

CHAPTER 2

A History of the Site

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Introduction

Star Carr has a long history of research, the nature of which has often reflected, and indeed stimulated, broader trends within Mesolithic archaeology. Following the initial discovery of the site by Moore and the excavations by Clark, Star Carr was the subject of extensive reinterpretation and debate. However, it was not until the mid-1980s that new excavations were carried out at the site, under the auspices of the Vale of Pickering Research Trust. Though these were initially undertaken to refine the site's palaeoenvironmental record, they also led to the unexpected discovery of a timber platform and small quantities of archaeological material, leading to further small-scale excavations in the following years. The results showed that Star Carr was far larger than Clark had assumed, with clear differences in the patterns of activity across the site, and that it had been occupied over a period of centuries. These findings as well as the impasse in debates over site function and seasonality ultimately led to the current project.

John W. Moore

The history of research at Star Carr begins with John Moore, without whom the site may never have been found. Moore was a local amateur archaeologist and a founding member of the Scarborough Archaeological and Historical Society. The Society modelled itself on the Scarborough Field Naturalists and at its October 1947 meeting it set up a series of 'recordships' whereby individual members would specialise and report on work done on different archaeological periods. Moore, who had already begun to investigate the area that was to become known as Lake Flixton, took on the Palaeolithic (Chris Hall pers. comm. 2016).

In his published account of the fieldwork that he undertook between 1947 and 1949, Moore described the area as a 'quagmire of varying depth' with drainage ditches acting as field boundaries, emptying their waters into the Hertford Cut, a canalised river constructed over 200 years earlier (Moore 1950). It was through the investigation of these freshly dug drainage ditches, as well as fieldwalking on the higher ground above the extents of the peat, that Moore began to identify areas of Mesolithic activity in the area.

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Early in the summer of 1947 Moore discovered a flint blade whilst examining a deposit of gravel exposed in the side of a drainage ditch (Moore 1950). His subsequent excavations at the site (which Moore referred to as Flixton Site 1 on Flixton Island; Chapter 11) showed that it consisted of a dense scatter of worked flint that lay across the top of a narrow gravel ridge. Moore identified the flint as being Maglemosian (the Danish term for the Early Mesolithic then in general use in Britain, see Chapter 12) in character, and suggested that the material represented two separate camps on the basis of differences in microlith typology.

By late 1948 Moore had identified eight more sites in the surrounding area and had determined that the peat deposits had built up within a lake, which he named Lake Flixton (Figure 2.1). That year he communicated the results of his work to Grahame Clark. Clark, who for more than a decade had been seeking to excavate a Mesolithic site with good levels of organic preservation, asked Moore to identify a site where bone and antler were present. Moore agreed and excavated a small trench at Star Carr (his site 4) where he had previously observed animal bone and antler in the peat at the base of a drainage ditch (Clark 1949; 1954; Moore 1950). We know little of this excavation except that it covered eight square yards (just less than 7 m²) and ran along the edge of the ditch. However, his results clearly convinced Clark of the potential of the site and provided the impetus for his subsequent excavations at Star Carr.

Moore did not work with Clark at Star Carr but instead undertook his own excavations at a second site on Flixton Island (Flixton Site 2), where he had discovered an assemblage of horse bone that appeared to date to the Late Upper Palaeolithic (Clark 1954). However, Clark did ask Moore to salvage material from the baulks between Clark's main cuttings at the end of the excavation (Clark 1954, 4). This produced a rich collection of flint and animal bone which was deposited permanently at Scarborough Museum. Unfortunately, Moore's paper archive has never been located.

Grahame Clark's excavations 1949–1951

Clark was well aware of the potential importance of Moore's discoveries. Excavations at several North European wetland sites in the earlier part of the twentieth century had recovered assemblages of animal bone and

