

**Monuments, Society and the Mesolithic-Neolithic transition; with particular reference to Cumbria and the northern Irish Sea region.**

Submission for the award of PhD by publication

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## **Abstract**

**This thesis argues that henges, stone circles and ring cairns form a 'spectrum' of monuments with origins in the earlier Neolithic. In that context it is suggested that some of the structures located beneath long cairns were originally free standing foci. How the monuments might reflect contemporary society is discussed and it is shown that some standing stones might have been the focus for gatherings of people as large as those suggested for henges and stone circles. Evidence is presented showing that there appears to have been a continuity of traditions and world view from the Early Neolithic into the Late Neolithic and beyond. Similarly the distribution of later monuments appears to relate to Early Neolithic core areas which continued to be important and linked to 'status'. The relationship of the monuments to particular aspects of the environment is explored and it is shown that wetland environments, including floodplains, are a major feature in the location of the early foci. It is concluded that these would have been important resource areas in the Mesolithic as well as Early Neolithic with implications for our understanding of the Mesolithic-Neolithic transition..**

## Introduction and overview of the submission.

The appearance of stone circles and henge monuments in the archaeological record is generally seen as one of the characteristic features of the Late Neolithic, whilst the appearance of earlier monument forms, such as long cairns, together with agriculture is held to distinguish the Neolithic from the earlier "Mesolithic period" of hunter-gathering. However, the relatively recent recognition of Mesolithic posts at Stonehenge and elsewhere (Mercer 2004) and a Mesolithic pit alignment at Warren Field, Aberdeenshire (Fraser *et al* 2009) requires the relationship of monuments to the appearance of farming to be challenged. Nevertheless, a number of writers have stated that the geographical and topographical location of some earlier monuments, and in particular the megalithic tombs around the Irish Sea relate to the contemporary world view and that their construction was part of the process of becoming Neolithic (Cummings 2004 and 2007; Cooney 2007). However, there are no known megalithic tombs in Cumbria - which is part of the Irish Sea littoral – so how do the monuments there relate to the megalithic tomb and did the appearance of different monument forms, such as stone circles, in the later Neolithic reflect changed world views?

The research presented here relates to these issues. The submission is organized to demonstrate that what might seem a disparate group of papers (stretching over several decades) and methodological approaches – varying from syntheses of particular types of monument at the national scale to site investigation at the local scale – do in fact form a coherent body of research contributing to our understanding of prehistoric monuments and society. For these reasons the submission is divided into two parts. Part One provides the context, summary and critical review of the submitted papers as background to the main discussion, with the full text of the papers and how they form a coherent body of work being presented in appendices 1 and 2. Part Two takes the specific, individual narrative of Part One and drawing on further papers by the author provides a broader, overarching review and discussion of the topic including current work.

### Peer Review and joint authorship:

As far as the author is aware all of the papers formally submitted in Part One were subject to peer review. With the exception of Soffe and Clare 1988, where there is joint authorship the applicant initiated and organised the research and was the principal contributor in terms of the writing of the paper, the others contributing specialist analyses. In the case of Soffe and Clare 1988 the paper was one of joint authorship, both authors having submitted a paper on the same topic to the Journal and producing a final joint publication at the request of the editor.

Part one

**The formally submitted papers:**

**context, summary and critical review**

R= refereed, S = Sole author, J = Joint author, U = Un-refereed, P = Principal author.

## Papers 1 and 2. R, S.

Clare, T., 1986, Towards a Reappraisal of Henge Monuments, *Proceedings of the Prehistoric Society* 52, 281-316

Clare, T., 1987, Towards a reappraisal of henge monuments: origins, evolution and hierarchies, *Proceedings of the Prehistoric Society* 53, 457-477

### Context

In the applicants Master's thesis and in a subsequent paper (Clare 1975) it was argued that the various Late Neolithic and Bronze Age monuments and burial sites in Cumbria appeared to be inter-related and that stone circles, henges and ring cairns/ring banks should be seen as a single 'complex' of forms and traditions. More particularly, whilst the paper evaluated the claims that stone circles had astronomical alignments and had been laid out to create complex geometrical plans it also argued that features of the large diameter circles suggested more prosaic origins in timber circles and buildings and more specifically palisaded monuments. Links to earlier mortuary enclosures and ultimately to houses of the living were also suggested.

At the time, however, few such timber monuments were known: the applicant was able to refer to the Late Neolithic timber buildings at Durrington Walls and Woodhenge, to the few timber circles recorded beneath Bronze Age round barrows in Britain and in the Netherlands and to the Bleasdale circle (with palisade) north east of Preston which also appeared to be Bronze Age in date. In addition it was possible to compare the Cumbrian circles with the small stone circle of Croft Moraig in Perthshire where excavation had shown the circle to be preceded by a timber structure with both possessing porch-like structures similar to those of Cumbria.

After 1975, however, a number of other Late Neolithic palisaded monuments began to be found and excavated, the first being Meldon Bridge in the Scottish Borders where there was also a porch-like entrance, albeit of attenuated proportions, and the most recent being at Catterick to the east of Stainmore and the upper Eden valley (Hale *et al* 2009). The discovery of these sites led, therefore, to the publication of the two papers on henge monuments in Britain and Ireland.

### Summary of the 1986 paper

The purpose of the 1986 paper was to explore further the idea that henges, stone circles and ring cairns/ring banks formed a complex of forms and traditions. In particular it questioned the chronological criteria which had been used to distinguish henges from later monuments with similar form and structures. Arguing that 'it would seem that we are not dealing with a clear-cut monument type but a permutation of practices and features... some sealed by a mound, others left open' it proposed a classification which allowed recognition of such combinations (and the fact that not all sites were excavated and therefore not all features known) 'by plotting perimeter type against associated features/structures' (Clare 1986, 282). It was noted that some of the resulting monument 'classes' appeared to be associated with particular cultural artefact/pottery types and recurring features shared by henges, stone circles and ring banks were discussed; it being noted that in many cases burial was the *final* act. It was also recognised that whilst there appeared to be a hierarchy of monuments there also appeared to be regional preferences. It was concluded that there was a need to recognise that apparently similar sites may have developed in different places at different times but that many recurrent features and structures had parallels in the earlier burial monuments, mortuary enclosures, as well as 'causewayed enclosures' and regional variants of the latter.

