier noted a concentration of horse equipment in northern half of the eastern rooms (*Fig. 33*), particularly remains of bridles, but doubted that Ellingen would have had cavalry[130]. However, while there were relatively high quantities of combat equipment found in this build-

[129] Zanier 1992, 45–51.
[130] Ibid. 63.

ing and particularly in this part of it (*Fig. 29*), notably weaponry, combat-dress items were relatively sparse *(Figs 15; 18).* The weaponry found in this building dates to Period 2. Besides this high concentration in Building B, weaponry was more prominent in the areas of Buildings C, D and F, than in Building E, the identified storehouse. This suggests that there may have been less central control of these arms, or less availability of replacements, at an auxiliary fort like Ellingen than at a legionary fortress like Vetera I. At the latter fortress the main concentration of weaponry was held in the administrative building, Building A, probably in an armaments store[131]. However, the barracks buildings at Vetera I were not well excavated so it is not possible to make precise comparisons. It is also conceivable that this distribution pattern was related to different abandonment processes. Interestingly, few coins were recorded in this building, all possibly dating to Period 1a (*Fig. 8*). No writing equipment was recorded in this building (*Fig. 35*).

Building B was the only extant building, besides Building C, with evidence of associated perinatal skeletal remains. These were found in the central part and outside the southern part of Building B-III (*Fig. 12*), both possibly burials, one conceivably dated to Period 1a but more probably cut into the lower levels at a later date. This building may also have been associated with one of the four definite cloth-working items found on this site (a spindle whorl), and with a bronze needle (*Fig. 36*), both near the southeast corner of the building, implying the presence of women in this area. Interestingly, two needles were also found in the nearby southeast corner tower of this fort. Other possible toilet items were relatively scarce across this building (*Fig. 38*). There was one instrument and substantial remains of a small glass bottle in the northern part, but the other glass vessels in this building (ZTS_T) may, alternatively, have been tableware. Two of the seven gaming counters (*Fig. 34*) found within the fort area were from the central and southern parts of this building, as was another possible gaming item.

Only five definite dress items are associated with this building, one of which, in the southeast section of the building, was possibly associated with women and children (*Fig. 16*). Another possible dress item, female-related, was found in a similar location and two possible female- or child-related items were recorded to either side of the building and one in the southeast corner *(Fig. 18)*. These are mostly not datable, although, the possible female- or child-related item in the southeast corner may dated to Period 1b and that on the west side of the building to Period 2.

Besides combat and cloth-working equipment, other material in this building associated with gender-related activities includes a concentration of material related to metalwork and cutting and sharpening in the southern half of the building (*Fig. 24*), as observed by Zanier[132]. The large concentrations of this material, on the west side and in the southeast corner, can be dated to Period 1b. This building also has a scatter of remains of tubular tiles (*Fig. 41*).

There is a relatively low density of fine ceramics in Building B compared with all other buildings, except Buildings A and F (*Figs 5; 10*). Fine ceramics were concentrated in the northern part and southeast area and mostly not datable, although some, mainly in the central section, can be dated to Period 2 (*Fig. 3* – P2). There is a slightly higher, but still low, concentration of utilitarian vessels, compared with Area H, Building D and Building E (*Fig. 6*). These utilitarian items were concentrated particularly on the east side of this building. If this distribution pattern is not related to post-depositional factors, it suggests, together with the evidence for hearths in this building, that any cooking activities were concentrated on the eastern side. No such distinction is evident for the tablewares to suggest the same for eating.

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[131] See Hanel 1995, 50–51); see also Allison et al. 2005, section 8.6.2a.

[132] Zanier 1992, 54.

It might be argued that the general dearth of finds across this building was related to post-depositional factors were it not for the large proportion of weapons found here. It is, therefore, conceivable that this distribution pattern indeed documents the type of habitation of this building.

In summary, with the exception of that in Building C, this building has the highest density of material related to women and children in this fort (*Figs 42*; *46*). Most of this material is again in the eastern half of the building, but some was found in the central northern part of the building, and one item on the west side. There is possibly a connection between women's items and utilitarian ceramics on the eastern side of this building, conceivably intimating that women were cooking here.

