Excavations at St. Saviour’s Dominican Priory, Limerick, Part II

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Part I of the Report on the 1975 excavations at St. Saviour’s Dominican Priory was published in the previous issue of this journal (Shee Twohig 1995, 104-29). Part II, presented here, deals exclusively with the finds from the site in the form of specialists’ reports.

All the finds have the prefix E145 and are stored in the National Museum of Ireland. A complete database on the location of the finds has also been lodged at the Museum.

1. Pottery  Clare McCutcheon
2. Tiles      Clare McCutcheon
3. Glass     Clare McCutcheon
4. Clay pipes  Sheila Lane
5. Metal  †John Teahan, Michael Kenny
              and Clare McCutcheon,
6. Bone artefacts  Maurice Hurley
7. Lithics  †Elizabeth Anderson
8. A demographic sample  Catryn Power

* * *

1. POTTERY
by Clare McCutcheon

Some of the pottery from this site was shown to J.G. Hurst during a visit to Ireland in 1976 and his comments were noted in the finds catalogue at that time. As these were not always transcribed accurately they have been used with caution in this report. Hurst’s notes following visits in the 1970s are also available in the Department of Archaeology, U.C.C., and have been consulted with the understanding that “Limerick” refers to the present site. Where appropriate, therefore, both of these sets of comments have been cross-checked and incorporated into the text with due acknowledgement.

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Methodology
A total of 140 sherds of medieval and post-medieval pottery was recovered of which 44 date to the late 12th to early 14th centuries. The material has been identified visually and is presented in tabular form (Tables 1 and 2). The tables show the type or source of the ware, the number of sherds present and the estimated minimum number of vessels (MNV) represented by the sherds. The probable form of the vessels and the date range of the pottery type is also included.
A total of 96 sherds of late medieval (21 sherds) and post-medieval (75 sherds) ware was recovered on the site (Table 2). Some of the late medieval wares, the majority of which are continental, are unusual and these have been discussed in some detail. The post-medieval wares are English wares which are well represented on Irish sites and have been comprehensively published (Meenan 1997). Further details on this assemblage have been included in the archive report.
A quantity of late 18th to 20th century material was also recovered. It is presented in Table 3 at the end of the pottery report but is not discussed further.

The Site
Almost all the material was recovered from disturbed levels, and post-medieval ware was often present below medieval levels. The only exception was in Test Square 1 where medieval ware was recovered from 1.20m-1.65m deep. This included five sherds of Limerick-type ware, a sherd of Saintonge mottled green glazed and a sherd of Saintonge all-over green ware. A silver penny of Edward I dating to 1279 was also found in this context. At a slightly higher level (upper 0.80m) the stem of a lamp (Illus. 1.2) of Limerick-type ware was recovered in the same location. The pottery recovered from this location would indicate a date of late 13th to early 14th century.

MEDIEVAL WARES

<table>
<thead>
<tr>
<th>Type</th>
<th>Sherds</th>
<th>MNV</th>
<th>Form</th>
<th>Date (century)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ham Green glazed</td>
<td>4</td>
<td>1</td>
<td>Jug</td>
<td>L12th-M13th</td>
</tr>
<tr>
<td>Saintonge green glazed</td>
<td>26</td>
<td>6</td>
<td>Jugs</td>
<td>13th-14th</td>
</tr>
<tr>
<td>Saintonge all-over green</td>
<td>1</td>
<td>1</td>
<td>Jug</td>
<td>L13th-E14th</td>
</tr>
<tr>
<td>Limerick-type</td>
<td>13</td>
<td>&gt;2</td>
<td>Jug, lamp?</td>
<td>13th-14th</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>&lt;10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Medieval wares. (MNV=minimum number of vessels)
Ham Green glazed

The ware from the Ham Green kiln near Bristol has been extensively described (Barton 1963) and dates to the early 12th to the mid-13th century (Ponsford 1991, 98). It is hand built and green glazed. Four sherds were recovered representing a Ham Green ‘B’ type jug dating to the late 12th to the mid-13th century (ibid.). One of the sherds is part of a rim and handle with a distinct collar below the rim and a central line of stabbing on the handle (Illus. 1.4). There is a stacking scar on the rim and the glaze is somewhat mottled.

Saintonge mottled green glazed

This ware is from the Saintonge region of south-west France and forms the largest group of imported ware in the assemblage. The ware was imported to Ireland and Britain as a by-product of the wine trade (Dereoux and Dufournier 1991). The fabric is a fine white micaceous earthenware and was lead glazed with copper filings added to the glaze, giving a mottled green finish. The sherds represent a minimum of six jugs which were decorated with bands of light rilling on the body. The more commonly found applied thumbed strips were not present.

Saintonge all-over green

The fabric of the all-over green type is the same as the mottled green ware but the copper was added in powdered form rather than as filings, giving a matt bright green overall painted finish. This ware is usually found in association with closely dated polychrome wares (Dunning 1968) and is therefore dated to the late 13th to early 14th century. A portion of a handle from a small jug was found.

Limerick-type

Thirteen sherds of local ware were recovered and are styled ‘Limerick-type’ in the absence of a known kiln. The fabric is sandy and fired to a cream to orange inner surface with a grey core. It appears to correspond to Sweetman’s Type 2 from Adare Castle which is described as a ‘...well reduced fabric but [is] oxidised on the inner surface. The inclusions are very small and are often of calcite’ (Sweetman 1980a, 4).

The single rim in the St Saviour’s assemblage is similar to one from Adare (ibid., fig. 4.3). The remains of an applied strip of decoration are present on the latter rim, and similar strips are present on one of the body sherds from St Saviour’s. Another of the body sherds has three applied strips in a contrasting colour (brown). The second vessel (Illus. 1.2) represents a possible lamp (J.G. Hurst pers. comm.).

