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D B Gallagher & A Clarke

Burials of possible Romano-British date

from Inveresk, East Lothian

2:A4-14

M K Greig

Excavations at Craigievar Castle, Aberdeenshire

2:B1-C4

GREIG CRAIGIEVAR

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Three hundred and two pottery sherds were recovered during the excavation at Craigievar Castle (not illustrated). For the purpose of this report, the pottery has been treated as a single group because none of the material was recovered from stratigraphically significant archaeological horizons. In the main, the assemblage consists of a large number of 17th- to early 20th-century British and European earthenwares and stonewares represented by few examples which are difficult to date accurately. The only Oriental ware identified is a single blue-decorated sherd from a Chinese porcelain small bowl, of probable 18th-century date.

one of the more interesting larger groups consists of 70 earthenware sherds in orange to grey fabrics, glazed, often only internally, orange to black. Unfortunately it is impossible to be certain how many are of Scottish or Dutch/German manufacture. Many are definitely of the latter origin, as they are clearly body sherds of pipkins or similarly rounded vessels. In addition the leg from a tripod pipkin or jug is typical of German wares. Similar material was found at Scalloway Castle in 1979 and 1980 (Lindsay 1983, 567-9 and fig 6). The Craigievar examples appear to be of 18th- and/or 19th-century date although a few, including the leg fragment, could be of 17th-century date. However, as already stated, some of the sherds can only have been derived from Scottish jugs and bowl-shaped vessels. The accurate dating of Scottish later-medieval and post-medieval material

of this type is notoriously difficult in the absence of other evidence, but the Craigievar examples may well be of similar date to the Dutch/German wares mentioned above. A few shords may even date to the earlier occcupation of the castle although the possibility cannot be proven.

Fifty-three generally small to tiny, sherds of Delftware-type tin-glazed earthenwares were recovered. The fabric is typical, being cream, soft and porous and containing occasional re-brown inclusions. Most of the sherds are from plates with both upper and lower surfaces covered with thick, white, slightly blue-tinged, glaze. Blue decoration, often consisting of geometric and floral motifs set within concentric circles, is present on 22 sherds. One example has been further decorated with purple and yellow. Most of this grouping appears to be of late 18th-century or more probably early 19th-century date, although a few shreds may be earlier. No production centre can be suggested because of the general similarity of the wares made in Britain and Europe.

German stonewares consist of a few pieces of brown-glazed wares of indeterminate date, and a single sherd from a blue-decorated Westervald vessel, probably of the 18th-century. British stonewares include a number of sherds from the late 18th- and/or early 19th-century white salt-glazed vessels, including plates with embossed rims. Shreds of 19th- and early 20th-century brown-glazed cream and grey stoneware vessels such as bottles are also present in the assemblage.

One hundred and three small, often abraded, fragments of clay pipes were recovered from the excavation (not illustrated). Most of the material dates to the 17th- and 18th-centuries, with, on the grounds of remaining decoration and fabric harmess, approximately half the assemblage being or Dutch manufacture.

Specific evidence of British pipes is minimal although the similarity of a few bowl fragments with No's 3 and 5 (Oswald, 1975, fig 5) indicates a possible Scottish origin for some of the material in the second half of the 17th-century.

Few pieces of Dutch bowls are present but decorated stems are slightly better represented. A tiny abraded fragment appears to be part of a moulded stem of 1630-40 while another bears a poorly executed <u>fleur-de-lis</u> stamped motif of 1625-50. In addition there are four examples of Dutch roller-stamp d stems perhaps ranging in date from 1670 to 1774.

THE COINS Stewart Thain

During the excavation four coins were found of which three were Scottish copper pieces of the 16th- and 17th-centuries and the other a 16th-century English silver piece (illus 9). Two of the Scottish coins are of the reign of James VI; a second-issue hardhead (twopenny piece) struck in November, 1588, and a penny of 1614. The late 16th/carly 17th-century was a period in which low-denomination coins became more plentiful after a shortage. It was also the period during which the building of Graigievar Castle took place, and thus a few casual losses of "small change" are exactly what one would expect to find. Both the James coins, though relatively scarce as collector's items today, would have then been in common use in the 1620's, when the construction of the castle was nearing completion.