### Summary of the 1987 paper

This paper attempted to explore the relationship of the henge – stone circle complex to earlier monuments on the one hand and to later ones, including the Dutch palisade barrows, on the other. It questioned the generally accepted idea that henges had evolved *simply* from causewayed camps and sought to demonstrate that there was another group of early Neolithic monuments which had once been freestanding foci within the contemporary landscape. Noting that these structures are usually only found beneath 'burial mounds' it was suggested that they had two primary functions: to provide a focus for the community (involving perhaps offerings, processions, feasts and other social activities) and an area for exposing and/or burying the dead or ancestors. It was also argued that these monuments, the causewayed enclosures and their regional variants demonstrated a broad tradition of ideas and practices and that 'it is surely within that broad tradition, its hierarchy of monuments and its continental antecedents that the tangled relationship with the Dutch palisade barrows, on the one hand, and British ring ditches, ring cairns and other distinctive monument forms, on the other, can be sought' (Clare 1987, 462).

Within that context, it was argued, the circular perimeter form was paramount and attention was drawn to the Irish tradition concerning the ramparts of Tara and how they were perceived. Consequently it was argued that in some areas and/or on some occasions uprights might be used to create this perimeter whilst elsewhere or at other times an earthwork might be built. Noting the existence of regional preferences it was concluded that these 'existed almost from the outset. This is perhaps not surprising, for the easiest way for a community to establish its identity relative to another is surely not just the erection of territorial markers but, within certain permitted limits, the construction of monuments which are different from those of their neighbours' and that a particular community might also build in a different fashion to their predecessors (Clare 1987, 468).

The overall conclusion, therefore was that the monuments should be seen as reflecting a 'kaleidoscope' of ideas and traditions: a 'continuity of ideas, apparent from the beginning of the insular Neolithic into the middle of the Bronze Age and probably beyond'; that the Late Neolithic may have been evolutionary rather than catastrophic and that there was a need for study of all monuments within a region (Clare 1987, 472).

### Critical reflection

Despite the 1986 paper winning the award for best paper in the *Proceedings of the Prehistoric Society* the papers were criticised for being 'reductionist' (Barclay 1988). However, it is significant that Barclay omitted/did not recognise the word 'towards' in the title of the papers. They were not intended to be a new system set in stone but to stimulate debate and questioning; to demonstrate that monuments being – and still being – described as henges or stone circles might have attributes in common but that every monument is different. In that, Barclay and the author were in agreement and the papers seem to have stimulated recognition of the need to discuss henge monuments or stone circles in a broader context than is often the case. This view is also the basis of a more recent comment: 'Tom Clare...made the very important point that it is difficult to draw a sharp distinction between true henges and a very heterogeneous group of sites...' the 'system had the benefit of refraining from isolating a single variable which might serve as the basis for a binary distinction between henge and non-henge..' (Thomas 2004, 100).

With hindsight the mistake was to describe the papers as relating to a 'classification' when what was really demonstrated – and intended to be demonstrated – was a way of organising the data so that patterns could be identified: a means of aiding discussion not closing it. The author agrees with the conclusion of Thomas that 'We need to be critical of the notion that henges amounted to a coherent and bounded tradition of construction, which was different in kind from those sites which happened not to be surrounded by a bank and ditch' (Thomas

2004, 107); indeed, that was one purpose of the paper as Thomas acknowledged (Thomas 2004, 100). Nevertheless it is also the case that those managing *Sites and Monuments Records* (as the author then was) and those responsible for conservation of monuments (continue to) use something akin to a binary classification for most of the data because it is unexcavated and cannot be nuanced by the activity which Thomas rightly makes the basis of his discussion. In the papers the author was trying to point this out and to demonstrate that a binary system could none the less allow for recognition of interrelationships rather than hard classes.

Not with standing such criticisms, Barclay and others have agreed with the author's argument that the origin of henges was unlikely to lie in causewayed enclosures alone; a conclusion central to this thesis. It is a conclusion apparently accepted by Burl (2000) and, significantly, his 2000 re-working of the 1976 volume has a section headed 'The emergence of Henges, Stone Circles and Rings of Posts' (Burl 2000, 33). Equally important to the author's thesis that the origins of the henge-stone circle-ring cairn/ring bank complex lay in earlier Neolithic monuments other than causewayed enclosures alone and that the tradition continued beyond the Early Bronze Age are the early dates for the 'ring bank' at Pitglassie and the late date now assigned to the sequence of structures at Croft Moraig which the 1975 paper, following the original excavation report considered an example of stone succeeding timber (Gibson 2010, 244 for one comment). Moreover Gibson has been able to demonstrate that in *many but not* all cases – eg Stonehenge - the henge element of some multi-period sites is later and not earlier than stone and timber rings and that 'where timber circles and stone circles coincide, the timber circle is always the primary monument' (Gibson 2010, 244).

### Paper 3. R, J.

Soffe, G. and Clare, T., 1988, New evidence of ritual monuments at Long Meg and Her Daughters, Cumbria, *Antiquity* 62, 552–557.

#### Context

During the 1960s Alexander Thom published a number of papers and surveys arguing that stone circles, including the Cumbrian ones, had been laid out using precise measurements of length and deliberately constructed, complex geometric figures (eg Thom 1966). Long Meg, for example was cited as an example of a 'flattened' circle. However, the ideas attracted criticism particularly where, as at Long Meg, the relationship of the stones to the theoretical layout appeared to be only 'best fit'. The arguments were reviewed by this author (Clare 1975) and it was suggested the arrangement of stones and 'flattening' might be due to the site having been altered, perhaps in the relatively recent past. However, a drought in the summer of 1983 revealed that there was a ditched enclosure contiguous to the 'flattened' side of the circle. The feature was recorded independently by aerial photography by this author and the Royal Commission on Historical Monuments (Graham Soffe) and this joint paper resulted.

#### Summary

The paper included a plan of the new earthwork enclosure and discussion of the fact that the stones, previously thought to have been displaced (Clare 1975), formed a porch-like entrance, comparable to that long known on the 'other side' of the stone monument, which appeared to lead to a causeway across the new ditched enclosure. It was also possible to show that the 'flattened' arc of the stone circle lay along the edge of the ditch and it was concluded that the stone circle had probably been built up against an earlier, earthwork enclosure. In addition the paper discussed other crop-marks which had been recorded and the possibility that some formed a cursus. Attention was also drawn to the proximity of the new enclosure to a spring.

#### Critical Reflection.

The chance discovery of the new enclosure has revolutionised understanding of the stone circle, leading to *Antiquity* republishing the paper in 2003 in a volume of selected 'classic

papers' from the journal. However, a failure to excavate the site – largely the result of an application of the conservation ethos – has meant that the date of neither monument nor of their relationship to each other has been established. Equally, the nature of the earthwork enclosure and whether it had an external bank, like a henge, or was a broad trench dug for a palisade like those at West Kennet remains to be demonstrated. Survey by the author (Clare 2006 and 2007a) did, however, show that the ditched enclosure lay at the head of a steep sided valley and was probably still an earthwork when Stukeley visited the site in the eighteenth century when there was another spring in the centre. More recently the author (Clare 2010) has argued that the enclosure and stone circle were laid out to evoke and appropriate each other.

