

Clay Tobacco Pipes
from Excavations at
Launceston Castle
Cornwall

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2006

Excavations at Launceston Castle

Edited by A Saunders

Society for Medieval Archaeology Monograph 24

December 2006 xviii + 490 pages 2 colour plates 2 fold-outs

paperback

ISBN: 978 1904350 75 0

PIPE CLAY OBJECTS

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14.1 CLAY TOBACCO PIPES

The excavations produced a total of 3438 fragments of pipe comprising 501 bowl, 2875 stem and 62 mouth-piece fragments. The fragments range in date from around 1580 to 1920, thus covering almost the entire range of pipe use in Britain. This is a very substantial assemblage of pipes from one site and it is one of the largest excavated assemblages recovered from anywhere in the country. It is also extremely significant for Cornwall where the author's 1988 survey of museum collections located only 38 17th-century stamped marks from the whole county, a number almost doubled by the finds from this one site. The pipes are considered in two main sections below. First, the earlier material, from the late 16th through to the late 18th centuries is considered in some detail. Second, a summary of the later material, from the late 18th century onwards, is provided.

Introduction

The background relating to the recovery and post-excavation treatment of this assemblage is quite complex, but needs to be understood since it effects the way in which it has been possible to study the material for this report. The majority of the pipes under consideration were recovered during the excavations that took place at Launceston Castle prior to 1977. During this period a bag numbering system was used and the fragments marked in ink with the bag number, which was usually placed within a square, as well as the site code and year (e.g. LAU 69). The bag number related each fragment back to the site notes and thus to the individual area and context from which it was recovered. After 1977 a new system was introduced whereby

the site was allocated a numeric code (24) and a running sequence of context numbers employed. The site code and context number were marked on the fragments in ink (e.g. 24/491).

During the initial post-excavation work in the 1970s and 80s the pipe fragments were first sorted according to the various excavation areas, which were designated by a letter code, and then into different 'phased groups', which were identified using Roman numerals. The pipes from each area and phase group were then further subdivided according to the attributes of the pipe fragments into groups comprising stems, bowls, marked pieces, etc. The fragments were not individually marked with their area or context codes when they were sorted in this way although they were placed into bags labelled with these details. This sorting, however, was not exhaustive since many of the sub-groups were found to contain pieces from other sub-groups, for example, bags of supposedly plain stems were found to contain some decorated stems or bowl fragments. At a later stage another tier of complexity was added when the original phasing was revised and the Roman numerals on the bag labels replaced with an Arabic phasing system (7.1, 7.2, etc). The final level of complexity arose when the intermediate phasing was replaced with a third system, comprising Periods 1-12, the area codes were changed and the old context numbers were replaced with new four digit 'computer context numbers'.

When the pipes were submitted for study they were contained within four storage boxes, each of which basically contained the pipe groups from one of the intermediate Periods (7.1, 7.2, 7.4 and 8.1). These boxes contained a total of 72 bags of pipes, all but one of which was labelled with their original area code, their original phase number and their intermediate

phase number. One of the bags was not labelled but, from the original bag numbers on the fragments, it was possible to identify which area the fragments had come from.

The first problem encountered in studying the pipes was that not all of the fragments had been marked in ink before being amalgamated into the 72 bags. This meant that although the general area from which they had been recovered and the intermediate phase to which they had been allocated was known, their original bag and context numbers had been lost. As a result, some means of identifying these fragments was needed if this surviving information was not to be lost as well. In order to do this, each of the 72 bags was allocated yet another number, which was added to the label in pencil in a circle. Any diagnostic fragments removed from the bag for study were likewise labelled in pencil within a circle. These numbers run from 1 to 72 and provide a 'pipe bag' numbering sequence that allows each fragment to be related back to one of these bags and so to the old area and phase to which it had been allocated.

The second problem arose in that many of the bags contained large numbers of plain stems. These were all checked for any diagnostic or unusual fragments, which were removed for study. The remaining fragments, however, were extremely laborious to sort and catalogue. There were so many original bag numbers in each pipe bag that the pieces had to be extensively sorted and then catalogued almost individually to adequately identify each piece. This proved prohibitively time consuming for the value of the information recovered and so, for the later pipe bags, a simple stem count has been employed. This provides a count by old phase and area but does not allow the individual fragments to be dated or related back to their original bag or context groups.

The final problem concerns the interpretation of the pipes in relation to the original contexts from which they were recovered. Because of the way the pipes had been labelled and stored, many of the fragments had become effectively unstratified within their area groups. Furthermore, by bulk listing the plain stems it is not possible to allocate these fragments back into context groups and so these have effectively become unstratified within their areas. As a result, only the more diagnostic fragments that retain their original bag numbers can be sorted back into context groups on the computer worksheet. Finally, even when the more diagnostic fragments are listed, many of the original bag numbers do not have a translation into a new 'computer context number' and, in any case, no context summary is available for the site. This means that it is only partially possible to assess the pipe dating evidence from each context and, within the constraints of this study, it has only been possible to make a few general observations with regard to the original contexts from which the pipes were recovered. This problem has been mitigated to some extent by the

grouping of contexts into Land Use Blocks (LUB). This system brings together all the contexts associated with a particular event on a particular part of the site. The material from these contexts can then be considered as a whole to help date and interpret the activity represented. It is these LUB groups that have been used when considering the pipes in relation to the archaeology of the site.

The final point to note is that some additional pipes from the post-1977 excavations were discovered in the stores in 2001. This group of pipes has been added to the main database and the bag in which they arrived has been allocated the pipe bag number 73.

Methodology

The pipe fragments have been individually examined and details of each fragment logged on an Excel worksheet. The layout of the worksheet has been based on the draft clay tobacco pipe recording system that has been developed at the University of Liverpool (Higgins and Davey 1994). The worksheet allows the data to be sorted in a variety of ways, for example, by area, by original bag number or in computer context order. The data relating to each fragment or group has been entered as fully as possible given the constraints listed above although it is obvious that many of the entries are incomplete. Copies of both the worksheet and the draft recording system have been provided for the site archive.

The bowl form dating has been broadly based on the London typology established by Atkinson and Oswald (1969), but with the dates modified to take account of regional styles from well dated local groups, for example, those from Plymouth (Oswald 1969; Higgins 1992), Exeter (Allan 1984) or Berry Pomeroy Castle (Higgins 1998). All the more diagnostic fragments have been labelled with their pipe bag number (see above) and then amalgamated into groups by period or attribute to facilitate study. An assessment of the likely date for a large number of the stem fragments has also been provided. The stem dates should, however, be used with caution since they are much more general and less reliable than the dates that can be determined from bowl fragments.

Within the confines of this study it has only been possible to deal with the early pipes in detail. These span a period of some 150 years from the late 16th to the early 18th century. There was then a period during which few pipes came to be deposited on the site before a revival during another 150 year period from the late 18th century until the early 20th. This later group is extremely diverse and contains some good local examples of 19th-century marked and decorated pipes which warrant a more detailed study in their own right. Although it has not been possible to deal with this later group in detail, a summary of the marked and decorated pieces together with illustrations of the main

types have been provided as a guide for subsequent researchers.

The early material

The early bowl forms

A representative range of the plain bowl forms dating from the late 16th century through to the late 18th century have been illustrated in Figures 14.1–14.3 (CP1–35). Marked and decorated pipes covering the same range are shown in Figures 14.3–14.6 (CP36–82). These two sets of illustrations have been arranged in roughly chronological order for ease of reference.

The earliest recognisable forms of pipe used in this country date from around 1580–1610 when tobacco was a new and expensive commodity. These early pipes are rare nationally although they seem to be slightly more common in the South-West, where smoking appears to have been particularly common at this early period. Despite this, only one late-16th-century bowl has previously been recorded from Cornwall and that was recovered from West Colliford mill (Davey 1989, 167). The excavations from Launceston have produced four bowls from this early period, one very fragmentary but the others substantially complete (CP1–2 and CP36). These are all very neat and well-finished products with plain rims although, unusually for these early pipes, only one example is definitely burnished. This contrasts with the group from Berry Pomeroy Castle (Devon) where four out of the six substantially complete bowls of this period were burnished (Higgins 1998, 240). There are, however, fragments of finely burnished pipes of a slightly later date at Launceston, for example, the fragment of c1610–40 (CP3), which shows that fine quality pipes were in circulation at this time. With such small numbers of early fragments it may be that differences of detail between individual sites are more apparent than real. What is certain is that all the early pipes are well-designed and finished products.

The symmetrical form and neat finish of the earliest pipes contrasts markedly with the bulk of the early-17th-century finds. From about 1610, a much more chunky bowl style with a milled rim was adopted (CP4–10) and this became the standard form in use at Launceston for the rest of the 17th century (CP11–23). The early examples of these new forms often had asymmetrical bowls with surface defects from the manufacturing process, for example, surface folds from poorly prepared clay or heavy-handed trimming marks. The heels are sometimes cut as an odd angle (CP10), and mould defects are occasionally apparent, such as the nicks visible around the heel (CP8). These pipes are clearly local products with a very provincial feel to them. Only a small number were burnished, and the quality is generally average to poor. The change

from the neat and well-finished products of c1580–1610 to the apparently cheap and poorly produced early-17th-century styles is clearly reflected in the value of pipes provided by Cornish inventories. In a document of 1605 pipes were valued at 4 to the penny, in 1622 they were 8 to the penny and in 1633 12 to the penny (Douch 1970b, 146). From the archaeological evidence it would appear that this sharp decrease in cost of pipes was achieved, at least in part, at the expense of their quality.

During the first half of the 17th century the bowl profile was particularly variable. The early examples, dating from c1610–40, were generally rather squat and compact (CP4–10). Some of these had fairly upright bowls, for example CP4, while others show early signs of the rather drawn, top heavy, bowl form which was to become characteristic of the later West Country industries (CP10). One distinctive form (CP5) has a rather small heel that projects much further from the bowl than in the other examples. This bowl form appears to be particularly associated with Devon since it has been found in some numbers in Plymouth and, to a lesser extent, at Barnstaple (Oswald 1969, 127; Grant and Jemmett 1985). This distinctive bowl form is interesting since it appears to represent the early establishment of a discernible local style.

By the middle of the 17th century the bowl forms had grown slightly in size and become a little more varied in design (CP11–18). Some very squat, dumpy, forms were produced around 1650–70 (CP17–18), and these appear to be particularly typical of production in Cornwall itself. These forms gave way to taller, more drawn forms during the second half of the century (CP19–22), and these forms appear to have been in general use across Cornwall and Devon. During the late 17th and early 18th century pipes with a top-heavy form and pronounced curves came to dominate the Launceston assemblage (CP23–33). Similar forms were common throughout Devon and as far west as Somerset, where there are marked examples that can be shown to have been produced by pipemakers in places such as Chard and Taunton. The mid- to late-17th-century pipes tend to be better designed and executed than the earlier 17th-century examples.

The distinctive West Country bowl forms were probably produced until around 1730 or 40, and occur in some numbers at Launceston throughout this period. Pipes from the mid to late 18th century are, however, much more scarce. This may be due to a variety of factors such as the adoption of snuff rather than smoking as the preferred means of taking tobacco or to changes in the deposition of material on the site. The 18th-century forms are represented by a more cylindrical and upright heel form (CP34) which is reminiscent of London styles, and by a spur pipe (CP35). The spur form is significant since it is the first example of this style from Launceston. In most areas of England both spur and heel forms were used throughout the 17th century. In the West Country and

LAUNCESTON CASTLE

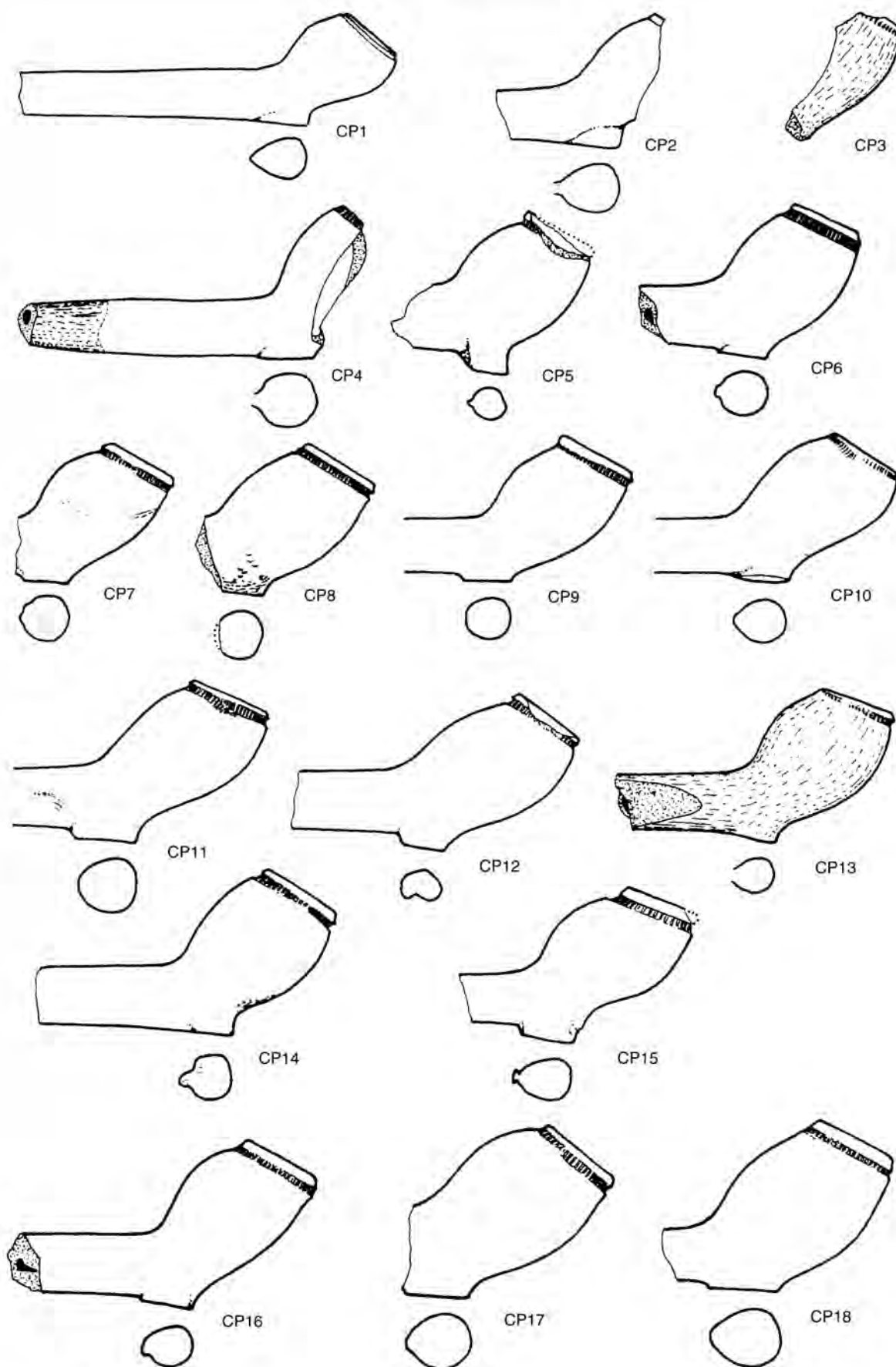


FIGURE 14.1
Pipes CP1-18 (1:1) (by D A Higgins)

PIPE CLAY OBJECTS

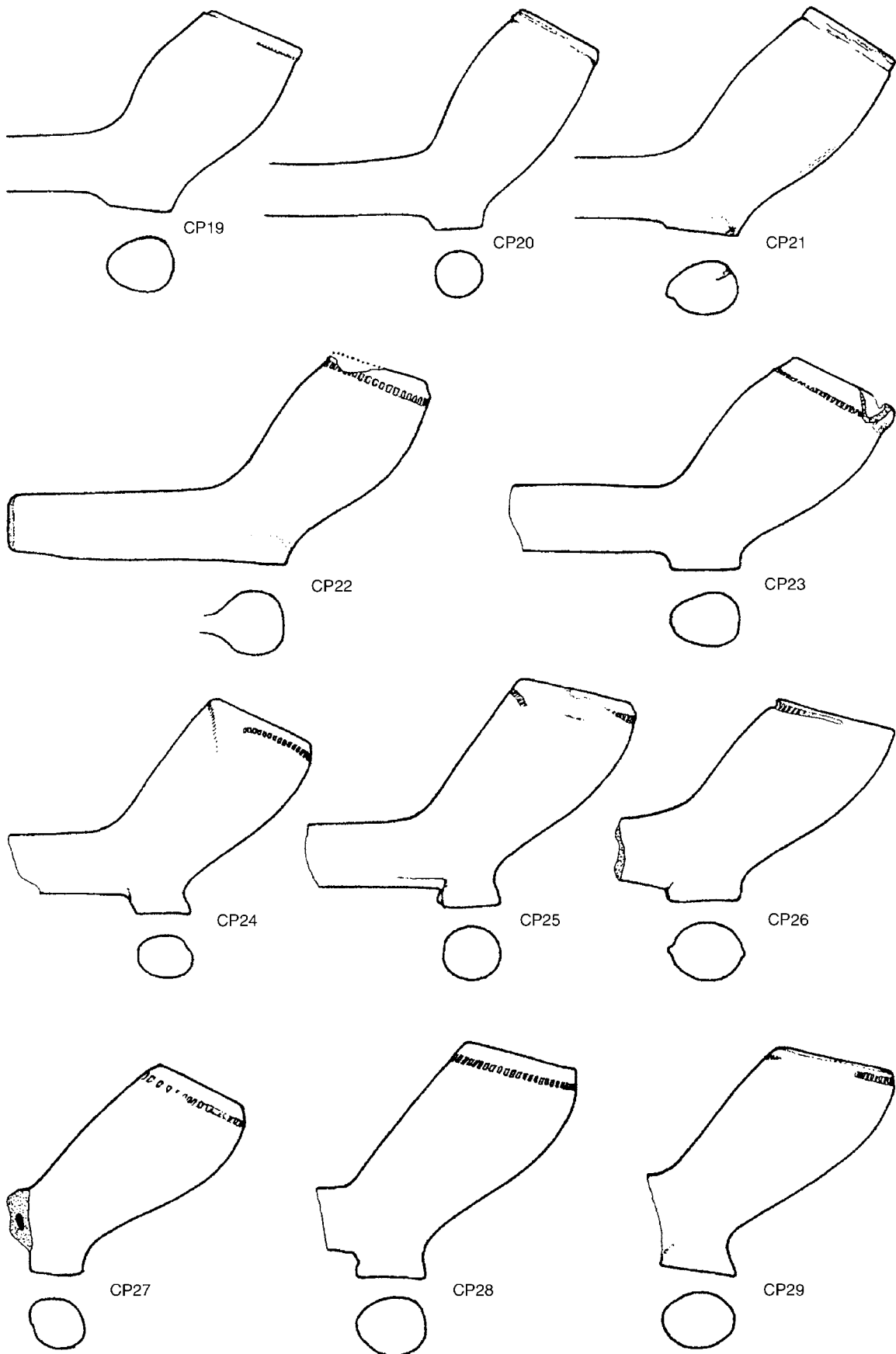


FIGURE 14.2

Pipes CP19-29 (1:1) (by D A Higgins)

LAUNCESTON CASTLE

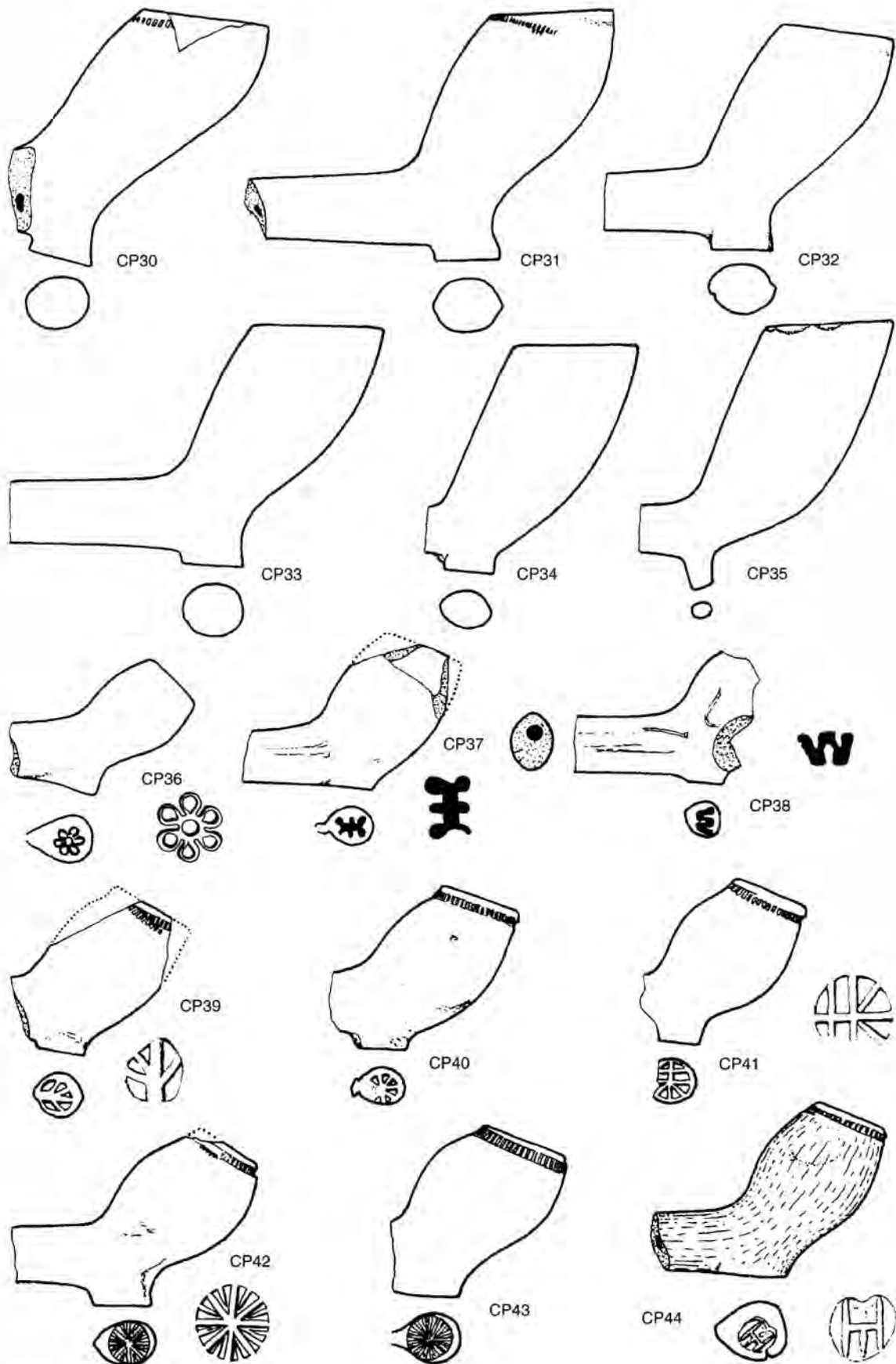


FIGURE 14.3

Pipes CP30-44 (1:1, details of the stamped marks at 2:1) (by D A Higgins)

