

A research framework in archaeology is a tool which assists research with a three-point plan on a region or theme: what we already know, identification of gaps in our knowledge, and creating strategies to carry out the research needed to fill these gaps (Historic England 2018). Both regional (focussing on a particular area of the United Kingdom) or thematic (a time period, material type, etc.) are used to inform the structure of a project in commercial archaeology. Typically, they provide a pre-existing set of research objectives which we can consider from the outset of a project, and it is important to analyse how we may have contributed to this bank of knowledge at the end of one. I will examine a period of excavation at a site in Swindon, analysing the appropriate regional framework - the South-West Archaeological Framework (SWARF) regional research framework (Bone *et al.* 2021). I will contextualise and synthesise different types of environmental data recovered from the site within the objectives of this framework. Other thematic and regional frameworks were used to inform the work carried out in excavation and post-excavation, such as the adjacent Solent-Thames Research Framework and the Rural Settlement of Roman Britain project. I have chosen to examine the SWARF framework as I believe it is the most pertinent in contextualising and synthesising environmental data. Environmental (or the varied types of archaeological evidence it produces) archaeology does not have a thematic framework in the same way that the likes of pottery, ceramic building material, or metal objects do. Environmental data is often more implicit or informed by other types of archaeological data, and it is easier to examine the extent to which they manifest in the different themes they may contribute towards. Examining the local regional framework for a site helps to provide a holistic view of the local environment, the specificities of a given area, and how this may affect the data produced.

Archaeobotanical data was recovered from the site during this period of excavation, and it is possible to examine the research objectives it has contributed towards. Multiple previous excavations on the site identified a site of moderate Roman occupation. Due to this pre-existing research, it is possible to examine the objectives of the Romano-British section of the SWARF framework. The condition in which archaeobotanical data is present in the assemblage (i.e. charring, mineralisation, waterlogging), which species are present, and how they have been processed can all provide valuable insight into production and consumption habits in the south-west. In a period of change such as the Romano-British period, we should examine the extent to which changing food preferences can be seen. SWARF framework Research Aim 41 encourages further research into the effect of the Roman empire on plant and animal use, cultivation methods, and possible regional differences. The ubiquity of spelt on site likely indicates a level of “Romanisation”, though this term is can be considered to be problematic due to its reductive view of cultural exchanges and transitions. While not the most consumed food product by the Romans, the persistence of spelt and its intensification throughout the expanse of the empire is particularly Roman (Reed *et al.* 2019, 623), particularly as a common source of sustenance for the Roman Army (Dickson 1990, 33). The proximity of the small Roman town of Durocornovium and Roman roads should be noted. Examining the scale of production and the types of archaeobotanical evidence from the Swindon site can provide insight into settlement type, particularly non-villa Roman rural settlement, as detailed by Research Aim 29 of the SWARF framework. The Solent-Thames Research Framework (12.4.3/12.4.5) links spelt to Roman brewing practices, indicating that there may have been growing access to such “exotic” foodstuff by rural populations during the Roman period. Area 13 of the site, previously linked to the early Roman Farmstead B, produced evidence of germinated barley and hulled

wheat grains, indicating that malting may have been taking place during the early Roman period at least. There is no evidence for malting at the Iron Age/early Roman Farmstead A on the site, but this does not mean that it did not take place, especially due to the highly destructive nature of malting. Other cereals were present (such as bread wheat, barley, emmer and rye) that were cultivated both before and after the Romano-British period.

Examining the archaeobotanical data recovered in its quantity and in the types of features it was found in can also provide insight into food production and consumption. As the site was clearly a rural, non-villa Roman site, it is possible to contribute to SWARF Research Aim 29, dependent upon the evidence recovered. Understanding the different types of farmsteads could help to advance this point of research. A late Iron Age/Roman farmstead (Farmstead A) and potentially early Roman (Farmstead B) were identified on the site according to the Written Scheme of Investigation. Excavation at Farmstead A produced a range of charred grains (barley, bread wheat, and hulled wheat), hazelnut shell, wild seeds, and carbonised pulses recovered, with the majority found in a Roman well. There was evidence of crop processing also recovered from this well. Excavation at Area 13, linked to Farmstead B produced fewer archaeobotanical results overall yet a different variety of charred cereal remains (emmer, spelt, barley, and oats). We should be careful to not assume that these different species represent a process of “Romanisation”. Although the possible relevance of spelt has already been discussed, emmer is not as easy to link to Roman activity. De Vareilles *et al.* (2023, 4) argued that spelt may have been preferred over emmer due to the former’s higher yield and ability to grow in harsher conditions, with its adoption in southern England during the Middle Bronze Age indicating a change to more intense agricultural cultivation. The

poor preservation of charred cereals and seeds from both areas of the site also make quantification and identification difficult. Despite this, it is clear that the excavations at this site contribute towards shared understanding of Roman rural settlement in the south-west of England and to many of the Research Aims of the SWARF. While clear elements of Roman influence can be seen in food choices, the archaeobotanical evidence may help us to better understand other Research Aims not limited to a period. For example, SWARF Research Aim 17b encourages the sampling of a range of features to gain a holistic image of a site, not just seemingly rich deposits. This was done on the Swindon site, with bulk samples being taken from a variety of features, waterlogged and otherwise. The archaeobotanical data from the site can also assist in investigating the origins of free-threshing wheat (SWARF RA27) given its presence in both late Iron Age and Roman areas of site. This indicates how certain types of data can contribute to multiple Research Aims at a time, and that it is important to not be blinkered by a time period, only focussed by it.

