

Selection Guide  
Prehistoric Landsurfaces and Deposits

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# Selection Guide

## Prehistoric Landsurfaces and Deposits

### 1 INTRODUCTION

This Selection Guide is intended to set out the considerations that make a prehistoric landsurface or deposit of such 'special interest' that it might warrant measures such as protection by exclusion zones, investigation, or some other form of mitigation if it is affected by marine aggregate dredging.

'Special interest' can encompass historic, archaeological, architectural or artistic interest and is the term being used in a range of administrative and legislative reforms that are currently in progress, both on land and at sea, to focus attention on the 'historic assets' that are most important. Overarching 'Principles of Selection' are being developed, and this Selection Guide sets out how such Principles can be applied to prehistoric landsurfaces and deposits.

Currently, the remains of prehistoric landsurfaces and deposits within marine aggregate areas are dealt with case-by-case in respect of each marine aggregate licence area. There is no overall guidance against which to judge whether a particular landsurface or deposit warrants special attention on account of its archaeological interest, though some guidance is available for Palaeolithic remains on land (see Appendix I).

There are a number of reasons for prehistoric landsurfaces and deposits to be subject to special measures if they fall within aggregate areas, not just 'archaeological' reasons. The risk of contamination of loads, in particular, may have a bearing on the measures taken by the aggregate industry with respect to a particular landsurface or deposit. This guidance is concerned only with landsurfaces and deposits as historic assets, i.e. as features that contribute to England's historic environment.

This Guide applies to all prehistoric landsurfaces and deposits, irrespective of the environment in which they are now situated. Although this Guide has been prepared with a particular focus on prehistoric landsurfaces and deposits on the seabed, its content applies equally to remains in intertidal areas or buried under ground, both in rural and urban contexts, where reclamation or some other process has caused the surface or deposit to be covered by dry land.

In all of the following discussion, it is imperative that consideration of 'special interest' is evidence-based, and is related directly to surviving material. In particular, a direct, evidential, relationship is required between the surface or deposit, and past human inhabitation.

This Selection Guide provides generic guidance on the special interest of prehistoric landsurfaces and deposits. More detailed guidance may be developed in due course on the characteristics and special interest of specific types of prehistoric landsurface and deposit.

Both this Selection Guide and more detailed guidance are likely to be enhanced and updated in the course of future research into prehistoric landsurfaces and deposits in archaeological contexts.

## **2 SCOPE**

For over a century, antiquarians and archaeologists have recognised that layers of peat are the remains of the previous surface of the land, in which prehistoric objects and structures can be found. These peaty layers are made up of earlier vegetation that has been preserved by being waterlogged; the same conditions that have preserved vegetation have also caused other organic material to survive, such as artefacts made from wood, leather or cloth. Because peaty deposits preserve a fuller range of artefacts – often in extraordinary condition – than is usually the case on drier sites, these features have become highly regarded. However, this high regard has not come about only because of what can be easily seen; as well as artefacts, the preserved vegetation, together with other organic remains such as insects and the microscopic remains of pollen, enable archaeologists to build up a very detailed picture of the environment that was once present. The organic remains of vegetation and artefacts can be dated using scientific methods, adding to their importance in understanding the time at which the particular environment and any artefacts were deposited, the rate at which they changed, and pinning down the likely age of other archaeological material in the vicinity.

Antiquarians and archaeologists have also been long used to finding stone artefacts and animal bones within deep layers of sand and gravel. As with peaty layers, the presence and survival of such artefacts is closely linked to the environmental processes that caused the deposit to be formed. Predominantly, these layers of sand and gravel were laid down in the course of major fluctuations in sea level caused by changes to the ice sheets that formed in the course of ice ages. When sea level was low, fast-flowing rivers eroded the land and cut deep valleys, sweeping away artefacts that had been deposited on land by our early predecessors. As conditions changed, the vast volumes of sand and gravel that had been swept from the land were deposited in the over-deepened valleys and plains. In due course, rising sea-level caused the lower reaches of these former rivers to become submerged. These patterns have occurred repeatedly over the time that humans and their ancestors have been present in England, resulting in an often complex sequence of deposits, some of which contain artefacts that are hundreds of thousands of years old. These deposits of sand and gravel are now targeted as a source of aggregate for construction, both in the upper reaches of rivers that are now dry land, or in the lower reaches where aggregate has to be extracted by dredgers at sea. These deposits, and the artefacts they contain, can be investigated to learn about the people themselves and the environments they inhabited.

