

Perfume bottles at Pompeii

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Since its rediscovery in the 18th century, Pompeii has exerted a great fascination on many types of people. Scholars and tourists, artists and novelists have all been inspired by the idea of a city brought to a sudden end by the eruption of Vesuvius in AD 79. Understandably it has always been that city which has attracted the most attention, with its streets, houses and bars that can be visited. Below the eruption level though, earlier cities exist and over the past two decades stratigraphic excavations have started to bring these to light. These produce a wealth of material culture that has the potential to cast useful light on the impact of the Augustan consumer boom. Any archaeologist working with the Imperial period is familiar with the volume of things an excavation will produce. Why people started to decide they needed them is a question that is not asked often enough.

In an attempt to explore this phenomenon, this paper will take one category of find and explore its trajectory in the centuries leading up to AD 79 using material from Insula VI.1. The category chosen consists of perfume bottles as these are made in a variety of materials, and so raise interesting methodological problems of how they can usefully be compared.

Insula VI.1

Insula VI.1 lies in the north of Pompeii. It is the first insula encountered on the left as one enters Pompeii through the Porta Ercolana. It was one of the earliest areas to be cleared by the Bourbon excavators searching for works of art for the king's collection. The first campaign was in 1770-71 and the second in 1783-9¹. When first uncovered, those fortunate enough to gain permission to visit, marvelled at the elegance of the houses they visited. The Marquis de Sade who visited whilst staying in Naples during the winter of 1775/6, especially approved of the delicacy of the paintings in the Casa del Chirurgo². At that time only the areas around the Porta Ercolano and around the theatres in the south of the town were uncovered. Visitors had to take a carriage ride through vineyards and fields of lupins to move between the two locations, a trip vividly described by François de Paule Latapie in a letter he sent home which was read to the Académie de Bordeaux in 1776³.

As more of Pompeii was uncovered, Insula VI.1 on the edge of the town became less frequently visited in its own right. People merely passed by as they walked to the tombs beyond the gate, and later to the Villa of the Mysteries. As the centuries passed, the coloured walls that had so entranced the Marquis de Sade faded to become ghosts of their former glory. The dilapidation was further advanced during the Second World War when two of the many bombs dropped by the Allies on Pompeii in 1943 landed in the Insula. So when in 1995 the University of Bradford was invited by the Soprintendenza Archeologica di Pompei to conduct sub-surface excavations, this long-overlooked insula was an ideal choice. Many of its mosaics had been removed, or had weathered away, allowing access to the pre-AD 79 stratigraphy. The excavations known as the Anglo-American Project in Pompeii (AAPP) ran from 1995 to 2006 as a summer school for students. All of the available spaces in the insula were excavated, and the spoil was sieved resulting in a very thorough recovery of material.

¹ Fiorelli 1860, 236-57, Part 2 18-46.

² Thomas 2008, 276.

³ Barrière *et al* 1954, 233-5.

During the excavations a small specialist team worked in parallel to the AAPP recording the finds. That group has continued to work to bring the excavations to publication since the AAPP closed. The data presented here reflect the ongoing state of this post-excavation work.

The insula can be divided into a number of separate properties (fig. 1). At the time of the eruption it contained a mixture of property types. There was an inn, two substantial town houses, four roadside bars, a shrine, an industrial complex known erroneously as the Soap Factory, and a public water supply. This functional make-up had not always been the case. Although the houses were established early, the areas of the inn and bars had first been used for industrial purposes, whilst the establishment of the shrine was a very late mid first century AD development.

All of the vessel glass and the small finds from the entire insula have been recorded which means that all of the glass and alabaster bottles can be considered. A smaller sub-set of the pottery ones are also available. Pottery processing associated with the VI.1 work was a two stage process. First it was bulk sorted and quantified in broad ware categories. Then there was full specialist recording of the diagnostic sherds. That has only been completed for the Casa del Chirurgo. The bulk sorting elsewhere is sufficiently advanced for all the ceramic unguent bottles for the two southern bars, the Triclinium and the shrine, together with those from a sub-set of the excavated areas in the inn to be extracted. These have been recorded by the small finds team, with David Griffiths of the pottery team describing the fabrics.

The stratigraphic narratives and associated phasing available are variable. That for the Casa del Chirurgo is complete and the report is in its final stage of preparation. An outline narrative and full phasing also exists for the Inn and the Triclinium. All of this work has been completed by Michael Anderson. I have prepared a similar scheme for the southern bars. An outline phasing for the part the Shrine that fronts the Via Consolare was prepared by Claire Weiss and Richard Hobbs for use with the study of the coins⁴, and this has been used here with some additions. Jones and Robinson published an outline narrative for the Casa del Vestali in 2004, but no detailed work has ever been carried out on the records to test whether it is correct. The records for the contexts from that property which produced the glass and small finds have been inspected and phased where possible. Currently there is no stratigraphic narrative or phasing for the Vestals Bar or the Soap Factory areas.

