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GENDER IN QUESTION¹

Carol van Driel-Murray

At the first TRAC meeting, several of the contributors felt it necessary to stress their 'gender awareness', untrammelled by modern preconceptions – though the effect was somewhat marred by the ensuing unhesitating use of beads and bangles as indicators of female presence. Yet a glance at their own audience should have dispelled any illusions as to beads, bangles, long hair, or ear-rings being exclusive to females – in fact the converse was true. So, if in contemporary terms there is such a gap between the perceived and the apparent, how are we to fare with an ancient society where we know even less of the social conventions?

For the identification of women and children in archaeological contexts we must clearly turn to the external variables, as Binford's middle range theory exhorts us to do. Biological differences naturally lead to the cemeteries, but quite apart from the problems caused by cremation and small numbers, the trouble with burials is that the people contained were dead and don't tell us all that much about people in life: who was doing what, where, when, with whom, and how often. And if we are trying to establish the context of female existence, this is the information we need.

One biological variable that may be indirectly traceable in the detritus of a living population is body size. Since the female human tends in general to be smaller than the male, and this sexual dimorphism seems to be more marked in the ancient than the modern population (Wells 1982: 140), size

differences reflected in discarded clothing might be one way of approaching the problem. Conveniently, virtually the only kind of Roman clothing to survive intact – footwear – is also a relatively sensitive exponent of sexual dimorphism. This allows us to exploit a number of very large footwear complexes from a variety of Roman sites in north-western Europe as a source of demographic information.

The foot is the first part of the human anatomy to reach adult dimensions. After growing steadily throughout childhood, boys' and girls' sizes begin to diverge from about the age of 10, with girls achieving their full adult size between 11 and 13. Boys continue to grow till they reach their larger, adult male sizes at about 15-16. The longer growth results in a difference of about 2cm between the average foot size of adult females and adult males. Naturally this is no absolute rule, but exceptions are only a problem on the individual level, not in the context of the aggregate groups which will be examined here. Slight differences between modern statistics and those from the 19th century suggest that though the course of growth is unchanged, children now are more advanced, so in antiquity the divergence between girls and boys may have begun a little later and boys may not all have reached their adult size till about 16-17. The size difference between males and females remains constant (Martin and Saller 1958: 971ff; Groenman-van Waateringe 1978; Grew and de Neergaard 1988: 103-105).

The normal size distribution of adult shoes illustrates both the differences between females and males (Fig. 1.1, 1-2) and the area of overlap between the larger females and smaller males (Fig. 1.1, 3).2 In archaeological footwear contexts, however, the groups are not neatly separated and what we find is a continuum from the smallest babies' shoes (from 11cm) to the largest male feet. Thus account has to be taken not only of the overlap of females and males, but also of the growth of children into adults, and in particular, the growth of boys into young men, since at this time they occupy positions in the normal female range. In reality, this is proportionally not a major source of error since boys' shoes in the range 35-40 only account for about 5% of the total (van den Burg 1948: 392), though on an individual level this remains the most problematical category. If the modern distribution is translated into archaeological terms, a normal population would appear as Figure 1.1, 4, with the female range of sizes exaggerated by a) growing youths and b) overlap with the tail end of the male distribution.

That this is indeed the pattern found in most large medieval urban com

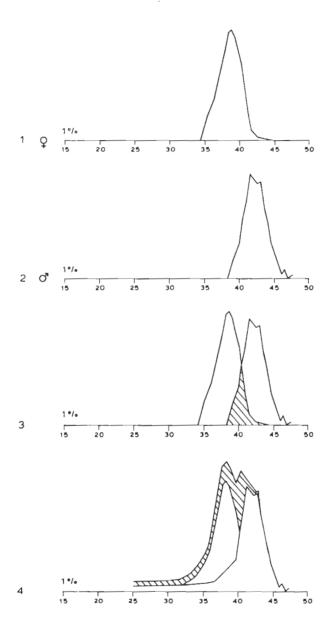
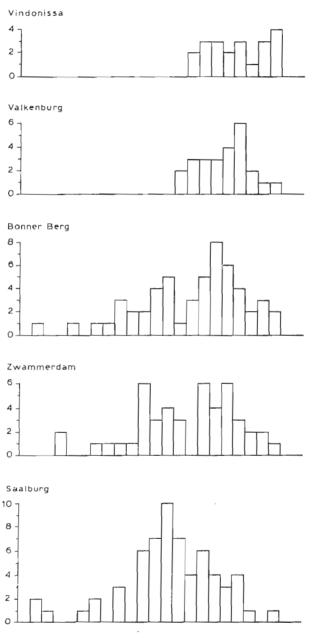