Building C

Zanier noted that the function of Building C-I was unclear[133]. He observed that the layout suggests it was a barracks but that it could have been a work hall or workshop. He suggested that the building had been reconstructed during Period 1b, as Building C-II, and then the stone floor was probably laid in 182 A.D. As discussed, a lot of material seems to have been dumped or redeposited here, before the stone floor was laid. Thus, the high density of finds from this building has been attributed to this re-deposition, but this does not apply to all finds, particularly those in the upper levels and, as argued above, to the burials that may have been dug into the lower levels.

While the finds from this redeposited material are comparable in character to those in the rest of the fort, their density is not uniformly high across all categories. For example, there are not significantly more combat and possible combat items in this building than in Building B *(Fig. 29*), and only five of these items can be ascribed with certainty to the redeposited layers (*Fig. 30*). In contrast, these was a large concentration of slag and metalworking remains (*Fig. 24*), particularly from a pit dating to Period 1a (Pit 93) and probably redeposited, although there were also considerable amounts either from later periods or not datable to the redeposited layers *(Fig. 43)*. Possible gaming items showed a relative concentration in this building, mainly from Period 1 contexts (*Fig. 34*), as did *tubuli* (*Fig. 41*). Only one of the seven toilet items reported from within the fort was found in this building, undated (*Fig. 38*). Possible toilet items were also not especially concentrated here, including the glass bowls and cups that could alternatively have been tableware or serving dishes. It was noted above that, while Building C had the highest density of fine ceramics within the fort (*Fig. 5*), the higher density of utilitarian ceramics here than in any other building was much more marked (*Fig. 10*). Both ceramic types had high concentrations in Period 1 deposits (*Figs 3; 07* – P1). Interestingly, though, Well 4, dated to Period 2, also had high concentrations of both fine and utilitarian ceramics. The concentration of utilitarian ceramics in Well 4 seems comparable to other wells in the fort but that of fine ceramics was considerably higher. This may point to this building as a possible main eating area during the later period.

The distribution pattern for dress items shows a marked concentration in this building (*Fig. 15*) although possible dress items are as concentrated in Building D (*Fig. 18*). Seven or eight of the possibly female- or child-related dress items here were from the redeposited layers. However, two definitely female items from Well 4 are dated to Period 2 (*Fig. 17*), two others (one definite and one possibly female-related) probably date to the later period and two definite female-related items, one in the west end of the building and one in the street in front, are undated. This suggests that there were almost as many female-related, and more definitely

[133] Ibid. 64–65.

female-related, dress items in the later deposits as in the early, redeposited ones, suggesting that many of these female-related items found in this building were associated with its use, at least in Periods 1b-2. Other items in this building possibly associated with women include one undated lead spindle whorl and four of the nineteen possible cloth-working items from within the fort, three from redeposited levels and one undated (*Fig. 37*). While some of these artefacts may not be directly associated with the occupancy of this building, the remains of up to six perinatal skeletons are.

In summary, it is difficult to ascribe a function to this building on the basis of the finds, given the likelihood that so many were redeposited from elsewhere on the site. However, it would seem that there was a marked presence of women residing here, particularly in the later period, and also of fine ceramics. It is conceivable that this building was a better candidate than Building F for the commanding officer's residence. But equally, judging from the layout, these were likely to be soldiers' barracks, as argued by Zanier, which had resident families at least in the later period.

Building D

Zanier suggested that this had been a barracks or workshop, in Period 1, and then a barracks in Period 2[134]. There would seem to have been a higher density of animal bone in this building *(Fig. 11)*, and a high proportion of cutting and sharpening implements (*Fig. 24*), most of them latter dating to Period 1a, but a relatively small amount of metalworking material compared with other parts of the fort. Thus, if this building had been a workshop it seems that it was not for metalworking but more probably it had been for meat processing, particularly in Period 1a. Zanier thought that the high number of whetstones here suggested it may have been a location for making whetstones[135]. However, this would not explain the relatively high quantity of animal bone.