Dating is provided by various sources. In the north lead sling bullets provide a very useful indication that any context which contains them must belong to 89 BC or later as they are derived from the Sullan siege⁵. The coins are fully published⁶. The bulk sorted pottery quantifications also provide useful indications of likely date. Thin-walled wares appear first in second century BC and are very common from the first century BC up to the eruption. The *terra sigillata* has been studied by Jaye McKenzie Clarke who has very kindly made her database of the material from the Casa delle Vestali, the Casa del Chirurgo and the southern bars available. The presence of Italian sigillata indicates a *terminus post quem* of c. 25 BC or later. Vesuvian sigillata⁷ was in use prior to the Italian sigillata. In addition the screening of the deposits has meant that there is a full record of the presence of blown vessel glass, providing another *t.p.q.* of the very late first century BC.

⁴ Hobbs 2013.

⁵ Jones and Robinson 2004, 114-5.

⁶ Hobbs 2013.

⁷ McKenzie Clarke 2012.

All of the areas for which there is phasing have their own individual phasing and histories, but it is possible to group the individual phases into broad bands that allow comparisons to be made. The earliest is the third to second century BC contexts, followed by first century BC ones. The Augustan period was one when there was considerable redevelopment in the insula. It is possible to group contexts into three broad, and in part overlapping bands, as follows.

- Augusto-Tiberian – broadly the very late first century BC and the first third of the first century AD.
- Augusto-Neronian – broadly the very late first century BC and the first two thirds of the first century AD.
- Tiberio-Neronian – broadly the 20s to 60s AD.

Finally the earthquake that is conventionally placed in *c.* AD 62⁸ caused considerable damage. The alterations and repairs undertaken as a consequence of this, mean that in some areas it is possible to assign material to the final years of Pompeii's existence between that date and the eruption.

Although some of the items to be considered here do come from primary use deposits, such as the contents of drains and cess pits; most come from what may be considered secondary ones such as make-up, sub-floor deposits for *opus signinum* and mosaic floors and the infill of pits dug for building material. The natural at Pompeii was sought after by Pompeii's builders as it was a very good source of cement. Pits were frequently dug down when a building was being renovated to acquire it. These were then re-filled with building debris and rubbish. There is a developing debate about the extent to which rubbish was brought back into Pompeii to be used for these types of fill deposits⁹. That Pompeii had an organised rubbish disposal system is seen from the rubbish dumps that ring its walls, like that outside the Porta Capua¹⁰. If rubbish was being brought back in to act as fill, then clearly there is a limit to what types of questions the material culture can be used to answer. In that case there would be no link between the type of activity undertaken in a space and the rubbish incorporated in deposits that marked the end of the space's use prior to renovation and rebuilding. If material that had been generated during the use of the space was used, then there would be.

For the purposes of this paper, this issue is not too much of a problem because the main questions being asked need data that can be placed in a chronological sequence. There are some patterns in the data that suggest the most economical hypothesis to explain them would be a derivation associated with activity on the site, rather than as brought in rubbish. This will be returned to at the end as this is likely to be a useful contribution to the site formation process debate.

Having now provided the background to the data, the unguent bottles themselves can be examined, starting with the glass ones.

⁸ See Allison 2004, 17-9 for a discussion of this.

⁹ Dicus 2014.

¹⁰ Etani 2010.

The glass bottles

The earliest glass unguent bottles found are represented by four relatively small fragments from polychrome core-formed vessels and one fragment from a gold-in-glass vessel. Where dateable all are from first century AD contexts where they may be residual, but they do point to earlier use of these vessels in the insula.

Fragments from blown unguent bottles, by contrast, are extremely numerous, and were indeed the commonest category found in the entire assemblage. They will be described using the Isings (1957) typology. Four types can be recognised. The tubular Isings Form 8, the bulbous forms including Isings Form 6, the pointed base Isings Form 9a and a single complete ovoid Isings Form 26. The vessels are summarised in Table 1 and typical examples are shown in Fig. 2.

