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A PETROLOGICAL EXAMINATION OF SOME
EARLY SAXON POTTERY FROM LEICESTER

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Summary

A large group of early Saxon pottery from three sites in Leicester was submitted for a fabric examination. This was achieved partly by thin sectioning and partly by the use of the binocular microscope. Five basic groups were differentiated: (1) granite, (2) sandstone, (3) quartz/quartzite, (4) quartz and (5) one sherd containing organic material. The large number of sherds containing granite or grano-diorite inclusions is particularly interesting and must surely point to the igneous areas of the Charnwood Forest region, only some six miles away, as the most likely source.

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FROM LEICESTER

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[HBMC Ceramic Petrology Project]

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Introduction

Three groups of early Saxon pottery, mostly made up of small plain bodysherds and all recovered from within the city of Leicester, were submitted for a fabric examination. The three recently excavated sites which produced this material are Little Lane, St. Peter's Lane, and Causeway Lane, all located to the west of the High Street and fairly close to each other. All of the sherds, some of them really quite small, were initially studied with the aid of a binocular microscope [x 20]. In addition, a small programme of selective thin sectioning and study under the petrological microscope was also undertaken. The main purpose of the examination was: [1] to confirm the validity of a provisional fabric identification in the hand-specimen previously carried out on the material, and [2] to see if any useful comments might be made regarding the likely origins of the pottery. Munsell colour charts are referred to together with free descriptive terms. Leicester is

situated partly on Triassic Keuper Marl [with beds of sandstone] and Rhaetic Beds, and partly on Jurassic Lower Lias [clays and limestones] and alluvium, with Boulder Clays covering much of the surrounding area [Geological Survey 1" Map of England Sheet no. 156].

Petrology and Fabric

On the basis of the range of non-plastic inclusions seen in thin section, and also identified in the hand-specimen, a number of very broad fabric divisions are suggested here, some of them quite capable of subdivisions.

Granite

The sherds in this group are in a hard, somewhat rough sandy fabric, although a number can be seen to have received some form of smoothing treatment to the surfaces [especially no. [1], and perhaps also nos. [3] and [5]]. Inclusions of golden, or sometimes silver, plates of mica are usually visible, together with felspar and scattered small fragments of igneous rock. The colour is often a shade of dark grey [ranging from 5YR 5/1 to 7.5YR N3/] throughout, although a few surfaces are lightish brown [between 7.5YR 6/4 and 5/4].

Thin sectioning of several of the above sherds shows that each generally contains most, if not all, of the following range of inclusions scattered throughout the clay matrix: large discrete grains of brown biotite, potash and plagioclase felspar, smaller flecks of mica, grains of quartz and fragments of a granite or grano-diorite rock.

In recent years an increasing number of early to middle Saxon pottery from sites mainly situated in the midlands and eastern counties, has been found to have a fabric which contains inclusions of a granitic nature [Walker, 1978; Williams, 1979; together with much unpublished material seen by the writer]. These granitic wares do not seem to account for the majority of Saxon pottery from any one site, and this is also the case for Leicester, but they do appear as a significant recurring minority.

The local Boulder Clays of the region contain a variety of igneous erratics, including boulders of Shap Granite, but it seems rather unlikely that this material would be present in sufficient quantity, either to occur naturally in drift clays selected for potting or to be sought out as a deliberate tempering agent. Alternatively, the nearest appropriate igneous formations to Leicester, and to the other sites mentioned above, are the acid-intermediate intrusions of the Charnwood Forest area [including the Mountsorrel Grano-diorite], which is situated about six miles away to the north-west of Leicester [Hains and Horton, 1969; Worssam and Old, 1988]. While slightly further away are the post-Tremadoc

"diorites" around Nuneaton [*ibid.*]. Taking all this into account, it is looking increasingly likely that the source for all of this pottery must lie close to Charnwood Forest.

Little Lane:-

- [11]. A39 1988 25,002 (146) F34A.
- [21]. A39 1988 25,006 (121) F34A.
- [31]. A39 1988 25,007 (164) F27.
- [41]. A39 1988 25,008 (179) F33.
- [51]. A39 1988 25,010 (211) F36.
- [61]. A39 1988 25,020 (9) F6.
- [71]. A39 1988 25,029 (2) F6.

St. Peter's Lane:-

- [81]. A40 1988 25,001 (1) F107.
- [91]. A40 1988 25,004 (16) F5.
- [101]. A40 1988 25,005 (54) F109.
- [111]. ?A40 1988 25,010 (195) F29.
- [121]. A40 1988 25,019 (367) F121.
- [131]. A40 1988 25,020 (421) F47.
- [141]. A40 1988 25,024 (607) F110.
- [151]. ?A40 1988 25,028 (678) F103.
- [161]. A40 1988 25,031 (1451) F70.
- [171]. A40 1988 25,040 (438) F47.

- [18]. A40 1988 25,042 (217) F28.
- [19]. A40 1988 25,047 (367) F121.
- [20]. A40 1988 25,048 (367) F121.
- [21]. A40 1988 25,049 (367) F121.
- [22]. A40 1988 25,052 (314) F120.
- [23]. A40 1988 25,055 (5) F108.
- [24]. A40 1988 25,057 (54) F109.
- [25]. A40 1988 25,063 (553) F47.

Causeway Lane

- [26]. A475 1979 432 (4) F2.
- [27]. A475 1979 435 (7) F3.
- [28]. A475 1979 437 u/s.