The discovery of an English silver sixpence of Elizabeth I, dated 1573, is likewise unsurprising. Scottish silver coinage of the 16th- and 17th-centuries, though varied, were mostly produced on a small scale with the result that English and foreign silver filled the gap. Heavy wear on the Elizabethan sixpence suggests that it circulated for a considerable time. before being lost, but its discovery in a well-stratified context within the south wall foundations means that the loss occurred early in the castle-building period. The condition of the coin may be more an indication of its usefulness than evidence of long circulation.

Momentous political events and revolutionary changes in the methods of coin production separate these issues of James and

Elizabeth from the fourth coin, a first-issue turner (twopence) of Charles II, dated 1663. Nevertheless, this coin is simply a continuation of the turners issued by James VI (and Charles I). It is a low-value copper piece of the kind likely to occur as a stray find in almost any context.

The coins :

- 1. English silver SIXPENCE, Elizabeth I, seond issue (with eglantine index mark), date 1573. Obverse: crowned bust, left; reverse: shield over cross fourche, date above shield; weight 2.48 grammes (illus 9).
- 2. Scottish billon HARDHEAD (=2d), James VI, type II, date November 1588. Obverse: crowned letters IR; reverse: lion rampant, two pellets to right; weight 0.90 grammes.
- 3. Scottish copper PENNY, James VI, issue of 1614. Obverse: triple thistle- ad; reverse: lion rampant, single pellet to right; weight 0.59 grammes.
- 4. Scottish copper TURNER (=2d), Charles II, issue of 1663.Obverse: crowned letters CR with figue II to right; reverse: crowned thistle-head; weight 2.06 grammes.

Colvin Greig

THE GLASS

When the total accumulation of 1013 fragments of glass had been processed, it was obvious that the majority of the assemblage consisted of bottle glass. Included in this collection were a number of diagnostic pieces and these can be divided into three groups :- (1) wine bottle rims and bases (2) finer glass (3) window glass.

WINE BOTTLE RIMS AND BASES

The bottle glass ranged in colour from pale olive to midgreen, plus one dark brown base. Through examination of the bottle rims, neck, pontil mark and texture of glass, it was possible in some cases to classify the bottle type and suggest a probable period of manufacture.

DEFINITIONS

The following terms and types are used in the descriptions of the glass:-

Pontil - the iron rod used for the handling and twirling of soft glass. The pontil mark or scar is caused by breaking off the pontil from the centre of the base.

Kick-up - this is the name used to describe the shape and --depth of the bottle base.

String-rim - the ring of glass round the neck on the exterior, below the top of the rim, is applied in earlier glass. Its position in relation to the lip of the neck can help in dating a bottle.

Shaft and Globe - circa 1660 -1680. The later 17th-century shaft and globe bottle has a long straight neck flaring

slightly towards the body. The rim is slightly everted with a string rim below the lip, the body cup-shaped.

Onion Wine Bottles - circa 1680 - 1730. Short stumpy neck with a squat body, wide rather shallow kick-up, bevelled string-rim and flaring of the neck above the string-rim.

Mallet Wine Bottle - circa 1720 - ? By 1730 this wine bottle was very common. Long-necked, its descriptive title describes its shape.

Case Bottle - 17th- to 18th-century. A more or less straight-sided tall, square-shouldered, stubby-necked bottle, often used as spirit glasses. They could be packed in wooden cases hence the name.

Catalogue of Illustrated Glass.