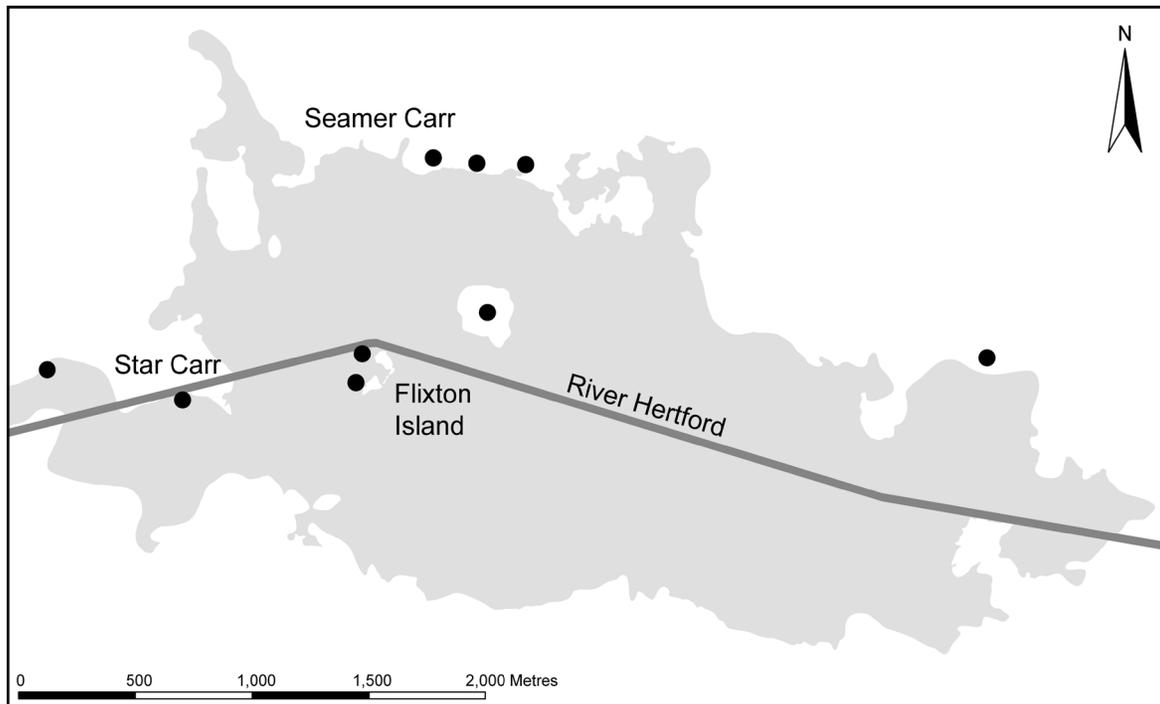


Figure 2.1: The extent of Lake Flixton as revealed through recent surveys, and the locations of the sites identified by John Moore (Copyright Star Carr Project, CC BY-NC 4.0).

artefacts made from bone and antler that provided a wealth of information on the technology and economy of Early Mesolithic peoples. Moreover, the pollen stratigraphy from these sites had been used to place them into a chronological sequence by relating them to the record of Early Holocene plant succession. Clark had initially been drawn to environmental evidence as a chronological method but from the late 1930s onwards increasingly became interested in the relationship between the environment and past societies. Clark viewed the environment as a constraining factor influencing all aspects of people's lives but in particular the technology and economy of a society. Clark emphasised these two components were potentially the most knowable to archaeologists, as well as being the most immediate to the perpetuation of life. Clark believed that to understand past environmental conditions and economy was thus to know something of how societies survived. So Clark sought new kinds of data: data which transformed artefacts from cultural markers to economic indicators and which transformed ecofacts from chronological markers to evidence for the environmental context upon which past societies depended.

Clark's ideas had developed through the work of the Fenland Research Committee, of which he was a founder member. The committee, influenced by contemporary Southern Scandinavian methods, adopted a multi-disciplinary approach to the study of the fenland landscape, integrating the work of archaeologists, geologists, botanists, and a suite of other environmental scientists. The most influential of these was Harry Godwin, the pioneer of palaeoenvironmental studies in Britain. Godwin had established the sequence of Late Glacial and Early Holocene plant succession in Britain and related this to the corresponding records from mainland Northern Europe. In addition, together with his wife Mary, he had used pollen stratigraphy to demonstrate that antler 'harpoons' found in Britain and the North Sea were contemporary with Maglemosian sites in mainland Northern Europe (Godwin and Godwin 1933).