PIPE CLAY OBJECTS

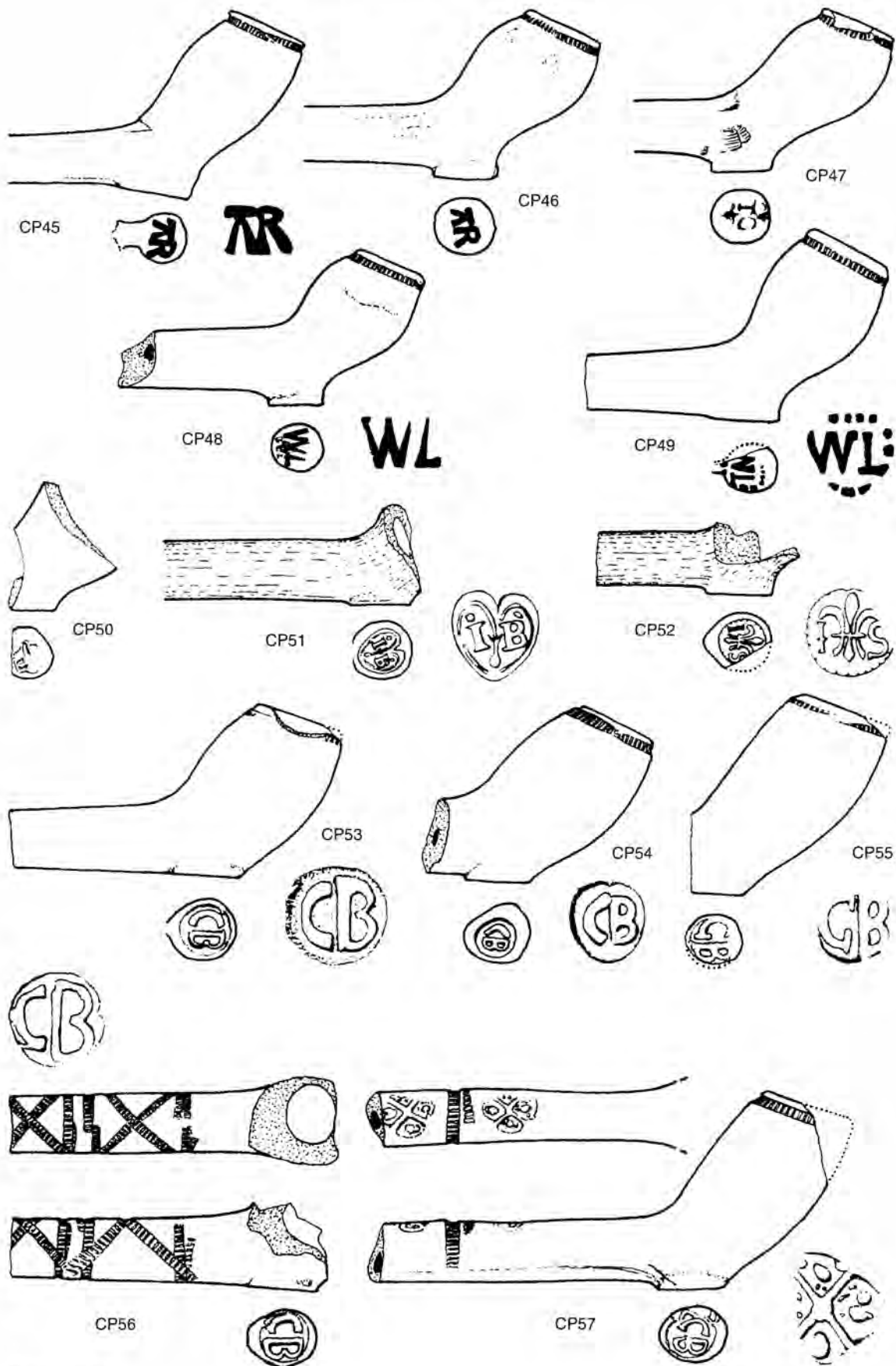


FIGURE 14.4

Pipes CP45–57 (1:1, details of the stamped marks at 2:1) (by D A Higgins)

LAUNCESTON CASTLE

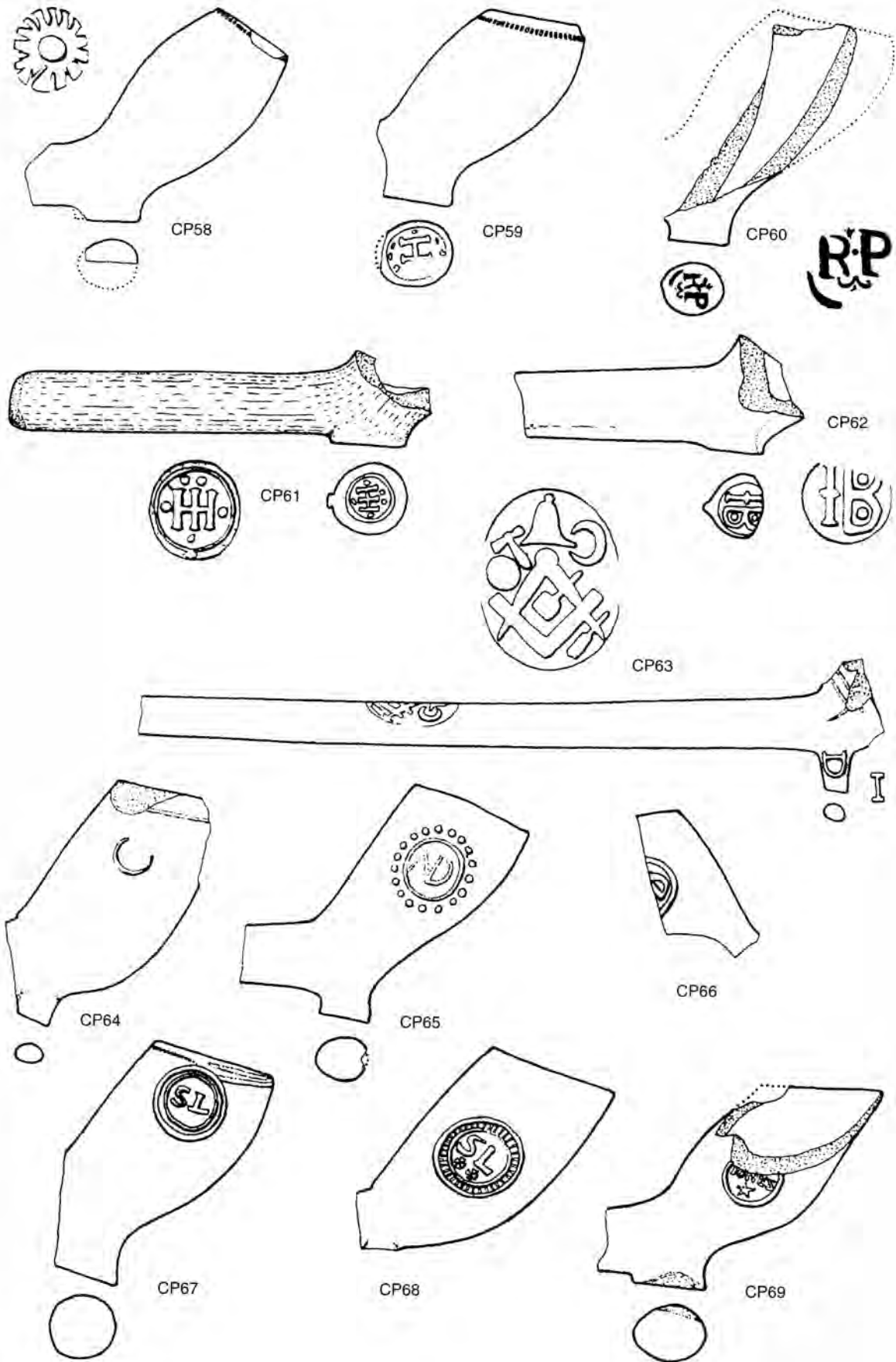


FIGURE 14.5

Pipes CP58-69 (1:1, details of the stamped marks at 2:1) (by D A Higgins)

PIPE CLAY OBJECTS

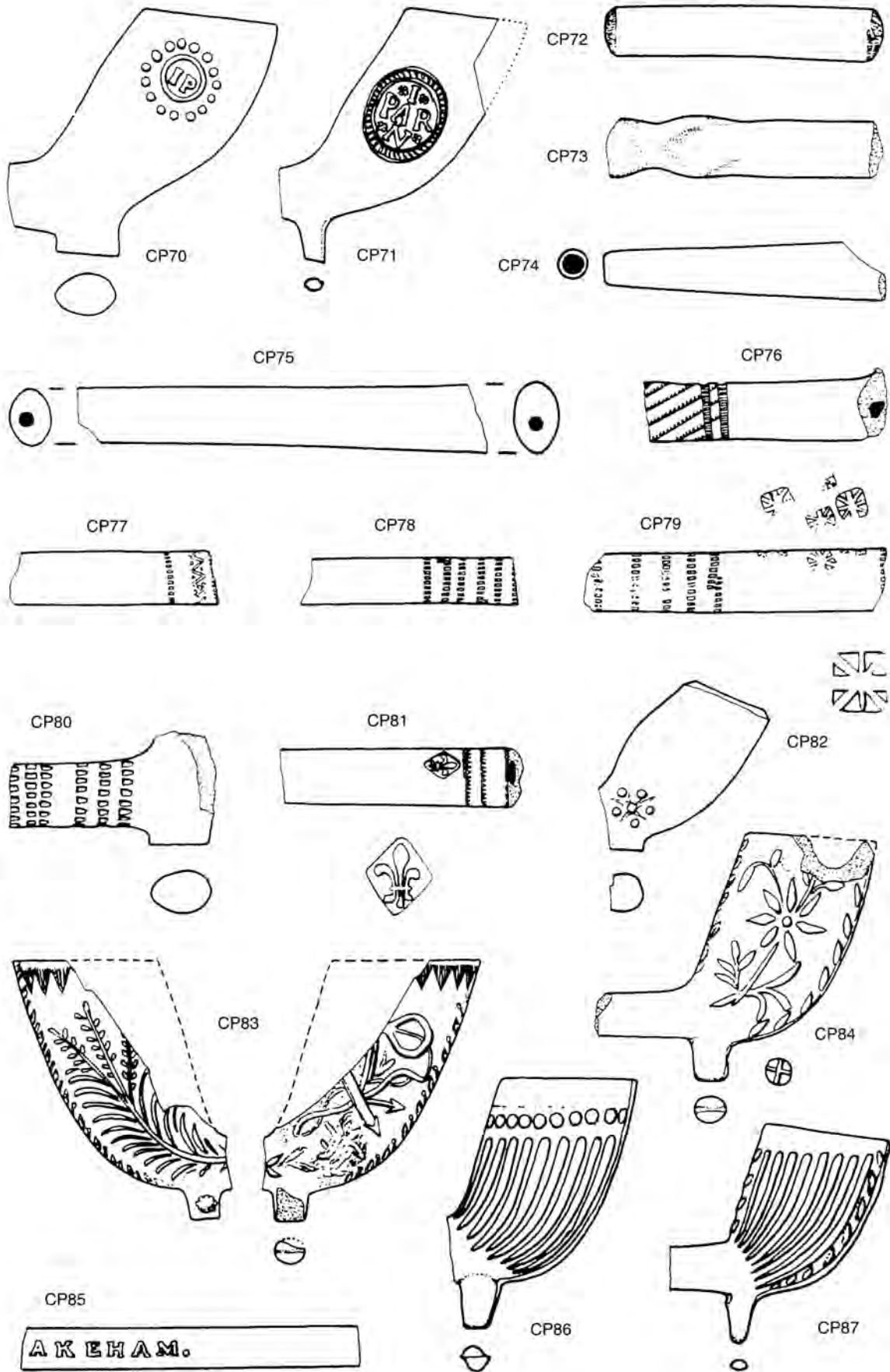


FIGURE 14.6
Pipes CP70-87 (1:1, details of the stamped marks at 2:1) (by D A Higgins)

up through the Welsh Borders, however, spur pipes are almost entirely absent until the very end of the 17th century.

The early marked pipes

The collection of marked pipes from Launceston is important for five reasons. First, Cornwall is a county where relatively little is known about the early production and use of tobacco pipes. In a 1988 survey of Cornish museum collections, the author was only able to record a total of 38 17th-century stamped pipe marks from the whole of the county and, of these, only 30 were actually legible. The Launceston assemblage more than doubles this number and provides by far the most comprehensive collection of early pipes from Cornwall. Second, some of the marks can be identified with known makers or paralleled with finds from other places in the region. This provides an indication of the trade and marketing patterns within the region and indicates the sources from which goods were being traded to Launceston. Third, the majority of the marks are clearly of a local form, but cannot be identified with known makers. These provide evidence of as yet unidentified workshops that must have been operating in the region. Fourth, these pipes reflect the consumption patterns at a single inland site, rather than more complex picture which is presented by the mixture of domestic, imported and production waste from the coastal ports. Finally, the western ports of England were at the forefront of the developing transatlantic trade with Cornwall providing the first and last landfall. Some of the Launceston pipes can be matched with New World finds, thus providing tangible links with this growing international trade.

In general terms, the marked pipes follow the evolution of bowl forms described above. There are some slight differences, such as the two pipes with a very narrow 'end on' profile (CP42–43). These examples, however, both have 'wheel' marks and are probably the product of a single workshop, suggesting that this particular bowl form is a personal idiosyncrasy rather than a general trend. There are also some rather simple, 'baggy' forms stamped CB (CP53–57). These are typical of known Cornish products, for example, those produced by Simon Earle of Bodmin, and are not otherwise well represented amongst the plain pipes. In general terms, however, the similarity of the bowl form sequence for both the marked and the unmarked pipes suggests that both types of pipe derived from the same general sources. This in turn suggests that not all makers marked their products and that, based on the distribution of identifiable bowl forms and marks, almost all of the Launceston pipes were derived from local production centres.

The early stamped marks

A total of 37 pipes with stamped marks were recovered from the excavations. All but three of these represent

the range of products being used in Launceston during a period of just over 100 years between the late 16th century and the early 18th century. The remaining three pieces date from the late 18th and 19th century at a time when moulded marks had become the norm (see below).

The stamped pipes from Launceston have been illustrated in roughly chronological order (CP36–63). This arrangement allows the local evolution of both the bowl forms and the styles of mark to be seen and these aspects will be discussed further below. In the catalogue below the marks are described in a different order, that is, with the symbol marks first followed by the initial marks in alphabetical order. This arrangement allows the marks from Launceston to be easily located and compared with examples from other sites. Parallels for the marks have been sought in published works, by checking Adrian Oswald's mark index (1991) and by searching casts of all the marked pipes from collections in Cornwall, Devon and west Somerset in the National Clay Tobacco Pipe Stamp Catalogue (Higgins in progress).

THE SYMBOL STAMPS

A total of 13 early pipes had symbol stamps on them and these range from the late 16th through to the early 18th century in date. The late-16th- and early-17th-century examples were usually placed on the heel of the pipe with later 17th-century examples being placed on the stem or bowl. The early examples probably served to identify the products of a particular maker, for example, the eglantine mark (CP36) which occurs on early pipes found in the Plymouth area, or the 'star' marks which occur on two stylistically similar bowls (CP42–43). The later examples, however, appear to be more decorative, often being used with milling to provide stem decoration in conjunction with initial marks, for example CP57. The symbol marks recovered are as follows:

- Eglantine. One example of an incuse eglantine mark dating from c1580 to 1610 was recovered (CP36). Similar examples have been recovered from Berry Pomeroy Castle in Devon (Higgins 1998, fig 71.5) and at Plymouth, where at least seven close matches are known (Oswald 1969, fig 53, stamp type E). The Launceston example may well have been marked using the same die as some of these other examples, in which case it must have come from the same workshop. The die is very finely cut and was clearly produced by a skilled engraver. A range of similar but different eglantine marks occurs on other early pipes from the Plymouth area (Oswald 1969, fig 53, stamp types A, B, C, D and F) and it seems almost certain that all of these pipes were produced there. This very early south Devon industry clearly produced high quality pipes and so it is not surprising that they occur at high-status sites, such as the castles at Launceston and Berry Pomeroy.

- 'Tree'. One example of a tree-like mark of c1610–40 was found (**CP39**). This is much cruder than the eglantine marks and occurs on a rather dumpy form that is typical of early local products, particularly those from Devon. A similar but different mark has been found on a pipe of c1610–30 from St Andrew's Street, Plymouth (Plymouth City Museum, PA 76–2 90 2; Oswald 1979, fig 47.6) and it is possible that this style of symbol mark was used by an early maker in the Plymouth area.
- Star. Seven or eight different symbol marks comprising a star or wheel-like design were recovered. All of these were produced by different dies, and variations in the associated bowl forms suggest that they are likely to have belonged to a number of different makers. This is one of the simplest and most widespread forms of symbol mark and it occurs all over the country, especially on early pipes. At Launceston the early examples tend to be heel marks and the later ones bowl or stem stamps. The simple eight-spoke star shown on **CP40** dates from c1610–40 and is very similar to five examples recovered from excavations in Barnstaple. The example shown on **CP41** dates from c1625–50 and is less regular in form, making it more of an abstract geometric design than a star motif. No parallels for this less regular example are known. The examples shown on **CP42–43** date from c1640–60 and are both characterised by fine arms to the star. Furthermore, both of these bowls have a distinctive appearance, being very narrow when viewed end on. These stylistic similarities of mark and form suggest that both examples are the product of the same workshop. The first mark (**CP42**) comprises an eight-arm star with a small spike between seven of the eight pairs of arms. There are two spikes between the eighth pair of arms, providing a diagnostic feature for this particular die. No exact parallels are known although there are three very similar marks, but without the extra spike, from Plymouth (City Museum). The second mark (**CP43**) is rather crudely executed and lightly impressed on one side but it appears to have 17 arms with faint spikes between most of them. No exact parallels for this example are known. There is one very small fragment of heel with just the very edge of a stamp showing, dated c1630–60, and may be another star mark, but not enough survives to be sure (not illustrated). The remaining two marks are slightly later in date and occur on the heel or stem of the pipe. **CP58** shows a bowl mark of c1660–90 with a central dot. Unlike the other examples the principal design of this mark is incuse with the serrated edge and central dot being in relief. No good parallels known. The final star mark is square and occurs in conjunction with bands of milling on a stem of the late 17th or early 18th century (**CP79**). This mark has been poorly impressed four times across the top of the stem to make a pattern. A very similar but larger stamp, placed facing the smoker on a bowl of c1680–1730, is in Truro Museum (Cornwall). The Truro example also has milled decoration on the stem. Other examples of stamps used with milled decoration have been found at Launceston (see the cross and fleur-de-lys marks below) and in the surrounding areas, for example, a pipe of c1670–1700 from Plymouth (PC 66 OD) stamped IL and with traces of milling and star stamps on the stem. The use of decorative stamps combined with milling was never very common nationally. The number of examples from the Launceston area, especially those with star stamps, suggests that it was an occasional, but distinctive, characteristic of the local industry from around 1640 to 1730.
- Cross. Two examples of cross marks were recovered. The first, dated c1640–70, comprises a very faintly impressed mark on a heel fragment (**CP50**). There are no good parallels known for this example. The second is a cross with dots which has been used in conjunction with stem milling on a pipe of c1660–80 (**CP57**). This pipe is also stamped CB for an as yet unidentified local maker. The CB maker appears to have been particularly fond of milled and stamped stem decoration, another example of which is **CP56**. A very similar but different stem stamp has been found on a thick stem of c1640–90 from Plymouth (City Museum; PC 64 AH). See above (star section) for discussion of milled and stamped stems.
- Chevrons. A very battered stem has traces of milled decoration accompanying what appears to be a zig-zag decorative band with dots (**CP77**). This was most likely produced during the period c1620–1700 and may be a Dutch import rather than a local product. A 17th-century stem with parallel lines of milling flanking a pattern of crude chevrons has been found in a field behind the Turnpike Cottage at Helston (Truro Museum). This example seems more likely to be a local product rather than a Dutch import, and so it is possible that the Launceston example could also have been made locally.
- Fleur-de-lys. A single fleur-de-lys stamp occurs on a stem fragment of c1620–80 in conjunction with stem milling (**CP81**). The mark is unusual in that it has been applied slightly to one side of the stem rather than directly on the top. This is almost certainly an import from the Netherlands where the use of fleur-de-lys stem decoration was very common at this period. See above (star section) for discussion of milled and stamped stems.

