CHAPTER 7

Cesspits and society: defecation as an indicator of social evolution and organisation

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Archaeologists as a group are well accustomed to dealing with excrement, both human and animal, and there are even issues of journals dedicated to the question (*World Archaeology* 21/2, 1989, The archaeology of public health*; Historical Archaeology* 27/2, 1993, Health, sanitation, and foodways*; Historical Archaeology* 34/1, 2000, View from the outhouse: what we can learn from the excavation of privies). In our excavations we deal with the evidence of how past societies dealt with the problem of its disposal, but also (a bit like armies, though not on the same scale), we often have to deal with the practicalities of ourselves living in basic conditions where we cannot use the normal facilities of modern societies, with teams working and camping in out-of-the-way places, and inevitably this also leads to stories and a certain amount of ribald humour. I am not aware of any general overview of how the majority of societies dealt with excrement, and the evolution of activities, though there are studies of the facilities which more advanced societies such as those of Rome and Greece constructed on urban and military sites (e.g. Merletto 2023; Nissin, 2023).

What I offer here is mainly anecdotal, but it also includes a discussion of how societies evolved in complexity over time, and the changes this imposed on them in the past. I shall also be mainly writing from my own experiences working on prehistoric to post-medieval rural and urban sites, mainly in northwestern Europe, and especially southern England of the medieval and early modern period.

"Hey-ho, hey-ho, it's off to work we go, It's me and you and the Elsan Blue…"

Dealing first with my experiences of organising teams of volunteers and students, my earliest encounter with collective temporary facilities was as a fifteen year-old schoolboy while digging for Prof Shepherd Frere on the rescue excavations at the Roman town of Verulamium just outside St Albans, and living on the camp site for volunteers. It had a latrine, basically a hole in the ground with a wooden seating arrangement above it, surrounded by canvas which was also used to divide the seating areas for the males and females, the sort of structure one would expect to see in the First World War. I have no idea how it was sanitised, if at all, but similar facilities were also used at Cirencester near the town centre, where I remember one mature lady who had lived through the Second World War when exotic fruits were a luxury, trying to retrieve an unpeeled banana accidentally dropped into the pit, using a stick with a pin on the end, considering that, as it had yet to be peeled, it would still be edible!

But a more civilised version of temporary toilets was the Elsan, a large bucket inside a seating arrangement, which had to be emptied as soon as it got near full, and then be primed for further use with a mixture of water and chemical fluid (Elsanol or Elsan Blue) which rendered the contents safe for burial. I used them on my excavations at Owslebury near Winchester in the 1960s, where we had a visit from health inspectors to see if what we were burying was safe in a water catchment area – fortunately we passed. Though we too used canvas to allow privacy, the toilets were set up discreetly in hedgerows with the male and female facilities kept well apart, with two Elsans for the ladies and one for the gents. There was always the dreaded rota put up for the emptying of the Elsans, done by digging a small hole somewhere out of the way into which the contents could be poured. However, this was not without its dangers especially on rainy days when the ground was

slippery; one student (later a distinguished professor) was asked to empty the Elsans on a particularly wet day; he banged on the caravan door where my supervisors were "working", his mackintosh covered with wet bits of blue, pink and white paper; "I slipped," he said; the door was promptly closed in his face. I ran the excavation with equality between the sexes; one of the leading American feminist archaeologists, the late Joan Gero, started her digging career with us, and praised the egalitarian way in which we ran the project, a contrast with what she experienced in the States where male and female roles were often segregated, males carrying out macho activities in the field and women dealing with the finds (Gero 1994), but the one area which was male only at Owslebury was Elsan emptying which involved lifting a heavy and often overflowing bucket (no female complaints about equality!), especially as, given the physical differences between men and women, the women's Elsans tended to fill up more quickly and be more liquid than that of the men who tended to dash into the hedges for a quick pee. Visits to the local pubs were popular, not only for the beer and bar billiards but for the other facilities they possessed, and we also had arrangements for baths and showers (and toilets) with families in the nearby village. We had to deal with both aspects of human needs, the feeding and the defecating. Significantly, I have photographs of cooking, meal queues and celebratory dinners, but none of the toilet facilities.

I had become familiar with Elsans at my grandmother's in a little village in Dorset, and there the Council arranged for Elsans to be emptied on a regular basis, though previously receptacles were emptied as manure by my grandfather into the garden. Experiences with Christopher and Sonia Hawkes at Longbridge Deverill were a little less salubrious – wooden sheds housed the Elsans on the excavation site which was on the top of a hill, all right in fine weather but not so convenient when there were gales which blew over the sheds (and their fittings), though fortunately the Hawkes employed workmen who had the job of cleaning up the mess on the following day. When I started to dig in France we found the French team just had a hole in the ground with a couple of planks laid cross it with a gap between them, but no use of chemicals as the excavation seasons only went on for three weeks each year. As was well known to British tourists to France, in those days the French were more used to squatting over flushable holes in a shallow basin with two raised portions in the shape of feet either side of the hole. Like the British, the Germans were also sedentary in their habits, but with a two-tier toilet bowl which allowed an inspection of the turds before flushing them away. However, recent research has shown that the human body is better suited to squatting, and too much sitting can cause constipation and piles. The French students were much more adept at this form of defecation than the more sedentary British, so on my second season camping near the excavation site I imported British Elsans and Elsanol for my students; the French hole proved a good place for emptying our buckets, though we had a complaint about the planks not being put back sufficiently securely, with almost disastrous consequences for one French student. One of our English students decided to quickly use the French toilet for a pee, forgetting that she had her trowel in her back pocket – a couple of male students were delegated to retrieve it for her from the pit; perhaps not the explanation for the discovery of a trowel in one of the early 12th century cesspits in the New Minster at Winchester.

Fortunately, in the 1980s we had the use of a 16th century house with early 20th century plumbing, with a flush toilet, though in some years it required frequent unblocking, so the problems were not fully resolved. A different problem for our Sheffield students was presented by fieldwork on Dartmoor – hiding and squatting behind gorse bushes was the solution, and making full use of the hotel toilets morning and evening, but one has now to be more aware of the rules about "free camping", not to leave any trace of one's passage (a pun?), and this applies equally for archaeologists. One student noted an adder just after she had peed... (what are the recommended emergency remedies after a snake bite?).

Historical trends

The general trend in history for dealing with human excrement is for methods to become more sophisticated through time, with the key driving forces being the size and density of the population of a settlement, and often the big differences between contemporary urban and rural populations, which could cause mutual misunderstandings and conflicts. In his novel *La Soupe à la fourchette* (1995) the Arvernian author Jean Anglade relates how a young girl from Marseille was evacuated during the war to a farm in the Massif Central, but was too embarrassed to use the dung heap like the rest of the family, so the farmer cut the grass around a tree hidden from view as her private toilet. My late French colleague, Robert Périchon, recalled how he had, as a young man, to report to a rural house used by the Resistance. When he asked where the toilet was, the reply was "The world is wide". In his autobiography *Goodbye to All That* (1929), Robert Graves relates how as an officer in the First World War he was obliged to take part in the court martial of a Welsh soldier on trial for not having used the latrines. The sergeant who gave testimony was asked if there was evidence that it was an "emergency" or was it done "with effort". As Graves reflects, the normal practices of a farmer brought up in North Wales on a small farm where the population was sparse were very different from those of people living in the dense urban conditions of cities such as Cardiff or London with their flushing toilets.

