



Fig. 1: Stukeley's engraving of Caesar's Camp at Hounslow Heath, 1723 (Stukeley 1969, engraving 60)

How useful are antiquarian drawings in locating and interpreting archaeological sites?

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Antiquarian drawings and descriptions of particular sites are often used to locate and to illustrate what they may have looked like in the past. Thus, these materials can affect how and where excavation or survey is carried out on a site. These 'historical' sources are also used in site interpretation, to date sites and associate them with particular cultures. The drawings are often employed as authoritative 'eye-witness testimony' to back up an author's opinion; for example, Woodhouse's interpretation of the Roman camp at Shepperton as a 'homestead moat' is based on a drawing by William Stukeley.¹

This paper proposes a methodology to critically evaluate the veracity of antiquarian drawings. The method was developed for the author's BA dissertation² by carrying out a micro-analysis using a selection of drawings by William Stukeley and John Aubrey of archaeological sites in Greater London,

and then checking the results against comparable modern data. The study demonstrated that there are aspects of these two authors' styles that can consistently be considered to be accurate, as well as some that can consistently be considered inaccurate. Further work in this field is necessary to understand fully the validity of antiquarians' drawings to location and interpretation of archaeological sites.

A lack of further survey or excavation, or recent destruction, can often mean that antiquarian drawings are the only illustrative data, and sometimes the only information, available for a particular site. However, the historicity, historiography and reliability of antiquarian drawings have not been assessed in the same ways as have historical, art historical and literary sources. Uncritical use, or misuse, of these drawings as 'eye-witness testimony', and unquestioning acceptance of their accuracy and

veracity as source material, may bias archaeological research design, fieldwork and interpretations. There is no professional consensus as to the accuracy and reliability of these sources, and no explicit best practice for their use. These circumstances permit antiquarian drawings to be interpreted in ways varying from their uncritical acceptance as an accurate representation of a site, to dismissal as an untrustworthy manifestation of the 'antiquarian mind'. Thus, treated unsystematically and without critical rigour, these sources can be cited in support of many, conflicting interpretations or simply dismissed out of hand. This relegates what could be used as significant source material to the domain of fiction, or worse, transforms inaccurate, romantic 'capriccio' into documentary evidence.

Primary historical sources are often necessarily subjected to critical analysis to ascertain (as far as is

epistemologically possible) their accuracy, reliability, veracity, validity and objectivity. This process evaluates how they may best be used, as well as their limitations, which are of prime importance to their interpretation. Authors of historical primary sources may acquire positive or negative reputations for authority, depending on their perceived accuracy and objectivity. Such reputations may seriously impact on the credibility of their writings, which further impacts upon the credibility of any publications in which they are used. Antiquarian drawings may be an excellent primary

source when subjected to proper critical treatment, but must receive the same degree of scrutiny as other primary sources before they can be relied upon as credible, especially if the site they illustrate no longer exists and cannot be reassessed.

The study from which this paper originates devised a methodology for analysing the accuracy, reliability and objectivity of antiquarian drawings. As a sample of drawings from the ‘Antiquarian Period’ (c. 1600 – c. 1920) documents selected for analysis were limited to the Greater London area, and to the work of two well-known, near-

contemporary British antiquarians: John Aubrey (1626–1697)³ and William Stukeley (1687–1765).⁴ These two individuals drew the same sites and lived at about the same time, allowing them to be assessed individually, but also to compare their drawing styles and accuracy. This latter consideration indicated whether there existed any set conventions for depiction at that time, or the extent to which their recording methods were a product of personal stylistic preferences and artistic skill. The study could therefore assess the ways in which these considerations might guide modern archaeological use of their drawings.

