Chapter 5 - Beyond Cadbury

5.1 Introduction

Having identified the range of practices involved in animal husbandry (Chapter 2) and the features and residues that they are likely to leave (Chapter 3), we have applied this integrated approach to Cadbury Castle and its environs (Chapter 4). We now consider the broader picture of animal husbandry and utilisation in the south west of Britain and beyond, and the ways in which the approach utilised here could be applied on a wider basis.

Cadbury Castle, along with the sites and locales in its environs, is only one place, and its landscape was complex. The hillfort came into being within a landscape that had been modified since at least the Early Neolithic. However, whilst one place can never be regarded as representative, the general sequence of events does not appear to be unusual and is replicated elsewhere in the south west. For example, recent geophysical survey around Cadbury Castle, Devon has revealed land division attached to the outworks (E.Wilkes pers.comm.), whilst earthworks have been noted at Sleight, Westbury (Lane u.d.). Several similar circumstances arise in the hillforts surrounding eastern Dartmoor (Silvester and Quinnell 1993). It is becoming apparent that this state of affairs frequently occurs across Wessex (e.g. Gosden and Lock 2007; Ellis and Powell 2008; Mercer and Healy 2009). Recent geophysical survey and excavation at Hod Hill, Dorset (D. Stewart pers.comm.) indicate the complex prehistoric and later landscape to the south of the hillfort. A wide range of environmental, faunal and structural information is available across the south west and southern Britain offering the possibilities of more detailed understanding of landscapes and their utilisation on a broad scale. A number of sites around Dorchester (e.g. Cottrell 1997; Davies *et al* 2002:36-8; Graham u.d.; Hudson 2000; Smith *et al* 1992; Smith 1997; Smith *et al* 1997; Wessex Archaeology 2001; n.d;) and to the east (Ladle and Woodward 2003) indicate the chronological depth and potential quality of these data.

5.2 Fields: Nature, use and meaning

'*sometimes centuries of work leave insubstantial remains*' (Pryor 2006:71).

As Wickstead observes (2008a:36-7), recent interpretations of British fields result, at least in part, from a (specifically) English perception of landscape. Emphasis on 'belonging' and 'staying put' have shaped our understanding of ancient fields as indicators of 'settling down'. Study of the South Cadbury landscape, and review of land division in the south west (sites listed in Appendix 4) has demonstrated that the appearance, disappearance, re-organisation, utilization and inhabiting of fields is complex, related to the changing aims and concerns of those who created and lived them. Whether this inhabiting was done by successive generations of a 'settled' community is open to question. The fields themselves are not an indication of 'settlement'; rather they are one component in a utilised and lived landscape.

5.2.1 The presence and scale of arable agriculture

Although it is evident that arable crops were present in the south west of Britain throughout later prehistory, there is little evidence for them having comprised a large part of the overall subsistence regime, and even less direct evidence of field use. This is probably largely due to a lack of consideration of the properties of soils on excavated sites until recent years. Evidence for manuring is scant, although plaggen soils have been indicated at Gwithian (Sturgess 2007:32). A large quarry containing flints and a single Early-Middle Iron Age sherd at Poundbury Farm, Dorchester was interpreted as having been used to produce chalk for marling nearby fields (Wessex Archaeology 2001).

However, the evidence from pollen, be it from upland, coast or lowland, indicates broadly open grassland environment throughout later prehistory (e.g. Bayley 1975; Brown 1977; Burton & Charman 1995; Butler 1987; Caseldine 1980; 1997; Caseldine *et al* 2000; Christie 1960; Crabtree 1994; Dimbleby 1958; 1963; 1965; 1977; 1978; Evans 1984; Francis 1986; Francis and Slater 1990; 1992; Fyfe *et al* 2003; 2004; Geary and Charman 1996; Geary *et al* 2000; Gibson 1992; A. Jones 2006; Jones and Tinsley 2001; Maltby and Caseldine 1984; Mercer and Dimbleby 1978; Miles 1975a; Nayling and Caseldine 1997; Ratcliffe & Straker 1996; 1997; Scaife 1996; 2000; Straker *et al* 2008; Sturgess 2007; Tinsley 2006). The