Numbered as illustrated (illus 11)

- 1. Fragment of rim; string-rim near lip, clearly disc-shaped, neck above string-rim outward flaring; top of slightly everted rim folded over lip; olive green tint; late 17th-century.
- 2. Fragment of rim; neck distinctly everted; thin applied string-rim; olive-green tint; imperfections; discolouration due to burial; late 17th-century.
- 3. Fragment of finely made rim; double string-rim; 19th-century.
- 4. Part of neck and rim of an Onion wine bottle; short-necked; string-rim near everted lip; calliper marks beneath string-rim; pale olive green; slightly sandy texture with air bubbles; early 18th-century.

- 5. Short, stumpy neck of an Onion wine bottle; high applied irregular string-rim; olive green tint with imperfections; early 18th-century.
- 6. Neck and rim of a Shaft and Globe bottle; everted rim; applied string-rim; light olive green tint; severe discolouring due to burial; late 17th-century.
- 7. Long, slightly bulging neck; fine high string-rim; slightly everted rim; inner lip of rim shows residue from some type of sealing.
- 8. Broken base of an Union bottle; high-domed kick-up; thick heavy dark olive metal.
 - 9. Broken base of an English Mallet bottle; hammock-shaped kick-up; dark green tint with imperfections; badly discoloured due to burial.
 - 10. Whole base and part a sides of a square-shaped, gren metalled bottle; slightly pushed in base with prominent pontil scar on base. Possible Dutch spirit (gin) "Case Bottle"; late 17th or early 18th-century.
 - 11. Neck of high-shouldered glass vessel; narrow orifice; finery moulded, everted rounded rim; glass texture slightly sandy; green tint; possible glass jug.
 - 12. Short-necked rim of a small medicine bottle; narrow orifice; wide flat lip; clear glass with a green tinge; late 18th-century.
 - 13. Short-necked rim and part of shoulder of a medicine bottle; narrow orifice; wide flat rim; slightly opaque with a pale blue-green tinge; late 18th-century.

In addition to Noll, 12 and 13 there were a number of fragments of thin-walled vessels, some of which had straight-sided bases. Included amongst these fragments were some pieces from wine glass feet and rims but insufficient to merit illustration.

·· Window Glass

Most of the fragments of window glass appeared to come from thin ranes, both rectangular and diamond-shaped. Some of the glass is of a pale green tinge and shows signs of having been shaped by a chipping technique. The clear glass on the other hand had been cut by a cutting tool. The former would suggest an earlier date.

It is unfortunate that the glass is not from significant archaeological horizons. It is, however, interesting to note there appears to be an absence of late 19th- and 20th-century glass. This would indicate that the material used in levelling of the area came from an earlier midden. Much of the glass was discoloured due to burial.

GROUND PROBING RADAR

Abstract

Oceanfix International Limited carried out a shallow depth Ground-Probing Radar survey of an area to the south of Craigievar Castle entrance in order to locate any remains of a barmekin wail. The Craigievar survey was carried out in June 1990 prior to an archaeological excavation taking place. The survey was undertaken over an area 20 m by 33 m in size at a 1 m grid spacing and to a depth of 1.5 m from ground level. The processed data shows excellent on-site correlation with the findings of the later archaeological dig. The radar survey identified numerous drainage features within the extent of the courtyard area as well as the remains of the barmekin wall.

BACKGROUND

Ground-Probing Radar is a non-destructive remote sensing technique which is increasingly used to provide sub-surface information in widely varying media. Oceanfix International are normally involved in the use of GPR for a wide variety of ____ tasks ranging from simple bedrock and soil layering surveys to surveys of building structure. GPR is gaining recognition as a convenient and cost-effective method for providing archaeological information either prior to or in conjunction with traditional excavations. In some cases the use of GPR

can provide an archaeologist with sufficient information without recourse to excavation.