Forty-one sherds from jugs in a local ware were recovered from excavations at nearby King John’s Castle and are described as being in ‘a very hard-fired well-reduced fabric ... [with a form] well within the normal range of ... Irish jugs’ (Sweetman 1980b, 212). The sherds from St Saviour’s may be similar to these in form, but could not be described as ‘very hard-fired’. The sherds have also been compared with the assemblage of wasters recovered in the course of field walking by A. MacDonald, Department of Archaeology, U.C.C., which correspond to Sweetman’s Type No. 4 from Adare Castle (1980a, 4). The fabric of these wasters is very hard-fired with a distinctive reduced core, a pale grey outer surface and a thin oxidised inner surface. Similar sherds were also recovered from more recent excavations in Limerick at St Francis Abbey and Fish Lane (McCutcheon forthcoming a & b). It is clear that several local sources, including Adare, supplied glazed wares to the medieval city of Limerick. The wares produced in Ireland incorporated both the original west English forms and the south-west French influences which followed and they appear to show little regional variation across Ireland. This may result from a limited production and distribution amongst the relatively small homogeneous group of Anglo-Norman consumers.
<table>
<thead>
<tr>
<th>Type</th>
<th>Sherds</th>
<th>MNV</th>
<th>Form</th>
<th>Date (century)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saintonge</td>
<td>1</td>
<td>1</td>
<td>Chafing dish</td>
<td>16th</td>
</tr>
<tr>
<td>Beauvais</td>
<td>2</td>
<td>2</td>
<td>Plate, jug?</td>
<td>16th</td>
</tr>
<tr>
<td>North French redware</td>
<td>2</td>
<td>1</td>
<td>Plate</td>
<td>16th-17th</td>
</tr>
<tr>
<td>Raeren</td>
<td>1</td>
<td>1</td>
<td>Jug</td>
<td>L16th</td>
</tr>
<tr>
<td>Frechen</td>
<td>8</td>
<td>&gt;2</td>
<td>Jugs</td>
<td>16th</td>
</tr>
<tr>
<td>Westerwald</td>
<td>4</td>
<td>1</td>
<td>Jug?</td>
<td>17th</td>
</tr>
<tr>
<td>Seville</td>
<td>1</td>
<td>1</td>
<td>Olive jar</td>
<td>17th</td>
</tr>
<tr>
<td>Late Valencian lustreware</td>
<td>1</td>
<td>1</td>
<td>Bowl</td>
<td>16th-17th</td>
</tr>
<tr>
<td>Liguria: <em>berretino</em></td>
<td>1</td>
<td>1</td>
<td>Plate</td>
<td>L16th-E17th</td>
</tr>
<tr>
<td>Tin glazed earthenware</td>
<td>6</td>
<td>5</td>
<td>3 bowls? plate, wall tile</td>
<td>17th</td>
</tr>
<tr>
<td>Southwark manganese</td>
<td>2</td>
<td>1</td>
<td>Cup</td>
<td>17th</td>
</tr>
<tr>
<td>North Devon gravel tempered</td>
<td>6</td>
<td>1</td>
<td>Bowl?</td>
<td>17th</td>
</tr>
<tr>
<td>North Devon sgrafitto</td>
<td>5</td>
<td>2</td>
<td>Plate, jug</td>
<td>17th</td>
</tr>
<tr>
<td>Bristol/Staffordshire slipware</td>
<td>8</td>
<td>2</td>
<td>Cups</td>
<td>18th</td>
</tr>
<tr>
<td>Staffordshire mottled ware</td>
<td>3</td>
<td>1</td>
<td>Cup/tankard</td>
<td>18th</td>
</tr>
<tr>
<td>Blackware</td>
<td>17</td>
<td>6</td>
<td>4 bowls, lid, cup</td>
<td>17th-18th</td>
</tr>
<tr>
<td>Glazed red earthenware</td>
<td>28</td>
<td>10</td>
<td>3 large bowls, jug, cup, 2 small bowls, dish, 2 slip trailed plates</td>
<td>18th</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>96</strong></td>
<td><strong>&gt;35</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Late medieval and post-medieval pottery.  
(MNV = minimum number of vessels)
Saintonge

Green glazed, white earthenware continued to be made and exported from the Saintonge region in the later medieval period. The most commonly found vessels are chafing dishes with applied face masks which date to the early 16th and 17th centuries (Hurst 1974).

The single sherd found is part of a thick continuous rod (Illus. 1.3) applied as arcaded knobs on the rim of a chafing dish. This is a Type VIII dish and may be dated not later than the mid-16th century on the basis of finds from Plymouth (ibid., fig. 9.51, 52). This type is not commonly found, but a similar rod was recovered at St Peter's Market, Cork (Hurley 1986, 35, fig. 18.4).

Beauvais

This ware dates to the 16th century and is thought to have been produced in the villages of north-west Beauvais, in northern France (Hurst et al. 1986, 106). The fabric is fine and white with green, yellow or brown lead glaze as well as sgraffito forms (ibid.). One of the sherds is the rim of a green glazed plate, with a beaded rim and light grooving inside (Illus. 1.5). The second sherd appears to be the handle of a jug and is also green glazed.

North French redware

Two sherds were identified by Hurst as North French redware. They represent a plate in a red fabric with a green glaze over a white slip (Illus. 1.7).

A jug in similar fabric from Dooneendermotmore, Co. Cork (O'Kelly 1952, 45, fig. 3.8), was examined by Hurst on a visit to Ireland in 1968 and he noted the following to Professor O'Kelly: 'Fine red micaceous fabric with a green glaze on a slip. This is an import from France. Examples are known from Plymouth and other southern English sites but the source is not known. It is likely to be from Normandy or Brittany. Date 16th-17th century'. The piece from Plymouth is noted as 'of a type that is thought to come from unknown source in north-west France' (Hurst 1974, 248). In recent correspondence Hurst has confirmed that the exact source is still unknown.