Drawing on his work with the Fenland Research Committee, and in particular his close relationship with Harry Godwin, Clark established the objectives that could be achieved through the excavation of a Mesolithic wetland site (Clark 1972). Full excavation of the site, paying particular attention to the recovery of organic materials, would determine the nature of the settlement and establish the likely size of the social unit involved, whilst the stratigraphic relation between artefacts would determine whether there were any changes in the character of the material culture assemblage through time. Correlation of the archaeological and palaeoenvironmental data would establish the character of the local vegetation, determine how the inhabitants of the site had utilised their environment and relate the site chronologically to the known archaeological record of the North European Mesolithic.

Moore's discovery of Mesolithic sites sealed by peat from the infilled Lake Flixton offered the potential to realise these objectives. Moore's work had attracted the attention of Godwin (Clark 1954, xviii). He was also advised by Gwatkin, the curator of Scarborough Museum, to send Clark a sample of the worked flint that had been recorded from Flixton Site 1. Clark later wrote of his excitement on receiving Moore's 'parcel of flints' and the realisation that his decade-long search for a waterlogged Mesolithic site was over:

'It took only a glance to see that here was a clue to something I had been seeking for many years: that is, a flint industry, analogous to that first recognized by Danish archaeologists at Maglemose, Mullerup, on the island of Zealand, from a British locality offering promise of recovering a settlement site with organic as well as merely lithic data ... my first question on establishing contact with Mr. Moore was whether he had found antler or bone on any of his sites. On hearing that he had, I lost no time in meeting him' (Clark 1972, 10–3).

Clark visited Star Carr in the spring of 1949, after Moore's initial excavations, and confirmed that the site 'offered the most favourable prospects: pieces of bone and antler projecting from the side of the field ditch against the southern bank of the canalized Hertford River' (Clark 1954, xxi). Though the bone and antler was in a poor state, Clark noted that the topography of the site made it likely that much better preserved finds would be present in more waterlogged deposits at the site. Moore consented to large-scale excavation of Star Carr and this was then undertaken by Clark from 1949–1951 under the auspices of the Prehistoric Society and the Department of Archaeology and Anthropology at the University of Cambridge (Figure 2.2).

Through the excavation of Star Carr, Clark was able to continue the tradition of interdisciplinary research that had been established by the Fenland Research Committee and which had been employed so successfully at sites on the North European mainland. Clark directed excavations and undertook the analysis of much of the



Figure 2.2: Excavation at Star Carr with Clark on the spoil heap. This is thought to be cutting I (Copyright Scarborough Archaeological and Historical Society, CC BY-NC 4.0).

material culture, whilst Godwin and his doctoral student Donald Walker undertook the palaeoenvironmental analysis. The faunal material was analysed by Frederic Fraser and Judith King of the then Department of Zoology, British Museum (Natural History) and the bird bones were identified by Marjorie Platt of the Royal Scottish Museum, Edinburgh. The majority of the excavation team was made up of archaeology students from Cambridge. However, several local people also worked on the site, including David Lamplough who came at the age of ten with his father and has since returned and worked on the current project.

The excavations ran for three weeks during the summers of 1949 to 1951. During this time Clark and his team excavated a series of trenches (referred to as cuttings) through the deposits at the former lake edge (Figure 2.3). Here they discovered a large assemblage of bone and antler artefacts, including 191 barbed antler projectile points, elk antler axes and mattocks, bodkins made from elk metapodials and 21 red deer antler frontlets. These were found amongst a large assemblage of animal bone, antler (much of which had been worked to produce the barbed points) and worked flint. The archaeological material was associated with a deposit of unworked wood (described variously as birchwood and brushwood), which Clark interpreted as an occupation platform that had been laid down to stabilise an area of swamp at the edge of the lake (Figure 2.4). Two recumbent trees were also discovered lying at right angles to the platform, both of which appeared to have been deliberately felled and were interpreted as a possible landing stage (Figures 2.3 and 2.5).

