Marches Archaeology

The Church of St Mary the Virgin
Bromfield
Shropshire

A report on
an archaeological watching brief

October 2004

Marches Archaeology Series 359

Archaeological Consultants and Contractors

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NGR: SO 482 768

SMR: 03058

Report by
Jo Wainwright

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Summary

A watching brief at the Church of St Mary the Virgin, Bromfield, Shropshire on remedial drainage works uncovered no features or deposits relating to an earlier church or the monastic complex. The foundation of a buttress was encountered as were two brick lined burial vaults. The number of skeletons excavated is to be expected in the graveyard of a large and important religious establishment.

Fragments of an undated pewter chalice were recovered from the general burial soil. It was quite usual for priests to be buried with a chalice and paten but it was usual for them to be buried on the south side of the church and not the north side. However, it is interesting to note that at Bromfield a priest must have been buried on the north side of the church.

1 Introduction

Repairs and remedial drainage work have been carried out at the parish church of St Mary the Virgin, Bromfield, Shropshire. This project relates to the final drainage works carried out in September 2004. The church is a Grade I listed building (ref: 825-1/4/16) and was formerly the church of Bromfield Priory. The site is situated at NGR: SO 482 768 and is registered on the County Sites and Monuments Record (03057 - churchyard; 03058 - Priory, later Foxe's House) (Fig. 1).

The project was carried out under faculty jurisdiction and the agents for the Parochial Church Council are Wheatley Lloyd Architects. The project is largely funded by English Heritage. Wheatley Lloyd Architects, on behalf of the client commisioned Marches Archaeology to provide the archaeological services required for this drainage project.

No Brief for the works was prepared. All archaeological work was based on standard practice and drew on Briefs produced by archaeological advisors to various Local Planning Authorities.

2 Scope and aims

The scope of the project was:

- observation of all topsoil stripping, other earthmoving and trench excavation until natural subsoil was reached

- the recording of the sequence of soil deposits present and all archaeological deposits and features
- the collection, identification and cataloguing of all artefacts
- if significant archaeology had been identified the archaeologist on site would have informed the client and other interested parties in order that appropriate action may have been taken to minimise the damage to such deposits and to record them appropriately.

The project consisted of the excavation of new drainage trenches around the north and west sides of the church.

The aims of an archaeological watching brief are defined by the Institute of Field Archaeologists as:

> 'to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works'

and:

> 'to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support a treatment to a satisfactory and proper standard.

3 Methodology

Fieldwork

Observations of all ground breaking activity in association with the proposed development were made, and the appropriate recording undertaken. An archaeologist was on site from 14th September 2004 to 17th September 2004. The recording system included written, drawn and photographic data. The primary written record was by means of site notes, accompanied by sketches. Context numbers were allocated and a plan of significant data was made. The photographic record was made using black and white negative and colour transparency film.

Documentary research

No documentary research was carried out for this project as research had been undertaken for earlier projects at the church (Stone and Wainwright, 2001) (Stone, 2002).

Office work

On completion of fieldwork a site archive was prepared. The photographic data was catalogued and the one artefact was submitted for specialist assessment.

3 Site description

The Church of St Mary the Virgin is situated at the confluence of two rivers, the Onny and the Teme. The land drops steeply down to the Onny in the north and there is a more gentle

slope down to the Teme in the south. The churchyard encloses a large area of land and runs from the monastic gatehouse approximately 100 metres to the west of the church to a point over 150 metres in the east. To the south, the boundary of the churchyard is nearer to the church, about 15 metres from the chancel. A wall, running along the southern boundary of the churchyard, forms a retaining wall. A track running alongside part of this wall ends in a field of rough pasture.

4 The watching brief

The trenches and manholes were excavated to a maximium depth of 1.30 metres (Fig. 2). The underlying natural was seen at the base of the excavation along most of the trench [3]. This consisted of clays and sandstone and in places gravels. In the far south of the excavation the natural was seen at a higher level. Above [3] was a layer of light reddish brown gravel in a sandy matrix [2]. This was interpreted as a burial soil and was up to 900mm thick. Disarticulated human bone and complete human skeletons were encountered within [2]. The positions of these were recorded on plan (Fig. 2). These were reburied by the contractor at a later date. Fragments of a pewter chalice were recovered from [2]. Although this must have been initially buried with a body it must have been disturbed by grave digging in the past and was recovered from the general burial soil.

