A Record of a Well Discovered on land Connected to Merrydown Cottage and The Old Shop, Broad Town, North Wiltshire

Broad Town Archaeology

For

Broad Town Archaeology & History Project

Site Report 2013:1

August 2013

Bob Clarke
Summary

A well discovered on land fronting two properties in Broad Town, North Wiltshire, is the subject of this report. The structure has not been back-filled and comprises a chalk block lined shaft 4318mm (14’2”) total depth. The structure is capped by a substantial stone. It is possible the stone is reused; later tooling marks and slots for the uprights of a winding gear mechanism are present. The well is to remain open.

Broad Town Archaeology

Broad Town Archaeology (formally Broad Town Archaeological Project (BTAP)) is a community based, not for profit, project. It seeks to promote the study of the environs of Broad Town, North Wiltshire by encouraging residents in the area to report finds, support recording and, where ever possible, participate in archaeological work. The project currently feeds into the wider Broad Town Archaeology & History Project; however, the governance of BTAP and later guises remain separate from that project.

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Introduction

On 20 July 2013, Mr Roy Davey reported the discovery of a well bordering his and the neighbouring property in Broad Town, North Wiltshire. The structure was recorded over 27-28 July 2013. This record has been created to enhance the Wiltshire Building Record, Historic Environment Record & Broad Town Archaeology & History Project.

Acknowledgements

Broad Town Archaeology would like to thank the following people who continue to support our efforts, be that through reporting, advice encouragement or cups of tea.

My colleagues Pamela Slocombe of Wiltshire Building Record; David Pollard of the Wiltshire Industrial Archaeological Committee & Jim Gunter of Talits Archaeology. Tony Hack & Phil Hibbard for discussing construction techniques with me. Roy Davey & Glen Morley for reporting the structure and Sarah Clarke who helped with the recording.

Bob Clarke 09 August 2013.
**Location**

**Geology**

*Gault Formation - Mudstone*

Pale to dark grey or blue-grey clay or mudstone, glauconite in part, with a sandy base. Discrete bands of phosphatic nodules (commonly preserving fossils), some pyrite and calcareous nodules. At Munday's Hill, Bedfordshire, the base of the Gault Formation is brick-red mudstone called informally the "Cirripede Bed". In Norfolk, the Gault Formation becomes calcareous before passing northwards into the Hunstanton Formation ("Red Chalk"). In places, thin, variable junction beds at the base include some limestones. The top of the formation is a diachronous transition from mudstone into Upper Greensand Formation faces (glauconitic sand) westward of a line from Sevenoaks (Kent) to Lewes (Sussex). (BGS 2013)

**National Grid Reference**

Three separate readings using a hand held Garmin Extrex was taken on location. A correlated reading places the centre of the capstone at NGR SU 09191 77742 (deviation + 2 m), height 136 m.

**Map Regression**

The earliest Ordnance Survey map, currently available to the project team, indicates the well was extant in the 1880s. Later sheets suggest it had been abandoned by 1920.

**Environs**

Broad Town is a typical North-Wiltshire spring-line settlement with late prehistoric – early Romano-British origins. Around 213m to the north-west of the site an early Bronze Age axe or chisel was discovered in 1998 (Clarke 2000, 238) whilst in 2000 an early Saxon cross-road burial was investigated (Clarke 2003; Clarke 2004) 396m to the south-east. A number of structures dating to the late 18th Century or earlier are in the immediate vicinity of the site under investigation.
Recording Methodology

The structure was recorded by tape measure, 200mm planning frame and digital image. The shaft diameter was measured by suspending a plumb bob from a surveying tripod centrally through the bucket hole.