Type	Poly-chrome	Deep blue	Yellow/brown	Yellow/green	Pale green	Colour-less	Blue/green	Total
Tubular	-	11.0	2.4	1.6	18.7	-	208.9	242.6
Bulbous	9.7	1.4	4.8	-	6.2	-	1.2	23.3
Pointed base	-	-	-	-	-	-	6.7	6.7
Ovoid	-	-	-	-	-	-	32.6	32.6
Non-diagnostic	-	0.7	0.2	-	3.4	0.4	20.3	25.0
Total	9.7	13.1	7.4	1.6	28.3	0.4	269.7	330.2

Table 1: blown unguent bottles by type and colour quantified by weight (g).

The classic tubular unguent bottle is a form which, unusually for a glass vessel, can be identified from body and base fragments as well as rim and upper body fragments. It also has a thick and relatively heavy base. It can thus be anticipated that Table 1 will be biased towards the tubular form at the expense of the thin-walled bulbous forms. That said, there can be no doubt that it was by far the commonest blown glass vessel form recovered during the excavations.

The non-diagnostic category generally consists of rim and neck fragments which retain no part of the body, but most have features such as the sheared rim finish that would be consistent with the two main forms represented. The bulk are blue/green suggesting that most are likely to have come from the tubular form (see Table 1). Amongst all of these fragments there is only one example of a rim with a true rolled edge.

The dating of these various types can be quickly summarised. The earliest is the thin-walled, brightly coloured bulbous form. These appear regularly in Augustan graves carrying on into ones dated to the Claudio-Neronian period. Occurrences of the tubular form are sometimes claimed in Augustan contexts, but its principle *floruit* is generally from the Tiberio-Claudian into the early Flavian period. The relationship between the two forms is well demonstrated by the large numbers found in the graves at Lyons (France). In the Augustan graves, all of those found are of the bulbous Isings Form 6. That form continues to dominate in the graves assigned to the first half of the first century AD. Three-quarters of them belong to Isings Form 6 and only 10% to the tubular variety. Moving onto the second half of the first century

bulbous unguent bottles have virtually disappeared whilst 60% of the glass vessel assemblage is made up of the tubular form¹¹.

Dating for the Isings 9a form is much sparser as they are uncommon. Isings noted a few examples from dated graves starting in the Tiberio-Claudian period and one that might have been as late as the Neronian period¹². To these may be added one from the cremation burial at Wederath-Belginium near Trier¹³ where the latest coin was one of AD 37. One was also found in a chamber burial at Stanway just outside of Colchester dated to the period *c.* A.D 40-45¹⁴. They are absent from the very large numbers of unguent bottles found on post-conquest Claudio-Neronian British sites suggesting the form was not still in use by then. It seems likely that it was primarily a Tiberio-Claudian form, with most out of use by the middle of the first century AD.

Bulbous and conical-bodied unguent bottles with rims folded or rolled in (Isings Forms 26 and 28) are a later development first appearing in the third quarter of the first century AD and becoming the dominant forms by the end of it. The pattern seen in the eruption level finds at Pompeii provide an interesting contrast to the VI.1 assemblage which effectively comes to an end with the deposits following the AD 62 earthquake. Tubular unguent bottles form nearly 30% of the complete eruption level corpus. Those with folded rims (Isings 26 and 28) form a little over 20%. The bulbous form provides only *c.* 3% and ones with pointed bases are extremely rare with only two examples known¹⁵. It is clear that both the tubular Isings Form 8 and the folded rim Forms 26/28 were in wide use at AD 79. The effective absence of the latter from Insula VI.1, suggests that the form was coming into wide use during the last decade of Pompeii's existence.

Table 2 shows the distribution of the unguent bottles through time for the parts of the insula where the stratigraphy has been phased. As can be seen they effectively appear first in the in the Augusto-Tiberian levels but in numbers sufficient to indicate that they were in widespread use. The presence of tubular unguent bottles in a context broadly phased to the first century BC is naturally of some interest. They consist base fragments from two different vessels from the fill of a cistern that was sealed by one of the walls that sub-divided the property prior to the laying of floors which could be Augustan or possibly Tiberian¹⁶. The fill of the cistern also had a fragment of an Italian terra sigillata cup and so can be no earlier than the later first century BC¹⁷. A late first century B.C. date is thus possible for the context, though an early first century AD cannot be ruled out.

¹¹ Robin and Silvino 2012, 182-4, fig. 3.

¹² Isings 1957, 25.

¹³ Goethert 1989, 276, e.; Goethert-Polaschek 1977, 95 no. 448.

¹⁴ Crummy *et al* 2007, 140 no. BF24.23 fig. 63.

¹⁵ Scatozza Höricht 2012, 36 Tav. B, 51.

¹⁶ Hobbs 2013, 205.

¹⁷ McKenzie-Clark 2012, 129, 131, 133, 141.