In what follows I shall describe the "modes" of defecation and disposal practices as they may have developed in the past, and gradually became more complex as society itself became more complex (though not necessarily more "civilised"). I envisage a number of factors that would have influenced the development:

— the number of people gathered together;

— the density of people;

— the concept of privacy (e.g. a lack of loos at Versailles which meant that most visitors, often a thousand and more daily, had to use halls, corridors and gardens even after 1756 when some toilet facilities were built for the royal family and nobles; Keith Thomas (2018) describes the habits of the English upper classes with cases of both males and females pissing and defecating in public both at the royal court and in church, though not in front of people of higher social status);

— activities – hunting camps, farming, mining (e.g. salt at Hallstatt in Austria, where the underground chambers where the salt had been mined were filled with rubbish such as used lighting tapers, left by the families who would spend the whole day down the mine, and where the excrement is beautifully preserved in the salt);

— marketing and shopping which would include people not resident in the town;

— permanence of occupation (hunting / gathering, transhumance, summer farms where lengths of stay could vary from a few days to several months), contrasting with the permanent residencies of a farm, village or town, etc.;

— smell – the "great stinks" in 19th century London and Paris, or the cesspits at Versailles commented on by Voltaire; up to the 19th century the smell or "miasma" was often considered the main cause of the transmission of diseases;

— general unpleasantness (the use of open drains in streets – chamber pots emptied out of windows at Versailles, or in Edinburgh to the shout of "Gardyloo" (*gare de l'eau*);

— health risk (cholera, typhus, etc.); while the association of diseases such as the plague could be clearly associated with urban and other dense concentrations of population, the danger of transmission from excrement was not properly recognised in Britain until the later 19th century;

— who was considered to be responsible for sanitation, the household or the wider community;

— how and how quickly the authorities reacted, which was often tardily because of the expense of building and maintaining facilities such as toilets or sewerage, and we are all well aware of modern examples of public toilets being closed down to save

money or for ideological reasons (the toilets as the venue for societal misdemeanours, such as points of contact for sexual liaisons).

In all societies, however simple or complex, there will be different types of site and situations which will cause differences of response:

— in hunter-gatherer societies the base-camp occupied by family groups versus temporary hunting sites used briefly perhaps by a couple of hunters;

— farmsteads versus urban or industrial settlements such as a mining site, or military camps with their larger permanent populations;

— the location of the population within the local environment; both Winchester and London had river courses which ran through or close by the city (the Walbrook, the Fleet and the Thames in London, and the Itchen and the Brooks in Winchester) which would allow the direct use of the streams as a form of "flushing", a contrast with the areas without rivers (e.g. the upper western part of Winchester) or with Exeter which had no water courses within the walls, and was entirely dependent on piped water and aqueducts and the River Exe and the Shutebrook (Shitbrook) outside the walls; the defensive ditches, especially moats, were also used;

— collective versus individual; in an urban context households often organised their own facilities, but there were often larger establishments such as royal residences or monastic communities which had more collective arrangements;

— high status versus low status – the upper classes usually demand and can afford a higher standard of facilities;

— urban versus rural – the numbers and density of population clearly varies between the different zones of activity.

I suggest that a number of modes of deposition and disposal are present in southern Britain; for the simpler societies these are:

"Free range". This is what other contributors have termed OD (open defecation). At its most simple in hunter-gather societies the normal settlement would have been temporary, so hygiene would not have been of high priority and defecation may have taken place randomly in the vicinity, but clear of areas used for sleeping and eating. One suspects that the larger and longer-occupied "base-camps" would have required something more organised, perhaps a designated area or areas clear of the settlement itself. Usually the only possible evidence of this would be from phosphates in the soil (Renfrew and Bahn 1996:97), augmented by other discarded materials e.g. cooking waste, meat butchering, but this involves systematic sampling of a site before excavation which, on later farming sites might also show up areas where livestock was corralled. It is also useful inside buildings such as longhouses where there is a question of whether livestock (cattle mainly) were housed under the same roof as the humans or whether they were longhouses in the anthropological sense of housing several families or social groups. Though I have attempted phosphate surveys on my excavations in the Auvergne to try to define areas of more intensive occupation, as a technique it was not very successful, and it is rarely used, because it is time-consuming, and in most areas of intensive occupation the sites are liable to be contaminated by later agricultural activities. I can, however, remember the late Andrew Sherratt who, between school and university, excavated on an Ertebølle hunter-gatherer site in Denmark, and, at a meeting of the student society in Cambridge where we were talking about our recent fieldwork experiences, he proudly showed photographs of his major find, an Ertebølle turd from a waterlogged deposit – indeed a rare and precious find! But the most famous coprolite – albeit not yet proven to be human – is perhaps the unusually large Viking one from the Coppergate excavations in York, now on display in the Jorvik Viking Centre.

Midden collection. With the advent of agriculture, permanent or heavily frequented settlements began to appear, though seasonal transhumance has continued to the present day (Collis *et al*. 2016). Permanent settlement brought with it a greater need for dealing

with animal and human waste, though it was realised at an early date that such waste had potential to be used as manure to improve crop yields and so was an economic, even financial, asset. Animals were often stabled or stalled, leading to the accumulation of dung, typical for cattle, pigs, and horses; this could all be gathered together for spreading on the fields, and so was stored in middens or dung heaps. Sheep, in contrast, would be left on the fields to enrich the soil with their droppings, though sometimes they might be herded into pens which could be moved around to different parts of the field to allow even or intensive concentrations on chosen parts of the field, something which I have witnessed in central Spain around Ávila. On my first visit to Germany in 1963 I was working for Lawrence Barfield who was employed to carry out excavations for the Bonn Museum. He had lodgings at a wealthy farm just outside of Bonn, one of the main suppliers of milk to the city. In the courtyard of the farm was very large heap of manure collected from the cattle, and he explained to us that the size of the heap was very much a statement of wealth and prestige as it was an indication of the size of the herd, and the possession of agricultural land on which the manure would be spread; this was probably a regular feature in certain societies in both prehistoric and historical times. I doubt in the case of the German farm that human excrement was added to the heap as was the case in the highlands of the Auvergne, as by this time water was available to flush the toilets and empty them into a septic tank. In many cases in rural contexts it would be much easier for humans to defecate in the fields where they were working, and the same for cattle, at least in summer, whereas pigs and horses were normally housed in sties or stables throughout the year. However, I remember my parents in Winchester in the 1950s always had a shovel and bucket ready when the milkman with his horse and cart passed by each morning, in the hope of obtaining manure for the garden, and here in Sheffield once a year we have a lady driving round offering horse manure for sale.