Twenty-four sherds of North French redware were also found at King John's Castle, Limerick (Sweetman 1980b, 222-3).

Raeren

A variety of salt glazed stonewares were made in Germany in the 16th and 17th centuries beginning in the Raeren (now in Belgium) and Cologne areas. Some or all of the potters later moved: those of Raeren went to Westerwald and those of Cologne to Frechen.

The plain drinking jugs of Raeren were exported to Britain in very large quantities in the late 15th to mid-16th century and are found on every type of site there (Hurst et al. 1986, 194) although they are less commonly found in Ireland.

A single sherd was found representing a 'Seven Electors' panel jug (Illus. 1.1) dating to the late 16th century (ibid., 204). The sherd is glazed in a beige/pale brown mottled salt glaze outside and inside. An oblique bead and reel decorated cordon is bordered by lines of rilling. Above are the ends of three vertical incised lines which would have formed the border of the incised motifs. Below is the upper part of an arcaded panel enclosing the upper torso of a male figure depicting the Bishop of Trier. To the right of the arch, in the spandrel, are the letters TR. A lion mask fills the spandrel to the right.

Panel jugs are rarely found in Ireland and Britain but a semi-complete jug with 'Peasant Dance' decoration was found at the Dominican Priory of St Mary's of the Isle, Cork (McCUTCHEON 1995, 90, fig. 17.1).
Frechen
A grey stoneware was made at this centre, some 10km from Cologne, from the mid-16th to the 19th century (Hurst et al. 1986, 214). The distinctive Frechen mottled glaze developed into a more mottled ‘Tiger glaze’ in the later 16th and 17th centuries (ibid.).

One body sherd was decorated with part of a stylised medallion, encircled with a ladder motif. These date to the late 17th century (ibid., 220-1). A second sherd is part of a jug rim with a mottled grey/brown glaze over cordon and grooving.

Westerwald
This ware was made at a number of centres in the Westerwald area, east of the Rhine, following the move by potters from Raeren in the 1590s (ibid. 221). A single potters guild for the area was formed in the 17th century and the ware was widely traded in the 17th and 18th centuries to America, Africa and the Far East (ibid.).

The fabric is a grey salt glazed stoneware with overall blue-grey glaze, the colour caused by the cobalt in the glaze. Two of the sherd have applied stamped design indicating a date in the 17th century, while the incised design on a third sherd indicates a mid-18th century date (Hurst et al. 1986, 224-5).

Seville
Olive jars were produced in the Seville area from the Roman period to the 19th century and were widely distributed to northern Europe and America in the 17th century (Hurst et al. 1986, 66). The fabric is coarse and pink-buff in colour, often with a white external surface which is a firing discoloration caused by salt (Gerrard et al. 1995, 281). The sherd in this assemblage is unglazed.

Late Valencian lustreware
This ware dates to the 16th to 17th centuries (Hurst et al. 1986, 49). The single sherd recovered was identified by Hurst. It is in a thick, deep buff-pink fabric, tin glazed white on both interior and exterior. The glaze on the interior (concave) side is very decayed and a small band of blue remains, together with the outline of a possible patch of blue. Slight indications of lustre also remain as edging on the blue pattern.

Liguria: berretino
This ware, from Genoa, Italy, dates to the late 16th to early 17th century (ibid., 26). The fabric is a fine buff earthenware, tin glazed light blue with a dark blue design. A single sherd of this ware was recovered, too small to allow the deciphering of the overall pattern. Occasional sherds are found in Ireland, including the large portion of a plate from Waterford (Meenan 1997, fig. 11:20.11).

LATE 18TH - 20TH CENTURY WARES

<table>
<thead>
<tr>
<th>Type</th>
<th>Sherds</th>
<th>MNV</th>
<th>Form</th>
<th>Date (century)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wedgwood basalt ware</td>
<td>2</td>
<td>2</td>
<td>Bowls</td>
<td>L18th-E19th</td>
</tr>
<tr>
<td>Sprigged ware</td>
<td>2</td>
<td>2</td>
<td>Cup, lid</td>
<td>L18th-E19th</td>
</tr>
<tr>
<td>Stoneware</td>
<td>25</td>
<td>&gt;5</td>
<td>Bottles, jars</td>
<td>19th-20th</td>
</tr>
<tr>
<td>China</td>
<td>87</td>
<td>&gt;20</td>
<td>Bowls/cups</td>
<td>19th-20th</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>&gt;29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Late 18th-20th century wares. (MNV=minimum number of vessels)
Figurines

Two ceramic figurines (Illus. 2.1 and 2.2) were recovered from surface clearance. Both are moulded in hard paste porcelain, white glazed with a blue tint; they are probably Bohemian, dating to the late 18th century (M. Dunlevy pers. comm.). In each case the head and lower limbs have been broken off and only the torso remains. The surviving heights of the figurines are c. 39mm and c. 42mm respectively. While both figures are gender neutral, the larger figure (Illus. 2.2) is somewhat more robustly built and so the figures tend to appear male and female. A similar figurine, also from surface clearance, is illustrated in the report of the Isolde’s Tower, Dublin, excavations (Simpson 1994, 86, fig. 41.6).

2. TILES
by Clare McCutcheon

(a) Floor Tiles

One complete two-colour tile (Illus. 3.1) and thirty-nine fragments were recovered, all from disturbed contexts. The typology of the tiles is based on Éames and Fanning (1988). The tiles in this assemblage were examined by the late Professor Fanning and the complete tile (T168) and seven of the fragments (T244-T250) have been published with illustrations (ibid., 113, 117). In addition, five other fragments carry unidentifiable inlay designs (E145:411, 415, 421, 443, 540).