presence of animals and identification of species is of course available to us in many pleaces directly from their bones, but occasionally directly tied to the land by hoofprints (e.g. Evans 1984:25; Hillam 2000:258-9; Megaw *et al* 1961) and invertebrates (e.g. Robinson 2005; Smith and Tetlow 2006; Schelvis 2000:274). Although lynchets occur in a range of locations, including Craddock Moor, St Cleer and Wotter Common, Dartmoor (Herring 2008:82-3; Quinnell 1994a:78), Chysauster (Rose *et al* 1996:172) and Halangy Down (Ashbee 1996:19), these may not always relate to cultivation. Consequently we should reconsider sites where lynchets alone have been taken as indicative of ploughing. At Bronze Age Shearplace Hill, Sydling St Nicholas, on the central Dorset chalk, lynchets were interpreted as indicating arable agriculture (Rahtz 1962), but lynchets are more compelling when combined with other data classes. Lynchets, spade and ard marks at Gwithian (Megaw *et al* 1961; Figure 55) combine to illustrate the use of the land for cultivation. The combination of plough marks and hoof prints at Bar Point, St Mary's, Isles of Scilly (Evans 1984:25; Figure 56) demonstrates the multipurpose nature of fields.

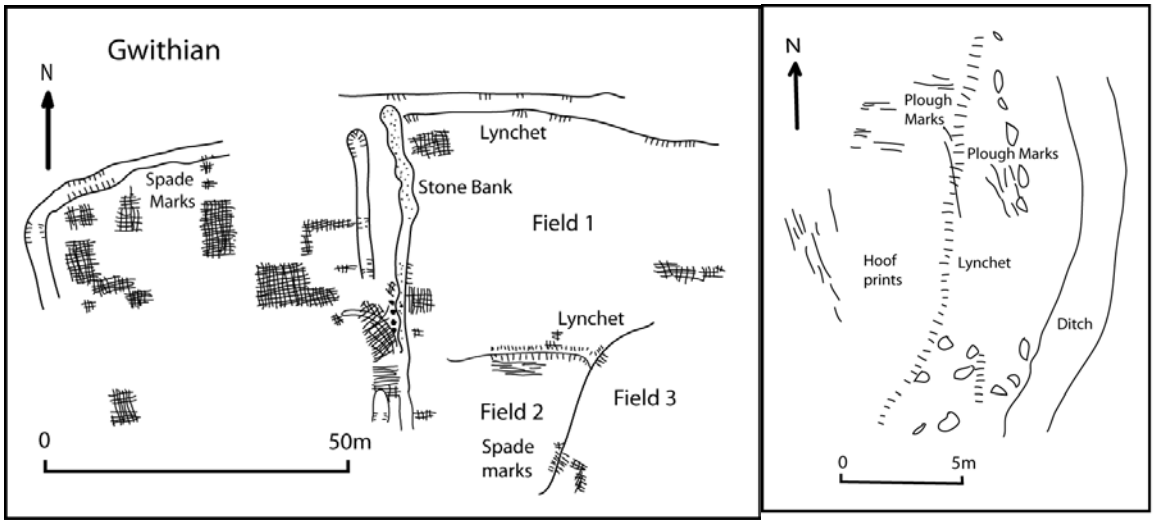

Figure 54: Gwithian, Bronze Age fields showing areas with spade marks and ard marks (After Megaw *et al* 1961:201). Figure 55: Bar Point, St Mary's Iron Age plough marks and hoofprints (After Evans 1984:9).