#### Paper 4. R, P.

Clare, T., Clapham, A.J., Wilkinson, D.M and Haworth, E.Y., 2001, The Mesolithic and Neolithic landscapes of Barfield Tarn and Eskmeals in the English Lake District: some new evidence from two different wetland contexts, *Journal of Wetland Archaeology* 1, 83-105.

#### Context

It has long been accepted that pollen analysis allows us to reconstruct part of the Mesolithic and Neolithic environment but that it also has limitations. For example, it cannot show whether oak trees of the kind used in some monuments were growing in stands or scattered through the forest. In this context the author became interested in the potential of the 'submerged forests' to provide evidence for the size and distribution of trees in a particular environment (Clare 1995). This led to JMU supporting Alan Clapham as a PhD student to undertake macrofossil investigations of submerged forest deposits on Merseyside and in Lincolnshire. At the same time this author looked at how the distribution of archaeological evidence in Cumbria might relate to submerged forests and Holocene coastal change (Clare 2000a). In that work attention was focussed on deposits visible (at that time) off the narrow coastal strip of SW Cumbria because the area a) has a number of known stone circles and other megalithic monuments b) includes Eskmeals where late Mesolithic sites had been investigated and c) includes Barfield Tarn a seminal site in discussion of pollen and sedimentary evidence for the Mesolithic and Neolithic environments. Moreover, the applicant had already undertaken fieldwork aimed at investigating the palaeohydrology of the area (Clare 1997).

#### Summary

The work undertaken was, therefore, in two parts. Firstly, an assessment of the biogenic remains on the foreshore and beneath adjacent fields and, secondly, excavation of a palaeohydrological feature identified previously by this author. Of these the first allowed the Mesolithic remains at Eskmeals to be placed in a broader context with the suggestion that some of the anomalous radiocarbon dates were the product of some of the remains being natural in origin.

The second piece of work recovered macrofossil remains for (some) Late Neolithic cereals and other macrofossil analysis allowed comparison with the pollen evidence from nearby Barfield Tarn. Together they allowed for the local Late Neolithic oak-ash woodland – envisaged from pollen analysis – to be seen as a mosaic with some open areas affected by fluctuating sea levels. The latter was shown to include a significant change in sedimentation c 4400 years ago and the possibility that this related to climate change was discussed together with the possibility that the environmental changes had led to or were connected with the appearance of new monument forms especially stone circles. It was also possible to argue that settlement might have expanded, or moved, through time along the coastal strip from Eskmeals and that this explained the known distribution of monuments.

### Critical reflection

Although the paper provided a detailed analysis of local environmental change and can be seen to extend earlier work at Barfield Tarn its potential significance lies in the fact that subsequent to publication two crop marks recorded by aerial photography have been interpreted as 'timber henges', especially as the erosion/sedimentation investigated could be linked to the hill on which one of these monuments was located. Similarly the evidence for local environmental change and a contemporary increase in the intensity of farming at the beginning of the Late Neolithic when new monument forms seem to appear can be seen to be part of a wider, national picture (Burl 2000, 29-31 for summary). In addition the conclusion that it is possible 'the clearances which coincide with the Mesolithic-Neolithic transition in the area were, unlike those of the Late Neolithic, predominantly pastoral rather than arable in origin' supports models for the nature of the transition suggested for other regions such as Scotland (eg Ashmore 1996).

## Paper 5. R, P.

Clare, T., Clapham A.J., Wilkinson, D.M. and Taylor, J.J. ,2002, The context of the stone axes found at Portinscale and in the vicinity of the Castlerigg stone circle. Neolithic settlement sites or a case of votive offerings? *Archaeological Journal* 159, 242-248.

### Context

Within the archaeological literature it is often stated (eg Burl 1976; Bradley and Edmonds 1988) that the Cumbrian stone circles and henges were on route ways and part of the movement/exchange of stone axes produced in the central Lake District (petrologically, Group VI axes). This paper sought to explore the distribution, and context, of the axes known to have been found in the vicinity of the Castlerigg stone circle near to Keswick. In particular it focussed on a group of axes which had been found at Portinscale in 1901 and subsequently interpreted as belonging to a settlement or 'finishing' site. The fact that the axes had been found in a biogenic deposit was also of interest given that fieldwork by the applicant had demonstrated the former existence of a tarn to the east of the stone circle (Clare 1999; Clare, Wilkinson and Pile 2002).

### Summary

The paper reported small scale excavation of the site where the Ordnance Survey map showed the axes and biogenic deposit had been found. It appeared that no original material survived at the precise location indicated but some adjacent deposits were located and these were shown by radio carbon dating to be contemporary with some axe production sites in the central Lake District and that assumed for stone circles like Castlerigg. Amongst the microfossils recovered were leaves of holly and it was noted that the presence of this tree rarely occurred in pollen diagrams. It was concluded that the axes had been a votive offering placed in a wetland and that 50% of all the axes found in the vicinity of the stone circle may have been votive.

### Critical reflection

The environmental interpretation of the site was refined in a subsequent note (Davis *et al* 2007) but the recent suggestion that the wetland and in particular woody remains discovered

1901 may have related to beaver activity (Coles 2010) does not alter the conclusions of the paper and the suggestion that some 'caches' of axes found elsewhere in Britain might also have been votive rather than part of the finishing process. Similarly the paper demonstrated that there is no direct association between most axes found 'near' stone circles and the actual monument; that the latter might be better seen as located within areas of contemporary activity. Equally the possibility that some of the axes reported to have been found in the vicinity of monuments might be subject to 'double counting', ie the same axe may have been reported as coming from two locations, was noted in 2003 (Clare 2003).

## Paper 6, R, S.

Clare, T., 2009a, No-man's land revisited: some patterns in the Neolithic of Cumbria. In

Brophy, K. and Barclay, G.J. (eds), 2009, *Regional Diversity in the Neolithic of Britain and Ireland*, 95- 108. Oxbow Monograph (NSG volume 9), Oxford.

### Context

This paper, like all those in the volume, was presented at a conference in 2001 and revised by end of 2002. It sought to explore further the issues of regional preferences raised in the first two papers submitted here.