Drawing together the evidence from the material culture, faunal assemblages and the palaeoenvironmental analysis, Clark produced a lively and engaging picture of Mesolithic life at Star Carr (Clark 1954). The palaeoenvironmental study indicated that the site was located within an area of reedswamp close to the water's edge and dated to the Preboreal (the period at the start of the Holocene, following the very end of the last cold phase; see Chapter 12). From the size of the site and what he surmised was evidence for the presence of both men (represented by hunting equipment) and women (represented by scraping tools) he argued that Star Carr

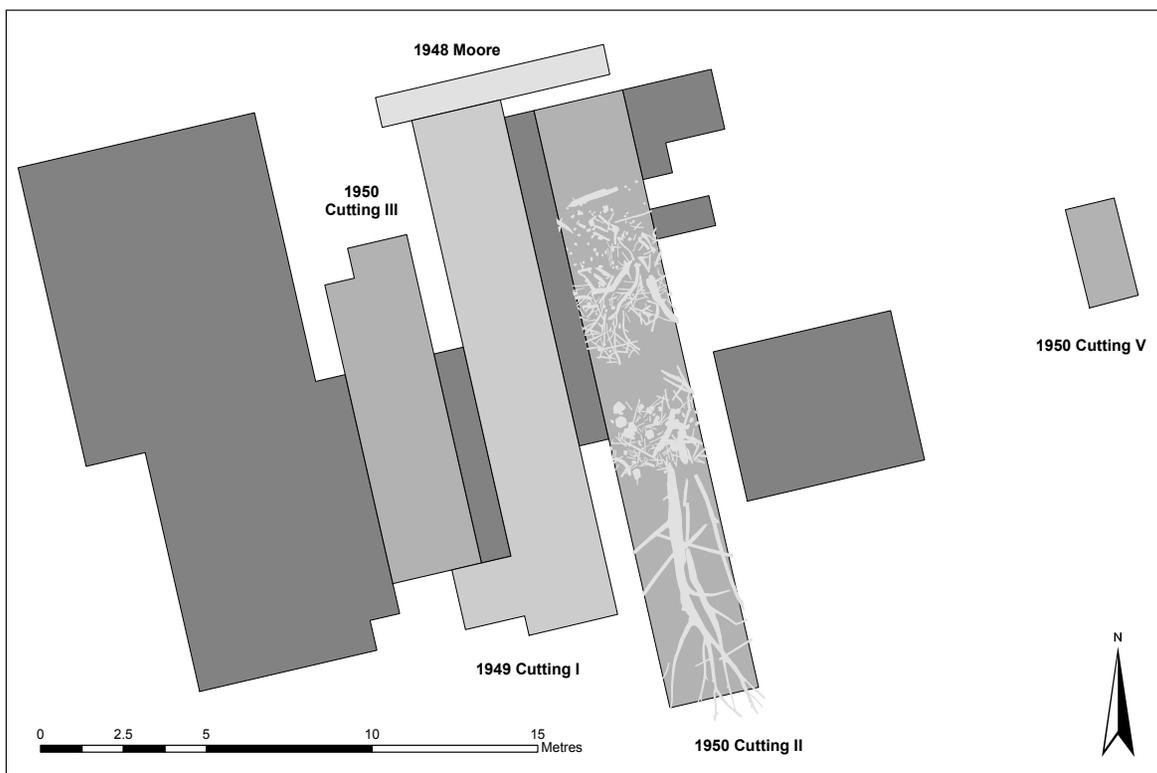


Figure 2.3: The excavations of Moore and Clark. Trenches excavated in 1949 and 1950 were assigned numbers by Clark (cuttings I, II, III and V), those excavated in 1951 were not and are marked in darker grey. The ‘brushwood’ and two trees from cutting II have been digitised from Clark’s excavation monograph and superimposed on the trench plan (Copyright Star Carr Project, CC BY-NC 4.0).



Figure 2.4: The 'brushwood' platform encountered during Clark's excavations. The wood in this photo is now thought to be the 'upper' level of brushwood (as noted by Clark) and is probably the equivalent to the layers of roots noted in the recent excavations (see Chapter 6) (Reprinted with permission from Milner et al. 2011. Copyright Taylor & Francis Group).



Figure 2.5: The birch trees found in cutting II (Copyright Scarborough Archaeological and Historical Society, CC BY-NC 4.0).

was a residential camp occupied by four or five family groups. Variations in the typology of the barbed points and the presence of material culture at different stratigraphic levels suggested that the site had been inhabited on more than one occasion, whilst the faunal analysis indicated that occupation had taken place during the winter and spring (based on the presence of both shed and unshed red deer antler). Clark's investigations remain an impressive picture of the way of life of a group of Mesolithic hunter-gatherers. They represent a seismic shift in the way prehistoric material was interpreted, and as an example of what can be achieved by asking new questions and examining new classes of data, they seemed to call into question the value of earlier excavations (Trigger 1990, 268).