Figure 1.1. Modern shoe sizes (after Groenman-van Waateringe 1978: fig. 2).
1. women, 2. men, 3. combined showing overlap, 4. as found.



 $Figure\ 1.2.\ Size\ distributions\ from\ Roman\ sites\ (relative\ scale).$

plexes (Groenman-van Waateringe 1978; Grew and de Neergaard 1988: 104) as well as on Roman sites (Fig. 1.2, Saalburg, Zwammerdam) suggests that foot size as reflected by footwear is a valid criterion for distinguishing men, women and children as components of a living population. Though children's shoes can to some extent be correlated to age, there is no differentiation beyond these three categories. At this point it may justifiably be questioned whether such an obvious finding could even be relevant. However, in the context of Roman military sites, the proportions between the categories do become interesting because it is generally accepted that there was a legal ban on the marriage of soldiers (Campbell 1978; Saller and Shaw 1984: 143-44). Even by contemporaries this ban was regarded as an extra hardship to be endured and the awkward legal consequences were mitigated by successive emperors until the restriction was eventually lifted by Septimius Severus at the end of the second century. When an authority as eminent as Calvin Wells invokes the unmarried veterans, still dependent on the 'pleasant' (though apparently restricted) amenities of Cirencester's prostitutes to explain the imbalance in sex-ratio in a cemetery founded over one century after this ban had been lifted (Wells 1982: 135), one realises just how deeply this typically 19th century notion of segregated military communities pervades thought on Roman military life and, indeed, the entire subject of interaction between soldiers and civilians.

Looking at the distribution of shoe sizes from the first century military sites (Fig. 1.2: Valkenburg, Vindonissa) we find, not a normal population, but a single curve, corresponding to the modern graph (Fig. 1.1, 2) for adult males.³ Thus the expectations of unmarried soldiers, living in a closed camp are fulfilled. Though the analysis is not yet complete, the footwear from the early first century fort at Velsen shows a similar pattern. In all three cases, the footwear represents the population of the camp interior (van Driel-Murray 1985: 49–53) and the possibility of camp villages outside is therefore not excluded. These forts date to the unstable, campaigning phase of Roman expansion, when family life would indeed be difficult to maintain.

In the second century, however, the picture changes (Fig. 1.2: Saalburg, Zwammerdam). The graphs for the mixed *vicus* and fort refuse dumps at Zwammerdam and the Saalburg reveal relatively balanced populations with large numbers of children and only a slight preponderance of males, in no way resembling the male dominated communities envisaged by Wells, Saller and Shaw or others. As might have been expected, permanent forts, surrounded by permanent *vici* were evidently more conducive to family life.

VINDOLANDA: A CASE STUDY ————

The site of Vindolanda on Hadrian's Wall (Birley 1977 and in press) provides considerable refinement due to the large amount of footwear distributed over four well-dated phases (periods I-IV) between c. AD 90–120 and the availability of two control groups from the later ditches. In addition, written documents give a unique insight into the individuals and the units occupying the earlier phases, thus providing an interpretative framework for the analysis of finds from the site. The finds from the earlier phases come from demolition levels which seal rubbish left by the previous occupants. Here, as at Valkenburg (van Driel-Murray 1985: 49–53) old buildings were flattened and refuse was levelled off to raise the level of the wet and subsiding site for the next building phase. Concentrations of particular kinds of refuse indicate that find distribution does actually reflect the activities being carried out in the buildings in the final period of their occupation and is not refuse brought in for the purpose of levelling. Period V is excluded as it is an ill-defined secondary deposit.