‘Oblong tiles ... were frequently used as frames and borders in pavements composed of plain and decorated square tiles’ (ibid., 16-17). These were sometimes cut into shape before firing but more often scored on a square tile and broken apart later (ibid., 14). Two fragments (427, 441) measure 50mm wide at the upper surface and may have been utilised as square or small oblong dividers between patterned tiles.

Four fragments are large enough to indicate that they are single coloured tiles and these again may be dividers (E145:426, 440, 451, 446). In addition, 451 has been both quartered and scored diagonally in order to be used a filler in small corners. Three other fragments (E145:412, 435, 539) have also been scored, at least diagonally, with just the point of the corners remaining in this case. No inlay slip remains and these may also be plain dividers.

‘The fashion for tiled pavements was introduced from England and France as part of the contemporary embellishments of ecclesiastical building ... Very few of the two-colour designs known in Ireland can be dated with certainty later than the thirteenth century’ (ibid., 6, 29).
(b) Roof Tiles

A total of nine sherds of roof tile were recovered from surface clearance and disturbed levels.

Five sherds of medieval roof tile were recovered with varying traces of glaze remaining. Three of these were probably locally made as the fabric is similar to the Limerick-type pottery fabric. One is the central ridge or knob portion of ridge-tile with stapping on either side to aid in firing (Illus. 3.2). A fourth fragment has a heavy green and brown speckled glaze on a hard near-purple fabric, while the fifth sherd, the edge of a tile, has scant/partially burnt glaze over a soft slate-like pink fabric.

Of the four post-medieval sherds, three are thick sherds (18mm) in a soft red earthenware. One is glazed bright green over a white slip, the second glazed green, and the third glazed brown. The fourth sherd is thinner (8mm) and is reduced with a red oxidised inner surface. The glaze is thick, muddy green/brown and a fragment of applied decoration remains at one corner.

3. THE GLASS
by Clare McCutcheon

A total of nineteen bottles were recovered from surface clearance and disturbed levels. Seven bottles dating to the late 18th century are represented by necks with applied strings. A base, with a high pontil mark and straight sides, represents a further bottle, the fabric of which has become pearlsised. Nine bottles represent mid to late 19th century machine pressed bottles from the Powell and Ricketts factory at Bristol, where this technique was first developed. A small bottle, oval in section and with an internal chute, may have been a perfume bottle while the final bottle was flat based and probably modern.
4. THE CLAY PIPES
by Sheila Lane

The clay pipes from this excavation, totalling 50 bowls or bowl fragments and 292 stem fragments, may be divided into three groups - 17th century, 18th century and 19th/20th century. The majority of the pipes belong to the third group, dating to the 19th/20th century. It is not always possible to identify a specific maker or area of origin for a pipe, as pipe making was a widespread and popular industry from the 17th to the 20th century. Clay pipes were imported to Ireland and exported from Ireland during this period and consequently the style of Irish pipes and makers' marks was often very similar to those of English and sometimes to those of Dutch origin.

The archive contains a table for correlating the illustrated pipes with their museum catalogue numbers.

17th century pipes
The two earliest bowl fragments from this period are unmarked and date to 1640-1680. Illus. 4.1 depicts a small flat-heeled bowl, slightly bulbous in shape with rim milling. Illus. 4.2 depicts a spurred bowl fragment, also slightly bulbous in shape and with a milled rim. Without a maker's mark it is impossible to tell if either was imported or of local origin.

18th century pipes
There is one marked heel fragment of this period (Illus. 4.3). It carries the initials TG incuse on the heel with a simple fleur de lis above and below the initials. This is probably the mark of Thomas Grant of Westbury-on-trym near Bristol who made pipes in the middle of the 18th century (Jackson and Price 1974, 45). Illus. 4.4 depicts another Bristol-made bowl fragment. This spurred fragment carries the initials IE in relief enclosed in a circle of dots on the right hand side of the bowl. Both bowl and mark are typical of the Bristol industry of the years 1770 to 1800.

17th and 18th century stems
Six stem fragments (Illus. 4.5-10) carry designs typical of the 17th and 18th centuries. These consist of lines of milling and other simple geometric motifs enscrolled around the stem. A heel remains on one of the stems (Illus. 4.9) and there is a circular mark of three raised lines on either side of the heel. Another heel surviving on a stem fragment (Illus. 4.10) carries a relief shamrock on one of its sides and a relief line on the other side.

19th and 20th century pipes
(a) imported bowls and stems
There are three bowl fragments of this period with a crowned L mark on the front of the bowl. All three fragments are thin-walled and well finished with fine milling at the rim. The mark is a circular relief stamp consisting of the letter L surmounted by a crown. Each of the three marks varies slightly from the others. The example depicted in Illus. 4.11a carries the largest mark and the least distinct crown. That in Illus. 4.11b carries the smallest mark which is somewhat oval in shape, and that in Illus. 4.11c carries the clearest mark. This is a typical Dutch mark and was in use from 1726-1930 (Norton 1984a, 204). This pipe type is found regularly on Irish sites and it seems that the Dutch made consignments of pipes specifically for the Irish market, as often the spur is decorated with an Irish motif, as was the case at Shop Street, Drogheda (ibid.).

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Illus. 4. Clay pipes.
There are two unmarked bowls of uncertain origin (eg. Illus. 4.12). Both are large, thick-walled and unspurred. A third unmarked bowl (Illus. 4.13) is better made and finished with a polish. It has a narrow stem and bore.

One complete bowl and three bowl fragments are decorated with heavy relief typical of the 19th/20th century (Illus. 4.14-17).

There are two fragments (Illus. 4.18,19) from the White factory in Glasgow. This factory made pipes from 1805 to 1955 and their pipes are found regularly on excavations in Ireland. Both fragments are stamped with batch numbers (73 and 169). One of the fragments (E145:90) is of red clay, a trait of White pipes. A third fragment (Illus. 4.20) is stamped only with the number 303. This may also be a White pipe.