The urban revolution

With the establishment of large villages, hill-forts (some densely occupied like Danebury, Maiden Castle and Hod Hill), urban sites, and permanent Roman military forts, new modes of disposal were needed in dealing with excrement. Generally disposal becomes more visible (cesspits, garderobe pits, latrines, etc.) though not everywhere. [Note: the words cesspit and cesspool have nothing to do with the word “cess” which refers to a local tax not linked to human excrement – a term regularly misused by us all, though perhaps it is a question of lexicologists not keeping up with archaeological usage; caespitose, sadly, only means turfy, from the Latin *caespes*!] Neither on the hill-forts, nor on the continental Iron Age oppida such as *Bibracte* / Mont Beuvray, Manching, Corent and Závist which I studied for my doctoral thesis, nor on the “territorial oppida” in southern England such as Colchester, Braughing and Silchester, are there signs of cesspits or indications of how human waste was dealt with, though a recent study of open spaces at *Bibracte* has shown evidence of defecation in ditches and pits (Flammer 2023). At Silchester the earliest cesspit is dated as Claudian-Early Flavian, just after the Roman conquest, an additional answer to the Monty Python *Life of Brian* question “What did the Romans ever do for us?” On contemporary rural sites presumably the “free range” and the “midden” modes continued, as well as small-scale household composting. As late as the 1940s my maternal grandfather, who was a woodsman and lived on an isolated settlement of three houses at Higher Barn on the Bryanston estate near Blandford (Dorset), was manuring his cauliflowers and other vegetables by digging in the untreated contents of the toilet bucket.

Urban sites

As Dolly Jørgensen (2008) points out in her article on English and Scandinavian medieval towns, the evidence both from archaeology and from the documentary sources on town life belies the common assumption that they were squalid places with poor standards of sanitation and cleanliness. The local laws passed by city councils (or in some cases by the king) and the fining of individuals who broke them normally functioned to deal with a minority, and most inhabitants had a shared interest in trying to keep the streets clean and their houses and gardens clear of unwanted rubbish. In fact sometimes

rubbish was a useful commodity for levelling up streets, or, in London, in the construction of the wharves jutting out into the rivers.

As my case studies I shall mainly use the two cities of Winchester (my home town) where I dug on and off between 1955 and 1965, mainly as a volunteer, and Exeter where I directed large-scale rescue excavations on Goldsmith Street in 1971 (Collis 1972, Salvatore 2024). Both were Roman foundations, Exeter initially as a legionary fortress with lavish brick-built military baths and later the cantonal capital of the Dumnonii (*Isca Dumnoniorum*), and Winchester, also with possible military origins, the cantonal capital of the Belgae (*Venta Belgarum*). Both had aqueducts allowing some drains to flush communal toilets, though a fairly complete amphora found by the Roman street on the Wessex Hotel site in 1961 may have been for the collection of urine to be used in fulling; an amphora and large storage jars were found in similar positions next to the basilica at Silchester (Fulford and Timby 2000:54), though as Patrick Ottaway points out to me, flushing toilets and sewers are essentially a phenomenon of permanent military camps, as at York or on Hadrian's Wall, not of civilian settlements. Extensive summaries of the excavations in Exeter have been produced by Stephen Rippon and Neil Holbrook (2021a, 2021b), with important contributions by John Allan on the structures excavated and their dating, and for Winchester by Patrick Ottaway (2017) and a detailed two-volume publication of the medieval documentary evidence by the late Derek Keene (1982, 1985). In both cases the towns fell into disrepair in the 4th and 5th centuries, and only the city walls were left standing, with the gateways providing the only means of access (in the case of the Southgate in Winchester a gap was made near the collapsed gateway), and the grid of streets fell into disrepair, with even the direct lines between the surviving gates being abandoned. At Winchester a major church, the Old Minster, was established in AD 646 and the town became the administrative centre of the kingdom of Wessex with a royal palace near the Old Minster. The boundary patterns around the cathedral at Exeter suggest that something similar happened there (Allan and Higham 2023). Both cities were turned into defensive centres (burhs) in the late 9th and 10th centuries, and new street grids were laid out, largely ignoring the earlier Roman grid. As part of the new layout, burgage plots were systematically laid out with houses along the street frontage and gardens or yards behind them, and both cities rapidly attracted a dynamic population engaged in domestic industries and trade. Both cities also had major castles constructed after the Norman Conquest in the corners of the Roman walled areas, Rougemont in the case of Exeter, and in Winchester castles for both the king ("The Castle") and the bishop (Wolvesey).

The outhouse or open cesspit. In the first phase of occupation of the 10th century burhs, dealing with sanitation was very much a household affair, and the norm was to dig a cesspit in the open space behind the houses on the burgage plots. This was not confined to the densely occupied areas within the defences, but at Winchester also included the burgage plots in the suburbs, and Ottaway here suggests there was some sort of central control in the way in which excrement was disposed of, and that given the depth and conformity in the way the pits were dug from the beginning of the foundation of the burhs there were specialists who dug the pits (Qualmann and Ottaway 2018). The pits are very distinctive with greenish, fibrous infill, or brown when waterlogged (Fig. 1a*).

Though the some pits may have been emptied and reused, it is more likely that most were not emptied, and when they were almost full after prolonged use they were plugged with soil, in the case of Winchester often with a distinctive chalk material. However, in his discussion of pits and wells Ottaway (Qualmann and Ottaway 2018) notes that often there is very little soil or organic material surviving, and the only hint of the noxious filling of the pits is in the plugging and in the slumping of the organic infill as it decayed. One of the problems with this slumping of the organic infill was that it left a hollow which, if it was subsequently built over, necessitated the continuous levelling off of the surface. This meant that for the archaeologist there was usually an early indication of what lay underneath. The other problem was that after a while the available space had often been

heavily pitted already, so later pits often cut into earlier pits which led to instability of the pit sides (Fig. 2a*).

Fig. 1: An 11th–12th century cesspit. Exeter 1971, Goldsmith Street. Excavations: J. Collis / C. Henderson.

For the archaeologist, however, the preservation of the contents was often very good, either desiccated for dry pits, or well preserved where the pit was waterlogged which was often the case at Exeter. This allows the analysis of the contents, and as early as 1954 Sarnia Butcher at Winchester sent samples to the Ministry of Agriculture and Fisheries which was able to identify helminth eggs, eggs of intestinal parasites such as tape worms, but mainly of pigs, suggesting that they were kept in close proximity by the inhabitants in central Winchester (Collis, in preparation). Presumably planks were laid over the tops of these pits, and several planks with holes indicating a raised seating arrangement of Roman and medieval date have been found in Britain. I here illustrate two Late Saxon examples from Trichay Street in Exeter (Fig. 2), and these show that the sedentary form of defecating was common rather than squatting, and also that the use of the toilet was a communal activity, as is also demonstrated by the communal toilets at forts on Hadrian's Wall. However, there is a question of whether the pits were open or rooved. At Exeter it seems probable that, given the impervious clay soils, the pits would have filled with water in heavy rain, and they were likely to have been in lightly built outhouses, but the reconstruction of a latrine in the Jorvik Viking Centre from the well preserved site of Coppergate is open to the sky, though privacy and some shelter was given by wattle hurdles around the pit.