### Summary

The paper noted that when there are few dated or excavated sites archaeologists tend to rely on analogy and that, consequently, novel or unusual monuments – which might be peculiar to an area – will tend to be unrecognised. In that context attention was drawn to the existence of early Neolithic round barrows and the apparent continuation (?) of excarnation into the Bronze Age. However, the question of regional and local preferences was explored by considering in detail three areas in Cumbria: the limestone uplands of the upper Eden valley, the central Eden valley including Long Meg and the south west coastal strip. In all areas and especially where there discrete geographical groupings of monuments each one tended to be different from the other 'as if they were built by communities vying with each other and wishing to express and assert their own identities'. Again, the distribution of monuments in all three areas suggested they reflected an expansion of land use away from an area of early activity. These local patterns could be compared with the fact Cumbria as a whole appeared to have links with Yorkshire, South West Scotland 'and beyond' and it was concluded – within the context of the conference - that diversity and regionalism are not necessarily the same and that scale is important. It was also noted that as preferences and contact changed with time so 'the "region" is constantly redefined'.

### Critical reflection.

It is evident from the paper's comments about the problems of undated/unexcavated sites that the suggested 'expansion' of monuments away from early areas of activity remains to be proved. Similarly it is not possible to demonstrate that differences in monument form within

discrete areas are actually the result of different communities at different times but the postulate is consistent with studies of community identity (Cummings and Fowler 2004, 3 for a summary). However the general observations about regionalism, locality and scale are not inconsistent with those of Brophy (2009). Equally the suggestion that the Cumbrian archaeological record should be compared with Scotland as much as England is similar to those of Barclay (2001).

## Paper 7. R, S.

Clare, T., 2010, Megalith size and the implications for our understanding of contemporary society, with particular reference to Cumbria, North-West England, *Oxford Journal of Archaeology*, 29.3, 245-252.

### Context.

With few excavated and even fewer dated sites it remains difficult to recognise trajectories of change and/or regional preferences amongst stone circles. Recognition that the extant monuments may be of several phases and that a central mound might be later than the perimeter only serves to blur possible distinctions. In this context archaeologists have turned to other attributes such as the spacing of the stones or the diameter of the circle itself, suggesting that the latter related to the size of the population using the site. This assumption has, however, implications for other discussions about the function of the monuments, implying that the contemporary population was to be accommodated inside the perimeter; an interpretation not inconsistent with the suggested that the 'impermeable', earthwork perimeters of henges were meant to exclude.

### Summary

The basis of the paper was a calculation of the mass of more than two hundred stones used in stone circles and other monuments in Cumbria. The results showed there was no simple, direct correlation between size of stones used and the diameter of a circle and that some of the larger stones were isolated menhirs or standing stones. However, estimates of the numbers of people required to move and erect stones demonstrates that some monuments – menhirs as well as circles – were built by aggregations of more than one family and that there appears to be a hierarchy of monuments with Long Meg dominant.

### Critical reflection.

Whilst the paper considered all megalithic structures, whether early Neolithic or later, the social structure implied by the results is not inconsistent with that postulated/required in the previous paper for the movement and acquisition of domesticates and other items of exchange such as stone axes.

Part two

**In the round: a narrative of Monumentality, Society and the Mesolithic-Neolithic transition; with particular reference to Cumbria and the northern Irish Sea region.**

# **In the round: a narrative of Monumentality, Society and the Mesolithic-Neolithic transition; with particular reference to Cumbria and the northern Irish Sea region.**

## **2.1. Trajectories in monument structures and building**

By analogy with sites excavated elsewhere the earliest (visible) monument in Cumbria may be Rayseat Pike. Although it used to be described in the literature as a long cairn it can now be seen to consist of two conjoined round cairns (Clare 1979 and 2007a, Fig. 53). The implications of this for our understanding of early monuments in general and those of Cumbria in particular were discussed in Clare 1979, Clare 1987 and Clare 2009a.

Essentially these are:

- the existence in the early Neolithic of a tradition of building round as distinct from long cairns with implications for our understanding of the existing database; namely that discussion of the early Neolithic should not simply consider long cairns
- the existence in the early Neolithic of freestanding foci which might or might not be “sealed” by a mound
- some of these freestanding structures being simple posts or standing stones and others facades, with implications for our understanding of other monuments such as Old Parks and Moor Divock 5 (Clare and Wilkinson 2006 for the latter)
- some of the freestanding foci involving two or three post structures which, whilst they might relate to paired stones still visible in the landscape, also appear to demonstrate the evolution of megalithic tombs and ‘proto-megaliths’ (Scott 1969, 181 for this term) with timber replaced by stone.

These features and traditions also occur in eastern England and Scotland, South West Scotland and in Dooley’s Cairn in Northern Ireland supporting the idea that ‘farming’ and the Neolithic package might have ‘spread’ from the east coast, through Cumbria and SW Scotland into Ireland. Whether the latter was wholly the case – see Sheridan (2006) for an alternative view - the structures beneath Rayseat Pike clearly demonstrate that at least one community in the Eden valley was, early on in the Neolithic, part of a wider world of contact, ideas and practices (Clare 2009a, Fig. 7.5). However, recognition of a tradition of Early Neolithic round cairns, combined with a review of radio carbon dates, has led to the suggestion that the classic long cairn or barrow may represent a short lived form (Field 2010) a situation which, if true, would have implications for our understanding of the

relationship of un-chambered long barrows and Clyde type chambered tombs in S W Scotland

Certainly the idea that the megalithic tombs of Northumberland, southern and south west Scotland simply evolved from timber structures of the kind found at Rayseat Pike and at Lochhill and Slew Cairn on the other side of the Solway estuary needs to be questioned. Firstly, if Rayseat Pike does represent a transition from timber to stone it did not develop further into the building of (recognisable) chambered tombs. Secondly, although the elements of 'Clyde' type megalithic tombs such as Cairnholy I in SW Scotland – linear, façade and trapezoidal long mound – have been previously considered to demonstrate links with and possible derivation from Ireland and the Severn-Cotswold area they also exist in Yorkshire and attention is drawn here to the fact that the *sequence* in which those elements appear is the same in both areas. Consequently, and consistent with the suggested dates of long cairns noted above, it would seem either that the monuments with long mounds – some in stone, some in timber – developed almost simultaneously and not sequentially or that a particular structural sequence was considered appropriate and 'part of a planned long-term concept' (Kinnes 1975 for the latter and Scott 1992 for comment upon it). Interestingly something like the latter is implied at Rayseat Pike and in the first phase of the Mid Gleniron I chambered tomb where the two round cairns appear to presage the later linear cairn form. Moreover the idea might also be related to the idea of 'monuments in progress' including stone circles (Clare 2009c for this at Long Meg).