THE INITIAL STAMPS

The earliest initial marks appear around 1610 and comprise single letter marks such as I and W (CP37–38). These are incuse marks and presumably represent the surname of the maker. During the 1620s double letter marks appear, for example AR, TG and WL (CP45–48). These marks are still incuse and usually without any other accompanying decoration. Relief initial marks appear from the 1640s, and they become the standard form of marking during the second half of the century. The marks sometimes consist of simple initials, such as the CB marks, while on other occasions additional elements such as dots, borders or other decorative motifs were used, for example (CP59–61). From the late 17th century, moulded cartouche marks on the side of the bowl replaced stamped marks (see below) and, after about 1700, initial stamps are no longer found in the Launceston assemblage. A total of 26 initial stamps were recovered from the excavations:

- CB. Five pipes stamped CB were recovered from the excavations (CP53–57). These are all circular marks with rather crudely cut initials without any accompanying decoration. Slight differences in the size and proportions of the letters show that at least four individual dies are represented (CP53–56). The fifth example has been so poorly impressed that it is not certain whether it represents another die type or not. Two of the pipes have stems decorated with milled patterns, one of which is also associated with decorative stem stamps (CP56–57). Another decorated stem of this type was found at Launceston but without the bowl (CP79), and it is quite likely that this example was also produced by the same maker. The bowl forms stamped CB range in date from c1640 to 1680 and two of them were made in the same mould, which can be identified by a small flaw on the right-hand side of the heel (CP53 and CP56). The stylistic similarity of the bowl forms and marks together with the distinctive use of stem decoration all suggest that these pipes are the product of a single maker. There is no known maker in the South-West with these initials, but there is a very similar CB mark in Bodmin Museum (accession no. 11; B380). The total absence of CB marks in the large coastal assemblages from places like Plymouth and Barnstaple together with the rather baggy bowl form, which is typical of Cornwall, suggests that this was an inland maker, most probably working locally to this site. The CB mark is one of the most common from Launceston and it is quite possible that this maker was working in the town itself.
- IB. Two pipes stamped IB were recovered from the excavations, both of them rather fragmentary. These two examples differ in date, quality and style and almost certainly represent two different makers. The earlier example dates c1630–80 and is a neat and well-finished product (CP51). The surface of the pipe has a good burnish and the heart shaped mark is neatly executed. The only known parallel for this mark is an unprovenanced example from the same die in Truro Museum, which suggests that the maker operated somewhere in the South-West. The only known maker with these initials is a 'John Barnard junior' of Bodmin who died in 1670 (Douch 1970b, 147). Bodmin lies midway between Launceston and Truro and so it is possible that Barnard was responsible for these two early pipes. The later example (CP62) dates c1680–1710 and has much larger, more boldly executed lettering. There are no known parallels for this mark and the only local maker recorded at around this date and with the initials IB is a Joseph Ball of Plymouth who took an apprentice in 1717 (Oswald 1975, 166). The pipe could well have been produced in Plymouth although, if this were the case, it is perhaps surprising that no examples have been recorded from the extensive excavations that have been carried out there. An alternative hypothesis is that 'John Barnard Junior' of Bodmin had a son of the same name who also made pipes, or that his father was also a pipemaker and outlived him to produce this later example.
- TG. One example dating c1630–60 and marked TG was recovered (CP47). This is an incuse mark with a small fleur-de-lys above and below the initials. A damaged incuse mark of c1620–50 starting with the letter T from [3299] may well be another example produced by the same maker, as may the very edge of a fragmentary and unstratified example from pipe bag 62. The distinctive TG mark is quite well known from the South-West where it occurs in a number of similar die variants on pipes ranging in date from about 1620 to 1670. There are two unprovenanced examples in Exeter Museum; six from Barnstaple (Barnstaple Museum); one from Bideford (Exeter Museum); one from Plymouth (Plymouth Museum) and one from Crediton (Exeter Museum). The Crediton example is particularly interesting since the mark is obscured by a run of yellow glaze and there is a scar where the pipe has fused with another object during firing. This damage caused by the glaze run might have been sufficient to render this piece a waster, in which case it would suggest that the maker worked at Crediton. Alternatively, it could have been a poor second, sold cheaply in the neighbourhood of the kiln. Pipes were certainly being fired in the pottery kilns at Barnstaple where wasters fused with runs of glaze from the pots stacked above are known (Peacey 1996, fig 27). A coastal production centre for this maker perhaps seems more likely given the wide distribution of this mark away from the South-West. Oswald (1991) notes examples of TG pipes

from Cork, Dublin and from sites on the James River in Virginia. The author also noted some 13 examples of this mark from early colonial sites in the Chesapeake Bay region of Virginia during a 1997 survey. Given the wide date range, the large number of recorded examples and the wide distribution of these pipes it seems clear that the TG maker operated a flourishing workshop with a substantial export trade. The concentration of recorded examples from North Devon and the glaze run on the Crediton example would all fit with this maker operating with the potters at the quayside in Barnstaple. Although Thamsyn Garland, born 1599, died 1636, is recorded as a pipemaker in Barnstaple (Grant and Jemmett 1985, 471) she died too early to have made all these pipes and is not known to have had a son with the initial T to carry the business on. At present the maker of these pipes remains unknown although Barnstaple appears to be the most likely production centre for them.

- H? One bowl of *c*1630–60 with a simply executed heart-shaped mark was recovered. The bowl is neatly finished and has an average burnish. The mark is rather faintly cut, but appears to include the letter H as its primary motif, possibly conjoined with another letter. No parallels are known although later marks with the letters HH ligatured together are known (see below).
- HH. One pipe of *c*1660–80 with a ligatured HH mark was recovered (CP61). The initials are flanked by five dots and contained within a simple border. Although fragmentary, this was clearly a neatly finished pipe and it has an average burnish on the surviving surface areas. No exact parallels for this stamp are known, although two similar marks have been found at Truro (Old Grammar School and Truro Bridge Footings; Truro Museum). These both have a similar set of distinctive ligatured letters surrounded by a pattern of large dots but without a border. The Old Grammar School example occurs on a tall, well-burnished bowl of *c*1670–1700. One of the other pipes from Launceston (CP59) has a partially impressed mark starting with an H and surrounded by dots which may be another die variant of this mark. There is no documented maker from the South-West with these initials, but the bowl form and distribution of these examples suggests a local maker, perhaps working in Truro *c*1660–1700.
- I. Two pipes of *c*1610–30 stamped with the single letter I were recovered from the excavations, one of which is illustrated (CP37). Both were recovered from [3220]. Single incuse letter marks are typical of early South-West products and this mark is particularly well known. There are at least 17 recorded examples from Barnstaple (Barnstaple Museum), 27 from Plymouth (Oswald 1969) and an unprovenanced example in Exeter Museum. In addition, at least four examples are known from the Chesapeake Bay area of Virginia, three of them from the early settlement at Martin's Hundred (Noël Hume 1979). The number of recorded examples clearly indicates a major production source while the distribution pattern focuses on North and South Devon. Given that North Devon was particularly known for its potting and pipemaking in the early 17th century and that Barnstaple pipes were certainly shipped to the New World, it is perhaps more likely that these pipes were produced in North Devon rather than at Plymouth. Unfortunately, no pipemaker with this surname initial has yet been recorded for anywhere in the South-West.
- WL. Five pipes of *c*1620–60 and stamped with an incuse WL mark were recovered from the excavations. The marks were clearly made by a number of different dies but these can be divided into two basic types (CP48 and CP49). The first type comprises the incuse initials WL without any other decoration. The illustrated die type (CP48) is characterised by a short, squat, spike formed within the legs of the W while an example from [3769] has a die variant with a taller spike. The second basic type (CP49) has a border of incuse dots around the initials and all three examples have been impressed using the same die (from [2703, 3771, 5701]). Both of these stamp types are well known from Plymouth where some 27 examples of the plain initials and 7 examples with the dotted border have been recovered (Oswald 1969; Higgins 1992). There is also one example with plain initials in the Wellings Collection in Exeter Museum. No examples have been noted from North Devon. Given the South Devon distribution of this mark and the fact that no New World examples have been noted (unlike the probable North Devon products) it seems most likely that this as yet unidentified maker operated in the Plymouth area *c*1610–60.
- RP. One example of a pipe dating *c*1680–1720 and stamped RP was recovered (CP60). Despite the fact that this is a fragmentary bowl, sufficient of the form survives to show that it was of a distinctive south-western type. The incuse stamp is reminiscent of Bristol styles, although this particular mark has not been recorded there and the only other known example comes from the Westleigh/Tapely area of North Devon (Barnstaple Museum). There is no known maker with these initials in the South-West.
- AR. Three bowls of *c*1630–60 stamped AR were recovered, two of which are illustrated (CP45–46). The third example comprised the heel area only and was found in [5668]. Although all three marks are almost identical, slight differences in the proportions and detail of the letters suggests that they were probably all produced by different

dies. As with the CB and WL marks above, this would suggest a well-established workshop employing a number of different journeymen to make pipes. The AR pipes pose an interesting question of attribution. A number of AR marks are known from in and around Barnstaple, with an outlying example from Bristol (Grant and Jemmett 1985; Jackson and Price 1974, fig 221). These marks can be attributed to Anthony Roulstone of Barnstaple, who was born in 1608, who was recorded as a pipemaker in 1631 and who died in 1673 (Grant and Jemmett 1985, 472). The location and dates for this pipemaker fit well with the Launceston examples. The only problem is that all the North Devon examples appear to be relief marks with a normal 'A' while the Launceston ones are incuse marks with the bar placed across the top of the 'A'. Furthermore, the incuse Launceston mark can be paralleled by seven examples from the excavations at Plymouth (Oswald 1969) which makes South Devon a more likely source. The apparent absence of incuse AR marks from North Devon and their occurrence in the south casts doubt upon Roulstone as the maker. It is possible that two different makers, but with the same initials, were working in the two different areas at this time. Only further finds and documentary research can help resolve this issue.

- IS. One example of an IS mark of c1630–60 was found (CP52). The die has been quite finely engraved with the initials flanking a fleur-de-lys and a serrated edge to the stamp. The pipe has also been neatly finished and the surface finely burnished. This was a much better quality pipe than the majority of the others recovered from the excavations. Heart shaped marks containing a fleur-de-lys with the initials IS above are known from London (Le Cheminant 1981, 131–132) but no exact parallels for the Launceston mark have been found. Given the much finer quality of this piece, it may be an import to the area rather than a local product.
- W. One bowl fragment of c1610–30 with the single surname initial W was found (CP38). This example falls into the early group of incuse single letter marks which are characteristic of the South-West. Another example has been recorded from Barnstaple and 12 from Plymouth (Oswald 1969). There is also a possible example from Totnes in Totnes Museum. Oswald (1991) notes one from Dublin Castle and a number from London although the latter may well be the work of another maker. Once again, the maker remains unidentified although the distribution points to a Devon origin for this piece, perhaps from Plymouth.

THE EARLY MOULDED MARKS

A total of 37 bowl fragments amongst the earlier group of material had moulded marks on them. One of

these pieces is a Dutch bowl of c1640–60 with a moulded Tudor rose on the right-hand side of the bowl (CP82). The bowl is neither burnished nor milled and would have been one of the cheaper grades of Dutch pipe. This is the only Dutch bowl from the excavations although at least one and possibly two Dutch stems were also recovered (CP77 and 81). The remaining 36 pipes with moulded marks, two of which join together, are all English and have moulded 'cartouche' marks on them. These marks consist of the pipemakers initials or name moulded in relief within a circular border or cartouche on one side of the bowl, almost always the right-hand side as smoked. The simplest form of cartouche at Launceston comprises a single relief moulded line that forms a ring around the name or initials. This type, however, is comparatively rare and most of the borders are more complex. In some cases there is a ring of dots around the inner line or the cartouche is made up of a pair of lines, with or without decoration in between them.

The cartouche style of mark emerged in the South-West of England during the late 17th century and its use remained peculiar to that region until the middle of the 18th century, when it was replaced by other styles of mark. The main centre of production was at Bristol, where many of the contemporary makers adopted this style of mark and from whence huge numbers were exported for the overseas markets. The most northerly use of cartouche marks appears to have been in Gloucester (Peacey 1979). There is a thin scatter of these marks from across Somerset and Devon, but the style does not appear to have been taken up in Wiltshire or Dorset. Where cartouche marks do appear away from Bristol they are invariably on local bowl forms and with differing, presumably local, names or initials on them. This shows that it was not just traded pipes but the actual style itself that was being disseminated and used across this area. A few Bristol makers continued to use variations of this style into the second half of the 18th century but elsewhere it appears to have gone out of fashion by about 1750.

The finds from Launceston are particularly important since no finds of cartouche marks have previously been recorded from the county. Furthermore, the Launceston finds provide evidence for a number of previously unrecorded local makers who clearly adopted this style. Many of the examples are rather fragmentary but, so far as is possible, they can be sorted into the following groups:

- AD. This is the most common form of cartouche mark at Launceston with at least ten examples recorded from at least two and possibly three different mould types. These all have a cartouche consisting of a plain, single border, surrounded by a ring of dots. The most common type, with at least six examples ([5662, 5799, 5800, 5809 (×2)] and old bag 641), has very faint lettering within the cartouche (CP65). This mould type

is characterised by two of the dots at about '4 o'clock' being partly joined, and by a dot at about '2 o'clock' having a small projection beneath it. There are a further two fragmentary AD bowls (old bag 638 and pipe bag 25) which also have faint lettering, but where the dots appear to be slightly different (not illustrated). These may represent another second mould of the same basic type as the first. Finally, there are another two other fragments ([5800] and pipe bag 62) which are certainly from a different mould. These pieces both have much bolder lettering and dots and appear to come from a slightly larger bowl form (not illustrated). In addition to the clearly identifiable AD pipes described above there are a further ten bowl fragments with parts of a cartouche and/or dotted border which seem likely to represent pieces of other AD pipes. These are from old bags 601 (\times 4), 629, 638, 652, 730, 1649 and 1953. Finally, there is a damaged cartouche that is also likely to be from an AD pipe, although only the surname initial D survives (old bag 36; CP66). In this case the cartouche does not have a dotted border and it has been placed on the left-hand side of the bowl, the only example of this type from the site. There is no known AD maker in Cornwall or Devon, nor can these marks be matched elsewhere. The recovery of at least 10 and perhaps as many as 21 examples of these pipes on the site strongly suggests that AD was a local maker working around 1700–1740, most likely in Launceston itself.

- IONES. One bowl fragment with a damaged cartouche reading IONES was recovered from [3220] (CP69). This bowl has very fine walls to the upper part of the bowl and it is of a completely different shape to the other cartouche marked pipes from Launceston. This bowl form is characteristic of Bristol products and the mark can be paralleled there amongst the products of Devereux Jones (Jackson and Price 1974, 100). There were, in fact, two makers called Devereux Jones recorded at Bristol, a father and his son. The Launceston example has a little milling surviving at the rim, a finishing technique that died out early in the 18th century. This enables the Launceston pipe to be attributed to the earlier Devereux Jones, who took his freedom in 1691 but who was dead by 1727 (Jackson and Price 1974, 51). This is one of the very few 'imported' pipes that can be recognised amongst the excavated assemblage and it is especially significant since it demonstrates connections between Launceston and the important trading port of Bristol.
- SL. Four fragments of pipes (from three bowls) with SL cartouche marks were recovered from the excavations. These three examples can be divided into two mould types. The first (CP67) is a typical

local style of heel bowl with a double-ring cartouche and a distinctive series of relief moulded 'scratches' on the right-hand side of the rim, away from the smoker. There is also some milling at the rim, which suggests a date of c1690–1720 for this example. The other two examples, from bags 345 and 3596, have hatched decoration between the two rings of the cartouche and two small crosses below the initials (CP68). These bowls are of a slightly later spur form with thinner walls and a simple cut rim, without milling. They were probably made by the same local maker and represent the introduction of a new fashion in bowl design during the early 18th century. There are no known makers with the initials SL recorded for Cornwall or Devon at this period.

- IP/I PARN. Six fragments attributable to I Parn were recovered and these fall into two distinct types. The first type is represented by two examples, which are marked IP within a circle and dotted border (CP70). These are of a local heel form and contrast with the other four examples, which are of a slightly later spur style (CP71). The spur bowls have a full name mark surrounded by four small crosses and a hatched cartouche. The later bowl style and mark are both very similar to the SL spur pipes described above. An example of the earlier style of IP mark has been found at Holland Street in Barnstaple (Grant and Jemmett 1985, 522). I Parn is a previously unrecorded maker who must have been operating around 1700–1750. A quick search of the IGI index has shown that contemporary references to the surname Parn are particularly concentrated in Cornwall and Devon. This fact, combined with the number of Parn pipes found at Launceston, strongly suggests that this maker worked locally, perhaps in Launceston itself.
- Illegible. There are two spur bowls from the same mould with a small, faint cartouche mark on the side of the bowl (CP64). No mark or lettering can be discerned within the simple cartouche. The bowl is of a rather heavy, shapeless form, which suggests that these are local products of around 1690–1720.
- Unidentified. There are ten fragments with parts of dotted cartouche borders surviving, most of which are likely to be from AD pipes (see above). In addition, there are two other fragments that cannot easily be matched with any of the above types. One is a spur fragment with part of a hatched border, similar to the later SL and I Parn types [3189], and the other is part of cartouche with a line and dotted border (pipe bag 25). This second piece is very battered but it has part of a faint Christian name initial surviving. The initial appears to be an H although it is possible that this could be part of an A from an AD pipe.

A number of points can be made from this assemblage of cartouche marks. First, the number of examples clearly shows that this style of pipe was in regular use at Launceston from around 1690–1750 and so Cornwall can be included within the distribution area for this style of pipe. Second, there is only one obviously imported example at this site; the Devereux Jones pipe from Bristol. Almost all of the other identifiable pipes can be placed into one of three groups according to maker: AD, SL or I Parn. None of these marks can be matched elsewhere and, from the local style of the bowl forms, it seems likely that they were produced in or near to Launceston. This suggests that Cornwall was not only within the distribution area but also within the production area for this style of pipe.

Finally, a number of stylistic similarities between the pipes can be noted. Both I Parn and the SL maker appear to have produced at least two distinct styles of cartouche pipe; a heel style and a slightly later spur form. Although the heel form is stylistically earlier, it is almost certain that both types would have continued in production after the spur type was introduced. These spur forms are the earliest to appear at Launceston and mark the point at which clearly distinguishable but contemporary patterns of pipe were introduced to provide consumer choice in the market.

As well as the evolution of the forms, there is some evidence that the style of the marks evolved too. The AD, SL and IP heel forms all have plain initials within either a plain cartouche or one with dots around it. Furthermore, these marks are generally placed quite close to the rim. In contrast, the slightly later spur forms tend to have more elaborate marks with the cartouche placed rather lower on the body of the bowl. The later group has decoration in the form of crosses with the initials and in one case there is a full name mark. Also, the spur pipes have a double line cartouche with hatched centre. It seems clear that not only did the local makers adopt this regional style of marking but that, within that style, they were able to develop and evolve their own distinctive forms.

The early stem fragments

Although the majority of the early stem fragments are plain, there are a number of pieces that are worthy of comment. In a few instances fragments were noted where the stem tapers very sharply to the mouthpiece, for example, CP74. This piece tapers from about 10mm to 6mm over a distance of less than 5cm. This taper is the same as that found on a complete pipe from the Kitto Institute at Plymouth which has a stem of nearly 20cm in length (Higgins 1992, fig 17). The Launceston pipe must have felt very heavy and looked extremely chunky with such a pronounced reduction and thick stem. The presence of a number of such mouthpieces from Launceston shows that these heavy pipes were in general use. Without being able to associate them with their bowl forms it is impossible to date

them accurately or to say whether this was a general Cornish feature or simply a characteristic of one particular mould. Generally stem bores decreased in size during the 17th century but, at Launceston, some of the late 17th century pipe bowls had unusually large stem bores, for example a bowl of c1670–1700 had a bore of 9/64". The large bore and thick stem suggest a general date range of around 1640–1700 for the sharply tapered mouthpieces.

Another characteristic of the Launceston stems is the occurrence of a number of markedly oval cross-sections, for example, CP75. This particular piece appears to have broken off from just by a bowl and it still shows a markedly oval section some 7cm from this junction. Markedly oval stems seem to have been relatively common amongst the mid- to late-17th-century bowls and sometimes the stem also appears to be quite pinched in plan where it joins the bowl, for example, CP57. This preference for a deep, oval stem and pinched bowl junction is not typical of pipes found elsewhere and seems to be a distinctive local characteristic.

