

Archaeology is destructive by its nature, and therefore it is essential that every project uses methods that will provide a wide range of high-quality data in order to preserve as much of the archaeological record as possible before it is lost. The Chartered Institute for Archaeologists (CIfA) has several guidance and standards documents on how to carry out different types of archaeological investigations in an attempt to ensure that every archaeological project is executed and reported on in such a way that it meets or exceeds a set standard (CIfA, 2014, p. 4).

This assignment looks to critically assess the methods of archaeological investigation and the nature of the materials and data recovered from an archaeological excavation carried out in Wilton, Salisbury in advance of a small residential development. For the purposes of this assignment only the excavation will be assessed though references will be made to the prior evaluation of the site.

CIfA set out in their Standards and Guidance for archaeological excavation, every written scheme of investigation (WSI) should detail the archaeological and historical background of the site (CIfA, 2014, pp. 8–9). This will involve a fair amount of desk-based research into the history of the site itself as well as the surrounding area so that it can be used to inform the methods that will be used for the investigation (CIfA, 2014, p. 8). The guidance also states that, wherever “appropriate and possible”, that reference is made to existing research frameworks (CIfA, 2014, p. 8), however no such reference was made (Wessex Archaeology, 2007b, 2007c). This does not automatically mean that the project did not conform to the guidelines set out by CIfA, the excavation area was small and, while the archaeology was of a high enough concentration to require an expansion from an evaluation to an excavation, this does not mean that the site would have yielded information that would have significantly contributed to the archaeological record of the south-west. Although the site was small, and the expectation for significant archaeology was low, the Post-Excavation Assessment (PXA) has revealed some areas that could have been utilised to answer some of the research agendas set out in the South-West Archaeological Research Framework (SWARF) which will be discussed below.

Wessex Archaeology did extensive research for the preparation of the WSI however, none of the sources cited appeared in their bibliography making it difficult for anyone who is unfamiliar with the history of the area to follow up on any information provided, or to

confirm or deny any statements made. Though they later referenced their sources in the later PXA (Wessex Archaeology, 2008) it is still bad practice to forgo bibliographic references in this manner. Aside from this Wessex Archaeology has conducted thorough desk-based research to aid in their assessment of the site and included reviewing the Victoria County History for Wiltshire, the Domesday Book, a county council conducted survey of the archaeology in Wiltshire, and a survey published in Wiltshire Archaeological and Natural History Magazine (WANHM; Wessex Archaeology, 2007c, pp. 2–4). This provided a general overview of the potential for archaeology in the town which enabled them to select methodologies appropriate for the potential remains.

As set out in the WSI (Wessex Archaeology, 2007c, p. 4) the aims of this project were:

- To determine presence or absence and the general nature of any remains present.
- To determine approximate date or date range of any remains, through artefactual or other evidence within those parts of the Site where development is proposed.
- To further investigate and record evidence associated with the Saxon/Medieval remains on the Site
- If possible, relate the information found to the wider Saxon/Medieval landscape

In order to achieve these aims, an archaeological evaluation was carried out. This evaluation consisted of two trenches however this was later expanded to an excavation due to a relatively high concentration of medieval archaeological remains (Wessex Archaeology, 2007a, pp. 6–7). The project achieved its first aim of determining the presence/absence, and general nature of archaeological remains through the evaluation and subsequent excavation. The evaluation provided a general overview of the archaeological remains on the site which achieved the project's first aim and led to the adoption of a new project design to include an excavation which provided the opportunity for a more complete understanding of the archaeology within the site boundaries. The excavation uncovered an Early – Mid-Saxon sunken-featured building (SFB), a few burials related to the adjacent church and cemetery, and a few ditches and pits.