For each antiquarian drawing, archaeological and natural features, and features that may still exist in the modern landscape, were recorded and described. The information presented in the drawings was then compared with excavation or survey data from those sites. Where both authors had drawn a site, an additional cross-comparison was made between them. From these comparisons, it was possible to form views on the accuracy of each author, the aspects in which they excelled and factors they choose to omit. This indicated how consistent the authors’ accuracy, style and objectivity were, and the factors that influenced their attention to accuracy and detail, which included their interest in the site, artistic flair, archaeological interpretation and other influencing and bias-prone considerations. The observations made in this study can be applied to drawings of other sites that have not received recent archaeological study, or have been destroyed. This information will better enable archaeologists to understand these primary sources and how they can be best used, as well as creating a ‘reputation’ for these two authors’ veracity and reliability that is based upon informed critique, rather than assumption.

A key problem when locating antiquarian drawings in the modern world is one of scale. Often the only scale on antiquarian drawings is a measurement in paces. A major question is, therefore, how long is a pace? A pace can be measured per one step, or every two, and is only a valid form of measurement if the pacing is kept consistent. Since everyone has a

General Information	
<i>Type of document</i>	Engraving from <i>Itinerarium Curiosum II</i> (Stukeley, 1969, engraving 60).
<i>Title</i>	“Caesars Camp on Hounslow Heath”
<i>Author</i>	William Stukeley
<i>Date</i>	18th April 1723
<i>Orientation</i>	Oriented with north at the top of the drawing, indicated by a compass in the centre of the enclosure.
<i>Perspective</i>	The perspective of the drawing suggests it is drawn from higher ground to the south, looking down on the enclosure.
<i>Scale</i>	None
<i>Annotations</i>	None
Archaeological features	
<i>Bank and ditch</i>	Large rectangular bank and ditch enclosure with rounded corners, shaded to indicate the curve and depth. It is impossible, however, to have an accurate understanding of the size of the enclosure, bank or ditch due to the omission of a scale. The angled perspective of the drawing also means no accurate assumptions can be made as to the overall size.
<i>Entrances</i>	Four entrances are shown in the centres of the north and south banks; in the top of the west bank; and at the bottom of the east. All appear of similar width; however, due to the perspective, the east and west entrances can not be seen clearly.
<i>Other archaeological features</i>	There is what appears to be a smaller ditch running near the east side of the enclosure. The drawing quality of this feature is not very good; however, its shading is consistent with that used to depict the enclosure ditch, so it is assumed to be another ditch. Without annotations it is hard to know if the feature is ancient or contemporary. Its angle is offset from that of the main enclosure, and runs as far as the east-west road.
<i>Key letters and Keyed Features</i>	None
‘Antiquarian’ and Natural Features	
<i>buildings</i>	A series of buildings, probably houses.