Sandstone

Hard, rough sandy fabric with much quartz and occasional small pieces of sandstone, reddish-grey [5YR 5/2] to dark grey [5YR 4/1] surfaces, dark grey core. Thin sectioning shows fragments of a quartz sandstone scattered about the clay matrix, together with frequent subangular grains of quartz, occasional quartzite, shreds of mica and a little iron ore. Sandstone is frequently encountered in the Triassic formations which surround

Leicester, and so a fairly local source would seem to be suggested in this case.

St. Peter's Lane:-

[29]. A40 1988 25,014 (362) F108.

[30]. A40 1988 25,022 (553) F47.

[31]. A40 1988 25,027 (669) F103.

[32]. A40 1988 25,039 (798) F50.

[33]. A40 1988 25,053 (773) F103.

Causeway Lane:-

[34]. A475 1979 433 (2) F1.

Quartz / Quartzite

Hard, mostly rough sandy fabric, with some scattered inclusions of quartzite, normally shades of dark grey [7.5YR N4/ - 10YR 3/1] throughout. Thin sectioning shows moderately frequent large grains of subangular quartz, some of them polycrystalline, quartzite, shreds of mica and a little iron ore.

The writer is not familiar in detail with the local geology and so, given the reasonably common range of inclusions which characterize these sherds, it is difficult with this limited information to point to a particular source area. Large areas of quartzite are to be found near Nuneaton in the Hartshill Quartzite, for example, and also in the Charnwood Forest region [Eastwood, 1923; Worssam and Old, 1988]. On the other hand, quartzite pebbles do occur in the local Triassic rocks and Boulder Clays. In fact, the sherds in this group could very well have been made in the same general area around Leicester as those sherds containing sandstone noted in the previous group. More work obviously needs to be done on comparing the fabrics of early Saxon pottery in the region before this type of ware can be more or less satisfactorily tied down.

Little Lane

- [35]. A39 1988 25,003 (178) F30.
- [36]. A39 1988 25,004 (161) F19.
- [37]. A39 1988 25,005 (193) F30.
- [38]. A39 1988 25,009 (208) F31.
- [39]. A39 1988 25,012 (346) F52.
- [40]. A39 1988 25,013 (351) F34B.
- [41]. A39 1988 25,014 F34B.
- [42]. ?A39 1988 25,017 (575) F97.
- [43]. A39 1988 25,021 (120) F16.

- [44]. A39 1988 25,024 (112) F16.
- [45]. A39 1988 25,026 (112) F16.
- [46]. A39 1988 25,028 (2) F6.
- [47]. A39 1988 25,031 (2) F6.
- [48]. A39 1988 25,033 (930) F178.

St. Peters Lane

- [49]. A40 1988 25,002 (5) F108.
- [50]. A40 1988 25,003 (11).
- [51]. A40 1988 25,005 (54) F109.
- [52]. A40 1988 25,008 (151) F24.
- [53]. A40 1988 25,013 (314) F120.
- [54]. A40 1988 25,015 (450) F120.
- [55]. A40 1988 25,017 (441) F47.
- [56]. A40 1988 25,021 (449) F47.
- [57]. A40 1988 25,023 (578) F83.
- [58]. A40 1988 25,025 (59) F12.
- [59]. A40 1988 25,029 (683) F103.
- [60]. A40 1988 25,030 (735) F103.
- [61]. A40 1988 25,032 (1078) F58.
- [62]. A40 1988 25,033 (834) F102.
- [63]. A40 1988 25,034 (1093) F117.
- [64]. A40 1988 25,035 (1421) F74.
- [65]. A40 1988 25,036 (1376) F51.
- [66]. A40 1988 25,037 (773) F103.
- [67]. A40 1988 25,038 (1620) F90.
- [68]. A40 1988 25,043 (1677) F90.

[69]. A40 1988 25,051 (314) F120.

[70]. A40 1988 25,054 (362) F108.

[71]. A40 1988 25,056 (54) F109.

[72]. A40 1988 25,061 (54) F109.

[73]. A40 1988 25,062 (11).

Causeway Lane

[74]. A475 1979 434 (25) F3.

[75]. A475 1979 436 (7) F3.

Quartz

This is a mostly disparate assemblage of, on the whole, reduced-coloured sherds, loosely grouped together because in the hand-specimen the principal inclusion type appears to be grains of quartz in frequent, or less frequent, quantity. A small amount of limestone is also present in nos. [77], [78], [84] and [86]. Due to the lack of overall homogeneity and small size of some of the sherds, thin sectioning was not considered worthwhile.

Little Lane

[76]. A39 1988 25,011 (205) F34B.

[77]. A39 1988 25,015 (761) F120.

[78]. A39 1988 25,016 (556) F336.

[79]. A39 1988 25,018 (930) F178.

[80]. A39 1988 25,023 (258) F34B.

[81]. A39 1988 25,025 (112) F16.

[82]. A39 1988 25,032 (2) F6.

St. Peter's Lane

[83]. A40 1988 25,012 (103) F20.

[84]. A40 1988 25,013 (314) F120.

[85]. A40 1988 25,022 (553) F47.

[86]. A40 1988 25,041 (469) F40.

[87]. A40 1988 25,050 u/s.

[88]. A40 1988 25,058 (54) F109.

Organic

Small, hard rough, somewhat sandy fabric, containing frequent elongated voids when seen in fresh fracture, light red [2.5YR 6/6] outer surface and part core, dark grey inner surface and part core. Quite possibly daub.

St. Peter's Lane

[89]. A40 1988 25,009 (162) F26.

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