(b) Irish bowls and stems

Three well finished bowls with thick spurs, straight sides, and fine milling at the rim date to the middle of the 19th century. All three carry a hand-applied relief stamp on the front of the bowl. The mark on the bowl in Illus. 4.21 is a small circle enclosing a harp, with the word CORK underneath. The other two bowls (Illus. 4.22, 23) carry the harp stamp (without the word Cork) on the front of the bowl and one of them (E145:339) has a relief I on each side of the spur. These three bowls were probably made at the Fitzgerald factory, Adelaide Street, Cork, which operated from 1836 to 1932 (Lane 1997a). Bowls carrying almost exactly the same mark were identified at the Dominican Priory, St. Mary’s of the Isle, Cork (Lane 1995), in a dump of pipes from this factory. They were dated to c. 1843.

One complete bowl (Illus. 4.24) is decorated all over in a style typical of some bowls of this period. On the right hand side is a harp with ERIN GO BRAGH above and below the harp. On the left hand side is a shamrock with GOD SAVE above and IRELAND below. The remaining surface of the bowl is decorated with shamrock foliage. Another bowl fragment (E145:343) carries a very worn decoration which may be similar in style, with some shamrock decoration identifiable on it. There is a stylised tree design on each side of the spur. E145:181 is a tiny bowl fragment with the lower corner of a harp on it which may also be in the same style as those above.

A large, fairly thick-walled bowl is stamped E GODFREY, TIPPERARY in an oval mark on the front (Illus. 4.25). Edward D. Godfrey is listed in Guy’s Postal Directory of Munster for 1886 as a Tobacconist at Bank Place, Tipperary.

A number of marks on pipes from this excavation can be linked to the Kenneally family factories in Broad Street, Limerick. I am grateful to Mr J. Norton for information on the Kenneally factory in Limerick. Only one bowl fragment (Illus. 4.26) carries the family name. The mark is almost illegible, oval in shape and occurs on the front of the bowl. The bowl is thin-walled and straight-sided with a polished finish and a spur. That part of the mark which is legible reads KENW(or N)ELL across the top of the oval. This is probably the same mark as that on two stem fragments (Illus. 4.30 and 31). These most likely came from the same maker - KENNELLY, LIMERICK. Daniel Kenneally made pipes at 30, Mungrat Street, Limerick from 1856-1894 and Michael Kenneally’s factory was at 28, Mungrat Street from 1866-1881. One bowl fragment (Illus. 4.27) carries an unusual mark. Only a section of the mark remains but enough can be read to identify it as being an exact replica of a bowl from the Waterford City excavations (Lane 1997b, fig. 12:2:37). The Waterford fragment was spurred with the mark on the back of the bowl. The mark had the appearance of being hand engraved and was made up of a bent arm flanked on either side by a shamrock with the letters ENN lightly engraved above the motif. The fragment from this excavation carries the left side of the mark only, with part of the arm, shamrock and letters EN still legible. The
letters ME are barely legible below the mark. A raised arm brandishing a dagger is a trade mark of the Kenneally factory (J. Norton pers. comm.).

The pipe depicted in Illus. 4.28 carries an incuse stamp on the front. This is a circle enclosing a castle of two towers with a flag flying to left of centre on top. The bowl is straight sided, well finished and with fine milling at the rim. This is also a Kenneally factory mark (J. Norton pers. comm.).

Two bowl fragments carry a barely legible mark (Illus. 4.29a and b). This is a cock in relief with the legend 'while I live I'll crow' enclosed in a circle on the front of the bowl. Exactly the same mark was found at Charlotte's Quay, Limerick (Norton 1984b, 314) and at Lough Gur, Co. Limerick (Lane 1983, 75). Recent research by Norton (pers. comm.) has shown this to be a Kenneally mark also.

One stem fragment (Illus. 4.30) carries the word KENNELLY on one side and LIMERICK on the other. A second fragment (Illus. 4.31) carries a portion of these words. Both probably come from the same factory as the Kenneally bowl above.

5. THE COINS AND OTHER METAL
by †John Teahan, Michael Kenny and Clare McCutcheon

Coins

Obverse: EDW R ANGL DNS HYB.
Reverse: CIVITAS LONDON.
Found in Test Square I at 1.20m-1.65m deep.
(Identification by the late John Teahan, National Museum of Ireland.)
Report (1st July 1975) by Dr. Joseph Raftery, Director, National Museum of Ireland, on conservation of coin:

'When, as a first step, the dirt on it was removed, it was found that one quadrant was broken cleanly off the coin and it had been held in position merely by the mud caked on it. The coin was covered by a heavy deposit of silver sulphite (Ag₂S). Close examination
revealed that the entire core of the coin was a mass of white lead chloride/carbonate and that it was, therefore, in a fragile condition. Since the two faces were quite clean and there was a danger of further cracking, it was decided not to expose the specimen to further cleaning but to consolidate and lacquer it.

E145:586. Token. Copper farthing, St Patrick’s money, c. mid-1670s. Thought to have been issued by Dublin Corporation.
Obverse: King David with harp, FLOREAT REX.
Reverse: Standing figure of bishop with mitre (Patrick), QUIESCAT PLEBS. Diameter 24mm. South Trench, depth 0.375m.
(Identification by Michael Kenny, National Museum of Ireland).

Other Metal, by Clare McCutcheon

E145:587. Button. Lead. D. 23.5mm with raised circle (D. 16 mm) on upper surface. Th. 1.5mm. No other distinguishing marks. Poor condition. South Trench 1 at 8-10m, no depth.
E145:585. Pin. Bronze. Incomplete and bent in centre. L. 73mm x max. shank D. 3mm tapering to point D. 1mm. Head broken off, flattened projection remains (L. 4.5mm x Th. 1mm). Some corrosion. Wall Trench, at 31-32m, depth 1.64m.