The distribution of shoe sizes from the two ditches (Fig. 1.4, top two graphs) is pretty well identical to that from the Saalburg and Zwammerdam, which are comparable in context and date, with the expected overrepresentation of female sizes characteristic of a normal balanced population. Incidentally, in medieval contexts, the number of children's shoes forms an index of generally rising living standards: if this criterion is applicable to Roman times, then the *vici* of Vindolanda seem to have been relatively prosperous.

The quantity of footwear from period I is insufficient for conclusions to be warranted, but by period II numbers have increased. The footwear comes from deposits covering the *praetorium*, the quarters of the commanding officer and his staff, in this case either Vettius Severus or Flavius Genialis, prefects of the Cohors VIIII Batavorum (Birley 1990: 18 and in press). The distribution is much as Valkenburg, mainly male sizes at 34 and above. Making allowances for the tailing off of male sizes, this probably leaves one woman (or youth) and a child for the prefect's household, a not unexpected picture. One of the prefects possessed a natty pair of openwork shoes in size 39 (Fig. 1.5).

Period III ended in AD 103. Preparations for departure appear to have been quite hurried and a lot of material was abandoned more or less in situ. Concentrations of characteristic debris suggest that tents were being checked and recycled in the *praetorium* courtyard and horse gear, including

chamfrons, was being refurbished in one of the side rooms. The *praetorium* may, therefore have functioned as a collection and sorting point in the last weeks of occupation in addition to being the residence of the commander. The footwear shows a different pattern to the other earlier military sites, due to the presence of a number of distinct individuals, each represented by several shoes sometimes in pairs and often of different styles (Fig. 1.3, period III; Fig. 1.7). Despite the disapprobation of the rigidly theoretical, the abundant documentation makes it tempting to link these distinctive feet to the inhabitants of the *praetorium*. Flavius Cerialis, the commander, with exceptionally elaborate openwork shoes (which for full effect must have been worn with coloured socks); his wife, Sulpicia Lepidina with a narrow, extremely elegant foot, size 33 (Fig. 1.3, individual 6; Fig. 1.7, no. 862). She had sensible closed shoes as well as fashionable sandals stamped with the maker's name: Lucius Aebutius Thales, surely the first designer label in history (Fig. 1.6). Her foot shape is virtually unique, of all the hundreds of soles from the site, only one resembles it. This is a smaller version (Fig. 1.3, individual 5b with shoes and sandals; Fig. 1.7, no. 313 and 1541) and from the same level: a daughter or a servant? There is a whole group of children, four of the shoes possibly from the same individual group of children, four of the shoes possibly from the same individual growing from a baby to a child of 5/6 (Fig. 1.3, individuals 1-4; Fig. 1.7 nos 398, 431), then an older boy (Fig. 1.3, individual 5a; Fig. 1.7 no. 1520) with expensive openwork shoes who oddly and characteristically scuffed the outside of his left foot. Are these the 'pueros tuos' of the letter Inv. 412? (Birley in press; van Driel-Murray, in press). This is an exceptional case of individuals identifiable through a combination of circumstances and the conclusions are unlikely to be generally applicable. Apart from these individuals and a few isolated soles in the range 27–34 which may belong to the household, the pattern is the expected male, military model.

