THE IDEA OF RESIDENCE IN THE
NEOLITHIC COTSWOLDS

Volume 1

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A Thesis Submitted for the Degree of Doctor of Philosophy

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This thesis is an investigation of the idea of residence in the British Neolithic carried out at a regional level. The aim is to produce a clearer understanding of ideas and modes of residence as experienced by groups residing in the Cotswolds between the Later Mesolithic and the Early Bronze Age. This is undertaken through the use of lithic assemblages in combination with other sources of monumental and topographical information. The assemblages are analysed in a series of sampling units chosen to reflect the diversity in monumentality and topography within the region.

Analysis of the assemblages is undertaken in two stages. The first establishes the validity of using Pitts' and Jacobi's (1979) chronometric methodology within the region and goes on to suggest a supplementary method more suited to dealing with lithic material produced within a parsimonious tradition of stone working. The second stage builds upon the chronometric patterning established in the first phase. It uses this patterning in combination with a technological and typological analysis of selected assemblages to establish the residential choices made by communities in different topographic and monumental areas. The analyses of the character of individual assemblages is then used to build an understanding of the residential choices made in different periods within individual monumental and topographical areas. Finally an attempt is made to draw out the contrasts and continuities in residential practices in the region as a whole during different periods.
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"Living as we do upon the uppermost layer of profound compilation - one, that is, of wind, shadow, of voices buffered by other voices - we need to feel that this residency has been 'underwritten' by antecedents: that we, the living, are continuously accompanied by the presence, no matter how remote, of predecessors. That we're not, finally, alone."

Gustaf Sobin. Luminous Debris.
Chapter 1. Introduction

The subject of this study is the investigation of the idea of residence in the British Neolithic by means of a regional case study. In order to provide a broader temporal context for the study all material dating from the start of the 5th to the close of the 3rd millennium BC will be considered. This time-span encompasses the Mesolithic-Neolithic transition and takes us through to the Early Bronze Age. The intention sounds straightforward. There are however a number of empirical, methodological and theoretical considerations which mean that this is not the case.

Julian Thomas (1988, 59) has highlighted the dichotomy between approaches applied to the study of the Mesolithic and the Neolithic. The Mesolithic being dominated by environmental and economic approaches; whilst study of the Neolithic has been dominated by ritual and social concerns. Partly as a result of these differences of approach, the study of Neolithic settlement has until recently been largely neglected. The relative scarcity of structures that might be interpreted as places of residence, together with the interpretative complexities of lithic scatters have only served to reinforce this neglect. We have now seemingly reached a position where we understand more about the relationship of individuals in the Neolithic with the dead than we do about the realm of the living. This may to some extent reflect the weight of concern of the living during the period with the world of the ancestors. But it also clearly represents the concerns of the present archaeological paradigm.

In order to advance our understanding of residence during the Neolithic we need to move beyond the position of simply placing dots on maps to indicate human presence; towards a situation whereby the nature and implications of that presence are more fully considered. In order to achieve this it is necessary to take a more holistic approach than has been the case in settlement studies in the past and to employ evidence from a variety of different sources. The intention is to investigate how individuals and groups inhabited and dwelt in their physical and social landscapes during the Neolithic. I aim to develop an understanding of the way in which they resided in and experienced a whole range of locales.

As it is probable that a whole range of residential strategies and practices may have been in use at different places and at different times during the Neolithic (Whittle 1997). In order to retain some hint of the complexity of residential experience I have therefore chosen to narrow the parameters of the study and focus my investigation of Neolithic residence in a single region: the Cotswolds. The approach to the study of residence within the Neolithic Cotswolds rests on two key principles. The first is a commitment to an attempt to extract meaning from lithic scatters by considering their limitations and their potentials. Lithic scatters represent a resource for the investigation of residence which unlike other categories of evidence is available on a landscape-wide scale. Through the ex-
amination of traditions of working and using stone, together with the consideration of the spatial, social and temporal contexts in which these traditions operated; it should be possible to recover some aspects of the meaning of particular locales.

The second principle upon which the study rests is the consideration of this lithic material in combination with other sources of potential evidence; including information from tomb sites, monuments, enclosures, pit groups, "domestic" structures and the environmental record. I will also consider the relationship between lithic scatters and excavated assemblages. One of the main thrusts of the study is to establish the landscape context in which tombs and enclosures were situated. An understanding of where these monuments were situated in people's lives is crucial to understanding what significance they held and how they were drawn upon.

In order to achieve this understanding an interpretative strategy has been adopted that moves back and forth between day-to-day routine practice and longer-term diachronic trajectories. Similarly spatial analysis shifts between detailed consideration of activity at particular locales and the wider social and physical understanding of the landscape. In this way a conceptual framework that operates at a variety of different temporal and spatial scales can be constructed. Such a framework can help to explore the tensions that acted to structure and restructure the way in which individuals and communities understood and experienced residence during the Neolithic. By this means a more holistic understanding of the way in which individuals and communities resided in, and moved around, their social and physical landscape within one region during the Neolithic can be produced. This understanding can then be employed to consider the way in which the experience of residence may have informed a sense of individual and group identity. This sense of identity in turn informing and restructuring their understanding of the world and how to proceed within it.
Chapter 2. Modelling the Problem: Settlement and the Inhabitation of Prehistoric Landscapes

Traditional models of settlement for the British Neolithic have been generated from a conceptual framework in which communities were characterised as having been largely sedentary and practising mixed farming. This framework lay at the root of Barker and Webley's study of land-use potential centred on a number of causewayed enclosures (Barker & Webley 1978). More recently there has been a move away from the traditional model towards a stress on the mobility of such communities; focussing on the importance of cattle herding (Thomas 1991; Barrett 1994; Edmonds 1995).

A number of different lines of inquiry have been used to generate settlement models. Humphrey Case (1969) analysed the requirements of a migrant community practising sedentary mixed farming. This methodology produced the notion of a period of pioneer farming followed by a subsequent period of stable adjustment. Colin Renfrew's approach was likewise predicated on a model of stable residence and agrarian production, and owed much to systems theory. He understood the construction of tombs as representing territorial markers for individual groups (Renfrew 1973b). The subsequent building of causewayed enclosures and henges was seen as indicative of changes in the scale of social organisation in Neolithic Wessex. The study of lithic material in reconstructing settlement patterns has been dominated by what might be characterised as a dots on maps approach. This methodology is exemplified by Holgate's study of Neolithic settlement in the Thames basin (Holgate 1988a).

Several problems are apparent in these approaches. The model of a sedentary Neolithic relied heavily on extrapolation from the Central European Neolithic Linearbandkeramik (LBK). However the LBK is far removed in both time and geographic proximity from the British Neolithic. There is good evidence for the practice of mixed farming during the Neolithic in Britain. It is the character of that regime that is open to question. Renfrew's approach relied entirely on indirect evidence of settlement. He employed a centre-periphery model which asserted that tombs and monuments were central to Neolithic settlement (Renfrew 1973b, 544-547). The use of lithic scatters in settlement studies, by Holgate and others, has been hampered by a low level of chronological and hermeneutic definition.

Until recently models of Neolithic settlement have been characterised by a static approach. They have tended to use single strands of evidence in isolation from one another. All of the approaches so far mentioned are characterised by an attempt to objectify understanding of the settlement record. People were strangely absent from these visions of Neolithic settlement. Recently a number of writers have suggested that the Neolithic population may have been more mobile than traditionally suggested. Possibly the most clearly articulated opposition to the traditional view of a sedentary
Neolithic population has come from Julian Thomas (1991, 15-19). Thomas attempted to combine different categories of evidence to suggest that Earlier Neolithic groups in Wessex practised fixed plot horticulture but moved within the requirements of a cattle herding way of life. However even this treatment is somewhat cursory; and makes only limited use of the vast resource of lithic evidence that is available. Employing Ingold’s (1986) concept of tenure Barrett has similarly postulated a degree of mobility within the Neolithic population in Wessex; suggesting that the concept of particular places performing a central role first became apparent only at the start of the second millennium BC (Barrett 1994, 141-147). This contrasts with Andrew Fleming’s model of a sedentary Neolithic society, becoming more mobile during the Bronze Age as a result of the development of a pastoralist economy (Fleming 1971; 1972). The dichotomy in the reading of the evidence amply exemplifies the polarity between presently available models of Neolithic settlement. It also begs the question of how the situation is to be moved forward.

Ethnographic parallels demonstrate the highly diverse nature of mobility patterns and subsistence regimes, and it is possible that the British Neolithic may have witnessed a range of settlement systems in operation at different locations at the same time(Whittle 1988, 84-88). Concern with mobility regimes and settlement patterns has dwindled with the rise to prominence of post-processualism. Processual archaeology has until recently been viewed as the home of settlement archaeology; focussing on systems theory, site and artefact distributions, functional analysis and direct analogy with the ethnographic record. Post-processual (or interpretive) archaeologies have been more concerned with the social, coupled with the physical dominance of ritual monuments in the archaeological record. This has, at least in part, led to the position whereby we know more about the relationships of individuals in the Neolithic with the dead than we do about the realm of the living.

The very use of the word settlement implies a degree of permanency and might even be seen as carrying connotations of colonisation with it. The concept of studying settlement systems or patterns involves the notion of looking at something from a removed and objective viewpoint which gives a false impression of how movement (or lack of it) around the physical and social landscape would have been experienced and structured. This is the product of a Cartesian world view peculiar to modern western society. Modes of thought in traditional societies instead tend to emphasize the, "relational character of existence,"(Thomas 1996a, 11-12). It is likely that the latter have more in common with understandings of the world created and experienced during the Neolithic. The notion of residence rather than the more static and less reflexive notion of settlement has therefore been employed in this study.
There have been a number of attempts recently to consider lived experience in prehistory at a landscape scale. Many of these have been influenced by Ingold's notion of taskscape (Ingold 1993). Taskscape allows the consideration of the production of meaning and the understandings drawn upon in the undertaking of tasks within the context of all other tasks performed by the individual or by many people. Thomas' approach to the understanding of embodied action within the landscape goes some way towards circumventing, "the administrative gaze," (Barrett 1999, 23) of objectified understandings of the world. Thomas has encouraged the consideration of our relationship with material things in terms of our embodied experience (Thomas 1996a, 67). Our understandings of the world are both revealed and shaped by our reflexive involvement with that world on a day-to-day basis in ways that may be archaeologically recoverable. However even as Thomas opens up the possibility of looking beyond the object to the understandings embedded within it he seems to deny our ability to "directly grasp" those understandings (Thomas 1996a, 77). A confusion seems to have arisen here in our ability to grasp understandings "directly" and wholly. Our embedded understandings of the world experienced and drawn upon in daily life are frequently incomplete however this does not prevent us from drawing upon them. Surely then simply because our understanding of the experience and understandings of past communities are necessarily incomplete they cannot be rejected. The meanings that can be grasped at the level of the individual task or in relation to the entire landscape (both physical and ideational) should be accepted wholeheartedly. and used to construct our own (albeit) fragmentary understandings of how it was possible to occupy the world (Barrett 1999, 29-30).

The entire approach has been informed by Bourdieu's (1977) concept of habitus as a means of engaging with the logic of experience through the medium of material culture. From this perspective in order to understand residence during the Neolithic it is necessary to investigate how individuals and groups inhabited and dwelt in their physical and social landscapes. This requires the development of an understanding of the way in which they resided in and experienced a whole range of locales. And how that experience of residence affected the creation and recreation of group and individual identities. By this means it should be possible to move beyond the position of simply placing dots on maps to indicate human presence; towards a situation whereby the nature and implications of that presence are more fully considered. In order to achieve this a more holistic approach than has been the case in settlement studies in the past is required; employing evidence from a variety of different sources. The intention is to consider not only what might traditionally have been regarded as occupation sites but also to explore the way in which individuals would have experienced other sites where they may have temporarily resided during the course of their lives (for instance funerary monuments or more task specific locations).
Sources of Evidence for Residence

The archaeological record potentially offers a number of forms of evidence for residence sites in the British Neolithic: isolated timber structures, nucleated settlements (in the form of certain enclosures (Bradley 1984, 26-27), together with a number of Scottish examples in stone), and lithic scatters. Thomas (1996b, 1-12) has questioned the identification of rectangular timber structures as houses, preferring to see them as ritual in character. The attribution of a domestic role may be more applicable to some enclosures than others, whilst sites in Scotland, such as Skara Brae and Barnhouse, are often viewed as exceptional. Both individual “houses” and those situated within nucleated settlements are rare in this country, a fact that has lead Hodder (1990, 244), amongst others, to comment on the, “paucity of settlement evidence,” in Neolithic Britain. In contrast flint scatters are ubiquitous.

Houses

Relatively few houses are known from the Neolithic compared with later periods in British prehistory. There are a number of possible reasons why this is the case. Firstly it is possible that for reasons of taphonomy the structures that existed during this period have not survived or their presence has been obscured by subsequent geological processes and/or archaeological methodology. Alternatively the scarcity of houses might be taken to indicate that few such structures originally existed. Both of these interpretations are worthy of consideration and it is probable that the reality lies somewhere between the two.

The survival of any building is to some extent a product of its design. It is possible to build quite substantial structures without producing earth-fast features. Of buildings that might have employed such features more lightly built structures would prove difficult to detect during excavation unless exceptional circumstances prevailed. Many of the houses that have been discovered from the Neolithic period have been either substantial in nature (such as Balbridie) or have been found on sites that have, for a variety of reasons, been exempted from the ravages of modern agricultural practices (Barclay 1996, 75). This latter category includes sites at Lismore Fields, Buxton (Garton 1987) and Crickley Hill, Gloucestershire (Snashall 1998, 20), neither of which have been ploughed. Even where clearly cut features do survive the difficulties of attempting to interpret a palimpsest of pits, gullies and postholes can be immense. At Hauterive-Champprisveyres in Switzerland only the application of dendrochronological dating techniques to remarkably well preserved timbers within their original settings was able to resolve the contemporaneity of individual features (Coles & Coles 1995, 30-34). This analysis produced a series of building plans, all of which are surprisingly irregular to the modern eye.
The remains of a number of structures, such as those at Gwernvale, Ascott-under-Wychwood, Hazleton and Sale's Lot, have been found sealed beneath barrows and chambered tombs (Britnell & Savory 1984, 50-54 & 139-141; Selkirk 1971; Saville 1990, 13-22; O'Neill 1966). In these instances the material culture and organic remains found in association with the structures serves to emphasise the fortuitous nature of their survival and the importance of place, rather than any continuity of function with the subsequent use of the site. In some cases the later structures may have been deliberately placed over the remains of the residences of particular deceased individuals or kin groups in order to lend ritual and social authority to the construction of the mortuary monument (Darvill 1996, 99-100). In contrast to the protection afforded to evidence for buildings beneath barrows, in areas with a geology dominated by limestone or chalk colluviation may have played a part in obscuring any structural remains of the period (Reid 1993, 11-12).

All of these factors make it difficult to assess how representative those structures so far identified are of buildings of the period as a whole. Thomas has suggested that many of the putative houses for the Neolithic period may owe more to the realms of ritual and ceremonial than to the domestic (Thomas 1996b, 8-12). He recognised that there may be a small number of buildings that have survived from the period that served as residences of one form or another (particularly those found within the later phases of enclosure use). Most of the Neolithic structures found in more isolated locations and normally described as "houses" are however considered to be aberrant from the norm. In Thomas' model of a largely mobile society the majority of residences are presumed to have been too ephemeral to survive, with permanent domestic structures playing only a minor role.

However, it is difficult to assess what the norm for a house might have been during the period. Unlike the LBK longhouses in continental Europe, the building plans identified in Britain, Denmark and north-west France dating from the 4th millennium onwards show few signs of homogeneity. This is a reflection of the diversity of material culture and social and functional requirements of the populations of the western sea-board of Europe; resulting from a fusion of the Neolithic worldview (as proposed by Thomas (1991)) with the traditions of the native Mesolithic populations of these areas.

Buildings which display a ritual element in their use or design cannot be dismissed from consideration as domestic residences. The polar opposition of the domestic and the secular is simplistic and a product of the mind-view of modern western society. In most traditional societies ritual is inseparable from the more mundane activities of everyday life, and ritual order and symbolism pervade the domestic routine (Richards 1996, 184; Hugh-Jones 1996, 192-193). Ritual performed in places segregated off from the rest of everyday life might be more appropriately termed cult activity and forms only a relatively small part of the annual and daily rounds in those societies. The importance of ritual, and indeed cosmological considerations, to the builders of at least some Neolithic houses
is indicated by the alignment of all of the hearths at the Orcadian settlements of both Skara Brae and Barnhouse to midsummer and midwinter sunrise and sunset (Parker-Pearson 1993, 59).

Numbers of Neolithic non-mortuary/non-cult structures may have been under-estimated by both a recent trend towards small-scale excavation and by a degree of similarity between the ground plans for some Earlier Neolithic structures and buildings of a later date. Darvill (1996, 82-83) has shown that as large scale excavations declined in numbers so too did the rate of discovery of Neolithic houses. Many of the buildings of the Neolithic that are so far known have a width in excess of 5 metres and might easily be missed in piecemeal excavations. The large rectangular structures discovered at Balbridie and Tatton, Cheshire were both initially interpreted as being of Dark Age date. Radio-carbon determinations subsequently indicated that these buildings belonged to the Earlier Neolithic period (Ralston 1982, 240-247; Higham 1981, 36-39).

Examples of Earlier Neolithic house structures are known from at least thirty seven different sites in England and Wales with a greater number known from the Later Neolithic (Darvill 1996, 85-88). As yet there appear to be no distinctive regional correlations to building styles; in part this may be a result of the limited size of the sample population of structures that is presently available. A greater diversity of ground-plan is visible in the Later Neolithic examples along with a shift towards circular structures.

Experimental reconstruction of a Danish structure of post-framed build, from the Middle Neolithic period, has demonstrated the considerable resources that would have gone into the building of such a structure. The total preparation and construction time was estimated to have been in the region of 1500 hours. This equates to a party of about a dozen working for two weeks, or a smaller group of four to five working for around five weeks (Coles 1973, 55-58). It is likely that the resources of a wider community may have been called upon for the construction of buildings whose use may have related to a particular kin-group or age-set. Even if this were the case the level of labour investment remains high. Ethnographic study amongst sedentary, semi-sedentary and nomadic groups in Botswana suggests that the sturdiness of construction and the amount of labour invested in the building of houses correlates closely with anticipated mobility (Kent & Vierich 1989, 97-99). Given the amount of labour invested in Neolithic houses it might therefore be suggested that some elements within Neolithic society anticipated either long-term residence at one location or the prospect of a regular return to the same place.

Lithic Scatters
Given the relative scarcity of Neolithic structures in the archaeological record other sources of evidence are required if residence during the period is to be explored in any meaningful way. Past human activity has created a lithic palimpsest across the British landscape. However, despite a brief peak of interest amongst the archaeological community in the methodology connected with their collection and interpretation in the mid-1980s and early 1990s (Shennan 1985; Haselgrove et al. 1985; Schofield 1991c) lithic scatters remain little understood and consequently little used. Some archaeologists fail even to acknowledge their existence (Hodder 1990, 244-245); whilst others view the contribution that they can offer to settlement studies as strictly general in nature (Thomas 1991, 15). Those with the most positive approach to the usefulness of lithic scatters recognise the need for a fuller understanding of them but, as yet, have shown little desire to tackle the issues involved in their interpretation (Barrett 1994, 139).

Flint scatters are found widely across the British landscape and represent a taphonomically filtered fragment of the material remains produced by past human activity. As such they may comprise evidence, not only for habitation, but also for all of those activities that involved the use of flint. Consequently if flint scatter data is used in conjunction with information about excavated sites, upstanding monuments and environmental analysis, the potential of such scatters for helping to define patterns of residence is actually enhanced. The corollary of this is that there can never be a simple one-to-one relationship between lithic scatters and residence sites. Therefore the manner in which information is “unpacked” from lithic scatters needs careful consideration before both their potential and their limitations can be realised.

The widespread distribution of flint scatters allows a consideration of the exploitation of the landscape as a whole in a way that is not possible for other categories of evidence in the Neolithic. Pottery is usually the most frequently recovered material from excavated Neolithic sites, but it rarely survives for long once exposed to the elements. The ploughing of a previously uncultivated area close to the causewayed enclosure of Robin Hood’s Ball, Wiltshire exposed in excess of 3000 sherds of Neolithic pottery but most of it began to disintegrate immediately (Gaffney & Tingle 1989, 87). Therefore the ubiquity of flint distribution, coupled with flint’s resistance to the depredations of taphonomic processes, provides the archaeologist with a vast resource database.

Of course the use of lithic scatters as an aid to recovering residence patterns is beset with difficulties; they represent the accumulation of a number of processes, each of which has affected the final condition and spatial positioning of the artefacts. These processes range from original human discard behaviour, through ecological variables to post-depositional anthropogenic activity. As most lithic scatters are brought to light as the result of ploughing many artefacts are removed from their original archaeological context. This leaves the degree to which their final spatial distribution reflects their original position open to question. It also means that lithic scatters will usually only come to light in those areas presently under cultivation. As a result of their lack of context it also
becomes more difficult to distinguish between artefacts from originally quite distinct activity epis­odes. Broad chronological distinctions can sometimes be made on morphological grounds, between for instance, the narrower flake industries of the Earlier Neolithic and the broader tradition of the Later Neolithic period, but finer episodic definition remains elusive.

These problems are not insurmountable. Dots representing subjectively defined “sites” on distribu­tion maps may tell us little about residence in the Neolithic, and if this were the only way in which flint scatters could be pressed into archaeological service Holgate (1985, 56) would be correct in asserting the limited usefulness of field survey. Foley (1981) suggested that rather than attempting to identify individual “sites” archaeologists should take an “off-site” approach to the study of lithic distributions and consider the variations in distribution density of individual artefacts at a regional scale. With the application of a well thought out, flexible, multi-staged research design it should be possible to extrapolate from lithic scatters to a whole range of human activity across regional landscapes, and thus to begin to glimpse details of Neolithic residential strategies (Boisimier 1991, 11). A regional approach allows a variety of different topographical, geological and ecological zones to be included in the study area and at a later stage will enable inter-regional comparisons to be made. This affords the opportunity to consider the significance of differences and similarities between areas, and formulate new questions that can be investigated at a regional level. Enhanced chronological definition of waste material as well as tools should be possible through an approach similar to that of Pitts and Jacobi (1979) but requires the previous study of independently dated assemblages from within the given area (i.e. from excavations). This in combination with a consider­ation of the choices made that resulted in the creation of assemblages from a particular region could enhance and inform the static patterning obtained from lithic scatter distributions to suggest the prevalence of particular mobility regimes.

An initial stage in any research design seeking to use flint scatters as a resource for understanding Neolithic residential strategies necessarily includes an assessment of lithic collections and assem­blages already held in museums (Gardiner 1984 & 1987), by units and in the care of private indi­viduals. This should be accompanied by a review of information from upstanding monuments and any excavations undertaken in the region. It is intended that these should both inform the research design and act as a hermeneutic aid. Once this initial phase has been undertaken a detailed analysis of lithic assemblages can be undertaken within targeted areas which can provide the database to enable a more detailed understanding of residence at the particular, local and regional scale. How­ever the key word is flexibility (Crowther et al. 1985, 60).

Morphological analysis of flints recovered by field survey is necessary if different types and pat­terns of human activity are to be discerned from the results. The morphology of artefacts can help to distinguish both broad chronological differences and functional characteristics. Ford’s work on the dating of assemblages, through morphological differentiation of waste flakes, is an important first
step in distinguishing between Mesolithic, Earlier Neolithic and Later Neolithic/Early Bronze Age use episodes for flint scatters (Ford 1987). Brown and Edmonds (1987, 5) have suggested the use of microwear analysis in defining the function of flint implements recovered from the ploughsoil. However the direct application of these techniques to ploughzone artefacts has since been demonstrated by Aperlo to have little utility, because of the effects of plough-damage and abrasion (Steinberg 1996, 374).

The quantification of tool types, cores and waste flakes of various descriptions, allows the application of basic statistical methods in the analysis of individual assemblages. Interpretation of the results can be carried out at a broader scale, for instance selecting different topographical zones, or at a more detailed level identifying regularities in the occurrence of particular artefact types. This allows what has been described as lithic “background-noise” to be investigated (Clark & Schofield 1991, 94), recognising that such areas may be of equal (though different) significance to more prolific areas and may simply be different in the type of human behaviour that they represent (Gaffney and Tingle 1985, 71). The consideration of lithic data in combination with the positioning of other forms of site and topographical and geological features can greatly enhance the interpretative potential of lithic assemblages.

Statistics are not a solution in themselves and there is a need to ensure both the applicability of method to the particular problem under investigation and the thoughtful interpretation of the results (Shennan 1988). It should be possible to identify regions or places of a particular topographic or monumental character where primary or secondary lithic production took place, through the quantification and qualitative analysis of the occurrence of primary, secondary and tertiary waste flakes and cores within individual assemblages. Ethnographic studies suggest that a wide range of activities take place on domestic sites and that this is reflected in the artefacts used at such sites. Artefact clusters composed of a wide range of different lithic tool types might therefore be expected to represent domestic activity (Bradley & Holgate 1984, 112). The converse of this is not however true as many activities may have involved the use of tools fashioned from organic (or ceramic) materials and these would be unlikely to survive. It has been claimed that ethnographic analogy also shows that discard location is inversely related to settlement location (Schofield 1991a, 4). However in mobile societies primary discard usually occurs on the habitation site itself and in sedentary societies immediately adjacent to it. So whatever the degree of residential mobility unless Neolithic communities were practising manuring (as would be evidenced by distributions akin to those found for the early historic period by the Maddle Farm project (Gaffney & Tingle 1989)), there would be a close spatial correlation between residential areas and areas of discard. The choice of the correct scale of analysis is therefore critical.

Via the analysis of lithic scatters it may be possible to redress the imbalance that has occurred in the study of Neolithic Britain that Cooney (1997, 29) has referred to as, “the privileging of ritual over
domestic activity”. If Neolithic residence is to be meaningfully studied it is essential that they are studied directly and not merely by inference from the burial record, with all of its possible distortions (Mills 1985, 43; Whittle 1988, 84). Considered alongside the much rarer evidence for timber structures and aggregated settlement, flint scatters seem to offer a way forward and we should not allow ourselves to be deterred by the complexity of the issues involved in their interpretation. When assessed as part of a carefully devised but flexible research design lithic scatters have the potential to provide information about Neolithic residential practices that is not recoverable from any other source. There are however no “quick fixes” or easy answers in their interpretation. Museum collections, the products of systematic fieldwalking survey, test-pitting and excavation all have a role to play in unlocking their meaning. These approaches are all used most effectively in conjunction with a range of reflexive analytical techniques that maximise the information that can be obtained from the scatters themselves.
Chapter 3. Reviewing the Region

As Whittle has recognised (Whittle 1997) it is probable that a whole range of residential strategies and practices may have been in use at different places and at different times during the Neolithic. To take a fine grained approach to the understanding of residential practices and their implications for everyday inhabitation of the landscape it is desirable to concentrate the investigation of Neolithic residence in a single region. The Cotswolds was chosen for this study because of its diverse range of potential habitats, the lack of naturally occurring flint within the area and the presence of good quality modern fieldwork on a diverse range of sites and monuments coupled with material available from a range of geographically varied collections obtained via fieldwalking.