Combat equipment was relatively scarce here although there were a number of fittings which were identified as possibly combat dress items (*Fig. 29*), mostly undated (*Fig. 32*). There is a scattering of dress items in and near this building, most of them probably male-related and either dated to Period 1b-2 or undated (*Fig. 16*). Four of the nineteen possible gaming items from within the fort were found inside this building, but all undated (*Fig. 34*). These latter finds point to the use of this building as a barracks, at least at some point, but possibly not by combatant soldiers.

No human skeletal remains were associated with this building (*Fig. 12*). Definite toilet items were also not found in this building although they were found to the northeast of it (*Fig. 38*). No writing equipment was found in the vicinity (*Fig. 35*). Only one possible cloth-production item, a bone needle or pin (*Fig. 36*), was associated with this building and there are no potentially women's or children's items here (*Fig. 42*), only items categorised as possibly male- or female-related.

Building D had a higher density of both fine and utilitarian ceramics than in Buildings F and B, and comparable to that in Area H *(Figs 5; 10)*. Some of these ceramics may be datable to Period 1a (*Figs 3; 7* – ZP1A) but most are not datable. The three coins from this building were all minted before 120 A.D. and are possibly from Period 1a (*Fig. 8*). The distribution of the finds in this building therefore tends to point to a workshop, as argued by Zanier, or possibly to a meat-processing area in the earlier period, and probably a barracks later. Whether this building

[134] Ibid. 76–77.
[135] Ibid. 77.

was a workshop or a barracks it would seem to be a more male-dominated area than Buildings B and C, possibly for craftsmen.

Building E

Zanier identified this building as a *horreum* (a granary), at least in Period 2[136]. About fifty pieces of animal bone were recorded here *(Fig. 11)*. Also from this building were a handful of whetstones and some metal-working material *(Fig. 24).* One of the eight writing items recorded from this fort was found here (*Fig. 35*), probably dating to Period 1a. This building has a surprisingly high density of fine ceramics (*Fig. 5*), many of which probably date to Period 1a (*Fig. 3* – ZP1A).

No skeletal remains were recorded here (*Fig. 12*), and no combat equipment (*Fig. 29*). Of two dress items found here, the one inside is dated to Period 1b and the one to the west is undated (*Fig. 15*). One spindle whorl and one bronze needle, both undated, were found in the street to the west (*Fig. 36*). This assemblage might well accord with that of a storehouse, although of a general store rather than a granary. Animal bones might not be expected in a storeroom, though. Some of this material seems to date to Period 1, however, which may indicate that the predecessor to the stone built storeroom was more domestic, conceivably with women present.

Building F

Zanier suggested that Building F-I was a troop barracks, later converted into a corridor house, Building F-II, which he interpreted as the commander's house[137]. He observed that while corridor houses were often *valetudinaria*, Ellingen was unlikely to have had a hospital.

About half as much animal bone was recorded from here as from Building D *(Fig. 11)*. Some adult human skull fragments were found in and near this building, but undated (*Fig. 14*). A number of combat items were found in the eastern half of the building, predominantly dated to Periods 1b-2 (*Figs 30;3;32*). No gaming items (*Fig. 34*), writing equipment (*Fig. 35*) or tubular tiles (*Fig. 41*) were found here, although there was a concentration of the latter in Area H. The single coin recorded here probably belonged to Period 1b (*Fig. 8*).

Remains of three bronze needles or pins were found in the west end of the building (*Fig. 37*). These could have been sewing, dress or medical items and at least one of them was probably from a Period 1b-2 context. A probe, associated with toilet or surgical activities, was found in the upper level of Shaft 6, associated with Building F-II and a scatter of glass vessels found here could conceivably have been used for toilet or medical activities (*Fig. 38*).