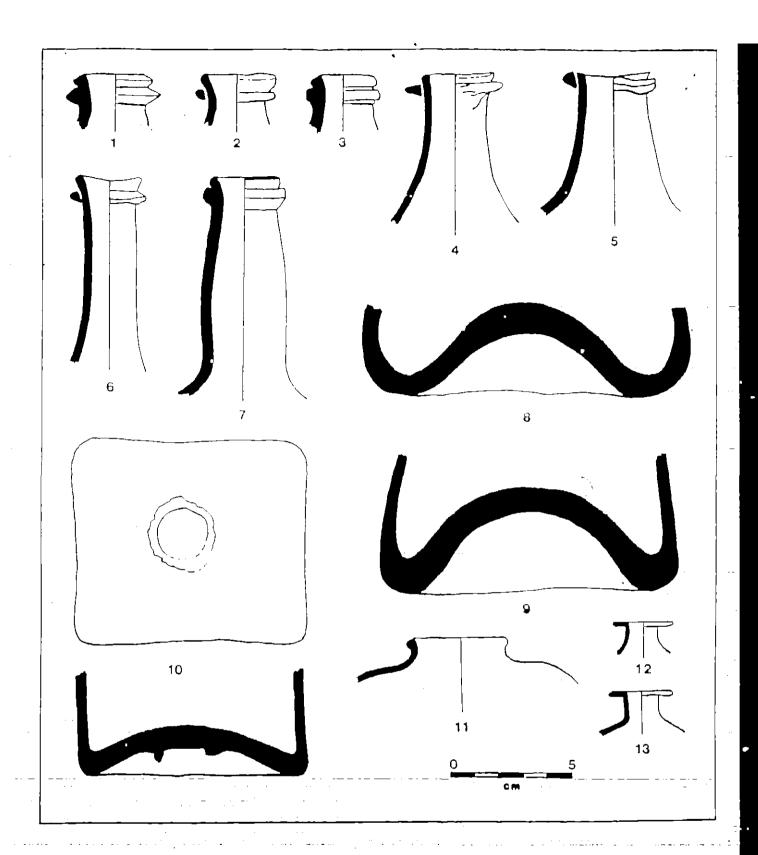
In simple terms GPR operates by transmitting a short pulse of electromagnetic energy into the ground. This energy travels at a speed proportional to the electrical characteristics of the ground material. Where the ground material changes, the speed will change and some energy will be reflected back to the radar transducer. Once processed by the radar electronics, these reflections provide a profile record analogous to ground depth. Depending on the frequency of transducer used and the ground conditions, it is possible to record information to depths of 10 m.

SURVEY DETAILS

The survey at Graigievar Castle was carried out prior to the archaeological excavation in order to try to identify the location of the barmekin wall and any existing remains. The survey was undertaken on a 1 m grid spacing using a transducer with a central frequency of 500 mHz to provide information to a depth of approximately 1.5 m below the ground surface. Once the survey was completed the excavation was carried out on the same grid system in order to allow direct comparison with the findings of the radar survey.

SURVEY FINDINGS

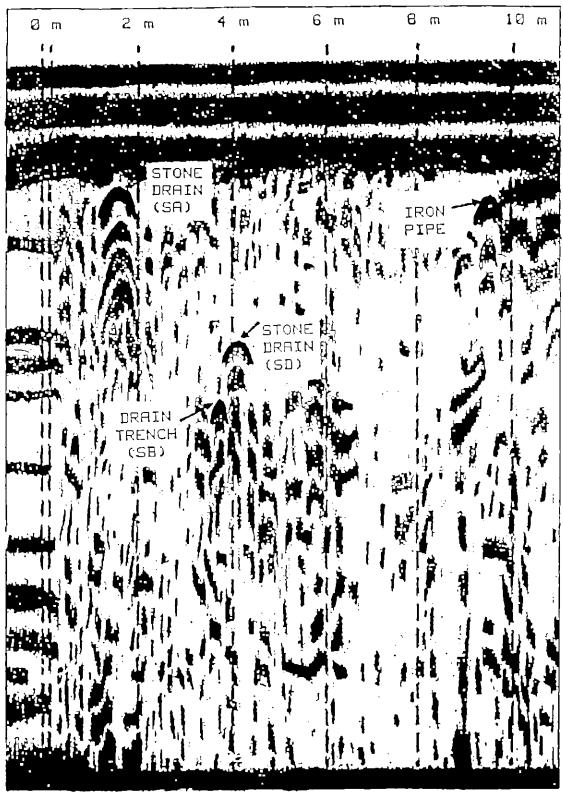
The radar survey data, once processed contained a large number of features of interest. The remains of the barmekin