Archive

The archive will be retained at:

   East Farm House
   Broad Town
   Swindon
   Wilts
   SN4 7RE

An electronic copy of the report and all photographic images will be deposited with:

   Wiltshire County Council Archaeological Services
   Wiltshire Building Record
   Wiltshire Heritage

The two landowners
Construction

General Description

The structure is a chalk block lined well 4318mm (14’ 2”) total depth; 3302mm (10’ 10”) static water level. The structure is capped by a substantial stone of unknown origin; it is between 114.3mm (4½”) & 127mm (5”) thick. The capstone is dressed flat on three sides, whilst the fourth is an almost perfect curve focusing on the centre of the bucket hole. The bucket hole is off-centre to the well shaft and flanked by two rectangular slots – presumably to accept the winding mechanism.

Shaft

The shaft is slightly elliptical at the top with a maximum deviation of 100mm. The average diameter is 877.5mm (max 920mm; min 820mm). The depth of the well is 4318mm (14’ 2”) total depth; 3302mm (10’ 10”) static water level (water level on 27 July 2013). Although the shape of the shaft lining below the first 500mm was not measured, visually there does not appear to be any significant deviation from the shape of the upper shaft; however, three bulges were noted in the side wall. Around two thirds of the way down the sidewall, in the north, bulges into the shaft c. 200mm; as it reaches the current waterline the shaft widens at two points, undercutting the structure (above). This has not been measured.

Shaft Walling

The shaft is lined with a mixture of partially dressed chalk blocks and smaller blocks with a more rubble appearance. Some of the larger blocks have been dressed to take in the curve of the sidewalls. No mortar was recognised, and the gaps between some blocks facing
inward are substantial (15mm +). It was possible to recognise the shaft wall thickness underneath the north-eastern section of the capstone. Here, the laying of later drains reduced the ground surface depth exposing the top layer of chalk blocking under the capstone. At this point, the chalk blocking appears to be c. 150mm thick suggesting the well shaft facing is a single thickness of blocking.

The blocks used to line the construction demonstrate distinct phases of activity – presumably indicating the fact the well was dug and lined over a number of cycles. Courses can be recognised throughout the structure; above the waterline seven are easily recognisable. Whilst the lower reaches of the structure have not been measured a construction series can be offered. Blocks in the first two metres from the capstone fall into two categories; thin = 76mm – 102mm & thick 178mm – 203mm. The thicker ones tend to be faced and show tooling marks; the thinner tend to have a more natural appearance. The sequence runs (from the waterline) in succession i.e. thick; thin; thick; thin; thick; thin; thick. The final few courses are one thin; one thick; one thin. This fits well with the suggestion that such structures were often built in phases (T. Hack & P. Hibbard pers comm). A shaft would be sunk so far, and then wall lined. The shaft would be sunk further, and again wall lined. Indeed it is tempting to see each change of lining as an indication of a days’ worth of work.

Figure 2. Detail of top three layers of well lining and undressed underside of capstone. Dimensions of block in centre 330mm x 156mm
Capstone

The capstone is a substantial monolithic block of stone. It is partially shaped and dressed on the upper surface; the lower is particularly rough, presumably representing the original surface on both sides. A central hole, or eye, provides access to the well shaft, this is flanked by two rectangular slots presumably intended to support the winding gear. Substantial smoothing of the stone across the S/W demonstrates the position that people stood when drawing water from the well.

Figure 3. General layout of capstone in relation to later drainage and house.

General Shape

The capstone demonstrated two separate episodes of shaping. The primary appears to be the curved rim around approximately 40% of the stone. The second is three straight edges, dressing the stone for a different purpose. The stone is an average 114.3mm - 127mm (4.5” - 5”) thick. There are a number of chisel marks in the upper surface; three in the northern sector are particularly noticeable.
Episode 1

The curved edge is exactly 609.6mm (24”) from the centre of the hole or eye. There is also enough stone remaining to suggest it may have been possible to dress out a complete circle originally. It is tempting to interpret the capstone as a partially completed millstone. The sizing of millstones is problematic (Tucker 1977, 4), however, a suggested size of 4 ft (1219.2mm) is certainly within the bounds of a functional millstone size (ibid). Where the rim is exposed it has been chamfered.