The foundation [4] for a buttress was seen in the excavations (Fig. 2). This consisted of at least two courses of squared red sandstone. The base of this foundation was below the limit of the excavation and the top course was seen directly underneath the concrete path surrounding the church. The width of the feature, as seen, was 700mm and the depth was 580mm.

Two brick lined vaults were partially excavated in one of the manhole excavations. The first [5] was seen about 100mm below the ground surface and was about 800mm thick. The second [6] was seen about 200mm below the ground surface and was about 500 thick.

Above [2] was the topsoil [1], which was a grey brown humic sandy silt with occasional pebbles. This was about 200mm thick.

5 The chalice *by Phil Parkes*

From the analysis of the chalice (see Appendix 1) I would suggest that it is pewter and of a simple design, constructed from a cast and cold worked bowl and base which incorporates a plain stem (without a nobe). The two pieces were joined together using a metal plug. The analysis also suggests that a solder may have been run around the outside then polished down, in order to strengthen the join.

6 Discussion

No features or deposits relating to an earlier church or the monastic complex were excavated. The foundation of one of the buttresses was encountered as were two brick lined burial vaults. The number of skeletons excavated is to be expected in the graveyard of a large and important religious establishment.

The fragments of the pewter chalice recovered from the general burial soil are interesting. It was quite normal for priests to be buried with a chalice and paten but it was usual for them to be buried on the south side of the church and not the north side. However, it is interesting to note that at Bromfield a priest must have been buried on the north side of the church. Dating of the chalice is problematic. The style of the piece is simplistic and therefore undiagnostic and technologically the chalice could date from any period (Phil Parkes, pers comm.).

7 References

Unpublished references

Parkes, P, 2004, *Analysis of chalice from excavations at Bromfield Church,* Cardiff University, Report No. DEV251/1

Stone, R and Wainwright, J, 2001, *The Church of St Mary the Virgin, Bromfield, Shropshire: A report on an archaeological watching brief,* Marches Archaeology Series 174

Stone, R, 2002, *The Foxe House and the chancel rooof of The Church of St Mary the Virgin, Bromfield, Shropshire: A report on building recording,* Marches Archaeology Series 239

8 Archive

The site code is SMB04A. The archive consists of:

2 field drawings on 1 sheet
2 sheets of site diary and notes
2 photo record sheets
1 film of black and white photographic negatives
1 film of colour photographic transparencies
1 box of finds:

The archive is currently held by Marches Archaeology awaiting transfer to Shropshire County Museum Service.

Appendix 1

Analysis of chalice from excavations at Bromfield Church by Marches Archaeology

Background

Cardiff Conservation Services were contacted by Jo Wainwright, Marches Archaeology, regarding pieces of what was assumed to be a chalice which had been discovered during excavations at Bromfield Church. Cardiff Conservation Services were asked to report on the object and carry out analysis to determine the alloy composition of the object.

Condition report

The object, SMB 04A - 2, arrived packaged in a sealed plastic bag and wrapped in bubblewrap. It consisted of two large pieces of lead, or lead alloy, with several smaller fragments and loose dirt. The object was covered with a light layer of dry dirt and corrosion. The large pieces were in a generally good condition, although they had suffered from distortion and small areas of localised cracking / lamination during burial.

Treatment report

Loose dirt and corrosion was removed using a combination of brushes, scalpels and glass bristle brushes. The remaining corrosion is present as a hard thin layer in localised patches, which could be removed in the future if the object is required for display. The object was placed into a clean bag.