The Vale of Pickering Research Trust

Despite the obvious importance of the area, no further fieldwork was carried out around Lake Flixton until the mid-1970s, when an extensive programme of survey and excavation was undertaken at Seamer Carr ahead of the development of a waste disposal plant (Schadla-Hall 1987; 1988; 1989; Conneller and Schadla-Hall 2003, Milner et al. 2011) (see Figure 2.1). Upon the completion of the project in 1985, the Vale of Pickering Research Trust was established with the aim of conducting a landscape-based investigation of the Early Mesolithic presence around the former Lake Flixton.

The Seamer Carr Project had established a detailed record of the environments that had formed around the north-west of the lake throughout the Mesolithic (Cloutman 1988a; 1988b). In 1985 this work was extended to Star Carr to provide a more precise account of the local environments contemporary with the occupation of the site (Cloutman and Smith 1988). To achieve this an 18 m long trench (VP85A) was excavated through the lake edge deposits c. 20 m to the west of the area investigated by Clark, with a second, smaller trench (VP85B) located 15 m to the south in a slightly deeper part of the lake (Figure 2.6). A series of pollen profiles taken from

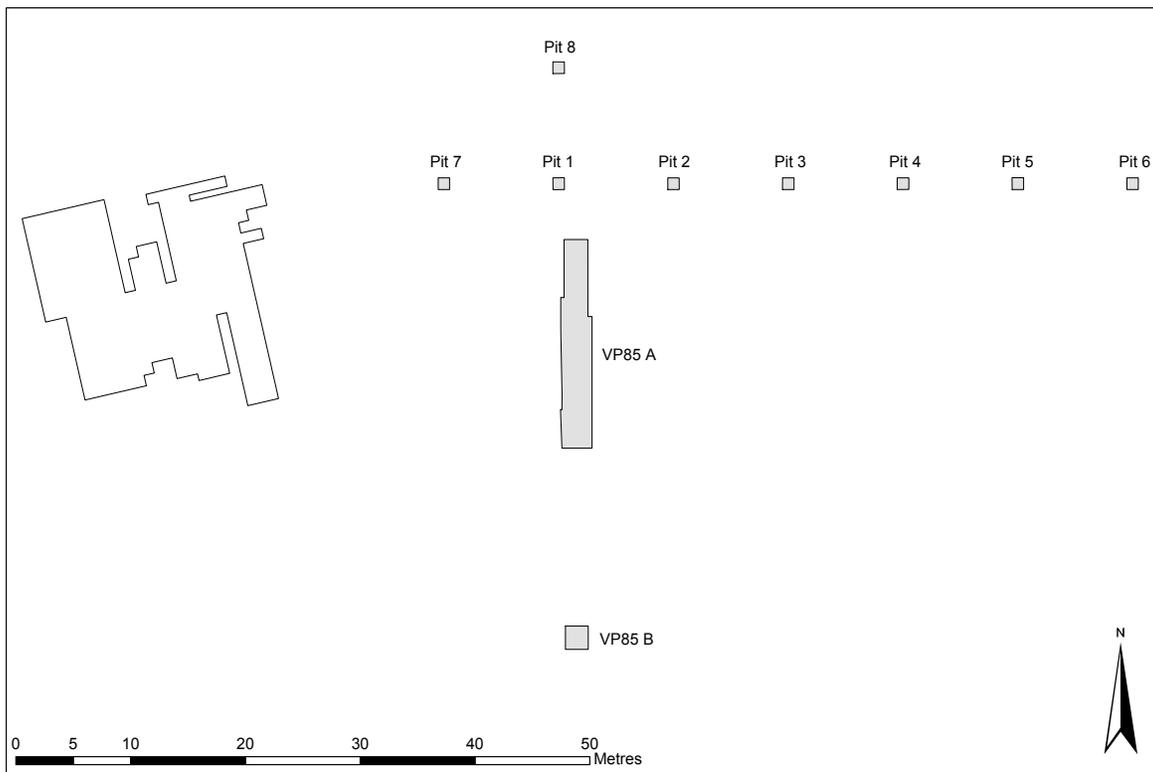


Figure 2.6: Plan of the trenches excavated in 1985 and 1989 in relation to Clark's excavation (on left) (Copyright Star Carr Project, CC BY-NC 4.0).

the sections of these trenches were used to establish the changing character of the wetland environments and the results correlated through a programme of radiocarbon dating.