<i>Master Phase</i>	<i>Globular</i>		<i>Pointed</i>		<i>Tubular</i>		<i>Undiag.</i>		<i>Total</i>	
	<i>Wt.</i>	<i>EVE</i>	<i>Wt.</i>	<i>EVE</i>	<i>Wt.</i>	<i>EVE</i>	<i>Wt.</i>	<i>EVE</i>	<i>Wt.</i>	<i>EVE</i>
1 st century BC	-	-	-	-	13.8	0.6	-	-	13.8	0.6
Augusto-Tiberian	0.3	0.4	-	-	30.0	1.2	-	-	30.3	1.6
Augusto-Neronian	5.9	0.4	-	-	38.9	3	5.2	1.6	50.0	5.0
Tiberio-Neronian	1.5	0.6	6.7	1.0	22.8	3.0	4.5	2.0	35.5	6.6
Post A.D. 62	9.7	0.6	-	-	28.5	1.6	2.4	0.6	40.6	2.8
Total	17.4	2.0	6.7	1.0	134.0	9.4	12.1	4.2	170.2	16.6

Table 2: Distribution by broad chronological band for the phased unguent bottles (weight in g. and EVE measures).

In general the relationship between the globular and the tubular forms is what might be expected. The globular form is predominantly in the contexts relating to the development of the insula up to the earthquake episodes conventionally dated to AD 62, whilst the tubular form continues to have a strong presence in contexts related to re-organisations after that. The globular total in the post-earthquake phase is accounted for by a single vessel. This stands apart from the normal Isings Form 6 in that it is bichrome. The marvered white decoration on a deep blue ground is typical of a style of decoration much favoured during the mid-third of the first century AD¹⁸. Normally it was more regularly applied to tablewares than small perfume containers, and so this is a useful addition to the *corpus* known.

The ceramic bottles

Ceramic unguent vessels have attracted considerable attention in the literature because they are a very frequent find in grave assemblages. There are numerous typologies and these have been usefully synthesised by Camilli whilst proposing one of her own¹⁹. Of those present within Insula VI.1, all authors make a fundamental division between those with fusiform bodies and pedestals, and those with globular, flat-based bodies. There is a chronological difference between them with the fusiform appearing in the fourth century BC, becoming common in the third and second centuries and continuing in use into the early first century BC. There is evidence that some globular unguent bottles were present in the middle part of the first century BC, but if the context dates are examined in detail, overwhelming they are from Augustan or first century AD contexts²⁰.

Sub-dividing the fusiform series chronologically is far from simple. As has been pointed out²¹ grave assemblages have shown that very different forms can be in use contemporaneously, and some features which are early at one site, may not have the same chronological significance at another. Dealing with an assemblage of fragments from a domestic site rather than complete profiles from burials adds additional problems. For this reason here the assemblage will be simply divided between the fusiform and the globular forms. Fig. 3 shows some of the more complete examples of the types present.

¹⁸ Cottam and Price 2009, 205 provides a good summary.

¹⁹ Camilli 1999. See pp 11-23 for the synthesis and concordance of other systems and pp. 24-7 for her own.

²⁰ Camilli 1999, 118-45.

²¹ Anderson-Stojanović 1987, 109.

The bulk of the assemblage came from the fusiform type with long neck, expanded body and slender solid pedestal foot. Nearly all of these are of the same fabric²² and are red/brown in appearance. Where present the slip varies from black to brown or reddish. Most of the rim fragments had a triangular conical rim form. It has been noted that there seems to be a regular movement from the third to the first century from outbent rims to those with a solid triangular section²³, which would suggest that the VI.1 fusiform unguent bottles are more likely to belong to the latter part of the form's *floruit* than the earlier part.

Those with a broadly globular body have a simple out-turned rim and a cylindrical neck. The securely identified examples are again made in Fabric U01 and the slips vary from black to orange. One was found complete and has a slightly biconical reservoir and in two cases complete egg-shaped reservoirs are preserved. Slipped rim and neck fragments where the rim is simply out-turned are normal for globular unguent bottles but do occur on a minority of fusiform examples. Four fragments where the neck is long fall into this category. There are also 16 lower body and base fragments from small vessels with globular bodies which seem likely to belong to globular unguent bottles given their shape and fabric but which lack any traces of slip which would help confirm this.

The third group that has been tentatively identified consists of a small number of slipped rim fragments with simple out-turned edges which come from short-necked vessels. Again three of these are in fabric U01. Short-necked vessels like these are normally subsumed within the broad globular family in most typologies, but the ceramic unguent bottles from the Porta Nocera cemetery provides useful additional evidence from Pompeii itself, perhaps suggesting this was a distinctive type here.