Pressures for change

As already indicated, this use of cesspits continued for a century or two, but lack of available space had already started causing problems, as noted with the intercutting and unstable pits. This gradually became worse with the increasing size of urban populations and in many cases with the wealth of the citizens who enlarged their houses by expanding into the garden plots, and also adding extra storeys on to the existing house. The usual layout was to have commercial and industrial areas and storage on the ground floor, though some members of the household such as apprentices might sleep here as well, while the family of the merchant or artisan would live on the first floor and perhaps the second, away from the bustle and smells of the street, and servants and additional storage would also be found in the attic (Vance 1971). There was also an increasing desire for

comfort (indoor facilities) for the upper storeys, and many owners sought greater privacy with the use of bedrooms separate from the dining and cooking areas, and from the great

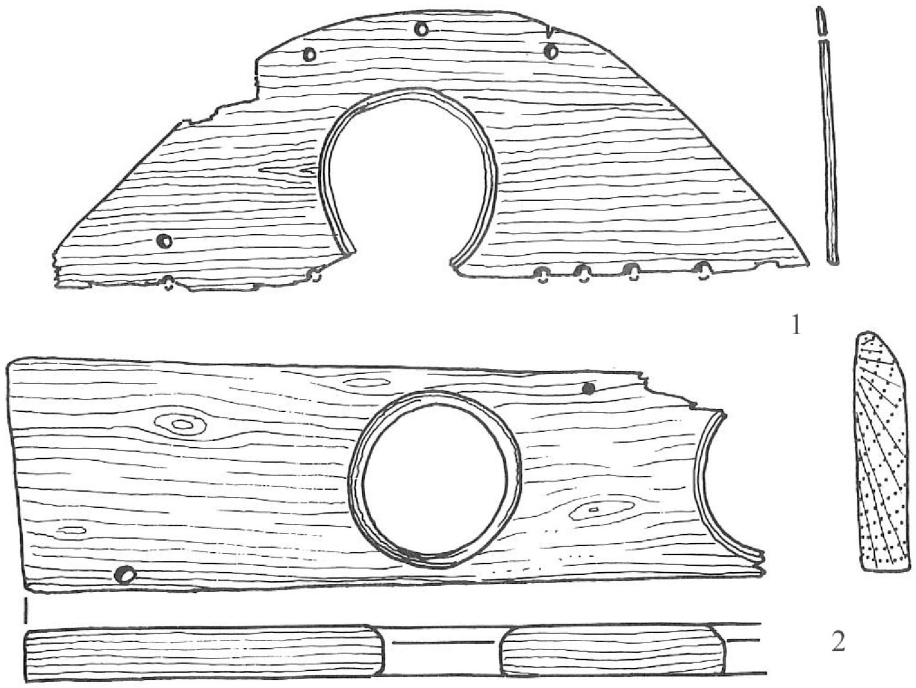

Fig. 2: Late Saxon toilet seats from Trichay Street, Exeter 1972. 1, with pierced holes, probably for leather thongs as hinges to allow it to be raised and lowered; it has a dendrochronology felling date of 949±9; 2, from a 10th–12th century pit. From Allan 1984, Figs. 179 and 181.

halls, solars and kitchens. They were thus emulating the arrangements in castles and other major high status establishments where halls and other domestic rooms were provisioned with garderobes, usually with chutes to deposit the excrement outside the building into a pit or a ditch. A picture by Pieter Brueghel, "The Netherlandish proverbs" dated 1559 (Brueghel 1987), shows two bare bums protruding from an attached privy overhanging a water course (reproduced in Geismar 1993, Fig. 3). Stories such as *The Miller's Tale* related by Chaucer imply a similar arrangement, perhaps even using a window rather than a privy (Brown 2000).

Public areas, markets and slums

In contrast to Vance's model of the medieval city with location dictated largely by trade or occupation (1971) and social statuses played out in the vertical occupancy of the houses, Sjoberg's (1960) model for the pre-industrial city was in part of concentric circles, though with some clustering by occupation such as the Shambles for butchers, with the core occupied by administrative and religious buildings, and the houses of a landed elite clustered around them, while the poorest inhabitants were largely confined to the fringes of the city. The towns we are considering were somewhat smaller than the cities Sjoberg was describing, so one factor, the distance between the core and the fringes, was not great and at least in the Roman and the Late Saxon periods the streets were well constructed and maintained and allowed fast movement around the occupied areas, though by post-medieval times visitors such as Daniel Defoe noted the poor maintenance of the streets in Exeter and as archaeologists we noted at Goldsmith Street that the erosion of the surface was such that the Roman levels were just beneath the modern pavement or even completely missing.

But in all medieval towns there were poor areas and people who did not have sufficiently large properties or wealth to construct their own toilet facilities. Add to this the importance of the markets in both cities which attracted many people from the surrounding countryside, and this meant there were major groups of people who did not have access to private toilets. The answer was in the provision of public toilets, but also the passing of local laws that are still in force today, making it illegal to "commit a public nuisance", that is, to use the streets as public conveniences. In London as early as the 12th century Queen Maud provided "a necessary house at Queenhithe for the common use of the citizens" and Sabine (1934) records the existence of a number of public toilets in London in later medieval times. In Exeter, Hoskins (1960) notes the existence of "common latrines" over a mill leat, provided by the city fathers, which were already in existence by 1467, as well as a possible latrine in a room on the Exe Bridge known as the Pixey or Fairy House, situations where rivers or streams could take away the excrement, and so requiring little maintenance. In Winchester, two public toilets are documented, the *Maydenchamber* (Keene 1985:169, 520) on the south side of Felter Street (St. George's Street) near its junction with Wongar Street (Middle Brook Street) and the *Postern* in Colebrook Street (Keene 1985:180, 853-4), both situated over water courses. The rent of 6 shillings for a tenement in Shulworth Street (Upper Brook Street) was bequeathed in 1369 by Nicholas Hanyton to the mayor and community for the upkeep of the Colebrook Street public latrines (Keene 1985:705). In addition, public houses and inns may also have provided facilities to clientele; the foul state of that at the *Chekyr* in the High Street was noted in 1391 (Keene 1985:500). Such public toilets are difficult for archaeologists to identify as they were often on bridges or adjacent to defensive ditches, so were spread about the town, and not in places where excavation can reveal evidence, so we are very reliant on documentary sources. Stoyle (2003:32–6, 55–7) talks about presentments regarding Common Jakes (toilets) and sewers piercing the city wall in Exeter, one of which took the contents from toilets along the Coombe Stream through an arched piercing with a grill from whence it cascaded down the wall, eventually seeping into the Exe as shown on an illustration from around 1570 (see Stoyle 2003, Fig. 14). The others were associated with the city's prisons, one by the South Gate dating to the mid-16th century and the other, the County Gaol, in the Castle precinct where a latrine pit was dug, also in the mid-16th century.

The garderobe pit. For visitors to early medieval British castles, the toilet facilities are a continuous source of interest, often a small room attached to the main hall, or to rooms that might have acted as sleeping areas. The majority are in the outer defensive walls of the castle, with a chute which would deposit anything dropped from the seating area on to the exterior, often into a moat, but perhaps sometimes into a cesspit. In my own brief experience of sleeping in a castle, Lescure near Pierrefort in the Cantal, I was fortunate to sleep in the more recent 18th century section of the castle with modern plumbing, but some of my companions were in the 12th century tower where anything dropped from the lavatory fell directly on to the lawn, though perhaps originally it fell into a pit which would have needed regular emptying. In some cases however, there was a stone-lined pit in the thickness of the wall, and Ed Emery (and I) remember such a deep ashlar-lined garderobe pit with a drain at the bottom being excavated in 1963 by the late Alan Carter and the late John Burton (Obituary, *Guardian* 20 June 2022), on the Assize Court site in Winchester, in a tower of the Royal Castle whose infill dated to the late 13th–14th century (Biddle 1964:192); the contents also produced the remains of quite a number of birds and other small animals which presumably inhabited the tower and which excited John's special interest as an environmentalist; Dave Evans (2010:276) quotes Alan as a major source of inspiration in his studies of Norwich and Hull, so the Winchester garderobe pit excavation has proved unexpectedly influential! The inconveniences of such "conveniences" when castles were under siege are noted, for instance, in the sieges of Conwy Castle in North Wales, where the stench from the deposits outside the defensive walls became a factor in whether the besieged force could hold out or not. The common name for this arrangement is the garderobe, betraying the original supposed domestic use of the small rooms for storing clothes (or where one could defecate while keeping one's clothes unsoiled), what Marshall Sahlins might have termed "the domestic

mode of defecation". For me the difference between a cesspit and a garderobe pit is their location, a cesspit as external or in an outhouse, the garderobe as a pit in the main domestic building which would require regular emptying, or with a chute to the exterior of the building.