The features were recorded using an in-house pro-forma system with both plans and sections drawn by hand with a full photographic record in both colour and black and white

(Wessex Archaeology, 2007c, p. 6). The PXA states that one of the aims of the project was “to preserve by record...any significant archaeological remains” (Wessex Archaeology, 2008, p. 2). Whilst the project recorded the archaeology to a good standard, even accounting for the ClfA guidelines being updated several years after the project concluded, there are now new and popularised methods which could have been used to further record the site. For example, photogrammetry could have been used to record the excavation in plan which would allow for the site to be re-visited and re-interpreted in the future with more ease than hand plans and sections (Historic England, 2017, p. 73). Photogrammetry also could have been used to produce a scaled 3D model of the skeletal remains *in situ* which would have been beneficial for the osteologists and could have been used to disseminate the spatial information on a wider basis (Novotny, 2019, p. 88) Providing photogrammetric models of the site means that the site would be disseminated to a wider audience as they could be uploaded onto Sketchfab¹. SWARF’s fourth Research Aim was about encouraging wide involvement in archaeology (Somerset County Council, 2007, pp. 277–278), and this project, combined with other projects conducted by Wessex Archaeology nearby, could have helped in achieving aim 4f, which is about the origins of towns, villages and farmsteads, through the use of photogrammetry and 3D reconstruction giving people from Wilton an idea of how their town developed.

The project’s second aim, to provide a date range of any archaeological remains was achieved throughout the course of this project. The project exclusively used relative dating which provides a date for a group of features or artefacts but only in relation to each other – i.e., *a* came first, *b* came second (Darvill, 2009b); absolute dating can provide an estimated age, based on scientific analysis such carbon dating or dendrochronology (Darvill, 2009a). Most of the dating evidence on this site came from the pottery which had been assessed against an established sequence of pottery for the region (Wessex Archaeology, 2008, pp. 15 and 30; De’Athe, 2012, p. 126); this sequence is based on relative chronology (Andrews, Mephram and Seager Smith, 2000, pp. 191–192; Rawlings, 2000, pp. 29–30). While this is a standard practice for dating archaeological contexts, there are other methods that could be

¹ <https://sketchfab.com/wessexarchaeology>

applied in order to provide a more exact dating. For example, luminescence could have been used to date both the ceramic finds, and the sediment itself, to an accuracy of four to five percent (though most accuracies are around five to ten percent owing to several limitations in sampling and equipment (Bailiff, 2015; Feathers, 2015)) – meaning the older it is the less accurate the result (see Table 1). The dating from the site suggests that luminescence would be able to provide a date accurate to between ± 15 to ± 80 years at a 5% error rate (Duller, 2008, p. 21). This method would have been able to provide a good date for Group 678 which is an undated 'V-shaped' ditch (Wessex Archaeology, 2008, p. 8). Whilst the ditch has archaeological artefacts and was bulk sampled, with the ditch providing undiagnostic flints, and grains indicative of post-Roman activity, all while being cut by an Anglo-Saxon sunken-featured building (SFB). The PXA states that the feature, while being undated, must be "Pre-Saxon" owing to its stratigraphy (Wessex Archaeology, 2008, p. 8). Luminescence would be able to provide a clearer answer to the date, or date range, of the feature, as it measures the amount of radiation something has been exposed to, something that resets when it is heated or exposed to daylight (Duller, 2008, p. 4, 2015, p. 391). Although one could argue that radiocarbon dating of the grain could also provide a date for the ditch, this would only provide a date for the grain which could be a later intrusion, something which is discussed in the PXA (Wessex Archaeology, 2008, p. 22), though this is deemed unlikely. Either way, using absolute dating would provide a more exact date of the site and provide a clearer picture of the phases of development of the town of Wilton.