Both plough marks and cattle footprints occurred within the Iron Age/Romano-British field system at Stackpole Warren, Dyfed. The evidence which suggested land divided between adjoining arable and pastoral parcels (Benson *et al* 1990:205), equally implies activities rotated between fields. Dual field use was probably a widespread practice, but recognition depends on excavation of areas within fields, not just the boundaries. The form of most fields seems to indicate general suitability for livestock, and it is proposed

that throughout later prehistory, even when smaller parcels were utilised for arable cropping, field design had animals in mind.

5.2.2 The function of fields: land ownership and social implications

As discussed in Chapter 2, fields have been discussed in the past largely in relation to ownership of land and territory. Tenure of land is socially complex, involving the nature of the resource and the method of acquiring it. It involves consciousness of past and future, involving past and future members of a given community. Neither is it purely 'private' or 'communal', but more complex. The rhythm of seasons, crop growth and life-cycles of fields provide a structure around which tenure needs to be organised (Johnston 2001:101). This is a situation that modern British farmers are familiar with, with land having shared and joint private ownership and being subject to long term and short term lets or seasonal grazing ('grass keep'), with landowners and graziers holding a variety of differing rights (e.g. shooting) and responsibilities (e.g. rights of way). However, few of these arrangements have a direct relationship to the arrangements of individual land boundaries, which tend to be accepted as a given; boundaries only tend to be altered where an additional consideration comes into play. It is therefore sensible to regard the relationship of the form of the enclosed landscape and concepts of ownership as reflexive '*Instead of seeing tenure as being a direct consequence of agricultural practices, it should be both a medium and outcome of land use*' (Johnston 2001:103). After all, many British rural people in the last century have considered themselves as belonging to the land rather than the other way around. In this regard, understanding how fields were used and experienced is crucial.

The meanings of boundaries themselves are multiple, but they hold an inherent practicality. Fields and stock handling features can be regarded as technological choice (*cf* Pfaffenburger 1988; 1992), but they do also respond to the natural land form and the pre-existing anthropogenic landscape. Places are made through the social effect of landscape elements and their relationships (Gosden and Lock 2007:281). Barrett (1999:255) has argued that construction of monuments is always dependent on the pre-existing situation and involves the re-interpretation of the way that the landscape is experienced. This is an inevitable effect in utilised landscapes, so understanding the functionality of fields and

relationship to daily experience assists in building understanding of continuing and re-worked meaning of 'place' within landscapes. Similar husbandry outcomes can be obtained with different types of farming system, so preference and aesthetics play a role in landscape design. Choices of land claims in unenclosed landscapes in the historical period in north America (Bain and Brush 2008) have been shown to take into account the physical properties of the land (e.g. flatness, south facing) but were not always entirely determined by these factors. Views and proximity to neighbours also played a part. Fields consequently represent the result of a particular choice of husbandry strategy that probably had complex social aetiology. To discuss their practicality accepts that they reflect choices and the daily experience of living and working within a particular landscape and social framework.

5.3 Recognising animal management

Landscape is not static (Gosden and Lock 2007: 279-81), but we have frequently failed to address sequences of construction, accretion and repair of field systems due to the sheer volume of available data. Within the Cadbury Castle landscape and across south western Britain, features can be identified that relate to the containment, exclusion, watering, housing and handling of animals. Each feature has its own history that relates to myriad small changes across entire systems, accreting over long sweeps of time, punctuated with more dramatic moments of creation or abandonment, and we are currently far from understanding this. We need, however, to start from the recognition of the individual components of landscapes, and utilise them in understanding the general development of the whole. Therefore, we must first establish that these elements are available for study, and the smattering of examples provided here demonstrates the available resource.