The main dating focus of the part of the cemetery excavated was late Republican to the eruption, and ceramic unguent bottles were common, both as grave goods and in the enclosures where they had been part of funerary activity. Globular ones dominated the assemblage. Fragments from fusiform ones were much rarer and were considered to be residual in the Augustan levels, though interestingly the base and lower body of one were found amongst the remains of tableware and food debris from a funerary banquet dated to 40-20 BC²⁴ which would suggest a later use than is normally accepted. The commonest form of globular unguent bottle (Type I) had the egg-shaped body seen in the well-preserved reservoirs from the Casa del Chirurgo. These were found in two graves dated to 20 BC to 30 AD and three of AD 40-60. Type III unguent bottles had the slightly biconical reservoir seen on the only complete example from VI.1, and were also present in a grave dated to 20 BC to 30 AD. Short-necked globular unguent bottles formed Type II and were present in two graves dated to AD 40-60, one of which had another short-necked unguent bottle assigned to Type IV²⁵.

Table 3 shows the distribution of the various categories by broad phasing. The out-turned rim in the third to second century context can plausibly be assigned to a fusiform one with that rim form such as Camilli's Group B.12.4. This is well represented in southern Italy, and

²² Fabric U01 - Fine, well-sorted fabric, grey-brown body and orange-brown margins. **Inclusions:** vs: lime, vs: quartz, vs: mica (silver), some with c: black vitreous. **Munsell:** body – 10YR 4/2 dark grayish brown, margins – 7.5YR 5/8 strong brown.

²³ Camilli 1999, 33.

²⁴ Tuffreau-Libre 2003, 1077-83, fig. 45; see also 1047.

²⁵ Van Andringa 2013, 310, fig. 214.

many of the examples come from third and second century BC contexts²⁶. At first sight the chronological sequence is much as should be expected. A strong presence of fusiform bottles in the first century BC tapering off in the first century AD with the securely identified globular ones appearing in the Augusto-Tiberian period and becoming more common thereafter. Most of the other categories that could belong to the globular form (rim/neck, short-necked and base fragments) also have a chronological trajectory that suggest it is appropriate to consider them to be from globular unguent bottles. It is interesting to note that the short-necked forms are occurring in the Augusto-Tiberian phase, i.e. earlier than the ones found at the Porta Nocera cemetery.

<i>Phase</i>	<i>Pedestal</i>	<i>Globular</i>	<i>Rim neck</i>	<i>Short-necked</i>	<i>Base</i>	<i>Undiag</i>	<i>Total</i>
3 rd -2 nd century BC	20.3	-	12.8	-	-	-	33.1
1 st century BC	260.8	-	-	1.7	11.2	2.6	276.3
Augusto-Tiberian	65.4	32.4	-	5.9	-	5.5	109.2
Tiberio-Neronian	73.1	62.5	2.8	-	26.3	9.5	174.2
Augusto-Neronian	43.9	10.1	-	6.9	12.4	12.9	86.2
Post AD 62	11.5	12.2	-	-	-	2.1	26.8
Unphased	171.2	36.0	9.1	5.3	72.5	12.9	307.0
Total	646.2	153.2	24.7	19.8	122.4	45.5	1011.8

Table 3: Ceramic unguent bottles by category and broad phasing (weight in g.)

The figures for the fusiform ones do have to be viewed with a little caution as the strong presence in the first century BC is almost entirely accounted for by those from levelling layers in the Bar of Acisculus. Other pottery in these suggests that a much older rubbish dump was being exploited for fill. This indicates that the unguent bottles also could be older, and that certainly they are unlikely to have been used on the site. Once these are stripped out, the figures show a much lower pre-Augustan use for the bottles in the insula.

The alabaster bottles

The alabaster bottles (see fig. 4) are much less common than the ones of glass or pottery but that is to be expected. These and their contents were luxury items imported from Egypt. Despite that, fragments were found in each of the properties in the insula apart from the Triclinium and the Well. The typology developed for the Taranto finds can be used for the best-preserved ones²⁷.

Of those that can be assigned to shapes the most complete example was the complete reservoir of an amphora-shaped one from the Vestals bar (Taranto Tipo 2.1). The Casa delle Vestali produced fragments from three in total of which the identifiable ones were part of a cylindrical bottle (Taranto Tipo 1.2) from an Augusto-Tiberian context, and part of a pyxis from a mid-first century AD context. Another fragment from a Taranto Tipo 1.2 came from an unphased context in the Casa del Chirurgo.

The Inn produced another fragment of a pyxis from a first century BC context and two base fragments from other bottles from modern contexts. From the Shrine there were two

²⁶ Camilli 1999, 76-8, tav 16.