On withdrawal of the Batavian cohort, the structures of period III were

On withdrawal of the Batavian cohort, the structures of period III were demolished, covered with turf and a barrack block was erected on the site in AD 104 (dendro date; Birley in press). The garrison now seems to have been the Cohors I Tungrorum, with evidence for legionary detachments appearing in some of the texts. The actual room deposits of course reflect the final occupation and probably date to c. 115/120 after which the whole site was cleared for the *fabrica* of period V. Gone are the individuals of period III: a few pairs can be identified, but there are only three possible 'individuals'. The majority of soles are large, with 34 still marking the bottom end of the male range. But in addition, there are a fair number of women and children here, actually inside the barrack block (Fig. 1.3,

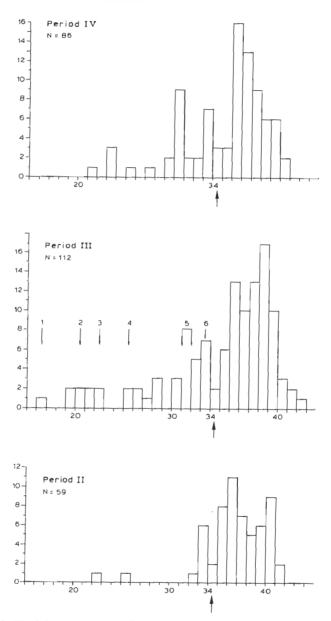
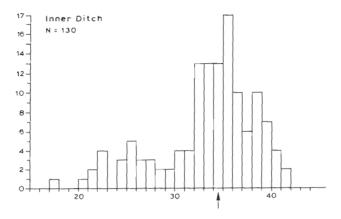
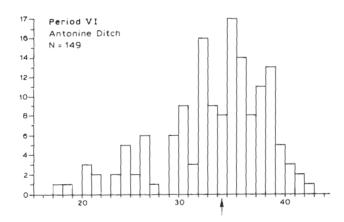


Figure 1.3. Vindolanda shoe sizes by period. Arrow points to male/female overlap, numerals in period III indicate discrete individuals. (Period II c. AD 90–95; period III c. 95–102/3; period IV 104-c. 120.)





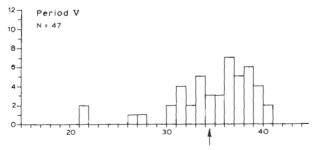


Figure 1.4. Vindolanda shoe sizes by period. Arrow points to male/female overlap. (Period V c. 120 – mid-2nd cent.; period VI late 2nd cent.; Inner Ditch 3rd cent.)

period IV; Fig. 1.9).

While we may have been prepared for some form of family life in the settlements outside the forts, cohabitation inside the fort at this date is unexpected, to say the least.

The unconscious model for Roman camp organisation has always been drawn from British military practice with garrisons regarded as military preserves, occupied with noble and dedicated young men, strictly segregated from the surrounding settlements. Brothels under military supervision cater for physical needs and that is the limit of 'native interaction'. This view lies behind the bleak and loveless picture of military life accepted by Wells (1982), Saller and Shaw (1984: 142) and Gilliam (1978; quoted in Roxan 1991: 465). But the Dutch military authorities tended to be more pragmatic and they also tolerated a far greater degree of mixing between Europeans and natives. To me the situation in the Vindolanda barrack is recognisable as the archaeological exponent of the system of camp concubinage, as practised by the Dutch forces stationed in the Indonesian colonies in the recent past. Without going into too many details here, it may be profitable to look at the workings of this system as an alternative form of military organisation in which unofficial unions were officially tolerated (de Braconier 1913; van der Wurff-Bodt 1989).

Until well into the 20th century, common soldiers in Dutch military service were not permitted to marry at all, while officers had to meet exorbitant property qualifications before an application for marriage would even be considered. The reasons were unashamedly financial. Pay for the lower ranks was poor and it was readily admitted that if soldiers were to be allowed to marry, wages would have to be substantially increased. The military authorities were reluctant to bear the costs of providing transport and accommodation for families, and above all, the cost of the widow's pension, to which officially married couples were entitled. Essentially, these are the reasons for the Roman ban, but then clothed in finer sounding terms (Campbell 1978: 154).