The Cotswolds massif rises to a maximum height of 310 metres. It comprises a west facing escarpment, central plateau and an eastern dip slope. Whilst comprised largely of Jurassic limestones, outcrops of Fullers Earth and Liassic clays are also found. Immediately to the west lies the Severn Valley, formed from heavy clays, covered in places by alluvial gravel islands. Further west still across the Severn is the upland plateau of Dean with its underlying geology of hard sandstones and carboniferous limestones. To the east lies the Upper Thames Valley which consists largely of river gravels underlain by heavy Oxford clays. The bulk of the Cotswold massif lies within Gloucestershire and South Gloucestershire the north-eastern portion lying within the county of Oxfordshire.

Evidence for the environmental conditions prevalent during the Earlier Neolithic in these areas is at present patchy and sparse. Studies of the micro-faunal remains beneath some Cotswold-Severn tombs suggest that on the Cotswolds themselves a series of episodic clearances and subsequent arboreal regeneration resulted in intermittent tree cover (Evans 1971, 31-40; Bell 1990, 222). Environmental evidence from limited excavations at Condicote Henge suggests that this may also have been the situation during the Later Neolithic/Early Bronze Age (Bell 1983). A. G. Brown’s work in the Severn Valley has shown that from at least 6000 BC onwards the area was heavily wooded; the first changes to the native woodland not occurring until the advent of the elm decline. However no major clearances seem to have taken place until the last quarter of the 3rd millennium BC; the date of these clearances being coincident with the first appearance of cereal pollens in the palynological record of the Severn Valley (Darvill 1987, 15). Sea-level within the Severn Estuary has risen several metres since the start of the Neolithic and consequently estuarine silts and peat now covers some of the land accessible at the commencement of the period in the area to the west of the Cotswolds. The rise in sea-level would also have meant that potentially during the Later Neolithic and Early Bronze Age a variety of tidal wetlands would have been available for exploitation in the Severn Valley (Allen 1997).
Enclosures

Analysis of present day soil types suggest that the redzina soils on the western edge of the Cotswolds and the combrash soils towards the eastern slopes would have been suitable for primitive cultivation techniques (Barker and Webley 1978, 166) and it is in these areas that a number of Neolithic enclosures have been identified. Peak Camp, Birdlip is situated on a promontory only about one kilometre to the south of Crickley Hill and has been the subject of limited excavations. These excavations have confirmed the similarity of the material culture found there with that found during excavations at Crickley Hill, and provided radio-carbon dates giving an uncalibrated range of between c. 2800 and 2600 bc (Thomas 1986, 302). As at Crickley the ditches seem to have been recut on a number of occasions, suggesting a persistence in the importance of the enclosure. A small-scale investigation of the interior also produced evidence of structural features and a domestic presence on the site (Darvill 1981 & 1982a). The enclosures at Icomb Hill, Southmore Grove and Signet Hill are situated in elevated positions on the eastern dip slope of the Cotswolds; whilst Eastleach, Broadwell, Down Ampney and Langford all lie on the clays and gravels of the Upper Thames Valley (Darvill 1987, 41-42; Trow 1985, 17-22).

The causewayed enclosures situated on the uplands perch at the junction of a number of different ecological niches, it has been suggested that the availability of diverse resources may have been a major factor in their choice of locations (Barker and Webley 1978, 174-175). Both Peak Camp and Crickley seem to provide evidence of residence but that residence need not be viewed as evidence for entirely sedentary communities. A number of houses-like structures have been recognised at Crickley. Their diachronic distribution seeming to suggest an episodic use of the site becoming increasingly permanent through time. The residential aspects of the site were set within the framework of consumption, exchange and ritual activities (Snashall 1998). Rather than seeing them as centres for sedentary populations from which a variety of ecological niches were exploited it might be more apt to view them as, “lying at the end of one path and the beginning of the next,” (Barrett 1994, 141). The positioning of the lowland enclosures may reflect a different, and as yet obscure, motivation.

Human settlement and landscape exploitation is also evidenced by the existence of flint scatters in the region (Marshall 1983, 40-52; Holgate 1988a). Only small quantities of drift flint are present within the Cotswolds and its presence is therefore a useful indicator of anthropogenic activity. Previous research has shown that during the Later Mesolithic period flint scatters are not ubiquitous but their distribution is wide-ranging and covers most areas across the Cotswolds with sporadic representation in the Severn Valley (Gracie 1970). Studies have suggested that there is a slight bias in the distribution of lithic material from this period towards the northern area of the Cotswolds but this may be a product of differential fieldwork strategies rather than being representative of the original situation (Saville 1984b). Lithic scatters displaying an Earlier Neolithic morphology have been interpreted as indicative of a distinct bias towards sites on the western Cotswold scarp (Tho
mas 1986, 269). If this is so it may indicate a preference for soils more easily cultivatable using hoe agriculture or the exploitation of diverse ecological niches as identified by Barker and Webley (1978). Later Neolithic lithic scatters seem to occur over much the same geological and topographic areas as those of the Earlier Neolithic. Recently the discovery of a lithic assemblage eroded out of the silts of the Severn Estuary at Hill Flats has also demonstrated both an Earlier Neolithic and Later Neolithic/Bronze Age presence in this nearby lowland area; the majority of the assemblage belonging to the latter period (Allen 1997). It should not be forgotten that the residential practices of the communities that form the subject of this study may have extended outside of the Cotswolds and into the Severn Valley to the west or the Thames Valley to the east.

Perhaps the most thoroughly investigated sources of evidence for human activity in the period are the chambered tombs of the Cotswold-Severn group. The group found in the Cotswold uplands is one of four located in south-western Britain (Darvill 1982b, 5). Construction of these tombs seems to have begun in the middle centuries of the 4th millennium BC and continued through into the middle of the third millennium; their use being broadly contemporary with enclosures such as those excavated at Crickley Hill and Peak Camp (Darvill 1982a). Recent studies of the Cotswold-Severn group have concentrated mainly on the potential of the tombs for providing information about the social structure of the period. Attempts have been made to include them in the generation of models for settlement distribution within the region. Darvill (1982b), heavily influenced by systems theory, based his settlement model for the Birdlip region entirely on thiessen polygons with chambered tombs at their centre, treating causewayed enclosures as peripheral and omitting the presence of lithic scatter evidence entirely. He has since modified his position somewhat postulating an ill-defined but more mobile pattern of residence (Darvill 1987).

Marshall (1985) in contrast included chambered tombs, barrows and lithic scatters in his settlement model for the northern Cotswolds but made no chronological distinctions between either the lithic material or the evidence of the burial record; treating the Neolithic and Bronze Age as a static whole. His basic settlement unit is identified as one central lithic scatter plus one round barrow/chambered tomb at the periphery of the territory. Admitting that there are a number of lithic scatters with no "associated" funerary monument he goes further to suggest the existence of a complete class of flat graves as yet unidentified in the archaeological record that would fill-in the gaps in the settlement record. Marshall makes no attempt to incorporate the evidence for the two enclosures (Peak Camp and Crickley Hill) that fall within his area of study into his model and simply dismisses the Birdlip area as being unrepresentative.

There is some evidence in the region for what appear to be domestic timber structures sealed beneath chambered tombs. The excavation of Ascott-under-Wychwood provides one example of a Cotswold-Severn tomb that sealed both Later Mesolithic and Earlier Neolithic occupation (Selkirk 1971, 10). Further to the south-east at Hazleton clear evidence of both Mesolithic and Neolithic pre-
cairn occupation was found (Saville 1990, 13-22). Darvill's reassessment of the phasing of the excavations at Sale's Lot, Withington also suggests pre-cairn occupation of Earlier Neolithic date (Darvill 1982b, 60-61 and 1987b, 35). Tilley (1994) views such activity as a continuity of the significance of particular places.

Tilley's application of an archaeological phenomenology (1994) provides a potentially useful tool for considering the placement of Cotswold-Severn tombs within a more holistic view of the individual's experience of the landscape. Hunter-gatherer societies imbue their landscape with meaning by naming spaces and thus creating places. The builders of the first Cotswold-Severn tombs fixed meanings within the landscape by constructing architectural forms to contain the bones of their ancestors and thus associate themselves with particular and significant places. Within the Black Mountains the positioning of tombs seems to reflect pathways travelled as part of a transhumant exploitation of the landscape, moving between coast and uplands. It is likely that the individual positioning of tombs within the landscape would have differed from region to region according to varying patterns of movement within that landscape, and need not therefore have been the same in the Cotswolds as the Black Mountains. Some pattern of seasonal movement may however be postulated. Thomas (1988a, 549) has noted the deposition of cattle bones in the chambers of Cotswold-Severn tombs and their similar treatment to human remains. This phenomenon is a common feature of societies where the animal concerned is a critical resource. Pastoralism therefore may have been an important influence on the residential practices during the Earlier Neolithic in the Cotswold region.

Transepted tombs were situated physically closer to the main areas of earlier Neolithic settlement in the Cotswolds than their predecessors; the latter having a more westerly distribution than the earlier laterally chambered tombs. Showing a change through time in the relationship of the living to the dead as experienced in their everyday routines. The perception of tombs as belonging to the world of the ritual, and occupation and exchange to the world of the mundane, is more apparent than real. Activities at the tombs bear witness to the embedded nature of ritual within the communities that used them. The tombs served as points of aggregation that allowed and/or possibly necessitated the use of exchange and distribution networks. Feasting in the forecourts of tombs is evidenced by the presence of pig bones, pits and hearths (Thomas 1988a). The coming together of possibly disparate elements of the community would have provided an ideal opportunity for both exchange and conspicuous consumption. Where tombs were situated at some distance from the main areas of residence this may have involved short term residence at or close to the monument. The presence of scattered human bones in the forecourts indicates that these events may have taken place as part of rituals involving the display of remains of the ancestors. The presence of flint scatters at some tomb sites indicate that flint was brought there and worked, the contemporaneity of this with the use of the tombs is yet to be established. A number of polished stone axeheads have also been found at these
sites and it is possible that the exchange of perishable goods also took place at tombs alongside that of more durable materials.

Later Neolithic and Early Bronze Age round barrows have been much less well investigated than the funerary monuments of the Earlier Neolithic. As a result dating is problematic and it is possible that some round barrows may in fact cover Earlier Neolithic rotunda graves. However the barrows do show a tendency to cluster in certain areas. The most notable concentration of 59 barrows lies within a 5 kilometre radius of Condicote henge. Saville (1983) has interpreted this clustering as the henge acting as a focal point for later funerary activity. Limited excavation at the henge itself has shown the presence of quantities of what appeared to be domestic refuse within the ditches (Saville 1983) possibly suggesting that the monument may have acted in a residential capacity as well as acting as a focus for ritual activity. Just 20 kilometres south-south-east of Condicote lies the only other known henge monument in the area at Westwell in Oxfordshire; however this site remains unexcavated (Holgate 1988, 77). The Rollright Stones also lie only 14 kilometres east-north-east of Condicote. This area thus seems to have been a considerable focus for activity during the Later Neolithic and Early Bronze Age but lack of excavation and of chronological differentiation in the interpretation of lithic scatter evidence means that its relationship to modes of residence is at present uncertain.

The picture of residence outlined above for the Neolithic Cotswolds is at present extremely rudimentary. Archaeological investigations within the region have been dominated by the highly visible remains of chambered tombs, with issues of residence (and settlement) being paid only cursory attention. And yet without a model of residence it is difficult to see how the details of ritual practice and social concerns that have dominated recent post-processual approaches to archaeology can be contextualised. A new holistic methodological approach to the study of residence is required. This requires underpinning by a carefully thought out theoretical framework specifically designed to address the aspects of social organisation and identity that arise out of the residential experience of individuals and communities.
Chapter 4. Lithic Scatters Reconsidered

Lithic scatters constitute a vast data resource for later prehistoric archaeology in Britain. Human activity during this period has created a lithic palimpsest on a landscape-wide scale. Lithic scatters are a taphonomically filtered fragment of the material remains produced, used and disposed of by groups and individuals in the past. From the start of the Mesolithic to the close of the Early Bronze Age these scatters offer a source of potential insight into the otherwise sparse indications of residence. They may comprise evidence not only for habitation but for the entire spectrum of activities that involved the production, use, maintenance and disposal of worked stone.

Whilst the importance of lithic scatters has long been recognised they have proved surprisingly resistant to interpretation. It is the contention of the author that this hermeneutic intransigence is not due to any inherent deficiency in the nature of the evidence but results from their consideration within an inappropriate theoretical framework. In order to progress our understanding of the meanings of such scatters it will be necessary to reassess the theoretical framework within which their interpretation takes place. Much of the academic discussion about lithic scatters has centred around methodological difficulties and taphonomic constraints (Shennan 1985; Haselgrove et al. 1985; Schofield 1991a). Such issues are vital in understanding the “original” physical positioning of objects, the way in which these have changed through time and consequently their accessibility for archaeological study. However the problematics of the methodology seem to have become so burdensome that epistemological and hermeneutic considerations have been largely ignored. Assumptions are thus made about the problems and potentials involved in the use of lithic scatters. It is intended here to challenge some of those assumptions.

Epistemology

It has been suggested that it is the theoretical framework employed for the analysis of lithic scatters that is the limiting factor in the interpretation of such scatters rather than the character of this class of evidence. In order to challenge the accepted frameworks it is necessary to disentangle the potentials of the scatters themselves from the deeply entrenched preconceptions which have structured their analysis and interpretation.

Bourdieu’s (1977, 3) notion of a, “third-order knowledge” might be usefully employed to assist in this task. Bourdieu’s suggested reconsideration of anthropological epistemology can be employed to critique traditional archaeological approaches to the study of lithic
scatters. Traditional approaches to the interpretation of scatters have attempted to deal with the data within “objective” frameworks; with a consequent emphasis on quantification and classification. This is analogous to the anthropologist’s first epistemological break which attempts to break with native experience and native representation of that experience (first-order knowledge) in order to gain objective understanding (second-order knowledge). Bourdieu submits that what is required is a second epistemological break questioning this second order knowledge; an objectification of objectification (Bourdieu 1990).

In our archaeological analogy this equates firstly to a questioning of the classifications that we employ at the level of the artefact, the site, and the groups and individuals that inhabited the past. Concepts that have for long been regarded as almost self-explanatory categories, such as domestic, ritual and industrial are in fact far from self-evident. Our archaeological classifications have the seductive ring of familiarity, they have become “naturalised” through repeated use and acceptance over time. Secondly it will be necessary to question the way in which “native” (subjective) ways of knowing and thus understanding differ from “academic” (objective) epistemological frameworks. Not least amongst these differences is the contrast between the “academic’s” search for a clear-cut, disinterested explanatory structure and the “native’s” acceptance and use of a “fuzzy” logic of practice (Bourdieu 1990); the particular interpretation and application of which differs according to material and social conditions and is historically contingent. What is required to produce a second epistemological break in our archaeological thinking is thus a leap into the landscape of the imagination, in order to envisage other potential ontologies.

In attempting to achieve an objective viewpoint and denying subjectivities traditional archaeological frameworks have privileged the quantifiable over the experiential. The application of Bourdieu’s approach is not intended to produce a new improved objectification but rather to integrate those understandings of the world that are characterised as subjective and objective; giving neither supremacy, but using both to understand the dialectical relations between human agents’ understandings of the two. Such understandings form part of the habitus. The desire to understand and classify objectively is itself a product of the western post-enlightenment habitus. Habitus structures and restructures both the long and short term strategies of individuals. These strategies are mediated through, and in part informed by, practice. These are concepts which will prove vital in considering the hermeneutics of lithic scatters. It is the importance of practice within this framework of understanding which allows the archaeologist to thread a connective tissue between present and past understandings of material culture.
The traditional theoretical frameworks that have conditioned the understanding of flint scatters have sought generalising explanations of the data (Shennan 1985); searching for an explanation of what scatters, both individually, and as a class of evidence represented. The logic of this position demands that in order to achieve this it is necessary to filter out various biases until we reach a "pure" vision of snapshots in time, as might be expected from the stratigraphic contexts of an excavated site. The emphasis is on density, distribution and typology. Once these have been quantified, mapped and classified the data can then be correlated with known examples from given types of groups and societies to establish what type of people lived like this. However the artefacts and material remains that we consider as data were "generated" by individuals whose choice of actions and social practices was both enabled and constrained by their understanding of the habitus. We might therefore be better served by asking what ways of being were possible given the material conditions that existed (Barrett 1994).

Methodology

Whilst advocating the importance of a reconsideration of the epistemological and hermeneutic frameworks there can be no denying the complexity of methodological issues that underlie the use of lithic scatters as a class of archaeological evidence. To maximise the interpretative potential of such scatters a full examination of human discard, environmental and post-depositional anthropogenic activities is required. In the past such considerations have dominated discussion on lithic scatters. The search for the production of data sets that are objectively comparable in absolute terms, one to another, has lead to a very limited view of the potential of scatters; at worst resulting in the production of no more than "dots on maps" (Holgate 1985) and only slightly more optimistically viewing them as a general guide to settlement (Thomas 1991, 15) or as contextual background for monuments and excavated sites (Woodward 1991).

In most instances the complexity of the variables that have resulted in the present day location of lithic material within scatters defy even the most arduous statistical modelling. This is however only a problem if we persist in trying to pursue an aim of absolute quantifiable objectivity. The search for an objective model of what happened in the past and why stands in stark contrast to the "native", "fuzzy" logic of practice employed in everyday life. If our aim is to understand how and why individuals and groups lived their lives in particular ways it is surely through an attempt at understanding this logic of practice that we may gain insight. It is not the intention of the author to suggest that we ignore the major meth-
odological problems that have dogged the study of lithic scatters in the past. Instead it is suggested that the search for objective absolutes has engendered a concern with over exactitude in the desire to model the effects of different variables. The important issue is not to quantify exactly but to recognise what those variables were. Once this has been achieved it is possible to allow for their effects by building in a flexible approach to both methodology in the field and also interpretative methodology. This might be characterised as a shift from an emphasis on quantification to characterisation.

The nature of lithic scatters has lead to their description as, "‘sites’ with one dimension missing," (Bradley 1987, 39). That dimension is their physical context. The lack of this dimension is often regarded as the most serious problem involved in the use of scatters as an archaeological resource. The problem produces two corollaries. Firstly the lack of a physical context leads to a presumed difficulty in reconstructing the actions involved in the original deposition of the artefact and its spatial relationship to other artefacts and features. Secondly the lack of context destroys any record of the relative sequence of deposition. The latter problem is exacerbated by the dominance of waste flakes within scatters; thus reducing the potential for dating of tools on purely typological grounds.

It is undeniable that the effects of ploughing remove lithics from their original discrete spatial context. The scale of the movement of artefacts as the result of ploughing and erosion is to a large extent dependent not only upon the type of plough employed but also whether the scatter is situated on flat ground or on a slope. The horizontal movement of items within the plough soil only occurs on a large scale where the scatter is situated on a steep slope (Nicholson 1980; Gingell & Schadla-Hall 1980). Where scatters are found on or at the bottom of such a slope it should be possible to approximate their original positions.

Clearly the exactness of this approximation is to a large extent dependent upon the choice of an appropriate scale of analysis. In the analysis of flint scatters the issue of scale is critical. In artefact displacement experiments artefact displacement levels as a result of ploughing have been shown to range between 3 and 15 metres in the horizontal plain (Steinberg 1996, 369). Given a sufficiently large sample of the artefact population a suitably chosen scale should therefore enable the detection of real differences in the character of flint distributions and thus, by inference, Mesolithic, Neolithic, and Early Bronze Age activity.
The lack of chronological context for lithic scatters can be addressed by the application of a multi-faceted approach to technological analysis. The potential value of waste flakes for chronometric analysis on single period sites has been clearly demonstrated (Pitts 1978; Pitts & Jacobi 1979). As such analysis rests upon the recognition of trends rather than the chronometric variation of individual flakes multi-period scatters provide a greater challenge. Ford (1987) has however demonstrated that it is possible to produce models of the results that might be expected from mixed period scatters. This type of modelling might best be seen as a guide rather than as an exact equation as it clearly represents an idealised circumstance that is unlikely to correspond to any particular set of historically contingent actions that resulted in the production of a lithic scatter. Such models may be characterised as the what of technological analysis. To progress the understanding of lithic scatters we need to also understand the how and the why.

Phil Harding’s approach to the flint assemblages from the South Dorset Ridgeway Project provides a clear example of the insight that an understanding of the sense of technology may bring (Woodward 1991). His classification of flint waste arose out of an understanding of the way in which the stone is worked. This contrasted with the previous classification of primary, secondary and tertiary flakes which was the consequence of an objectively descriptive approach to the material. Chronometric analyses of material, underpinned by an understanding of the particular logic of practice applied in the production and maintenance of stone tools in different periods and different circumstances can be usefully employed to add chronological definition to lithic scatters. Such an approach also overcomes the potential for confusion between chronometric and metrical analysis. Quantification on its own is not enough. To make the most of lithic scatters we need to shift the emphasis away from greater exactness in quantification towards an increased understanding of technological characterisation. Used in conjunction these approaches can be used to differentiate different periods of activity through the study of density distributions combined with a consideration of technology (Edmonds et al. 1999).

One of the debates that has arisen in discussions concerning lithic scatters has been exactly how representative they are of what lies beneath the surface. Lithic scatter data, retrieved by systematic fieldwalking and/or mechanical sieving, in combination with excavation has helped to clarify this particular issue. Survey and excavation at Spong Hill, Norfolk revealed a dichotomy between the spatial positioning of lithic material from the Earlier Neolithic and the Later Neolithic/Early Bronze Age. All of the Later Neolithic/Early Bronze Age material was found in the ploughsoil, whereas the Earlier Neolithic assemblage was almost
exclusively recovered through excavation and situated in negative sub-soil features. The Earlier Neolithic material appeared to have been deposited in these features in a single event, as several sherds of pottery from a single vessel were found in different features. Healy’s subsequent consideration of other excavated Neolithic sites in Norfolk showed that there appears to have been a cultural shift in discard behaviour between the Early and Later Neolithic. In the earlier period material was deposited into negative sub-soil features, whilst in the later period it was deposited directly onto the ground surface, either as a general spread, or possibly as middens that subsequently become levelled out (Healy 1987, 9-17).

Most of the artefacts that end up in the ploughsoil have been “ploughed in” as opposed to being “ploughed out”, and consequently, if Neolithic settlements did not possess earth-bound features then the only form of evidence that would remain is lithic scatters (Haselgrove 1985, 15-16). This may well be the case with the Later Neolithic in Norfolk. This potentially gives rise to a situation whereby Later Neolithic settlement is likely to be well represented in lithic scatters, but Earlier Neolithic activity will only be evidenced either through the truncation of the tops of negative features, as the result of erosion, or through excavation. It is not yet possible to judge whether this is also the case in other regions. An examination of excavated sites of the period within the study area is therefore important if we are to understand the nature of scatters within any particular time-period.

To some extent the entire debate over the representativeness of lithic scatters is a product of viewing lithic scatters as if they are the equivalent of excavated sites with something missing. Lithic scatters might be more appropriately regarded as something other in their own right (Hey 1999; Allen 1999). Excavation at the Eton Rowing Lake has uncovered Earlier Neolithic lithic scatters that were not accompanied by other cultural material nor deposited within either cut or built features. If this scatter had been recovered by fieldwalking following ploughing we would clearly be missing the point if we were to assume that the scatter either directly equated to a “site” beneath it or was a dim or skewed representation of such. At Yarnton during both the Neolithic and Bronze Age the source of finds visible as lithic scatters was not ploughed out negative features but ground surfaces (Hey 1997). In many instances these were placed a short distance away from sites as defined by the presence of clusters of features. Under such circumstances it is apparent not only that the selection of an appropriate scale is critical but also that we need to carefully reappraise and
define our application of the term “site”. Is a site defined by the presence of features, past human activity or might we consign it to the realms of archaeological slang meaning simply that which we are studying at present?

Potential collection bias also occurs in terms of the topographical location of flint scatters. The majority of lithic scatters have been recovered as a result of fieldwalking. The sole use of this collection methodology limits discovery to cultivated areas. In addition areas that have been subject to colluviation and alluviation are masked. Depending on the chronology of events in some areas only certain periods of activity will be masked. It is therefore important to use all available environmental evidence in order to build up a picture of those areas that have been subject to colluviation and erosion. It should not merely be assumed that all blank areas are the result of colluviation as the Stonehenge Environs Project has shown that such areas can sometimes reflect a real absence. To maximise the potential of lithic scatters it is necessary to understand the regional and local geomorphology. In areas where colluviation and alluviation are likely to have occurred the use of excavation and evaluation data can help not only to recover masked scatters but to understand the geomorphological sequence. Such an understanding can then be drawn into the process of interpreting the evidence of scatters. Other potential biases and conditioning factors that are likely to arise from collection by fieldwalking, such as weather conditions, the propensities of individual collectors and the immediate topography of the individual sampling units, can also be allowed for in any interpretation (Shennan 1991).

Prior to the implementation of PPG16 most lithic scatters were recovered from systematic fieldwalking or unsystematic collection. However the work of the Lithic Scatters Project suggests that since the introduction of this document the majority of these scatters have been recovered as a result of evaluations (Lisk et al. 1999). The manner in which scatters are detected and recovered has a substantial effect on the ways in which they can be interpreted. Political policy is not the only contemporary social factor that can bias the collection of lithic scatters. The conditions of recovery that effect scatters may result from personal preference (conscious or unconscious). Contractors may tend to concentrate on more substantial evidence the interpretation of which is potentially less “difficult” or evaluation strategies (such as machine stripping) may be put in place which are unsuited to the recovery of lithic scatters (Austin and Sydes 1999).

As a result of the small percentage of artefacts that are available for collection by surface survey at any one time (between 4% and 7% (Bradley 1987, 39)), the degree of resolution
obtainable via this method may be relatively coarse. Some analysts have attempted to increase the level of detail and accuracy in quantification by increasing the proportion of the total assemblage retrieved from the ploughsoil. Steinberg's (1996) methodology of machine sieving the contents of selected 2m x 2m squares of ploughsoil is intended to retrieve as large a representative sample of the ploughsoil assemblage as possible. Following initial assessment of results from fieldwalking survey it can provide clearer resolution of particular areas and be used as a control to ensure that samples obtained by fieldwalking are representative of the scatter as a whole.

However this is clearly not an option for the researcher dealing with assemblages that have already been recovered. It is therefore necessary when interpreting material to remember that surface survey may potentially under-represent smaller artefacts (such as microliths or final stage waste flakes) because of their tendency to “sink” towards the bottom of the ploughsoil, whereas their recovery during excavation is only restricted by the eye-sight and/or the sampling strategy of the excavators.

Our understanding of lithic scatters can be enhanced by considering them in the context of what is known of their physical and social setting from monuments, excavated sites and environmental information. It has been suggested that it would be desirable to excavate a selection of areas with particularly distinctive “site signatures” (both in terms of quantified lithic assemblages (Schofield 1991b; Steinberg 1996) and the technological character of those assemblages) in order to expand the current state of knowledge concerning the relationship of scatters to sub-soil features. The author has already recognised the need to explore the relationship between scatters and deposition practices through the analysis of excavated sites. However it has been clearly demonstrated that there is no simple one-to-one correlation between scatters and sub-soil features and the notion of identifying “site-signatures” may therefore prove misguided.