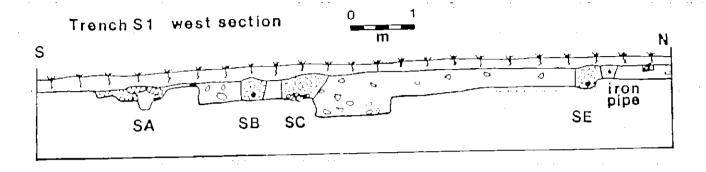
Illus 11

2:B13

GPR RADAR TRACE ALONG LINE OF TRENCH S1 (500 MHz TRANSDUCER)



Illus 12



Illus 13 Excavated section of Trench S1

wall could be clearly identified, in places as a distinct feature, while in others its position was marked by a collection of separate targets which were identified as stones or boulders. This stone rubble was considered to be the remains of the wall due to it following the same linear trend as the distinct wall feature.

The other major features identified during the survey were a number of linear features crossing the site. These were located at various depths. The shallow depth features showed the characteristics of pipes or cabling, while the deeper features were considered to mark the position of pipes, drains and drain trenches.

In places it was possible to identify drainage features crossing the remains of the barmekin wall, the pipes or drains being at the same depth as the wall remains.

These features were plotted on a scale plan of the survey site to allow direct comparison with the archaeological excavation information. Where possible a description/interpretation of the nature of the feature was also provided to aid in the archaeologists' interpretation of the data.

COMPARISON WITH THE ARCHAEOLOGICAL EXCAVATION SITE-PLAN

Oceanfix were supplied with a copy of the sections and plan

drawn during the archaeological excavation, carried out after

the radar survey was completed.

Overall there was a good correlation evident between the two plans, the excavation plans confirming the identification and location of most of the drainage features identified in the radar survey. The location of the wall remains were also confirmed in the excavation plans and correlated with that identified in the radar survey.

The area where the radar identified the wall remains as a number of discrete stones or boulders agreed with a similar area located during the excavation. Illustrations 16 & 17 compare the radar plan with the excavation plan.

There were however some areas where features found during the excavation were not represented on the radar survey plan. The main example of this is where a stone drain had not been identified on the radar survey but was present on the dig plan. When the radar data were re-examined the drain could be identified but was not a clear feature on the radar trace. This had not been identified since the ground surface showed a transition in media from grass to gravel surfacing above the drain, the radar traces at this point being interpreted as showing this transition rather than a combination of this transition and a drain. In certain areas, the dig plans also showed a large volume of stone tumble which was not represented in the radar traces. This tumble can be identified in the raw radar data but it was not recognised as a significant feature by the radar operator.

In illustration, a sample annotated radar trace for trench.

Sl is shown in comparison to the excavation section.

RECOMMENDATIONS FOR FUTURE WORK

With Ground Probing Radar there has to be a degree of interpretation of the data from the survey. It is a function of how the radar works that it can pick up returns from any features within the ground which are different from the surroundings. Radar surveys of an archaeological nature will always require some input from a trained archaeologist between initial data collection and production of survey results. It is clear from the results produced during the survey at Graigievar Castle that Ground Probing Radar can be an extremely useful tool for undertaking archaeological surveys. In an ideal situation the radar operators will interpret the data with some guidance from an archaeologist to provide the correct degree of data filtration so that important details are not overlooked during the radar data processing.