6. BONE ARTEFACTS
by Maurice F. Hurley

Seven bone artefacts were recovered from the excavation. Two of the objects are brushes (Illus. 6.1 and 6.2), two are fragments of plaques (Illus. 6.3 and 6.4) and two are handles of knives or other implements (Illus. 6.5 and 6.6). All the objects appear to be post-medieval in date.

The brush handles are of 18th or 19th century date. One (Illus. 6.1) consists of a head and handle which are broken but were probably once part of the same toothbrush. The handle is oval in section and highly polished. The other brush (Illus. 6.2) has a broad, flat, parallel-sided head and a flat handle which is ovoid in shape. The end of the handle is broken but there is evidence for a perforation towards the tip. This was probably intended to facilitate suspension of the brush when not in use.

The technique of fitting the tufts in both brushes was similar. These tufts were probably bristles which were packed into multiple perforations that did not go completely through the brush heads. Brushes fitted with copper wire bristle tend to be threaded completely through the head and frequently the brushes are stained green from the decay of the copper. The word ‘SUPERFINE’ (Illus. 6.1) refers to the type of bristle. Brush manufacture was a well-organised craft or even an industry during the 18th and 19th century. MacGregor (1985, 183) records that a London firm was producing almost 9,000 brushes a week in the 1870s. Man-made materials gradually came to dominate the market in the early part of the 20th century. However, bone-handled brushes were manufactured up to the 1930s.

The bone plaques are of uncertain function. One (Illus. 6.4) might be part of a decorative casket mount. This type of applied decoration is usually of medieval date. The plaques were riveted to book covers or caskets and decorated with dot and scribed circles or openwork design. It is more likely, however, that both plaques are buttoners’ bones. Buttons were cut with a centre-bit type instrument from a variety of bones - usually cattle mandibles. Similar pieces were found in Exeter (Allan 1984, 350-1), in King’s Lynn (Clarke and Carter 1977, 313-4) and in Cork city (Hurley forthcoming). Simple circular buttons with central
Illus. 6. Bone artefacts: 1, toothbrush. 2, hairbrush. 3,4 buttoner’s bones/casket mounts. 5,6 knife handles.
perforation were found in 18th century contexts at Skiddy's Castle and Christ Church, Cork (Hurley 1997).

The knife handles are also of post-medieval type. Medieval bone handles were generally pierced to accommodate a pointed tang, while the two handles from this site were riveted either side of a scale or flat tang. Illus. 6.5 depicts a single sliver of bone with four unevenly spaced drilled perforations. There is no indication that it was ever used for its intended function. The other handle (Illus. 6.6) consists of two wedge-shaped pieces of bone of lentoid cross-section, riveted either side of a flat tang. Two iron rivets are in place. An iron sleeve appears to have fitted over the handle at the junction of the handle and blade. The decoration is crude. Both handles may be of 17th to 19th century date.

Catalogue
E145:468. (Illus. 6.1.) Toothbrush. Head L. 48mm (broken), oval in section, 12mm x 4mm. Four lines of holes x min. 21 perforations. Handle oval in section 12.5mm x 8mm tapering to centre 6mm x 5mm (broken). Lightly incised with mark ‘SUPERFINE’. South Trench 1, at 6-8m, depth 0.40-0.50m.
E145:467. (Illus. 6.2.) Hairbrush. L. 152.5mm (incomplete). Head L. 68mm x W. 24mm x Th. 5.5mm. Seven rows of holes, 5 x 21 and 2 x 23 (centre). Handle oval in section, max. W. 22mm x Th. 3mm. Perforation at end of handle D. c. 6mm. North Trench 2, depth 0.84m.
E145:576. (Illus. 6.3.) Buttoner’s bone? c. half of object remaining, probably square originally. Max. L. 28mm x max. W. 15mm x max. Th. 5mm. Semi-circular (D. c. 23mm) depression (1.25mm deep) in upper surface. South Trench 1, beneath sod.
E145:573. (Illus. 6.4.) Casket mount/buttoner’s bone? Fragment, max. L. 15mm x max. W. 11mm. Remains of two concentric circles incised on one surface, 2mm apart. Slight hole on outer circle, possibly placement for scribing adjoining circle. Wall Trench, at 29m, depth 1.70m.
E145:546. (Illus. 6.5.) Knife handle. Max. L. 73mm x Th. 3mm x max. W. 21.5mm tapering to 14.5mm at blade end. Four unevenly spaced perforations, D. 2mm. Polished on upper surface. North Trench 2, depth 1.40m.
E145:577. (Illus. 6.6.) Knife handle. Max. L. 73mm x max. W. 17.5mm x max. Th. 7mm. Two bone plaques, semi-circular in section, either side of a scale tang (Th. 2mm) are held by two rivets. One side of handle is decorated with a panel containing pairs of diagonal lines. Remaining tang L. 34.5mm. Wall Trench, at 0.28-0.30m, depth 0.60-0.75m.

7. THE LITHICS
by Elizabeth Anderson, with Clare McCutcheon

Four lithic artefacts of later prehistoric date and one of medieval date were recovered from excavations at St Saviour's Priory, Limerick. The small quantity of material only allows for a general description of the individual artefacts. These were three chert tools (one unretouched chert flake and two retouched chert artefacts) and one polished porcellanite axe head. The chert artefacts were made on medium/fine-grained good quality black chert and are all in a good state of preservation. The axe head is broken and both the cutting edge and the truncated butt-end are heavily abraded. This abrasion prompts the suggestion that the artefact either lay exposed or was subject to post-depositional movement.