Although the main trench was deliberately placed well beyond the limits of the archaeological deposits as set out by Clark, the excavations in VP85A recorded a dense scatter of worked flint, faunal remains and what appeared to be a wooden platform (Figure 2.7). These unexpected discoveries demonstrated, for the first time, that activity at Star Carr was far more extensive than Clark had realised and that there was considerable potential for further archaeological material in the surrounding deposits. However, what remained unclear was how this new material related to the part of the site investigated by Clark.

In order to investigate this further, small-scale excavations were carried out at the site between 1986 and 1989 and were supported by a new programme of palaeoenvironmental work undertaken by Petra Dark (Mellars and Dark 1998). This phase of investigation sought to establish the spatial extent of the site, its date and chronological range. It also aimed to determine if the changes to the local vegetation that had been documented in the work of Cloutman and Smith may have been caused by human activity rather than natural, environmental processes. To achieve this, Trench VP85A was re-excavated and extended, and a series of small test pits were excavated on what would have been the Mesolithic dry ground just to the north (Figure 2.6). New pollen and plant macrofossil profiles were recorded, both from VP85A and a core taken from the deposits adjacent to Clark's cutting II, and a revised radiocarbon chronology was established from material taken from the environmental samples. In 1992 and 1999 these dryland parts of the site were investigated further through fieldwalking surveys (Milner et al. 2011).

The results of this work demonstrated that activity at Star Carr extended far further than the area investigated by Clark. On the dryland, test-pitting and fieldwalking recorded concentrations of worked flint that extended over 120 m to the east of Clark's excavations. In the wetland, a re-analysis of the wooden platform confirmed that it was a deliberate anthropogenic structure made from deliberately split timbers, which had been laid down parallel to each other on the surface of the peat (Mellars et al. 1998). This, along with the presence of bone, antler and flint in the lake edge sediments, confirmed that activity within the wetlands was also more extensive than had previously been thought. In addition the palaeoenvironmental investigations showed that areas of reedswamp that had formed along the lake edge had been deliberately cleared by repeated episodes of burning (Dark 1998a). By dating these episodes, and using them as a proxy for human activity, it was shown that the site had been occupied for several centuries (Mellars and Dark 1998; Dark et al. 2006). On a less positive note, other forms of evidence also began to show that the archaeological material at Star Carr was under threat. The bone and antler was in a poor state of preservation (Rowley-Conwy 1998) whilst the presence of worked flint within the modern topsoil demonstrated that ploughing was starting to damage areas of in situ activity on the dryland.

Reinterpreting Star Carr

Clark's interpretations of Star Carr remained unchallenged in the decades immediately following his excavations and it was Clark himself who first revised his original analysis (Clark 1972). Here he argued that Star Carr was part of a seasonal pattern of settlement in which Mesolithic groups aggregated at the site in the winter, before moving onto the uplands of the North York Moors in the summer months as they followed herds of migrating red deer. This was based, in part, on observations of red deer behaviour on the Isle of Rhum, in the Inner Hebrides, where the animals undertook a similar pattern of seasonal upland-lowland migration.

From the late 1970s a series of papers critiqued some of the central aspects of Clark's interpretation of Star Carr. Perhaps the most significant of these focused on the faunal remains and the way these had been used to establish the season of occupation. In the original analysis, Fraser and King had used both shed and unshed red deer antler to calculate the minimum number of animals represented in the assemblage and the time of year they were killed. However, in a reassessment of the published data, both Seamus Caulfield (1978) and Roger Jacobi (1978) showed that the antler was over-represented in relation to the post-cranial elements of these species and had probably been brought onto the site as raw material, a point that was supported by the large amount of antler artefacts found at the site. As such, using the antler as a basis to estimate the numbers of animals killed at Star Carr and the season that the site was occupied was problematic. In addition, Clark (1954, 16) had noted that because pike are most accessible in the summer, the lack of pike on the site might