Malacological evidence can also help to better understand the area through reconstructing past environments and land use. Examining such evidence provides insight into past environments and how they may have affected or been affected by human activity. As a result, this type of environmental evidence can be difficult to link to a specific time period, such as the Roman period. However, malacological evidence can often be informed by other science-based techniques (such as geoarchaeology) to better understand the processes that caused an environment to form in a particular way. This is particularly relevant when examining a site in a localised area, as we are here. The SWARF is distinctly lacking in terms of Research Aims for this type of data. Research Aim 17 is the most relevant, if vague. This aim pledges to improve the quality and

quantity of environmental data from sites in the south-west of England and our understanding of it. It is undoubtable that the small number (two) of environmental archaeologists consulted for this framework and the fact that it was constructed nearly twenty years ago explains why certain forms of scientific data are somewhat neglected. Incorporating data such as malacological data would improve understanding of periods lesser represented by material culture or recorded history, such as the prehistoric (SWARF RA 10). From the Swindon site, snails were recovered from bulk samples, on-site hand collection, and in vertical monolith samples. Snails from Area 8, a late Iron Age/early Roman farmstead, were too scarce to be of interpretative value. However, snails from Area 13, associated with Farmstead B (early Roman), were typical of an open environment with shady areas and some standing water. Alongside evidence for field systems on site and continued specialist analysis, malacological evidence can help to contribute towards SWARF Research Aim 23, which seeks to better our understanding of past climate and sea level changes in the south-west of England. It is more difficult to understand how the malacological data from this site can provide insight into the environment of the site during the Roman period. With further investigation focussed upon recovering such data, malacological evidence could be more insightful. Davies (2008, 66) cited the importance of an “explicit and appropriate” research framework that does not ignore or undervalue malacological evidence. Eventually, the SWARF could incorporate such types of data into its Research Aims. Such data does not simply inform us solely about past environments, but how these would have been exploited, such as through tree clearance or water usage.

Examining the wild seed assemblage can also provide insight into the past environment of the site (SWARF RA 23), although wild seeds can be more difficult to date through

relative means. The wild assemblage was dominated by arable and grassland plants but of low diversity overall, with seeds indicative of grassland, cultivated ground or wetland species being present. Other evidence from the site indicates that there were field systems in place to manage water levels in the area, arguably to assist the growth of arable vegetation. This may have been required for agricultural purposes, small-scale habitation, or a combination of the two. Examining the wild seed assemblage on this site and others in the south-west of England has the potential to contribute to the regional framework, amongst others. Research Aim 20c emphasises the integration of pollen, insects, and plant macrofossils to better understand pasture and meadow management in the Thames valley, and this is much needed in the south-west of England to understand its regional distinctiveness. The presence of certain wild foodstuffs can indicate the exploitation of edible wild plants by past peoples. Such foodstuffs, including hazelnut shell, plum, and bramble, were recovered from the Swindon site. Although recovered in small number, hazelnut shell is typical of the Mesolithic and Neolithic in northern Europe (Holguin *et al.* 2022, 1) and in the south of England also (De Vareilles 2023, 13). While the exploitation of bramble and plum are less discussed in relation to the area, their importance in providing insight into prehistory and beyond should not be ignored. They may be indicative of such a distinct regional difference. This may better our “understanding of agricultural intensification and diversification in later prehistory” (SWARF RA 40). The bias towards examining Roman occupation is one of the dangers of using a research framework, which we should strive to be aware of. It is unwise to eliminate earlier periods of occupation for further examination, especially as the evidence for this may be less likely to have survived; it does not make it any less valid than the evidence for Roman food preferences.

This discussion serves to illustrate the limitations and insights provided by a research framework. If used correctly, such a framework can provide a valuable jumping off point for research. It should not be adhered to as an infallible document, but instead be looked to for guidance where needed. In my opinion, the excavation at the Swindon site contributed moderately well to many of the Research Aims of the South-West Archaeological Research Framework. I believe that it has the potential to inspire future research that would contribute very well to this. It is undoubtable that the site contributes to many different research frameworks, both regional and thematic; I have tried to provide insight into others where possible. The framework includes environmental archaeology well, but there is still much to be done in the south-west of England.

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