In some cases the stem of the pipe was decorated after moulding by pinching it in alternate directions to form a barley twist pattern or by the addition of bands of milled decoration, for example, CP76–80. Both forms of decoration are encountered occasionally throughout England. At Launceston there is just one good example of 'barley twist' decoration (CP73) with another possible piece (unprovenanced in pipe bag 35). The excavations produced 2614 stems of the 17th and early 18th centuries and 36 mouthpieces. The two 'barley twist' stems represent just 0.07% of these, which shows that, in common with other parts of the country, this form of decoration was always very rare. In contrast there are 14 stems with milled decoration on them (0.53%), two of which are probably Dutch. The first is very battered but seems to have a zig-zag roll-stamp placed between two milled bands (CP71). This is a rather unusual border that cannot be closely paralleled with known finds. In general terms, however, this type and style of decoration seems more likely to be Dutch than English. The same applies to the second piece (CP81), which has milled bands associated with a small lozenge-shaped fleur-de-lys stamp. Such stamps were very common in the Netherlands, where they were often applied repeatedly to make patterns. The odd features about this example, however, are the unusually large stem bore (10/64"), and the fact that the stamp appears to have been carelessly placed on one side of the stem rather than symmetrically on the seam. As with the border, these features raise the question as to whether this could be a local copy in the Dutch style.

All of the other milled stems are likely to be local products and some of them certainly are. The CB maker, for example, used milling with or without stem stamps to decorate his pipes (CP56–57). Other examples include diagonal bands of milling (CP76) or

closely spaced parallel bands (CP78–80). The latter appear to be particularly common in the South-West where they are sometimes executed using very coarse milling, for example, CP80. The bowl fragments associated with the milled stems are dated c1650–1730 and it seems likely that most of the other milled stems will date from this period too. Even though there are more examples of milled stems than barley twists they still form a very small percentage of the stems recovered (0.53%). This figure seems to be in keeping with the incidence of milled stems noted in large groups from other parts of the country.

Another feature of note is the occurrence of a number of fragments with reworked ends. Sometimes the broken stem of a pipe appears to have been smoothed so that it could continue in use and this may have been the case with CP22 and CP61. In other instances both ends of a stem fragment have been ground, as is the case with CP72. It is documented that pipe stems were used as hair-curlers and a section that has been smoothed at both ends like this may have been modified to serve that function. Alternatively, the stem may have been the product of idle doodling or it may have been used like a stick of chalk for writing graffiti. A good example of this happening comes from Pontefract Castle (Yorkshire) where the Civil War deposits produced ground pipe stems in association with buried graffiti of the same period (Davey and White 2002, 240). A total of 7 stem fragments from Launceston had ground ends.

The final feature of note is an unstratified stem fragment of c1660–1720 with a thin clear glaze all over it (pipe bag 32). The occurrence of glaze on early English pipes is extremely rare and, when it is noted, it usually appears as isolated patches, which seem to have been accidental. This example has an all-over glaze, but it is very thin and slightly gritty in feel. It has the appearance of being some sort of a flash-glaze caused by wood ash and is most likely to have been produced accidentally during firing.

Manufacturing and finishing techniques

In addition to the various points noted above, there are a few particular features relating to the manufacturing and finishing of the pipes that can be noted from the Launceston assemblage. With regard to rim finishing, it is notable that one of the very early pipes of c1580–1610 has had its rim either very neatly finished or smoothed with a tool known as a botter (CP2). This was a disk-like tool with a circular groove that was twisted round on the pipe rim to smooth and shape it after moulding. In general terms, the earliest pipes just had a simple cut rim and the use of a finishing tool to smooth or botter the rim was a slightly later introduction. This example shows that rim finishing was being introduced to the South-West at an early period, probably around 1600.

Although milling was standard on 17th-century pipes across the country there are some local characteristics which can be noted from this assemblage. During the late 17th century several of the local bowl forms have a very distinctive appearance since the band of milling facing the smoker is markedly curved rather than being parallel to the rim. This tendency to droop down at both ends can be seen in CP24 and CP25. The latter is particularly interesting since the milled band has a distinctive pattern to it. There are four closely spaced squares of milling followed by eight wider ones and then a short spike that incompletely separates two squares. The same distinctive pattern can be seen on a bowl from [5867] (not illustrated), which must have been finished with the same milling tool and so has clearly come from the same workshop. The bowl form, however, appears to have been made in a different mould. The identification of distinctive milling flaws such as this can be used to link moulds to a common workshop, even when they are not marked. In this case it may be that the drooping band of milling was a personal idiosyncrasy rather than a regional characteristic.

Another feature of the late-17th-century bowls is that a number of them only have a small amount of milling on the bowl and that is placed facing away from the smoker. Although the use of milling was declining nationally at this period, it is usually the short section facing the smoker that is the last to be milled rather than the section facing away. This particular arrangement of milling has not been previously noted and may be a regional phenomenon. Another relatively common local characteristic appears to be the use, from around 1660 to 1700, of a plain groove at the rim rather than a milled band.

In order to quantify the changes in rim finish an analysis of the complete bowls dated 1580–1800 has been carried out. When the pipes were catalogued, each was allocated an individual date range. These ranges are not standard and so can vary in length or overlap according to the particular attributes of each piece. This makes it difficult to tabulate or directly compare the pipes to determine the changing fashions in milling over time. In order to overcome this problem a new technique has been developed whereby the date range of any given pipe is divided into decades. It is then possible to attribute the various characteristics of that pipe to each of the decades within which it is most likely to have been produced. By doing this for each piece it is possible to tabulate and compare the characteristics for the total number of examples that could have been made during any given decade. The characteristics of each bowl have only been allocated to the decades that are substantially covered by its date range. Thus, the characteristics relating to a bowl dated to c1660–90 have been added to each of the decades covering the 1660s, 1670s and 1680s but not the 1690s. This 'decade analysis' takes account of the full date range allocated to each pipe. It also avoids the

peaks and troughs which can occur if only selected dates, such as the start date or mid-point for a particular form, are taken into account or if the data are forced into artificial divisions, such as the nearest quarter century. The resultant figures show the maximum number of pipes that could have been made in each decade. In Figure 14.7 the various milling attributes of the Launceston bowls have been broken down into a 'decade analysis'. Once the attributes of each bowl that could have been produced in each decade have been tabulated it is possible to calculate the relative frequency of each characteristic by expressing it as a percentage of the total number of examples for that decade.

Figure 14.7 shows that, in terms of the milling, there is a marked break at around 1610 when the early forms with their plain rims were entirely replaced by pipes with milled rims. From around 1610 until 1660 almost all of the pipes used at Launceston were fully milled. Although full milling was characteristic of early pipes, the high percentages at Launceston are probably above the national average. During the 1660s there was a marked change, with nearly a third of the pipes suddenly abandoning milling and having a plain groove at the rim. This trend, however, was short lived and the use of plain grooves died out again during the 1690s. From the 1680s there was a rapid shift towards lesser amounts of milling or no milling at all. The decline in both the frequency and the care with which

pipes were milled continued steadily from the 1680s to the 1720s and, after about 1730, the use of milling disappears altogether. These changes in the way in which pipes were milled are most clearly illustrated using a bar chart (Figure 14.8). This graphically shows the abrupt change around 1610 when milling is introduced and then the gradual shift from fully milled pipes to pipes without milling that took place over the following century.

The other notable finishing regularly used on 17th-century pipes was burnishing. At Launceston a total of 26 burnished fragments were recorded, comprising 13 bowls and 13 stems. The number of burnished stem fragments is certainly under-represented since not all of the stems were catalogued in detail (see above). In broad terms, the burnished bowls represent just 2.6% of all bowl fragments recovered, showing that burnishing was not a common feature of the local pipe industry. By carrying out a 'decade analysis' of the burnished bowl fragments, as outlined above, it was apparent that burnishing occurred occasionally between 1580 and 1750 but that there was a marked preference for this finishing method in c1620-50, with a peak in the 1630s. This analysis, however, was based on the absolute numbers of bowl fragments allocated to each decade rather than their relative frequency within that decade. When the burnished examples were considered as a percentage of all the bowl fragments per decade (Figure 14.9) it became clear that a much

Year	Groove		0		1		2		3		4		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1580	1	50	1	50									2
1590	1	50	1	50									2
1600	1	50	1	50									2
1610											8	100	8
1620							1	6			17	94	18
1630							2	9			20	91	22
1640			1	4			2	8	1	4	21	84	25
1650			1	4			1	4	1	4	20	87	23
1660	4	29							1	7	9	64	14
1670	5	36	1	7					1	7	7	50	14
1680	2	10	2	10	3	15	4	20	2	10	7	35	20
1690	1	4	6	22	3	11	8	30	5	19	4	15	27
1700			16	47	3	9	8	24	5	15	2	6	34
1710			15	50	2	7	7	23	5	17	1	3	30
1720			18	90			1	5	1	5			20
1730			15	100									15
1740			7	100									7
1750			6	100									6
1760			6	100									6
1770			5	100									5
1780			8	100									8
1790			11	100									11
Total	15		121		11		34		22		116		319

FIGURE 14.7

Milling analysis by decade showing the total numbers of pipes where the degree of milling could be determined for each decade between 1580 and 1800. The pipes have been classified as either having a plain groove (G), no milling (0) or between one and four quarters of the rim milled (1-4). Each pair of columns shows, first, the actual number of examples allocated to each decade and then the percentage of examples that that figure represents for the decade as a whole

PIPE CLAY OBJECTS

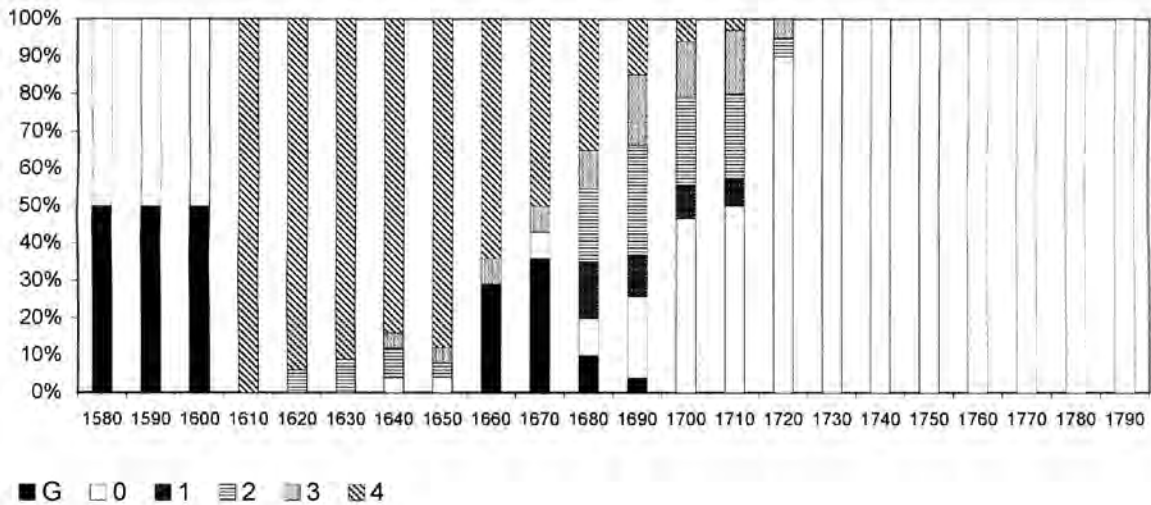


FIGURE 14.8

Milling analysis by decade showing the proportion of pipe bowls that have either a groove (G), no milling (0), or between 1 and 4 quarters of the rim milled (1-4)

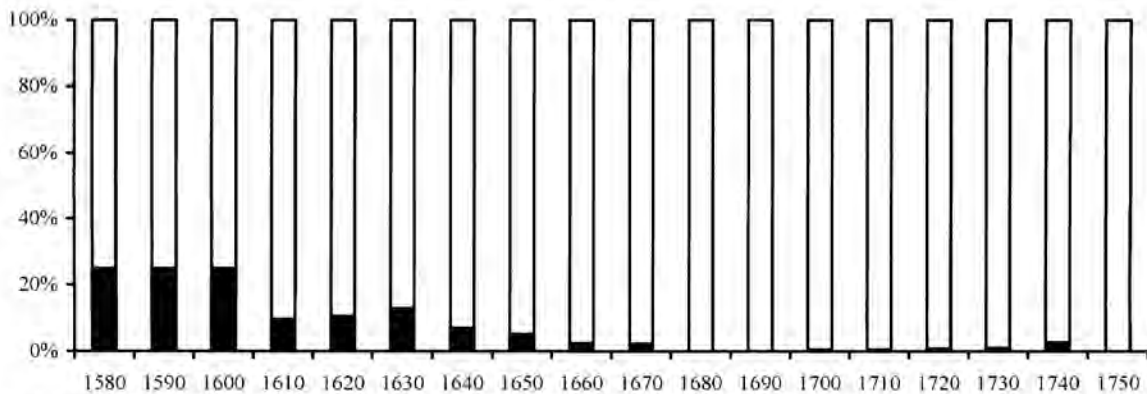


FIGURE 14.9

Chart showing percentages of burnished bowls by decade

higher proportion of the earliest pipes were burnished and that the sharp rise to a peak in the 1630s was less pronounced.

The number of burnished bowl fragments from Launceston, especially prior to 1610, is too small to provide reliable figures as to exactly how frequently pipes were burnished, although the general trend is clear. This analysis does, however, provide a starting point in looking at the evolution of burnishing trends in the South-West. It can also be used as a point of reference for comparison with other production centres, such as Broseley (Shropshire), where a very high proportion of the pipes were burnished (Higgins 1987). At Launceston it would appear that the earliest forms, that is, pre-1610, were the most likely to be burnished. At this site one in four of the examples (25%) were so treated. This is far less than at Berry Pomeroy Castle where four of the six complete pre-1610 bowls (67%) were burnished (Higgins 1998, 240) and it seems likely that an average figure of 50-60% would be more

normal for these early pipes. The sample size after c1610 is much more reliable and shows that the percentage of burnished pipes has dropped to around 10% by that time, rising to a slight peak of 13% in the 1630s. The use of burnishing then gradually declines into the 1670s, when it fades out altogether. There was just one later burnished bowl, dating c1700-50, which gives rise to a later 'blip' on the chart. The model suggested by this analysis is that burnished pipes formed a small and declining part of the early-17th-century pipe production in this area. Comparative studies are now needed to test this model and to explore the questions of regional diversity and social differentiation in pipe assemblages.

The application of burnishing to a pipe was an extra process in its production and so added to the cost (and value) of the pipe. It is interesting to note that there appears to be some degree of association between the use of burnishing and the application of a makers' mark, which would have served to identify the source

of these better quality pipes. There were 11 substantially complete burnished bowls dating from between c1580 and c1680 at Launceston, of which four (36%) had makers stamps on them (CP44, CP51–52 and CP61). Although this sample is too small to be particularly reliable it is worth noting that the average incidence of marking on all bowls during this same period was only 24.8%, suggesting that burnished pipes were more likely to be marked than plain ones.

One unstratified heel fragment of c1660–80 was found with a cut or impressed line across it (new bag 30). Although not strictly a makers' mark, impressed lines or milled bands were occasionally applied to 17th-century heels, especially in Yorkshire and East Anglia. This type of feature does not, however, appear to have been noted in the South-West and this example may have been an accidental mark rather than an intentional one.

General discussion of the early pipes

The marked pipes occurring between c1580 and 1780 at Launceston form a remarkably consistent proportion of the pipe assemblage as a whole. A total of 137 substantially complete bowls dating from between c1580 and c1680 were recovered of which stamped marks were present on 34 (24.8%). A further 72 substantially complete bowls dating from between c1680 and c1780 were recovered of which stamped or moulded marks were present on 20 (27.7%). These figures demonstrate that, throughout the 17th and 18th centuries, about a quarter of all the pipes used at Launceston were marked, the principal change being in the style of the marking rather than anything else.

In the earliest phase (c1580–1660), both symbol and initial marks were used. The earliest symbol marks were incuse, but they were soon replaced with relief marks, which occurred on the heel in place of initials. The early initial marks were also incuse, the earliest being single letter with double letter marks appearing from the 1620s. These early marks all occur on the heel of the pipe. In the second phase (c1640–1700), almost all of the pipe stamps were in relief. The use of symbol marks becomes less common and they appear to have become primarily decorative rather than functional (in terms of identifying the maker). The initial marks were all double letter and were still all placed on the heel of the pipe. In the third phase (c1690–1750) the use of stamped marks was rapidly replaced by the use of moulded cartouche marks. These usually occurred on the right-hand side of the pipe bowl and comprised either the pipemaker's initials or his initial and surname, often within a decorative circular border.

It is noticeable how few of the marks can be attributed to a maker with any certainty. Some 60 pipes with a total of 22 different marks were recovered during the excavations of which only one, a single import from Bristol, can be identified with any certainty. Tentative suggestions as to the makers of another three marks

can be made but by far the majority of the 18 types of marks remain unidentified. In many cases the bowl form and known distribution of the marks makes it evident that these pipes were produced locally, but the makers' initials simply do not occur in any of the lists of known pipemakers for the region. This suggests that much more documentary work is needed to arrive at a realistic overview of the location, date and scale of the pipemaking industry in the South-West. This is a clearly a priority for future work, particularly given the international trade that clearly existed in these pipes and their importance as dating tools on native Indian and colonial sites.

Despite the lack of documented makers it is still possible to suggest the likely origin for a number of the pieces from their known distribution patterns, as listed above. This not only provides a useful guide for future documentary work but it also shows the trade and market area with which Launceston was connected. The early makers' marks recovered and their possible origin are listed in Figure 14.10. When the likely production sources are combined with the broader distributional details provided by parallels for the marks, it becomes clear that Launceston lay at the centre of a trading network extending far beyond the SW peninsular (Figure 14.11). Apart from those pipes likely to have been produced in Launceston itself, the principal supply sources appear to have been Barnstaple and Plymouth. These were both important ports trading to mainland Europe, Ireland and the New World, as is evidenced by the distribution of pipes from these places. By the same token, the occurrence of significant numbers of both North and South Devon pipes at Launceston shows that the town had regular contact with these ports and so had access to the wide range of international goods which would have been traded there. Smaller numbers of pipes appear to have come from the inland town of Bodmin with occasional pieces finding their way to the site from Truro and Bristol. The absence of Exeter as a supply source may be more apparent than real since the pipes from that centre were very rarely marked. This makes them hard to identify with any certainty although the large numbers of forward-leaning late-17th-century pipes from Launceston (e.g. CP24–33) are of Exeter type and may well have been produced there.

It is noticeable that only two or possibly three Dutch fragments were recovered from the excavations (Figure 14.11). These represent a negligible percentage of the 3425 fragments recovered. In contrast, comparatively large numbers of Dutch pipes have been recovered from the excavations at Plymouth (Oswald 1969). At Plymouth, however, the Dutch pipes appear to be confined to sites immediately around the harbour and they do not occur in anything like the same numbers at sites further from the waterfront. A similar situation has been observed at Exeter where Dutch pipes are much more common around the port at Topsham than in the city itself. This strongly suggests

PIPE CLAY OBJECTS

Mark	M/S	No	Date	Possible source	Possible maker
Eglantine	S	1	1580–1610	Plymouth	
Tree	S	1	1610–40	Plymouth	
Star	S	8	1610–90	Various	Various
Cross	S	2	1640–90	Various	Various, including CB
Chevrons	S	1	1620–1700	?Dutch	
Fleur-de-lys	S	1	1620–80	Dutch	
CB	S	5	1640–80	Launceston or Bodmin	
IB	S	1	1630–80	Bodmin	John Barnard junr
IB	S	1	1680–1710	Bodmin or Plymouth	?John Barnard or Joseph Ball
AD	M	10+	1700–40	Launceston	
TG	S	23	1620–70	Barnstaple	
H?	S	1	1630–60		
HH	S	1 or 2	1660–1700	Truro	
I	S	2	1610–30	Barnstaple	
Jones	M	1	1690–1730	Bristol	Devereux Jones
SL	M	3	1690–1740	Local	
WL	S	5	1610–60	Plymouth	
I Parn	M	6	1700–50	Launceston or Barnstaple	
RP	S	1	1680–1720	Devon	
AR	S	3	1630–60	Plymouth or Barnstaple	Anthony Roulstone
IS	S	1	1630–60	?outside South-West	
W	S	1	1610–30	Plymouth	

FIGURE 14.10

Table of makers' marks showing the stamped and moulded marks dating from between c1580 and c1750 which were recovered from the excavations. For each mark a note is made as to whether it is moulded (M) or stamped (S), followed by the number of examples recovered, the likely date of the mark and finally the possible source and maker

that the Dutch pipes are a by-product of trade rather than being a traded item in their own right. It is suggested that pipes from the Low Countries were brought in by sailors as personal possessions when entering port and that they were discarded from the ships or in waterfront taverns as they became broken. Despite the often superior decoration and finish found on Dutch pipes and the fact that they were clearly available to ships trading with mainland Europe, it appears that these products were unable to find a regular market amongst English consumers. This is an interesting point since it is often assumed that Dutch pipes, being generally better made than English, must have been more desirable. As a result, they are often perceived as more expensive items representing higher-status assemblages. This does not necessarily appear to have been the case, and clearly shows the problems with projecting modern perceptions and values into the past. In spite of this, the odd Dutch pieces from Launceston do indicate its connection with the trade routes through ports such as Plymouth along which other European goods would have flowed.

It is clear that the majority of pipes used at Launceston were local products, most of which were obtained from production centres within a radius of about 30 miles (48 km) (Figure 14.11). The total number of identifiable pieces from outside the region numbers only 3 or 4, or about 0.01% of the whole assemblage. This intensely local nature of the pipe supply might be expected of an inland region such as the Midlands, but it is perhaps surprising for a maritime area with such good connections to coastal and

international trade. Setting aside the distinctive and idiosyncratic quayside assemblages from places such as Plymouth, the Launceston pipes are comparable in range, form and quality with other urban assemblages from the region.