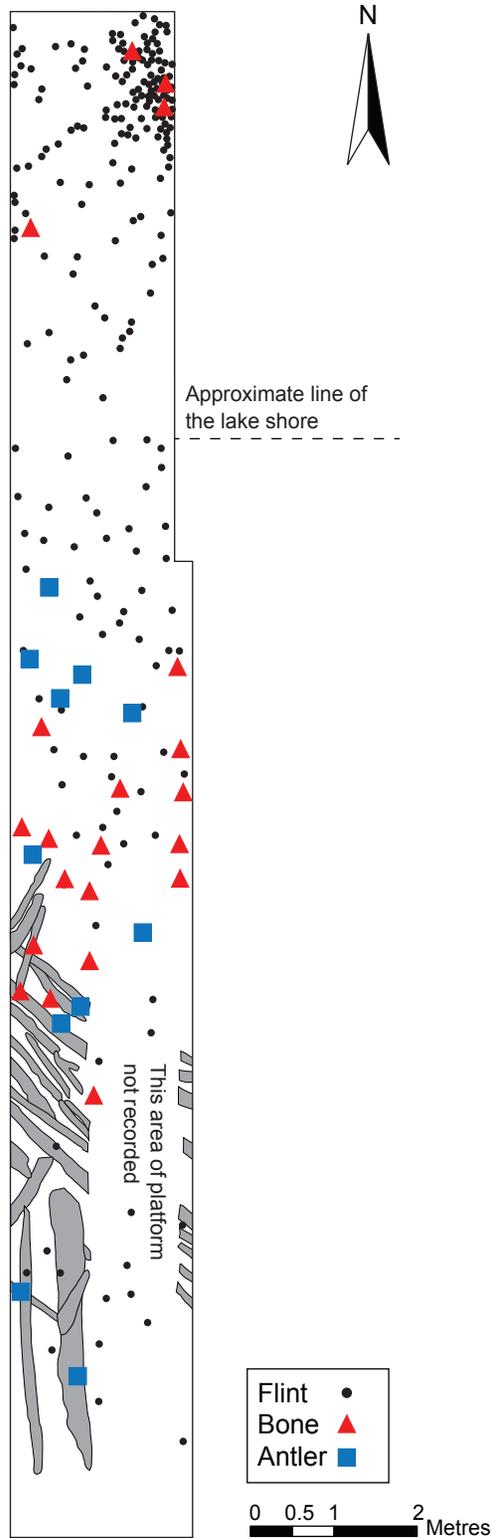


Figure 2.7: Plan of Trench 85A with timbers, bone, antler and flint (Copyright Star Carr Project, CC BY-NC 4.0).

reinforce the winter occupation hypothesis. However, Wheeler (1978), in his discussion about the absence of fish remains at Star Carr, noted that pike can be caught from February until late autumn and so they could not be used as a seasonal indicator.

Overall, reinterpretations revealed little consensus as to the time the site was occupied. Jacobi (1978) went on to demonstrate that occupation could be extended into the early summer from the unshed roe deer antler, Grigson (1981) pointed out that some of the birds recorded at the site would only have been present in the summer, Pitts (1979) argued that the site was occupied for most of the year, whilst Andresen et al. (1981) argued for sporadic visits at different times of the year. Summarising the various debates, Price (1982) stated that the remains represented 'an unknown number of occupations for which seasonality could not be determined' (1982, 6).

In an attempt to resolve these debates, Tony Legge and Peter Rowley-Conwy undertook a comprehensive re-analysis of the faunal assemblage (Legge and Rowley-Conwy 1988). Using tooth eruption data to establish the age at death of the younger individuals, they argued that most of the animals had been hunted and killed in the summer, with only one individual (a juvenile elk) killed at a later time in the year. However, Richard Carter used radiographs of tooth development in juvenile roe and red deer jaws to establish a more precise season of death. This showed that the young roe deer were killed slightly earlier in the year (Carter 1997), while at least one juvenile red deer was killed in the winter (Carter 1998). Carter argued that occupation of the site occurred in the cooler months of the year, bringing interpretations of seasonality full circle.