The major fieldwalking surveys of the 1980s followed Foley’s (1981) suggestion that ploughsoil scatters might best be approached through the investigation of “off-site”-variations in distribution density at a regional scale. Their authors’ advocated a multi-staged research strategy looking at human activity across a regional landscape in order to detect settlement patterns and allow inter-regional comparison. (Boisimier 1991; Shennan 1985; Richards 1990; Woodward 1991). Their sampling strategies were rightly designed in order to take in transects within the whole range of topographic zones within their separate regions. The main advantage of a multi-staged approach is in allowing the researcher the flexibility of
responding to initial analytical results by pursuing collection strategies to provide data for differing scales of analysis.

However the adoption of well-thought out research designs in modern fieldwork should not negate the potential importance of material that has already been recovered under less stringent methodologies. An analogous approach may be adopted towards the sampling of scatters already extant within the care of museums, units and private individuals. The selection of scatters for study at multiple scales offers the potential for a more reflexive exploration of residence. Lithic collections held in museums are sometimes dismissed as being of little value, as most of the material in museum collections is considered to be unrepresentative and likely to be biased by their “unscientific” collection methods. Gardiner has however shown that, once their limitations have been assessed by background research, museum flint collections can prove extremely useful as a general guide to patterns of Neolithic activity in a region (Gardiner 1984 & 1987). To compensate for possible biases in the preferences and abilities of individual collectors she suggests grouping them into broad functional categories, rather than individual tool types, when assessing the distribution of implements. Analysis of regional distributions obtained from this form of data is best carried out by the application of “presence or absence” criteria to these tool groups. These results may highlight both a further problem and an advantage with museum lithics collections. The collections usually contain very few “waste” flakes, but large numbers of tools; a position nearly entirely the reverse of that found in assemblages collected by systematic field survey and excavation (Clark and Schofield, 1991, 102-3). This suggests that waste flakes are under-represented in museum archives, but even so the collections possess a potential for establishing regional chronological and morphological lithic sequences in a manner not possible with excavated assemblages because of their limited size (Gardiner 1984, 15). These regional sequences can in turn help to provide a broad context for the interpretation of lithics obtained as the result of systematically collected scatters.

The results of such analysis should not be viewed simply as a static pattern of settlement. The results produced are the product of lived experience, being created used and disposed of as the result of choices made in given situations, at particular geographic and socially constructed locations. The application of statistical methodology is not therefore an end in itself but must be used sparingly and wisely in order to help elucidate the logic of practice reflected in the scatters.
Hermeneutics

One of the main constraints upon the ability of archaeologists to unlock the potential of lithic scatters has been the widely held belief that such scatters can only be used to answer questions at a very generalised level (Bradley 1999). This is something of a self-fulfilling prophecy. In order to maximise the potential of lithic scatters we need as Schofield (1995b) suggested to make the material work harder. It has already been demonstrated that there can be no simple one to one correlation between surface scatters and sub-surface features or the presence of scatters per se and specific pre-determined categories of "site".

To understand the logic of practice we need to ask, "how could it have been other given what is known of material conditions?". We can then contrast the choice that was made with other possible choices. The decision taken/action performed is not a given but neither is it random. It is the product of a knowledgeable agent acting within the habitus. It is conditioned and enabled by what has gone before. Hence it is historically contingent. The logic of practice as embodied in technology is intrinsically bound up with decisions about the use and ideas concerning both the social and physical landscapes. This logic can be pressed further to suggest ways in which it was possible to be. To this end it is vital to consider the choices, decisions and outcomes of the logic of practice at a variety of spatial and temporal scales: regional, local (the scatter or internal cluster) and particular (the artefact); synchronic, diachronic and long-term. The consideration of a temporal aspect to past subjectivities in terms that explore the persisting and changing rhythms of the habitus is particularly important as without it our theoretical framework runs the danger of either becoming a cardboard cut-out of our exploration of the past or descending into entirely particularist description. Working back and forth between these various spatial and temporal scales it should be possible to build-up layers of understandings, each informing the other.

At the level of the artefact technological choices are made in the production, use and disposal of the object. The danger of the application of generalising hermeneutic frameworks is that the exceptional is subsumed amidst the mass of the "usual". However it is the presence of the exceptional that demonstrates that a choice is not entirely determined by physical and environmental constraints but is also bound up with social strategies (Mahias 1993). Put simply it is the exception that proves the rule. The constraints that may exist can be numerous and contradictory and there must therefore be an imperative behind the choice made. This imperative is part of the habitus. If the choice can be understood the archaeolo-
gist is therefore provided with a "way into" the logic of experience that helped to form that habitus. The understanding will never be a complete one but to reject this approach because it can never produce total "objective" understanding is akin to saying that because we cannot know everything we refuse to know anything.

At a regional and local scale this approach can be applied to social strategies that manifested themselves through movement and residence within the natural topography, landscape and built environment. These have resulted, from an archaeological point of view, in the creation of lithic scatters. The strategies employed by individuals (and groups) in the past were informed not only by an understanding of how things should be done but where it was appropriate to do them. This involves an element of choice in just the same way as the production or use of an object. At particular, local and regional scales of action and understanding the logic of experience that informs the habitus is always open to change. Individuals draw on their experience to assure desired outcomes within their understanding of the habitus. This can in turn lead to the creation of new meanings via the juxtaposition of different elements within that experience. These meanings may be temporary and elusive or in time may become part of the orthodoxy. Whatever the outcome once again it is clear that it is necessary to consider the particular and contingent meanings of lithic scatters and their constituent elements rather than to search for an over-riding explanation of their patterning.

It has already been suggested that we need to reconsider the categories that we employ in order to characterise scatters and thus human behaviour. It is necessary to categorise lithic material in some way in order to enable us to both grasp and communicate the meaning of lithic scatters. Without some form of classification we once again run the risk of plumbing the depths of particularist description. It is the breadth of the categories that we employ and the point at which we employ them that is at issue here. In traditional approaches to lithic scatters categories for the types of "site" represented by surface scatters have been defined prior to interpretation, often by employing broad analogies with ethnographic data. Typically scatter/ "site" types are defined using such categories as industrial, domestic or task specific (Richards 1990; Woodward 1991). In the application of these pre-formed categories we are limiting the potential of lithic scatters. We need to hold back from applying such sweeping categories at this point in our analyses. If we do not we will only be able to recognise that which we are already familiar with. Instead an approach is required that takes the individual artefact as the basic unit of analysis (Spikins 1995). The choices made relating to individual artefacts, are impacted upon by choices made in wider social strategies all of which arise out of particular material conditions. Our classifications should arise
out of an understanding of routine practice and technological choices made during the process of acquisition, production, use and disposal of stone artefacts. In this way our interpretations of lithic scatters can be drawn out of the material itself. This allows new and unexpected possibilities to arise. New descriptive categories may thus arise out of the scatters rather than being imposed upon them.

The importance of choice as signified by variability in lithic industries can be seen at every stage in the acquisition, production, maintenance, use and discard of stone tools (Perzès 1992). In terms of selection of raw materials choices are made concerning whether the material to be used is local or from a distant location, whether it possesses qualities suited to a particular form of working, whether it is aesthetically pleasing or if it carries particular cultural associations. The morphology of tools, flakes and cores bespeaks choices made in terms of the types of activity that took place at a particular location. At its most basic this involves the differentiation of areas of production, manufacture, maintenance or use (Henson 1989). However by attempting to gain a sense of the logic of practice involved in different and dynamic traditions of working greater detail can be added. Viewed in combination with spatial analyses another dimension is added to the understanding of the logic of practice.

The type of analysis carried out for excavated assemblages for instance considering the dominance of particular tool or waste types, the preference for single or multi-platform working, or the use of platform rejuvenation techniques can equally well be applied to assemblages obtained from scatters. It is after all common practice to study excavated assemblage as a whole (often without reference to context) even when those assemblages represent the results of only a few square metres of trench forming part of a much larger unexcavated whole. Under such circumstances the potential biases in the assemblage studied are therefore unknown. The usefulness of such detailed analysis of the flint assemblages recovered in this way is however unquestioned More effort has been put into problematising the biases in lithic scatters than in small scale excavation or trenching. An equally rigorous technological analysis of artefacts from lithic scatters should therefore prove at least equally rewarding. Used in conjunction with chronometric analysis an understanding of different technological practices can be used to investigate change and continuity. The implications of the choices involved in continuity of practice over long periods or discontinuity for the understandings of “traditional” practices both in terms of technology and of place can also be pursued.

Pollard (1999) rightly points out the “contingent nature of landscape and occupation histo-
ries”. We cannot therefore expect ethnography to provide direct, transferable analogies for past choices. However it can provide a key into thinking ourselves away from our assumptions and enabling us to break into the different ontologies of which lithic scatters are the residue. It can provide us with clues about the ways in which material remains are initially and subsequently read and used by individuals and groups; together with the technological choices made and their potential relationship to considerations such as location, access to materials, rhythms of movement, experience, skill and traditional understandings.

The multiple considerations and experiences which inform technological choices and the logic of practice more generally cannot be evidenced through lithic scatters alone. The interpretative power lying dormant within such scatters can only be fully realised if their analysis is undertaken within the context of other forms of evidence. Ethnography can be used to awaken us to the possibility of unconsidered ontologies. However only the parallel consideration of evidence from excavations, upstanding monuments and evaluations can point us towards the contingent and locationally specific histories of particular places and groups. Through the investigation of the proximity of scatters and the human activity that they represent to known monuments, tombs, enclosures and habitation sites (of either the same or earlier periods of activity) it should be possible to draw out a narrative thread informed by a sense of *habitus* and the logic of practice that was appropriate within it.

Viewed within an appropriate theoretical framework lithic scatters can provide an indispensable guide through the social and physical landscapes of prehistory.
Chapter 5. Questions of Method

Underlying Methodological Principles

It has been established that lithic scatters are a meaningfully constituted aspect of human practice. Likewise, that if this is the case then these scatters have the potential to provide information about where past individuals and communities were residing within the landscape. It should also be possible to explore not only where people were residing but what activities they were undertaking at these different places.

Previous researches have often demonstrated a reluctance to utilise material that has not been collected using a rigorously constituted sampling strategy. Gardiner is an honourable exception to this trend (Gardiner 1987). However her approach to the use of older lithic collections in a regional context, whilst welcome, relied heavily upon typologically classifiable artefacts and neglected the potential of waste material. Many thousands of bags and boxes of lithic waste material (and artefacts) collected using a variety of fieldwalking methodologies (and often no methodology at all) sit unobtrusively on the shelves of museums across Britain gathering dust. These pieces of stone were once shaped by the hands of people making constant choices about what they were producing, how and where they were producing it. It is through the unlocking of these choices that meaning may begin to be garnered from the contents of those dusty bags and boxes. In order to recognise these choices it is necessary to consider the technology of stone working as well as the typology.

This research has centred around a strong commitment to the analysis of lithic assemblages collected by a variety of different methods. Lithic assemblages from excavations, all manner of fieldwalking and watching briefs were deemed to be worthy of study. However no attempt was made to make direct numerical comparison via inter-assemblage analysis. Due to the nature of the variation in recovery method this would have placed an insupportable interpretative burden upon the material. It would in effect have lead to a reduction of the information available from each assemblage to the lowest inter-assemblage common denominator. If these pieces of stone are to tell us anything then every scrap of hermeneutic “blood” needs to be squeezed from them. The material needs to be made to work harder (Schofield 1995b, 6). Thus initial interpretation was undertaken at an intra-assemblage level. These individual interpretations of assemblages were then drawn upon to produce a narrative thread of choices made at a variety of other scales.

Though lithic scatters are the most durable source of potential information about residence at a landscape scale they are not the only one. The evidence from a variety of monuments, together with structures and pit groups recovered during excavations also bespeaks choices made by individuals and communities about where and how they lead their lives. In order to understand the logic of the
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choices made in the actions taken lithic scatters cannot therefore be considered in isolation. To attempt to understand the choices made within the *habitus* lithic assemblages were therefore considered alongside monuments, structures and pit groups, and within the context of the available environmental information. To understand agency structure must also be considered.

The importance of undertaking interpretation at a variety of spatial scales has already been hinted at. An attempt to understand the interplay of choices made at broader scales may help to extend the understanding that can be achieved via analysis at the level of the individual locus of activity (assemblage). Research was therefore undertaken at a regional level. The results of the analyses of individual assemblages were then considered within differing topographical and monumental localities at the sub-regional level. These interpretations were further developed to explore their implications at a regional and finally (where possible) an inter-regional level. In this way, threading back and forth between different scales of spatial understanding and experience, it was hoped that it would be possible to obtain a flavour of the complexity of lives lived and choices made. Using this approach lithic assemblages offer the beginnings of an understanding of residential complexity in the spatial dimension and by extension, the temporal dimension.

The temporal dimension of lithic assemblages can likewise offer increased resolution in the understanding of the changing logic of practice and indeed the changing *habitus* in prehistory. In order to allow the writing of a regional history of the lives of communities during the Neolithic a strategy was required that allowed for consideration of choices made at different times. Whilst not entirely agreeing with Bradley's (1987, 39) comment that lithic scatters are "'sites' with one dimension missing," it is nevertheless true that chronological resolution is by necessity often coarser than may be the case on some excavations (though see Chapter 6 for some of the limitations with regard to the dating of excavated lithic material).

Without the possibility of dating lithics by association with other material two methods of dating are available: typology and the application of a chronometric/technological approach. Broad distinctions can be made with regard to what is known of changes in traditions of working stone across Britain during prehistory (Edmonds 1987, 169-173; Edmonds 1995, 35-38 & 80-82; Harding 1991; Holgate 1988a, 57-60). Distinctive stone working traditions have been recognised in the Later Mesolithic/ Earlier Neolithic and the Later Neolithic/ Early Bronze Age. Changes do occur within these periods and may be identifiable by the presence of typologically distinctive artefacts and core working in combination with the application of chronometric analysis (Pitts 1978; Pitts and Jacobi 1979). It is not intended to rehearse the minutiae of these traditions at this stage. It is sufficient to note at this stage that it is this diachronic variation in traditions of working stone (and consequently debitage and artefact production) that has led to the necessity of considering all lithic material within the study area dating from the start of the Later Mesolithic through to the close of the Early Bronze Age. By adopting this approach it should be possible to achieve a degree of diachronic...
resolution. This should be sufficient to enable the identification of choices being made in the day to day lives of individuals in the Later Mesolithic, the Earlier Neolithic, the Later Neolithic and the Early Bronze Age. By this means the contingent nature of technological and residential choices undertaken during the Neolithic may be better understood; variations and continuity in the understanding of the *habitus* thus becoming apparent.

A distinction should be drawn between the coarsely grained chronological divisions that can be recognised in stone working traditions and the complexity of lived experience. The contrast is a stark one but it is possible to start to break down the apparent discontinuity of the archaeological perception of temporality. The commitment to the consideration of lithic assemblages alongside monuments and the excavated remains of differing episodes of residence within the landscape has already been discussed. Exploration of temporal relationships was attempted via the consideration of the lithic assemblages alongside the remains of other evidence of episodes of residence originating in periods earlier than that of the assemblage/s in question (e.g. the apparent spatial relationship of Later Neolithic/Early Bronze Age scatters to Earlier Neolithic chambered tombs). This interpretative methodology is intended to circumvent the, "administrative gaze", and to grasp elements of the changing meanings of places and monuments from within the *habitus* of past individuals (Barrett 1999, 23-27). Tenuous as our grasp of those elements may be this must surely be a more worthwhile approach than that of the archaeologist as dispassionate and disinterested observer, imposing meaning from without.

The four main tenets of the methodology pursued were thus:

- A commitment to the analysis of lithic assemblages (including scatters), however they were collected, as meaningfully constituted aspects of human practice.

- The interpretation of lithic assemblages in combination with other forms of evidence (monuments, pit groups, structures and environmental evidence).

- The application of a multi-scalar spatial approach (individual locus of activity, sub-regional locale, regional, inter-regional).

- The application of a diachronic approach examining lithic material dating from the Later Mesolithic through to the close of the Early Bronze Age.
The Sampling Methodology: An Overview

Having established the principles underpinning the research it is now possible to discuss the sampling methodology itself. It was necessary to select a single region within which to test the feasibility of the methodological principles. The Cotswold massif forms a readily definable study area which possesses sufficient diversity of topography to allow the comparison of activity, identified through the medium of lithic assemblages, in a number of separate landscape zones. It also differs substantially in topographic terms from the area of the Severn Vale, to the west and the gravel terraces of the Upper Thames Valley to the east. This in turn allows for a meaningful discussion of the differences and similarities between the three areas. Thus the selection of the Cotswolds enables spatial analysis at the level of the individual locus of activity, the sub-regional locale, the region and inter-regionally. In addition the work of Holgate (1988) in the Thames basin provides a point of comparison of models of settlement both in two separate regions and within part of the same region using two very different methodologies.

The history of recovery of lithic assemblages within the Cotswold region is extremely diverse. It varies from informal collections of lithic scatters made over extended periods of time by a series of individuals, through well structured modern fieldwalking surveys to large excavated assemblages. This diversity of past collection methods allows for the analysis and attempted interpretation of assemblages recovered by a wide variety of methods. Only by actually attempting to use them can their true hermeneutic potential (or lack thereof) be ascertained. In addition the lack of a readily available source of good quality flint within the region has meant that the presence of any flint has normally been readily identified as indicating a prehistoric presence within the landscape. This has had the effect of encouraging past antiquarians, and amateur archaeologists to consistently collect all flint found within the region. This means that substantial quantities of lithic debitage are available for analysis from within the region. The one blatant exception to this is the Royce collection, which comprises a very restricted and "misleading," range of implement types (Saville 1979, 108). As a result of the undoubted bias in the assemblage this collection was excluded from the analysis undertaken during the course of this research. Where possible biases were apparent in the collection strategies employed for other assemblages these have been assessed through archival research (Gardiner 1987, 50-55) and the interpretations offered in Chapter 6 are made in the light of these assessments.

In order to identify which assemblages would form the subject of analysis, and to assess the nature of the extant material, a database containing details of the lithic assemblages within the area was constructed (Appendix 3: Assemblages Database). Initially details for all of the assemblages within the whole of Gloucestershire (including the Cotswolds, the Forest of Dean, the Severn Vale and The Upper Thames Valley) together with the Oxfordshire Cotswolds were recorded (a full field-by-field breakdown together with details of coding used is set out in Appendix 3: Introduction). Details of
of method

The original position of assemblages (location, parish and OS grid reference) were recorded. To this were added details concerning method of recovery; the size of assemblages; the topographic zone in which they were recovered; their present location (where known) were recorded; the degree of accuracy with which their original position can be pinpointed and the way in which they have been previously analysed (if at all).

The volume of material located led to the pragmatic decision to reduce the study area to the Gloucestershire and Oxfordshire Cotswolds. The large quantities of lithic material available for analysis within the Cotswolds alone, together with the detailed nature of the technological analysis that was to be carried out on the assemblages further necessitated the decision to sample only a proportion of the available material from within this region. The assemblages for analysis were selected as part of a two phase sampling strategy.

Phase one required the selection of well-dated assemblages from within the research area to investigate the validity of applying chronometric dating techniques within the Cotswolds. Analysis of flake Length : Width ratios and to a lesser extent variations in flake thickness have been identified by a number of authors as significant indicators of debitage chronology within Later Mesolithic to Bronze Age lithic industries (Ford et al 1984; Ford 1987; Pitts 1978; Pitts & Jacobi 1979; Smith 1965, 89-90 & 237). However within a region such as the Cotswolds where good quality lithic raw materials are not readily available it is possible that this apparent chronometric variation may be negated or skewed by different traditions of curation and working of stone. In other words, it was important to allow for the possibility that traditions of stone working operated at a regional scale in ways that were distinct from those identified elsewhere.

The first phase of the sampling strategy involved the selection of excavated assemblages from within the area that had been independently dated by means of radio-carbon dating. The intention was to select assemblages securely dated to the Later Mesolithic, Earlier Neolithic, Later Neolithic and the Early Bronze Age and to compare metrical variations in debitage to results obtained by previous researchers on other assemblages of similar date.

Phase two of the sampling strategy involved the selection of assemblages for more detailed technological and typological analysis. As the ultimate aim of the research was to investigate the choices made by individuals and groups at a variety of spatial scales assemblages were selected on a zonal basis. The Cotswold landscape falls into a number of readily identified topographical zones (Chapter 3, ). In the north of the Cotswolds there are clear differences between the scarp and its immediate hinterland overlooking the Severn Vale (Zone A), the central uplands of the massif (Zone B) and the dip slope to the east leading gently towards the lowlands of the upper Thames valley (Zone C). In the south of the area the divisions are less marked with the hinterland of the scarp (Zone D) leading
to an eastern dip slope (Zone E) that shares some of the topographical characteristics of the northern central area.

Ordnance Survey 10 kilometre grid squares were chosen as the basic sampling unit. These provided sufficient coverage to produce viable quantities of data for analysis whilst being small enough to fall broadly within individual topographic zones. Within these sampling units initial data collection, collation and interpretation was carried out at the level of the assemblage. The commitment to the interpretation of lithic assemblages in combination with monumental evidence led to the further concern that individual sampling areas should be selected so as to ensure the representation of the widest possible range of relationships to monuments. All known monuments dating from the Later Mesolithic to the Early Bronze Age within the Cotswold area were thus identified and their locations recorded along with the original locations of assemblages of known whereabouts detailed in the Assemblages Database.

These monuments comprised chambered tombs, "causewayed" enclosures, long mounds/bank barrows, henge monuments and stone circles (see Chapter 3). Approximately 400 probable round barrow sites are also known from within the Cotswolds (Darvill and Grinsell 1989, 45). Earlier Neolithic rotunda graves or bee-hive chambers are a well established type within Gloucestershire (Darvill 1982, 8) and without excavation may easily be misidentified as round barrows. The chronology of round barrow construction and use is poorly understood (Drinkwater and Saville 1984, 134-135) within the area and may have extended well into the Bronze Age. The situation is further confused by the presence of at least 150 ring-ditches (Smith 1972, 166). These may represent the last vestiges of ploughed-out round barrows but judging by the experience of excavators in both the Cotswolds and other regions may prove to be the result of a host of other phenomena either natural or archaeological (Darvill and Grinsell 1989, 49). Round barrows were therefore excluded from consideration as their chronological attribution on purely morphological grounds is uncertain.

Sampling units were selected in order to ensure that the maximum variation in terms of both topographical character and monumental associations was achieved. The present size of lithic assemblages may in many cases reflect the collection strategies employed in recovering them. However in some instances variation in assemblage size may reflect a variation in the size of the original lithic population for the area. This in turn may indicate variations in residential practice and lithic activity between areas. Care was therefore also taken to select squares that contained a range of different sizes of assemblage.

All lithic assemblages of known whereabouts from within the selected sampling units were analysed. During both phases one and two where sufficiently detailed analysis of lithic assemblages had already been undertaken and was available for study these data were used in order to supplement
data collection by the present author. This enabled the sampling of a considerably larger dataset within the chosen zones than would otherwise have been possible.

Assemblages analysed during phase one were restricted by the lack of secure radio-carbon dates available from well excavated sites within the study area. In addition to those sites listed below radiocarbon dates are also available for Swell 8 Bronze Age barrow, Cow Common. However this assemblage was rejected for consideration in phase one of the analysis because of the excavator's concerns regarding the residual nature of much of the flint material distributed throughout the site (Saville 1979, 96). Five suitable lithic assemblages were identified within the study area (Appendix 1: Table 1). These were:

Assemblage 50. Hazleton North: Pre-cairn Mesolithic & Earlier Neolithic activity.

Assemblage 34. Peak Camp: Earlier Neolithic enclosure.

Assemblage 14. Duntisbourne Grove: Pit Group containing Peterborough Ware.

Assemblage 15. Trinity Farm: Pit Group containing Beaker pottery.


Of these assemblages previously published data was available for Hazleton North (Saville 1990, 153-174) whilst new data was collected by the author for the analysis of the remaining three assemblages. Comparison was made of the length : width and thickness of the debitage from within these assemblages with similar data obtained for lithic assemblages of various dates from other regions in order to ascertain the validity of using metrical traits of debitage as a chronological indicator within the region.

Six 10 kilometre squares selected for analysis of their lithic assemblages during phase two of the sampling strategy (Figure 1). This represents approximately a 38% sample of the area within the Cotswold massif containing lithic assemblages of known whereabouts. The squares selected were:

Zone A: SO 91 and SP 03

Zone B: SP 12

Zone C: SP 22 and SP 23.

Zone D: ST 77

Zone E: SP00
Figure 1. Map showing the location of the selected 10km sampling units within the Cotswolds.
SO91 (Figure 2) covers part of the northern Cotswold scarp and its immediate hinterland (Zone A). Within this area two enclosures of Earlier Neolithic date (Peak Camp and Crickley Hill), a bank barrow/long mound (Crickley Hill) and a significant number of chambered tombs are present.
For comparative purposes it was desirable to analyse a square that contained no chambered tombs. However no square without chambered tombs within the study area contains lithic assemblages of known whereabouts. SP 03 (Figure 4), however which also lies within Zone A, contains only one chambered tomb situated on its periphery and was therefore selected in addition to SO 91. In addition its selection enabled investigation of material with the maximum geographic range as it is situated in the far north of the research area.
SP 12 (Figure 5) is situated on the central northern plateau of the Cotswolds. One of only two henge monuments present in the region are to be found here together with a number of chambered tombs and a probable Neolithic enclosure at Salmonsbury.

Figure 5. Map showing the location of lithic scatters and monuments within 10km square SP12. For Key see Figure 3, page 39.
Figure 6. Map showing the location of lithic scatters and monuments within 10km square SP22. For Key see Figure 3, page 39.

The choice of SP 22 within Zone C (Figure 6) (the northern Cotswold dip slope) allowed the investigation of the lithic assemblages in the area surrounding a Neolithic enclosure (Icomb Hill) on the western edge of the massif.
The only stone circle within the region (the Rollright Stones) lies within square SP23 (Figure 7) and this was, therefore, also selected for further study.
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In the southern scarp area (Zone D) ST 77 (Figure 8) was chosen in order to allow investigation of the maximum geographic range in a southerly direction. It contains a number of chambered tombs but no other known monuments from the period under consideration. It therefore also allows comparison with sampling units containing a greater variety of monuments.

Figure 8. Map showing the location of lithic scatters and monuments within 10km square ST77. For Key see Figure 3, page 39.
The selection of SP 00 (Figure 9) from within Zone E (the south eastern area) enabled comparison to be made between the assemblages present in other areas and those recovered from the area bordering the Upper Thames Valley. In addition this square contains an Earlier Neolithic enclosure (Southmore Grove, Rendcombe), three chambered tombs and assemblages from excavated pit groups. A square-by-square breakdown of the assemblages contained within the selected sampling units can be found in Appendix 1: Table 2.
The Assemblage Recording Methodology

In order to allow for ease of manipulation and analysis of the freshly collected lithic data a computerised Data Collection Database was created. Full details of the specifications and internal coding relating to this database are given in Appendices 2 & 3. To build a sufficiently fine-grained analysis of the lithic assemblages to allow for the identification of technological and thus residential choices the individual item was taken to be the basic unit of analysis in the recording of assemblages. The Data Collection Database created therefore contained a separate record for each individual item. Each item was referenced to the assemblage from which it came via the “Site number” which corresponded to that found within the Assemblages Database. The “Site number” in conjunction with the “Item no.” allocated to each different lithic piece together form a primary key; thus allowing for ease of searching within the database.

The typological classification of each item was recorded within the “Type” field. The coding for this field comprised a traditional typological classification of implements coupled with a technological classification of debitage (Andrefsky 1998, 111). A full list of the implement typology employed together with definitions of the technological typology are presented in Appendix 2. Items were recorded as either broken or complete in order to facilitate the immediate recognition of pieces suitable for metrical analysis. This practice also allowed for some assessment of the differential amounts of damage that may occur dependent upon the taphonomic history of the assemblage.