Table 1: data relating to Fig. 1

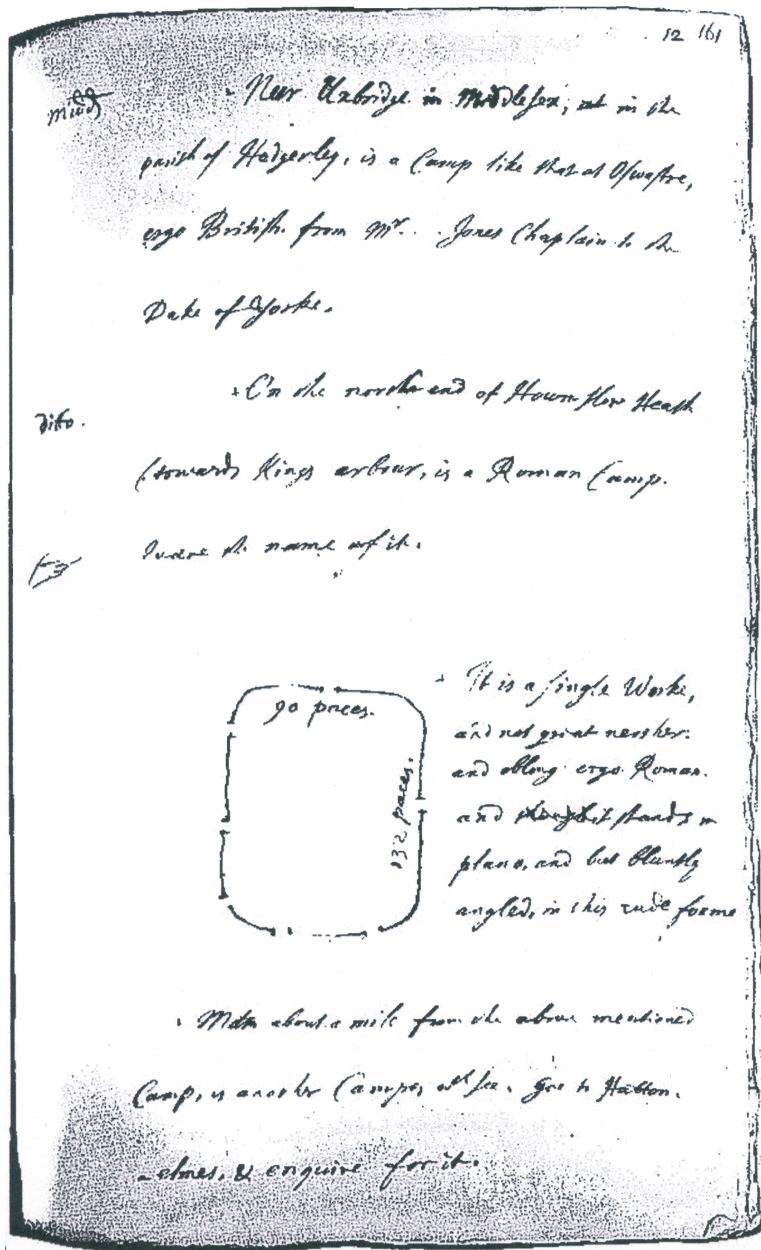


Fig. 2: Aubrey's sketch of Caesar's Camp at Hounslow Heath (Fowles 1980, 295)

different pace, it is important to know the length of that of any one individual. An adult's average single pace is generally considered to be 0.8 m, and a double about 1.5 m⁵. It was critical to know whether Aubrey and Stukeley measured in single or double paces, whether they did so consistently, and whether their pace size was consistent. To calculate the length of each antiquarian's pace, the number of paces recorded on the drawings was divided into the actual length of sites recorded in modern excavation reports. This gave an approximate pace length, but also showed whether the antiquarian's measurements of a site were of the same size ratio as the scientifically measured data.

If each antiquarian was consistent in pace length and counting method at sites that can be compared with modern data, it is likely that the same holds true for sites without modern data. If they were also consistent in the ratio of the site's dimensions, it is likely that for sites without modern data the pacing is a good representation of the site's actual size. If the ratios are consistent, this also suggests that the antiquarian was competent in identifying site boundaries, and would have done so on all sites.

This paper presents, as a case study, one site: 'Caesar's Camp' at Hounslow Heath. As can be seen from both the drawings and tables, the style of each

antiquarian drawing and the information within them, differ.

It is evident that there are certain fundamental informational flaws in Stukeley's 1723 drawing (Fig. 1). The drawing's perspective and lack of scale mean that this picture cannot be used to determine where exactly the enclosure is, or its dimensions. People and livestock were included presumably to give a sense of size and scale; however, they cannot be used for accurate measurements or indicate anything more than that the enclosure is large. The lack of annotations or a key prevent clear identification of some features, for example whether the straight feature is definitely a ditch, and whether it is archaeological or antiquarian. The village in the background and the destination of the road are not named.

Thus, *on its own*, this drawing tells us only that there was, in 1723, a rectangular enclosure, believed to be a Roman camp, somewhere on Hounslow Heath. The enclosure had four entrances, two of which possibly were not original, related instead to a road running across the enclosure. The earthwork was within view of another road and near a series of houses to the north of the earthwork.