The contribution that geoarchaeological investigation of landsurfaces and deposits can make to understanding ‘conventional’ archaeological material such as artefacts

and structures is considerable, especially for earlier prehistoric periods when such artefacts and structures are relatively ephemeral or widely dispersed. Where artefacts or structures are present, it is likely that the surfaces and deposits in which they are embedded will be integral to their understanding and interest. Consequently, protection is likely to address surfaces or deposits inclusive of the associated artefacts or structures, rather than the artefacts or structures in their own right. Hence this Selection Guide is concerned with prehistoric landsurfaces and deposits and whatever they might contain, in contrast to other Selection Guides that concern themselves more directly with 'sites' such as buildings or monuments.

Although this Guide focuses on the meaning of these surfaces and deposits for our understanding of people, there is a very close relation to the role that landsurfaces and deposits have in understanding environmental change, especially climate and sea-level change. However, archaeological special interest requires a tangible link to human activity, or to the environmental circumstances of such activity. A surface or deposit that is entirely 'natural' in its formation with no artefacts or human structures associated with it, or which presents only a general record of the environment without a clear link to a human population, will not count highly in this Guide. Such a surface or deposit may be of great interest to scientists in a range of disciplines but still fall short of the threshold of being 'special' in archaeological terms.

Although prehistoric landsurfaces and deposits can be characterised as layers of peat and gravel, the range of circumstances in which special interest can arise is very wide. Also, our knowledge and understanding of the processes that are involved is still poor. All generalisations about the presence or absence of interesting prehistoric landsurfaces or deposits have to be treated cautiously.

To complicate matters, the non-peaty parts of a sequence can be as important as the peaty part. For example, the interesting thing about peat may not be the peat itself, but the surface below it, which may have been the actual surface upon which people walked, lived and dropped things until it became covered by a less hospitable but highly preservative bog. But it is not only peat that preserves; in all sorts of circumstances, fine-grained materials such as silt and sand can cover artefacts and other human traces, preventing them from decay. In some cases, an inhabited surface may have been preserved without any subsequent deposition. Equally, thick deposits of sand and gravel that indicate massive forces that would have displaced archaeological material on a huge scale may be interspersed with layers from times that were far more benign, in which artefactual and other remains are preserved *in situ*. As a result, any assessment of prehistoric landsurfaces and deposits should start with careful consideration of the entire sequence.

Similar care should be taken with any assumption regarding the date of a surface or deposit, and of the presumed importance that is attached to that date. Typically, peaty and fine-grained deposits are considered as dating to after the last glacial maximum (i.e. late Devensian or Holocene), partly because the massive processes associated with glaciation, de-glaciation and subsequent marine inundation are likely to have removed such fragile deposits. However, this is being shown increasingly not to be the case; in some circumstances such fine-grained deposits survive from earlier periods, and their interest is especially high because of the insight into these very early environments that they might enable. Equally, some major deposits of sand and

gravel (which are normally associated with Lower and Middle Palaeolithic material) occurred relatively late in the Devensian, and may contain artefacts that are Late Upper Palaeolithic, Late Glacial or even Mesolithic in date.