It would also appear necessary to recognise that some of the structures found beneath both long and round Early Neolithic mounds may have represented monuments in their own right and since this suggestion was made (Clare 1986 and 1987) a distinct form has been recorded, particularly just north of Cumbria, in southern Scotland: the post enclosure or post cursus (Thomas 2006). Although there is a remarkable concentration of these monuments in the vicinity of Dumfries no similar structures have been recorded within Cumbria. However, such monuments do provide a context in which to re-evaluate the alignments of standing stones at Shap (Clare 1978) and to suggest that, once again, stone may have substituted for wood in some monuments in some areas.

Such a sequence with regard to stone circles (Clare 1975, Clare 1986 and Clare 1987) is confirmed by the latest discussion (Gibson 2010) although it needs to be noted that the sequence can occur at different times in different places (Clare 1987 for this observation; Bradley and Sheridan 2005 for the situation at Croft Moraig). Nevertheless, it is necessary to ask: if stone replaced timber in the early Neolithic monuments as, apparently, at Rayseat Pike simply because it was recognised to be more durable and, therefore, better for

monument building, why was the same sequence repeated – or had to be rediscovered – in later monuments? For example, not far from the megalithic chambered tombs of Mid Gleniron in SW Scotland supposedly developed from timber chambers there is the later Neolithic timber complex of Dunragit (Thomas 2001 and 2004).

In this context ideas about the two materials having different meanings, with timber being associated with the living and stone with dead (Cummings 2002, 140 for references), are pertinent. However, it would mean that where the two materials were used successively at the same site the purpose or perception of the site had also changed. Whilst it is not the intention to discuss the matter further, here, it is worth noting that the issue appears to relate to a wider one of perimeter materials and notions of permeable and impermeable, inclusion and exclusion (Bradley 1998 for one account). Certainly both forms occur adjacent to each other at Long Meg (Soffe and Clare 1988) and appear to deliberately reference each other (Clare 2009c) and it is surely relevant also to note that the cursus monuments of the Dumfries area also possess the same two perimeter forms (posts – permeable; earthwork – impermeable). As such, and in relation to the way the two contrasting enclosures at Long Meg reference each other (Clare 2009c), they might relate to the idea that a monument is constantly evolving: a single 'project, or work in progress, in which contrasting or even conflicting materials and constructional devices were deployed in successive phases... in order to transform the use and meaning of location' (Thomas 2001). Equally the juxtaposition of perimeter types at Long Meg might be seen as another example of deliberately created opposites (Cummings 2003 for this in relation to megalithic tombs in SW Scotland; Clare 2007a for this in relation to the Penrith henges). But none of these explanations excludes the possibility that they simply reflect the wish of one community or generation to 'leave its mark', to demonstrate that they existed (Clare 1987, 468). But is that not the primary purpose of a monument as distinct from a territorial marker: 'monument, a lasting evidence' (The Penguin English Dictionary; Renfrew 1976 for the idea that megalithic tombs on Arran were territorial markers).

There is, however, one other example of a timber monument which requires comment as it relates directly to the author's original thesis that henges, circles and ring cairns/ring banks are part of a single complex of traditions which could be combined in different ways by different communities at different times. Near to the Oddendale stone circle where the outer perimeter encloses a central mound so that the site can be described as two concentric circles there was a ring cairn or *dished mound* (the author's description of the site when first found) which, when excavated proved to have succeeded two, concentric timber circles. Whilst this might be another case of different monument forms referencing each other the example would also appear to demonstrate the suggestion that stone circles, ring cairns and

hengings need to be considered together. In that context the dates for the timber monument at Oddendale, together with those from the ring bank beneath the *dished mound* at Sizergh (Edmonds and Evans 2007) are significant for they demonstrate that ring cairns appear to have begun in Cumbria as early as some henges elsewhere.

The situation in Wales has recently been explored by Burrow (2010) whilst in Scotland Sheridan has drawn attention to the significance of the early site at Pitglassie (Sheridan 2010). Equally the recent suggestion that some henges might be later than previously thought (Gibson 2010) and re-evaluation of the dates of some stone circles and in particular that at Croft Moraig with its timber phase (Bradley and Sheridan 2005) suggest that what appear to be specific and particular monument forms may represent the existence of (recurring) ideas and traditions which could be drawn upon at any time – the conclusion of the author in 1987.

## 2.2. The monuments and society

Kinnes's (1979) review of Neolithic round barrows included several from Cumbria including some in the vicinity of Rayseat Pike excavated by Greenwell (1877). Amongst these was the 'lost' barrow CLXXIV which Kinnes considered to be that of a high status person; an interpretation which implies that individuals were given status in the late Neolithic and that chiefdoms had begun to develop. In that context what appears to have been the lost site was excavated at Mazonwath (Clare *et al* 2008); the results showing that most of the site had been removed by Greenwell. However, it was possible to demonstrate that the monument had been built in scrub and that exhumation may still have been practised. Indeed in his report on the excavation of nearby Bents Hill Greenwell inferred 'that the bodies had originally been deposited at some other place and afterwards had been transferred to this burial mound' (Greenwell 1877, 387), allowing for the existence of local burial traditions/practices in the vicinity of Rayseat pike. That conclusion is also supported by what appears to have been the principal body in barrow CLXXIV – it had one hand drawn up to the face just like the burial in the nearby round barrow at Sunbiggin (Greenwell 1877, 394.). There, however, the body had been placed in a large rock cut grave; and whilst its cutting into rock implies effort and, therefore, status, the size of the grave may also indicate a Late Neolithic date (Burrow 2010 for similar 'pit graves' in Wales) Consequently it appears that there were a number of high status burials, sharing similar practices, in the vicinity of the early Neolithic Rayseat Pike site, as if the locality continued to be important and of special status/meaning. Significantly there is also a large diameter stone circle (Gamelands) nearby. Equally the fact that these monuments were in the vicinity of Mesolithic activity (Clare 2009a.) is not without interest as an increasing number of Late Neolithic monument

complexes appear to be located in the vicinity of and/or to have their origins in the Early Neolithic and even earlier activity (Noble 2006).

The existence of Late Neolithic 'high status' burials in the vicinity of what appears to be one of the earliest monuments in Cumbria raises questions about the nature of contemporary society and the size of stones (and timber) used suggests a structured rather than simple egalitarian one (Clare 2010). In particular the aggregation of labour used in some sites suggests that something like a hierarchy of monuments, loyalties and obligations existed; a hierarchy which could have facilitated the rise of later chiefdoms. At the same time its origins may have lain in the Mesolithic and been strengthened by the acquisition of the exotic domesticates which formed the most radical part of the Neolithic 'package' (Clare 2009b).