²⁷ Colivicchi 2001.

fragments from a large globular flask (Taranto Tipo 4) from a Claudian or later levelling deposit and a body fragment from Tiberio-Neronian context. A fragment of a Taranto Form 3.2 came from the Soap Factory and a pedestal base from a Taranto Tipo 3.2 from the Bar Phoebus. Only body fragments came from the Bar Asciculus but both were from first century BC contexts.

The cylindrical bottles of Tipo 1.2 are the oldest at they are conventionally dated to the late second century to early first century BC. The amphora-shaped Tipo 2.1 has a mid-first century BC currency. Pedestal-based forms are Augusto-Tiberian and the globular Tipo 4 are Tiberio-Neronian. Only the latter appears to have been found in a context contemporaneous with its date, but with luxury containers such as this, it is possible that they could have been curated and re-used long after their original contents were exhausted.

The use of the bottles in the insula

It is important to establish whether the chronological patterns that can be seen in Tables 2 and 3 are a true reflection of the use of the perfume containers, or are a by-product of the normal pattern of recovery of material. If all categories of material are rare in contexts belonging to the pre-Augustan period, then any increase in perfume bottle use then is not particularly significant. This can be explored by taking the finds from the Casa del Chirurgo as a proxy for the whole insula. This is the property that is currently the best understood, and which also has had the benefit of full specialist inspection of all the pottery. We can be certain that no ceramic unguent bottles might have been overlooked.

Table 4 compares the incidence of both pottery and glass bottles with that of two other very common classes of finds, ceramic loom weights and glass counters, according to the site phase.

<i>Phase</i>	<i>Date</i>	<i>Loom Weight (number)</i>	<i>Counter (number)</i>	<i>Ceramic Unguent (weight g.)</i>	<i>Glass Unguent (weight g.)</i>
2	3 rd century BC	3	4	12.8	-
3	c. 200/150 - 25 BC	8	10	0.3	-
5	Augustan	22	16	58.4	0.1
6	Tiberio-Neronian	16	26	141.8	13.6
7	Post-earthquake	2	9	-	-
Total		51	65	213.3	13.7

Table 4: comparison of the presence of selected finds categories through time in the Casa del Chirurgo.

As can be seen whilst all categories show a surge in numbers in contexts associated with the Augustan changes to the house, it is not so marked for the loom weights and counters. The former show a doubling of the numbers in the previous two phases, the latter remain almost at parity. The ceramic unguent bottles have a more than fourfold increase in the Augustan contexts and then triple again in the succeeding phase when the blown glass ones also come into common use. It does appear that the rise in the quantity of perfume containers around the Augustan period seen in Tables 2 and 3 is a real phenomenon, and is not a product of site formation processes. Whilst there is evidence that core-formed glass containers and those of alabaster were present prior to that time, they would appear to have been rare. So the figures are telling us is that people in Pompeii were engaging more frequently in activities that

required perfume, or that established activities started to need to be perfumed more than they had before.

What activities in the ancient world needed perfume? Naturally it was used by people to make themselves smell nice, but there were also other activities which needed it. A major use was in the ceremonies surrounding the dead, not just in the preparation of the body and the placing of grave goods, but also in the ceremonies that surrounded the funeral and in ongoing ceremonies of remembrance. The very large numbers of both glass and ceramic unguent bottles found in the Porta Nocera cemetery are a vivid testament of this. Perfumes were also used whilst dining and were an appropriate offering to deities. Does the distribution of the unguent bottles within the insula show any reflection of this? It is at this point that the vexed issue of quantification and comparison must be engaged with, a topic that has been well rehearsed in the literature²⁸.

Up to this point weight has been used a surrogate for quantity as it is a reliable unbiased measure which is not influenced by the special situations of particular sites or contexts. When comparing vessels that differ so much in weight as a fusiform ceramic unguent bottle and a globular thin-walled glass one, it too has problems. It is for this reason that EVEs have been developed as a way of consistently estimating the proportion of a vessel present. Pottery specialists have long worked with rim and base EVEs²⁹, but these have not been found to be satisfactory for the examination of vessel glass assemblages. Instead a method that counts the zones of a vessel present has been developed, akin to the way that animal bone specialists quantify bone fragments³⁰. In the case of the pottery unguent bottles using rim and base EVEs is problematic because they are ‘chunky’ types; i.e. they have either a rim or a base that is much more likely to remain whole when broken than is the case with most types³¹. For this reason the zonal EVE method has been extended to the pottery unguent bottles. Here this is a natural step to take as the pottery globular form and the glass bulbous one are essentially the same shape. The results of this are shown in Table 5 for the plots where there is both ceramic and glass data.