Understanding the archaeological potential of early landsurfaces and deposits is made more complex by the fact that the area that now comprises England and England's waters has not been consistently inhabited by people. At some stages, the environment may have been so harsh that most people retreated to better climes in Continental Europe. At other times, higher sea levels would have meant that England was an island that could not be reached. And in some cases, the archaeological evidence suggests that for some other reason, England was not inhabitable even though it was agreeable and accessible. There is considerable scope for new discoveries to change fundamentally our understanding of how, and when, England was inhabited in early prehistory.

The term 'landsurface' is being used here intentionally, and is distinct from 'landscape' in the sense of 'submerged landscapes' to which some authors refer. Landscapes exist in the perceptions of their inhabitants; they are a cultural as much as physical construction. Archaeologists might, at some point, be able to start inferring now-submerged landscapes in the way that they might have been perceived by our predecessors. However, there are currently so many difficult variables to address in delineating former topographies and arraying them with flora and fauna, and such slight understanding of the behaviours of the people that lived there, that attempts to discern 'landscapes' at anything but very local scales are likely to remain highly speculative for some time to come. In the meantime, reference is best made to 'landsurfaces' as being the physical evidence upon which landscape interpretations might subsequently be built.

A further caveat must be entered. Not all surfaces are necessarily landsurfaces. Various processes, both fluvial and marine, will have caused landsurfaces to be eroded at various times. In some case the erosion may have been massive, and extensive sequences will have been entirely removed. Where more limited erosion has occurred, only a few centimetres of a horizon may have gone. Nonetheless, the potentially inhabited surface may have been lost even though the subsoil is still there, sometimes presenting a particularly sharp boundary between the eroded underlying unit and the subsequent deposit, and leaving a frustrating 'gap' in the chronological sequence.

It is worth noting that earlier landsurfaces can be preserved on a limited scale in many archaeological contexts, where they are referred to as palaeosols. A palaeosol may be preserved, for example beneath an earthwork such as a rampart or barrow. The special interest of palaeosols that have survived within the context of another monument are likely to be addressed as part of the consideration of the monument as a whole, so they are not the focus of this Selection Guide. Here, the intention is to provide guidance on landsurfaces and deposits that have survived 'in the open', where the interest arises from the surface or deposit itself, without a monument necessarily being present.

Not all prehistoric landsurfaces and deposits that have special interest will need to be managed *in situ*. Many important prehistoric landsurfaces and deposits have been

found in the course of development, and have been managed (often through recording and analysis) in such a way that development has been able to proceed without restriction.

### **3 WHO'S INTEREST?**

Important remains from early prehistory are relatively scarce, and our knowledge is so patchy that most research is conducted within a context that is Europe-wide or even international. Consequently, prehistoric landsurfaces and deposits found in England and England's waters will often be of special interest far beyond England.

The wider interest of prehistoric landsurfaces and deposits is especially pertinent to such surfaces and deposits found in offshore areas, which are between modern countries not within them. Today's countries represent the former highlands that surrounded great basins in the Southern North Sea, English Channel, Western Approaches and Irish Sea. Both the geological and archaeological context has to be addressed on the basis of findings and expertise from outside England. In return, findings and expertise developed in England are highly relevant outside our territorial bounds.

The archaeological investigation of early prehistory is still underdeveloped. There are major gaps in understanding and numerous points of contention. Even within the historic environment community there may not be consensus about the special interest of a specific landsurface or deposit. The consideration of special interest should, therefore, acknowledge its contingent character, and should not unreasonably exclude the subsequent development of alternative perspectives.

Where a prehistoric landsurface or deposit is also valued for other reasons (as a habitat, site of geological interest or a source of aggregate, for example), the consideration of special interest should take into account other public interests in accordance with the guidance offered by English Heritage's *Conservation Principles* (English Heritage, February 2007: 48).

Decisions about special interest can be expected to have direct consequences for the future survival of the asset, bearing in mind that prehistoric landsurfaces and deposits may be particularly susceptible to rapid and irreversible deterioration. Such decisions will, therefore, affect the fabric of the historic environment upon which future generations can draw in developing their own understanding and appreciation of the past. Consequently, in considering the special interest of a prehistoric landsurface or deposit, due regard should be given to the sustainability of the decision, i.e. the degree to which it might prejudice options for future generations.