Two features of the analysis of potential labour involved in construction of the monuments are worth noting here. Firstly, that large aggregations of labour (people) are not confined to stone circles and henges but are also reflected in the size of some individual standing stones requiring recognition that the contemporary landscape and social order did indeed have other forms of foci, including some of the foci beneath mounds, as previously argued (Clare 1986 and 1987). Secondly, what appear to be later sites show less aggregation of labour. On the one hand this might be seen as demonstrating that the early sites involved the conspicuous consumption of 'communal' labour with the later ones reflecting a different social structure but it could also be simply interpreted as individual families/groupings adding their own monuments to those already in existence – and still used for larger gatherings.

Certainly the later monuments can be interpreted as demonstrating something apparent in the large, earlier aggregations of labour, namely that participation was important. Participation – the giving of labour - is most obvious in the large numbers of people required to haul the largest stone at Long Meg but the raising of the simplest cairn would also have required participation by the individual. Indeed the difference in architectural form between the Long Meg stone circle, the bank at Mayburgh and the mass of the remaining standing stone in the centre of that monument implies a difference in the way labour was used and participation made. In particular whilst the erection of the monolith(s) at Mayburgh appear to represent single events, the bank there is suggestive of repeat visits with the addition of individual stones by individuals over many years if not generations. Such a process or pattern of participation – implied in the reported character of the monoliths at Shap and by the post cursuses further north - could also have occurred in the case of many burial mounds, as indeed at Silbury Hill (Leary 2010), so that they, like the more imposing sites, are 'monuments in progress' (Thomas 2001) and the cairn something which is constantly evolving and changing (Ingold 2010). The same process or concept is also a useful

explanation for the placing of individual stones within the later Bronze Age circle E at Beaghmore in Ireland and at other 'stone circles' in the Sperrins; the significance of this observation being that the idea of participation in the creation of monuments was not something confined to the Neolithic.

### 2.3. Seeking world views: monuments, landscape and topography

Whilst the position of archaeological sites within the landscape has long been recorded – for example their location in relation to break of slope or height above sea level – it is only relatively recently that archaeologists have begun to suggest that prehistoric communities might have viewed the landscape very differently to ourselves (Tilley 1994 for one seminal work; Clare 1987, 472 for this in relation to the Cumbrian 'axe factories'). Consequently there is now general acceptance that archaeological monuments relate to 'place' (eg Bradley 2000) with the inference that the latter was carefully located because of specific attributes which had meaning (Clare *in prep* for this in relation to the chambered tomb of Carn Ban, Arran); and that meaning related to how contemporary peoples perceived their world and consequently their world view. In the case of the megalithic tombs of SW Scotland, for example, Cummings (2002) was able to argue cogently that a significant difference between the Clyde and Bargrennan type tombs was that the first were positioned to have sea views whilst the second looked towards the Merrick Mountains; an argument which needs to be qualified by the existence of earlier chambered structures beneath the 'Clyde' monuments at Mid Gleniron. In short, and as in the case of the Long Meg stone circle, the extant/visible monument may not be the first at a particular locale (Soffe and Clare 1988).

A major problem with the *phenomenology* of landscape is, however, that we cannot be certain the landscape today is the same as that when the monuments were built (below). However, the way prehistoric peoples were *able* to view the landscape and its potential influence on the location of stone axe production, and the value of Group VI axes, was discussed in a paper in 2007 (Clare 2007b). Whilst that paper effectively confirmed the earlier suggestion that 'the significance apparently attached to axes may, in part, have derived from their place of origin – a holy, "central" mountain....' (Clare 1987, 472; see also Clare 2004) it also drew attention to the fact that there are no known stone circles or henge monuments to the south east; that area from which the mountains are most visible. The significance of this is that the absence of such monuments is difficult to reconcile with statements that henges and stone circles were integral to the movement/exchange of axes (eg Burl 1976, Bradley and Edmonds 1988 for the latter). On the other hand the paper also noted that, when seen from the south east with their lower slopes originally clothed in

woodland, the Langdale Pikes may have been seen as metaphorical islands with attendant myths (Cooney 2004; Watson 2004).

### Landscape change

Within Cumbria it has been possible to demonstrate something of the original environment in the vicinity of several stone circles/monument groupings. For example, there had been a tarn on the valley floor to the south east and visible from the Castlerigg stone circle (Clare 1999) which was still open water, in part at least, when the stone circle was being used (Clare *et al* 2002b; see also Wilkinson *et al* 1999). On Moor Divock too there had been a tarn and its location appears to have influenced, if only indirectly, the location of the monuments (Clare and Wilkinson 2006). The relationship of the monuments to water will be returned to below but it is worth noting here that it was one environment for the structured deposition of stone axes, including those in the vicinity of the monuments (Clare *et al* 2002a).

The former existence of a tarn near a destroyed circle at Gutterby and a timber henge on the SW coastal strip (Clare *et al* 2001 for the monuments) and has been the subject of recent palaeo-environmental analysis at JMU. Unfortunately the relevant deposits appear to have been removed by past peat cutting and so the study adds little to the earlier work. However, the apparent southerly expansion of agriculture in SW Cumbria away from areas of Mesolithic and Early Neolithic activity in the vicinity of Eskmeals and Barfield Tarn and its relationship to the known distribution of monuments (Clare *et al* 2001) can be seen to be 'paralleled' on the limestone uplands of the Eden valley (Clare 2009a). In both areas it is possible to argue that the expansion in the distribution of monuments is away from areas of Mesolithic, certainly early Neolithic, activity as at Rayseat Pike and in the case of the limestone uplands it is possible Mesolithic burning had kept some areas free of trees (Skinner and Brown 1999) again, perhaps, creating metaphorical islands for exploitation. Consequently the environmental evidence supports the idea noted above that areas exploited at the beginning of the Neolithic were/continued to be the focus for later activity.

This conclusion is consistent with the pollen diagram from Sunbiggin Tarn near Rayseat Pike where the grass 'curve' begins with and expands after an elm decline (Webster 1969).

Unfortunately the elm decline and other events recorded within the diagram are undated and as such cannot be directly related to the evidence from the excavation of the burial mound at Mazonwath (Clare *et al* 2008) where it was shown that the mound had been built in an area with some scrub but whether this was the result of earlier forest reduction and/or the re-colonisation of previously farmed land could not be determined. Nevertheless the evidence is consistent with and adds to the idea that there was a reduction in farming activity during the 'middle' Neolithic and that the appearance of new monument forms such as henges and

stone circles marked the beginning of increased activity and a new or reinvigorated social order (Burl 2000 for a summary): an interpretation wholly consistent with the evidence from the Bootle-Eskmeals area (Clare *et al* 2001).