Aubrey's drawing (Fig. 2) presents a bird's-eye plan of the site, which, although not to scale, records the size of the site in paces. The drawing alone only records the site's size, shape, and entrances. The annotations suggest the site stands on flat ground somewhere on the north end of the heath, near Kings Arbour.

Caesar's Camp, located 300 m south of the A4,⁶ was excavated by W.F. Grimes in 1944 before being destroyed to make way for Heathrow Airport.⁷ Grimes describes the site in 1944 as being "...so ploughed that its bank was only clearly visible as a low broad ridge on east, west and south, and was barely visible on the north. The bank was no more than 18 inches – 2 feet high. The ditch was unrecognisable. The outline appeared to be rectilinear, but in the state of the site even this was not easy to decide. The single simple entrance was on the south side. It was visible as a slight break in the ridge, and was made more conspicuous by the fact that the light material of the rampart which had been

brought to the surface by the plough was not visible in it".⁸

Although the bank had been almost totally ploughed out by 1944, an impression of its size and shape remained and is shown on the excavation contour plan (Fig. 3). Excavations showed the enclosure to be approximately rectangular, bounding a space measuring 110 m east–west by 100 m north–south. A section was excavated through the bank and ditch on the west side, where remains of a gravel rampart extended 8.23 m inwards from the ditch, but plough damage had reduced the bank’s original width. The ditch measured 7 m wide and 2.44 m deep. The southern entrance was partially excavated, although it was impossible to ascertain its exact width. Although there is no

direct dating evidence for the earthwork, it is believed to be Later Middle or Late Iron Age, indicated by the settlement found within it.⁹

It is evident that Figs 1 and 2 show considerable differences between themselves as well as when compared to modern information; however, there are similarities between the three sources. Both figures and the modern excavation record a rectangular earthwork with a single bank and ditch. However, the 1944 excavation states there is only one entrance, situated at the south of the earthwork. Although all the antiquarian figures show more, it must be remembered that some may not be archaeological. It is important to note that both drawings show an entrance corresponding to the modern excavation, so the site’s shape appears

to have been accurately portrayed. Comparison with the excavation does not explain the other entrances shown on the drawings, nor does it explain why the drawings disagree on the number and locations of other entrances. It is therefore impossible to know whether these other entrances were contemporary with the site or whether both Stukeley and Aubrey misinterpreted dips in the bank as entrances. This informs us that both authors portrayed the site’s layout consistently; however, we cannot tell from these drawings which was the original entrance. Although in this instance the question of which entrance was original is immaterial due to the presence of modern archaeological data, this vagueness in drawing detail must be considered when interpreting drawings of sites we cannot excavate.

Both Fig. 1 and Grimes’s report indicate the site is oriented due north, suggesting Fig. 1 is oriented correctly. The perspective of Stukeley’s drawing suggests it was drawn from raised ground; however, Fig. 3 and the 1891–1912 OS Map locate the site in a relatively flat area. Since the higher ground implied in the drawings does not exist, presumably the false perspective was added by Stukeley. The perspectives he chose are artistically understandable; they enable the viewer to see the whole site; however, if the perspective was fabricated Stukeley must have guessed how the site would look from such a perspective. His credibility in this instance decreases.

It is conceivable that Stukeley’s ‘artistic flare’ hindered producing factual representations, a theory supported by his inclusion of large amount of details that a lack of annotation and scale, and misleading perspective, render less useful. Thus, his reliability and consistency is questionable not only in this instance, but in all his work.