### **4 INTEGRAL FACTORS: WHAT MAKES A PREHISTORIC LANDSURFACE OR DEPOSIT OF SPECIAL INTEREST?**

For a prehistoric landsurface or deposit to be of special interest, the remains must be capable of making such a distinctive contribution to our understanding or awareness of people's actions or environment in the past that the remains themselves should be protected from uncontrolled damage.

In these terms, prehistoric landscapes and deposits can be important because of what they can say about the environment that people lived in at the time they formed, about the people themselves when they lived on and around these surfaces and deposits, and about the circumstances and processes that caused them to become uninhabitable. The scope for high levels of preservation within fine-grained deposits means that in some cases, material will survive that gives a detailed and direct insight into the activities of a single individual or a small group, millennia ago. In many cases, however, the study of early prehistory involves looking at far broader aggregations of evidence, to pick up patterning that might hint at processes that affect whole populations, or even the overall development of humanity.

A prehistoric landsurface or deposit will be of special interest where it is capable of making a distinctive contribution in terms of the following:

**Narrative** A prehistoric landsurface or deposit will be of special interest where it makes a distinct contribution to understanding overall historical processes relating to England, to early prehistory in Europe, or to the global understanding of humanity's origins. Special interest may arise in respect to major changes in the environmental conditions within which people lived, especially where human intervention may have contributed to such changes. Special interest may also arise where a landsurface or deposit presents tangible evidence of a significant change in culture, population or human attribute. Special interest may arise also where a landsurface or deposit presents insights into day-to-day life through, for example, the presence of structures or dense assemblages of artefacts in close association.

**Associations** Generally, historic assets have special interest where they present a distinct, tangible link to a person or event, especially known, named historical people and events. Prehistoric landscapes and deposits are unlikely to generate such interest as although there is no doubt that the lives of our predecessors were punctuated by significant characters and episodes, they are now lost in time. Notwithstanding, it is possible that a landsurface or deposit may have special interest because it is associated with a discovery that achieves a high level of recognition in England or internationally, over and above the narrative interest of the surface or deposit itself.

**Respect** Some prehistoric landsurfaces and deposits have been found with human remains directly associated with them. In some cases there are burials. In other cases relatively small fragments of apparently isolated bone – including bits of skull – have been found, the meaning of which is uncertain. Sites with human remains may well have special interest by virtue of the direct contribution that the remains can make to our narratives of early prehistoric people. However, these remains also warrant respect, notwithstanding their great age. The presence of large quantities of human remains in a prehistoric landsurface or deposit may generate special interest by virtue of the need for respect.

**Aesthetic** The scope for a prehistoric landsurface or deposit to give rise to aesthetic special interest is probably limited to circumstances where early art – such as a cave painting – is preserved. Monumental structures such as Seahenge might also be regarded as having special interest in aesthetic terms. The importance of art as a

pathway to understanding early humanity and culture is such that any evidence of art is likely to give rise to narrative special interest also.

**Current Relevance** A prehistoric landsurface or deposit will be of special interest on account of its current relevance if it presents a direct parallel with a topic of public debate today. Specifically, direct evidence of the relation between human activity and environmental change – including sea-level change – is likely to give rise to special interest on account of its current relevance. Special interest will arise not only where there is clear evidence of people responding to environmental change, but also where prehistoric people can be seen to have caused or modified environmental change.