<i>Plot</i>	<i>Fusiform</i>		<i>Globular</i>		<i>Glass</i>	
	<i>Weight</i>	<i>EVE</i>	<i>Weight</i>	<i>EVE</i>	<i>Weight</i>	<i>EVE</i>
Triclinium	27.1	0.2	25.4	1.0	109.5	7.2
Inn	83.0	2.2	-	-	7.0	0.8
Chirurgo	152.6	4.0	189.0	5.8	16.3	3.6
Shrine	93.2	3.8	4.4	0.4	40.3	4.2
Bar Acisculus	53.9	1.2	12.9	1.2	-	-
Bar Phoebus	15.5	1.2	39.8	0.8	-	-
Total	425.3	12.6	271.5	9.2	173.1	15.8

Table 5: A comparison of the occurrence of glass and pottery unguent bottles from selected plots quantified by weight (g.) and zonal EVEs. NB Those from the levelling deposit in Acisculus removed (see p. ##).

²⁸ See Orton 1993.

²⁹ Orton 1980, 164-5, pl. 14.

³⁰ Cool and Baxter 1996, 1999.

³¹ Orton *et al* 1993, 174.

It is easiest to start with the properties that consistently show low use. Those are the two southern bars. This was an area used first for industrial purposes and then as bar properties. The area of the inn for which we have comparable data equally had little use for them. Again this was first an industrial area, then abandoned and then used as an inn. Plausibly none of these uses of the spaces would have been ones where perfume use was to be expected. The Casa del Chirurgo shows a consistent use of them. This space was used as a domestic living space for a household in comfortable circumstances from at least the second century BC. Dining and making offerings to the household gods would have been regular occurrences, and it is even possible that funerary activities could be carried out from time to time. Atria, such as the house possesses, were the traditional location where bodies were laid out and displayed³². Though it is not possible to compare the glass and the ceramic unguent bottles from the Casa delle Vestali, it can be noted that it had the highest quantity of glass unguent bottles from the insula, again reflecting the range of activities to be expected within such an elite house.

The large quantity of blown unguent bottles from the Triclinium is surprising given its small area, and occupation developed later there than it did in much of the rest of the insula. It does not appear to have been a domestic space and was probably an adjunct of the Inn. The property takes its name from an outdoor dining couch, and there was also a shrine and water features. All of this suggests a focus on dining. It is useful to look at the contexts producing the unguent bottles in some detail. During its initial development in the first century AD a ramp was constructed from material that is thought to have been brought onto the site. This accounts for 1.6 EVEs of the glass unguent bottles and all of the pottery ones. Phase 8 is the post-earthquake activity and provided 2.4 glass EVEs in total, the bulk coming from a cess pit and thus plausibly being associated with the dining activities being carried out at that time. To these can be added the 3.2 glass EVEs from modern contexts which given their state of preservation can be interpreted as eruption level material. For comparison it can be noted that only 1 EVE of the Inn glass unguent total came from similar possibly eruption level contexts, and that plot covered a much larger area than the Triclinium. So it seems reasonable to suggest that the dining and sacrifice activities that were being carried out in the Triclinium during the last years of Pompeii's life were indeed influencing the volume of glass unguent bottles found.

A similar concentration of glass unguent bottle fragments was reported in the garden soil excavated in the Garden of Hercules in *Regio II* at Pompeii³³. It was suggested that this was a commercial flower garden whose products may have been used in perfume making. The glass unguent bottles were seen as additional evidence for this. Packaging, however, is to be expected in the space where perfume was compounded, not in the space where the flowers were grown. This is delightfully depicted in the wall-paintings in the *oecus* of the House of the Vettii (VI.15.1). There the cupids are shown in three different activities concerned with pressing the ingredients and compounding the perfume, before the scene with it being present in bottles and being sampled by a lady cupid customer³⁴. Whilst the garden could have been used for commercial horticultural purposes, the explanation of the broken glass unguent bottles in the soil probably relates to other features in the garden. These included a *triclinium*, a masonry serving table, and a *lararium* with associated marble statue of Hercules and various votive items. Again this was a dining room in pleasant surroundings and this probably explains the presence of the glass unguent bottle debris in the soil. Curiously this

³² Šterbenc Erkes 2011, 47.

³³ II.viii. 6 - Jashemski 1979.