***Indoor facilities*.** At Exeter, by the 14th century, indoor facilities similar to those of the castle had been introduced in Exeter in more modest houses, as noted by W.G. Hoskins. He quotes an agreement undertaken in 1345 by Nicholas Holeman who shared a house with his son-in law which included the use of "Half the solar with a certain latrine (*cloaca*) in the same, which is situated beyond the high table of the hall in our house". In 1401 John Copleston leased from the Prior of St Nicholas "two rooms, a latrine, a stable and a cellar". Hoskins also noted during repairs the presence of a garderobe pit in the outer wall to a 14th century building in Milk Street, damaged by war-time bombing. Archaeologically in Goldsmith Street the change was signified by the introduction of wood- and stone-lined pits presumably for ease of emptying (Figs. 3, 3a*, 4), though Sabine notes the continued use of unlined pits which, due to the danger of the sides

Fig. 3: A wooden-lined pit. Exeter 1971, Goldsmith Street. Excavations: J. Collis / C. Henderson.

collapsing or of seepage, had to be dug further from a neighbour's wall than the lined pits; some of these pits were still in the garden areas perhaps in an "outhouse", or a lean-to attached to the main house. One of the wood-lined pits we excavated was left open for some time during the excavation, and though the contents only consisted of rain water, it quickly became unpleasant with the growth of algae on the surface, suggesting that it was probably in a light outhouse which had left no substantial traces. But others were clearly inside the houses, and this might explain more readily the presence of an initialled silver spoon dated 1680 found in one of the pits (Fig. 5).

These smaller pits, especially those indoors, would have required frequent emptying, and, while this was clearly organised on a household basis, it implies the existence of a specialist group of people to remove the "night soil". In London Sabine (1937) notes the relatively good pay for such workmen. Where it was dumped is unclear – some may have gone to the farms and gardens in and around the town, but in the case of Exeter much may have just been dumped in the River Exe or in one of its tributaries; just to the west of the town is a stream euphemistically termed the Shutebrook in the 17th century (earlier records were more explicit in their nomenclature). In the case of London there were special barges to take away the rubbish which would have included not only human excrement but that of horses, poultry, pigs and even cows housed in the town, as well as the reeds used to strew on earthen floors. Special taxes were levied on people importing the reeds to cover the expense of removing them after the considerable period of use; much of this material was dumped into the river from the barges further downstream, though some may have provided manure for agriculture. Our knowledge of this activity comes mainly from the payment of fines imposed on people who blocked streets with heaps of rubbish, or who failed to make use of the barges or areas designated as rubbish tips, or for causing blockages in rivers and moats (Sabine 1937).

Fig. 4: A stone-lined pit. Exeter 1971, Goldsmith Street. Excavations: J. Collis / C. Henderson

However, in Winchester Derek Keene notes a case in 1480-1 where a latrine in a house, tenement 196, on the upper part of the High Street had to be emptied, and a pit was dug at the cost of 5 shillings to bury the contents. In tenement 399 in Wongar Street (Middle Brook Street) in 1366 the owner, Clement Wyngoud, threw the contents of a gardrobe pit into a stream (Keene 1985:731). In 1412 an agreement between Winchester College and the Carmelite Friary stated that the College was to remove a latrine, and not allow excrement to flow into the Lockburn, a stream which flowed through the College grounds

(Keene 1985:977). Archaeological evidence comes from the excavations in the western suburb where the depth of the cesspits would have made emptying difficult (Qualmann and Ottaway 2018). These cases suggest that in Winchester in the 14th and 15th centuries there was no market for night soil as manure. In contrast, in Exeter Mark Stoyle (2003:36) notes that in 1651–2 two workmen were paid for "cleansing the vautt under the prison" adjacent to the South Gate and were allowed the keep "the dunge", indicating it had some value.

En suite. The gradual increase in the size of houses and their greater complexity, especially for the more wealthy middle classes, saw the appearance of rooms with more specialist functions, for cooking, for eating, for sleeping, for dressing, etc., and this meant that the toilet facilities also moved away from the domestic and eating areas to more private areas such as bedrooms and dressing rooms (the appearance of the "privy", a term also extended to outhouses). Already by the 16th century special furniture like the close stool was making its appearance in high-class society, and by the 18th century commodes and special ceramics (the chamber pot or gazunder – "goes under the bed") had become common in middle-class homes and in commercial establishments such as inns and hostelries. This still necessitated the use of cesspits and garderobes for emptying the receptacles, and the removal of night soil. In lower class urban housing the outhouse was still a standard feature, and in the poorest areas the toilet was regularly a facility shared with many neighbours, in England even as late as the early to mid-20th century.

The next major change was the availability of running water in private houses and the adoption of flush toilets and sewer pipes in urban contexts instead of the communal street pumps. There are examples of this extending back to the third millennium BCE. In the case of Mohenjo-Daro in the Indus valley, the water used was drawn by hand from wells on the settlement and the water from each building, after being used for washing and for flushing toilets, was channelled into constructed channels which led to pits in the streets where the solids were collected, and which must have been emptied on a communal basis, presumably for spreading in the fields (Jansen 1989). But a different scale of communal input was reached when springs or rivers were canalised to flow into the towns, as happened in many Roman and Greek cities. In the cases of both Exeter and Winchester Roman aqueducts have been identified, and in medieval Exeter a new aqueduct was in existence perhaps as early as 1200; the so-called 14th century "Underground Passages" which carried the water are one of the tourist attractions in the city (Hoskins 1960:37). In York, underground sewers of Roman date still survive (Addyman 1989). At this point, at least in urban contexts, the disposal of excrement shifts from a household matter to a matter of the larger community, but in more rural contexts the septic tank was introduced. In many houses the toilet was located in a small room, usually without even hand-washing facilities, and more recently into the room with another innovation, the bath tub, with often heated running water. Just as the term garderobe changed its meaning from storage of clothing to toilet, so in American English the term "bathroom" has become synonymous with the toilet, whether it has a bath or not, and though the term is quite common in UK English, "toilet" and "loo" or "Gents" and "Ladies" are the preferred polite terms, though at my Primary School at Hyde in Winchester the boys' toilets were known as "The Bogs". These changes are well documented in written texts, but for the archaeologist, in the past, the water pipes and sewers have normally been viewed negatively as something that destroys earlier archaeological deposits.