After Building A, Building F had the lowest density of fine ceramics (*Fig. 5*). Most were from Shaft 6 and about half of these were from the lower levels, with early dates, and so were probably from Period 1a (*Fig. 3* – ZP1A). The other half dated to Period 2 (*Fig. 3* – P2). A number of mortars were also found in this area, dating to Period 1b-2 (*Fig. 3* – P1B_2), but other fine ceramics were largely undated. The paucity of fine ceramics could be related to the type of flooring, well preserved in the southern rooms[138], and to regular cleaning of the building. However, the quantity of fine ceramics from Well 4, associated with Building C, is nearly four times greater than from Shaft 6. In contrast, the density of utilitarian ceramics in this building is comparable to that of Building B (*Fig. 10*). The relatively higher density of utilitarian ceramics

[136] Ibid. 79.
[137] Ibid. 81–86.
[138] Ibid. 83.

here, compared with fine ceramics, suggests that this building had a more utilitarian use than Building C, and conceivably also Buildings B and D.

Material related to dress was relatively scarce in this building. Shoe nails and a brooch were found to the west (*Fig. 15*), and the bronze needles or pins found in the same area may also have been dress items (*Fig. 18*). What may have been a women's necklet was found in the upper levels of Shaft 6. This possible necklet and the remains of a small glass bottle, also from the upper levels of Shaft 6, are the only items from this building that are most likely to have been associated with women or children (*Fig. 42*). Thus, there would seem to be a comparativly lower female presence in this building than in Buildings B and C. However, if it could be argued that the remains of bronze needles or pins, were used by women, then this would certainly increase the likelihood that women had resided here. However, the relatively low level of fine ceramics might make this building an unlikely candidate for the residence of a commanding officer and his family. At Vetera I, there were notable concentrations of fine and utilitarian ceramics in officers' residences[139].

While Zanier is no doubt correct in assuming that Ellingen would not have had a building dedicated as a hospital, there seems to be a significant presence of toilet or possibly medical items in this part of the fort, unless the needle or pin remains were for sewing or hairpins and therefore suggest a higher female presence. It could perhaps be argued that the higher density of utilitarian ceramics might be associated with a medical facility rather than a residence, but more investigation of such ceramics is needed[140]. The higher concentrations of fine ceramics and women's items in Building C might suggest that the latter building was a more likely candidate for a commander's residence but a closer examination of the quality of the fine ceramics in each building is again needed before such a conclusion can be made. It is tempting, perhaps, to see an association between potentially female-related remains and evidence for medical activities. From the current analysis one can only conclude that there were probably more women living in Building C than in Building F, and probably over a longer time period.

Area G

Traces of a building were noted in this area but not ground plan was discernible. Zanier suggested that there had been a workshop here in the later phases of the fort, replacing the larger workshop in Building D-I[141]. No animal bones were reported here *(Fig. 11*). No gaming items (*Fig. 34*), writing equipment (*Fig. 35*), definite combat equipment (*Fig. 29*), or coins (*Fig. 8*) were reported here, and only two fragments of tubular tiles (*Fig. 41*) were recorded. There is also a relatively low density of both fine and utilitarian ceramics in this area, mostly not well dated *(Figs 5; 10).* This lack of finds may be attributable to the mechanical excavation of this area.

A partial 0-3 month-old neonatal human skeleton was recorded in Pit G14 in this area, probably dated to Period 1b-2 (*Fig. 14*). Remains of a bronze needle or pin were also found in Pit G14, and a scatter of dress items, including a glass millefiori bead, were found in the street near the southwest corner of Building D (*Fig. 15*). However, no dress items were found in the vicinity of the postholes and other features in this area.

Despite the dearth of other gender-related material and the low density of ceramics, this area had the greatest concentration of slag and other metalworking material, and a number of whetstones (*Fig. 24*). Most of this material is undated but some of it has been tentatively ascribed to Periods 1b-2. Because of this concentration Zanier identified this area as workshop during

[139] Allison 2005, figs 5–7.
[140] It is perhaps noteworthy that no amphorae were recorded in this fort.
[141] Zanier 1992,90.

the later periods. The neonatal burial, in one of the pits associated with traces of a building, hints at female activity here during the later period.