³⁴ Cantarella and Jacobelli 2011, 140-1, fig. 123.

establishment has other similarities with the Triclinium in VI.1 in that it was situated within the first insula as you entered Pompeii through a gate in the walls, in that case the Porta Nocera. Though it has not been suggested that this was a venue for commercial dining, one might wonder whether the opportunity was taken to use the well positioned garden for this, as well as for growing flowers and olives. Certainly the threshold mosaic with its inscription of CRAS CREDO has a sentiment which for centuries has been associated more with the landlords of licenced premises than with horticulturalists, for it can be translated as 'Tomorrow I will give credit'!

If the evidence of the Triclinium and the Garden of Hercules can be taken to show that dining and sacrifice were important activities driving the volume of unguent bottles found, then perhaps it is a change in the ceremonies surrounding them in the broadly Augustan period that is responsible for the overall increase in use.

This raises questions about the regular use of unguent bottles in the shrine area. The first identified use of the plot was as an industrial area with the normal tanks and cisterns seen along the Via Consolare frontage. These were then de-commissioned and infilled, walls built to sub-divide the space and new floors laid. The nature of the occupation at this time is unclear. Finally these structures were demolished and the shrine built in the middle of the first century AD, possibly after the disruptions caused by the earthquake. The two best-preserved fusiform pottery unguent bottles were found in the filling of the cisterns belonging to the end of the industrial phase. Tubular unguent bottle fragments (0.6 EVE) were also found in the fill of one of the other cisterns but were smaller fragments. With the exception of one EVE from unphased contexts, the remainder of the glass unguent bottles (2.6 EVEs) were found in the levelling material prior to the mosaic floor of the shrine. This also produced 1.8 EVEs of the fusiform unguent bottles. The globular pottery unguent bottles were unphased. A total of 4.4 EVEs of unguent bottles were recovered from the levelling which is a much higher total than is normally seen in similar episodes. In the rear part of the shrine plot fragments from the largest alabaster vessel from the site were found in a contemporary levelling deposit which may be part of the same episode. As well as being the largest alabaster vessel this was also the only one deposited at the same time as its conventional date.

Whilst it is possible the levelling activities made use of material brought onto the site, the fact that buildings were being demolished to make way for the shrine suggests this would have been unnecessary. Normally the fusiform and the glass unguent bottles would not be expected to be in contemporary use, which might suggest the levelling deposit did contain a mixture of old residual material as well as more recent rubbish. Against that it may be noted that the coinage in these layers is overwhelmingly of Imperial date. This must be placed within the context that the shrine area is one of the more prolific areas as far as coinage is concerned with the majority of the coins dating to the first century BC or earlier³⁵. If these layers contained residual material from within the plot, a different coin assemblage could have been anticipated. Another factor to consider is that within this plot, fusiform unguent bottles in a good state of preservation that did not suggest they were old residual pieces were found in one context that has to post-date AD 8-10. Again this would be later than fusiform unguent bottles are normally attributed to, though as already noted one does appear to have been associated with an episode of funerary dining at the Porta Nocera cemetery sometime between 40 and 20 BC.

³⁵ Hobbs 2013, 207-8

There is thus the possibility, to put it no more strongly, that the fusiform and the glass unguent bottles were the result of contemporary use. This would be unusual and requires consideration. Possibly what is being observed is another aspect of the role of unguent bottles played in religious activity. These deposits were, after all, forming the foundation of a religious building. Could the contents of the bottles have played a part in the purification of the site prior to its change of use, and might this also account for the large alabaster vessel?

It is hoped that this paper has demonstrated the benefits of looking at categories of data in a holistic manner that cross the normal specialist divisions in the archaeological world. It is by doing that we can perhaps start to explore why people of the Roman era were in need of so many things. Underlying that are changes in behaviour and habits which drove the production of so much material. Here it is likely to be changing practices around dining and placating the gods which may be important. Considering what practices may have given rise to the broken fragments may also help us understand site formation processes. Understanding these is key if we are to use material culture to explore the past as it only becomes useful when studied within context. For this category of find in Insula VI.1 there is strong evidence that the material culture captured in many of the building episodes was reflecting activity that had gone on within the properties previously. This matches the pattern which the coins have shown where the greatest concentrations were in precisely the type of areas where commercial transactions were most likely to have taken place³⁶. It will not be possible to interpret every layer and item in this way, but sufficient can be to give us hope that it will be possible to use the vast number of finds from Insula VI.1 to explore just why two millennia ago such a major increase in consumption took off.

Acknowledgements

It is with both pleasure and sadness that I dedicate this paper to the memory of my good and dear friend Sarah Jennings who once spent a morning in 2006 at Pompeii, unwrapping the glass that this paper deals with. How sad it is that she did not live to discuss the implications once the cataloguing was complete.

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³⁶ Hobbs 2013, 101-103.

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