Night soil, manure heaps and poudrette. Night soil is an urban phenomenon because such removal of excrement and rubbish was generally unnecessary on rural sites where manure heaps were probably the norm. Several authors note that in the documentary evidence there is a bias towards the urban centres because there it was a nuisance, such as blocking roads, causing unpleasant odours, or illegal dumping, which led to laws on disposal and for which fines are recorded; John Shakespeare, father of William, is mentioned in this context in Stratford-upon-Avon as having to pay for his "*mukhyll"* ("muck hill"), though in their article Fallow and Tavares (forthcoming) suggest that the

payment was for the regular removal of waste, in part at least from his glove-making business, rather than something illegal, though this has been disputed in subsequent discussion (Madge 2024). In contrast we know little about where rubbish was disposed of once it left the confines of the city – reuse as manure, dumping in rivers or at sea. A tipping point is reached, literally, when the excrement produced on a settlement ceases to be an asset which can be used directly by the inhabitants or sold as fertiliser for agricultural activities, and when it simply becomes a nuisance to be disposed of. There is also a point where the specialists removing it can make a profit, by selling it to farmers, in contrast with situations where the cost of removal has to be met purely by the house owners. This is where the concept of "night soil" comes in, as it was removed at night when there were few people on the streets to be inconvenienced by the activity.

Another tipping point is reached, as discussed by the Russian author Justus von Liebig (1842 / 1965, 1859, 1863, 1869), when there is an imbalance in the removal of nutrients from the soil in the fields in the form of harvested crops, and their replenishment by the return of those nutrients in the form of manure. His discussion of this long term deficit was picked up by Karl Marx (1979, 1999) and this has been commented on by other later authors such as Foster (1999) and Kawa *et al.* (2019) who have referred to it as "the metabolic rift" where there is a disjuncture in the metabolic interaction between man and earth, which they consider to be a very characteristic feature of the "Capitalist Mode of Production" and the rise of industrialisation during the industrial revolution. Marx states that "Capitalist production turns toward the land only after its influence has been exhausted and after it has devastated its natural qualities" (Marx 1971:301, quoted in Foster 1999:383). Over the short term, in countries such as Britain this imbalance was counterbalanced by the importation of manure in the form of guano, and more recently by the use of chemicals such as phosphates and nitrates, but Marx noted that "In London …. they can do nothing better with the excrement produced by four and a half million people than pollute the Thames with it at monstrous expense" (Marx 1981:195, quoted in Foster 1999:383). In this article I suggest that in Late Saxon towns such as Winchester and Exeter human excrement had already become a problem and was mainly discarded in an urban context, so the "metabolic rift" was already a phenomenon in medieval times, not merely one of the Industrial Revolution, although that certainly made matters much worse.

One solution to this was the preparation of the excrement into a form that could be used and transported easily and hygienically: "poudrette", which is defined as "dried deodorised night soil mixed with various substances such as charcoal and gypsum and used as a fertiliser". The drying of the excrement was a long-term affair which could take up to five or six years, so locating centres where this could be done on a large scale was a considerable problem. Production started in the late 18th century in France, and by the mid-19th century it had become a major business in Paris. Here it has been possible to quantify the production of sewage as the city rose from a population of about 600,000 at the beginning of the century to some 2 million by the end of the century, and simply pumping the sewage into the Seine was never an option (Barles 2004 and her extensive studies of the history of the relationship of Paris with its rural environment). In the mid-19th century the production of poudrette was mainly in the hands of private family enterprises. Through studies of the wills of farmers and traders and from official state inquiries into agricultural practices, which took place every decade in mid-19th century France, it has been possible to calculate the scale of production, and areas where the product was most used, mainly in the grain producing areas of Picardy and of the Beauce around Chartres and Orléans (Herment 2017). Near to the city, in the market gardens and vineyards around the city it was the sludge which was used for manuring. By the 1850s there was competition from other sources especially from guano imported from Peru, which has a much higher phosphate content, and also from animal black and from oil cakes. Poudrette production also became important in cities in North America in the mid-19th century, but by the end of the century the use of water for flushing toilets made the drying process less practical.

Some of the best archaeological studies of cesspits and night soil come from 19th century American cities, and show a variety of different practices. An early study is that by Roberts and Barrett (1984), of Baltimore and Philadelphia. In Baltimore initially from the beginning of the century, to the annoyance of the citizens, night soil was dumped just outside the city limits where it was turned into poudrette for sale to farmers, but in 1869 a contract was drawn up with a single contractor to use specified areas of land for dumping where it was less offensive. This practice was replaced in 1880 with a system which involved its removal in barges to some distance where it was dumped in tanks, again to be turned into poudrette. This survived until the introduction of a public system of sewerage pipes in 1917 when it became impractical to turn the sewage into usable fertiliser. In Philadelphia the earliest record of poudrette pits is in 1826; by the middle of the century the disposal of waste and its treatment to make poudrette was under the city's control, and the fertiliser was being sold to farmers, although the waste from settlements outside the city was still allowed to be spread on fields in its raw state. In both cities and in New York this production of poudrette was replaced by water closets and sewage pipes by the end of the nineteenth century and the beginning of the twentieth.

In Philadelphia, excavated cesspits were deep with a void area at the bottom overlain with planks to allow the draining of liquids. Above this level there was a heap of vegetable deposits and broken pottery, or even intact vessels, which allowed percolation of the liquid content, and this filter was left intact whenever the upper solid contents of the cesspit were emptied and carted away. Baltimore seems to have more normal types of cesspits in which all the contents of the cesspit were removed. In Washington the privy box, a raised wooden structure constructed on the ground surface, was the norm, and, while sewer systems were functioning by the 1870s in middle class households, in the poorer districts the privy box remained in use until the end of the century, its presence and location often only identifiable in the fragments of chamber pots found in the backyards (Crane 2000). In New York there were shallow cesspits, but these were exploited by a more advanced form of technology, using a vacuum pump invented in 1850 which meant only the liquid and sludge were removed, and any other rubbish such as pottery or glass bottles was left in the pit, so very little excrement was found in the pits when they were excavated (Geismer 1993). The written records allow us to identify which rubbish belonged to which occupants (the records of rentals showed often a rapid turn-over of families and businesses), and items such as medicine bottles can give us more intimate information of aspects such as the health and wealth of the users than is given by the documentary sources.

Louisville (Kentucky) gives us another different story of cesspits ("privy vaults"). The city was built on low-lying ground next to the Ohio River, with unhealthy ponds, and it has a high water table which meant that on occasions cesspits would overflow as the water level rose. Also the cesspits cut through permeable soils, so the water contaminated the cisterns which were the main source of drinking water and, as evidence from London showed in the 1850s, this was a major cause of outbreaks of cholera and other diseases in towns across the world, though Louisville largely escaped the worst epidemics. From the 1820s, brick-lined drainage pipes were installed to drain the ponds, and from 1853 all cesspits in the city were to be between twelve and thirty feet deep (4m and 12m) and lined with brick rather than wood as had previously been the norm. However, this did little to improve the quality of the water, since the brick lining was not mortared and there was no sealed bottom to the pits. Though a system of inspection of cesspits was introduced under a Health Officer, who recommended the use of the contents to produce poudrette, this was ignored, and he also recommended linking the disposal of sewage to the drainage pipes. The increasing demands of the Health Board were resolved by the legislature of the city by abolishing the Board in 1876! Though it was reinstated in 1879, the connection to the drainage pipes only progressed slowly, and it was not until 1919 that a law was passed that where possible all sewage should be pumped via the pipes into the river. Slottman (2000) discusses the archaeological evidence from one site in the city and one just outside, showing that in the city the construction of the pits largely

conformed to the legal requirements, but outside the city the pits were much shallower and did not conform.