In preference to the identification of items as either primary, secondary or tertiary the percentage of the dorsal face covered by cortex was recorded on all debitage. In the case of cores and implements where the percentage of cortical coverage could not be distinguished the percentage of cortex present refers to the entire item. Flakes that were completely cortical and flakes where cortex was present only on the platform were also coded separately. Recording the amount of cortex present in this way can help in the recognition of the stages of the chaîne opératoire represented within the assemblage. The recognition of the amount of cortex present on cores may help to assess the original size of the nodules from which cores are made. There may also be potential for identifying parsimonious traditions of stone working practiced in the use of cortical flakes for the production of implements.

Direction of scarring on the dorsal surface of debitage considered in combination with other categories of information can help build up a picture of patterns of stone working within an assemblage. The variation in scarring present on the dorsal surface of debitage was recorded in the “Scars” field. Unidirectional and bi-directional working of cores appears to have been a common thread in the traditions of core working during the Later Mesolithic and the Earlier Neolithic (Saville 1981, 47). In contrast Later Neolithic and Bronze Age core working practices tend towards a multi-directional...
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approach (Bradley 1970, 346). However scar direction alone cannot be read as an indicator of chronological attribution of assemblages. To some degree scar direction also reflects the type of implements being created or the reworking of material. Axe production for instance results in the production of multi-directional scarring on the dorsal face of waste flakes (Bradley & Edmonds 1993, 91 fig 5.4). Dorsal face scar direction should therefore be read in combination with other categories of information such as typology and platform preparation when assessing the character of an assemblage.

The presence or absence of platform preparation (and its nature) was recorded in the “Platforms” field for all classes ofdebitage excluding chips and chunks. Trimming or the use of abrasion was recorded on all platforms (butts). The practice of trimming and abrasion in order to carefully prepare platforms is well documented as a characteristic of Later Mesolithic and Earlier Neolithic assemblages (Holgate 1988a, 59; Edmonds 1993, 35). In contrast the presence of faceted platforms is much more frequently associated with particular traditions of working within the Later Neolithic and Bronze Age (Saville 1981, 41 & 47; Pollard 2001, 11). The presence or absence of faceting was therefore also recorded within the “Platforms” field.

Good quality chalk flint is not available within the study area. The nearest sources of chalk flint lying to the south and east in the chalklands of Berkshire, Oxfordshire and Wiltshire (Saville 1982, 25). Some derived flint from marly gravels and boulder clays is present within the northern Cotswolds notably around the Moreton-in-Marsh area (Tyler 1976, 4). A small quantity of flint deriving from brown clays has also been identified within the Birdlip area (Darvill 1984, 13-14 & 25). The use of these sources during prehistory has, however, never been securely established. Flint derived from the gravels of the Thames Valley in the area immediately east of the Cotswolds may at times have been exploited within the region. Polished stone axes originating from a variety of locations have also been identified within the region (Davis et al. 1988, 19). Variations in the traditions of raw material procurement or the introduction of artefacts from other areas may have important implications for residential practice, strands of communication, and individual and group understandings of identity within stone working societies (Tagan 1991, 195-197; Paton 1994, 174-181). Though much has been surmised about raw material procurement within the study area during the Mesolithic and Neolithic (Saville 1982) little is actually known. To attempt to establish the varying traditions of raw material exploitation practiced during the past, raw material type was therefore also recorded where it could be identified.

As a result of the level of patination commonly found on flint and chert artefacts within the Cotswolds raw material identification was heavily reliant on the presence and character of cortex. Patination has been taken to refer to what Luedtke names “weathering rind.” In contrast cortex refers to the skin that forms at the same time as the flint or chert (Luedtke 1992, 98). This potentially enables the recognition of raw material originating from different types of deposit although
secure identification to an individual source is not possible. Material originating from derived de­
posits (gravels or beach flint and clay-with-flints) and fresh chalk flint was therefore differenti­
ated. Where cortex was absent no such identification was possible. It should also be recognised that in
many instances it is not possible to say with certainty what type of source was being exploited form
cortical examination. As a consequence it has to be recognised that the percentage figures derived
from this characterisation of raw material sources may be skewed. The figures obtained may be
biased in favour of the recognition of particular materials brought in to the area in an unaltered or
only partially prepared form and against items that were brought in "ready-made" or nodules that
received significant preparation prior to their introduction into the area. However the results ob­
tained provide a degree of diachronic differentiation in terms of the spectrum of raw material sources
exploited that has not previously been available. Other types of lithic materials were also recorded
where items were sufficiently free from patination to allow an attribution to be made. Where pol­
ished stone axes or fragments thereof were present a greater degree of accuracy in sourcing was
sometimes also possible, thanks to the availability of the results of thin-section analyses in pub­
lished or archival material.

The presence of differing ratios of flake terminations within a lithic industry is in part reliant upon
the skill and/or care taken by the knapper during the episode of stone working. The preponderance
of particular types of termination may also indicate the use of poor quality raw materials. Flaws
within the raw material making the intended direction of fractures deflect thus produce both step
and hinge fractures (Luedtke 1992, 79). Certain types of human error in the production of flakes
also manifest themselves in the presence of particular flake terminations. These can cause distinct
problems when attempting to prepare particular flakes or core types. During the production of
blades for instance the production of flakes with hinged terminations can cause the need for frequent
rejuvenation and bring the working of a core to a premature end, it is also one of the most frequent
errors perpetrated by beginners... (Inizan et al 1999, 74 & 36). Type of flake termination was
recorded for all items where present. This excluded implements, pieces broken at the distal end,
unmodified lumps and cores. Terminations were recorded as feathered, stepped, hinged or plunging
according to the typology described by Andrefsky (1998, 18 & 85-86).

In order to facilitate comparison with other lithic assemblages both within and outside of the study
area the presence or absence of burning on items was recorded. The degree of patination present
within the majority of the flint analysed meant that the recognition of burning via the presence of a
shiny, greasy surface (Inzian et al 1999, 24) was impossible. Recognition was therefore restricted to
those cases where extreme thermal alteration had occurred producing crazing and pot lid fractures
of the surface (Luedtke 1992, 101). This methodology meant that frost fractures as well as burnt
flint are included within the "burnt" category.
Length, width and thickness of all cores and debitage excluding chips, chunks and core fragments were recorded to the nearest tenth of a millimetre, rounding down where necessary. The methods of measurement followed were those defined by Andrefsky (1998, 97-100). Length was therefore measured as, "the maximum distance from the proximal to the distal end along a perpendicular line to striking platform width", whilst width equated to his, "maximum flake width," and thickness to his, "maximum flake thickness" (Andrefsky 1998, 98 & 99). To facilitate chronometric analysis within these categories no broken items were measured and no debitage with a maximum dimension of under 20 millimetres in either length or width were recorded (Pitts 1978, 180; Saville 1990, 156). All surviving intact dimensions of implements were measured in order to enable potential comparison with tool sizes from other areas. In addition the weight of cores, core fragments, unmodified flint nodules and intact tools were recorded to the nearest gram. The measurement and weighing of cores and implements was intended to allow size comparison with similar items known from outside of the region. And thence to ascertain whether any regional variation might be attributable to traditions in stone working either born of the parsimony required by raw material limitations or created and maintained through the strength of regional identity.

In addition to the measurement and weighing of cores the type of core scars present on cores was also recorded. Scars were recorded as possessing blade, flake or blade and flake scars. The type of scars present cannot offer a complete life-history of the working of a core but it can offer a snapshot of the final phase of exploitation. The presence of distinctive core types read in conjunction with the scarring written into their surface can be compared and contrasted with the debitage and tools present to answer questions concerning the stage/s of the reduction sequence enacted at a given location. Read in conjunction with core typology and size the presence or absence of different types of core scars may have implications for both chronology and the technological choices made.

To allow cross referencing of the data collection database to that of the original archives both the "Original reference number" and the "Original Context" were recorded where they existed. In the case of the former this represents the original finds or lithic number given to the item by the excavator or site lithics analyst. In the case of the latter the "Original Context" equates to the number or name of the feature, context, layer or collection unit as attributed by the excavator/collector during fieldwork. Recording of these details builds in a certain amount of future-proofing to the data collection database allowing reanalysis by future researchers. Finally a "Comments" field was added to the database to allow more detailed notes to be made of the individual characteristics of particular pieces. This also built a degree of flexibility into the database; allowing for the recording of potentially important details apparent in the assemblages that had not been allowed for in the original planning and creation of the database. This field proved particularly useful in recording details of reuse and reworking of materials and in the description of less standard items.
Chapter 6. The Assemblages: A Matter of Choice

The methodology adopted for this study comprised a two phase sampling strategy (see above Chapter 5). Below are set out the results of the analyses of the assemblages selected within that strategy. First the results of the initial chronometric analysis of independently dated assemblages are discussed (Phase 1). This is followed by a discussion of the detailed analyses of the assemblages selected for sampling within Phase 2. A number of assemblages discussed in Phase 1 are also subjected to more wide-ranging analyses in Phase 2. In cases where the information analysed derived from published or previously collated material it sometimes proved necessary to analyse the data from separately collected assemblages together. Where this was the case details are given and the interpretive implications discussed. The results of the analyses of assemblages are arranged within their 10km sampling units. Preliminary discussion of the themes and threads apparent within each sampling unit follow on from the discussion of the assemblages within that unit. Finally the contrasts and continuities between the character of lithic assemblages within different sampling units and topographical zones are discussed in combination with the assemblages' spatial and temporal relationships to monuments within the study area.

Data tables are all to be found in Appendix 1. The entire data archive for this study, together with details of the creation of and coding used within the databases and spreadsheets that formed the basis of the analyses can likewise be found in Appendices 3 and 2 respectively.

PHASE 1: Chronometric Comparisons

Phase 1 of the sampling strategy was designed to investigate the validity of the application of chronometric dating techniques within the Cotswolds. Variations in the Length: Width ratios of waste flakes present in lithic industries of differing dates are now well established (Ford et al 1984; Ford 1987; Pitts 1978; Pitts & Jacobi 1979; Smith 1965, 89-90 & 237). Assemblages of Later Mesolithic and Earlier Neolithic date have a tendency towards a narrow blade-like form whilst those of the Later Neolithic and the Earlier Bronze Age lean towards more squat morphologies. It has also been suggested that this is accompanied by an increase in flake thickness during the later periods (Ford et al 1984; Ford 1987, 71-73).

If these trends hold true for the study area metrical analysis of the lithic assemblages under consideration offers a powerful adjunct to traditional typological dating techniques. There have been suggestions that at least some of these traits may be affected by raw material availability (Ford 1987, 73). Within areas where good quality lithic raw materials are not easily acquired the need for
the careful curation of good stone and the value placed upon it, both in terms of its utility and its associations, may have lead to variant traditions of practice. For the archaeologist this may manifest itself in the negation or biasing of chronometric variations in debitage recognised within other regions. A means of assessing the presence or absence of these chronometric variations within the Cotswolds was therefore essential.

This assessment was carried out by selecting independently dated lithic assemblages of different dates from within the Cotswolds for chronometric analysis. Only well-excavated assemblages from securely radio-carbon dated sites were considered. As discussed in chapter 5 no broken items were measured and no debitage with a maximum dimension of under 20 millimetres in either length or width were recorded (Pitts 1978, 180; Saville 1990, 156). The thickness of unbroken flakes was also measured. In addition the numbers of recognisable flakes, narrow flakes and blades within each assemblage were also recorded. The latter figures included broken items where these could be securely recognised. The flake/narrow flake/blade percentages discussed below reflect the percentage of each category present where the total population (n) is taken to be flakes + narrow flakes + blades = n.

The results of the analysis of the Phase 1 assemblages were compared first with one another and then with the trends identified by previous researchers. The requirement for securely radiocarbon dated and accessible material necessarily restricted the number of assemblages that could be studied during Phase 1. However the results obtained were sufficiently suggestive to prompt a reconsideration of the interpretive methodology in the chronometric analyses of this material and subsequently to allow the interpretation of assemblages analysed within Phase 2.

The assemblages analysed in Phase 1 were:

Hazleton North (Assemblage 50: SP 0727 1889)

Peak Camp (Assemblage 34: SO 924 150)

Duntisbourne Grove (Assemblage 14: SO 983 064)

Trinity Farm (Assemblage 15: SP 014 059)
The analysis of the North Hazleton assemblage (50) used published data (Saville 1990). The remaining four assemblages were analysed using new data collected during the course of this study. The assemblage from Hazleton North comprised two flake samples selected from the buried soil stratified beneath the cairn of the chambered tomb (Saville 1990, 155). These comprised the two densest zones of flint scatter from the site and amounted to approximately 45% of the unretouched flakes from the entire pre-cairn phase. Stratigraphically the two samples could not be distinguished from one another however horizontal spatial analysis coupled with a technological and typological analysis of the assemblages allowed the excavator to postulate a temporal division between the two. The first sample (50a) was drawn from the material excavated from beneath the forecourt area of the tomb. Core working and implement typology marked this material out as a Later Mesolithic occupation area; though the nature of that occupation is uncertain. In contrast the second sample (50b) of lithic material was directly associated with the remains of Earlier Neolithic midden material.

The dating of these assemblages is reliant upon a series of three AMS radio-carbon dates (Table A1.1) derived from human and animal bone securely sealed beneath the cairn. The first sample originated from buried soil beneath the south-west side of the cairn and the remaining samples from within the area of the midden itself. The calibrated radiocarbon dates span a range within the first half of the fourth millennium BC. How much time passed between the use of this place by those practicing Mesolithic stone working traditions and the Earlier Neolithic occupation is uncertain. The use of the Later Mesolithic assemblage for the purposes of chronometric analysis is therefore not ideal. However excavated Mesolithic lithic assemblages are extremely rare within the region (Evans 1971, 34-38 & Selkirk 1971, 10) and at present Hazleton remains the most securely dated and accessible of these.

Assemblage 34 derives from two areas of excavation within the Earlier Neolithic enclosure at Peak Camp. The material is derived from two areas within the site. The first of these was interpreted by the excavator as part of the ditch and bank (or possibly system of banks and ditches) bounding the site. The second area was considered more likely to be internal to the enclosure and comprised a gully containing a hearth and sealed by a platform of packed broken limestone and abraded, "cultural debris," (Darvill 1981 & 1982, 22-23). Associated pottery in both areas belonged to the Earlier Neolithic Abingdon ware tradition. The range of radio-carbon dates for the site fall squarely within the mid fourth millennium Cal BC (Thomas, J. S. 1986, 302) (Table A1.1).
The Duntisboume Grove assemblage (14) derives from the fills of a series of pits excavated prior to the construction of the A419/A417 Swindon to Gloucester road scheme (Mudd et al. 1999a, 6 & 18-23). The fills of these pits contained sherds of Earlier Neolithic bowls and Peterborough Ware in addition to charcoal, several fragments of fired clay and quantities of charred hazelnut shells. Hazelnuts retrieved from the fill of two separate pits gave AMS radiocarbon dates spanning the middle years of the 4th millennium Cal BC (Mudd et al. 1999b, 535)(Table A 1.1). The presence of what was probably Fengate style Peterborough Ware within a context of this date is perhaps a little surprising. This may be explained by the excavators’ surmise that the pits represent the deposition of material derived from, “domestic activity,” situated close to the pits (Mudd et al. 1999a, 19). This interpretation implies that at least some of the material was deposited within the pit 94 during the currency of Peterborough ware and contained residual elements including the hazelnut shells. A complex depositional history is however suggested as at least one of the pits (62) without radiocarbon dates, but containing Earlier Neolithic bowl sherds, may have been created and filled prior to those containing Peterborough Ware sherds. In addition pit 142 lacked ceramic evidence but contained radio-carbon dated hazelnuts. On the basis of the radio-carbon date obtained from this context this pit may also date to the Pre-Peterborough ware phase of the site’s use.

The lithic assemblage from Trinity Farm (15) was similarly recovered during the excavation of a group of pits discovered prior to the construction of the A419/A417 Swindon to Gloucester road (Mudd et al. 1999a, 6 & 25-27). Three heavily truncated pits contained a quantity of, “stylistically ‘early’ Beaker pottery,” (Mudd et al. 1999a, 25). Each pit comprised only a single fill (though due to their truncation it is impossible to be certain whether this was originally the case). All three contained lithic material together with a substantial number of Beaker style pottery sherds. Pits 8 and 10 also contained a quantity of charred hazelnut shells which were subjected to AMS radiocarbon dating. The results of this analysis suggest that the activity represented by the pit fills took place at some point during the latter half of the third millennium Cal BC (Table A 1.1). The radiocarbon dates are entirely consistent with the postulated date range of the Wessex/Middle Rhine style Beaker pottery found within the pits. The contextual evidence would therefore suggest that the lithic assemblage from the pits was the product of a closely defined period of depositional activity within the pits.

The final lithic assemblage analysed during the first phase of this study was recovered during the course of a small-scale excavation undertaken at Condicote Henge monument (55)(Saville 1983). The excavation comprised an investigation of a portion of the inner ditch and the bank, together with a small area within the monument’s interior. Flint items were recovered from the inner area, the fills of the ditch and the old ground surface beneath the bank. Radiocarbon dates were obtained from material within the fill of the ditch. Both of the dates relate to secondary ditch fills. The first sample was drawn from a collection of large charcoal fragments present within a fill containing pottery sherds with Beaker affinities (Saville 1983, 33). The second came from the remains of a
large piece of burnt timber within a stratigraphically later ditch-fill. The dates obtained suggest a
date for the use of the site within the later portion of the third millennium Cal BC (Table A1.1).

Phase 1 Assemblages: Chronometric Analyses

Tables A1.3, A1.4 and A1.5 show the results of the detailed chronometric analyses of the Phase 1
assemblages. The blade component of the Later Mesolithic assemblage from Hazleton (50a) is
32.7%. This is almost 10% higher than any other assemblage analysed (Tables A1.4 and A1.5). The
number of flakes present with a Length: Width index of 1.5 or less within this assemblage is also
almost 5% less than any other assemblage (Tables A1.3 and A1.5). The percentage of non-flake
(i.e. narrow flake + blade) material represented is also over 4% higher than any other assemblage.
It can therefore be suggested that Later Mesolithic assemblages from within the Cotswolds can be
distinguished from other lithic assemblages by the use of metrical analysis.

The recognition of similarly well defined trends within assemblages of later date is more problem­
atic. The combined proportion of narrow flakes and blades within the Earlier Neolithic assemblages
analysed (50b, 34 and 15) fall broadly within the range of variation that might be expected from
analysis of assemblages in other regions (Pitts 1978, 187). However the later assemblages from
Trinity Farm (15) and Condicote (55) also give broadly similar results. The one Earlier Neolithic
assemblage that contrasts with the Later Neolithic material is Peak Camp (34). Here 51.7% of the
material analysed comprised narrow flakes and blades. This is more than 4% higher than any of the
later assemblages.

What are we to make of these apparent difficulties in the definition of chronometric trends within the
Cotswolds? The first point to consider is the tiny total population of unbroken waste flakes with a
minimum dimension of 20 mm within the Trinity Farm and Condicote assemblages. This certainly
suggests that any trends that may have been apparent when the assemblage was originally created
may, through the passing of time, have been obscured or entirely negated by the subsequent break­
age of elements of that assemblage. Ford (1987, 69) has highlighted the fact that broken flakes
frequently account for 30-70% of an assemblage. He has also suggested that it may be possible to
overcome this problem through the recording of all broken and unbroken waste flakes, where their
proportions can be securely established (Ford 1987, 73). The analysis of the broken waste flakes
from within the assemblages may have the potential to illuminate the existence of metrical trends
within smaller assemblages.

Table A1.6 shows the results of the analysis of all (broken and unbroken) recognisable flake:
narrow flake: blade percentages within Assemblages 34, 14, 15 & 55. Hazleton (50) has necessarily
been excluded from this element of the analysis as published data for this assemblage did not sup-
port this type of analysis. A strong degree of patterning is recognisable. The Earlier Neolithic assemblages (34 and 14) show a percentage of narrow flakes + blades 53% and 58%. In contrast the Later Neolithic Assemblages (15 and 55) contained a percentage of narrow flakes + blades in the range of 18% to 31%. An even more consistent trend is revealed when the percentage of blade and non-blade elements within the waste assemblages is considered. The earlier assemblages have a blade element of 19.11% and 19.84%. The later industries have a blade component of 4.54% and 7.69%. The figures for blade percentages in the Earlier Neolithic assemblages are also remarkably close to those obtained by the more conventional method of chronometric analysis of the Hazleton 50b, Peak Camp and Duntisbourne Grove assemblages discussed above.

This remarkable increase in the strength of the trends picked up via the identification of broken and unbroken flakes as compared with more traditional methods is not a product of larger sample sizes alone. The inclusion of waste flakes with a minimum dimension of less than 20mm may also have a role to play. In a region where core sizes are significantly smaller than those from other “flint-rich” regions (see Phase 2 below) it may be that a certain degree of parsimony was practiced in the curation of raw materials. This may mean that waste material as a whole is commensurately smaller than in other regions. Therefore the exclusion of flakes of less than 20 mm would have the effect of flattening out the trend over time towards broader, squatter flakes whilst “preserving” the trend towards blades in the earlier part of the period under scrutiny. Where the assemblage is small in the first place the exclusion of flakes smaller than 20 mm will also have the undesirable effect of producing populations that are so small as to produce statistically unviable analyses. Direct comparison with other regions in terms of the ranges of percentages of different classes of Length: Width indices is therefore difficult. However the same trends that have been identified in other areas can be confirmed. Within Cotswold assemblages there is a tendency to move away from blades and narrow flakes and towards increasingly squat flakes through time.

The correlation of increased flake thickness with the diachronic shift towards shorter more squat forms in other regions has already been noted. Data for the thickness of unbroken waste flakes exceeding a minimum dimension of 20 mm was collected for assemblages 14, 34, 15 and 55. The small size of the total populations for the later assemblages of Trinity Farm (15) and Condicote (55) make any conclusions drawn somewhat speculative. There is a slight suggestion that a diachronic shift in the thickness of flakes may have occurred between the Earlier and Later Neolithic in the study area. At Peak Camp (34) 78.41% of waste flakes measured have a thickness of between 2.1-7.0 mm (Table A1.7.11). Similarly within the Duntisbourne Grove (14) assemblage 80.69% of flakes fall within the same size limits. However in the Later Neolithic assemblages from Trinity Farm (15) and Condicote (55) 88.88% (Table A1.28.11) and 85.72% (Table A1.21.11) of assemblages fall within the 3.1-8.0 mm thickness range. A shift towards an increase in favoured flake thickness through time is therefore implied by this analysis. The small size of the later assemblages means that these results of the thickness analysis cannot be regarded as conclusive when considered.
in isolation. However they do accord with the traditions of working identified in other areas (Ford et al. 1984; Ford 1987, 71-73; Harding 1991, 83 and 85-86).

Chronometric variation is detectable within excavated lithic assemblages recovered from the Cotswolds. The change from an emphasis on blade production in Later Mesolithic industries to progressively shorter, more squat forms through the Neolithic and into the Bronze Age is clearly identifiable. Trends towards an increased flake thickness in time are also suggested. However the conventional practice of including only unbroken flakes within chronometric analyses imposes limitations upon the size of sample populations which make interpretation of some smaller assemblages using this methodology alone unsupportable. In addition the minimum size restriction (20 mm) of conventional analyses further reduces the available population for analysis in circumstances where traditions of working small cores are in evidence. In these cases chronometric interpretation can be furthered by the recognition and recording of broken and unbroken waste flakes falling into broad categories (blade/narrow flake/flake). In a very pragmatic way this enables the bounds of interpretation to be pushed further and makes lithic assemblages work harder for us (Schofield 1995b).

PHASE 2: Analysis of Assemblages

A total of forty-five lithic assemblages were analysed during the course of Phase 2 of the study. Of these thirty-three assemblages were analysed using newly collected data. Analysis of the remaining twelve assemblages used published and unpublished data that was already available. This combination of data sources allowed a fine-grained analytical approach whilst providing a much greater breadth of coverage than would have been possible using newly collected data alone. Each assemblage was initially analysed on its own merits without recourse to comparison with other Phase 2 assemblages. Only when this stage of analysis was complete were the interpretive threads drawn together from each assemblage to weave a more complex narrative for each 10 km sampling unit.

At the commencement of the analysis of each sampling unit the topography and monumental character of the area are briefly discussed in order to contextualise the information discussed.

S091

Sampling unit S091 falls within topographic Zone A and comprises an area of northern Cotswold scarp together with its immediate hinterland. This is one of the most intensively studied areas within the region. As a result twelve assemblages were available for analysis. Two causewayed enclosures (Crickley Hill and Peak Camp) are known, both of which have been the subject of excavation (Dixon 1988a; Snashall 1997 & 1998; Darvill 1981 & 1982). Crickley Hill is also the site of a ceremonial long mound of probable Later Neolithic or Early Bronze Age date (P. Dixon Pers. Comm. and 1988a, 86). In addition the area also contains the remains of four chambered tombs.
The line of the Ermin Way runs up from beneath the base of Crickley Hill on the edge of the escarpment via the route of the present-day A417/A419 towards Cirencester and beyond to the upper Thames valley. The antiquity of such pathways is notoriously difficult to ascertain but this would have formed a natural point of egress from the Severn Vale to the west, across the Cotswold massif and beyond to the gravel terraces situated to the east of the study area. The River Churn has its source within SO91 at Seven Springs and the area directly beneath the escarpment is replete with springs, meaning that fresh drinking water would have been easily accessible within much of the area.

Peak Camp. Assemblage 34

This assemblage was recovered during the excavation of the Earlier Neolithic enclosure at Peak Camp (SO 924 150). Situated on the west facing escarpment of the Cotswolds the site is one of the few radiocarbon dated sites of Earlier Neolithic date within the region. It therefore formed the subject of chronometric analysis in Phase 1 of the study. The lithic material came from both the fill of an enclosing ditch and an that the excavator interpreted as being internal to the enclosure (see Phase 1 above). Whilst the limited scale of the excavations mean that the assemblage cannot provide a full picture of all of the activities that took place within the area of the enclosure it may provide a snapshot hinting at some of their character.

The tool component of this assemblage is dominated by material that would be at home in an Earlier Neolithic assemblage. Leaf shaped arrowheads dominate the assemblage (Table A1.7.2). The presence of at least one unfinished example suggests that some of these may have been manufactured at the site. The single most unusual artefact in the assemblage is a shaft-hole adze. This has parallels with an example found within the causewayed enclosure at Windmill Hill (Smith 1965, 114). The wide variety of edge trimmed flakes, a flake from a polished flint implement and at least one laurel leaf are also consistent with an Earlier Neolithic date for the assemblage. However the narrow blade microlith, a waisted tool and a blunted-back knife hint at a more complex story encompassing the use of this site from the Later Mesolithic through to the Later Neolithic or Early Bronze Age.

This complexity is supported by the range of core types within the assemblage (Table A1.7.8). A single A1 blade core may be of Later Mesolithic origin. At least three of the cores appear to be of Earlier Neolithic date on typological grounds whilst the presence of a keeled and a Levallois core both suggest limited later core working. The average weight of cores at 27.67g is within the upper end of the range for examples within the northern Cotswolds (see below). Chronometric analysis of the assemblage has already been discussed in the phase 1 analysis. The presence of a small amount of both Later Mesolithic and Later Neolithic/Early Bronze Age working seems to have effectively negated one another in the recognisable Blade: Narrow Flake: Flake analysis which shows 57.34%
combined blades and narrow flakes, a figure comparable with the Earlier Neolithic Duntisboume Grove assemblage (Table A1.6).