Despite the official ban, and with full connivance of the authorities, European⁴ soldiers in Indonesia did have wives: concubines taken from the native population associated with the camp (in Roman terms, the *vicus*). This population (the *vicani*) came to constitute almost a separate cast, having little contact with the surrounding native population, though in some cases still linked to it through ties of kin. With their disregard for constraining native traditions, their military orientation, and their language laced with pidgin terms, these villagers were totally dependent on the army

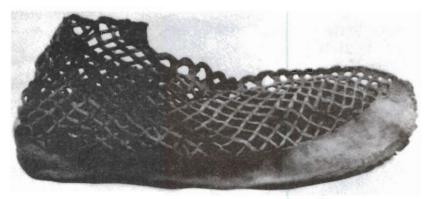


Figure 1.5. Openwork shoe, Vindolanda period II.

presence and could, like their Roman equivalents, hardly be termed 'civilian' in the conventional sense. As late as 1905, when marriage conditions for officers had been considerably eased, half of the officers and c. 16% of the common soldiers, most of those serving more than the standard 6-year term, still had a native concubine or 'housekeeper'. The native Indonesian forces, which made up 2/3 of army strength, were almost all married under their own, Islamic, law, but as this was not recognised, these women were also regarded as concubines by the military authorities. Not that it made any difference to their rights under local law as regards dowry, inheritance or property. The women had to be registered by the camp authorities as official concubines, with a ration entitlement and with specific rights and duties. Until the early years of the 20th century only the officers had separate accommodation: the rest, married and single alike, slept in the communal dormitories. Children slept in either a hammock slung above the bed or on the floor under it, the meagre possessions stored in a chest or on a shelf running the length of the barrack block. To modern sensibilities, the lack of privacy is astonishing, but conditions in native kampongs and, indeed, the wretched homes from which most European recruits were drawn were hardly better. With moral pressure growing in the Netherlands towards the end of the 19th century, the military authorities became remarkably active in defense of the system of camp concubinage. Novels appeared describing the life of concubines and the issue was discussed in leading liberal magazines (Si-Tamoe-Lama, 1913; de Braconier, 1913). The military authorities had little time for moral arguments about the holy state of matrimony: they recognised concubinage



Figure 1.6. Lepidina's sandal, period III.

as one of the few mitigating features in the comfortless, ill paid life of the soldiers. It was seen as a stabilising factor, reducing crime and especially drunkenness, encouraging men to sign up for a further 6 year term of duty. Maintaining a concubine encouraged thrift – indeed, wages and rations were paid direct to her.⁵ Criticism was countered by placing curtains between the beds in dormitories and allowing more space for cohabiting men.

The women left the barracks in the morning, spending the day in a specially built women's hall washing, cooking and doing odd jobs to earn money. Concubinage may have been advantageous for men and authorities, but for the women it was simply a case of survival. If a soldier died or was killed on duty, she had no rights and she and her children were turned out immediately, their only hope being to find someone else to take them on. As most men eventually returned to Europe, abandonment was almost inevitable and women attempted to make some provision for the eventuality. The lack of provision for women in soldiers' wills, noted by Roxan (1991: 465) is perhaps suggestive of similar relationships, though the strength of local customary law should not be underestimated. Despite the uncertainties potential concubines seem to have preferred European soldiers (they earned more). A form of upward mobility: one wonders whether the legionary detachments at Vindolanda had the same advantage over the Tungrian auxiliaries.

The real problem was formed by the children. Boys were expected to

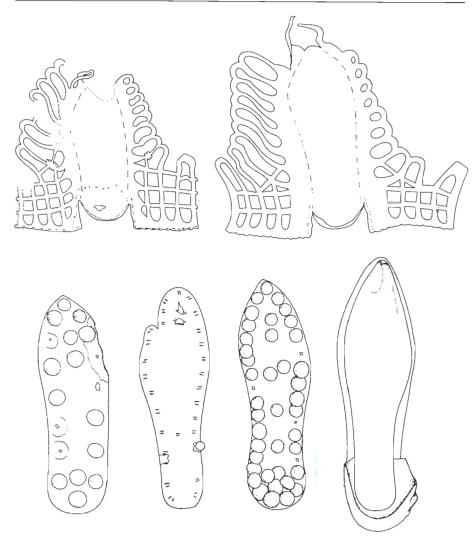


Figure 1.7. Selection of period III individuals (scale c. 2:7): individual 2, 431; individual 4, 398; individual 5a, 1520; individual 5b, 313, 1541; individual 6, 862.