A challenge for archaeologists

As archaeologists we have the same problem as historians, in that our evidence comes primarily from the cities and we see more evidence in urban contexts than we see on rural sites and we can say even less about periods before urbanisation. We can get some data from field walking about possible manuring, but there are limitations with just looking at surface finds as these are liable to be subject to climatic degradation, for instance from frost, and also depend on how well pottery has been fired. Surface collection can be supplemented by shovel pit sampling. Shovel pits are small holes of fixed size dug into the surface soil and this produces not only buried evidence where surface erosion from modern ploughing and other human and natural processes have been too destructive, but also allows more systematic sampling strategies. Considerable discussion took place in the 1960s and 1970s on sampling techniques in archaeology (random, systematic, hierarchical, etc.), and in some contexts this can produce good results where there are plentiful hard-fired pottery sherds generated from, for instance, medieval villages, especially if the results are backed up with other evidence such as measurements of phosphates or the survival of field boundaries. Wilkinson (1982) has looked at the occurrence of pottery sherds from field walking and test-pitting from the Syrian site of Tell Sweyhat on the middle Euphrates which was occupied in the Early and Middle Bronze Age at the end of the 3rd millennium BC, as well as briefly in the Hellenistic period around 300 BCE, and in both periods there were scatters of pottery sherds, though he notes the possibility that the Bronze Age scatter may have been caused by digging soil in the Hellenistic period from the chemically rich tell. Similar scatters were found around the 9th–10th century AD trading ports on the Persian Gulf at Sohar (Oman) and Siraf (Iran), in the latter case associated with field boundaries, but there is no discussion of how manure might have been collected in the occupied areas.

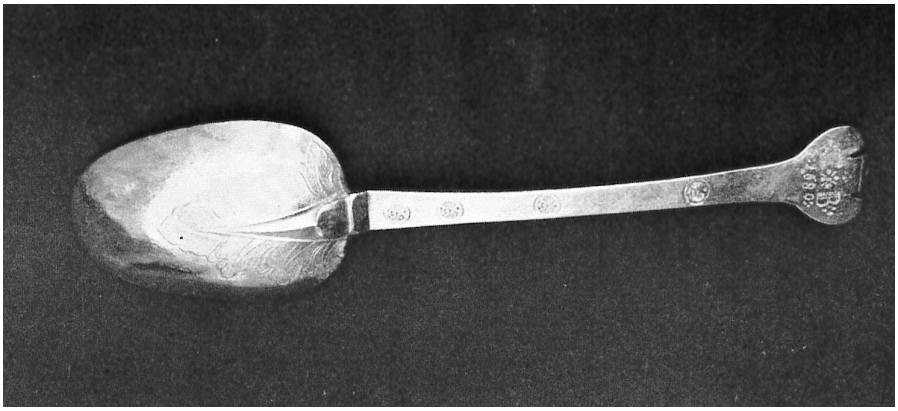

Fig. 5: A silver spoon dated 1680 from one of the stone-lined pits on Goldsmith Street. Excavations: J. Collis / C. Henderson.

However, as Roberts and Barrett (1984) pointed out, we have to look carefully at taphonomy, the process of "site formation", under which the contents of manure heaps or cesspits are deposited. The silver spoon from the cesspit in Exeter mentioned above (Fig. 5) is the sort of object which would turn up in an indoor activity such as eating, while finds from cesspits in outhouses, gardens and backyards are from more outdoor activities, and from the more general deposition of household rubbish. Evans (2010) urges a more careful recording of the contents and stratigraphy of cesspits so that there is a clear distinction between objects which were deposited while the cesspit was in use, and rubbish which was collected and thrown in when the original function had ended and the pit just became a convenient receptacle for general rubbish. McCarthy and Ward (2000) have discussed in detail the deposition processes in cesspits on two sites in Minneapolis and its importance in interpreting the data. In Philadelphia the deposition of extensive

broken and complete ceramics was part of the original functioning of the cesspit, whereas normally large quantities of ceramics are more associated with a pit's abandonment. In the cases of the use of a suction pump in New York, this would lead to none of the other rubbish dumped in the pit being carted away with the excrement, but in other situations there may be considerable amounts of other rubbish being deposited with the excrement, and this would be especially true where it is derived from manure heaps. My own experience of field walking in central Spain was the discovery of several dolls' heads which indicated derivation from manure heaps rather than cesspits.

Another factor which will affect night soil deposition is the sort of transport which is used to remove excrement from urban sites. The depictions from China and elsewhere of the "scavengers" who emptied cesspits carrying it away in buckets suspended from a yoke over the shoulders might indicate lanes and alleys in the cities which were too narrow for carts and wagons; and the absence of horses and other "beasts of burden" in the Americas before the arrival of the Europeans would also have been a limiting factor. This, however, is balanced by the existence of planned towns with wide streets such as those in Roman towns and the Late Saxon burhs such as Winchester which would have allowed easy access for wheeled vehicles; access to a river either running through and near the towns, as in Winchester and London, would also have allowed the use of barges to transport the rubbish, as was certainly normal in medieval London. In the case of urban settlements in Central America, not only are the towns planned, but they are also settlements with a loose pattern of housing with plentiful space for inhabitants to engage in their own crop cultivation, so the manure generated by a household would be used on the spot rather than it having to be transported away. In the case of Aztec Tenochtitlan in Mexico, animal and some human manure was used in the highly productive floating gardens (*chinampas*) on Lake Texcoco and other lakes.

Exceptions to the general model

What I have outlined above is a general model for southern England, and one that is applicable elsewhere, though there may be other sequences in different cultural contexts. It provides a useful template of what might be expected in societies as they become more complex, and so we can compare the actual provisions with the model, and identify situations where the facilities might be in advance or backward for that type of settlement. The American examples however show how there could be considerable differences between different cities even within a single cultural zone. But some sites, for various reasons, are just different, and do not conform to what might be expected. Here I give three examples.

My father-in-law's town house. When I first married in the 1960s, my wife's parents lived in the small Norwegian town of Halden, Østfold, Norway. The name of the street they lived in was Adelgaten (Noble Street), so at the time when the house was built, I assume in the 19th century, it was an area of relatively high status. It was a wooden courtyard house with the main living rooms forming two sides of the courtyard, and a third side was used for storage of equipment such as garden tools. On the fourth side there was a flat occupied by one of my wife's aunts and her son. This flat was directly above the toilet which was a seven-seater, with two seats for children and three for adults, and two further ones for adults separated by a screen. Beneath it lay a large latrine, of which my wife said that in the twenty or so years that she lived there she could only remember it being emptied once, that is at maximum once a decade. However there was no bad odour. I am not sure if my father-in-law used any chemicals (I assume handfuls of lime), and it was a relatively warm place to go even in winter. What the multiple seats were for I do not know, other than perhaps to spread the excrement (and the paper orange-wrappers we used as bumf) more evenly in the pit. I am not sure how far the piped sewerage system reached or even if this area of town had one at that time, though there was piped water throughout the house. But the facilities were perfectly adequate for the family, so there was no pressure to spend money on something that was not needed and which if introduced would have caused considerable disruption.