The presence of core rejuvenation flakes and together with ridge trimming and trimming flakes suggests a concern with the careful working of stone often associated with Later Mesolithic and Earlier Neolithic traditions of practice. This is supported by the preponderance of debitage with evidence of platform trimming and the dominance of single direction scarring (Table A1.7.4 & A1.7.8). A much smaller proportion of flakes carry evidence for faceted and trimmed and faceted platforms. This concurs with the evidence for the types of later working suggested by the keeled and levallois cores as a short lived presence on the site in the Later Neolithic or Early Bronze Age. This patterning is also evident in the significantly higher percentage of hinged and step fractures within the flake element of the assemblage, hinting at less meticulous working practices within the later periods.

The pattern of exploitation of raw materials paints a mixed picture. Derived flint, chalk flint and chert are all present; with the former providing the largest identifiable element within the assemblage. This suggests connections with a variety of areas. Much of the cortex was very thin but not always possible to characterise as definitely from a derived source. However taken together with the percentage of flint conclusively identified as from derived sources it is possible that the strongest connections were with the river gravels of the Thames valley to the east. Further analysis of the cortex present shows a low representation of entirely cortical (primary) material, with 78.21% of the assemblage carrying no cortex at all (Table A1.7.5). The core to waste ratio of 1:137 is however low (Table A1.7.1). This suggests the preliminary dressing of the stone was carried out away from the site, possibly at source, but that the majority of working thereafter was carried out at the enclosure. The extremely low total tools component (classifiable tools + misc. retouched + trimmed/worn) within the assemblage (2.75%) suggests that many of the tools produced may have been removed for use at other locations. However the relatively diverse nature of the tool assemblage testifies to the presence of significant amounts of productive activity in the Earlier Neolithic (Table A1.7.2).

Peak Camp. Assemblage 325

Assemblage 325 was recovered as the result of informal fieldwalking by a number of individuals over a considerable period of time within and around the area of the Peak Camp enclosure (T.
The area is at present covered by woodland and the majority of finds have therefore been recovered as the result of exposure following erosion or from within tree-throw hollows.

The story of human occupation attested to by assemblage 325 in many ways supports that sketched out for assemblage 34. The percentage of total tools present at 2.5% is almost identical to that within the excavated material and the cores to waste ratio at 1:180 is even lower (Table A1.8.1). Leaf shaped arrowheads are once again dominant within the tool component of the assemblage (Tables A1.8.3). The presence among the miscellaneous retouched material of two probable fragments of laurel leaf, one of which is unfinished may suggest that they, as well as arrowheads, were manufactured on the site during the Earlier Neolithic. The presence of a single fragment of what may be an oblique arrowhead seems to attest to the small Later Neolithic presence identified in the excavated material (Healy 1988, 46). However no definitely Mesolithic tools are present. This is not altogether surprising given that due to their size microliths are possibly the easiest tool type to miss during fieldwalking.

The patterning identified in the excavated assemblage in the presence of irregular flake terminations and the proportionality amongst trimmed, trimmed and faceted, and faceted flake platforms are all mirrored here (Tables A1.8.6 & A1.8.4). This is also the case with the dominance of single direction scarring in the blades and narrow flakes in the assemblage (Table A1.8.3) and the percentage of primary and tertiary flakes (Table A1.8.6). Examination of the character of the cortex again suggests a dominance of derived flint within the raw materials selected (Table A1.8.7). However in this smaller assemblage no chalk flint or chert were identified.

Blade: narrow flake: flake proportions show that 68.33% of the assemblage are non-flake, suggesting an early rather than a later date for the assemblage. The clustering of most debitage within the lower end of the thickness range (2.1-7mm) acts as confirmation that the majority of the assemblage is of Earlier Neolithic rather than later date (Table A1.8.11). Overall the picture of chiefly Earlier Neolithic activity on this scarp edge site with a somewhat ephemeral Later Neolithic presence is maintained.
Crickley Hill. Assemblage 61

The Crickley Hill lithic assemblage was recovered as the result of extensive excavations of the Earlier Neolithic enclosures and the Later Neolithic/Early Bronze Age long mound that took place at the site (SO 928 161) between 1969 and 1993 (Dixon 1971, 1972, 1979, 1981, 1988a, 1988b and 1996; Savage 1988; Snashall 1997 & 1998). In excess of 60% of the total surface area of the enclosures was excavated. The site, lies just one kilometre to the north of the enclosure at Peak Camp and is situated on a small, triangular spur of the Cotswolds overlooking the plain of the Severn Vale.

The majority of the data used for the purposes of this analysis was derived from the unpublished preliminary study of the Crickley Hill flint assemblage carried out by John Gale of the University of Bournemouth. This study is not yet complete and the parameters that it was designed to investigate differ from those of the present investigation. This therefore placed some limitations on the nature of the interpretation that could be undertaken. The preliminary studies upon which the analysis is based considered flint present within an excavated surface area of approximately 8,400 square metres. A summary of the unpublished data derived from the original preliminary studies can be found in Appendix 3: Assemblage 61. In addition published data from the analysis of a small portion of the assemblage interpreted by the excavator as a knapping floor and not included within the preliminary study was drawn upon within the Phase 2 analysis (Burton 1980).

The core to waste ratio of this assemblage is once again remarkably low (1:156) (Table A1.9.1). This is complimented by an equally low percentage of total tools (1.09%). Together this presents a similar scenario to that suggested for the Peak Camp assemblages. The emphasis on core working in the Earlier Neolithic on the site is further supported by the presence of 49 core rejuvenation flakes and the fact that nearly 50% of the assemblage is comprised of spalls, chips and chunks, frequently spontaneously produced when such activity is carried out. However the relative proportions of primary flakes (6.7%), secondary flakes (39.09%) and tertiary flakes (54.23%) recorded suggest that slightly more of the initial preparation of raw materials may have been carried out here. The average core weight is however very similar to that at Peak Camp. This may reflect a similarity in stone working practices and possibly raw material selection (though no data was available to test the latter hypothesis at Crickley Hill).

The classifiable tool component of the assemblage is scraper dominated (46.27%). Extremely large quantities of arrowheads are also present (42.67%)(Table A1.9.2). The original preliminary analyses does not show a breakdown of arrowheads by type the author’s own experience of the assemblage suggests that these are comprised largely of leaf shaped arrowheads with a much lower but still significant proportion of barbed and tanged forms. Many of the former may relate to the arrow attack of the enclosure previously detailed by Philip Dixon (1988a). The latter represent activity on
the site that may be related to the construction or use of the ceremonial long mound that post-dates the destruction and abandonment of the enclosure.

The arrowheads aside the dominance of scrapers suggests a processing element to the activities at the site (Table A1.9.2). These activities also involved sawing and cutting. The typological range of the assemblage which also included a number of polished stone and flint axes and at least one flint axe reworked as an adze (all here recorded as miscellaneous) creates an image of a place where a range of activities took place but where some activities, such as piercing, were rarely called for; where some tools were removed for use elsewhere but where others remained and were used in a variety of tasks. The presence of five microliths on the site also suggests that this place was of at least transient importance during the Mesolithic.

Birdlip Quarry. Assemblage 318

The Birdlip Quarry assemblage was excavated as part of the same project that unearthed the Duntisbourne Grove and Trinity Farm assemblages considered during the Phase 1 analysis. Although a summary report of the lithic material has been published (Durden 1999, 307-310) a more detailed examination was undertaken for the purposes of the Phase 2 analysis. The Birdlip Quarry site was situated at SO 949 143, adjacent to the routeway formalised as the Ermin Way during the Roman period. A proportion of the assemblage was recovered during the excavation of a Roman corn dryer and was clearly residual within this context. The remainder came from an area containing a number of shallow pits which the excavator interpreted as possibly being Neolithic in date (Mudd et al. 1999a, 17-18).

Chronometric analysis of both intact (66.6 %) and all identifiable flake/narrow flake/blades (F/NF/B) (64.29 %) presents a picture of an early assemblage with a high narrow flake and blade component (Table A1.10.10). On purely chronometric grounds the divergence between the percentage of blades in the intact flake analysis (4.76%) and the F/NF/B analysis (42.86%) is difficult to interpret. The former would suggest a later date whilst the latter would suggest a Mesolithic component to the assemblage. The clustering of the majority of debitage between 2.1 and 8mm in thickness also suggests an early date. The presence of a small number of thicker flakes may relate to a short lived episode of later working (Table A1.10.11). Analysis of the types of debitage present confirms an Earlier Neolithic or Late Mesolithic date with the presence of a core rejuvenation flake and two partially crested blades testifying to the careful traditions of working frequently associated with these periods. However no Mesolithic tools are present and the complete cores are of Earlier Neolithic (B3) or possibly later (C) type (Table A1.10.9). Some Late Neolithic or Early Bronze Age presence can also be identified within the tool assemblage in the form of a spurred piece made on a distinctive orangey-brown coloured flint and a patinated scraper which had been reworked at a later date into
a thumbnail scraper with bulb removed. This may suggest a transient interest in the site at this date taking advantage of the resources to hand. This same episode may account for the presence of a rather poorly worked Sutton A barbed and tanged arrowhead which may similarly have been created in an ad hoc fashion. In contrast to this 40% of all debitage shows indications of single direction working this is strongly indicative of an Earlier Neolithic rather than a later date (Table A1.10.3). This coupled with the small size of the multiplatform cores, suggest that the cores showing signs of blade and flake removals were originally associated with a much more controlled manner of working and represent only the final stages of use (Table A1.10.8 & A1.10.9). The majority of core working on the site therefore seems to have taken place in the Earlier Neolithic rather than the Later Neolithic or Early Bronze Age.

Only three items could be identified to type of raw material source (Table A1.10.7). Two were produced from chalk flint and the third from the distinctively coloured Bullhead flint, originating from the river gravels of the lower Thames valley area. The high percentage of material with no cortex present and the extremely low percentage with 100% of the dorsal surface corticated suggests that much of the initial dressing of the lithic material was done before it reached this place. The assemblage contains a high ratio of cores to waste at 1:14 (Table A1.10.1) together with a relatively high tool component (12.34%). The classifiable tool component is heavily scraper dominated (50%) but a range of other activities are also represented including cutting and sawing, piercing and more heavy duty activities (represented by a fragment of flaked axe/adze). This suggests that this place may have been a place of at least local significance for a time during the Earlier Neolithic, whilst during the Later Neolithic or Early Bronze Age a more ephemeral presence took advantage of the resources to hand.

Leckhampton. Assemblage 137

The Leckhampton assemblage forms part of the larger Lewis Collection donated to Cheltenham Museum and Art gallery in 1961. The items contained within the collection were recovered as the result of intermittent fieldwalking over an extended period. Many of the flints within the collection are poorly provenanced. However those which are the subject of this analysis can be provenanced to the area of Leckhampton Hill. The assemblage cannot therefore provide a fine grained picture of a tightly defined period or area of occupation. It may however offer hints of the types of activity that may have taken place in the area in and around the hilltop.

This small assemblage is dominated by arrowheads (Table A1.11.1). Whilst this dominance may relate as much to collection biases as to any real past preferences the presence of both leaf shaped and barbed and tanged forms does suggest a presence in the area during both the Earlier Neolithic and the Later Neolithic or Early Bronze Age. A probable unfinished leaf shaped example within the
miscellaneous retouched items also suggests that this type of arrowhead was being manufactured in the area. Reuse of materials to hand is also attested by the presence of two-phase patination on a leaf shaped arrowhead that had been manufactured on an earlier flake. A similar practice is evidenced by the two-phase patination on a surviving fragment of barbed and tanged arrowhead. The two awls present and the single end-scaper hint at a broader history of landscape use than that suggested by the arrowheads. The end-scaper may hint at an early presence in the area as it is made on a long-blade and might be typologically regarded as Mesolithic.

The originally dispersed nature of the material does not enable a detailed technological analysis. However the presence of a single multiplatform flake core and one core fragment does allow for the suggestion that some core working was carried out (Tables A1.11.4 & A1.11.5). No raw material could be identified as coming from a chalk source but a single item was of definitely derived origin (table A1.11.3).

**Crippett's Field. Assemblage 62**

Assemblage 62 was recovered during the course of a fieldwalking and contour survey of the remains of a chambered tomb and round barrow situated in Crippett's Field undertaken by John Gale in 1990. The site (SO 934 173) is adjacent to the natural route-way leading along the Cotswold scarp towards Crickley Hill one kilometre to the south-west and Leckhampton Hill a similar distance to the north-east. Two areas were intensively fieldwalked in a series of 3 metre traverses prior to the field being laid to pasture. The first (Zone A) consisted of a 100 metre square area surrounding Crippett's long barrow (Coberley I: Grinsell & O'Neill 1960, 76; GLO 7: Powell et al. 1969, 277). The second (Zone B) comprised a 75 metre by 150 metre area over and around the remains of a round barrow (Coberley I: Grinsell & O'Neill 1960, 109) situated some 200 meters to the south-east of Zone A. In addition to the flint, sherds of Neolithic and Bronze Age pottery and fragments of May Hill grit stone were recovered during the course of fieldwalking. The latter are known from other sites in the region to have been used in the manufacture of quern stones during the Neolithic period. A new examination of the lithic assemblage collected during the survey was undertaken for the purposes of this study.

Chronometric analysis of the intact debitage from this assemblage shows an extremely high flake component (78.79%) this is confirmed by the F/NF/B analysis with 72% flake component (Table A1.12.10). This is comparable with the phase 1 analysis results for Condicote. The Condicote assemblage has been shown to have a small Earlier Neolithic component (see below Assemblage 55) and the position would appear to be similar at Crippett's Field. The lack of any intact debitage with a thickness of less than 5mm and the dominance of thick flakes suggests that the majority of the assemblage is of Later Neolithic or Early Bronze Age date (Table A1.12.11). Typologically there is
nothing in the tools found at this location to indicate a pre-Later Neolithic date. Indeed the presence of the denticulate, the thumbnail scraper and the blunted back knife taken in combination suggest a Later Neolithic date for this assemblage.

A significant proportion of the flake population have hinged terminations (25%) this compares with 0% for the blades and 14.29% for the narrow flakes and suggests more insouciant working practices in the later period at the site (Table A1.12.6). This is confirmed by the lack of rejuvenation flakes of any sort within the material collected and the presence of tri-directional scarring on over 30% of the flake element of the assemblage (Table A1.12.3). This position is echoed in the absence of trimming and abrasion from the largest proportion of material with surviving platforms (Table A1.12.4).

The percentages of cortex present on material suggests that some initial core preparation was carried out at this location but the majority had been carried out elsewhere before the stone was brought to the site (Table A1.12.5). The ratio of cores to waste at 1:28 is fairly high. The total tool component is similarly fairly high at 10.47%. The dominance of scrapers within the assemblage is notable at 71.48% with only a limited range of other activities being attested to in the form of the knife, the denticulate and the trimmed flake and blade. The Later Neolithic presence here does not appear to have been sustained for any great period of time or be associated with a large range of activities. A small amount of pre-prepared cores were brought to the site and worked and other activities seem to have been dominated by the use of scrapers. The Earlier Neolithic presence here is even more lightly attested by the lithic material. Connections with other areas are hinted at by the dominance of chalk flint within the identifiable assemblage and the presence of single flakes of derived flint and chert, whether these belong to the Earlier or Later Neolithic is open to debate; although the fact that they are all represented by flakes, and the quantitative dominance of the Later Neolithic material may tentatively suggest the latter.

Withington, Coberley. Assemblage 146

This small assemblage was found as the result of casual fieldwalking near the Coberley/Withington parish boundary to the south of Chatcombe Wood (SO 9792 1712). It forms part of a larger collection of material originally recovered by Bernard and Barbara Rawes and donated to Cheltenham Museum and Art Gallery in 1996. The site was situated one kilometre to the east of the source of the River Churn at Seven Springs in the north-eastern portion of SO91.

This is a tiny collection of material and technological analysis is therefore of little value. Typologically the only securely datable element is the broad blade microlith which bears a close resemblance to one found within the Hazleton assemblage (Saville 1990,163). This is of definite Mesolithic date
but examples occur in both Earlier and Later Mesolithic assemblages as the Hazleton example confirms and so a more precise date can not be offered. The end scraper and the notch worked on a scraper-like edge could well be of Mesolithic date; however they could be equally comfortably situated in assemblages of later date. Archive notes accompanying the assemblage record a careful but fruitless search of a wide surrounding area for other material. This assemblage would therefore seem to represent a transient presence in this locale, possibly on a single occasion, during the Mesolithic.

Birdlip Bypass. Assemblage 40

Assemblage 40 is the product of the Birdlip Bypass Project (SO 92 14). This was an archaeological assessment and field survey that took place in advance of the construction of 2.6 kilometres of new carriageway to the north of Birdlip village, for the A417 linking Cirencester and Gloucester (Darvill 1984, 1). The area fieldwalked comprised a total of 54.4 ha and was situated a few hundred metres to the east of the Earlier Neolithic enclosure at Peak Camp and to the south of Crickley Hill (Darvill 1984, 11). The entire area was intensively fieldwalked in a series of 25 m x 25 m grids. The preliminary summary of the flint assemblage from the survey that has been published concentrated on broad typological considerations and lithic densities (Darvill 1984, 17-34). A new, more detailed study was therefore undertaken for the purposes of the Phase 2 analysis. During the course of the survey the only source of naturally occurring flint known from within topographic Zone A was identified. This comprised flint nodules originating from a layer of boulder clay that once covered parts of the area (Darvill 1984, 11).

Traditional metrical analysis of this assemblage using intact debitage shows a blade component of 13.47 % (Table A1.14.10). This figure suggests that this assemblage is neither exclusively Later Mesolithic or earlier Neolithic in date. Consideration of the F/NF/B percentages shows that 16.76% of the assemblage consist of blades, 25.67% narrow flakes and flakes are clearly dominant at 57.27%. Comparison of these figures with the results of the phase 1 analyses indicates that this is a chronologically mixed assemblage with both a Later Neolithic/Early Bronze Age and an earlier component. The thickness range of the debitage suggests a diverse chronological make-up for the assemblage; whilst the clustering of the majority of pieces between 5 and 11 mm once again points to the dominance of later working traditions. Typological examination of the tools within the assemblage confirms this picture. There are a substantial quantity of Later Neolithic and Early Bronze Age implements including denticulates, spurred pieces, chisel and barbed and tanged arrowheads, a rod and a waisted tool. Likewise the laurel leaves, leaf shaped arrowheads, and the presence of seven serrated pieces suggest an Earlier Neolithic presence. A few items also point towards Later Mesolithic activity. These include four narrow blade microliths and a flaked flint adze.
The number of multiplatform cores with exclusively flake removals, taken together with the presence of both keeled and Levallois cores suggests significant core working activities took place here during the Later Neolithic and Bronze Age (Tables A1.14.8 & A1.14.9). The extreme smallness of the A1 cores suggests that despite the presence of flake removals, they had been worked to exhaustion in the production of material suitable for microliths. The size of the removals would mean that they could have been fit for little else. The admix of blade and flake removals on the A2, B1, B2 and B3 cores suggests that these were the product of both Earlier Neolithic and Later Mesolithic hands with the B3 cores possibly being exclusively representative of the Earlier Neolithic. A number of the multiplatform cores with both blade and flake removals may also have been the bi-product of stone working in the latter period.

The presence of 47 core rejuvenation tablets, 6 partially created blades, 8 plunging core rejuvenation flakes and the large number of ridge trimming flakes highlight the importance of careful core working traditions within the Later Mesolithic and Earlier Neolithic. The production, finishing or maintenance of bifaces as a minor component of the activities that were carried out is demonstrated by the presence of a small quantity of biface thinning flakes. Some of the 232 trimming flakes that comprise a substantial 5.72% of the assemblage may also be the result of the same activity. The scraper re-sharpening flakes highlight other forms of tool maintenance carried out in the course of everyday tasks at the site.

The ratio of cores to waste is extremely low in this assemblage a phenomenon that has been noted elsewhere in the region and this cannot therefore be regarded as a balanced assemblage (Saville 1979, 109 and see below) (Table A1.14.1). The percentage of total tools within this assemblage is also relatively low at 5.54%. The proportionality of the assemblage is difficult to explain as the result of a single factor. There is certainly far less waste than might be expected if tools were being produced from "raw" nodules on site. Part of the imbalance may be explained by a large amount of the initial preparation of raw materials being carried out away from the site. This is reflected in the small percentage of material that displays more than 75% cortex. A fabricator reworked into a scraper and a fragment of axe reused as an ad hoc core prior to its final incarnation as a waisted tool of Late Neolithic or Early Bronze Age type are amongst a number of items displaying two phase patination. This suggests that the site operated as a "recycling" centre drawing upon the lithic resources immediately to hand. This in part may also account for the low proportions of waste. Raw material selection would certainly not seem to account for this phenomenon as there is a clear preference for chalk flint over derived flint or chert in the blade, narrow flake, flake and core assemblages (Table A1.14.7).

Curiously there is however something of an imbalance in that derived flint accounts for a considerably higher proportion of the tools than does chalk flint. This may suggest that tools made of derived flint were being brought to the site. If this is taken into account and the combined evidence of all
flake types and cores showing a preference for chalk flint is considered then the picture becomes even more complex. Substantial quantities of partly prepared chalk flint together with smaller quantities of derived flint and chert were brought to this locale. Here core working was carried out. This resulted in either a limited production of material or the removal of much of that material elsewhere. The average core size of just 14.61 g in this assemblage does not suggest that the raw material was being used wastefully during any of the periods in which this place saw activity. Two options are therefore open to us, firstly that the raw material was brought to the site having been ready processed or worked elsewhere to such an extent that the cores were already small when they arrived. The second is that much of the material produced, either in the form of tools or blades, narrow flakes and flakes was removed from the site for use elsewhere. Either picture presents a scenario of episodes of what might be characterised as fission and fusion of communities. People arriving at the locale, performing certain tasks and then moving away again. The bringing of tools to the site made from derived material would also seem to support this notion of fluidity of movement within the landscape.

Aside from the working of stone activities at the site were dominated by the use of scrapers (53.5%). Piercing also appears to have been an important activity and this may reflect the dominance of the Later Neolithic and Early Bronze Age activity noted in the metrical analysis. Overall a broad mixture of what might be characterised as both heavy-duty and processing tools are in evidence. The scrapers within the assemblage show a diversity of size and form that suggests that this activity may have been important in both the Earlier Neolithic and the Later Neolithic/Early Bronze Age use of the locale (A3:Worksheets:Scrapers 40). This appears to have been a significant locale on a number of occasions over an extended period of time.

Blacklains, Brimpsfield. Assemblage 41

This assemblage comprises a collection of material originating from the Blacklains area in Brimpsfield (SO 928 134). The material was collected by Mr D. A. Lewis and placed on permanent loan in Gloucester Museum in 1932. The area from which they were recovered is situated close to a spring a few hundred metres from the edge of the Cotswold scarp and lies approximately 1.5 kilometres south of Peak Camp. A fresh examination of the assemblage was carried out for the purposes of the present study.

The balance of this shares a striking resemblance to that of Assemblage 137 (Leckhampton) which was also collected by Lewis. There is an extraordinarily high ratio of cores to waste in combination with a total tool component of 91.32% (Table A1.15.1). This confirms the notion that Lewis collection methodology shows a heavy bias towards the collection of tools (and to a lesser degree cores). It is not therefore possible to carry out a valid chronometric analysis of the waste material within the
assemblage. However we can use the tools present to provide us with a general guide to the presence or absence of certain activities at different periods within the Blacklains area.

From a typological analysis of the tool component this appears to be an assemblage of mixed date, dominated by Later Neolithic and Early Bronze Age activity. This is suggested by the quantities of denticulates, notches and awls within the assemblage. One of the latter also has invasive retouch that is typical of this later period. The arrowhead component within the assemblage confirms the dominance of the Later Neolithic and Early Bronze Age forms. The presence of eleven blunted backed and two plano-convex knives adds to the spectrum of activities being carried out in this area during the period. An earlier but smaller presence is vouchsafed by the presence of a number of blade cores, 39 leaf arrowheads, an unfinished laurel leaf and the partial remains of five polished stone axes.

At least a small amount of core working in this area is also attested to by one keeled and one levallois core. An analysis of the cortex present on both tools and the small amount of debitage present does nothing to contradict the notion that initial preparation of cores was being carried out elsewhere before the raw materials were brought to the area (Table A1.15.5). The raw material analysis shows a dominance of derived flint with smaller proportions of both chalk flint and chert. The average core weight at 32.4 g (Table A1.15.9) is fairly large suggesting that core working may not have been as parsimonious as in some other locales (see below). The breakdown of tools provides a picture of a working/processing site where a wide variety of activities took place during the Later Neolithic and Early Bronze Age; with a possibly slightly less sustained but nevertheless significant range of activities in the Earlier Neolithic including the use of heavy tools such as axes and other lighter processing activities particularly those involving extended end scrapers (A3:Worksheets:Scrapers 41). The lack of substantial numbers of trimmed or serrated pieces may be due either to the absence of activities involving this tool form or Lewis' inability to differentiate between trimmed pieces and debitage of which he took less account.

Cranham III, Hungerfield Barrow. Assemblage 149

This extremely small assemblage, like Assemblage 146 forms part of the Rawes collection. It was recovered by fieldwalking from the site of the Cranham III round barrow (SO 9132 1260) which is situated 300 metres from the edge of the Cotswold scarp, some two kilometres to the south-west of the Blacklains site (Assemblage 41). The barrow itself was excavated in the late 19th century and contained the remains of a primary cremation of an adult and child within a stone cist and the two secondary cremations and an unburnt secondary internment (Grinsell & O'Neil 1960, 111). The lithic material recovered from the site was examined by the author for the Phase 2 analysis.
No cores and only one edge trimmed narrow flake are present in the Cranham III assemblage (Table A1.16.1). This together with the restricted nature of the waste component allows little to be said about this material. It would appear that the 19th century excavation of the barrow itself may have removed much of the lithic material from this site. This assemblage unfortunately therefore adds little to our knowledge of the past use of this area.

North side of Foston's Ash, Cranham. Assemblage 194

This lithic material was discovered by Mrs Pearce at Foston's Ash (SO 911 114) and donated to Stroud Museum in 1957. The area from which the flints were recovered is situated on the very edge of the Cotswold escarpment approximately one kilometre south of the site where Assemblage 149 was found. No previous analysis of this material has been published.

Only a very small component of this assemblage was suitable for traditional chronometric analysis. Conclusions concerning dating of the material using this analysis must therefore be made with some caution. However all except one of the items analysed (90.9%) were flakes. This suggests a Later Neolithic or Early Bronze Age date for the assemblage (Table A1.17.10). This is confirmed by the F/NF/B analysis which shows 80% flakes (25 items). This picture of an exclusively late use of the site is enhanced by the predominance of Later Neolithic and Early Bronze Age core types all of which (except for the ad hoc core on a flake) show indications of flake removals (Table A1.17.8). Relatively high percentage of unprepared, faceted and trimmed and faceted platforms are present together with significant quantities of waste with hinged terminations and step fractures (Tables A1.17.4 & A1.17.6). These too are suggestive of a late date. Both derived and chalk flint are in evidence and the average core weight is low at 15g (Table A1.17.7). This suggests that as much use as possible was being made of materials given the slightly more casual methods of working favoured during the period and evidenced in flake terminations. This may be related to the use of smaller derived flint nodules in addition to chalk flint.