Table 1 - Luminescence age ranges based on a 5% accuracy (Duller, 2008, p. 21)

Table 1 Luminescence ages typically have errors between 5 and 10%. Illustrated here are examples of a 5% error, expressed in years (annum, a; or kiloannum, ka)

luminescence age (years before AD 2000)	central date	5% error ($\pm 1\sigma$)	calendrical bandwidth (68% confidence)	calendrical bandwidth (95% confidence)
42,000 $\pm 2100a$	40000 BC	2,100 years	42100–37900 BC	44200–35800 BC
22,000 $\pm 1100a$	20000 BC	1,100 years	21100–18900 BC	22200–17800 BC
12,000 $\pm 600a$	10000 BC	600 years	10600–9400 BC	11200–8800 BC
5,500 $\pm 275a$	3500 BC	275 years	3775–3225 BC	4050–2950 BC
4,500 $\pm 225a$	2500 BC	225 years	2725–2275 BC	2950–2050 BC
3,800 $\pm 190a$	1800 BC	190 years	1990–1610 BC	2180–1420 BC
2,600 $\pm 130a$	600 BC	130 years	730–470 BC	860–340 BC
1,900 $\pm 95a$	100 AD	95 years	AD 5–195	90 BC–290 AD
1,000 $\pm 50a$	1000 AD	50 years	AD 950–1050	AD 900–1100
300 $\pm 15a$	1700 AD	15 years	AD 1685–1715	AD 1670–1730
100 $\pm 5a$	1900 AD	5 years	AD 1895–1905	AD 1890–1910

The third aim of the project was to “investigate and record evidence associated with the Saxon/medieval remains on the Site” (Wessex Archaeology, 2007c, p. 4). The project did a relatively good job with this aim and recorded the archaeology to a high standard and follows the standards and guidance published by ClfA (ClfA, 2014), even though these were updated after the conclusion of the project. With that being said, there are a few areas where new methods have since been developed or popularised. As outlined in guidelines produced by Historic England and ClfA (Campbell, Moffett and Straker, 2011; Mitchell, 2017) it is possible to detect parasitic infections through the presence of their eggs and cysts which can survive in the soil. During the assessment of the human bone from the site it was discovered that one of the individuals had a hydatid cyst which is indicative of a tapeworm infestation. Not only is it uncommon for hydatid cysts to form on the bone, it can take years for a tapeworm infection to incubate to a point where hydatid cysts are present (World Health Organisation, 2021), meaning it is possible that other individuals may have had a parasitic infection that may not have been incubated long enough for cysts to form. While this method would not have revealed new information about the site and the people who lived there, it would have expanded upon the evidence and provided a better look at the overall level of health and sanitation of the village.

There were three main benefactors to this project: the developer, the new homeowners, and the local community. This project was carried out in order to satisfy a condition of approval for a planning application, as a result of this project the developer was able to build eight new houses. Judging whether was significant or not from an outsider's perspective can be difficult, however the developer, Archstone Lifestyle Homes Ltd., was liquidated in 2011 with £14.1 million debt (Salisbury Journal, 2011) so this project likely would have been an insignificant project due the relatively small area of development meaning little profit would have been generated. The new homeowners, however likely would have benefitted slightly more from the project as it meant that were able to purchase a new home, though were unlikely to have benefitted further. The findings from this project were published in the Wiltshire Archaeological and Natural History Magazine (De'Athe, 2012) meaning that the findings are more accessible than if they were simply published as a PXA for a planning application and as grey literature of the Archaeology Data Service. The WANHM publication did not only cover the Wilton Autos excavation, but other excavations conducted by Wessex Archaeology in the immediate vicinity of the site. As mentioned earlier, the local community could have benefitted further from the project had the site been subject to photogrammetry as they would have been able to more easily visualise the site.

In conclusion, this project answered the questions it set out to answer and did so using methods that were appropriate for the size and importance of the site, something that is highlighted by the standards (CIfA, 2014, p. 7) as an indicator of a good project design. The methods used to date and analyse the artefacts and ecofacts from the site were appropriate for the size and importance of the site, and while this meant that only relative dates could be attained, the site had enough stratigraphy and dateable artefacts that a phasing could be deduced from the site which helps to describe the development of not only the site but the town of Wilton as well. While more could have been done to disseminate the information discovered from the site to the public by publishing the findings in a local archaeology magazine they made the information more readily accessible to those who would want to find out more than it would have been otherwise, which is more than can be said for an overwhelming majority of commercial archaeological projects in the country. Overall, the project used appropriate methods of archaeological investigation for the site in question.

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