The assemblage seems to represent the residual remains of later prehistoric activity in the vicinity of the site. The use of both faceting and bipolar technology, as found on the chert artefacts, is suggestive of later prehistoric lithic reduction, but neither of the retouched tools is diagnostic to any particular later prehistoric period.
Catalogue

**E145:386.** (Illus. 7.1.) Porcellanite axe head. Butt-end missing. The axe head has been polished all over with the remnants of two flake scars still visible. Probable use-damage, which has removed a flake, is visible on the cutting edge. The axe has straight leading edges and two side facets. North Trench, depth 0.99m.

**E145:561.** (Illus. 7.2.) Flake. The larger of the retouched artefacts is classed as a notched flake and is made on a bipolar flake. It exhibits steep irregular retouch on the ventral surface on the left lateral edge. This retouch has created a relatively broad shallow notch while possible light blunting is also visible on the left dorsal lateral edge, at the proximal end. South Trench at 7.50-8m, depth 1.30m.

**E145:338.** (Illus. 7.3.) Scraper. The second retouched artefact is a small broken end scraper manufactured using the platform technology. It has a finely faceted striking platform. The scraping edge has been executed using steep invasive retouch on the distal end at the dorsal surface. Part of the right lateral edge has broken off. South Trench at 1.40-1.45m, depth 1.60m.

**E145:574.** Not illustrated. Flake. The unretouched chert flake is a small bipolar flake and exhibits a crushed striking platform. Wall Trench at 31m, depth 1.10m.
E145:562. (by C. McCutcheon) Not illustrated. Probably of medieval date. Bracelet. Jet. Circa ½ remaining, circular fragment (max. D. 60mm). Triangular in section, base (W. 6.5mm) roughly finished; outside edge (H. 6mm) rounded to straight inside edge. Wall Trench, at 31-32m, depth 1.64m.

8. A DEMOGRAPHIC SAMPLE FROM ST SAVIOUR'S PRIORY, LIMERICK
by Catryn Power

A total of thirty-two discrete individual humans were identified, of which the majority appear to be of post-medieval date and only two can be ascribed to the medieval period. Grave B, medieval in date, contained one adult female (B22). Grave A, also medieval, contained an adult whose sex remains undetermined (B23). Grave C contained an adult of undetermined sex (B21) which was possibly inserted in the grave in the post-medieval period (Shee Twohig 1995, 121, Ills. 13, 14) A considerable amount of disarticulated bone from individuals of all ages was also present; this came from the disturbance of graves during regular grave-digging. It was not possible to determine to which period they belonged and there was no separation by sex, age or disease. The graves of both adult sexes and children were randomly distributed. Dental attrition can be a good age estimator for the adult age groups but here the almost complete absence of surviving dental remains prevented accurate ageing of adults. In this sample the pubic symphysis and other degenerative indicators were used for ageing. Sex was established from the criteria on the pelves and in their absence the skull and the diameter of the femoral head were used.

In this demographic sample a large percentage (31.25%) were immature individuals and the majority of these were aged under 6 years at death (Table 4). The disarticulated bones of children including neonates were scattered throughout the cemetery. However it was not possible to determine the number of discrete burials. In the sample 25% are adult males, 18.75% are adult females and in 25% the sex was not determinable although the remains were those of adults.

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<td></td>
<td>adult</td>
<td>3</td>
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<tr>
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<td><strong>18.75%</strong></td>
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<td></td>
<td><strong>8</strong></td>
<td><strong>25%</strong></td>
</tr>
</tbody>
</table>

* percentage of the entire sample

Table 4: Number of sexed and unsexed individuals from St Saviour's Priory, Limerick.
The height of 4 females and 4 males could be estimated from the lower limb bones. The average of 160.2cm for the females is greater than that for the medieval and post medieval females from most other Munster sites examined (Power 1994, 99-100, Table II). The average height for the four post-medieval males at this site is 168.3cm which is shorter than those from comparable sites in Munster (ibid., 99, Table II).

Morphological anatomical variations are evident in three individuals. A septal aperture was present in each humerus of one adult female (B4). This aperture occurred on the distal end of the bone. Its aetiology is uncertain and it is found more frequently in females than in males. A wormian or extra ossicle occurred in a disarticulated male skull (B215), between the right parietal and occipital bones. These anomalies are determined by genetic or environmental factors (stress). One child aged 1.5-2.5 years exhibited congenital radio-ulnar synostosis where the proximal ends of the ulna and radius are fused.

A common finding in archaeological skeletal remains is the osteoma. This benign tumour of compact bone is evident on the left femoral midshaft of a mature adult who was probably unaware that this harmless tumour existed.

Evidence of inflammation of the long bone in the form of periostitis is present in seven adults: two females, three males and two persons of indeterminate sex. Periostitis is commonly found in archaeological skeletal remains and is frequently seen in historic Munster (ibid., 108). Periostitis occurs in response to infection as part of a generalized disease such as syphilis or as a result of other conditions such as scurvy (caused by vitamin D deficiency). However, its aetiology is difficult to determine, particularly without specific skull lesions diagnostic of syphilis or dental remains for a diagnosis of scurvy. At this site the tibiae are the most commonly affected long bones, followed by the fibulae and femorae. Periostitis occurs bilaterally in two individuals. One post-medieval man in his twenties (B12) had periosteal new bone and ossified haematomas on all the lower limb bones.

The strains and stresses to which these people were subjected in their daily lives are evidenced on the skeleton in the form of fractures, enthesophytes, osteochondritis dissecans and degenerative joint disease.

Fractures occurred in two individuals. An old, well healed fracture at the junction of the shaft and base of the fifth metatarsal of the left foot, a bone which was associated with B25, was probably caused by the impact of a heavy weight dropped on the foot. In one medieval female (B22) the base of one distal phalanx of the right thumb was fractured and had fused to the medial phalanx resulting in a well healed bone. Subsequently a form of degenerative joint disease, osteophytosis, formed on the head of the articulating metacarpal.