Nothing within the tool component contradicts the notion of an exclusively late presence. As with assemblages A40 and A318 there is a high ratio of cores to waste (1:13)(Table A1.17.1). However in this instance there is also an exceptionally high total tools component (18.06%) (Table A1.17.1). The percentages of cortex present suggests that some of the first stages of core preparation was carried out on site but that most had already taken place elsewhere. The combination of these factors provides a scenario whereby semi-prepared material was brought to the site during the Later Neolithic and Early Bronze Age. Here tool production took place with the majority of the tools being used on the site and not removed elsewhere. Aside from tool production. The activities carried out at this place are heavily dominated by the use of scrapers with minor use being made of...
other tools (Table A 1.17.2). This lack of diversity suggests a largely task specific site with only a very limited number of subsidiary activities being carried out.

North of Foston’s Ash. Assemblage 209

Like Assemblage 194 this material was found by Mrs Pearce. It was donated to Stroud Museum in 1952. It was discovered in a field on the north side of Foston’s Ash. The coordinates given by Wymer (1977, 101) for the original location of the material (SO 916 116) do not match those of Foston’s Ash and the museum archive records accompanying the assemblage itself record it as having been found at SO 9149 1140. This is only a few hundred metres from the location where Mrs Pearce collected Assemblage 194. Considering this information alone it is not possible to say with certainty whether the two assemblages represent the remains of one extended scatter or two smaller and more closely defined scatters. As with Assemblage 194 no previous analysis of this material has been published.

This assemblage dates largely to the Later Neolithic or Early Bronze Age, with a single narrow blade microliths denoting a transitory Later Mesolithic presence. A small Later Neolithic/Early Bronze Age core working component is present in the form of both a multi-platform and levallois core. The small size of the waste assemblage invalidates any attempt to confirm the dating on chronometric grounds however the presence of both a thumbnail scraper and a blunted back knife confirm the core working evidence. Only one item shows signs of readily characterised raw material type and this comes from a clearly chalkland source. As with many other assemblages in Zone A no flakes carried a dorsal cortical element in excess of 75% again suggesting that much preparation of materials was carried out elsewhere (Table A 1.18.5). Irregular flake terminations also formed a significant proportion of the assemblage confirming a certain lack of care in core working of this period (Table A 1.18.6).

The balance of the assemblage is broadly similar to A194, though in this instance containing a slightly lower tool component (11.9%). The core to waste ratio (1:14) is once again consistent with the evidence of much preparation being carried out elsewhere (Table A 1.18.1). The restricted size of the assemblage make it difficult to draw conclusions about the nature of tool usage at this locale but the range of tools present would not be inconsistent with the scenario offered for activity in the Foston’s Ash area indicated by Assemblage 194.

Cranham. Assemblage 324

This material was recovered as the result of casual fieldwalking in the area around SO 917 107. This area is approximately 500 metres to the south-east of the site from which Assemblage 194 was
recovered. From the description given to the Museum of Stroud by its collector when it was donated the material appears to have been collected at a number of dispersed find-spots within the surrounding area. It is therefore difficult to say whether this represents a portion of a single scatter or elements of a number of different scatters. Prior to this study no previous analysis of this material had been undertaken.

This final small assemblage analysed within SO91 again indicates a Later Neolithic or Early Bronze Age presence within the Cranham area. The restricted size of the assemblage precludes chronometric analysis of the waste material. A fragment of polished stone adze had been reused as an extemporaneous core but no formal cores are present. A single awl was also present, the morphology and retouch of which suggests a Later Neolithic and Early Bronze Age date (Table A1.19.1). The balance of this assemblage is remarkably similar to that in the other two Cranham assemblages analysed, the lack of formal cores probably being a product of its restricted size (Table A1.19.1). The lack of material with over 75% dorsal cortex also confirms the pattern established for the previous assemblages (Table A1.19.5). The similarity of these assemblages may indicate that they all form part of one much broader lithic scatter created in the Later Neolithic and Earlier Bronze Age.

**SO91 Threads & Themes**

The broad pattern of activity within SO91 suggests a presence from the Mesolithic through to the Early Bronze Age. Much of the evidence for a Later Mesolithic presence is transitory. However where a significant Earlier Neolithic presence is apparent more substantial Later Mesolithic activity is consistently also in evidence. This is the case at Peak Camp (A34) and Crickley Hill (A61) causewayed enclosures and at Birdlip (A40). This may suggest a certain degree of continuity in Later Mesolithic and Earlier Neolithic residential presences in this area. However nowhere in this material is there a sufficiently diverse spectrum of Later Mesolithic material in an assemblage to suggest the presence of what could be characterised as a Later Mesolithic base camp.

The two Earlier Neolithic enclosures within the area are remarkably similar in the make-up of their lithic assemblages. In both instances a pattern of working is suggested where large quantities of raw materials were brought to these sites from a number of different areas. This indicated by the diversity of the materials themselves, with both chalk and derived flint playing a significant role. People at these sites were carrying out a large amount of core working with much of the product of that work being removed to other locations as individuals or groups moved on to different locations. A small proportion of the tools representing a fairly diverse spectrum of activities were however retained at the enclosures. It is however impossible to suggest from the lithic evidence alone whether these were in use at the same time as the core working was taking place or whether they were used...
by those left behind at the enclosures when others left. Given the evidence for substantial timber structures at Crickley Hill (Snashall 1997) it may be that the latter was the case in at least this instance. Whether an identical pattern of residential movement was practiced at Peak Camp is at present impossible to say. The only other evidence for substantial Earlier Neolithic activity within this sampling unit comes from Birdlip just a short distance from the two enclosures. The Birdlip material is however more difficult to characterise than the Peak Camp and Crickley Hill material because it forms a component in a much more chronologically extensive assemblage. There does not however seem to be such a great emphasis on core working here. Instead a greater emphasis seems to have been given to the performance of other tasks such as scraping, cutting and the maintenance (and therefore presumably the use of bifaces).

The evidence from SO91 in the Later Neolithic and Early Bronze Age suggests a very different pattern of use and movement of raw materials and tools. Many more assemblages of this date are in evidence than in the earlier periods. The evidence from the Birdlip and Cranham areas taken together suggests that activity may also have been more extensive. The balance of the assemblages from this period shows a consistently similar picture with pre-prepared raw materials being imported to be used at a variety of locations for the production of tools which were in most cases used at the same location. This seems to suggest a more restricted degree of residential mobility during this period than was the case in earlier times. Patterns of raw material exploitation are however fairly similar to those of the Earlier Neolithic with material from a variety of sources being exploited. Connections between different regions therefore seem to remain remarkably consistent over long periods. During the Later Neolithic and Early Bronze Age there is however significant evidence for the recycling of earlier lithic materials within the Birdlip Bypass assemblage.

One final observation can be made concerning the Later Neolithic and Early Bronze Age assemblages. Despite the widespread nature of activity within this area in this period, with the exception of arrowheads there is a remarkable lack of lithic material from either of the enclosure sites. This may suggest one of two things. Their may have been a deliberate avoidance of these places, which would still have been visible, if utterly ruinous, during this period. Alternatively the scarp edge situations common to both enclosures may not have been desirable residential locations during the Later Neolithic and Bronze Age. Given the apparent proclivity of individuals within the Later Neolithic and Early Bronze Age for the recycling of materials at Birdlip it may be that the reluctance to reuse such readily available resources at the former enclosure sites may suggest a deliberate avoidance of these locations for every-day activities.
Like S091 square SP03 falls within topographical Zone A (the northern escarpment and in this instance a restricted area of its hinterland). However the latter is situated towards the northernmost extent of the research area and has not formed the subject of such sustained fieldwork. It contains only one lithic assemblage of five or more items, that recovered from Hailes Farm. Whether the lack of assemblages is entirely the product of the lack of fieldwork is a matter of conjecture. The area is certainly not abundant in monuments. Only one is known. A chambered tomb situated at the far eastern extremity of the square within the parish of Snowshill.

Hailes Farm, nr Hailes Abbey. Assemblage 144

This small assemblage was recovered from a field on Hailes Farm close to a stream that forms a tributary to the River Isbourne, near to Hailes Abbey. The material was found on the scarp slope of the Cotswolds at a height of between 90 and 100 metres OD and is described in the fragmentary records that accompanied the archive as having been collected in an area running from SP 046 307 to SP 045 305 to SP 035 297. The material forms part of the Rawes collection and has not previously been analysed.

This assemblage is extremely small and of little value in terms of chronometric analysis. However the presence of both a multiplatform flake core and a keeled core are indicative of Later Neolithic or Early Bronze Age activity (Table A1.20.8). The only securely identifiable raw material within the assemblage is derived flint and the average core weight is just 16g (Tables A1.20.7 & A1.20.9). Tools are entirely absent (Table A1.20.1). This assemblage may therefore be the product of an extremely short-lived episode of core working during this period. Although the assemblage is extremely limited in size the lack of evidence for material with more than 75% dorsal cortex present is consistent with other assemblages within Zone A (Table A1.20.5); again suggesting that all basic preparation of cores was performed in other areas.

SP03 Threads & Themes

The one assemblage within this sampling unit is consistent with the other Later Neolithic and Earlier Bronze Age material within the region. The relatively small size of cores in an assemblage with evidence only of derived flint tallies with what is apparent elsewhere and there is no evidence for the first stages of raw material preparation. The absence of any sizeable lithic assemblages from this area may in part be due to a past concentration of fieldwork in other areas. Until more extensive fieldwork is carried out in this area it is however difficult to gauge whether this is the sole explanation or whether lithic material is largely absent from the area.
Sampling unit SP12 is situated on the central northern plateau of the Cotswolds within topographic zone B. It is an area rich in monuments, containing no less than fifteen chambered tombs and a probable Earlier Neolithic enclosure at Salmonsbury. It also contains the Condicote henge monument around which the densest concentrations of round barrows on the massif may be found (Ellison 1984, 118 & Drinkwater & Saville 1984, 133). The more northerly portions of the square around the Condicote area are plateau-like in character. To the south and the east the landscape of SP12 is cut by a number of small valleys belonging to the Rivers Windrush, Eye and Dikler. Four lithic assemblages were available for study within this sampling unit; three being the product of excavation and the fourth a scatter recovered as a result of fieldwalking.

**Condicote Henge. Assemblage 55**

The lithic assemblage from the excavations at Condicote Henge (SP 1538 2841) formed part of the chronometric analysis undertaken in Phase 1 of this study (see Phase 1 above). This material was also the subject of a more wide-ranging examination for the purposes of the Phase 2 analysis. Lithic material was recovered from a small-scale excavation, prior to building work, which investigated the interior of the monument, a section through the remains of the ditch and the old ground surface beneath part of the bank (Saville 1983, 34-35).

The F/NF/B analysis of this assemblage carried out for the Phase 1 analysis demonstrated a high proportion of flakes that fitted well with the radiocarbon dates obtained from this site. Analysis of the assemblage reveals however that there is also an Earlier Neolithic element present. This is demonstrated both by the presence of a rejuvenation flake and a partially crested blade and by an A2 and two B2 cores with blade/blade and flake removals (Table A1.21.8). However the two flaked lumps and the denticulate, notched implements and oblique arrowhead are representative of later activity broadly contemporary with the construction or use of the monument. The importance of Earlier Neolithic working is highlighted by the relatively depressed proportions of irregular flake terminations (Table A1.21.6). However a significant proportion of the assemblage shows signs of having multi-directional scarring, indicating that a considerable amount of Later Neolithic/Early Bronze Age core working also took place (Table A1.21.3). The evidence for platform preparation presents a similarly mixed picture, although a fairly large proportion of the assemblage show indications of either no preparation, faceting, or trimming and faceting; again indicating a later date for much of the material (Table A1.21.4). Examination of the dorsal cortex present shows that 3.37% of material carries more than 75% indicating that some early stages of preparation may have been carried out here (Table A1.21.5). The core to waste ratio at 1:13 is similar to the majority of Later Neolithic and Early Bronze Age sites in Zone A. Likewise there is also a high tool component...
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(15.87%) (Table A1.21.1). This again suggests that the majority of the tools manufactured on the site remained there. The tool component is relatively diverse and is dominated by sawing and cutting implements with lower proportions of scrapers, piercers and arrowheads (Table A1.21.2). This breakdown of tools is relatively unusual in that neither scrapers nor piercers are dominant and may reflect a different set of activities to those evidenced on sites of a non-monumental character.

Analysis of the raw materials reveals an overwhelming dominance of the use of derived flint with smaller quantities of chalk flint also in evidence (table A1.21.7). The very small average core weight of just 10.8g (Table A1.21.9) may be a reflection of the need to husband resources in the shape of the small derived nodules.

Bevan's Quarry Round Barrow. Assemblage 131

This flint assemblage was recovered during the course of the excavation of Bevan's Quarry Round Barrow (SP 1083 2855) (Temple Guiting VIII: Grinsell & O’Neil 1960) directed by Mrs O’Neil in 1964 (O’Neil 1967). The barrow itself seems to have been of Middle Bronze Age date however a substantial proportion of the lithic assemblage was recovered from within the wide clay bank that encircled the turf mound. The excavator interpreted these items as offerings (O’Neil 1967, 22). However the character of the assemblage suggested to Wainwright (1967, 34) that some elements are in fact residual and predate the construction of the barrow. This view is supported by the lack of any evidence for formal deposition of the material within the bank. A new examination of the assemblage was undertaken for the Phase 2 analysis.

Like Condicote this assemblage has a Later Neolithic/Early Bronze Age component together with indications of earlier activity. The traditional chronometric analysis is similarly composed to Condicote (Table A1.22.10) with 56.25% flakes and 12.5% blades. However the F/NF/B analysis indicate a percentage of flakes and combined narrow flakes and blades present more indicative of the Earlier Neolithic assemblages of Peak Camp and Duntisbourne Grove. When combined with the evidence for both Earlier Neolithic core working (type A1 and A2 blade and flake cores) and Later Neolithic/Early Bronze Age cores (type C flake core and an earlier core reused as a keeled core) we can see that this confused picture may be indicative of a mixed assemblage. This is confirmed by the evidence for the presence of significant quantities of material with untrimmed, trimmed, faceted and trimmed and faceted platforms and broadly equal proportions of debitage with multi-directional, bi-directional and uni-directional scarring (Table A1.22.4.3). This is suggestive of the presence of both careful and more casual working practices.

The core to waste ratio is closest to the many Later Neolithic and Early Bronze Age assemblages already discussed at 1:13 (Table A1.22.1). The percentage of total tools is also similar (15.22%).
This is another example of an unbalance assemblage where most of the raw material was brought to the locale in a semi-prepared state (Table A1.22.5). Derived flint and chalk flint are both present in similar proportions (Table A1.22.7). This may explain the average core weight of 26 g, which falls into the mid-range for analysed assemblages (Table A1.22.9). The fragment of a polished stone axe that was present is of Group VI origin and denotes much longer distance connections than the other materials.

The tool assemblage is scraper dominated (61.54%) with knives, a burin, an edge trimmed flake and the polished stone axe discussed above arguing for a fairly diverse range of other less significant activities. The last three of these may be indicative of the Early Neolithic activity with the plano-convex knives belonging to the Early Bronze Age. Although unbroken examples were too few to analyse metrically overall the morphology of most of the scrapers may suggest that they are associated with the later use of the locale. Thus it seems we may have evidence for a task specific locale of the Early Bronze Age (with the activity possibly resulting from the construction of the barrow) and a diverse but possibly fairly short lived range of activities taking place here in the Earlier Neolithic.

Swell 8 Round Barrow, Cow Common. Assemblage 63/ Cow Common & The Park. Assemblage 64

Assemblage 63 was recovered during the excavation of Swell 8 Round Barrow (SP 1350 2625). The site is situated approximately two kilometres to the south-west of Condicote henge, at a similar elevation, and a little more than a kilometre west of the source of the River Eye. Neither the horizontal nor the vertical spatial distribution of the excavated lithic material could securely establish the assemblage as being contemporary with the construction or use of the barrow (Saville 1979, 96). A significant proportion of it may therefore predate the building of the monument. At the time of the excavation a quantity of lithic material was also recovered by fieldwalking from the field in which the barrow stood (Cow Common) and the adjacent field to the east (The Park). The material collected from these two fields together with that previously collected in the same area by John Drinkwater constitutes Assemblage 64. A detailed analysis of the amalgamated assemblages has already been published (Saville 1979, 96-110). This analysis has been drawn upon for Phase 2 of this study. Its utility is limited only by its lack of a consideration of chronometric variation within the debitage element of the assemblage.

The Swell 8/Cow Common and the Park assemblage comprises a broad date range of material. During the Later Mesolithic the presence of both microliths and microburins together with a number of cores of probable Mesolithic morphology suggest that the site was of more than simply transient significance. Later Neolithic activity is represented by numerous cores, trimmed and serrated flakes,
leaf shaped arrowheads and simple points. Three flakes from a polished flint axe (or axes) suggest the presence of more heavy duty activities. The numerically dominant tool type are scrapers and an analyses of their length: width indices has indicated that the majority of these are likely to belong to either the Mesolithic or the Earlier Neolithic (Saville 1979, 100, 108 & 110). A number of Later Neolithic and Early Bronze Age tools are also present including plano-convex knives and rods. Further significant core working activity of this date is evidenced by the presence of 18 multiplatform cores and 6 levallois or keeled cores. The relative proportions evident in the chronologically distinct core and tool types suggest that more diverse activity including core working, processing and heavy duty tasks was taking place in the Earlier Neolithic. Whilst in the Later Neolithic or Earlier Bronze Age the spectrum of activities is more restricted with fewer tool types but at least an equivalent proportion of core working. Again as with the Bevan's Quarry assemblage it is feasible that this later activity may be associated with the construction and use of the round barrow.

Overall the core to waste ratio (1:14) and the total tool percentage (15 %) is also similar to Bevan’s Quarry. All of the identifiable lithic raw material in this assemblage is derived flint. As noted with previous derived flint dominated assemblages a low average core weight is in evidence at 17.08g (Saville 1979) again suggesting the careful use of materials.

SP12 Threads & Themes

All of the assemblages analysed that originate from within SP12 (Zone B) show a mixed history of human presence. The only sign of Later Mesolithic activity is to be found in assemblages A63 and A64. A relatively short-lived presence is suggested by a small episode of core working and retooling. During the Earlier Neolithic more substantial activity is implied by the Swell 8/Cow Common and the Park assemblage. Here a diverse spectrum of scraper dominated activities took place with substantial episodes of core working. At the Bevan’s Quarry site the Earlier Neolithic presence appears to have been similarly divers but possibly more short-lived. The Earlier Neolithic presence at Condicote is more difficult to characterise but certainly includes core working. Nowhere however is there any evidence of the scale of core working extremely low core to waste ratios associated with the enclosures in Zone A and the tool components of all of the assemblages here are significantly higher than at the enclosures.

During the Later Neolithic and Early Bronze Age activities at both Bevan’s Quarry and Cow Common and the Park may be associated with the episodes of construction and use of the round barrows at these locations. The unusual nature of the breakdown of tools at Condicote during the Later Neolithic and Bronze Age may suggest a different set of activities associated with the use and/or construction of the monument. None of the later assemblages from this zone show the same diversity of activity or extensive presence that characterises assemblages of the period within Zone A.
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This suggests that the pattern of residential associations and activities taking place in this area was different from that in Zone A.

Within Zone B there is also a greater emphasis on the use of derived rather than chalk flint and chert does not even form a minor component in the raw material spectrum. The average size of cores is also consistently smaller in than in areas with a preference for chalk flint or a broadly mixed use of chalk and flint. This appears to be the case across substantial periods of time. This consistency in raw material preferences suggests a continuity of association and communications over long periods. However the nature of those associations and communications may have varied.

SP22

The area of the northern Cotswold dip slope (Zone C) was represented in Phase 2 of the study by assemblages recovered from within square SP22. This square lies immediately to the east of SP 12 but possesses a contrasting monumental character. A single Earlier Neolithic enclosure is known and this is situated on Icomb Hill at the western edge of the area. Only two chambered tombs are present and a single round barrow has been identified (Ellison & Savillc, 1984, 130) within the area. Two lithic assemblages from within this sampling unit were available for study, both of them recovered from the area around the enclosure. The square is diagonally bisected in a north-west to south-easterly direction by the gently sloping valley of the River Evenlode, which is in turn fed by several smaller tributaries including Westocote Brook and Sars Brooks.

Icomb Hill. Assemblage 54

Assemblage 54 was recovered during the course of small-scale exploratory excavations close to discontinuous ditches marking the site of a causewayed enclosure (SP 205 230) (Saville 1978, 27-31). The excavations were conducted in advance of the construction of a UHF relay station in 1975. Five trenches amounting to 222 square metres were dug without unearthing any archaeologically significant features. The lithic material was derived from both within the topsoil and a "natural" layer of sub-soil directly overlying the bedrock.

This small excavated assemblage contains no cores, no tools and insufficient debitage to make any form of chronometric analysis viable (Table A1.23.1). None of the material is typologically distinctive and analysis of raw materials shows only securely identifiable flint of unidentifiable origin, although much of the assemblage did have a consistently thin cortex (Table A1.23.7). The presence of one core rejuvenation tablet does suggest some Later Mesolithic or earlier Neolithic core working took place at the enclosure. However considered on its own this excavated material adds little to our knowledge of residential practices.
Icomb Hill. Assemblage 229

Concurrent with the excavation of Icomb Hill "casual" fieldwalking in the area of the site itself (SP 205 230) and the immediately adjacent fields brought to light a more substantial lithic assemblage than that discovered during the excavation itself. The majority of the flint was recovered from within the area of the bank and cropmarks. A brief discussion of the lithic material from both the excavation and the fieldwalking was published with an account of the excavations. However a separate analysis was undertaken for the purposes of this study.

In contrast to the small excavated assemblage the fieldwalked material offers a much more fine-grained picture of past human activities on Icomb Hill. Typologically the tool component of this assemblage suggests that it is chronologically mixed. The presence of a Sutton A barbed and tanged arrowhead together with one miscellaneously retouched fragment with distinctive scalar retouch suggest some Later Neolithic/Earlier Bronze Age activity on the site. The morphology of the end and extended end scrapers present together with an edge trimmed blade are however indicative of an Earlier Neolithic date. The cores present also appear to have originated in different periods. Whilst the A1 blade and flake core is of Earlier Neolithic type the remaining six multiplatform flake cores and the single keeled example are almost certainly of Later Neolithic/Early Bronze Age date (Table A1.24.8). The average weight of cores in the assemblage is just 14.25g (Table A1.24.9). Identifiable raw materials are dominated by derived flint (2.42%) with a smaller proportion of chalk flint (1.61%) also present (Table A1.24.7). However the generally very thin cortex on much of the material suggests that flint from the derived sources may originally have dominated the assemblage much more substantially. This evidence fits with that from Zone B where reliance on derived flint seems to have resulted in parsimonious use of resources and a generally small average core size.

Traditional chronometric analysis of the intact waste shows a great deal of similarity between Icomb Hill and the phase 1 assemblages from Trinity Farm and Condicote; the non-blade component comprising 86.67% of the intact waste (Table A1.24.10). The N/NF/B analysis clearly confirms a dominance of flakes within the assemblage at 66.67%. However the high blade component (12.12%) suggests that we are dealing here with a larger Earlier Neolithic Presence than was the case at Condicote. This reverse in the balance of waste is unsurprising given that Condicote is the site of a henge monument and Icomb a causewaved enclosure. A picture of chronologically mixed stone working is confirmed by the varied patterning evident in scar direction and flake terminations present (Tables A1.24.3 & A1.24.6). An analysis of the thickness of waste material shows a high percentage of flakes above 7 mm reflecting the Later Neolithic/Early Bronze Age activity (Table A1.24.11). Indeed a higher percentage of material (5.81%) with cortex covering over 75% of the dorsal surface is present here than is evident in assemblages within Zones A and B however this is largely the result of the presence of cortex on tools (Table A1.24.5).
The ratio of cores to waste is extremely high (1:8) (Table A1.24.1). At Icomb the total tool component comprises 12.11% of the assemblage. This is a much higher percentage than found in either of the enclosure assemblages from Zone A and suggests a different pattern of activity is occurring on this site. Here far more tools seem to remain at the site though according to the evidence of the core to waste ratio many of them may have been brought here ready made. Indeed it is possible that the small size of the cores present partially reflects the bringing to the site of cores that had already seen a great deal of use at other locations. The picture is however complicated by the conflation of the earlier and later stone working assemblages and it is difficult to assess the patterns of residence in the different periods. The presence of a greater quantity of typologically datable Earlier Neolithic tools would however suggest that the high percentage of tools present is a genuine contrast to the Zone A evidence. The majority of these tools (57.14%) are scrapers and there is no evidence for any heavy duty activities at the site (Table A1.24.2).

SP22 Threads & Themes

The evidence from the Icomb Hill assemblages contrasts strongly with the patterns of residential practice suggested at Earlier Neolithic enclosures within Zone A. Here there is no evidence for a Later Mesolithic presence. The use of the enclosures themselves, as reflected in the lithic assemblage also shows a rather different set of practices. High numbers of leaf shaped arrowheads were found at the Zone A enclosures here only one fragmentary example is present. There appears to be no evidence for either conflict or production of these projectile points. The evidence from the Icomb assemblage also suggests that this enclosure was not a locale associated with large scale production of tools. Indeed many of the tools present may have been brought in from elsewhere given the discrepancy between the percentages of cortex found on waste and on implements. Many of the cores brought to the enclosure site may have already been used elsewhere and were brought to the site in a partially denuded state.

The raw material connections at the site demonstrate significant connections with areas with derived water worn flint; possibly the river gravels of the Thames Valley to the east. A lesser degree of connection with the chalk flint areas to the south is also attested but probably only played a minor element. The range of activities suggested during the Earlier Neolithic is heavily concentrated on those using scrapers and is also much less diverse than at Peak Camp or Crickley Hill. A picture of people coming to the site, bringing many of their tools with them and performing a restricted range of processing tasks is suggested.

In the Later Neolithic and Earlier Bronze Age the evidence is for a presence that may be related largely to episodes of tool manufacture with the removal of most of those tools elsewhere. This
suggests that the site may simply have been a convenient working site. As with Zone A there is evidence suggests that earlier enclosure sites were felt undesirable as residential settings.

SP23

Like SP22 square SP23 lies in topographic Zone C towards the north-western extremity of the Cotswold massif. The square contains the only stone circle found within the area (The Rollright Stones) with the remains of a single chambered tomb situated close-by this monument.

The Rollrights. Assemblage 49.

The only lithic assemblage from within SP23 is that collected as part of the Rollright landscape investigation (Lambrick 1983 & 1988). The material recovered during the course of the investigation include the products of both systematic fieldwalking and a number of small excavations. The area under consideration focussed around the stone circle situated at SP 296 308. The site is situated on a ridge lying between the valley of the River Stour to the north and those of the Evenlode to the south-west and the Swere to the east. The ridge forms part of the natural route-way known as the Jurassic Way.