Area H

There seems to have once been a building here too, but Zanier was unable to reconstruct its plan from the remaining postholes and trenches[142]. The only animal bone reported in this area were two pieces of worked bone that were probably gaming items *(Figs 11; 34)*. No writing equipment was found here (*Fig. 35*) and there is a relative lack of combat equipment (*Fig. 29*). A number of metalworking and cutting and sharpening items were recorded here (*Fig. 24*), but some may be associated with the Period 1a predecessor of Building E.

A skull fragment of a neonate found in pit H58 was possibly part of a burial and possibly dated to Period 1a (*Fig. 13*). It is unclear whether adult skull remains found here were associated with the building in this area or with Building F (*Fig. 12*). In addition to the remains of three bronze needles or pins found near the west end of Building F, another similar fragment was found in the centre of this area (*Fig. 36*). One coin was found in this area, probably from a Period 1b-2 context (*Fig. 8*).

The densities of both fine and utilitarian ceramics here were relatively high (Figs 5: 010), especially utilitarian ceramics. This may point to a residential building in this area. Many of the ceramics found to the north, both fine and utilitarian, seem to have belonged to Period 1a (*Figs 3; 7* – ZP1A). Some of the others may date to the later periods (Figs 3; 7 – P1B_2 and ZP1_2), but most are not datable.

After Building C, this area had the largest concentration of *tubuli* (*Fig. 41*). As argued above, Zanier's suggestion that these tiles had been brought in from a bath building outside the fort is not supported by the general artefact assemblage of this fort. It seems more likely that they had been part of a building that had once stood here. This suggests that this building had a heating system and could conceivably have been an officer's residence[143]. No definite toilet items were recorded here, although a number of glass vessels and remains of bronze needles or pins could have been related to toilet activities (*Fig. 38*). There is a scatter of potentially dress-related items here *(Figs 15; 18)*, dating to all periods.

The only items found here that could be associated with women and children are the neonatal burial and possibly the remains of bronze needles or pins. It is conceivable that there had been a commander's residence in this area that preceded Building F-II, or alternatively a troop barracks with women in residence.

Streets and gateways

A number of items that could have been associated with women and children were found in the street area (*Fig. 42*), particularly in the vicinity of the North Gateway. They were also found in the street leading from the North Gateway to Building A. It is tempting to see a market or public area here, especially as female-related items were found in Well 1, which may have served this area. There are also items possibly related to women and children in the northwest corner tower, in the street along the west side of the fort, in the area to the south of Building D, and on both the east and west sides of Building B. However, items potentially associated with women and children appear to be no more frequent in the streets than they are within buildings and associated shafts and wells. As noted above, the distribution pattern does not indicate an

[142] Ibid. 91–92.

[143] See Baatz 1979.

influx of market women, as might that at Vetera[144]. The items to either side of Building B are likely to have been related to occupants of this building. This suggests that even if women and children were coming into the fort for commercial or business purposes, there was likely to be a higher proportion of women actually residing within the fort. The relatively high density of fine ceramics in the North Gateway are noteworthy (*Fig. 5*) and is either related to abandonment processes or to dumping of material, perhaps from Buildings C and D.

[144] See (n. 113).

Summary

The first important observation in this study is that the distribution of various types of artefacts is not consistent across the site and does not mirror exactly the distributions of the ceramics. The observed differences in distribution of the gender categories are that potentially female- or child-related items are found predominantly in Building C, and associated with Buildings B and possibly Building F, and conceivably with the building in Area H. They show little or no association with Buildings A, D, or E or with any buildings in Area G. The evidence for female-related items in the deposits in Wells 1 and 4, and in Shaft 6, is significant (*Fig. 42*), as is the evidence for perinatal skeletal remains, in Areas G and H, in Well 4, in Building B and to the south east of this building, some possibly burials (*Fig. 12*). Otherwise it might be possible to argue from the concentration of female-related items in Building C that all such items were in material redeposited from outside the fort.