Episode 2

The capstone has three straight edges; these are likely to have been fashioned as the stone was laid down to cover the well. Those edges to the S/E (853mm) & S/W (1403mm) may well have been relatively recent – possibly when the house was refurbished in the second half of the 20th century. That to the N/W (630mm) is more complicated as it is rougher and has dislodged a corner. It is suggested that all three sides are later episodes.

Central Hole or Eye and Winding Gear Slots

The central hole, or eye, is slightly elliptical, N/E – S/W 406.5mm (16”) N/W – S/E 419.1 (16.5”). Both upper and lower corners are chamfered; no specific rope cuts were noted. The hole is flanked by two rectangular slots – presumably these held the winding gear to lift a bucket. Both appear uniform; however, there is a slight deviation in the dimensions. Slot 1 was 76.2 mm (3”) wide; 127mm (5”) along the N/W side; 114.3mm (4.5”) along the S/E. The capstone was 114.3mm (4.5”) thick at this point. The slots retained the same length throughout the thickness of the capstone but were 12.7mm (0.5”) narrower inducing a slight taper. Slot 2 followed a similar pattern; however, the feature was 63.5mm (2.5”) wide at the top; 57.15mm (2.25”) at the bottom. The capstone was 127mm (5”) thick at this point.

Figure 4. General image of central hole and associated winding gear. Slot 1 (left); Slot 2 (right).
Later Cuts

There are a number of later cuts shaping the stone; three have been described above; an additional one requires elaboration here. In the eastern sector of the capstone, a large notch has been chiselled into the stone. This was later blocked by a small sarsen (W90mm x L183mm x D101mm) and below that brick rubble. Laid next to it is a concrete matrix overlaid by a tarmac surface. It would seem this slot was cut to accept a drain pipe, presumably from roof guttering. This suggests the well was not used for drinking water when this happened.

Figure 5. Notch cut to accept drain pipe. Later blocked with a small sarsen and concrete.
Discussion

Wells, pumps and springs were a vital part of everyday activities until extremely recently; with that in mind it is not surprising one has been discovered close to the centre of the old village. The Ordnance Survey Sheet ‘Wiltshire XXII. 5.’ indicates four in close vicinity to each other in 1900 along with at least two pumps and two springs, it is likely more were in use in the 18th & 19th Century. Indeed the house dates from the early part of the 19th century (although it may have earlier components); suggesting the well has an antiquity of similar age.

The construction of the shaft and subsequent lining is typical of local construction techniques. Many structures in Broad Town, Broad Hinton and surrounding settlements appear to have elements of chalk block in their construction. It is likely then that construction material originates from similar outcrops to the south of the site. Ascertaining the true origin of the capstone has been more difficult. It is clear the stone is not sarsen (Jim Gunter pers comm.) however it has not been possible to determine the geological type. Furthermore, the shape of the capstone sparked considerable debate. Initially it was thought the shape of the stone suggested this may have been a partially fashioned millstone. However, caution has been suggested as large stones are often used in the capping of wells (Pam Slocombe; David Pollard pers comm.).
Bibliography


Clarke, B. 2000, A Miniature Flat Axe or Chisel from Broad Town, North Wiltshire, Wiltshire Archaeological and Natural History Society, Volume 93, pp 238-239.


Appendix One

Additional Detail Imagery

Winding Gear Slot Detail

Figure 6. Slot cut into capstone on northern side of central hole.

Figure 7. Slot cut into capstone on southern side of central hole.
Figure 8. Central hole cut through capstone – note smoothness.

Figure 9. Oblique profile of central hole cut in capstone.
Lower Surface of Capstone

Figure 10. The underside of the capstone in the vicinity of the southernmost winding gear slot.

Figure 11. Later drainage arrangement between the well and house.
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