Although there is no date on Fig. 2, Aubrey collected material for this work between 1665 and 1693, and the site was probably sketched about 1668.¹⁰ This drawing, although simpler than Fig. 1, is more informative. It gives an idea of size in paces, offers more comprehensive perspective, and is a clearer representation of the site than that of Stukeley, highlighting Aubrey’s

General Information	
Type of document	Sketch from the manuscript <i>Monumenta Britannica</i> (Fowles, 1980, 295).
Title	None
Author	John Aubrey
Date	None
Orientation	None
Perspective	Bird’s eye view
Scale	None
Annotations	<p>“On the north end of Hounslow Heath towards King’s Arbour, is a Roman Camp. Query the name of it”.</p> <p>“It is a single work, and not great neither, and oblong ergo Roman and it stands in plano [flat ground], and but bluntly angled, in this rude form.”</p> <p>“Memorandum about a mile from the above mentioned Camp, is another camp,... Go to Hatton Elmes, and enquire for it.”</p>
Archaeological features	
Bank and Ditch	The perimeter of the bank is shown, with the entrances shown breaking the bank. However, Aubrey makes no note of a ditch on the plan, or in the annotations. The enclosure is noted as being 132 paces by 90 paces.
Entrances	There are seven entrances depicted: one on the top bank; one on the right; two on the bottom; and three on the left.
Other Archaeological Features	None
Key letters and Keyed Features	None
‘Antiquarian’ and Natural Features	
Buildings	None
Roadways	None
Rivers	None

Table 2: data relating to Fig. 2

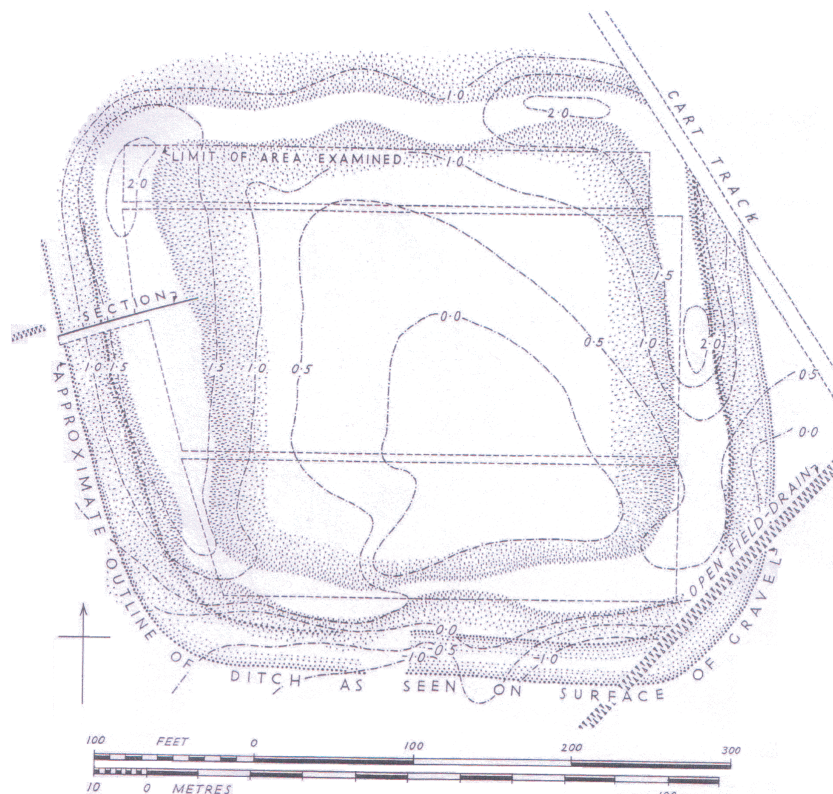


Fig. 3: contour plan of Caesar's Camp, Hounslow Heath (Grimes 1993, 311)

more straightforward, almost scientific approach to his recording. However, it provides no orientation and, like the other, only a rudimentary location.

Stukeley mentions that he and the Society of Antiquaries measured the site in April 1723.¹¹ This fieldwork may be represented by the men holding a chain in the bottom right of Fig. 1. The site is recorded as sixty paces square,¹² although the site and his drawings look rectangular. This measurement is recorded within the same volume as the drawing but not attached to the drawing itself, so cannot be considered as information accompanying the drawing, since these measurements would not be apparent, nor would there be any way of determining them from the drawing alone. However, although not accompanying the drawing *per se*, this information aids forming an understanding of Stukeley's pacing, and can be compared to the excavation to

inform our opinion of Stukeley's veracity.