The remains from Building C not associated with any re-deposition indicate that women resided here, at least after 182 A. D. As discussed above, there is little substantial evidence that this fort was functioning much after the beginning of the 3rd century. This dating, and women's apparent presence in early occupation phases of the fort, implies that these resident families were not the result of Septimius Severus' lifting of the marriage ban at the end of the 2nd century. Even if this material could all be dated after 193 A. D., these families were certainly not housed outside the fort walls[145].

That artefacts potentially associated with women and children constitute a very small percentage of the overall assemblage of this fort might be used to argue that this evidence is inadequate and unreliable. However, given our limited knowledge of gender-segregation of activities in the peripheries of the Roman world – much of which is based on either modern analogical inference or the biases of certain Roman authors – one should not expect to find large quantities of artefacts that can easily be gendered. Indeed, as van Driel Murray pointed out, it is equally difficult to trace definitive male presence within such communities through the gendering of artefacts which is also not reliant on such analogies or biases[146].

This study makes some tentative suggestions for the presence and activities of women within a 2nd-century auxiliary fort which will hopefully have ramifications for the future study of other forts with comparable material. It is perhaps noteworthy that a relatively high percentage of potentially female-related artefacts from this fort were catalogued as stray finds. It is conceivable that publications of past excavations of other sites show few female-related items because such artefacts have frequently been considered 'out of place' and so have not been fully discussed in the relevant publications[147].

This study highlights the importance of careful and accurate recording of *all* finds from military, or indeed any settlement, contexts. It also demonstrates how GIS-technology is not only useful for landscape archaeology or the recording of current excavations. Old excavations and old excavation reports can also be re-analysed using such technologies and can provide new and interesting interpretations.

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[145] Cf. Phang 2001, esp. 35; 127–129.

[146] Discussion at the colloquium, Frauen und römisches Militär (Xanten, Germany, July 2005).

[147] See also Allison 2006.

Zusammenfassung

Die vorliegende Studie untersucht die Verteilung von Artefakten im Auxilliar-Lager von Ellingen, Rätien (2. Jahrhundert n. Chr.). Die raumbezogene Auswertung erfolgt mit GIS – Software und zielt auf die Erforschung des sozialen Raumes, insbesondere die Anwesenheit von Frauen und Kindern. Die GIS-Technik hat den Vorzug, dass sie eine schnelle Visualisierung großer Datenmengen erlaubt und den Weg zu einer vergleichenden Betrachtung unterschiedlicher Verteilungen, einschließlich ihrer statistischen Auswertung öffnet.

Die erste wichtige Beobachtung ist, dass die Verteilungen der untersuchten Artefakttypen unterschiedlich sind und in keinem Fall exakt mit der Verbreitung der Keramik übereinstimmen. Artefakte, die sich mit Frauen und Kindern verbinden lassen, überwiegen im Gebäude C. Sie lassen sich auch mit Gebäude B, vielleicht mit Gebäude F und denkbar mit den Bauten der Fläche H assoziieren. Sie zeigen wenige oder keine Verbindungen mit den Gebäuden A, D, und E sowie Bauten der Fläche G. Der Beweis für frauenbezogene Gegenstände in den Brunnen 1 und 4 sowie in Schacht 6 ist bemerkenswert, ebenso der Beweis der Knochen von Säuglingen, einige möglicherweise von Bestattungen, in den Flächen G und H, in Brunnen 4, im Gebäude B und im südöstlichen Bereich dieses Gebäudes. Wenn das nicht Fall wäre, müsste man annehmen, dass die Konzentration des frauenbezogenen Fundniederschlags im Gebäude C eine Redeponierung von Materialien sei, die von außerhalb des Lagers stammen.