The systematic fieldwalking exercise covered the area surrounding the King’s Men (stone circle), the King Stone (standing stone) and the Whispering Knights (portal dolmen). The lithics recovered during excavations came from the area of a possible cairn adjacent to the Whispering Knights; the cairn of a Bronze Age barrow; the investigation of an Iron Age enclosure; and the old ground surface sealed beneath a second round barrow. Details of this material have already been published and these have been drawn upon in this analysis (Lambrick 1983, 41-44; Holgate 1988b, 61-68 & 1988c, 85-90; Roe 1988, 85). No full-scale chronometric analysis is available but observations concerning the balance of blade and flake numbers have been published for the fieldwalked material and the number of blades and flakes recovered as a result of excavation have been quantified in more detail (Holgate 1988c, 87-88).

Lithic evidence for activity at this locale stretches from the Later Mesolithic through the Earlier Neolithic and into the Early Bronze Age. Evidence from a sealed ground surface beneath a round barrow suggests a transitory Later Mesolithic presence in the form of a number of snapped bladelets and a single core possibly representing the waste from the production of microliths.

The exact nature of the activity taking place in the Earlier Neolithic and Later Neolithic/Early Bronze Age is more difficult to disentangle from the breakdown of the assemblage provided in the published sources (Holgate 1988c, 61-68 & 87-88). No details of the exact quantities of waste...
located during the course of the surface survey are given and a precise core to waste ratio cannot therefore be obtained. However Lambrick's comment that nearly 3000 flints were recovered in all. The excavated material appears to be largely residual thus by combining the figures for tools and cores available for the excavated and fieldwalked material an estimate can be made of the core to waste ratio. This produces a ratio of 1:64 this is a much lower figure than the other assemblage discussed in Zone C. A division of the exact chronological balance of this assemblage is not possible but Holgate's (1988c, 68) published account suggests that the waste material may be dominated by Later Neolithic and Early Bronze Age material.

The total percentage of tools within this assemblage is just under 3%. Tools present include a fairly broad range of activities and the surface survey material offers the best breakdown of the spectrum of activities present. The assemblage is scraper dominated at 58.17% of the total assemblage. Cutting activities are also well represented at 18.18% with a variety of other processing and heavy duty tasks also in evidence. Once again arrowheads only form a small component of the assemblage but they do offer an indication of chronological range as leaf shaped, transverse and barbed and tanged forms are all present. This suggests use of the locale during the Earlier and Later Neolithic and also the Early Bronze Age. The breakdown of tools for the excavated assemblage fits with this interpretation but is too small to add much detail of its own.

Raw materials present include both chalk and derived flint together with one Group I polished stone axe showing connections with the far west of the country. These are now known to have been dispersed outside of their region of origin from at least the latter part of the fourth millennium BC and this example may therefore relate to either the Earlier or Later Neolithic use of the area (Davis et al. 1988, 18).

SP23 Threads & Themes

This square offers the first evidence within Zone C of a Later Mesolithic presence but, as with a great deal of the activity evidenced during the period in Zone A, it appears to be transitory in nature. It may be the product of one retooling episode on a hunting trip. The later picture is somewhat more confused. However there is certainly evidence for a substantial presence during the Later Neolithic and Earlier Bronze Age involving core working and the production, and use of tools. This assemblage might be seen as something of a counterbalance to the material found in SP22, with the former being of largely Late Neolithic and Early Bronze Age origin and the latter dominated by Earlier Neolithic activity. The relatively small tool component may be the product of the presence of Earlier Neolithic waste with few tools from this period or may suggest that only a limited tool using presence was in evidence at this location.
ST77

ST77 is situated at the most southerly end of the study area on the eastern limestone escarpment. The only monuments present within this area are of Earlier Neolithic date and comprise three chambered tombs. This square therefore presents a contrasting tradition of monumentality to that attested to within many of the squares sampled in the north of the Cotswolds. A further contrast is offered by the rivers and brooks within this area which flow west to join the Avon; contrasting with the rivers of the northern squares sampled which form part of the east flowing upper Thames drainage system. The topography of the south of ST77 below the present day village of Marshfield is dominated by the river valleys of the Avon tributaries. The area immediately to the north and east of the village consists of a much flatter area of gently sloping land sandwiched between the valleys of the south-western escarpment and the more shallowly cut valley of the Broadmead Brook to the north and east. In contrast to the northern sampling units of the Cotswolds where few monuments were present ST77 provided no less than twelve lithic assemblages for the Phase 2 analysis.

Marshfield Barrows. Assemblage 124

The Marshfield Barrows lithic assemblage includes material recovered as a result of both excavation and fieldwalking. The excavation comprised the investigation of two contiguous round barrows threatened by ploughing (Gettins et al. 1953). The barrows, situated at ST 795 745, appear to have been constructed during the Early Bronze Age. The site lies just to the north-east of the present village of Marshfield on an area of gently sloping land. Lithic material was also recovered from the surface of a number of other barrows within the field that had been subject to truncation as the result of bulldozer activity! The lithic material recovered from examination of the surface of the barrows and from the excavations are not differentiated in the site archive. The two have therefore been analysed as a single assemblage for the purposes of this study.

On purely typological grounds the tool assemblage from the Marshfield barrows excavation is dominated by largely Later Neolithic/Early Bronze Age forms component. These include a probable plano-convex knife amongst the miscellaneous retouched pieces, two blunted back knives, alongside one petit-tranchet and two barbed and tanged arrowheads. An Earlier Neolithic presence is probably demonstrated by the serrated piece together with a number of the scrapers that may be of Earlier Neolithic morphology (Appendix 3: Scrapers: 124). According to the original site-report of the excavations a geometric microlith was also found (indicating a Later Mesolithic presence) but this is no longer present within the assemblage.

Chronometric analysis of the assemblage presents a mixed picture. The traditional length: width analysis shows a patterning that would be at home in either the Earlier Neolithic or the Later
Neolithic/Early Bronze Age phase 1 assemblages (Table A1.25.10). The F/NF/B analysis however shows patterning consistent with a mixed assemblage falling part way between the Duntisbourne Grove and Condicote figures; with 55.10% of the waste assemblage being comprised of flakes and 17.35% blades. Thus both an Earlier Neolithic and a Later Neolithic/Early Bronze Age use of the site are confirmed. This is also reflected in the presence of material containing a range of scar patterning (Table A1.25.3). Platform trimming is present within 21.97% of the waste assemblage but only a slightly lower figure shows no indications of preparation at all or is faceted (Table A1.25.4). This combination again suggests core working in both the earlier and later periods. Cores present within the assemblage also reflect this chronologically mixed character with both A1 and A2 blade and flake cores and later multiplatform examples, alongside a keeled core of similar date (Table A1.25.8). The average core weight is within the upper end of the range for assemblages analysed within this study at 26.2g (Table A1.25.9). This is similar for both the earlier and later core types present. Chalk flint dominates the raw materials present (5.76%) with a lesser proportion of the assemblage (1.80%) being of recognisably derived character.

The core to waste ratio appears, like many of the assemblages from Zones B and C, to be high but in this instance the tool component is slightly lower than evidenced elsewhere at 8.99%. A substantial minority of items possess more than 75% cortex on their dorsal surfaces and a total of 46.19% possess some cortex (Table A1.25.5). Taken together this indicates some of the early stages of core preparation took place on the site. This would seem to somewhat contradict the evidence of the core to waste ratio but when considered alongside the evidence of the fieldwalked material (A125) a picture of a more balanced assemblage begins to emerge. Overall the tool assemblage is scraper dominated (57.89%) with a variety of processing activities taking place but no evidence for heavy duty activities. The plano-convex knife and the other Later Neolithic/Early Bronze Age forms may be associated with a period of use or occupation at the time of the construction or use of the barrows.

Marshfield Barrows Field. Assemblage 125

At the same time as the Marshfield Barrows excavation was taking place additional lithic material was recovered by means of “a very careful search” of the field within which the barrows were situated (Gettins et al. 1953, 38). This material has been analysed separately for the Phase 2 analysis but may be regarded as complimentary to Assemblage 124.

This assemblage has a much lower core to waste ration (1:41) than Assemblage 124. In all other respects however it is remarkably similar (Tables A1.26.1-10). The typology of the tools present is however suggestive of a more dominant Earlier Neolithic component than the excavated assemblage, in this case also including evidence of heavy duty activities in the form of a flake from a
polished flint implement. Taken together the two assemblages show a relatively balance assemblage indicating a presence in both the

Ironmongers Piece I & II, Marshfield. Assemblages 1 & 227

A substantial lithic assemblage (1) was recovered during the excavation of the Iron Age and Romano-British at Ironmonger's Piece Marshfield (ST 798 760)(Blockley 1985). Ironmongers Piece lies approximately 1.5 kilometres north of the barrow cemetery from which Assemblages 1 and 227 were recovered and is situated on the north-facing slopes of the valley of the Broadmead Brook. The lithic material from the excavations was clearly residual and may be regarded as part of a larger body of material comprising both the excavated material and that recovered from the surrounding area as a result of fieldwalking (Assemblage 227). An account of the combined flint assemblage has been published and it is this account that forms the basis of the present study (Everton 1985, 199-215).

The raw materials present within these assemblages are dominated by chalk flint with a small amount of derived flint which appeared to have originated from boulder clays, two examples of Upper Greensand Chert and one of Portland chert are also present (Everton 1985, 199). This seems to have been brought to the site as partly prepared nodules. The average core size is remarked upon by Everton as being small but in fact at 26.55g is like Assemblage 124 in the upper end of the scale for the cores analysed within the Cotswolds in this study. Single, double and multi-platform cores are all present and a date range for core working from the Earlier Neolithic into the Early Bronze Age is indicated. A substantial number of core trimming and rejuvenation flakes are present indicating the presence of careful traditions of working during the Earlier Neolithic (Everton 1985, 203). However the dominance of "squat" flakes within the assemblage suggests that the majority of activity on the site dates from the Later Neolithic and Early Bronze Age periods. On morphological grounds the majority of scrapers on the site are also interpreted as being indicative of predominantly Later Neolithic/Early Bronze Age activity. There is considerable evidence from dual phase patination to suggest that earlier lithic material was being recycled in the later period, as was the case with the Zone A Birdlip Bypass assemblage (A40).

The breakdown of the tools component within the assemblages shows that scrapers comprised the largest proportion of any tool type (44.41%). However a diverse array of activities took place at the site, these included the use of a number of tool types of distinctively Later Neolithic/Early Bronze Age type in addition to the scrapers. They included plano-convex knives, denticulates, fabricators with a distinctive morphology, spurred tools and a significant proportion of piercers, and transverse and barbed and tanged arrowheads. An Earlier Neolithic presence is evidenced by polished stone axes (and flakes thereof) together with a number of leaf shaped arrowheads. Despite the evidence of
Earlier Neolithic core working at the site there is however little to suggest that much processing activity was taking place at the site. This clearly contrasts with the evidence from the later period of use of the locale. The core to waste ration is comparable to that from the combined A124 and A125 assemblages (1:31) and although still high indicates a more balanced assemblage than many of the Later Neolithic and Early Bronze Age assemblages within Zones A, B or C. The tool component is still however fairly high at 12.86%.

It would appear that the Earlier Neolithic presence here comprised a small amount of core working and some heavy duty activities together with the use of arrowheads. This might be accounted for in terms of some task specific activity away from the main residential area. During the Later Neolithic/Early Bronze Age a much more substantial presence possibly indicative of a period of sustained residence occurred. Raw materials were brought in from areas to the south but material was also recycled from the earlier period of use of the locale. Core working took place and many of the tools produced were used on site in a broad range of processing activities.

**Marshfield Parish Survey. Assemblages 176-183**

These assemblages together constitute the lithic material recovered during the course of the Marshfield Parish Survey (Russett 1982). They originate from the area immediately to the south and west of Ironmongers Piece (Assemblages 1 and 227)(ST 7510 7346; ST 748 735; ST 748 744; ST 754 743; ST 771 743; ST 7780 7420; ST 7709 7553; ST 771 757). The published account of the lithic material collected during this systematic fieldwalking survey concentrates on flint densities and distributions. Discussion of raw materials, core representation and presence of certain artefact classes has also been possible drawing upon this source. A more detailed level of analysis of six separate concentrations within the survey area was facilitated by the published breakdowns of those portions of the assemblage identified by Russett (1982, B4) as “loosely nucleated scatters”. The nature of the published material did not however permit a chronometric analysis of these flint assemblages.

The majority of lithic material brought to the Marshfield area and evidenced in these assemblages comes from chalkland sources, very little water-worn derived flint is present but there is a minor chert component deriving from both the Upper Greensand and the Portland areas (Russett 1982, A5). Cortical flakes are common within the assemblages and it would seem that only cursory preparation of raw materials occurred before they were brought to this area. Recycling of flint is also evidenced by numerous examples of dual phase patination. This recycling the use of flint axes as ad hoc cores demonstrated by the presence of a number of flakes from polished flint axes.

Six main areas of “nucleation” were identified within the survey area (Russett 1982, B4-B10). A breakdown of the components of these assemblages within the published report allows some com-
ments to be made concerning these areas. Area 1 showed a core to waste ratio of 1:34 similar to that from assemblages 1 and 227. This is not entirely surprising given that it was recovered from the immediately adjacent area. The total tool assemblage was a little lower however. It is possible that this may suggest that this is the edge of the area of this particular scatter representing Later Neolithic and Early Bronze Age activity. Scrapers again formed the major element of the tools assemblage (59.62%) with a diverse range of activities similar to those in A1 and A227 represented.

Areas 2 to 6 all had a much higher core to waste ratio than Area 1 (1:11, 1:13, 1:20, 1:14 and 1:18 respectively). All are scraper dominated, with indications of mixed date given by the typologically distinctive artefacts present. All show an Earlier Neolithic and Later Neolithic/Early Bronze Age presence. However in many cases the former is restricted to the presence of leaf shaped arrowheads and nowhere do serrated or trimmed flakes occur. This suggests that as with A1 and A227 the Earlier Neolithic presence may be task specific and not indicate a sustained period of activity. In the case of Area 3 a passing Mesolithic presence is also indicated in the form of a single microlith. The sub-assemblages from Areas 2 to 6 are remarkably similar to many of the Later Neolithic and Early Bronze Age assemblages from SO91 and SP12. The high core to waste ratios may suggest that part-used cores were brought to these places for further working. Here too tools were produced as required and a wide variety of processing activities undertaken. Areas 2-6 then seem to differ in character to Area 1 (and A1 and A227). The latter possibly represents a larger or more sustained locus for core working activities during the Later Neolithic and Early Bronze Age.

Tog Hill, nr Marshfield, Cold Ashton. Assemblage 36

Tog Hill is situated to the west of the parish of Marshfield and sits on the edge of the southern Cotswold scarp slope (ST 738 735). Lithic assemblage 36 was collected as the result of fieldwalking in the late 1950s and early 1960s. A typological analysis of items showing signs of secondary working or use has been published (Sykes & Whittle 1965, 6-13). However a more detailed analysis was undertaken for the purposes of the Phase 2 study.

Unfortunately the majority of the debitage recovered during the fieldwalking was discarded on the grounds that it showed no signs of secondary working or use. The quantity of material discarded was, "several times greater than that retained," (Sykes & Whittle 1965, 6). Consideration of the surviving assemblage has therefore been undertaken in light of this statement. In addition notes retained with the archive suggest that some material was lost following an exhibition of the assemblage some years ago. Comparison between the present archive and Sykes & Whittle's account suggests that the missing element amounts to approximately 17% of the published assemblage.
The fact that much of the waste material from this assemblage was discarded by its collectors invalidates any attempts at chronometric analysis of this assemblage, it also makes the results of any technological analysis highly speculative. The typological analysis of the tool and core components of this material therefore had to serve as an indicator of the chronological range and balance of activities undertaken at Tog Hill. Without doubt the assemblage is dominated by material of Later Mesolithic date. A total of 5% of the entire assemblage consists of microliths and microburins and the dominance of narrow blade forms within this sub-group conforms with this suggestion. The morphology of the majority of the scrapers within the assemblage show a marked tendency towards extremely narrow forms which suggests a Mesolithic origin for these items (Appendix 3: Scrapers: 36). Burins are also most commonly found amongst Mesolithic assemblages whilst the tranchet sharpening axe is definitively Mesolithic in date. Few of the other processing tools (including serrated items and notches) would be out of place in a Mesolithic assemblage. There are however a small number of tools present which fit more comfortably within a Later Neolithic or Early Bronze Age framework. These include the saws and a tool resembling a tribrach but with only two arms. There is also evidence in a number of cases of dual phase patination indicating that earlier flint was being recycled. The type of tools where this occurs suggests that this was a Later Neolithic/Early Bronze Age practice.

The cores in the assemblage are dominated by early forms with a preponderance of blade and blade and flake removals (Table A1.27.9); 56.94% of the core assemblage being blade cores. There are however a small percentage of multiplatform, and keeled cores that attest a period of core working during the Later Neolithic or Early Bronze Age. A substantial number of core rejuvenation flakes and partially crested blades amongst the debitage support the prevalence of earlier traditions of core working in this assemblage. The proportion of the blade assemblage with a 100% cortical dorsal is exceptionally high at 36.49% and this picture contrasts greatly with that of the narrow flakes and flakes present neither of which have any items present with more than 75% cortex. This strongly suggests that during the Mesolithic raw material was brought to the site in a largely unprepared state, whilst in later periods far less of the preliminary preparation was carried out here. The raw materials present within the assemblage are dominated by chalk flint (5.21%) with smaller quantities of derived material (1.17%) also present (Table A1.27.7). There are no derived cores and only 0.19% derived waste. However the number of tools made of derived flint outweighs the total quantity of derived flint. Thus indicating that most of the derived flint component was brought to the site as ready made tools in contrast to the chalk flint that was brought in virtually unaltered and used to manufacture tools on site. The average core weight within this assemblage is slightly smaller than the other assemblages within ST77 at 22.56g (Table A1.27.9). However it is notable that the Later Neolithic/Early Bronze Age core types are all smaller in size than the Mesolithic forms, perhaps suggesting a certain amount of parsimony in their reuse of materials (see below).
The substantial array of tool types present during the Later Mesolithic together with the quantities of Mesolithic material present suggest that Tog Hill is a base camp of some significance (Table A1.27.2). The bringing of whole nodules of chalk flint to the site indicates the proximity of chalkland sources whilst the bringing of ready made tools from more distant river gravels probably indicates the range of movement of some individuals, bringing with them back to camp tools that they have manufactured elsewhere. Unlike the majority of assemblages of later date analysed in this study the tool component is not scraper dominated. Instead piercers (34.67%) form the most substantial part of the assemblage, followed by microliths and microburins (20.89%) and truncated pieces (11.11%) (Table A1.27.2). This indicates a substantially different range of activities possibly dominated by preparatory rather than processing activities.

Given the lack of much of the debitage from the original assemblage it is difficult to interpret the exact nature of the Later Neolithic/Early Bronze Age presence. However the limited range and number of later tool types present may suggest that during this phase the site served largely as a recycling centre for ad hoc mining of the large quantities of readily available flint from the earlier period. This view may be supported by the presence of a number of cores made on flakes.

ST77 Threads & Themes

The activity within this square (and hence Zone D) attested by the lithic assemblages contrasts in a number of ways to that within other areas discussed in the study. Raw material sources in all periods are dominated by chalk flint suggesting strong links in communication with the chalkland areas to the south. This remains constant regardless of period. The stone working practices indicate a generally less parsimonious use of raw materials than in other areas as a result of the use of this material. The only exception to this is in the reuse of earlier materials in the Later Neolithic/Early Bronze Age where average core sizes are sometimes smaller. This may suggest that the individuals carrying out the core working are not travelling the substantial distances to good quality raw material sources that had been the case in earlier periods.

The Tog Hill Later Mesolithic base camp is the only site of this nature apparent in the study area. This may suggest that much of the northern Cotswolds was an area reserved for more transitory activities. The range of tools present and the preparation of raw materials on site suggests a different pattern of residential practice to later periods. The Earlier Neolithic presence within Zone D is evidenced by a number of what appear to be relatively short lived episodes of activity with a rather limited range of tasks being carried out. In some instances this involved the use of axes and arrowheads and does not suggest anything more than the most transitory residential component. Elsewhere a number of processing tasks suggest possibly short periods of residence. In contrast the Ironmonger’s Piece assemblages provide evidence of a substantial Later Neolithic or Early Bronze
Age core working and processing location with a wide variety of tasks in evidence. In addition a number of other sites with only a limited core working component indicate a more limited presence with a slightly reduced range of activities being practiced. This suggests that during this period in this zone there are some sites of greater local importance than others.

**SP00**

Topographic Zone E was represented in the Phase 2 analysis by the inclusion of sampling square SP00. Here at the south-eastern edge of the study area many of the topographic characteristics are similar to those of the northern central area (Zone B). In SP00 the terrain slopes gently down towards the upper Thames valley in the east. The River Churn flows from north to south down the western edge of the square offering the only variation in terms of topographic relief as it wends its way towards the Thames. It is close by this river in the north-western corner of the square at Rendcombe that the Earlier Neolithic enclosure has been identified. Three Earlier Neolithic chambered tombs are known within the area. Pit groups of both Earlier Neolithic and Later Neolithic/Early Bronze Age date were also discovered as part of the A417/A419 road scheme investigations.

**Trinity Farm. Assemblage 15**

The Trinity Farm assemblage was examined as part of the Phase 1 analysis. It was recovered during the excavation of a group of pits dating to the latter half of the third millennium Cal BC (see above Phase 1). The pits had been dug in an area towards the top of the east facing slope of the valley of the River Churn (SP 014 059). The river itself lay approximately 500 metres to the east. The site was identified prior to the construction of the A419/A417 Swindon to Gloucester road (Mudd et al. 1999a, 6 & 25-27). A new examination of the lithic material from this site was undertaken for the Phase 2 analysis.

Analysis of the F/NF/B proportions of this assemblage demonstrated a substantial dominance of flakes (81.82%) and very few blades present at only 4.54%. Typological analysis of the tools shows a number of implements that are almost certainly of Later Neolithic or Early Bronze Age date such as the saw and the end and side scraper with a spurred projection. The overall morphology and the L:W analysis of the scrapers present however shows a diversity of size and thickness. That may indicate a small earlier presence (Appendix 3: Scrapers: 15). The cores present concur with this analysis (Table A1.28.8). From the evidence of this material it would suggest that during this period of the locale's use raw materials were extremely carefully curated as there is an average core weight of just 4.71 g and further use of the cores present would have been utterly impossible. The size of the blade scars on these cores can only have made them suitable for the production of bladelets for microliths. The presence of ridge trimming and trimming flakes is probably largely a product of the
Mesolithic activity and the partially crested blades are certainly evidence of blade core working. Little can be said about the choice of raw materials here as only a single flake of chert was securely identifiable. The presence of 8.06% of flint of unknown source does however suggest that the chert only formed a minor component.

It would then seem that the assemblage is of mixed Later Mesolithic and Later Neolithic/Early Bronze Age date. The majority of the products of the Later Mesolithic core working activity seem to have been removed from the rest of the assemblage. This may be because they were removed elsewhere and the activity recorded is a relatively short lived episode of retooling or because the material deposited in the pit is the result of accidental deposition along with later material during the Later Neolithic. The Later Neolithic activity at the site is evidenced by the presence of far fewer cores; one apparently early core fragment having been reworked subsequently as an ad hoc core and the single flake core made on a flake possibly also dating to this period. The presence of substantial amounts of waste flakes and an additional 350 tiny chips and spalls present (excluded from the main analysis so as not to bias the balance of the assemblage) certainly however indicates that core working was being carried out very close by when the pits were filled.

Very little dorsal cortex is present in the assemblage suggesting that most of the preparation of the raw materials was carried out elsewhere before being brought to the site (Table A1.28.5). The working of stone during the Later Neolithic use of this place shows no signs of the fastidious traditions of the earlier period. A total of 38.89% of the flake assemblage had irregular flake terminations of one sort or another (Table A1.28.6) whilst none of the blades shared these characteristics.

The core to waste ratio is extremely high (1:12) (Table A1.28.1) however this figure reflects a combination of the evidence for stone working that was separated by almost two thousand years, with a preponderance of Mesolithic cores and Later Neolithic flakes. The total percentage of tools (15.33%) is extremely high a phenomenon that has been noted elsewhere in Later Neolithic/Early Bronze Age assemblages analysed in this study (Table A1.28.2). Most of the tool component would sit most happily within the Later Neolithic assemblage. Within this total 72.22% of tools are scrapers. Whilst this figure may be inflated by a number of possibly Later Mesolithic examples we are still left with a heavily scraper dominated assemblage. A number of other tool types are present but these are limited in both their number and variety. This then appears to have been a location dominated by the pursuance of a very limited range of activities in both the Later Mesolithic and Later Neolithic. In the earlier period the production of bladelets for microliths seems to have been at a premium, with the end products being taken elsewhere. There may also have been a limited amount of processing activity involving the use of scrapers and the presence of a single burin. During the later period core working activity is also in evidence, the raw materials being brought to the site in a largely pre-prepared form. The tools manufactured being largely dedicated to processing activities.
St. Augustine's Farm, South. Assemblage 16

Like Trinity Farm this assemblage was discovered during fieldwork along the projected course of the A417/A419 (Mudd et al. 1999a, 23-25; Mudd et al. 1999b, 314). The site was situated at SP 058 006 on a gently sloping area of land between the River Churn and Ampney Brook. A small lithic assemblage was excavated as a residual element within features of a much later date. A new examination of the assemblage was undertaken for the purposes of the present study.

This small assemblage consists entirely of debitage with no tools and only one core fragment present. The presence of a plunging core rejuvenation flake, two core rejuvenation tablets and a ridge trimming flake all suggest an early date for the core working that must have occurred here. Chronometric and detailed technological analysis of such a small assemblage is however invalidated by the tiny sample population. The St. Augustine’s Farm, South assemblage does however testify to what is probably Earlier Mesolithic or Later Neolithic activity at the locale suggestive of a short episode of core working.

Norcote Farm. Assemblage 319

Assemblage 319 was recovered at SP 044 021 during the archaeological assessment in advance of the construction of the A417/A419 road (Mudd et al. 1999a, 23). The site was situated a little under 2 kilometres to the north-west of St. Augustine’s Farm, South. It lay approximately 500 metres from the source of Ampney Brook and a kilometre to the east of the River Churn. Nineteen of the flints were recovered during a test-pitting exercise. The remainder were found during excavation off medieval and post-medieval plough furrows and ploughsoil of probable Roman date. A brief discussion of the assemblage has previously been published (Mudd et al. 1999b, 314) but a new examination was undertaken for the Phase 2 analysis.

This assemblage shows indications of having a mixed origin. The cores present include both an A1 blade core, a single platform keeled core and a core on a flake. The former is considerably larger at 30 g than the other examples (8 g and 6 g respectively). The cessation of working on the blade core may however have been due to an episode of burning as it is heavily fire damaged. Despite this the combined average weight of the cores remains low at just 14.67 g. The tool assemblage probably indicates either a Later Mesolithic or Earlier Neolithic presence attested to by the presence of the serrated piece. Most of the other tool could be accommodated in an industry dating from any period between the Mesolithic and Bronze Age. The one notched piece present, showing signs of two phase patination, might be regarded as more typical of a Bronze Age date and is made on a reused core fragment.
The debitage consists entirely of flakes and blades with no narrow flakes present. However, the restricted quantities present do not enable either a traditional chronometric or F/NF/B analysis. The remaining debitage suggests both careful core working and a single scraper resharpening flake. Overall, the character of possibly two rather episodes of use of the site: one during the Earlier Neolithic or Later Mesolithic and a second during the Later Neolithic or Early Bronze Age. The overall core to waste ratio is very low at 1:9 but not inconsistent with many of the sites with a Later Neolithic/Early Bronze Age component identified in the northern and central Cotswolds (Table A1.29.1). The exceptionally high tool component is also notable though again not out of the range of other assemblages already considered. This seems to have been a task specific site with a very restricted range of tool types in evidence, dominated by scrapers. Raw materials brought to the site include both chert in the later period (evidenced in the keeled core) and derived flint. The apparent absence of chalk flint would seem to tally with the pattern of practices established throughout the study area where the working of cores continues to a later stage in areas where this raw material is not dominant.