The later-18th- and 19th-century pipes

These have not been studied in detail for this report but a brief summary of the marked and decorated pieces from this extensive assemblage is given below.

The stamped marks

Only three of the later group of pipes had stamped marks on them. This small number reflects a national shift to moulded rather than stamped marks as the standard means of marking pipes. The three stamped marks are:

- Gambier. One example of a stem stamped with the incuse mark 'Gambier a Paris m. M Depose' was found (old bag 157). The stem is finely burnished and represents a product of c1840–1910 from one of the major French firms. Gambier exported large numbers of pipes to England where they were widely distributed during the later 19th century.
- Masonic. A large oval stamp containing Masonic emblems was found on the stem of a pipe dating c1780–1820 (CP63). The spur of the pipe is

LAUNCESTON CASTLE

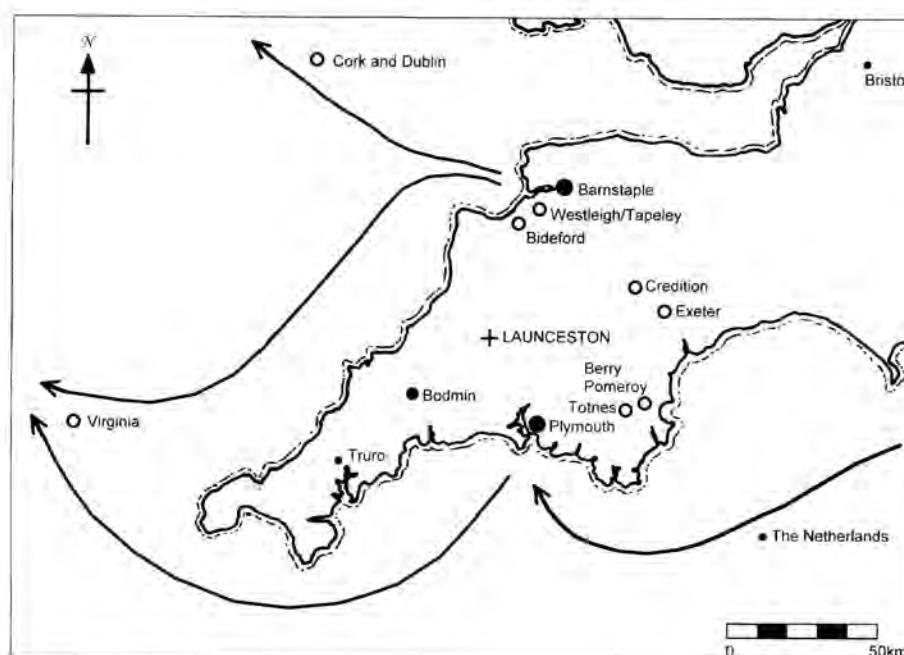


FIGURE 14.11

Map of sources of pipes found at Launceston (solid dots) and places where parallels to marks from Launceston have been found (open circles)

marked with the moulded initials ID but this mark does not match any of the known makers from Cornwall or Devon. Another example of this very unusual stamp is known from Plymouth (City Museum; PW 68 EM) and so this is likely to be a local product. There are traces of moulded decoration on the Launceston bowl but not enough to determine the original design.

- Irish harp. A thick-walled Irish-style bowl of c1840–1920 was recovered from the castle in 1970 ([3410]; not illustrated). The bowl has moulded milling and appears to have been lightly sandpapered after firing to give a matt finish to the bowl. There is a small moulded harp on each side of the heel and an incise stamped harp on the bowl facing the smoker. Irish style pipes were made throughout the British Isles at this time making it hard to say where this particular example was produced.

The moulded marks

A total of 47 or 48 moulded marks or slogans was found. These are listed below with the makers' marks in alphabetical order first and then any other slogans, pattern names or mould numbers (Figure 14.12).

- AC. Two heels of c1780–1830 with the initials AC were found. In one case just the heel survives, although the surviving junction suggests that the bowl was plain (from [3299]), while in the other case (from [3424]) enough survives to show that the bowl was fluted. Two varieties of pipe marked

AC, one of which is fluted with dots, have been noted in some numbers from Plymouth (Oswald 1969, fig 54.18). Maker unidentified, but probably working in Plymouth, perhaps a member of the Callard family (a Wm Callard is recorded in Plymouth 1851–66; 1851 Census; Oswald 1975, 166).

- ID. Two examples of c1780–1820, from [3414 and 3424]. One example has a masonic stem stamp and traces of a mould-decorated bowl surviving (see stamped marks above and CP63). Only very small parts of the moulded decoration survive, but they could possibly be the edges of the Prince of Wales feathers. Another example of this masonic stem stamp has been found at Plymouth and ID probably represents an as yet unidentified Plymouth maker.
- HOAR. Eleven stems with the relief moulded name HOAR in serif lettering were found. In ten of these examples the other side of the stem is marked DEVONPORT and the lettering is flanked by some or all of the following decorative motifs: leaves/foliage, dots and 'arrows'. In the eleventh instance the lettering is unaccompanied by any decoration and just reads 'HOAR DOCK' on the right-hand side of the stem only. Various different mould types are represented but only one complete bowl attached to a stem was recovered (CP91). This bowl (from [3172/3182]) has leaf-decorated seams and swags around the rim of the bowl. On the left-hand side, within a wreath, is a shield containing 15 pellets in five diminishing rows (symbol of the Duchy of Cornwall). On the

PIPE CLAY OBJECTS

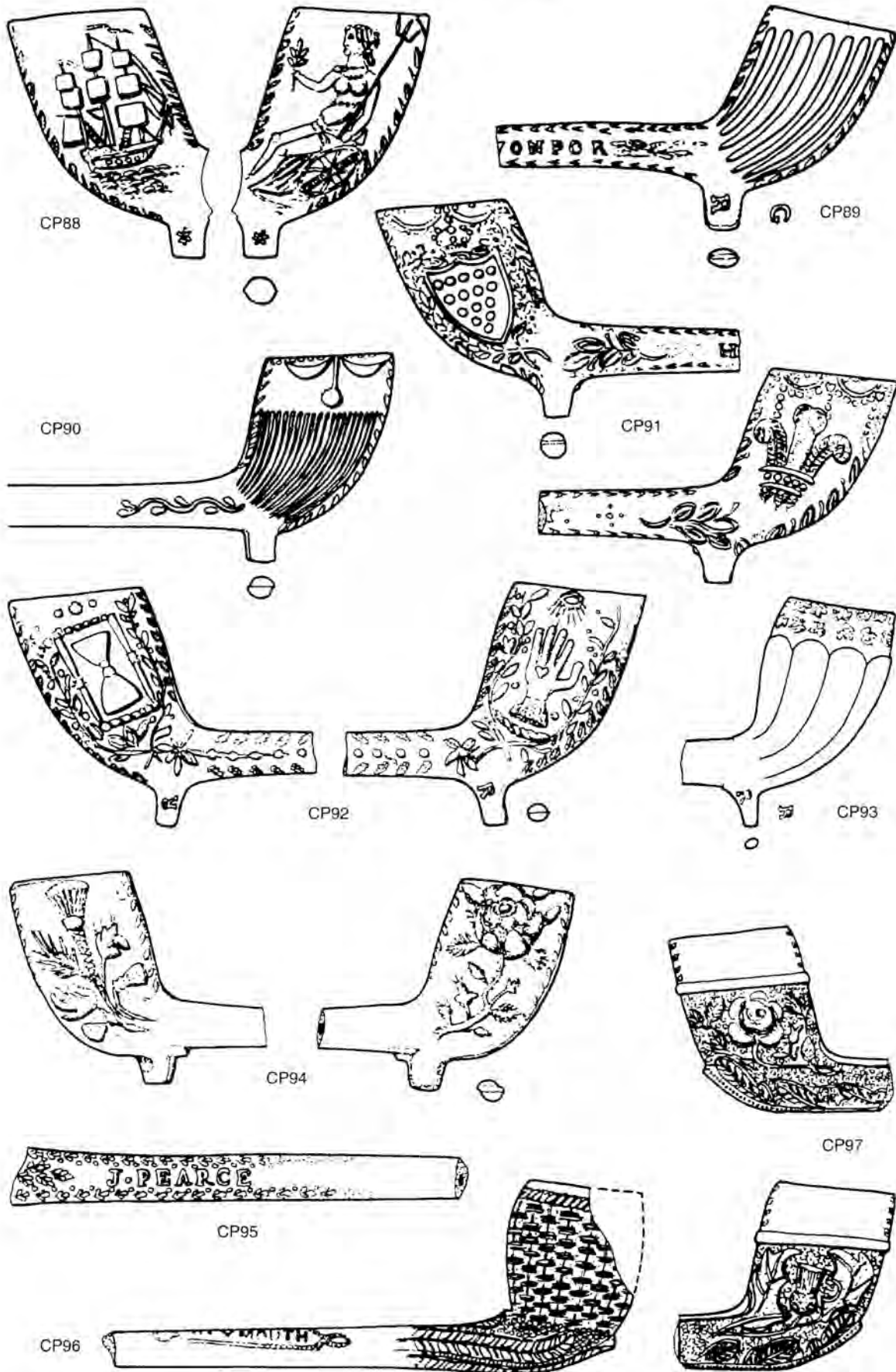


FIGURE 14.12

Pipes CP88-97 (1:1) (by D A Higgins)

right-hand side are the Prince of Wales feathers. In another example the marked stem occurs in conjunction with a heel marked GR (see below) suggesting that this was a second hand mould adapted for reuse by Hoar. Hoar stems have previously been recorded at Plymouth and St Austell (Oswald 1969, fig 54.24 and 132). Various members of the family are recorded in Plymouth Dock/Pembroke Street between 1784 and 1857. Stylistically, these stems are most likely to date from the 1820–50 period.

- J PEARCE. Two stems from different moulds marked J PEARCE/STONEHOUSE in relief serif lettering were recovered. One of these is flanked by closely spaced arrows and the other by leaves and dots (CP95). Two Pearce pipes have previously been recorded from Plymouth, one of them having a coat-of-arms supported by wyverns on the bowl (Oswald 1969, 132). James Pearce is recorded working at 85 George Street, Stonehouse, in 1824 (Oswald 1969, 142). See below for other possible Pearce pipes (IP).
- IP (or IL?). One fragment from [3749] was recovered with a heel marked IP or IL and traces of foliage and tendrill decoration on the stem. The bowl is missing. An unstratified stem fragment, decorated with similar foliage and almost certainly from the same mould, was also found (new bag 25). The mark is hard to read — the ‘I’ has unusually large serifs and the surname is blurred. The surname appears to have been intended as a ‘P’, but it could have been a P that has been altered to an L. Either way, the mould seems most likely to have been produced for J Pearce of Stonehouse (see above).
- ER. A spur pipe with a plain bowl, leaf-decorated seams and the initials ER on the spur was recovered from [2501]. This dates from c1820–80 and may be the product of Elisha Randall of Truro, who is recorded working there in 1852–56.
- GR. Three pipes dating c1780–1840 and marked GR on the heel were recovered. These were all made in the same mould, as was a fourth example, which has the heel missing. The bowl has large leaves decorating the seams and seven flutes on each side (CP89). In one example the stem also survives and this is marked HOAR/DAVENPORT with foliage and flanking arrows (see above). This mould clearly had a long and hard life since the top of the mould of the example from [3487] has worn some 2–3mm shorter than that of an unstratified example in new bag 62. Furthermore, the more worn example has additional scratches evident in the mould and it has lost some of the detail from the leaf seams and from the thickness of the heel. This is due to filing the mould halves to try and keep a tight join during moulding. This mould may well have been commissioned originally by George Randall of Truro, who is recorded in 1803, and then sold to the Hoar family of Devonport, who had the stem engraved with their name. The Launceston examples are all likely to have been made by the Hoar family around 1820–50.
- RR. Seven spur bowls marked RR were found, and there is an eighth example with the Christian name initial damaged but which would almost certainly have been by the same maker. These bowls are decorated with a diverse range of motifs, including one with masonic emblems: hourglass, all-seeing-eye and hand-in-hand (CP92–93). These pipes can be attributed to the Ring family of Bristol, that is, either R F Ring and Co, recorded c1812–49, or R C Ring and Co, recorded c1864–83 (Jackson and Price 1974, 69).
- W SPENCE. One pipe with the incuse, sans-serif lettering W.SPENCE on the left-hand side of the stem within a relief moulded ‘cable’ border was found. The right-hand side has been almost obliterated during manufacture but possibly reads PLYMOUTH (CP96). The pipe is a spurless cutty design. The stem terminated in four broad leaves, which extend beneath a basket weave bowl. W Spence is a previously unrecorded maker, but a reference to him has been found in the 1851 Census. This shows that he was born in Coombe Martin (Devon), and that he was only 25 years old in 1851. Despite this, he was already described as a master pipemaker employing two men and five women. He was living with his wife, Lavinia, at 16 Morley Lane, Plymouth, and did not have any children. The style of this basket weave pipe suggests that it probably manufactured around 1860–1900.
- WAKEHAM. Three stem fragments apparently reading (W)AKEHAM/STONEHO(USE) were recovered (CP85). All three examples have relief moulded serif lettering without any other decoration and all three were probably made in the same mould. An example has previously been recorded from Plymouth where the suggested reading was Pakeham (Oswald 1969, 132). No makers of either surname have been previously recorded in Devon although members of the Wakeham family are known to have been pipemaking in Truro between 1685 and 1754 (Douch 1970b, 151). Based on this lead, a search of the 1851 Census returns has now revealed a number of Wakehams working as pipemakers in the Plymouth area at that date:
 - Ann Waickham, age 53, widow, born at North Roborough (Devon), living at 5 Brownlow St, East Stonehouse,
 - Andrew Wakeham, age 58 (father of Andrew below), born at Kingsbridge (Devon), living at 23 Monument St, Stoke Damerel (the ecclesiastical parish for Devonport),
 - Andrew Wakeham, age 20, unmarried (son of Andrew above), born at Stonehouse (Devon),

living at 23 Monument St, Stoke Damerel (the ecclesiastical parish for Devonport),

- Betsy Wakeham, age 58, married, born on board ship off Biscay, pauper pipemaker living at East Stonehouse Workhouse.

From these references, it is clear that the Wakeham family had moved to the Plymouth area by the first half of the 19th century and that they were actively engaged in the pipemaking trade there.

- ?T. . . A fluted bowl fragment with leaf-decorated seams and dating c1800–1860 was recovered from [5799]. The Christian name initial appears to have been altered with an upright T replacing the earlier letter. The surname initial is blurred and indistinct.
- Stars. Three fragments with moulded stars on each side of the heel were recovered. One of these dates c1770–1810. The bowl is damaged, but it has a spray of foliage on the left-hand side, a complex design incorporating an anchor on the right-hand side, leaves and berries on the surviving seam and a series of triangular motifs around the rim of the bowl (CP83). The other two examples date to c1800–30 and were produced in the same mould. A third bowl fragment from this mould was also found, depicting a ship in full sail on the left-hand side and Britannia on the right (CP88).
- Shields. One spur fragment of c1840–1900 was recovered with a shield on either side of the spur (from [6279]). This has a diagonal bar across it and is a common symbol used by pipemakers, especially in London and the south of England, during the later 19th century.
- Harps. The Irish-style bowl with a stamped harp mark (described above) also has a small harp moulded on either side of the heel (from [3410]), c1840–1920.
- Pattern names, numbers, etc. A number of fragments were marked with pattern names, numbers, etc. There is part of a pipe with a plain, spurless bowl of c1860–1920 that has the incuse moulded mark BURNS CUTTY on the stem (from [2938]). This was one of the most popular pattern names for a particular style of pipe during the second half of the 19th century and produced by makers all over England. An unstratified stem fragment with a brown varnished finish has the incuse sans-serif mark LACHLANDER on the left-hand side of the stem only. This was another popular pattern name in c1860–1910. There is a chunky heel and stem from [2501] with the incuse moulded, sans-serif mark SCOTLAND on the left-hand side of the stem. The right-hand side shows traces of a mark, but this has been blanked out in the mould. This piece probably dates c1890–1920 or later. There are two bowls of c1870–1920 in the form of an acorn with a large

branch spur. One was from [3658] and the other in old bag 385. These both have the incuse moulded pattern number 28 on the left-hand side of the stem only. The final marked piece comprises two joining bowl fragments from [4910]. This has a spurless bowl with a flat oval stem, the sharp sides of which continue up the sides of the bowl as an angled ridge. Facing the smoker is a pair of buffalo horns with the initials RAOB (Royal Antediluvian Order of Buffaloes) moulded above. RAOB pipes are fairly common all over the country c1870–1920, and later. This example is particularly unusual in having the design facing the smoker, as opposed to away from the smoker, which is where it is normally placed.

In contrast with the earlier group of marked pipes it has been possible to identify most of the later name or initial marks with documented makers. Of the 33 pipes with legible marks it is likely that 25 (76%) came from the Plymouth area, 7 (21%) from Bristol and just 1 (3%) from Truro. In addition, there was one late-19th-century stem from Scotland. This suggests that a major change in the location, organisation and marketing patterns of the pipemaking industry had taken place. There is no longer any evidence for local inland production at places such as Bodmin or Launceston and the pipe industry at Barnstaple has disappeared from the archaeological record at this site. In contrast, the Ring family had clearly established a place in the regional market, which had not previously been penetrated by the Bristol makers, and Plymouth appears to have consolidated its position as the major supply source for the region. This restructuring of the regional pipe industry is likely to have been tied in with the increasing specialisation and industrialisation of urban areas and would have had implications both for the employment and business structures of the industry. These issues, however, lie beyond the scope of this study.

Mouthpiece finish

Fourteen fragments of mouthpiece, or stem from near a mouthpiece, were recovered with traces of the original mouthpiece coating surviving. This was necessary to stop the porous clay from sticking to the smokers' lips during use, and all of these examples are likely to date from the late 18th or 19th century. Eleven of the pieces have a glazed tip. In four cases the glaze is a pale lime green and in seven cases it is a lemon-yellow. The remaining three pieces have a dull pillar-box red coating on them, which is most likely to be a hard wax although it could be some form of paint.

The decorated pipes

The mould decorated pipes from Launceston cover quite a range and are of particular interest for the

diversity of local products of c1770–1850 that are represented. The earliest mould decorated pipe appears to be an unprovenanced example (CP83). This is damaged, but has a large spray of leaves and flowers or seeds on the left-hand side of the bowl and a complex design based around an anchor on the right-hand side. There are leaves and berries on the seams and an unusual pattern of hanging ‘pennants’ along the rim. This pipe had moulded stars on the heel and seems likely to date to c1770–1810. No close parallels for this particular arrangement of decorative motifs are known, and this piece hints at a lively local school of early decorated pipes. Another example of c1790–1840 has coarse leaves on the seams and boldly executed foliage and flowers on either side of the bowl (CP84). There is a fragment of a second example from the same mould in new bag 64, which suggests that this was a local product.

Fluted designs were clearly popular from the late 18th century into the 19th, and these occur alongside other more decorative forms. There are three examples of a bowl decorated with Britannia on the right-hand side and a ship in full sail on the left (CP88). The heel of this bowl, which dates to c1800–30, is also marked with stars. One of the Hoar pipes has the arms of the Duchy of Cornwall on the left-hand side and the Prince of Wales feathers on the right, while the later Spence pipe has a basket weave bowl (CP91 and 96). Two examples of a crudely moulded pipe of c1810–40 bear the rose and thistle motif, as does a later spurless example (CP97).

Less usual designs include a rifleman shooting from behind a tree from [2501] and a masonic pipe marked RR. This has leaf decoration on the stem and seams and then wreathes of foliage on either side of the bowl (CP92). On the right-hand side these surround a heart in hand with the all-seeing eye above while on the left is an hourglass. There is another Ring product with part of a design incorporating clasped hands and another with a faceted bowl with foliage above (CP93). Although the Ring products were brought in from Bristol, the majority of the other pipes are likely to be of more local manufacture. Given the origin of the identifiable marks it seems most probable that the majority of these pipes would have been produced in Plymouth.

Many of the decorative elements seen in the Launceston assemblage can be paralleled amongst other groups from London and the south coast. In particular, the use of elaborate stem decoration around the maker’s name during the 1820–40 period, the particular style of the fluted bowls and the detail of the leaf-decorated seams all point to a common stylistic link between these areas. From this rapid overview, it would appear that Plymouth used decorative elements common to the south and south-east but that it employed these elements to develop its own lively school of decoration from c1770 to 1850. This is a particularly interesting period in pipe design and

more work on the stylistic development of pipes in the South-West is clearly needed.

The pipes as archaeological evidence

Clay pipes are particularly sensitive as dating indicators and can often provide a good framework for the phasing of post-medieval deposits. Unfortunately the pipes from Launceston have been re-sorted and re-labelled so many times since excavation that it is now very hard to relate them back to their original context groups.

The grouping of original contexts into LUB (deposits associated with a particular activity or event on the site) has provided the most useful tool for considering the pipes in relation to the archaeology of the site. A total of 1389 pipe fragments could be related back to the LUB: 358 bowl, 1007 stem and 24 mouth-piece fragments (details in the site archive). Of these, 14 bowl, 14 stem and 1 mouthpiece were less useful since the contexts from which they were recovered had been associated with two or more LUB. This leaves 1360 fragments (344 bowl, 993 stem and 23 mouth-pieces) that should provide reliable dating evidence for the post-medieval deposits. Although this only represents 39.7% of the pipe assemblage as a whole, it does represent just over two-thirds (68.7%) of the bowl fragments. These had been catalogued in more detail since, being more diagnostic, they are more useful for dating and interpretation.