Die Reste aus Gebäude C, die nicht mit einer Redeponierung assoziiert sind, erlauben den Schluss, dass sich Frauen hier aufhielten, zumindest nach 182 n. Chr. Wie bereits erwähnt wurde, liegen keine Beweise vor, dass das Lager noch im 3. Jahrhundert genutzt wurde. Diese Datierung und die frauenspezifischen Funde in den frühen Bewohnungsphasen implizieren, dass die im Militärlager wohnenden Familien nicht das Resultat der Aufhebung des Verbots der Ehe durch Septimius Severus am Ende des 2. Jahrhunderts war. Selbst wenn die Funde dieses Lagers nach 193 u. Z. zu datieren sein sollten, wohnten die Familien sicherlich nicht außerhalb des Lagers.

Die wahrscheinlich mit Frauen und Kinder zu verbindenden Artefakte machen lediglich einen kleinen Teil des gesamten Inventars aus. Das könnte den Schluss nahe legen, dass deren Beweiskraft gering ist. Unter Berücksichtigung des begrenzten Wissens zur geschlechtsspezifischen Differenzierung von Aktivitäten in der Peripherie des Römischen Reiches – es beruht zumeist auf modernen Analogien oder einseitigen Berichten römischer Quellen – wäre es kaum zu erwarten, dass sich die Mehrzahl der Artefakte problemlos geschlechtsspezifisch bestimmen lassen. Wie van Driel Murray feststellte, ist es ebenso schwierig, den Nachweis der Anwesenheit von Männern in diesen Gemeinden durch die Artefakte zu führen, deren geschlechtsspezifische Zuweisung nicht auf Analogien und Voreingenommenheit beruht.

Diese Studie macht einige mögliche Vorschläge zur Interpretation der Anwesenheit und Aktivitäten von Frauen in einem Auxilliar-Lager des 2. Jahrhundert, die bei weiteren Untersuchungen anderer Lager mit vergleichbarem Material zu neuen Sichtweisen führen können. Es sei anzumerken, dass ein relativ hoher Prozentanteil der möglichen frauenspezifischen Funde in Ellingen als Streufunde katalogisiert wurde. Es ist denkbar, dass Berichte früherer Ausgrabungen von anderen Orten weniger auf frauenbezogene Gegenstände eingehen, da solche Artefakte

oft als Ausnahmen galten und deshalb bei relevanten Veröffentlichungen nicht ausführlicher erörtert wurden.

Die Studie unterstreicht die Bedeutung einer sorgfältigen und genauen Betrachtung aller Funde aus militärischen und jeglichem Siedlungskontext. Sie demonstriert, dass die GIS-Technologie nicht allein für landschaftsarchäologische Fragestellungen oder für die Aufnahme von Grabungen einsetzbar ist, sondern auch Altgrabungen und alte Grabungsberichte mit GIS-Technologien überarbeitet werden können und so neue und interessante Interpretationen liefern können.

Résumé

Cette étude examine la distribution d'artefacts dans le fort auxiliaire d'Ellingen en Rhétie (2e siècle ap. J.-C.). L'exploitation spatiale s'effectue à l'aide de logiciels GIS et vise l'étude de la structure sociale, en particulier la présence de femmes et d'enfants. La technique GIS a l'avantage de permettre une visualisation rapide de grandes quantités de données, et par là de comparer des distributions distinctes et de les exploiter par des méthodes statistiques.