join the native forces, as their Roman counterparts did, but for girls there was little hope other than concubinage or prostitution: 'it is a melancholy fact that many, if not most, daughters of the European common soldiers are, in a sense, *compelled* to prostitute themselves, as they are destitute of any provision' (Ducimus 1902: 196, original emphasis). If the same applied

to the Roman vicus inhabitants, we may have one more reason why so few daughters appear on diplomas (Roxan 1991: 465-66). Despite the glory, fine uniforms and regular, if low, pay, the soldiers and the camp population were despised by both the native Indonesians and the Europeans of the administrative levels: mixed race children were unacceptable to either group. Thus between the native population and the governing elite was a third element, the military population with its own culture, its own symbolism of status, centred on itself and essentially self-perpetuating. With the lack of evidence for Roman interaction on native settlements in northern Britain, this perhaps encapsulates the social isolation of the forts along Hadrian's Wall. Enclave theory seems more promising than frontier theory in this situation.

The size distribution of the footwear from Vindolanda period IV fulfills all expectations of camp concubinage. There are further implications: the women spend most of the day outside the fort (in one of the *vicus* buildings of uncertain function?⁶) so most female activities and their attendant losses of personal ornaments and tools will also be found outside. Indonesian women returned to their families or to a female relative with a home in the camp village to give birth to their children, so we would not even expect to find dead new-borns under barrack floors as proof of female presence. These women would have been largely invisible in the material culture of the fort itself.

Even by ancient standards, it might be awkward to accommodate men, wives and children in the familiar bunks of the 8 man *contubernium*, so if concubinage were a regular practice there were evidently fewer men to a barrack block than usually envisaged at this date. It is perhaps unlikely that all men would have a concubine and it may be that only one or two rooms were set aside for such men. The distribution of footwear belonging to women and children in the Vindolanda barrack is suggestive of this (Fig. 1.8).

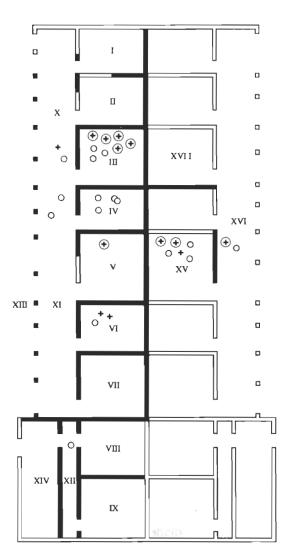
The other small finds from the barrack block are scrappy and rather sparse, the sort of oddments people would discard when sorting out their possessions. Demolition and levelling in preparation for the next construction phase has tended to spread material, so find distribution need not exactly represent actual room activity, but that it does bear some resemblance is suggested by the spread of soles fitting together, forming a pair or clearly belonging to the same individual. The quite marked concentration of women's and children's shoes in rooms III and IV (Fig. 1.8) suggests these may be the 'married quarters'. Although the officers' quarters at the

end have been only partially excavated, there is a curious absence of female footwear here.

Sewing needles, broken knives, bronze spatulae and bone or glass gaming counters are appropriate soldierly attributes, along with a single lorica plate, a loop junction and quite a number of bolt heads. Considering the obvious literacy of the soldiers, the number of styli (8) is hardly unexpected. The only remotely female items - in a conventional sense - are a pin, a ring, a penannular brooch, two long hair pins and a fair number of wooden combs. None of this is especially conclusive: I presume that men also occasionally combed their hair. Other than their shoes, the women and children have left remarkably little trace of their presence. What is interesting is the amount of broken furniture - chair legs and boxes which hints at some standard of comfort and perhaps also at rather more space in rooms than if 8 men lived in each. Also notable amongst the finds are the number of broken wooden barrels: for food storage and interior toilets perhaps? There appears to have been a toilet pit in room XV, so sanitary arrangements for ladies seem to have been catered for. It seems unlikely that the conventional 80 man unit was squeezed into this particular barrack block.