Another injury is present in one man (B45) who was buried in the cloister walk in front of the door between the church and the cloister walk (Shee Twobig 1995, Illus. 10). A dent, 37mm x 25mm, is evident on the left parietal bone of his skull. Some infection was associated with the injury which was healing well. A blow to the left side of the skull from a blunt instrument or missile would have resulted in this type of lesion. Enthesophytes are spicules of bone found on the bone surfaces. They are a result of trauma or infection associated with ligaments. They were found in seven adults in this sample. A variety of adult age groups were affected by these lesions as well as both sexes. Common sites of occurrence are the knee and ankle joints, areas of the body which are subjected to severe strain and torsion. Bending and lifting heavy weights can result in outgrowths on the knee. Walking, particularly over rough terrain or stumbling on cobbled streets, would result in their formation on the ankles. Similar observations were made on skeletal remains from several other Munster sites (Power 1994, 105). At St Saviour's the right elbow is affected in one individual.
<table>
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<th>Age (years)</th>
<th>Comments</th>
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<td>50</td>
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</table>

DJD Degenerative Joint Disease  OD Osteochondritis Dissecans  ATL Antemortem Tooth Loss  
PM Post-medieval M Medieval

Table 5: Catalogue of skeletal remains (35-43 not available for study)
Another type of strain to which the feet were subjected is osteochondritis dissecans. This pathological lesion appears as a cavity on the joint surface. It is caused by strain to the immature joint during adolescence. The proximal phalanx in the big toe of three individuals showed an unhealed lesion. Two males and one individual of indeterminate sex were affected by this type of strain.

Degenerative joint disease includes many different classifications of arthritis though on the skeletal specimen it is difficult to interpret their aetiology without clinical findings. There is great variation in degenerative joint disease between individuals and in the extent and time of development of the disease. Initially cartilage erodes and thins (osteoarthritis), followed by a compensation in the form of bony lipping along the joint margins (osteoophytosis). When the cartilage is completely eroded then the bone surface is exposed and it becomes smooth and polished, resulting in eburnation or an ‘ivory’ appearance (osteoarthritis). This is caused by the friction of bone rubbing against bone. It involves all ages, but with an increase in age there is an increase in the number of joints affected in each person. Degrees of the disease range from mild to moderate for osteoophytosis and mild to severe for osteoarthritis.

Degenerative joint disease is frequently encountered in skeletal collections and it was noted in several individuals at St Saviour’s (Table 2). The disease affected the foot joints of one of the oldest women (B30) and the ribs and spinal column of another (B22). The central thoracic vertebrae of a possible male aged in the twenties (B25) were affected by this degenerative disease.

Nine further subjects had degenerative joint disease, mainly on the spinal column. Four females, four males and one individual of indeterminate sex had lesions on the spine. The parts of the spine most commonly affected in both sexes are the thoracic and lumbar areas, followed by the lower cervical vertebrae. Osteoophytosis is the type of disease on the lower thoracic and lumbar vertebrae whereas osteoarthritis is most common on the cervical vertebrae. Carrying weights on the shoulders would be responsible for the disease in the cervical and upper thoracic region while lifting heavy weights and bending is most likely to cause the lesions in the lower thoracic and lumbar areas. The frequency of occurrence on the spinal column at St Saviour’s was observed on skeletal remains from other Irish towns such as Waterford, Clonmel and Cork (ibid., 106-7). The feet of one person (B9) aged only in the late teens/early twenties were affected by the disease. It occurred in the hands of three individuals, the knees of four, the hips of three and the ribs of three. The elbows of one subject were affected by these lesions as well as the right shoulder of one man. The knees and hips were affected in males more than in females and would suggest the use of these joints in bending and in lifting heavy weights. The ribs were more affected in females, probably due to using the upper part of the body in tasks such as agricultural work.

Another degenerative lesion seen on the spine is the Schmorl’s node. This results from prolapse of the intervertebral disc material into the vertebral body and is evident as a small irregular depression on the vertebral body. This disc herniation was evident on the central and lower thoracic vertebrae of two females from St Saviour’s. This location on the spine was also a common location in the skeletons from medieval and post-medieval Waterford and Limerick and is most commonly found on male skeletons (ibid., 108). The presence of Schmorl’s nodes is indicative of strenuous activity or trauma in adolescence and also in later years, most probably resulting from strains inflicted during bending and when lifting heavy loads. Schmorl’s nodes can also be caused by metabolic disorders.

Traumatic arthritis is evident in two individuals. A healed fracture to the right thumb of a medieval female (B22) had subsequently resulted in mild osteoophytosis. The left humerus, at the elbow joint, of one man (B20) had severe osteoophytosis probably from a fracture which
had healed. He probably suffered from some stiffness at the left elbow joint.

Dental remains are present for only two individuals. One is an adult female and the second is a child aged 7-9 years. Attrition is present on the teeth of these individuals, resulting in loss of enamel on the biting surfaces of some teeth and in dentine exposure. Mild deposits of calculus on the dental remains of the child indicates a lack of oral hygiene as well as the inclusion in the diet of soft foods such as porridges or gruel together with milk foods. The adult female lost at least six teeth in the upper jaw during life due to periodontal disease or due to pulp exposure caused by dental caries or gross attrition. The lower jaw was missing postmortem.

The following contexts contained the disarticulated human bones of adults and children including neonates. All skeletal elements are represented: B4; B5; B16; B24; B27; B32; B35; B38; B57; B66; B71; B76; B77; B80; B83; B85; B96; B114; B133; B146; B147; B148; B162; B168; B169; B172; B178; B179; B180; B189; B192; B193; B194; B197; B201; B202; B203; B204; B212; B213; B215; B218; B220; B221; B222; B232; B233; B235; B239; B253 and B257.

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