La première observation importante à relever dans cette étude est que les distributions des différents types d'artefacts sont différentes à travers le site et qu'elles ne reflètent pas exactement celle de la céramique. Concernant les différences observées dans la distribution des catégories par sexe, les objets potentiellement liés aux femmes et enfants se retrouvent surtout dans le bâtiment C et présentent des liens avec le bâtiment B, et peut-être le bâtiment F. On pourrait encore imaginer un lien éventuel avec le bâtiment de l'aire H. Ces objets ne présentent par contre que très peu ou même aucun lien avec les bâtiments A, D, ou E, et les bâtiment de l'aire G. On a pu établir la présence significante d'objets à caractère féminin dans les dépôts des puits 1 et 4 ainsi que dans la galerie 6, et aussi de restes de squelettes périnatals, peut-être de sépultures, dans les aires G et H, le puit 4, le bâtiment B et au sud-est de ce même bâtiment. Si l'on remettait en question le lien causal existant entre la présence des femmes et celle des trouvailles, il faudrait alors admettre que les concentrations d'objets à caractère féminin se trouvaient dans des remaniements provenant de l'extérieur du fort. Mais cette interprétation nous parait peu vraisemblable. Les vestiges non remaniés provenant du bâtiment C indiquent que des femmes y habitaient au plus tard en 182 ap. J.-C. Comme nous l'avons vu plus haut, on ne dispose guère d'argument solide pour une utilisation du fort au-delà du début du 3e siècle. Cette date, et la présence évidente de personnes de sexe féminin dans les phases d'occupation précoces du fort, impliquent que ces familles domiciliés n'avaient pas attendu la levée par Septime Sévère de l'interdiction de se marier à la fin du 2e siècle. Alors même qu'on poudrait dater tous les objets d'après 193, il n'y a pas doute que ces familles n'étant pas en residence à l'exterieur du fort.

Le fait que les artefacts potentiellement associés à des femmes et des enfants représentent un très faible pourcentage du matériel global de ce fort démontrerait qu'ils ne constituent qu'une preuve peu fiable. Mais vu nos connaissances limitées sur la différentiation des activités due au sexe à la périphérie du monde romain – nombre d'entre elles se basent sur des inférences analogiques ou sur les partis pris de certains auteurs romains – on ne devrait pas espérer trouver de grandes quantités d'artefacts susceptibles d'être attribuées à l'un ou l'autre sexe.

Y. G.

Comme l'a signalé van Driel Murray, il est cependant tout aussi difficile de suivre une présence masculine dans de telles communautés en séparant les artefacts par sexe, opération qui ne dépend pas de telles analogies ou partis pris.

Cette étude fait quelques suggestions sur la présence et les activités de femmes dans un fort auxiliaire du 2e siècle, qui pourront être vérifiées à venir par l'étude d'autres forts présentant un matériel similaire. On relèvera qu'un pourcentage relativement élevé d'artefacts à caractère potentiellement féminin du fort d'Ellingen fut catalogué comme trouvailles isolées. On peut imaginer que les publications d'anciennes fouilles réalisées sur d'autres sites ne présentent que peu d'objets à caractère féminin, parce qu'ils furent souvent considérés comme « déplacés », et donc pas discutés à fond dans les publications concernées.

Cette étude souligne l'importance d'un enregistrement soigneux et précis de toutes les trouvailles provenant de contextes militaires ou d'habitats. Elle démontre également que la technologie GIS ne s'applique pas seulement à l'archéologie du paysage ou aux fouilles en cours. D'anciennes fouilles et d'anciens rapports de fouilles peuvent être à nouveau analysées en utilisant ces technologies et peuvent livrer de nouvelles et intéressantes interprétations.

Acknowledgements

This paper presents some of the results from the project, Engendering Roman Spaces, which was funded by the Australian Research Council and I am grateful to the ARC for this support, and to the School of Archaeology and Anthropology at the Australian National University who hosted this project. I am also grateful to Chris Blackall (Australian National University) who has provided technical advice for this project. Andrew Fairbairn (now University of Queensland), Steven Ellis (now University of Michigan), and Patrick Faulkner (Australian National University) have provided technical assistance and I thank them for their support and commitment, especially Pat Faulkner for producing the graphs and some of the tables for this paper. I also thank Paul Newson for preparing the GIS plots for this publication. Among the many colleagues who have provided advise and support along the way, particularly in Holland and Germany, I wish to thank especially Astrid Böhme (Landesamt für Denkmalpflage, Mainz), Carol van Driel Murray (University of Amsterdam), and Dietwulf Baatz. I am also grateful to Werner Zanier (Kommission zur vergleichenden Archäologie römischer Alpen- und Donauländer der Bayer. Akademie der Wissenschaften) for condoning this treatment of his publication and Siegmar von Schnurbein and the Römisch-Germanisch Kommission, Frankfurt, for providing accommodation and the use of their library to complete this paper.

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