The Wessex Hotel, Winchester 1961. The excavations carried out by Martin Biddle in 1961 on the site near the Cathedral where the Wessex Hotel now stands produced a sequence of Roman and medieval domestic structures and cemeteries (Biddle and Quirk 1964). One phase proved to be part of the domestic buildings of the New Minster, founded in the late 9th century and abandoned in AD 1110 when the monastery was moved to the more spacious land at Hyde just to the north of the city (Fig. 6*). The most identifiable building consisted of a pair of rooms each with a cesspit in the centre. From one of them came a board with a seating hole in it which could have formed part of the seating arrangement. The building had been constructed on the cemetery, and some of the disturbed and partly articulated burials were fairly recent when it was built. It is clear that the pits would have had to be emptied fairly regularly, at a time when, as mentioned above, the norm in the lay part of the town was for each household to fill in the cesspit when it became too full or too unstable and to dig a new one. Clearly the monks of the New Minster were an organised religious monastic community capable of arranging the emptying of its cesspits as a corporate action, a precursor of what was to become the norm in the following centuries across the city; presumably the nearby royal palace would have been similarly organised.

The Iron Age and Roman farming settlement of Owslebury, near Winchester. In the 1960s I excavated a rural farming settlement which was occupied from the 3rd century BC to the 4th century AD (Collis 1970). Though at times it showed signs of wealth (imported wine and fine pottery in the pre-Roman period and olive oil amphorae in the Early Roman period), it never developed into a Roman villa site. One would expect the normal modes of excrement disposal would either be "free range" or "midden", and this would seem to have been the case for the vast majority of the time the site existed. However, towards the end of the settlement's life in the Late Roman period, there was an area with cesspits. The contents were clearly not collected for manure, as in most cases there was still considerable amounts of excrement in them, though well desiccated, and two of the pits were 3-4 metres deep which would have made emptying difficult (Fig. 6).

So why not engage in "free range" or "midden" deposition? On the site there is some evidence in the burial rites for social differentiation, but we also hear in documentary sources of the breakdown of law and order at this time in Western Europe, with bands of robbers roaming the countryside. So, were not all the inhabitants free to wander around (slavery?), or was the countryside deemed unsafe at night? It remains a mystery! A search of the Archaeology Data Service's database on *Rural Settlement of Roman Britain* looking for "cess" or "cesspit" produced 18 hits of which nine were listed as "nucleated settlements", six of which were "roadside settlements", two or three, possible "vici" near military sites as well as sites with stone buildings, probably villas to which Mike Fulford (pers. com.) has added the sites of Goring, Lullingstone and Aldermaston Wharf; given their status one might expect villa sites to have had cesspits unless there were manure heaps in the "working" part of those villas which were also farms. Only a couple of sites seem to be farms like Owslebury, both of them of Late Roman date, Ifton Manor in Glamorgan (Ellis and King 2012) and Ructstalls Hill, near Basingstoke in Hampshire (Oliver and Applin 1979), the latter only tentatively identified as a cesspit in the report and not described.

Addendum

Discussion of excrement always leads to ribald humour so I add this piece with apologies to my distinguished French colleagues, but it is a universal misfortune that proper names have different meanings when seen from a different linguistic perspective. I think of the French rugby player Grégory Alldritt, which in Norwegian might translate as "all shit".

The meeting of the AFEAF at Montpellier 2013. On the field excursion of the Association Française pour l'Étude de l'Âge du Fer conference in Montpellier in 2013 the participants were warned to make use of the toilet facilities at *Ambrussum* as there were none at our next stop, the oppidum of Nages, where a veritable feast of a picnic had been prepared. Nages was extensively excavated by Michel Py (1978), and is one of the

key sites for the Iron Age in southern France. Corent is a major hill-top site in the Auvergne overlooking Clermont-Ferrand where I did some preliminary sondages, followed by more extensive excavations by my French colleagues, firstly by Vincent

Fig. 6: One of the Late Roman cesspits at Owslebury, Hampshire (excavations, J. Collis, 1967, photo, O. Williams).

Guichard, and subsequently by Matthieu Poux who lectured at the Montpellier conference (Poux 2011). Corent has a football pitch with toilet facilities which my excavation team made use of while working there. Sadly the toilet facilities, or lack of them, both ancient and modern, of the two oppida were not discussed. Nor are they likely to be, since an article was never written – even though it might have fitted with the theme of the conference *Les Gaulois au fil de l'eau* (Olmer and Roure 2015). So English-speaking authors will regret the lack of the opportunity to cite Py and Poux 2015!

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NOTE

***** Illustrations – The following photos are only included in the online version of the book.

Fig. 1a: Two 11th – 12th century cesspits, cut by a third cesspit (centre). Exeter 1971, Goldsmith Street. Excavations: J. Collis / C. Henderson.

Fig. 2a. The wooden-lined pit left open for some time, and filled with rainwater. Exeter 1971, Goldsmith Street. Excavations: J. Collis / C. Henderson.

Fig. 3a: A stone-lined pit. Opposite view. Exeter 1971, Goldsmith Street. Excavations: J. Collis / C. Henderson

Fig. 6a. Cesspits forming part of the monastic complex of the New Minster on the Cathedral Car Park / Wessex Hotel site, 1961. Excavations: M. Biddle.

Last updated: 24.x.2024

Illustration 6: Arthur Rimbaud: Oraison du Soir

Professor Farrell has kindly sent the following pissological poem, from *Le bateau ivre* – Arthur Rimbaud. The poet has drunk many beers and, like Jesus on the cross, feels the need to relieve himself. Sacrilegious as well as scatological. The poem, incidentally, is a sonnet.

Oraison du Soir

Je vis assis, tel qu'un ange aux mains d'un barbier,
Empoignant une chope à fortes cannelures,
L'hypogastre et le col cambrés, une Gambier
Aux dents, sous l'air gonflé d'impalpables voilures.

Tels que les excréments chauds d'un vieux colombier,
Mille Rêves en moi font de douces brûlures:
Puis par instants mon coeur triste est comme un aubier
Qu'ensanglante l'or jeune et sombre des coulures.

Puis, quand j'ai ravalé mes rêves avec soin,
Je me tourne, ayant bu trente ou quarante chopes,
Et me recueille, pour lâcher l'âcre besoin:

Doux comme le Seigneur du cèdre et des hysopes,
Je pisse vers les cieux bruns, très haut et très loin
Avec l'assentiment des grands héliotropes.

_____

Translation:

Evening Prayer

I spend my life sitting – like an angel in the hands of a barber –
a deeply fluted beer mug in my fist,
belly and neck curved, a Gambier pipe
in my teeth, under the air swelling with impalpable veils of smoke.

Like the warm excrements in an old dovecote,
a thousand dreams burn softly inside me,
and at times my sad heart is like sap-wood
bled on by the dark yellow gold of its sweats.

Then, when I have carefully swallowed my dreams,
I turn, having drunk thirty or forty tankards,
and gather myself together to relieve the bitter need:

As sweetly as the Saviour of hyssops and of cedar
I piss towards dark skies, very high and very far;
and receive the approval of the great heliotropes.

from *Le bateau ivre* [The drunken boat]