Despite the limitations of the data, it is still possible to make a number of useful observations about the pipes in relation to the archaeology of the site. The first point to note is that the pipes have been recovered from a number of different areas of the castle and that they are sufficiently numerous to allow a broad overview of the pipe usage in the Launceston area. From the total number of examples attributed to each decade a crude gauge of the pipe usage at Launceston can be determined. This is only crude because the 18th-century bowls tended to be larger and more fragile and so are less often recovered whole. Furthermore, the sample depends on the nature of the excavated deposits receiving a uniform amount of rubbish over time. Despite these constraints, it is still possible to suggest that smoking rapidly became popular after c1620 and that pipes were in common use until the 1730s, with a particular peak of popularity around 1700–1720. After c1740 the number of pipes recovered drops markedly until a revival in the 19th century. For these periods, the pipe assemblage provides the principal means of dating and phasing the deposits at Launceston Castle, since the post-medieval ceramics were not studied as part of this project.

The summary of the pipe evidence shows clear differences in the nature of the pipes recovered from different parts of the site. The South Gate area (SG), for example, produced almost exclusively 17th-century

material with only a few LUB producing more modern material of 18th- or 19th-century date. Even where this later material does occur, it is often only present in combination with earlier finds, where it may be intrusive, rather than as discreet deposits of purely 18th- or 19th-century pipes. In contrast, the North Gate area (NG) produced predominantly modern (19th-century) material and very few earlier finds. The North Gate was not occupied for most of the post-medieval period; the area east of the North Gatehouse was subject to much post-medieval landscaping and deposits of rubbish which mainly derived from the town not from use of the castle site.

The largest concentration of pipes appears to have come from area ZJ in the SW corner of the bailey, where there was less Period 12 disturbance (SB116, 126, 148, 149, 157, 184, 185 and 194). This area produced at least 462 fragments of pipe, 57 of which were bowl fragments. This contrasts with the keep area, which only produced a single bowl. Oddly, there are only 15 fragments that can be attributed to the three V areas to the NW of the keep. These were quite large excavation areas where substantial quantities of post-medieval material and, in particular, wine bottles were noted. The virtual absence of pipes from this area suggests that machining led to differential finds retrieval. The excavated pipes that can be related to specific deposits at the castle have already been referred to in Chapter 5.

Summary and conclusions

The Launceston pipe assemblage is one of the largest excavated groups from anywhere in the country and has provided a wealth of information at a number of levels. Despite the problems of context attribution, it has been possible to use the pipes to help date and interpret the post-medieval archaeology of the site. Local bowl forms and production characteristics have been defined and possible local makers identified through their marks. Although there are presently no known pipemakers from Launceston, Douch (1970b, 149) has noted a 'Tobacco Pipe Field' at the town in 1754, and the artefactual evidence strongly suggests that pipemakers worked in or near Launceston during most of the 17th and 18th centuries. This is clearly an area that warrants systematic documentary research.

At a regional level this assemblage has more than doubled the number of identifiable marks from Cornwall, as well as providing an opportunity to study the pipes in a broader context. The early incuse marks of c1610–60 have been shown to be particularly associated with south Devon production, especially at Plymouth. Local characteristics, such as the use of milled and stamped stems, clearly developed around Launceston alongside imported products from both the North and South Devon industries. The significance of these local production centres has been demonstrated, in contrast to which traded pipes from further afield

are extremely scarce. There is only one obvious import from Bristol and just two or three Dutch fragments. This is in marked contrast to nearby ports, such as Plymouth, where large numbers of Dutch pipes have been found. This suggests that these 'exotic imports' should be seen as a by-product of international trade rather than traded items in themselves, with the inland trade being almost exclusively served by local manufacturers.

At a national and international level the Launceston pipes have extended the known production of cartouche marks into Cornwall and demonstrated how the internal distribution of Devon products fits into a trading pattern extending to Ireland and North America. The North Devon ports of Barnstaple and Bideford appear to have been particularly involved with the New World trade, despite the fact that South Devon makers are well represented locally at the same time. The Launceston assemblage has made a significant contribution to pipe studies in an area where there has been little previous work. The very large number of unidentified marks from this site, however, shows that much more work remains to be done before the full potential of the pipes can be realised.

Illustrated pipes (Figures 14.1– 14.6 and 14.12)

Stratigraphical information includes: area, [context] (LUB) and period.

- CP1** Bowl of c1580–1610. Well-finished, wiped surface but not apparently burnished; plain groove all around rim. Grey/black core to stem, which has a bore of 6/64". DA [3771] (D14) Period 10 (new pipe bag 40, old site bag 652).
- CP2** Bowl of c1580–1610. Good white fabric with a small greyish core. Rim is bottered but surviving area not milled. Stem bore 6/64". DA [3806] (D02) Period 9 (new pipe bag 1, old site bag 827).
- CP3** Bowl fragment of c1610–40. Very glossy surface with a fine burnish. Rim bottered and milled. Very neat, well produced pipe. CJ (C31) Period 10 (new pipe bag 28, old site bag 334).
- CP4** Bowl of c1610–30. Broken stem has been whittled down for re-use as a short pipe. Much poorer quality than CP3. Stem bore 8/64". SGE [3198] (SG29) Period 9.4 (new pipe bag 3, old site bag 2524).
- CP5** Bowl of c1610–30. Early local form with distinctive spur/heel; rather a dumpy, poorly produced pipe. Rim bottered and milled. Stem bore 6/64". C (SB194) Period 12 (new pipe bag 41, old site bag 518).
- CP6** Bowl of c1610–30. Rim bottered and fully milled. Stem bore 6/64". SGE [3198] (SG29) Period 9.4 (new pipe bag 3, old site bag 2611).
- CP7** Bowl of c1610–30. Rim bottered and fully milled. Stem bore 6/64". ZJ [5805] (SB185) Period 10 (new pipe bag 39, old site bag 638).
- CP8** Bowl of c1620–40. Distinctive series of mould flaws on the right-hand side of the heel comprising a series of small, sharply defined nicks in the mould. Rim bottered and fully milled. Stem bore 6/64". SGE [3219] (SG28) Period 9.4 (new pipe bag 6, old site bag 2429).
- CP9** Bowl of c1610–40. Rim bottered and fully milled. Stem bore 9/64". Old area CB, no LUB or period, (new pipe bag 22).
- CP10** Bowl of c1620–40. Bowl showing early West Country form; very glossy, apparently polished surface but without any apparent burnishing lines. Perhaps buffed in a leather-hard state. Rim bottered and fully milled. Stem bore 8/64". SGK [3169/70] (SG17) Periods 9–11 (new pipe bag 26, old site bag 2551).
- CP11** Bowl of c1640–60. Rim bottered and fully milled. Stem bore 9/64". ZJ [5817] (SB126) Period 7 (new pipe bag 2, old site bag 1178).
- CP12** Bowl of c1630–50. Rim bottered and fully milled. Stem bore 7/64". SG:B (SG35) Period 11 (new pipe bag 55, old site bag 1610).
- CP13** Bowl of c1620–40. Local bowl form with a poor burnish and rough finish, only an average quality product. Rim bottered and fully milled. Stem bore 7/64". SGE [3190] (SG31) Period 11 (new pipe bag 55, old site bag 2185).
- CP14** Bowl of c1625–50. Rim bottered and fully milled. Stem bore 6/64". Old area CB (SB194) Period 12 (new pipe bag 41, old site bag 3).
- CP15** Bowl of c1625–60. Rim bottered and fully milled. Stem bore 7/64". ZN [5663] (SB123) Period 7 (new pipe bag 2, old site bag 1647).
- CP16** Bowl of c1640–60 comprising two joining fragments (fresh break). Rim bottered and fully milled. Stem bore 8/64". DA [3798/9] (D15) Period 10 (new pipe bag 1, old site bag 781).

- CP17** Bowl of c1650–70. Rim bottered and fully milled. Stem bore 7/64". SG no context (SG35) Period 11 (new pipe bag 4, old site bag 2064).
- CP18** Bowl of c1650–70. Rim bottered and fully milled. Stem bore 8/64". SG (SG35) Period 11 (new pipe bag 4, old site bag 2121).
- CP19** Bowl of c1660–80. Rim bottered and three-quarters milled. Stem bore 8/64". DA [3771] (D14) Period 10 (new pipe bag 40, old site bag 652).
- CP20** Bowl of c1660–90. Fragment not marked with bag number. Rather an unusual form with a groove all around the rim but not milled. Rim bottered. Stem bore 7/64". Old area V, no LUB or period (new pipe bag 30).
- CP21** Bowl of c1670–90. Two joining fragments from a late-17th-century heel form of local style. Rim bottered but not milled. Stem bore 8/64". CU [3415] (C46) Periods 11–12 (new pipe bag 72, old site bag 1637).
- CP22** Bowl of c1660–90. Broken stem end ground smooth after having been broken. Rim internally cut and bottered, fully milled. Stem bore 8/64". Old area CB, no LUB or period (new pipe bag 25).
- CP23** Bowl of c1680–1700. Rim bottered and fully milled. Stem bore 8/64". DA [3815] (D04) Period 9 (new pipe bag 1, old site bag 960).
- CP24** Bowl of c1680–1710. Not marked with original bag number. Two bands of milling used to go round rim — both of which drop markedly at the right hand end. Rim internally trimmed, bottered and fully milled. Stem bore 7/64". Old area V, no LUB or period, (new pipe bag 62).
- CP25** Bowl of c1680–1720. Milled with same tool as an example from [1159]. Rim bottered and half milled. Stem bore 8/64". ZJ [5868] (SB148) Period 10 (new pipe bag 2, old site bag 1209).
- CP26** Bowl of c1680–1710. Odd marks on inside base of bowl, possibly where poked to clear bore during manufacture. Rim wiped and half milled. Stem bore 7/64". CP (C35) Period 10 (new pipe bag 13, old site bag 389).
- CP27** Bowl of c1670–1700. Early transitional form with coarse milling. Rim bottered and fully milled. Stem bore 8/64". DA [3769] (D14) Period 10 (new pipe bag 40, old site bag 830).
- CP28** Bowl of c1680–1720. Rim bottered and fully milled. Stem bore 8/64". Old area V, no LUB or period (new pipe bag 30).
- CP29** Bowl of c1690–1720. Rim bottered and three-quarters milled. Stem bore 7/64". DA [3769] (D14) Period 10 (new pipe bag 40, old site bag 830).
- CP30** Bowl of c1690–1730. Large transitional bowl form. Rim internally cut, wiped and half milled. Stem bore 8/64". SG1 (SG35) Period 11 (new pipe bag 26, old site bag 1892).
- CP31** Bowl of c1690–1720. Strong, well-developed transitional form with cut and milled rim. Stem bore 7/64". ZN [5655] (SB194) Period 12 (new pipe bag 39, old site bag 1621).
- CP32** Bowl of c1690–1730. Very highly fired to near stoneware body; some flash glaze appearing. Rim bottered but not milled. Stem bore 6/64". CU [3421] (C24) Period 10 (new pipe bag 28, old site bag 1144).
- CP33** Bowl of c1700–40. Distinctive mould flaw on left-hand side of bowl. Rim bottered, not milled. Stem bore 7/64". Old area V, no LUB or period (new pipe bag 30).
- CP34** Bowl of c1700–70. Rim cut, not milled. Stem bore 5/64". ZJ [5809] (SB149) Period 10 (new pipe bag 39, old site bag 654).
- CP35** Bowl of c1720–1800. Rim internally cut, not milled. Stem bore 5/64". ZR [3936] (SB174) Period 10 (new pipe bag 23, old site bag 2950).
- CP36** Bowl of c1580–1610. Incuse stamped eglantine mark on heel. Rim wiped, not milled. Stem bore 7/64". DA [3806] (D02) Period 9 (new pipe bag 1, old site bag 870).
- CP37** Bowl of c1610–30. Incuse stamped letter I on heel. Unidentified maker. Rim bottered and milled. Stem bore 7/64". SGE [3220] (SG25) Period 9.3 (new pipe bag 3, old site bag 2355).
- CP38** Bowl of c1610–30. Deep oval stem; damaged bowl. Incuse stamped letter W mark on heel. Unidentified maker. Stem bore 7/64". Old area SG, no LUB or period (new pipe bag 3).
- CP39** Bowl of c1610–40. Relief stamped mark a bit like the branches of a tree; local bowl form. Rim bottered and milled. Stem bore 7/64". DA [3740] (D25 or D27) Period 11 (new pipe bag 58, old site bag 571).
- CP40** Bowl of c1610–40. Rather crude little bowl, very 'thin' when viewed from end on. Relief stamped star mark. Rim bottered and fully milled. Stem bore 7/64". ZJ [5805] (SB185) Period 10 (new pipe bag 39, old site bag 1221).
- CP41** Bowl of c1625–50. Irregular relief stamped star-like mark. Rim bottered and fully milled. Stem bore 7/64". Last digit of bag number unclear (probably 1626, but ?1629 or ?1620). CU [3415] (C46) Periods 11–12 (new pipe bag 39, old site bag 1626).
- CP42** Bowl of c1640–60. Deep oval stem; strongly shaped bowl, probably same mould as CP43, but marked with a different relief stamped star mark. Rim bottered and fully milled. Stem bore 8/64". ZN [5688] (SB148) Period 10 (new pipe bag 2, old site bag 1963).
- CP43** Bowl of c1640–60. Deep oval stem; strongly shaped bowl, probably from the same mould as CP42, but marked with a different relief stamped star mark. Rim bottered and fully milled. Stem bore 7/64". ZN [5658] (SB147) Period 10 (new pipe bag 2, old site bag 1670).
- CP44** Bowl of c1630–60. Neat, well-finished bowl with unclear relief heel stamp, apparently two ligatured letters, the main one of which seems to be an H. Rim bottered and fully milled. Stem bore 7/64". Old area NG, no LUB or period (new pipe bag 42, old site bag 2386).
- CP45** Bowl of c1630–60. Incuse stamped mark reading AR. Rim bottered and fully milled. Stem bore 8/64". SGF [3306] (SG35) Period 11 (new pipe bag 55, old site bag 2261).
- CP46** Bowl of c1630–60. Distinctive local form, fairly crude but bold design and finish; glossy but not burnished fabric. Incuse stamped mark reading AR. Rim bottered and fully milled. Stem bore 8/64". CJ (C31) Period 10 (new pipe bag 27, old site bag 334).
- CP47** Bowl of c1630–60. West Country bowl form; poorly impressed incuse stamped mark which looks like TC, but which is almost certainly another example of the locally common TG mark. Unidentified maker. Rim bottered and fully milled. Stem bore 9/64". SG (SG35) Period 11 (new pipe bag 4, old site bag 2064).
- CP48** Bowl of c1625–50. Unidentified maker, possibly from Plymouth where other examples of this incuse stamped WL mark occur around 1625–30. Rim bottered and fully milled. Stem bore 7/64". ZJ [5799] (SB194) Period 12 (new pipe bag 39, old site bag 601).
- CP49** Bowl of c1640–60 (marked 11.11); glossy surface finish, but appears to be buffed as opposed to burnished. Incuse stamped mark reading WL. Rim bottered and fully milled. Stem bore 7/64". J [2703] (SB054) Period 3 (new pipe bag 41, old site bag 11).
- CP50** Bowl of c1640–70. Small heel fragment only with part of a crude relief stamped cross mark, poorly impressed. Stem bore unmeasurable. ZJ [5810] (SB149) Period 10 (new pipe bag 2, old site bag 659).
- CP51** Bowl of c1630–80. Good quality pipe (heel only) with neat relief stamped mark reading IB. Probably an import to the area. Stem bore 7/64". CJ, no LUB or period (new pipe bag 68, old site bag 331).
- CP52** Bowl of c1630–60. Good quality pipe with neat relief stamp reading IS. Unidentified maker. Stem bore 6/64". SGE [3220] (SG25) Period 9.3 (new pipe bag 3, old site bag 2479).
- CP53** Bowl of c1640–60. Dumpy form of at best average quality with relief stamped CB mark. Unidentified maker, probably local. Rim bottered and fully milled. Stem bore 7/64". Distinctive mould flaws on the right-hand side of the heel show that this is from the same mould as another CB pipe with a decorated stem (CP56). SG (SG35 or U/S) Period 11 or U/S (new pipe bag 4, old site bag 2104).
- CP54** Bowl of c1640–70. Rather 'baggy' local form with relief stamped CB mark. Unidentified maker, probably local. Rim bottered and fully milled. Stem bore 8/64". CW [3520] (C31) Period 11–12 (new pipe bag 27, old site bag 1691).
- CP55** Bowl of c1660–80. Rim slightly chipped but probably fully milled originally. Large serif on Christian initial of the relief stamped mark makes it look a bit like a G but probably C (cf CP53–54, CP56–57). Maker unknown. Neat but average finish. Rim internally trimmed and bottered. Stem bore 8/64". CU [3415] (C31) Periods 11–12 (new pipe bag 72, old site bag 1637).
- CP56** Bowl of c1640–60. Heel only of a fairly crude local pipe. Large relief stamped CB mark and a pattern of coarse milled bands on the stem, which appear to be purely decorative. Distinctive mould flaws on the right-hand side of the heel show that this is from the same mould as another CB pipe (CP53). Stem bore 9/64". DA [3750] (D24) Period 11 (new pipe bag 58, old site bag 581).
- CP57** Bowl of c1660–80. Bowl seems neatly finished and glossy, but seems polished not burnished. Crude double struck relief stamp CB on the heel as well as stem stamps and milling. Unknown maker. Rim bottered. Stem bore 9/64". DA [3797] (D15) Period 10 (new pipe bag 1, old site bag 764).
- CP58** Bowl of c1660–90. Relief stamped star design with central dot on the bowl facing the smoker. Rim internally cut and bottered. Fully milled and with a stem bore of 8/64". DA [3769] (D14) Period 10 (new pipe bag 40, old site bag 730).
- CP59** Bowl of c1660–90. Neat well finished West Country form. Relief stamped mark starting with a letter H but with the surname initial illegible. Unidentified maker. Rim bottered and fully milled. Stem bore probably 9/64". CW [3517] (C46) Period 11–12 (new pipe bag 27, old site bag 2053).
- CP60** Bowl of c1680–1720. Fragmentary bowl of Exeter area style with incuse stamped RP mark. Maker unknown. ZDa [6334] (SB180) Period 10 (new pipe bag 21, old site bag 491).
- CP61** Bowl of c1660–80. Heel from a chunky but reasonably well finished bowl with a relief stamped ligatured HH mark. A similar mark of c1660–90 has been recorded at Bodmin. Unidentified maker. The broken stem end of this example has been ground smooth, perhaps to facilitate re-use of the pipe. Stem bore 7/64". CJ [3327] (C31) Period 10 (new pipe bag 43, old site bag 333).
- CP62** Bowl of c1680–1710. Heel fragment with relief stamped IB mark; possibly Joseph Ball of Plymouth who took an apprentice in 1717. Stem bore 8/64". CU [3422] (C24) Period 10 (new pipe bag 28, old site bag 1182).
- CP63** Bowl fragment of c1780–1820. Traces of relief moulded decoration on the bowl and the relief moulded initials ID on the spur, which has been trimmed. The Christian name initial is unusual in that it has been placed upright on the spur. Maker unknown. A relief stamped masonic oval has been placed across the stem 62mm behind the bowl. There is another example of a pipe from the same mould in old site bag number 1238. Stem bore 4/64". CU [3424] (C40) Period 10 (new pipe bag 69, old site bag 1175).
- CP64** Bowl of c1690–1720. Heavy transitional spur form with faint traces of a relief moulded cartouche on the right-hand side of the bowl; any mark or initials within this are illegible. Composite drawing of two examples from the same mould. One example, from P (SB194) Period 12 (new pipe bag 41, old site bag 56) has a bottered rim and a stem bore of 5/64". The other example has a stem bore of 4/64" and comes from SG (SG35) Period 11 (new pipe bag 55, old site bag 1966).
- CP65** Bowl of c1690–1740. Relief moulded cartouche mark on the right-hand side of the bowl comprising dots and a plain border with very faint lettering, which appears to read AD. Rim cut, not milled. Stem bore 5/64". ZN [5662] (SB147) Period 10 (new pipe bag 2, old site bag 1202).
- CP66** Bowl fragment of c1690–1740. Relief moulded cartouche mark on the left-hand side of the bowl comprising a plain border within which only the surname initial D survives. Maker unknown, but possibly another product of the AD maker (cf CP65). Rim internally cut and bottered. M (SB194) Period 12 (new pipe bag 41, old site bag 36).

CP67 Bowl of c1690–1720. Relief moulded cartouche mark on the right-hand side of the bowl comprising a fairly crude SL mark in double ring border. Unidentified maker. Rim internally trimmed and half milled. Stem bore 6/64". Old area C, no LUB or period (new pipe bag 27).

CP68 Bowl of c1720–80. Relief moulded cartouche mark on the right-hand side of the bowl comprising a double border with the letters SL above two small crosses. Another example from same mould is in old site bag 3596. A slightly earlier form of SL cartouche mark is also illustrated (CP67). Rim cut, not milled. Stem bore 5/64". CJ, no LUB or period (new pipe bag 45, old site bag 345).