## **5 RELATIVE FACTORS: IDENTIFYING PRIORITIES AMONGST PREHISTORIC LANDSURFACES AND DEPOSITS**

The section above set out the integral factors that any prehistoric landsurface or deposit must exhibit if it is to be considered as of 'special interest'. This section considers the factors that enable landsurfaces and deposits to be sorted relative to each other. Having established that a prehistoric landsurface or deposit is capable of making a distinctive contribution in terms of narrative, associations, respect, aesthetics or current relevance, consideration should be given to the following factors in comparing it to other similar assets:

**Rarity** In principle, the absence of comparable landsurfaces or deposits will add to special interest on account of rarity. However, baseline knowledge of the presence, distribution, extent and character of prehistoric landsurfaces and deposits in marine environments is currently poor. Although it is assumed that their fragile nature might have resulted in degradation and erosion through glacial and marine processes, prehistoric landsurfaces and deposits appear to be present more widely than previously thought. Nonetheless, the specific details of age, sequence and context may still render a landsurface or deposit 'rare', at least on the basis of current knowledge.

Current knowledge of landsurfaces or deposits with direct artefactual evidence of prehistoric activity is currently very limited; any such landsurface or deposit will be considered 'rare', at least for the time being. Equally, prehistoric structural remains are currently very rare, and will add considerably to the special interest of a landsurface or deposit.

For any particular class or type of landsurface or deposit, identifying only one as a single example of their 'special interest' is unlikely to be sustainable, because the additional measures that are put in place may not guarantee its survival. Consideration should be given to replicating protection, by implementing additional measures on several comparable landsurfaces/deposits.

**Representivity** The special interest of a landsurface or deposit is likely to be greater where it comprehensively represents the attributes from which the special interest arises, rather than a single facet. Representativity may be greater, for example, where a deposit covers an extensive sequence rather than a single horizon, or where a surface encompasses a range of topographies.



**Diversity** Prehistoric landscapes and deposits have formed in a range of environmental circumstances. Even comparable, contemporary environments may have been inhabited in different ways depending on the cultural disposition of the people at the time. Decisions about special interest should take into account the need to conserve examples of this diversity, where evident. The formation and inhabitation of prehistoric landscapes and deposits can also be assumed to vary regionally across the vast areas of seabed that were once land, and this source of diversity should also be borne in mind when assessing the special interest of a particular surface or deposit.

**Potential** The special interest of a prehistoric landscape or deposit will be enhanced where there is demonstrable potential for yet greater interest to develop. Potential may arise in respect of greater understanding through investigation and research, or for greater awareness and appreciation where the surface/deposit lends itself to wider access.

Potential may arise from palaeo-environmental indicators, artefactual assemblages or even structural material that is exposed or can be reasonably assumed to be buried.

As prehistoric landscapes and deposits are as yet very poorly understood, especially in respect of their possible rarity, representativity and diversity, the potential of a surface or deposit is likely to be high in many circumstances. In order that the selection of sites is transparent and rigorous, the specific grounds for identifying potential will have to be set out in detail.

**Survival** The special interest of a prehistoric landscape or deposit will be affected by the degree to which the physical remains giving rise to that interest have survived, gauged in terms of completeness. A surface or deposit is likely to be of greater special interest where its sequence or extent is complete, rather than fragmentary or interrupted. However, it is the completeness of the features that give rise to special interest that should be considered, not necessarily the completeness of the asset as a whole, i.e. the special interest of a horizon that has good evidence of inhabitation may be augmented by being complete, even if deposits above and below are discontinuous. Notwithstanding, in some instances, the interest of an asset may be so great that even fragmentary remains might be considered 'special'.

Completeness in terms of the presence of different palaeo-environmental indicators is likely to confer special interest relative to an otherwise similar surface / deposit where the survival of such indicators has been partial.

Additional interest may arise where the survival of a prehistoric surface or deposit can shed light on the processes that cause such sites to be preserved or to deteriorate. Understanding these site formation processes is important for understanding, for example, patterns in the overall distribution of assets or – within the bounds of a single site – the effect differential survival might have had on interpretation of the material that is still present. Understanding site formation processes is also very important in developing approaches to asset management. Although 'survival' can be a source of additional interest, it is unlikely to confer

sufficient interest in respect of an otherwise unremarkable site for that asset to be considered 'special'.