The Indonesian concubines considered themselves to be properly married and they were regarded as respectable members of camp society. It is clear that there was a widespread aspiration to the formation of stable, nuclear relationships (contubernium) between men and women who were, for a variety of reasons excluded from full Roman citizen marriage in its strictly legalistic interpretation (Rawson 1974; Treggiari 1981). Contubernium applied to a range of such conditions, including what was probably full marriage under native law and custom and would be equally appropriate to the status of Indonesian camp concubines, even down to the multiple contubernia (Treggiari 1981: 61). That the word also applied to the soldier's messmates perhaps helped to obscure de facto marriages in camp records. It is surely no coincidence that a document from the period IV barrack itself should refer to the contibernalis (sic) of Tagamatos the standard bearer (Birley 1990: 29-30, T944). If this person was female, she clearly controlled finances in much the same way as the fictitious Saridjem (Si-Tamoe-Lama 1913).

The evidence from period IV for women and children may not seem very strong, but it does not stand alone. Exactly contemporary is the legionary fabrica on the Bonner Berg (van Driel-Murray and Gechter 1983). The footwear distribution is remarkably similar to that of Vindolanda period IV



- + children < 19 cm
- (+) w/c 19/20 cm
- O women 20.5 22.5 cm

Figure 1.8. Vindolanda period IV barrack (restored), location of smaller soles: children <19cm (to size 38); juvenile/small adult 19-20 cm (28-30); small adult 20-22.5 cm (30-34).

(compare Fig. 1.2. with Fig. 1.3). Writing in 1980, and faced with what seemed to be an impossible situation, I made ridiculous attempts to explain away the small sizes as very young recruits (op. cit.: 23). They must have been amazingly young to still be in the juvenile stages of growth evidenced by 20 individuals below size 34, which, as at Vindolanda, marks the tail end of the adult male distribution. Thus are we blinded by our preconceptions: it is now perfectly obvious that these are the concubines and children of legionaries, helping their menfolk out with tasks outside the camp, just as their Indonesian counterparts were to do 1700 years later.

GENDER IN QUESTION -

Though with its relatively low-key involvement and its tolerance of native systems, the Dutch colonial experience may be a more useful source of enlightenment than the British, a more serious criticism which may be levelled against the present construct is that it is patently founded on personal preconceptions. Here, I have assumed that men and women aspire to permanent unions. But this is the question posed in the title. I consciously prefer to see women and children living in concubinage in the barrack, but with a different life-style I might be tempted in another direction.

It has already been mentioned that the female size distribution is distorted by the presence of boys growing through these sizes to reach their ultimate adult size. It is, therefore, possible that all sizes below 34 (the standard tail end of adult males throughout all Vindolanda periods) belong to boys and juveniles (Figs 1.3 and 1.4). Because it is not a consistent curve, but bi-modal, like that at Bonn (Fig. 1.2), some of the older, but still growing boys are absent. In other words, we would be left with the beardless youths so beloved of Latin poets: the predilections of Julius Caesar and, indeed, Hadrian himself need no further elaboration. Under this model, the concentration in rooms III and IV look, I am sorry to say, more like a male brothel than anything else. I am culturally adverse to the idea of children abused in the barracks at Vindolanda, but given a different society, and especially a slave society, it might not have been seen that way. As yet it is impossible to separate male and female footwear except for a few highly distinctive and fashionable styles. Lepidina's 'daughter' had a very serviceable pair of boots masking the extreme elegance of the sole and the foot impression within. So we come to a full circle again. The impossibility of indisputably defining female presence leaves

alternatives to choose from. Both have repercussions on the population density in the camps and raise questions as to the actual strength of the garrisons. Both improve the lot of the hapless soldier in bleak frontier garrisons.