CP69 Bowl of c1690–1720. Relief moulded cartouche mark on the right-hand side of the bowl comprising damaged mark, the surviving portion reading IONES above a star. Almost certainly made by Devereux Jones (J) of Bristol, free in 1691 but dead by 1727. Rim possibly wiped. Stem bore 5/64". SGE [3220] (SG25) Period 9,3 (new pipe bag 26, old site bag 2479).

CP70 Bowl of c1690–1740. Relief moulded cartouche mark on the right-hand side of the bowl comprising the initials IP in a plain ring surrounded by dots. Neat and well-made local bowl form; unidentified maker but probably I Parn (cf CP71). Composite drawing from two examples from the same mould. One bowl is marked in pencil [281] (1). Rim internally trimmed and cut. Stem bore 6/64". CH (SB194) Period 12 (new pipe bag 70). The other example has an internally trimmed and cut rim and a stem bore of 5/64". ZJ [5865] (SB184) Period 10 (new pipe bag 39, old site bag 1155).

CP71 Bowl of c1700–50. Relief moulded cartouche mark on the right-hand side of the bowl comprising the name I PARN with crosses within a double border. Neat, well-made spur bowl. Composite drawing from two examples from the same mould. One example is marked in pencil [199] (1) and has a stem bore of 5/64". (C46) Periods 11–12 Area CC:CD [3326] (new pipe bag 70, old site bag 199). The other example has a cut rim and stem bore of 4/64". CC:CE (C46) Period 11–12 (new pipe bag 70, old site bag 258).

CP72 Stem of c1610–1720. Stem fragment, 47mm long, with both ends ground smooth. Stem bore 7/64". ZC [3658] (SB194) Period 12 (new pipe bag 60, old site bag 366).

CP73 Stem of c1640–1700. Stem fragment with part of a roughly executed barley twist decoration formed by pinching the stem while soft. Stem bore 7/64". Old area V, no LUB or period (new pipe bag 62).

CP74 Stem of c1640–1700. Joining fragments (fresh break) forming a 17th-century mouthpiece with an unusually abrupt taper. Examples of similar mouthpieces were noticed elsewhere on the site and it appears to be a local characteristic of the later-17th-century pipes. Stem bore 8/64". ZT [6279] (SB194) Period 12 (new pipe bag 60, old site bag 3966).

CP75 Stem of c1660–1720 with a particularly marked deep oval section (most likely date c1680–1720). This characteristic was noted on a number of the 17th- and early-18th-century stems. Stem bore 6/64". CU [3421] (C24) Period 10 (new pipe bag 34, old site bag 1144).

CP76 Stem of c1630–90 with neat pattern of milled decoration. Stem bore 7/64". Old area CB (SB194) Period 12 (new pipe bag 41, old site bag 3).

CP77 Very battered stem of c1620–1700. Appears quite crudely made but with chevron roll stamp and milled bands. Either a poor Dutch import or a local product. Stem bore 7/64". ZR [3890/91/92] (SB194) Period 12 (new pipe bag 60, old site bag 2641).

CP78 Stem of c1660–1720 with neat parallel milled lines of decoration. Stem bore 6/64". ZN [5663] (SB123) Period 7 (new pipe bag 2, old site bag 1273).

CP79 Stem of c1650–1720. Deep oval stem; quite rough finish, with milled lines and relief stamped decoration. Similar decorated stems occur on bowls stamped CB (cf CP56–57). Stem bore 7/64". The third digit of the old site bag number is unclear, but it is probably a 2. ZR [4124] (SB174) Period 10 (new pipe bag 2, old site bag 3329).

CP80 Bowl fragment of c1680–1730 with bands of coarse milling decorating the stem. Stem bore 6/64". SGF [3296], no LUB or period (new pipe bag 64, old site bag 2213).

CP81 Stem of c1620–80 with unusually large bore and single relief fleur-de-lys stamp applied to one side of the stem by some bands of milling. Probably an early-17th-century Dutch stem. Stem bore 10/64". SGA, no LUB or period (new pipe bag 64, old site bag 1669).

CP82 Bowl of c1640–60. Dutch bowl of common quality with moulded Tudor rose mark on either side of the bowl. Not milled, stamped or burnished. Rim bottered but not milled. Stem bore 7/64". DA [3749] (D24) Period 11.

CP83 Bowl of c1770–1810 with moulded decoration comprising foliage, ?anchor, etc. Relief moulded star mark on left-hand side of heel; right-hand side probably the same but chipped. Stem bore 4/64". Old area V, no LUB or period (new pipe bag 62).

CP84 Bowl of c1790–1840 with moulded decoration comprising leaf seams and flowers on the bowl sides. Early decorated bowl with bold and simply executed design. Small internal bowl cross arranged as an '+' (shown as a detail in plan). Fragment of bowl from same mould in new pipe bag 64. Stem bore 4/64". DA [3739] (D27) Period 11.

CP85 Stem of c1810–50 with relief moulded mark reading '...AKEHAM/STONEHO...'. Almost certainly WAKEHAM/STONEHOUSE. Stem bore 4/64". CW [3516] (C46) Periods 11–12.

CP86 Bowl of c1780–1830 with moulded decoration comprising simple flutes with a band of dots above. Plain seams. Bold but simple decoration. Stem bore 5/64". DA [3740/1] (D25 or D27) Period 11.

CP87 Bowl of c1800–50 with moulded decoration comprising leaf seams and flutes. Rather crudely decorated bowl with long thin spur. Composite drawing made from one of two fragments from the same mould in [2706] and from another identical example (the larger part) from Area NGR [2501] (old site bag 2693), which has a stem bore of 4/64". Neither of these fragments has a LUB or period allocation.

CP88 Bowl of c1800–30 with moulded decoration comprising ship, Britannia and leaf seams. Relief moulded star mark on the sides of the heel. Bold but fairly well executed decoration. Illustration mainly based on three fitting fragments from Area SGH [3142] (either (SG35) Period 11 or U/S) but with small amounts of missing detail completed from another example from the same mould in new pipe bag 69 (no LUB or period). The two examples have stem bores of 4/64" and 5/64" respectively.

CP89 Bowl of c1800–30 with moulded decoration comprising flutes and leaf seams on the bowl and foliage and 'arrows' on the stem. Relief moulded heel mark GR and relief moulded stem mark reading 'HOAR/(DE)VONPORT'. This mould may have originally belonged to George Randall of Truro, recorded 1803–42, subsequently being taken over by the Hoar family, who are recorded in Plymouth/Devonport from at least 1822–50. Bowl from the same mould as an example in old bag 2709 (new pipe bag 45). Stem bore 5/64". ZJ [5800] (SB194) Period 12.

CP90 Bowl of c1810–50 with moulded decoration comprising swags, flutes and foliage. Three identical examples from Area V (new bag 62) and another in old bag 2634. The illustrated example is from ZC [3658], either (SG09) Period 5, or (SG17) Periods 9–11; and has a stem bore of 5/64".

CP91 Bowl of c1800–40 with moulded decoration comprising the Duchy of Cornwall's shield with a crown above and surrounded by a wreath on the left-hand side, and the Prince of Wales feathers on the right-hand side. There are swags above the decoration on each side and leaf decoration on the seams. The stem is decorated with a spray of foliage and arrows. Relief moulded mark reading 'H...T' on the stem; almost certainly for HOAR/DEVONPORT. Stem bore 5/64". SGK [3172/3182] (SB194) Period 11.

CP92 Bowl of c1810–50 with moulded masonic decoration comprising an hour glass with star and dots above on the left-hand side and a heart-in-hand below an all-seeing-eye on the right. Both motifs are surrounded by foliage and the bowl has leaf-decorated seams. There are leaves and dots along the stem as well. Relief moulded mark reading RR, almost certainly for Richard Ring of Bristol. Stem bore 4/64". NGR [2501], no LUB or period.

CP93 Bowl of c1850–80 with moulded decoration comprising round-headed pannels with vine leaves above. Relief moulded mark reading RR, almost certainly for R C Ring and Co (1862–83) of Bristol. Stem bore 4/64". DA [3740] (D27) Period 11.

CP94 Bowl of c1810–40 with moulded decoration comprising a thistle on the left-hand side and a rose on the right. There are very poorly defined leaves on the seams and the whole bowl is very crudely designed and executed with a poor quality finish. There is another example from same mould in old site bag 1239. This example has a stem bore 5/64". DA [3749] (DO24) Period 11.

CP95 Stem of c1810–50 with moulded decoration comprising foliage and dots. Relief moulded mark reading 'J.PEARCE/STONEHOUSE'. A pipemaker named J Pearce is recorded at Stonehouse, Plymouth, in 1824. Stem bore 5/64". CW [3516] (C46) Periods 11–12.

CP96 Bowl of c1860–1900 with moulded decoration comprising a basket weave design with leaves below. The background texture around the leaves is formed of small rings. The stem has twisted during manufacture and the incuse moulded mark has become blurred. It appears to read 'W SPENCE/PLYMOUTH'. William Spence is recorded as a master pipemaker in Plymouth, aged 25, in the 1851 Census. Stem bore 4/64". NGR [2501], no LUB or period.

CP97 Bowl of c1850–1910 with moulded decoration comprising a rose on the left-hand side and a thistle on the right-hand side with a plain cordon above and a broad leaf design below. There are also small leaves on the seams above the cordon. The background texture is formed of small rings. Stem bore 4/64". NGR [2501], no LUB or period.

14.2 HAIR CURLERS

Although wigs had been used in England to hide baldness since at least the 16th century, they only became popular as fashion items following their introduction from the French Court by Charles II in 1663 (Bullock *et al* 1996, 5). From that time through until about 1800, wigs were widely used and, as a result, large numbers of hair curlers were needed to prepare and dress the hair for them. In order to prepare hair for making into a wig it had to undergo a lengthy process, which has been described in detail by Le Cheminant (1982) and Bullock *et al* (1996). In brief, the cleaned and sorted hair was tightly bound around a curler and then boiled in water for about three hours. After being partially dried, it was sealed in a pastry case and baked in an oven until the pastry was about three-quarters cooked. The hair was then dried and sorted again, ready for making into a wig. From these accounts it

would appear that hair curlers were principally used during the initial preparation of the hair prior to the construction of the wig itself. Some curlers must, however, have been used in dressing the finished wigs since Le Cheminant (1982, 351) quotes a figure of 2s for four pairs of 'roulers' as part of an average monthly hairdressing bill for an Oxford undergraduate in 1778. This gives them a value of 3d each although, as the material is not specified, it is not clear whether this would have been for cord, wood or clay curlers (see below).

Curlers were made in a variety of sizes so as to allow for the production of different size curls on different parts of the wig. Diderot's encyclopaedia of 1776 lists nine sizes of curler, ranging in thickness from that of the bore of a pipe to larger than the thickness of a thumb (quoted in Le Cheminant 1982, 346). The encyclopaedia entry also states that curlers were made of wood, especially box, wound cord or clay. Boxwood was said to be the best material, while clay was said to have been largely given up in France by 1776 because it became too hot in the oven and overheated the hair. In the archaeological record it is only the ceramic curlers that survive and, in England, these invariably seem to have been made of white pipe clay. The early curlers were comparatively crudely made and often show signs of being entirely hand-modelled, probably being made as a sideline by local pipemakers or potters. By the 18th century the demand was sufficient for specialist manufacturers to emerge and much more symmetrical and professionally made curlers were produced.

Clay hair curlers are occasionally recovered from archaeological excavations, but they tend to occur as isolated examples. They are rarely described or studied in any detail in publications. The 'preliminary study' of hair curlers by Le Cheminant, first published in 1978 and revised in 1982, remains the only wide-ranging archaeological paper on the subject. The excavations at Launceston have produced the remains of 30 different curlers, making this assemblage one of the largest excavated from anywhere in the country. This group offers a rare opportunity to study this relatively little known class of object and so the curlers from this site are considered in some detail below.

Methodology

Given that there is no established methodology for recording hair curlers it was necessary to develop a recording system to deal with this group. The curlers are all made of a fine, white firing, pipe clay and so no meaningful distinctions could be made from a visual examination of the fabrics. From Diderot's description of curlers, it is evident that their thickness was significant, since it was instrumental in determining the type of curl that could be produced. Most curlers are found in a broken state since they have usually snapped in the middle, this being their weakest point. Despite this, it is

still usually possible to obtain two standard measurements of thickness from most examples: the size of the thickened end section, and the size of the mid-point where the curler has snapped. These measurements (M1 and M2 respectively) were made using a pair of callipers and recorded to the nearest one-tenth of a millimetre. Curlers are rarely exactly circular in cross section and so the smallest reading at each of these points was taken. If the curler was complete, it was also possible to measure the other end (M3) and the overall length of the object (L).

Another point of comparison that could be made between almost all of the fragments was the manner in which the ends had been finished. In some cases the end appeared to have been flattened (F), probably by gently tapping it against a surface while the clay was still soft. In some examples the end had clearly been cut (C) to finish it, as evidenced by striations where a blade or wire had passed through the clay. Others had been hand-modelled to give a rounded (R) end, or had simply been left in an uneven state, as rolled, with no obvious signs of finishing (0). These characteristics were noted for each fragment.

A note was also made of whether the curler has been burnished (Bur) or not. Where burnishing was present, it was graded the same way as for pipes: fine (F) for a high quality overall glossy finish with no significant gaps between the burnish lines; good (G) for a burnish with nice uniform coverage and only small, evenly spaced gaps; average (A) for a general overall burnish but with some irregular spacing and gaps between burnish strokes; or poor (P) for a scrappy, irregular burnish with large gaps between the burnish strokes. Finally, a note was made of any maker's mark that had been impressed into the ends of the curler.

A spreadsheet was set up to record the above details, together with stratigraphical information, any drawing number or comments, and a unique identification code (C1–30) that was pencilled onto each fragment. A copy of this spreadsheet has been deposited as part of the site archive. Although the curlers exhibited some variation in form, these differences were not numerous enough or sufficiently well defined to enable reliable typological differentiation. The other characteristics can be more easily measured or identified and so are proposed as standard parameters that can be used to record curlers. It is only once this type of data using standardised criteria has been systematically collected that inter site comparisons will be possible.

Description of the curlers

A total of 3 complete and 27 curler fragments were recovered from the excavations (Figure 14.13). None of the broken fragments fitted together, showing that at least 30 examples are represented on the site, and the lack of joins suggests that this number may well have been much larger originally. All of the Launceston

PIPE CLAY OBJECTS

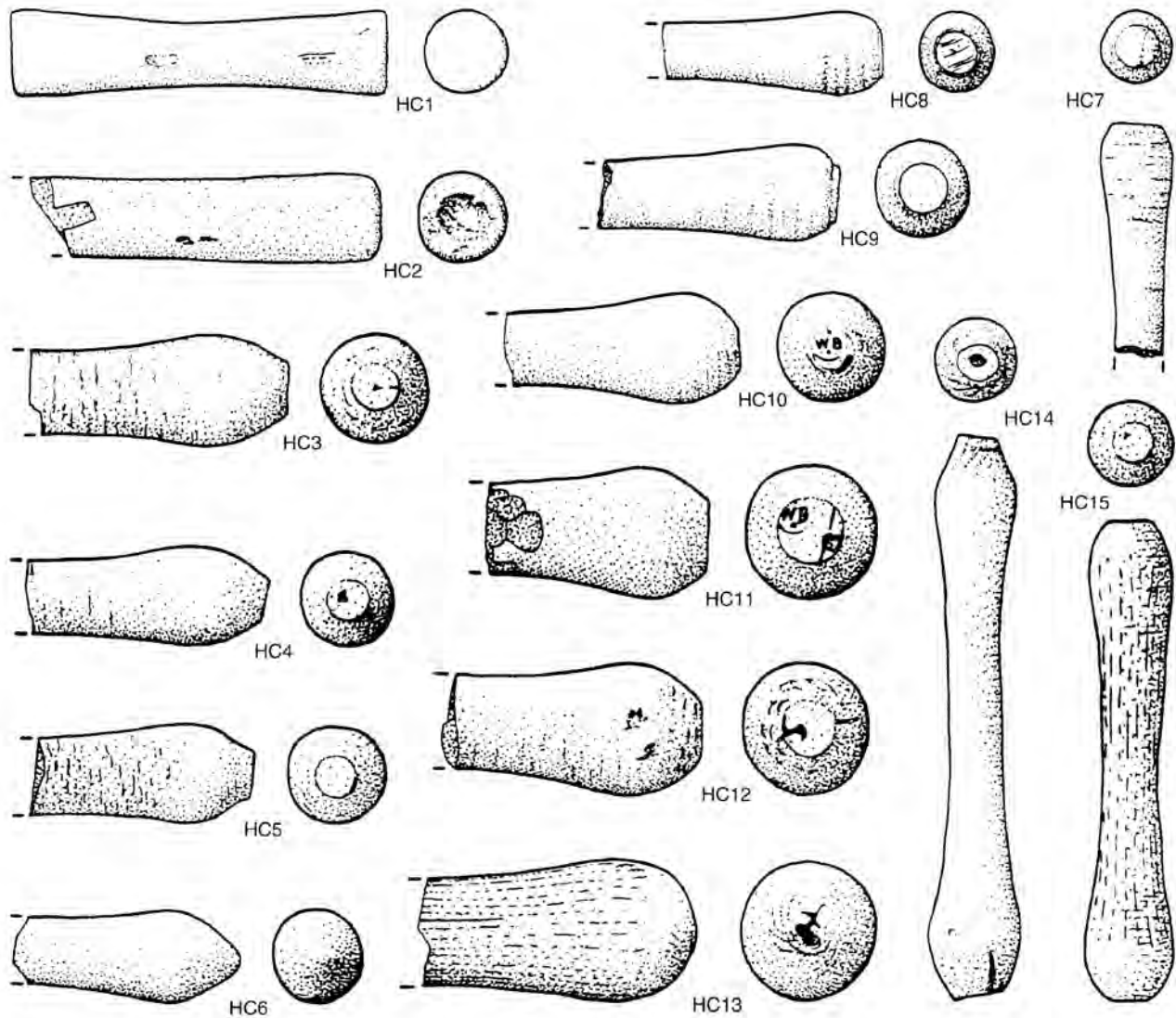


FIGURE 14.13
Hair curlers (1:1) (by D A Higgins)

curlers are made of a fine, white firing clay body without any obvious inclusions visible to the naked eye. Some of the published archaeological descriptions talk of curlers being 'cast', but Le Cheminant (1982, 349) only notes one curler from this country with a possible mould seam on it. Many of the Launceston curlers have cracks or voids at the end where the clay has 'opened up' and some examples also have a clear spiral texture to the clay body apparent in their broken sections or around the ends. These characteristics strongly suggest that the curlers have been formed by rolling a lump of clay into the desired shape rather than by casting. The smooth, symmetrical form of some of the better made curlers indicates that some type of former, such as a shaped rolling board, has probably been used to ensure a uniform product. Slight banding around the body of many of the curlers could also be the result of formers having been used to roll the curlers. This suggestion is further supported by the fact that several of the curlers have a slight lip at

the end, which appears to have been formed where the roll has extended over the edge of a former, but not been fully trimmed off on completion, for example **HC8** and **HC9**.

In typological terms, there is little to differentiate the Launceston finds. All of the curlers are solid, that is, none of them have a hole running the length of them as has been noted in some other parts of the country. Similarly, none of them appear to have a deliberate hollow or indentation in the ends; the only slight indentations that do occur appear to be a natural product of the rolling process, for example **HC2** and **HC14**. The only real distinction that can be made is between those examples with a relatively cylindrical form and flat ends, such as **HC1** and **HC2**, and those with a more 'dumb bell' shaped form, for example **HC3-15**.

There are only three examples of the relatively cylindrical curler type. These all have a slightly uneven shape, as if hand-rolled without the use of a former,

and simple flat ends, without any particular sign of finishing on them. None of these three curlers is burnished. This form of curler appears to be an early type, which has been dated to about 1660–80 (Le Cheminant 1982, figs 1 and 2). The three Launceston examples can probably be attributed to this period too, and indicate that London fashions were quickly disseminated all over the country, including Cornwall, during the Restoration period.

The remaining 27 curlers are all basically of the 'dumb bell' type. Some of these have rather slender, tapered ends, in one instance coming to a rounded point (HC3–6). The majority of the curlers, however, have more globular terminals (HC7–13). The difference between these two types is rather blurred at the boundary, and so it is not possible to use these two types as clear typological markers. Some of these 'dumb bell' curlers appear to have been hand-modelled without the use of a former. This shows particularly well in a complete example, where there is a clear difference in size and form between the two ends of the curler (HC14). This example also shows the problem of trying to develop too tight a definition based on form alone when the two ends can be variable yet there is normally only one end surviving. Despite the variations evident in this example, most of the 'dumb bell' type curlers are well formed and were probably rolled on a shaped former to achieve a uniform and symmetrical product.

Out of the 27 'dumb bell' type curlers a total of 7 (26%) have evidence of burnishing on their mid-sections, for example HC13 and HC15. This is always of poor quality and, in two cases, the traces of burnishing are so slight that there is some doubt as to whether they are intentional at all. This contrasts with other areas of the country where curlers are sometimes found with neat and well-executed burnishing on them. One of these 27 has a broken end but, of the remaining 26, 14 have flattened ends (for example HC3–4, HC7, HC9 and HC12), 10 have cut ends (for example HC5, HC8, HC10–11, HC14–15), one has a rounded end (HC6) and one has no apparent finishing to the end (HC13). The general finish of these curlers is neat and they have smooth but generally rather matt surfaces.