As well as the reinterpretations of the season of occupation, there has been considerable debate as to the function of the site. Caulfield (1978) argued that aurochs rather than red deer were the most economically important species and tentatively suggested that Star Carr was a butchering station or possibly a kill site, whilst Andresen et al. (1981) also argued that Star Carr was a kill site, noting that its location on a gravel spit would have been ideal for driving game into the lake. In contrast, Pitts (1979) suggested that the site had been used for the tanning of hides and the working of antler, both of which had been carried out within the lake edge swamp. Jacobi (1978) does not explicitly state the site was a base camp. Instead he puts forward a case for Star Carr being occupied in a variety of different seasons and having some functional relationship to microlith-dominated sites on the North York Moors and as yet undiscovered kill and butchery sites. Legge and Rowley-Conwy's (1988) reassessment of the faunal remains also offered a new theory of site function. By drawing comparisons with body-part representations of the main prey animals at Star Carr with assemblages of animal bones recorded in Binford's (1978) ethno-archaeological study, they suggested that Star Carr may have acted as a hunting camp that had been occupied by a small group of male hunters.

More recent interpretations have stressed the unusual nature of the site (e.g. Chatterton 2003; Conneller 2000; 2003; 2004; Conneller and Schadla-Hall 2003). Chatterton (2003), for example, argued that aspects of the assemblage, such as the presence of both intact and broken barbed points, suggest that it was not the product of ad-hoc disposal but ritual acts of deposition into the waters of Lake Flixton. Furthermore, both Chatterton (2003) and Conneller (2000; 2003; 2004; and see also Conneller and Schadla-Hall 2003) observed that despite large-scale excavations in the surrounding area, no comparable assemblages have been recorded at other Early Mesolithic sites around the lake. This led Conneller (2003; 2004) to argue that though the site had a varied use, it may have been regarded as an appropriate place in the landscape to dispose of animal remains, particularly red deer heads and antlers (see also Conneller and Schadla-Hall 2003), practices that have also been observed amongst contemporary hunter-gatherers (e.g. Jordan 2003).

Chatterton's work stimulated further debate focused on the character of the environment into which the assemblage recorded by Clark had originally been deposited. Whilst Clark argued that the site lay within reed-swamp at the edge of the lake and represented an area of in situ activity that took place on the brushwood platform, others had suggested that the area would have been underwater when the site was occupied. Price (1982), for example, argued that the preservation of the faunal material could only have come about if the artefacts had been deposited into standing water and that the brushwood platform was probably a natural accumulation of wood at the edge of the lake. As such, the assemblage recorded by Clark was probably discarded as waste from an activity area on the adjacent dry ground (an interpretation also supported by Legge and Rowley-Conwy 1988). Richard Chatterton (2003) noted that aquatic plant material was recorded from the deposits studied by Godwin and Walker, whilst estimates of the lake level established by Petra Dark placed the site below the level of the Early Mesolithic lake. In contrast, Paul Mellars (2009) has more recently argued that Clark's original interpretation was correct, arguing that the aquatic material may have been deposited through human or

animal action and citing inaccuracies in some of the earlier surveys of the site, which when corrected would have placed the area above the lake water level. More recently, Taylor (2011; 2012) has shown that there was no single context of deposition, and that faunal remains and artefacts were deposited into a range of different environments that changed throughout the time the site was occupied.

Conclusions

Since it was first excavated, Star Carr has persisted in the archaeological imagination, being constantly re-worked and re-interpreted, and consistently referenced in major syntheses and textbooks. However, Clark's work cast a long shadow, with most subsequent interpretations focusing on his main preoccupations: seasonality and site function. As these aspects of the site have been debated there has been a tendency to interpret the archaeological evidence selectively in support of a single site function (base camp, hunting camp etc.) or season of occupation. This, in turn, has led to an impasse in these debates, with different researchers taking opposing (and apparently contradictory) positions with regards to the interpretation of the site.

This approach to the interpretation of Star Carr has become increasingly difficult to sustain. Several works from Jacobi (1978) onwards have emphasised the site's complexity, an issue that became apparent as fieldwork carried out in the 1980s showed that the site was far larger than previously thought and was occupied for several centuries (Mellars and Dark 1998; Dark et al. 2006). These new discoveries, together with recent reinterpretations of both the modes and contexts of deposition, have rendered a single interpretation for the function of this complex site untenable. They have also demonstrated that the debates regarding the interpretations of the site cannot be resolved by recourse to the existing archaeological data and that only through new excavations is it possible to truly understand the historical and spatial character of the Mesolithic occupation of Star Carr.