NOTES —

- 1. The contribution presented at TRAC 2 and printed here is a preliminary version of a paper due to be more fully expanded elsewhere.
 - 2. British children's sizes 1-13, adults 1-12; continental sizes are foot length in cm x 1.5.
- Figures from production of footwear for issue on ration in the Netherlands in 1947, hence not affected by the vagaries of consumer choice.
- 4. I use 'European' since only about 50% actually came from the Netherlands. The rest was composed of Germans, Belgians and Danes about as ethnically mixed as the Roman forces.
- 5. Prostitution and the attendant VD infections were seen as a far greater threat to the morals of the force: comparisons unfavourable to the British practices were drawn. There, the military brothels, medically controlled or not, resulted in an annual VD infection of 45%, as against 35% for the Dutch forces, concentrated mainly in the single term group, and only 18% amongst the native forces, who were almost all married (Ducimus 1902: 189).
- 6. Building XI for example, which lies just outside the military annex of the 'Vicus' I might be a later candidate.
- 7. For the find distribution I am indebted to R. Birley, who made the lists available to me prior to publication (Birley in press).

Bibliography

Birley, R. 1977. Vindolanda, a Roman Frontier Post on Hadrian's Wall. London.

Birley, R. 1990. The Roman Documents from Vindolanda. Greenhead.

Birley, R. n.d. Vindolanda Guide. Greenhead.

Birley, R. in press. The Early Timber Forts at Vindolanda.

de Braconier, A. 1913. Het kazerne-concubinaat in Nederlandsch Indië, Vragen van den Dag 28:974-995.

van den Burg, G. 1948. Handboek voor den schoenhandel 1948. Nijmegen.

Campbell, B. 1978. The Marriage of Soldiers under the Empire. Journal of Roman Studies 68:153-166.

van Driel-Murray, Carol 1985. The Production and Supply of Military Leather Work in the First and Second Centuries A.D.: a Review of the Archaeological Evidence. In M. C. Bishop (ed.), The Production and Distribution of Roman Military Equipment, 43-81. Oxford, British Archaeological Reports (Int. Ser. 275).

van Driel-Murray, Carol in press. The Footwear. In Birley.

van Driel-Murray, Carol and M. Gechter 1983. Funde aus der fabrica der legio I Minervia im Bonner Berg. Rheinische Ausgrabungen 23, Beiträge

- zur Archäologie des römische Rheinlands 4:1-83.
- 'Ducimus' 1901. Het kazerne-concubinaat. *Indisch Militair Tijdschrift* 32:643-659.
- 'Ducimus' 1902. Het prostitutie vraagstuk in het Indische leger. *Indisch Militair Tijdschrift* 33:188–212.
- Grew, F. and M. de Neergaard, 1988. Shoes and Patterns. *Medieval Finds from Excavations in London* 2, London.
- Groenman-van Waateringe, W. 1978. Shoe Sizes and Paleodemography? *Helinium* 18:184-189.
- Martin R. and K. Saller 1958. Lehrbuch der Anthropologie. 3rd ed. Stuttgart.
- Rawson, B. 1974. Roman Concubinage and Other De Facto Marriages. Transactions of the American Philological Association 104:279-305.
- Roxan, M. M. 1991. Women on the Frontiers. In V. A. Maxfield and M. J. Dobson (eds), *Roman Frontier Studies 1989*, 462–467. (Proceedings of the XVth International Congress of Roman Frontier Studies, Exeter 1991).
- Saller, R. P. and B. D. Shaw, 1984. Tombstones and Roman Family Relationships in the Principate: Civilians, Soldiers and Slaves. *Journal of Roman Studies* 74:124–156.
- Si-Tamoe-Lama, 1913. Saridjem de kazerne huishoudster. Utrecht.
- Treggiari, S. 1981. Contubernales in CIL 6. Phoenix 35:42-69.
- Wells, C. 1982. The Human Burials. In A. McWhirr, L. Viner and C. Wells (eds), Romano-British Cemeteries at Cirencester, 135-202. (Cirencester Excavations II, Cirencester 1982).
- van der Wurf-Bodt, C. 1989. Het kazerneconcubinaat in Indie. Spiegel Historiael 24:222-226.