The anticipated future survival of physical remains does not provide grounds for gauging special interest; this is only relevant to considering what management measures are appropriate.

**Documentation** The special interest of a prehistoric landsurfaces or deposit may be increased by the availability of documents, map, images, oral testimony or other evidence that enhances understanding or appreciation of the asset. Unlike more recent assets, there will be no documentation that is contemporary with the surface/deposit when it was inhabited, but people have been noticing and remarking on 'submerged forests' and prehistoric finds from underwater for more than a century. Records of previous investigations, archaeological or otherwise, may add considerably to special interest, especially where the investigation of the surface/deposit was in itself a significant development of the discipline.

**Grouping** The special interest of a prehistoric landsurface or deposit may be greater where several surfaces/deposits are grouped together. Grouping is likely to add to special interest where the individual assets, taken collectively, enable greater understanding or appreciation of a range of environments, activities or types of inhabitation, or provide a chronological sequence, for example.

Although sequences that are stratigraphically continuous may be considered to have interest by virtue of the completeness of the record that they present, it is important also to consider the interest of each surface or deposit in its own terms. Hundreds or even thousands of years may separate successive surfaces that are only a few centimetres apart, in which case the archaeological interest of each should be considered in isolation. The additional interest of several surfaces that is each of special interest being present at the same location may be recognised better by 'grouping' them, than by ascribing the interest to undifferentiated deposits simply because they amount to a sequence.

**Setting and Context** The special interest of a prehistoric surface or deposit may be increased by its being situated in a place that adds to its understanding or appreciation. For example, submerged surfaces or deposits that are close to the coast or within estuaries, in which the surface/deposit can be considered within an overall topography may be considered to have greater interest. Similarly, the interest of surfaces/deposits offshore may be greater where they can be related to major structural features such as main river channels or former cliff lines.

The presence of contemporary artefactual material in adjacent areas – either underwater or onshore – may add contextual interest to a prehistoric landsurface or deposit.

**Associated Collections** The special interest of a prehistoric landsurface or deposit may be increased by the presence of an associated collection of artefacts in a museum or other archive. An associated collection may have been recovered from the surface/deposit in the course of previous investigations or activity, by trawling or by antiquarian collecting at the coast, for example. Where the collection has accrued

indirectly, care will be needed to establish the degree of association between the collection and the surface/deposit.

**Exceptional** Although the above factors should enable people to spell out why a prehistoric surface or deposit is of special interest, in some cases there might be so little in the way of comparable sites or context that the framework is insufficient to make judgements. The archaeology of prehistoric landsurfaces and deposits is still very underdeveloped, so the historic environment is likely to yield many surprises. The special interest of some assets may be all the greater because they are 'exceptional' and do not bear comparison.

**Age** In the guidance above, age itself has not been used as a source of special interest; in itself, 'oldness' need not confer 'interest'. However, the age of a prehistoric landsurface or deposit is likely to invoke many of the factors that do give rise to special interest, especially in relation to narratives of earlier times for which material remains are so sparse.

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## APPENDIX I

With respect to Palaeolithic remains, English Heritage (May 1998) has previously advised that remains have particular importance if:

- Any human bone is present in relevant deposits;
- The remains are in an undisturbed, primary context;
- The remains belong to a period or geographic area where evidence of a human presence is particularly rare or was previously unknown;
- Organic artefacts are present;
- Well-preserved indicators of the contemporary environment (floral, faunal, sedimentological etc.) can be directly related to the remains;
- There is evidence of lifestyle (such as interference with animal remains);
- One deposit containing Palaeolithic remains has a clear stratigraphic relationship with another;
- Any artistic representation, no matter how simple, is present;
- Any structure, such as a hearth, shelter, floor, securing device etc., survives;
- The site can be related to the exploitation of a resource, such as a raw material;
- Artefacts are abundant.