Norcote, Preston. Assemblage 205

Assemblage 205 originates from the area extending from SP 045 027 (less than 500 metres to the east of the spot from which Assemblage 319 was recovered) at its south-western limit to SP 056 025 in a north-easterly direction. This area is immediately adjacent to the head of the Ampney Brook. The lithic assemblage was recovered as the result of fieldwalking during the early 1970s and forms part of the Coombs Collection donated to the Corinium Museum in 1976. Coombs records indicate that the area closest to the brook yielded much lower densities of material than other parts of the fieldwalked area. No analysis of this lithic material had been undertaken prior to the present study.

This second Norcote assemblage is much more substantial than Assemblage 319 (Table A1.30.1). F/NF/B analysis shows a 72.22% blade component, with a 10.42% blades present. The figures are very close to those obtained for Condicote in the Phase 1 analysis and suggest a mixed Later Neolithic/Early Bronze Age and Earlier Neolithic assemblage. The diachronic diversity of the assemblage is echoed in the broad range of thickness of the debitage, ranging as it does from 2.1mm to 18 mm (Table A1.31.11). The presence of the thicker material is unlikely to be due to the presence of preparation flakes as only 2.47% of the assemblage carries dorsal cortex exceeding 75% (Table A1.31.5). The analysis of scar direction also tells a mixed tale with 33.27% of the assemblage showing single direction working and 21.48% working from three directions or more ((Table A1.31.3). Likewise whilst 23.75% of platforms show evidence of trimming 25% are entirely unprepared and 20.1% are either faceted or trimmed and faceted (Table A1.31.4). On balance this combination of technological traits and the F/NF/B analysis suggests an assemblage dominated by the more insou-
rantic practices of the Later Neolithic and Early Bronze Age together with some more specialised working within the same period and a possibly smaller Earlier Neolithic component. Tool presence of three scraper resharpening flakes suggests that tool maintenance was carried out on site and the retouch flakes support the idea that not only was core working carried out but that implements were finished here.

The range and quantities of cores present also support the above interpretation with both Earlier Neolithic forms and Later Neolithic multiplatform and keeled cores present in substantial numbers (Table A1.31.8). The average core size at 14.82 g is very similar to Assemblage 319 and may again be related to the dominance of derived flint on the site (Tables A1.31.9 & A1.31.7). The core to waste ratio is once again remarkably low at 1:8 and may at least in part relate to the introduction of pre-prepared raw materials from what were originally relatively small nodules of derived flint (Table A1.31.1). The total tool component is lower than on many of the Later Neolithic/Early Bronze Age sites within the zone and may be related to the amount of Earlier Neolithic activity that took place at the site. Most of the tool types present would fit comfortably into either the earlier or later period of the sites use; though the flakes from polished stone implements and the leaf shaped arrowhead are more likely to belong to the earlier period. A wide range of activities took place at this locale including the use of heavy duty tools such as axes and a wide variety of processing and maintenance activities. Overall however the tool assemblage is scraper dominated (65.91%). Some of the material shows signs of dual phase patination and one of the flakes from a polished flint implement has been reused as a core. This location was clearly important in both the Earlier Neolithic and Later Neolithic/Early Bronze Age. However it is difficult to separate the tasks performed in the two periods and the exact balance of the character of the activity that took place is therefore obscured.

Yellow School Copse, Preston. Assemblage 320

The Yellow School Copse Assemblage, like Assemblage 205 forms part of the Coombs Collection. This material was recovered during fieldwalking of several hundred square metres of the area approximately 1 km to the north of the location of the Norcote Farm assemblage (319). Archive notes accompanying the assemblage suggest that the densest area of the scatter identified was concentrated in an area that appeared to extend from SP 046 033 to SP 050 035. A further much less dense concentration was located to the north of this area at SP 052 046. In the area between the two concentrations only a limited number of pieces were in evidence. No analysis of this assemblage had been undertaken prior to the examination completed for the Phase 2 analysis.
This assemblage again appears to be dominated by Later Neolithic and Early Bronze Age material with a smaller possibly Later Mesolithic component. The traditional chronometric analysis of the intact waste assemblage shows a clear dominance of flakes (70.36%) (Table A1.32.10). This dominance is also present but much less marked in the F/NF/B analysis which shows a substantial proportion of narrow flakes and blades to be present at 46.67%. At 53.33% the flake component in this analysis is higher than in either the Peak Camp or Duntisbourne Grove Assemblages but lower than that at Trinity Farm or Condicote. This suggests a mixed assemblage with a more substantial early core working component than that present at the latter location.

The presence of a core rejuvenation tablet and a number of trimming and ridge trimming flakes supports the existence of an early component within the assemblage. As do the A1 blade and blade and flake cores. The multiplatform flake cores however relate to the later use of the site. The dominance of Later Neolithic/Early Bronze Age core working is suggested not merely by the chronometric analyses but by the high levels of flakes with no platform preparation (37.5%). In contrast to this the careful working practices of the earlier period are shown in the 62.5% of the blade assemblage that have trimmed platforms (Table A1.32.4). Likewise a high percentage of the flake assemblage have hinged or step fractured terminations (Table A1.32.6).

Raw materials on the site are dominated by derived flint (5.26%) with a smaller quantity of chalk flint also present (2.26%) (Table A1.32.7). The average core weight is much higher than other assemblages within Zone E at 35 g, although this is somewhat inflated by the presence of a single flaked lump weighing 96g. It is nevertheless true that core weights are still higher than within other assemblages and this may reflect a different set of concerns, working practices or social connections to other sites within the area. In other ways however the assemblage demonstrates the same patterning as many others with a dominant Later Neolithic/Early Bronze Age component. The percentage of total tools within the assemblage is high at 13.54% and suggests that the majority (possibly all) of the implements produced remained on the site. The core to waste ratio (1:8) is like the other assemblages discussed in this zone exceptionally high. The earlier presence on the site is attested within the tool assemblage by a microlith and the extremely worn extended end scraper made on a blade (Appendix 3: Scrapers:320). Much of the rest of the tool component appears to have closer affinities to the Later Neolithic. The tool assemblage is heavily scraper dominated (73.33%) with only a restricted range of other implements present. Once more during the later period we appear to be looking at a site orientated toward processing with a limited number of other activities taking place, many of which are directed towards the maintenance of scrapers and the production of tools. During the Later Mesolithic a much more transitory residential episode of use is denoted by the scraper a single microlith and a small quantity of core working.

Hare Bushes, North. Assemblage 317
The Hare Bushes, North assemblage was recovered at SP 034 033 during fieldwork prior to the building of the A417/A419 (Mudd et al 1999a, 18). The site lies a kilometre to the west of the main concentration of the Yellow School Copse scatter and a similar distance to the east of the River Churn. It is situated on an area of land sloping gently to the south-west. The assemblage was recovered from a series of features of uncertain date. A single tree-throw hollow contained 50% of this assemblage. Two pits and a probable post-hole of unknown date were also excavated but neither contained lithic material. A short description of the assemblage has been published in the site report (Mudd et al. 1999b, 313-314) but a separate analysis was undertaken for the present study.

The total tool component of this small assemblage is dominated by trimmed and serrated pieces suggesting an Earlier Neolithic presence at this location in this period. Somewhat more unusually a pebble hammer is also present but the date range for these implements is broad. Only one complete core is present and the core to waste ratio is very high at five to one. The dominance of tools within the assemblage (33.34%) may be as much a product of the taphonomic history of this location in later periods as an indication of the balance of activities present (Tables A1.33.1 & A1.33.2). All that can really be said is that there was a probable Earlier Neolithic presence of uncertain character involving both preparatory, maintenance or processing activities.

Hare Bushes Area, Baunton. Assemblage 322

Assemblage 322 forms part of the Coombs Collection held in the Corinium Museum. It was recovered as the result of fieldwalking in the area around SP 031 033-SP 032 033, just 200 metres to the west of the site excavated at Hare Bushes, North some twenty four years later. The lithic material recovered from the excavations may therefore be complimentary to this assemblage. No analysis of this lithic material had been undertaken prior to the present study.

This is another small assemblage with an extremely high core to waste ratio (1:7) and a high tool component (18.18%) (Table A1.34.1). The tools present are chronologically undiagnostic and it is difficult to apply any form of chronometric analysis to the assemblage as the waste component is so small. No whole cores are present and so these add little to our knowledge of the history of this locations use. There is nothing to suggest intensive use of the location for core working or processing. The most that can be said is that nothing within the assemblage disagrees with the interpretation offered for Assemblage 317 and they may belong to the same scatter.

Field Barn, South of Baunton. Assemblage 323

The Field Barn assemblage, like Assemblages 205, 320 and 322 forms part of the Coombs collection. Assemblage 323 was retrieved by fieldwalking in April 1972. It was recovered from an area
surrounding Whiteway Field Barn (SP 034 055-SP 040 064). This area lies little more than a kilometre to the east of the River Churn and is situated on a south facing slope immediately to the south of Baunton Downs. Within the scatter particularly dense concentrations of material were noted at SP 034 053, SP 034 057, SP 038 059 and SP 039 056. The analysis carried out for this study is the first to have been undertaken on this assemblage.

This location seems to have a more protracted/intensive episode of use than attested by many of the other assemblages analysed within Zone E. Traditional chronometric analysis of the intact waste assemblage shows a flake component of 76.25% and a blade component of just 10% seemingly indicating the dominance of Later Neolithic or Bronze Age activity (Table A1.35.10). This picture is confirmed by the F/NF/B analysis which shows 59.07% flakes and 8.77% blades a spectrum not dissimilar to that from the Phase 1 analysis of Condicote; thus suggesting an Earlier Neolithic presence here as well. There is also at least a transient Mesolithic presence shown in the form of a tranchet sharpening flake.

Neither of the A1 or A2 cores show exclusively blade scarring so it is possible that they may belong to either the Mesolithic or the Earlier Neolithic component of the assemblage (Table A1.35.8). The B3 cores however appear to be Earlier Neolithic. The majority of the core assemblage is however dominated by multiplatform and keeled forms indicative of Later Neolithic and Early Bronze Age traditions of stone working. The average weight of the cores in this assemblage is just 14.5g (Table A1.35.9). Derived flint is once again in the majority in the identifiable raw materials at 0.81% but there is also a quantity of chalk flint present (0.61%) (Table A1.35.7). The presence of 12 core rejuvenation together with a number of ridge trimming and trimming flakes are indicative of early core working traditions at the location. The substantial proportion of single directional scarring contrasts (30.37%) with the small percentage of debitage with no signs of platform preparation (13.75%) (Tables A1.35.3 & A1.35.4). This indicates the variety in the different traditions of stone working at the locale and supports the idea of a broad chronological range.

The core to waste ratio at 1:7 is just as exceptionally low as many of the other assemblages in this zone. This is the case with excavated as well as scatter assemblages and holds true regardless of the identity of the individuals recovering the assemblage; this suggests that this situation reflects the original composition of the assemblages and not a bias in collection methodology. The total tool component in Assemblage 323 is similarly high (13.85%). Again it is suggested that much core preparation is carried out elsewhere and that this locale is being used to produce only the tools used here; in addition it is likely that many of the tools may have been brought here ready made. Few if any are removed. The scraper component is extremely dominant in the assemblage at 77.78%. This activity seems to have been the main focus of activity. A number of examples within the assemblage are of distinctively Later Neolithic and Early Bronze Age form but some may also relate to earlier activity at the locale (Appendix 3: Scrapers: 323). A substantial element of the tool assemblage
probably relates to the later use of the site including the bifacially worked core tool, the blunted backed knife and the awls. The morphology of a number of the miscellaneous pieces also suggests that they may be of this date and there are several instances of two phase patination suggesting an ad hoc recycling of lithic resources ready to hand. Despite the overall dominance of scrapers the spectrum of tool types present is wide (Table A1.35.2) suggesting that a large variety of everyday activities took place here.

**North Cerney Down, Baunton. Assemblage 140**

This assemblage was recovered as the result of casual fieldwalking of the area around SP 037 068 by Robin Holgate in 1984. The area is immediately adjacent to that collected by S. F. Coombs in the Field Barn assemblage (323) and may be a continuation of the same scatter. A new examination of this material was undertaken for this study.

The North Cerney Down assemblage is small but shares many of the characteristics of other assemblages recognised in Zone E. The assemblage is so small as to invalidate any conclusions from the traditional chronometric analysis however the F/NF/B analysis, though it can in no way be regarded as conclusive shows a dominance of flakes (60%) and a 30% blade element. But in addition one B1 core and a core rejuvenation flake hint that at least some of the activity attested here took place in the Earlier Neolithic. Taken in combination with Assemblage 323 a picture of both Earlier Neolithic and Later Neolithic/Early Bronze Age activity emerges in this area. The awl and fabricator that form the formal tool component in this assemblage could date to either period of the sites use. The core to waste ratio of 1:8 and the total tool percentage of 12% are remarkably close to A323 and seem to confirm that this assemblage should be regarded as part of that previously discussed.

**Whiteway near Shooters Hill, Baunton. Assemblage 204**

The Whiteway assemblage was collected by S.F. Coombs in a series of four traverses of the area around SP 029 040. The area lies some two kilometres to the south-east of the southern limit of the original location of Coombs’ Field Barn assemblage (323). The site from which the former was recovered is situated on an area of relatively flat land which drops away much more steeply on its western side to form part of the Chum valley. The River Churn itself lies approximately 500 metres away from the site. The Phase 2 analysis carried out for this study is the first to have been undertaken on this assemblage.

This assemblage shows signs of a small Earlier Neolithic component subsumed within a more substantial Later Neolithic/Early Bronze Age presence. The majority of the cores present relate to the latter period of activity at the site however two A1 and one B3 blade and flake cores are of
probable Earlier Neolithic type (Table A1.37.8). Amidst the debitage the core rejuvenation tablets support the presence of careful traditions of core maintenance that would not have been out of place in the Earlier Neolithic. The average size of cores is tiny at 8.82 g (Table A1.37.9) and this seems again to be at least partly related to the exclusive use of derived flint sources (Table A1.37.7). Only 28.23% of the assemblage shows any signs of dorsal cortex and none has greater than 75% cortex present (Table A1.37.5). All of the initial preparation of raw materials was carried out elsewhere with the already small cores being brought to the location for the production of tools, which comprise 8.79% of the entire assemblage (Table A1.37.1). Those tools were then used on site and few were removed. This is reflected in the core to waste ratio of 1:8.

Chronometric analysis of the intact waste assemblage show an extraordinarily high flake component at 93.11% (Table A1.37.10) and this is reflected in the F/NF/B analysis with a flake component of 85.42%, 11.46% narrow flakes and only three blades. This suggests that the Later Neolithic and Early Bronze Age presence far outweighs that from the earlier period of the sites use. However the presence of a single biface trimming flake together with a number of trimming flakes may suggest that the numbers of flakes on the site may be boosted by the maintenance of bifaces at the site.

Typological analysis of the tools forms present shows a number of forms such as the barbed and tanged arrowhead, and the one certain and three possible blunted blacked knives (or fragments thereof) that support the idea that the Later Neolithic/Early Bronze Age was the main period of activity at this location. In addition parallels for the truncated piece can be found within assemblages with Beaker associations (Bamford 1982, Fig. 316). The tool assemblage is scraper dominated 61.54% with a range of other everyday activities occurring including cutting and piercing. The Earlier Neolithic presence is much more difficult to characterise although the edge trimmed flake may belong to this period. There also seems to have been a small amount of core working during the earlier period but the episode appears to have been relatively transient.

Whiteway near Eldon Wood & Sisters Copse, Baunton. Assemblage 203

This assemblage was recovered from an area of land situated between the site on which assemblages 204 and 323 were recovered. Like them it was discovered as the result of fieldwalking by S. F. Coombs. The area in which assemblage 203 was found (SP 029 048 - SP 034055) is a gently south-sloping area of land. As is the case with the site of Assemblage 204 the land to the west drops more steeply to form part of the valley of the River Churn located about a kilometre away. The analysis below is the first to be undertaken on this assemblage.
Traditional chronometric analysis of this assemblage shows figures close to those obtained in the Phase 1 analysis of Condicote (Table A1.38.10). The F/NF/B analysis produces figures of 44.23% flakes, 28.85% narrow flakes and 26.9% blades. This second set of figures shows a blade component that suggests that we may be looking at a combination of Later Mesolithic and Later Neolithic/Early Bronze Age stone working. It is certainly true that the A1 type cores present with an average core weight of just 3g could have been of little use other than in the production of bladelets for microliths (Table A1.38.9). Analysis of the spectrum of debitage thickness suggests a broad chronological range with material ranging from 2.1 to 17.0 mm (Table A1.38.11). The presence of a partially crested blade and two core rejuvenation tablets also shows that blade core working of a sort associated with Later Mesolithic activity was in evidence at the site.

The average core weight for the assemblage as a whole is 17.5g and the raw material most frequently in evidence in securely identifiable form is chalk flint (2.44%) followed by derived flint (1.22%) (Table A1.38.7). However the generally thin and worn character of much of the cortex gives the impression that the true percentage of derived flint used here was greater than these figures indicate. Only two items have more than 75% dorsal cortex apparent whilst 80.62% of the assemblage has no cortex at all (Table A1.38.5). As with the other assemblages in Zone E this indicates that nearly all of the initial raw material preparation was carried out before the raw material was brought to the site.

The core to waste ratio of 1:9 is also similar to that of other assemblages within the zone with a major Later Neolithic/Early Bronze Age component. Scrapers have complete dominance within the tool assemblage at 83.33% with only three other items present, an awl, a possible fragment of a broken awl and a single barbed and tanged arrowhead (Table A1.38.2). This indicates that this location was probably task specific during its later period of use and related chiefly to some form of processing activities. The Mesolithic element too may be indicative of a single purpose episode of residence in the form of the production of bladelets suitable for microlith production. The latter presence would appear to have been somewhat more transitory than the later activity at the locale.

Southmore Grove, Rendcombe. Assemblage 53

The Southmore Grove assemblage was recovered as a result of fieldwalking an area identified by aerial reconnaissance as the site of an Earlier Neolithic enclosure (SP 003 099) (Trow 1985, 17-22). The enclosure sits on the eastern slope of a south-facing spur of the limestone massif overlooking a steep-sided valley leading down to the River Churn. The initial casual examination of two fields was carried out. The first field (Field 21) contained the northern part of the enclosure and the area immediately to the north-east. The second field (Field 15) lay immediately to the north-east of the first. Over three hundred flints were recovered from this first exercise. This was followed by a
more structured examination of a section of land running through the southern third of Field 15, which included a substantial proportion of the enclosure. This was fieldwalked on a 50 metre square grid and flint densities recorded accordingly. The results of a typological examination of the entire assemblage have already been published (Saville 1985, 19-22). However no chronometric or detailed technological analysis of the material was available. A new examination was therefore undertaken for the Phase 2 study.

Traditional chronometric analysis of this assemblage (Table A1.39.10) produces a patterning that lies between that in the Phase 1 analysis of the Hazleton North midden and the Trinity Farm/Condicote assemblages. This suggests a mixed date for the material present. F/NF/B analysis shows a high percentage of blades at 29.64 % and a similar percentage of flakes (47.61%) to that found at Duntisbourne Grove. This indicates an assemblage of largely Later Mesolithic and Earlier Neolithic date. The evidence from cores shows a mix of Later Mesolithic and Earlier Neolithic forms with some Later Neolithic/Earlier Bronze Age forms also present.

The average core weight here is 20.33g, higher than every other assemblage in Zone E except Yellow School Copse (A320). This seems to be related to the dominance of chalk flint (1.34%) in the lithic material brought to the site. Derived flint was however also present in smaller quantities (0.67%). A number of the Mesolithic cores were of derived flint and this may account for their smaller average size and weight. It may also indicate a difference in choice of raw materials exercised by the Mesolithic and Earlier Neolithic occupants of the locale. The practice of careful traditions of core working is evident in the assemblage in the form of core rejuvenation tablets and also partially crested blades. Other debitage includes two biface thinning flakes, a scraper resharpening flake and a single retouch flake indicating a range of maintenance and tool finishing tasks here in addition to core working.

The core to waste ratio here is close to that in the other assemblages within Zone E at 1:9 and contrasts greatly with the patterns of core working activity seen at other enclosures within the study area, most starkly with those in Zone A. The tool component is however much lower than in other Zone E assemblages (6.4%) (Table A1.39.2). This may be because this is the only truly substantial Earlier Neolithic assemblage within the zone. However it is still not as low as the tool component in the Zone A enclosures this is in part at least because the larger Later Mesolithic component within the assemblage has inflated the percentage of tools present (over 20% of the tool assemblage present at Rendcombe is comprised of microliths and microburins). This being the case it can be suggested that as in the Zone A enclosures that whilst some everyday tasks are carried out in the setting of the enclosure during the Earlier Neolithic many are undertaken elsewhere in the landscape. The low core to waste ratio at this site suggests a remarkable maintenance of traditions in the patterning of raw material procurement away from the sites within the area from the Later Mesolithic through to at least the Early Bronze Age. The relatively low percentage of tools present at the enclosure site
however suggests that despite this a different set of residential practices are in operation in the Earlier Neolithic/Later Mesolithic and in the Later Neolithic/Early Bronze Age. That said the dominance of scrapers within this largely early assemblage remains as they form 62.5% of the assemblage (Table A1.39.2). The substantial minority of 22.5% microliths and microburins at the site certainly suggests that the Mesolithic presence at the locale was significant. Aside from these two categories of tools the range of activities present is however fairly limited. With the exception of the barbed and tanged arrowhead there is little evidence of a Later Neolithic or Early Bronze Age element in the tools and activity in this later period seems to be restricted to core working, with no signs of processing present in contrast to the other assemblages of this date in Zone E.

**SP00 Threads & Themes**

The assemblages within this sampling square present a mixed picture of human occupation from the Later Mesolithic through to the Early Bronze Age. During the earliest of these periods most of the assemblages appear to be indicative of little more than a transient presence. Perhaps representing episodes of tool maintenance and use during hunting trips. However the one slightly more substantial Mesolithic presence seems to have occurred at a place later (during the Earlier Neolithic) chosen to build an enclosure. This suggests that there may have been some importance attached to this spot that endured in the understandings of local communities for a considerable period of time.

During the Earlier Neolithic the activities undertaken at the enclosure seem to have related largely to a limited production of tools using ready-prepared raw materials and processing activities. There are both themes and contrasts with other enclosure sites further west. Processing and maintenance activities were carried out here but like the areas to the west much material seems also to have been removed. However the scale on which stone working was carried out here seems to have been much more restricted and may indicate that the enclosures are being used in subtly different ways. The remaining Earlier Neolithic presence in the area seems to suggest an episodic use of locations within the area in contrast to the Later Neolithic/Early Bronze Age presence which seems either more enduring or on a more intensive scale. The Later Neolithic/Early Bronze Age presence at the enclosure site is in contrast limited with signs of only limited core working with little to suggest that the site was more than a convenient location to garner and recycle materials.

Many locations during both periods seem to have operated as processing sites. In the latter period particularly there seems to be a distinction between sites with an almost single purpose character and others where a much wider range of activities took place. This evidences different choices being made regarding the organisation of daily tasks within the broader social and physical landscapes. A different range of connections are also hinted at with regard to raw material use in the Later Mesolithic and the Neolithic and Bronze Age. There are suggestions at Rendcombe that during the Mesolithic
communities were making greater use of derived flint with a thin water worn cortex; possibly originating in the Thames Valley to the east. In contrast in the later periods chalk flint is introduced alongside derived material echoing a different set of choices. The residential and communication practice in this area during the Later Mesolithic looked to the east whereas a broader set of connections is witnessed in the later periods. During the Neolithic and Bronze Age a mixed picture of connections is attested by the greater balance in raw materials used. One of the few places where flint is preferred is the enclosure site and this could well be connected to its use as a location where wide ranging social connections were worked through. Groups coming together from more distant areas than was the case at other Earlier Neolithic Sites.

**Choices: Contrasts & Continuities**

The daily choices evidenced in the production and use of lithic artefacts within the Cotswolds discussed above can be interpreted to provide hints of the broader traditions of action and understanding that structured peoples lives during prehistory. During the Later Mesolithic only the most southerly region of the Cotswolds shows evidence for a large residential centre. Here raw materials were largely brought from the chalkland area to the south, suggesting strong connections with this nearby area. Clearly however the introduction of tools of derived materials bespeaks broader connections and the arrival of those with a broader spectrum of experience. Most of the other area in the Cotswolds at this time evidence a transitory presence. The residue of choices taken in activities far from the areas where the group came together. In the south east of the region connections seem to be with the area to the east. This may indicate that the majority of the northern Cotswolds were an area reserved for hunting and a range of subsistence activities undertaken away from the main residential areas.

During the Earlier Neolithic a strong set of threads runs through the use of many enclosure sites throughout the study area. There is evidence to suggest that these had at least some minor significance during the Later Mesolithic. During the Earlier Neolithic they seem to have been places where people would come together and produce tools. Some staying at least for a while to use those tools and, in the light of residential structures at at least one site (Snashall 1998) possibly some remaining whilst others left to return to other places. These places may have been at some distance in many instances as enclosures also have a common connection with the preponderance of chalk flint but others came from elsewhere bringing with them their own materials. Evidence for other residential locales during the Earlier Neolithic indicates many sites dotted around the landscape usually with a range of tools present but with much smaller scale core working than at the enclosure sites. The evidence of assemblages such as Crippetts Field (A62) suggests that during this period people did not live within the immediate proximity chambered tombs. There are however many assemblages of this date in the general locales of these monuments. Materials were brought to these places partly
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prepared. Outside of the enclosures choices of raw materials often seems to be linked to physical proximity to the gravels or the chalk but the fact that these were choices and not givens is demonstrated by the presence of minor amounts of other raw materials in assemblages.

The Later Neolithic and the Early Bronze Age in the area seem to show a degree of continuity with the use of Earlier Neolithic locations. In many instances new places are also chosen. The one clear exception to this is causewayed enclosures. Already old by this time but still forming a notable physical presence in the landscape the understandings associated with these places seem to have prevented later generations from choosing them as residential locations. Later Neolithic and Bronze Age people’s presence here is marked only by the presence of a few arrowheads and episodes of core working. In contrast other areas used during earlier periods are used and reused. Often raw materials from earlier periods being recycled. During the Later Neolithic and Early Bronze Age there is evidence in the assemblages for a division between assemblages concentrated around a single activity and those with a dominance of one activity but with a much greater variety of subsidiary daily tasks being carried out. The latter may indicate more important residential sites with the former being locations away from the main living space dedicated to particular activities.

The contrasts and continuities identified in this study can only be a beginning in our understanding of residential choices in prehistory. More detailed study still may prove to be possible within individual assemblages and we have the potential to increase our understandings of particular understandings by the examination of the scatters within a more fine grained reading of their monumental and topographic landscapes than has been attempted here. The past meanings of places can never be fully understood. They resided within those that experienced them on a daily basis. But accepting the challenge presented to us by lithic scatters can provide tantalising glimpses of other worlds that have sometimes been regarded as unknowable.
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