### Seeing the monuments three dimensionally

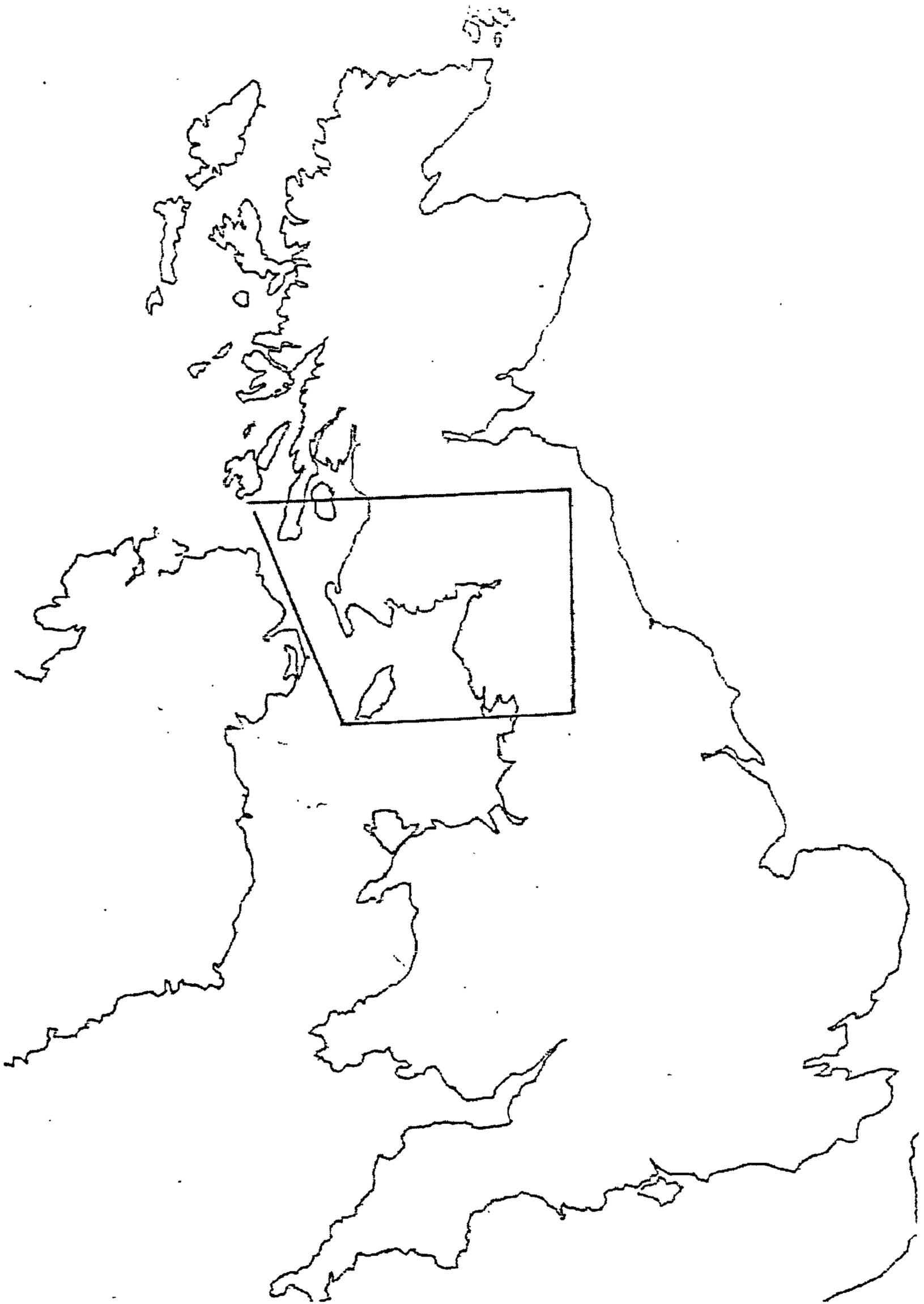
Recognition that the monuments were built in wooded or partly wooded areas does however mean, as already noted, that some possible features such as views of distant hilltops - views which might have also provided astronomical alignments – cannot be substantiated.

Nevertheless, there are landscape features, such as breaks of slope which are unlikely to have changed with time.

In this connection a number of monuments appear to have been deliberately constructed to project beyond the break of slope, as at Carn Ban on Arran (Clare *in prep*), or to utilise the slope to add height (an enhancement of monumentality?) or create 'sidedness' (Cummings 2003, 31 for this term in relation to chambered tombs; Field 2010, 2, for some other sites and the attribute in stone axes). However, occurrence of the attribute does not appear to change with time or monument form within the area shown in Fig. 1 where 9-15% of chambered tombs, 8-12% of un-chambered long cairns and 11-14% of all round barrows possess 'sidedness'. It follows that if utilisation of breaks of slope did relate to the contemporary world view, rather than being simply a monumental device, then there was continuity of belief from the Early Neolithic into the Bronze Age.

Nevertheless the three dimensional record of the monuments (Clare 2007a) does suggest that breaks of slope were deliberately used to enhance or create monument form. In particular some sites appear to be built on platforms or were built as platforms and some appear to be laid out as perfect horizontal circles even though built on a slope. However contouring of Mayburgh – a monument usually compared with the un-ditched henges of Ireland where construction consisted of scooping out a natural rise – suggests the Cumbrian monument was constructed *on* a low rise and had an earlier phase consisting of a low bank. Moreover, if this bank had carried standing stones as recorded by Stukeley then the monument form would have looked remarkably like the stone circle at Long Meg (Clare 2007a, 56-59) and the 'lost' circle at Sandford (Clare 2007a, Fig. 59); a situation which again challenges ideas about the differences in visible/extant monument form.

The antiquity of the bank at Long Meg has, however, never been established and it is possible that it resulted from ploughing. However, this author has been able to show (Clare 2007a, Fig. 18a) that the feature is earlier than ridge and furrow and that the previously



**Fig.1. The principal area referred to in this research and for which the data in Table 1 applies.**

unrecognised circle with bank, at Sandford (Clare 2007a, Fig. 59), was recorded before ploughing is likely to have occurred. The new evidence does therefore appear to suggest that the banks are ancient features, albeit that they might be a separate phase to the erection of the stones, perhaps as an act of closure (Gibson 2004).