The excavation measured the area enclosed by the ditch as being 110 m east-west by 100 m north-south; Stukeley as 60 paces square. This indicates that Stukeley's paces measured 1.8 m east-west, and 1.6 m north-south. This inconsistent pacing casts doubt over his estimate of site sizes. These are very long paces, suggesting both that he may have counted double paces and that he probably had a large stride. That he believed the site to be square also indicates that he probably had not discovered the true extremities of the site. Aubrey measures the site as 132 paces long by 90 paces wide, or a pace length of 0.8 m east-west and 1.1 m north-south. Again this shows a discrepancy in the pace length, but suggests Aubrey measured his paces singly.

The assessment of these and other drawings by Aubrey and Stukeley has shown that these authors consistently portray the site's shapes with a sufficient degree of accuracy for archaeologists to trust their validity. The drawings are also accurate enough to indicate a site's approximate location. However, although other aspects of the drawings, such as size, orientation or attributed date, may be correct there is no consistency of the information in the drawings that would indicate whether it is accurate without comparing the drawing to modern data.

Drawings by both Aubrey and Stukeley can, with a few exceptions, be trusted as portraying sites that do or did exist, and in an approximately accurate location. However, any other information given on the drawings cannot be assumed to be accurate. In Stukeley's case, we can make some assumptions as to what will be inaccurate, such as the orientation, which will be shown if the drawing is oriented north, but the earthworks will often be misaligned to orient north also, and an orientation is not given when the drawing is not oriented north. It also became apparent during the course of this investigation to tread with caution if Stukeley had directly linked a site to an historical text, such as in the cases of Shepperton, Greenfield Common and The Brill.

I have raised my concerns about the ways in which antiquarian drawing are uncritically used, and have created a basic set of criteria for comparative analysis and assessment of the information within drawings of this nature, that goes some way to rectifying this problem. Although I have necessarily focused on a selection of drawings of sites in the Greater London region by two antiquarians, these criteria could, in the first instance, be applied to any antiquarian drawing of archaeological interest. Such critical scrutiny will reap rewards.

1. W.C. Woodhouse 1963. Information from the Surrey SMR, SMR No: 2045 – Site of an Old Manor House – Alleged Roman Camp. Accessed 27th March 2006.

2. S. Ritchie *Of what use and value are Antiquarian drawings to Archaeologists on a practical level?* Unpublished BA dissertation, University College London Institute of Archaeology.

3. J. Fowles (ed) *John Aubrey's Monumenta Britannica or a Miscellany of British Antiquities. Parts 1 and 2. Compiled mainly between the years 1665 and 1693.* (1980).

4. W. Stukeley *Itinerarium Curiosum: or an account of the antiquities, and remarkable curiosities in nature or art, observed in travels through Great Britain.* Volume II. (1969 reprint of the 1776 edition).

5. J.W. LeBlanc 'Where: Measuring distances by pacing' retrieved on 22nd April 2006 from: <http://www.cnr.berkeley.edu/departments/espm/extension/PACING.HTM>

6. TQ 084 766.

7. J. Cotton 'Introduction' in W.F. Grimes and J.

Close-Brooks 'The Excavation of Caesar's Camp, Heathrow, Harmondsworth, Middlesex, 1944' *Proc Prehist Soc* 59 (1993) 304.

8. *Ibid.*, 307.

9. J. Close-Brooks 'Discussion of the site' in *op cit* fn 7, 331–2, 334; W.F. Grimes 'The Excavation' *ibid.*, 309–312.

10. *Op cit* fn 7, 306.

11. *Op cit* fn 4, 2.

12. *Op cit* fn 4, 8.