Two of the curlers have a noticeably smoother and more glossy finish to them, although they have not been burnished. These two also have rather more sharply curved ends than the other curlers and both are stamped with a WB mark (HC10–11). This is one of the most commonly found curler marks and one that can be dated to around 1730–80 (Le Cheminant 1982, 352). The maker has not yet been identified, but he probably worked in London where large numbers of these marks are found. The author has recorded over 100 stamped curlers from all over England, ranging from Cumbria to Cornwall. WB marks account for about 56% of all the marked curlers found outside of London and an example has also been noted from Wales (Evans 1996). This mark is five or six times more

common than the next most frequently found sets of initials, showing the extent to which this single maker dominated the national trade.

Only three complete curlers were recovered from Launceston, with lengths ranging from 54.9 to 79.8mm (HC1, HC14–15). There is little comparative material to draw on, but the complete examples illustrated by Le Cheminant (1982) range from about 54 to 80mm in length, examples from Aldgate range from about 50 to 76mm in length (Thompson *et al* 1984), examples from Chester range from about 52 to 84mm in length (Rutter and Davey, 1980) and examples from a kiln site in Waterford, Ireland, range from 62 to 78mm (Peacey 1996, 262). This suggests that hair curlers were normally about 50–84mm in length in England, and that this range was fairly standard all over the country. The Irish examples fall within this range but only start from 62mm. This particular group, however, represents production at an individual kiln site and may not be typical of other Irish groups. There does not seem to be any particular chronological distinction between the different curler lengths, which are most likely to be related to the size of the intended curl. In general terms, the thicker curlers tend to be longer although this was not always the case, as can be seen from the longest of the Launceston examples, which is 79.8mm in length, but which is of a fairly slender type (HC14).

In terms of size of the ends, the Launceston examples range from 11.0mm for the thinnest to 20.2mm for the thickest (HC7–13). The distribution within this range, however, is not uniform; 26 of the measurable ends (81%) fell within the 11.0–14.6mm range, while only 6 (19%) fell within the 16.1–20.2mm range. There were no curlers at all between these two ranges. This gap may be more apparent than real since, if the measurements are rounded to the nearest whole millimetre, a more uniform distribution is observed (Figure 14.14). This graph shows the thickness rapidly peaking in the 12–13mm range and then a fairly steady fall to an end thickness of about 20mm. Although this is only a small sample (32 examples, since one fragment was unmeasurable and the three complete curlers each had two ends) this is the only data on end thickness that appears to have been collected to date. Despite this, the range of curlers at Launceston appears similar to those illustrated from other sites and so this graph may well give a reasonable indication of the normal distribution range for end size. What is interesting is that this range does not accord with the documentary range given by Diderot, whose nine curler sizes varied from that of a pipe stem bore (about 1.5mm) to larger than that of a thumb (about 25mm). By estimating the size of Diderot's extremes it is possible to achieve nine even gradations of size by using 3mm increments (Figure 14.15).

From this table it is possible to see that the most numerous Launceston curlers, (those between 12 and 13mm in size) equate to the middle size of Diderot's

PIPE CLAY OBJECTS

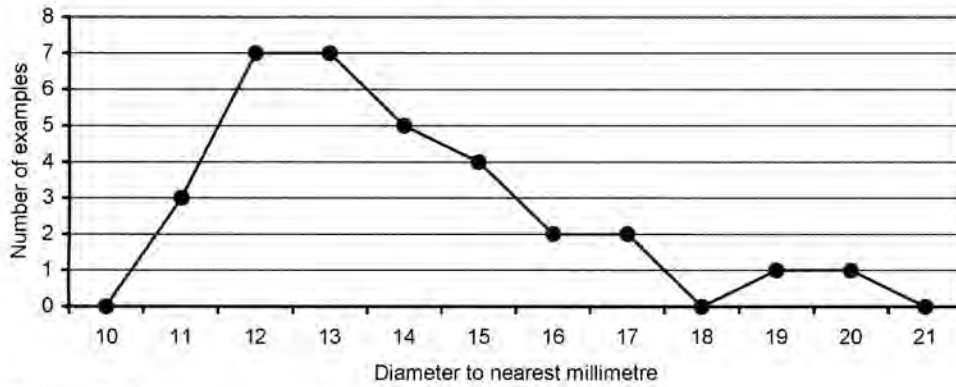


FIGURE 14.14

Plot showing the size of the swelling at the end of the curlers

Diderot's description	No.	Size (mm)	Launceston examples
Diameter of the inside of a pipe	1	0-3	0
Size of quills	2	3-6	0
Nearly that of the little finger	3	6-9	0
Size of the little finger	4	9-12	5
Size of the third finger	5	12-15	21
Size of the middle finger	6	15-18	4
Slightly larger than the middle finger	7	18-21	2
Size of the thumb	8	21-24	0
Slightly larger than a thumb	9	24-27	0

FIGURE 14.15

Diderot's nine curler sizes of 1776 (from *Le Cheminant* 1982, 346) translated into 3mm increments and showing the number of Launceston examples within each range

description. The larger sizes and, in particular, the smaller sizes are completely absent. Although the Launceston assemblage is too small to draw any firm conclusions, it does appear that there is a mismatch between the documentary and archaeological records. Three possible explanations spring to mind. First, that Diderot was describing the curlers used in making the finest and most elaborate wigs for the highest-ranking members of society, which are not representative of those in everyday use. Second, that French and English wig-making techniques employed different ranges of curlers. Third, that clay was too brittle for thin curlers, which were made of some perishable organic material that has not survived in the archaeological record. Further work is clearly required to explore these questions, but at least the Launceston finds have set a bench mark for English curler assemblages and raised questions about how they relate to the documentary record.

The curlers in context

Of the 30 curlers recovered only 18 (60%) can now be identified to a current LUB and context. They were

recovered from all over the castle site, and there does not appear to be any area or deposit that is particularly associated with them. Although this is a good size group, it must be remembered that it is the product of a very large series of excavations. On the other hand, it cannot compare with the 1857 examples recovered from a single pit in London (Wooldridge 1989, 27), which must have been the waste from a wig-makers shop. The Launceston assemblage can therefore be seen as a general background scatter reflecting domestic wig-dressing activities over a period of time.

The majority of the curlers, 12 examples, were recovered from the bailey area, with between two and four examples coming from each of the north and south gates and from areas C and V. Most of the curlers were recovered from deposits in Periods 10-12, which ties in with their general 1660-1800 date range. Many of the curlers were recovered from deposits that also produced large groups of pipes. This reinforces the impression that they were being discarded with general domestic waste. Almost all of the associated pipe groups have a wide date range, which does not help with the dating of the curlers. The only real exception is a curler **HC1** from (V19). This LUB also produced ten fragments of pipe with an overall date range of c1610-1740, but which could have been deposited within the 1680-1720 range. This particular curler is not only complete but it is also of the early type, with a suggested date of c1660-80. This association supports the typological date attributed to this particular type of curler.

The only other group of pipes containing a curler and with a relatively narrow date range is a small group from (SB147). This group comprises one bowl and five stem fragments with an overall date range of c1610-1720. If this date is reliable and the curler is securely associated with the pipes, then it ought to belong to the earlier period of curler use, that is c1680-1720. This curler has a neat, symmetrical shape, suggesting the use of some type of former, and is of the 'dumb bell' type, although with tapering rather than sharply globular ends (**HC3**).

Summary and conclusions

This study has set out some parameters for recording hair curlers and attempted to characterise the assemblage from Launceston. The Launceston curlers can be divided into two broad typological groups, and appear to represent discards from general domestic hair dressing, rather than the waste from a specialist wig-maker. The curlers are all solid and without intentional indentations in their ends. Seven of them (23%) were probably burnished and all are made of a fine, white firing clay. Despite this, the surface appearance of two of the curlers, both marked WB varies slightly from the others, suggesting a different supply source. These two curlers are probably imports from London. A curler marked IB from Liverpool that was thin-sectioned was found to be made of a different and much finer clay than the local pipes (Davidson and Davey 1982, 336). As with the WB curlers, the IB example is probably also a London product. In contrast, a group of pipe kiln waste of c1720 from Bridge Road in Benthall (Shropshire) produced unmarked hair curlers made of the same local clay as the pipes. It may be that the marked curlers tend to be London products made of fine West Country clays, while the unmarked curlers tend to be the locally produced examples. At Launceston the difference between locally produced and imported curlers may be hard to discern since the local pipemakers are likely to have been using similar types of clay as were being exported to London.

Although two of the curlers may have come from London, the other 28 examples (93%) fall into groups that exhibit similarities of form, texture and finish. These examples are most likely to have been produced locally. Little is known of curler production or use in Cornwall or Devon, although Douch (1970b, 146) does note that the pipemakers in Helston also made hair curlers. This demonstrates that production was taking place within the county and so there is no reason why pipemakers in the Launceston area should not also have made these objects as a sideline. The sizeable assemblage of curlers recovered from these excavations shows that not only were the latest London fashions being taken up in Cornwall, but that these fashions stimulated local manufacture and trade as they became an integral part of local life.

Illustrated hair curlers (Figure 14.13)

Stratigraphical information includes: area, [context] (LUB) and period.

HC1 Complete curler, 54.9mm in length and with ends of 11.9 and 11.4mm; mid-section 9.3mm. Slightly uneven form as if hand-modelled and with no apparent finish to the ends. Found with 10 clay tobacco pipe fragments of c1610–1740 overall, but which could have been deposited around 1680–1720. This is thought to be an early form of curler, dating from c1660–80. [193] (V19).

HC2 Early form of curler, probably c1660–80, with end of 12.2mm and middle of 11.4mm. No apparent finishing to the end, which has curled over during rolling to leave an uneven dishd centre. Simple, hand-modelled appearance. Found in old area CB.

HC3 Neat, symmetrical roller with striations around the body (?scratches) and with a flattened end. End 16.5mm, middle 13.2mm. Found with 6 clay tobacco pipe fragments of c1610–1720. [5663] (SB123).

HC4 Smooth, symmetrical form with very slight striations around the body. End 14.6mm, middle 11.1mm. Small deep and irregular void in the end, probably a result of rolling. End neatly flattened. From old area SG.

HC5 Rather uneven shaped curler with marked striations running round its body. End 14.5mm, middle 11.4mm. The end has been cut smooth. [2646] (NG36).

HC6 Smooth body with the end formed as a slightly undulating rounded cone. End 13.2mm, middle 10.0mm. From old area CB.

HC7 Slightly asymmetrical curler with a matt surface and slight striations running round its body. This is the smallest curler from the site, with an end of 11.0mm and a middle of 7.0mm. The end has been flattened. From old area CB.

HC8 Very similar form and finish to HC9; end 12.0mm, middle 8.5mm. There is a slight lip at the end as if it has been rolled over the edge of a former. There are very slight traces of a possible burnish on the body and the end has been cut. [5799] (SB194).

HC9 Good symmetrical form with a smooth finish and slight striations running around the body. End 14.1mm, middle 10.5mm. There is a slight lip at the end as if it has been rolled over the edge of a former. The end itself has been flattened. From old area C.

HC10 Well-formed curler with a very smooth and slightly glossy surface. Particularly bulbous end with striations running around it. End 16.1mm, middle 11.2mm. The end of the curler has been cut and is marked with an incuse WB stamp, probably a London product of c1730–80. [3] (SB194).

HC11 Well-formed curler with a very smooth and slightly glossy surface. Particularly bulbous end measuring 18.6mm, middle 13.2mm. The end of the curler has been cut and is marked with an incuse WB stamp, probably a London product of c1730–80. [5607/5643] (SB039).

HC12 Quite well-formed curler with slight striations around the middle and a small void in the end from rolling. The end has been flattened and measures 17.4mm, middle 13.5mm. From old area CB.

HC13 The thickest curler from the site, the body of which has a poor burnish on it. The rounded end has a deep void in it from rolling and measures 20.2mm, the middle 15.7mm. [5800] (SB194).

HC14 Complete curler with a rather uneven form, one end being much larger than the other. There is a deep crack in one end of the curler and the other has a small depression in the centre, probably the remains of a dimple from when it was rolled. The ends, which measure 11.5mm and 13.6mm, have been trimmed. The middle measures 8.4mm and the length is 79.8mm. [532] (SB186).

HC15 Complete curler with quite a neat, symmetrical form and quite marked striations running round the body, which also has a poor burnish on it. The ends, which measure 12.7mm and 12.9mm, have been cut. The middle measures 9.1mm and the overall length is 67.9mm. From old area SG.

14.3 THE PIPE CLAY BIRD'S HEAD

A hand-modelled bird's head made of white pipe clay was recovered from the 1968 excavations (bag 384). The surviving fragment (Figure 14.16) is about 6cm in height and weighs 43g. The beak and left side of the bird's face are missing, as are the lower portions of the body. The right eye, which has been formed by impressing a small cylindrical object into the clay, survives. The front of the neck and breast have been burnished after modelling, which has given a slightly glossy finish to these areas. Three bands of milling have been impressed around the front of the neck, but these do not join at the rear. Each band has been made up of three or four separately impressed lines, joined end to end. Two lines of impressed marks have been used to decorate the strips between the milled bands. Both strips contain five flower impressions but, in addition, the lower band also has a single lozenge mark at one end. As with the milled bands, the impressed marks do not continue around the back of the neck.

On the surviving body portion is a pattern of lozenge marks, made using the same die as the single impression on the bird's neck. These form part of an arc or circle on the bird's breast with traces of further impressions within the arc. The nature of this decoration clearly suggests that the body of the bird

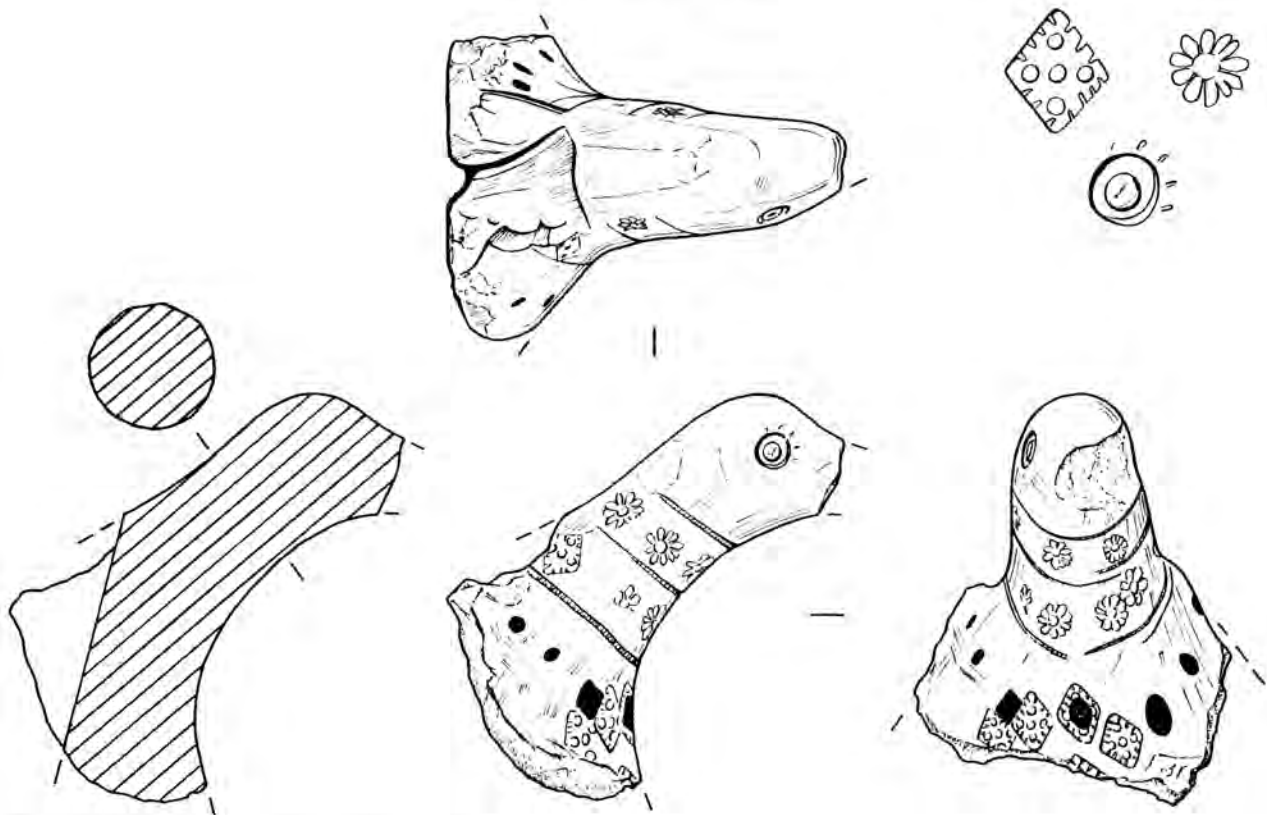


FIGURE 14.16

The pipe clay bird's head (1:1) (by Chris Evans)

continued for some way beyond the surviving portion. A band of eight reddish brown slip dots has also been painted around the base of the bird's neck. One of these dots overlies a lozenge stamp, clearly showing that it was applied last in the decorative sequence.

The back of the bird, at the base of the neck, is broken away making its original form unclear. What can be observed is that there were three deeply incised holes in this area: one cutting down steeply from the base of the bird's neck, and one on each side of the bird, angled slightly backwards. These holes have been formed by chopping out sections of clay from the previously modelled bird with a series of stabbing cuts from a pointed blade, almost certainly a knife. The holes are quite roughly formed and would probably have interconnected within the body of the bird originally. The exact size and nature of the openings created is not clear from the surviving fragment, and it is uncertain what their function was. Although the broken incisions now appear rough these would not have been seen when the object was complete and the overall finish clearly shows that the bird was made by someone familiar with handling clay. The form and decoration have been competently created and the whole object has the feel of something efficiently modelled with a clear end product in mind.

The original form and function of this object is not immediately apparent from the surviving portion. The

back of the bird's neck is only roughly smoothed and it lacks the burnishing and decoration found on the front. This demonstrates that the back of the neck was not intended to be seen and it may have been closely fitted to another part making it inaccessible to see or finish. The large size and number of the cut openings make it unlikely that the object functioned as a whistle, and it seems more likely that the holes were used as sockets for attaching other parts, such as wings.

Pipeclay models of figures and animals, such as those from Exeter (Oswald *et al* 1984) occur throughout the medieval and post-medieval periods, although never in large numbers. Such pieces are variously interpreted as religious figurines, mantelpiece ornaments, or children's toys according to their subject matter. Most other examples, however, are different from the Launceston bird in that they are typically mould-made, single piece objects. The Launceston example is certainly hand-modelled and appears to have formed part of quite a large, composite, object.

In terms of manufacture and dating, there are a number of reasons for suggesting that this is a local product, made as a 'side-line' by a late-17th-century pipemaker. Apart from being made of pipe clay there are three reasons for making this link. First, the bird's eye has been made by pressing a cylindrical object, most likely the mouthpiece of a pipe, into the clay. Even in its shrunken and fired state this impression

still has the large bore (7/64"), which would be typical of a 17th-century pipe. Second, the milled bands of decoration are typical of those used by pipemakers to decorate the rims and stems of 17th-century pipes. Third, and most compelling, the stamped marks are of a distinctive style that was used by local pipemakers.

There are two published stem fragments from Exeter that have similar lozenge shaped geometric stamps on them (Oswald *et al* 1984, figs 60 and 61). At the time of publication these were seen as Dutch, but an unpublished example from the Rippon Collection in Exeter Museum (no. 163) has this style of stamped decoration on the bowl. The Rippon bowl was also found in Exeter and is of a distinctive local form dating to c1680–1710. On the bowl is a group of lozenge shaped marks with serrated borders surrounding a pattern of dots. These are almost identical to those on the breast of the Launceston bird. Taken together, this evidence strongly suggests that the Launceston bird was made by a local pipemaker, perhaps from Exeter, around 1680–1710.

There do not appear to be any close parallels for the Launceston bird from the South-West although there are some similarities with the pipe clay body of a bird from Trink (Leland) in Truro Museum. The Trink example is smaller than the Launceston piece, the bird's body being only some 6cm long, and it is mould-made. The body is decorated with simple relief moulded lines in imitation of feathers, and there is a line of relief dots on the mould seam down the bird's breast. There are two small lateral holes which have been pierced through the body of the bird and which appear to be for the attachment of a head and wings. In this

respect it appears to have been a composite object, similar to that from Launceston. The Trink example is of a small size and it has a simple form with stylised decoration. These characteristics would be consistent with it having been a child's toy, most likely dating from the 18th or 19th century. The Launceston example differs in that it is rather larger, probably earlier in date and appears to have been more highly decorated and complex object.

The best parallel for the Launceston bird is the body of a pipe-clay cockerel from excavations at Fulham Island in London (Jarrett forthcoming; VAC 01, sf 24). The surviving body is hand-modelled and about 60mm in length. The surface decoration includes milled lines as well as three circular initial stamps reading WS, of the type used by pipemakers around 1660–1720. There is a cavity in the base of the object, presumably to take some sort of handle or stand for the object, although it is worth noting that a cockerel fragment from Dorking (Surrey) has a hole or socket in the rear of the bird (Higgins 1985, fig 4 no. 38). The Fulham example does not have any cuts or holes in the upper body of the bird, but the construction and decorative elements both point to its having been produced by a pipemaker during the late 17th or early 18th century. As such, it is very similar to the Launceston example, suggesting that late 17th century pipemakers occasionally produced this type of object as a side-line. Such objects may well have been used as early household ornaments although, as Jarrett points out, the cockerel also carried both secular and religious symbolism, which may have influenced its choice as a motif.