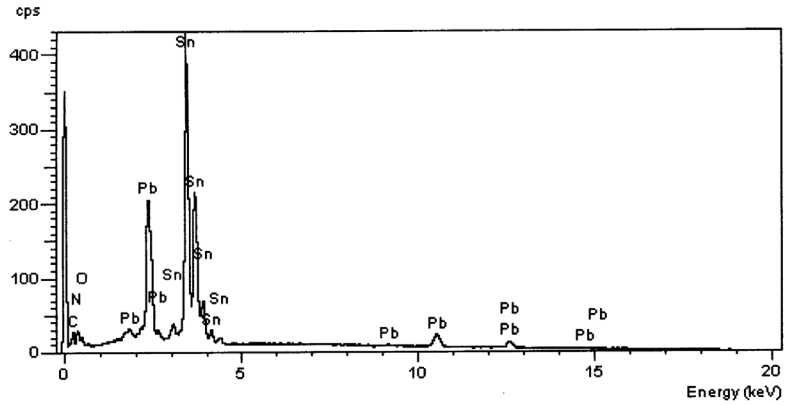
Metal analysis

Small samples of metal were taken from 3 areas for analysis and comparison. These areas were:

- Rim of bowl shape
- Area of stem at join of stem and bowl shape
- Metal plug within stem

The samples were taken using a fresh scalpel blade in each case. These samples were mounted on adhesive carbon discs attached to aluminium stubs for analysis in a CamScan MaXim 2040 analytical scanning electron microscope (SEM) with an Oxford Link ISIS energy dispersive X-ray spectrometer (EDS).

The graph below shows that the samples contained lead (Pb), tin (Sn) and a small amount of oxygen (O), which was due to corrosion products. This would indicate that pewter (lead alloy) was used in the construction of the chalice. This was typical of all three samples.



For each of the three samples a semi-quantitative analysis was carried out to determine the approximate ratio of the Pb and Sn used in the alloy. Calibration was carried out against a cobalt standard and area readings taken at 1000x magnification at 2 different areas of the sample surface.

Bowl-shape

This sample was taken in order to determine the composition of the alloy used in the construction of the chalice. The results were:

Analysis	Sn%	Pb%
1	74	26
2	76	24

This gives an average of a 75:25 ratio for the Sn:Pb mix. A pewter would typically be expected to consist of a mix of 80:20 ratio, although inconsistencies could be expected.

Possible solder area on stem

This sample was taken to assess whether a solder was used at the join of the bowl shape and stem to strengthen the join. The results were:

Analysis	Sn%	Pb%
1	71	29
2	71	29

This gives an average of a 71:29 ratio for the Sn:Pb mix. A lead solder would typically be expected to consist of a mix of 62:38 ratio. Again, inconsistencies could

be expected and it is possible that this would indicate that this sample is possibly a solder rather than the pewter alloy.

Metal plug

Analysis	Sn%	Pb%
1	80	20
2	81	19

This sample was taken in order to determine the composition of the metal plug used to join the stem and the bowl shape. The ratio of 80:20 is more commonly associated with a standard pewter alloy rather than a solder, which would normally be used for a plug such as this.

Design and technology

It is unclear whether the remains are the bowl and stem or the base and stem of a chalice. However, what is clear is that a metal plug remains within the hollow stem and joins the bowl-shaped part to the stem. It is unclear whether the metal plug sits flush on the underside of the bowl shape, or if it has been polished down having been allowed to run through a hole in the bottom of the bowl shape in order to provide a strong join. If the solder within the bowl shape has been polished down flush with the surface then that would suggest that what remains is the bowl and attached stem. The use of the metal plug also makes it likely that this is a bowl, the chalice being constructed using a simple 2 piece construction, with the stem flaring out to form the base. The shapes are likely to have been cast prior to working and joining.

Conclusions

From the analysis of the chalice I would suggest that it is pewter and of a simple design, constructed from a cast and cold worked bowl and base which incorporates a plain stem (without a nobe). The two pieces were joined together using a metal plug. The analysis also suggests that a solder may have been run around the outside then polished down, in order to strengthen the join.

Recommendations for storage and handling

It is essential that the chalice is not exposed to organic acids, such as acetic acid, which can be released from a range of materials (especially wood, in particular oak, birch and beech), as this can result in accelerated decay of the metal and corrosion products. Storage and display should be in containers which are known not to release organic acids.

The object should be relatively stable with regards to temperature and relative humidity. However, if it is intended to kept in long-term storage it would be advisable to store it in a stable, cool environment (15-18C) using silica gel to maintain a low relative humidity (<25% RH) in order to minimise corrosion rates.