#### The monuments in relation to water

It has, however, also been possible to demonstrate (Clare 2007a) that at Long Meg the stone circle eschewed adjacent flat land, just as the circle at Gamelands, near Rayseat Pike, does. In fact at both sites the circles can be said to enclose a discrete valley head with that at Gamelands having, perhaps, once had a spring. Certainly there is a spring just outside that monument and other monuments are recorded as being near springs, indeed it is likely that one once existed in the centre of the Long Meg earthwork enclosure (Clare 2006) whilst that just outside (Soffe and Clare 1988) may have influenced the positioning of the largest stone in the circle (Clare 2009a, 25).

Equally important is the recognition (Clare 2006) that Long Meg occurs at the head of a steep sided valley which joins the Eden at a unique place: there were natural outcrops of gypsum, a material used on some henge banks in Yorkshire, a narrowing of the floodplain and the only cataract on the Eden, the largest river in Cumbria. In short it is now possible to see that the Long Meg monuments *do* occur at a special place within the landscape and that they are linked to the river in an analogous way to Durrington Walls and Stonehenge. Moreover, the situation in which the latter two monuments are separated yet linked by the river can also be seen to occur in Cumbria where Long Meg and Mayburgh/the Penrith henges are at either ends of a floodplain.

Similar proximity to a river cliff and/or floodplain is a major feature of early Neolithic monuments in southern Scotland, particularly of the earliest sites (Table 1) and in that context it is interesting to note that Dooley's cairn in Northern Ireland, with its early timber structure so similar to Lochhill and Rayseat Pike, is in a similar location. One explanation for this is that floodplains and tarns (and valley floors like that of the Annas (Clare *et al* 2001)) were some of the few locations with a forested environment which afforded distant views and views of the sky but, ecologically, they would also have been important, natural resource areas very different and probably more varied than the adjacent forest. It is, therefore, suggested that the occurrence of the earliest monuments and monumental structures such as Rayseat Pike and the early timber 'hall' at Locherbie and their proximity to Mesolithic activity is not a coincidence. Whilst immigrant, 'Neolithic' farmers would probably have needed such areas to supplement their agricultural activities it is also the case that the

Table 1. The % of sites located in relation to water/wetlands. Note the data relates to the area shown in Fig. 1.

		On floodplain	Near floodplain	Near or above major wetland (not floodplain)	Total for the three combined
TYPE OF SITE	NUMBER	%	%	%	%
<b>early sites</b>					
Long cairn, no stone chamber	24		8	29?33	37?42
Megalithic chambered cairn	49		14	14	31
Cursus and pit defined enc	17		76	6	88
Pit alignment	10?14	8	38	8	38
Bank barrow	1		100		100
(Early) Rectangular building?	3?6		60?80		60?80
Early Neolithic Enc?	7?10		11	22?	11?33
Pits and occupation debris	21		29?33	14?19	43?48
Ritual site ex caves	3		100	33	100
<b>later sites</b>					
Henges and hengiform	17	12	59	12	82
Stone circles, all	89?93	3?4	17?20	21?27	40?48
Four poster	13	0	8	15?31	23?31

acquisition of the new and exotic domesticates by existing indigenous communities postulated in 2009 (Clare 2009b) would have occurred at traditional gathering places/base camps and that the latter would have been in the richest resource areas.

Whilst that might be the case it would not explain why some later sites, without apparent Mesolithic locational antecedents, also appear to have also been located near such environmental resources. The best explanation is that the Late Neolithic economy was not

much different from that of the Early Neolithic, an interpretation consistent with views that full agriculture did not appear until after the Early Bronze Age.

## **2.4. Conclusion**

Within the study area there is continuity in the way monuments of different form and date are located in the landscape and use discrete topographical features. In addition the general distribution of later monuments appear to represent expansion away from core areas of earlier monuments, with the status of the latter also continuing. It appears, therefore, that the appearance of new monument forms such as henges and stone circles in the later Neolithic did not represent a significant change in world views. Equally, whilst a case can be made for later monuments involving – and requiring – participation so that they too can be regarded as 'monuments in progress' the amount of labour aggregated in their construction may have been less than in the earliest sites. Nevertheless the numbers and organisation of that labour is suggestive not of a society of egalitarian, small farmers but of a structured one; one capable of evolving into one with chiefdoms so that there was a continuity in society too. However, the fact that many monument complexes appear to be located in the vicinity of Mesolithic activity with the earliest concentrated near wetlands or floodplains which would have been significant resource areas in the Mesolithic as in the Early Neolithic requires explanation in any discussion of the Mesolithic-Neolithic transition.

## **Part 3.**

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## APPENDIX 1

Full copies of the formally submitted papers.

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## **APPENDIX 2**

**How the various papers by the author form a coherent body of work.**

## How the various papers by the author form a coherent body of work.

Table 1 of this Appendix shows how the submitted papers *and other* publications relate to discussion or demonstration of individual topics whilst Table 2 shows how the publications relate to specific areas within Cumbria. Together they demonstrate that the papers and publications of the applicant, whilst occurring across several decades, form a consistent and coherent piece of research: an investigation of how monuments of different form and "period" relate to each other and their place in contemporary society and land use/environmental exploitation.

Table 1	1	2	3	4	5	6	7	8	9
1975	X	X	X	X					
1978	X	X							
1979		X	X	X					
1986			X	X	X		X		
1987			X	X	X		X		X
1995						X			
1997						X		X	
1999						X			
2000						X			X
2001						X		X	
2002a						X			X
2002b						X			
2003									X
2004									X
2006a	X				X				
2006b				X	X	X	X		
2007a	X	X	X	X	X				
2007b					X		X		X
2008	X		X	X		X	X		
2009a			X	X	X				
2009b					X			X	X
2009c	X			X	X		X		
2010	X			X			X		
Davis et al						X			X
Wilkinson et al						X			

- |  |  |
|--|--|
| 1. Individual site survey                      | 2. Astronomical alignment, geometry and layout |
| 3. Origins                                     | 4. Relationship of monuments to others         |
| 5. Phenomenology of landscape                  | 6. Prehistoric environment and change          |
| 7. Monuments and social structure or behaviour | 8. Mesolithic-Neolithic transition             |
| 9. Axes  |  |

Table 2				
	1	2	3	4
1978			X	
1979			X	
1997				X
1999	X			
2001				X
2002a	X			
2002b	X			
2003	X			
2006a		X		
2006b		X		
2008			X	
2009a	X		X	X
2009c		X		
Davis et al	X			
Wilkinson et al	X			

1 Castlerigg area

3. Limestone uplands

2. Central Eden valley

4. SW Coastal area.