Organisation and bounding of the landscape is immensely variable, even where it provides the same functional result. The shape of fields has been seen to have a variety of practical results (Chapter 3 Section 2.2), which can be applied to our understanding of how landscapes worked. In general terms, you will need more people managing animals in an unenclosed landscape, but less in one with small paddocks. As can be seen in Figure 56 similar organisation of space applies to both rectilinear and curvilinear Bronze Age field systems on Dartmoor. Whilst curves may be useful in some animal handling

situations, similar effects can be obtained with rectilinear systems through a different deployment of temporary structures and personnel. This indicates that a preference for rectangles is likely to represent social choice. In relation to Middle Bronze Age landscapes in the Netherlands, hierarchy of space and regular rectilinear boundaries have been suggested, not to result from an intensification of agriculture including rearing cattle stalled in longhouses, but a concern with creating a regular and familiar landscape that references earlier funerary monuments (Arnoldssen and Fontijn 2006). This interpretation may well be correct; the concern with stalling animals and the nucleated character of settlement may not have been carried out with intensification in mind, and may not have increased productivity. It was just a different way of achieving husbandry aims.

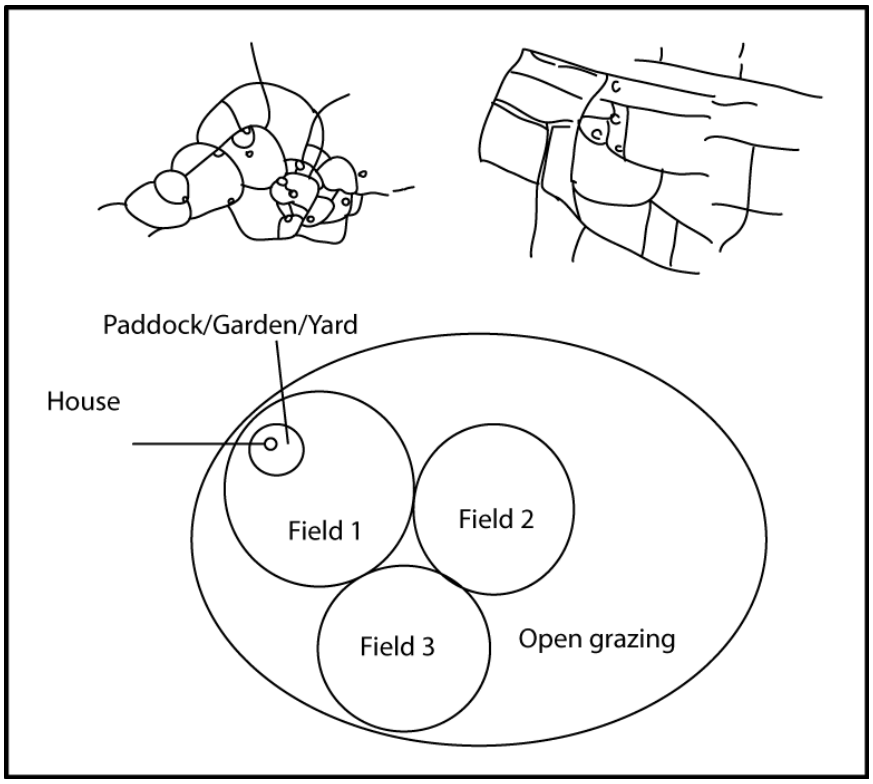

Figure 56: Parcel arrangement of nucleated hierarchical land use, illustrated by both rectilinear and curvilinear Bronze Age examples from Dartmoor.

Recognising and interpreting components and layouts

Pryor's identification of races, pens, and stockyards in East Anglia (1996; 2006) was seminal. Some of the stock handling features that we can now identify across the south west were first recognised in eastern England, and it would be surprising if they did not have a widespread distribution. In essence, we can identify pastoral landscapes by:

- The presence of land parcels (confinement and exclusion of animals);
- Stock-proof boundaries (confinement and exclusion of animals);
- Corner gates (ease of moving sheep and cattle);
- Races (inspecting and handling sheep and cattle);
- Drafting gates (sorting sheep and cattle);
- Pens (close confining livestock for inspection and handling);
- Funnel entrances (moving livestock from open ground);
- Tracks (moving livestock).

These are shown schematically in Figure 57.

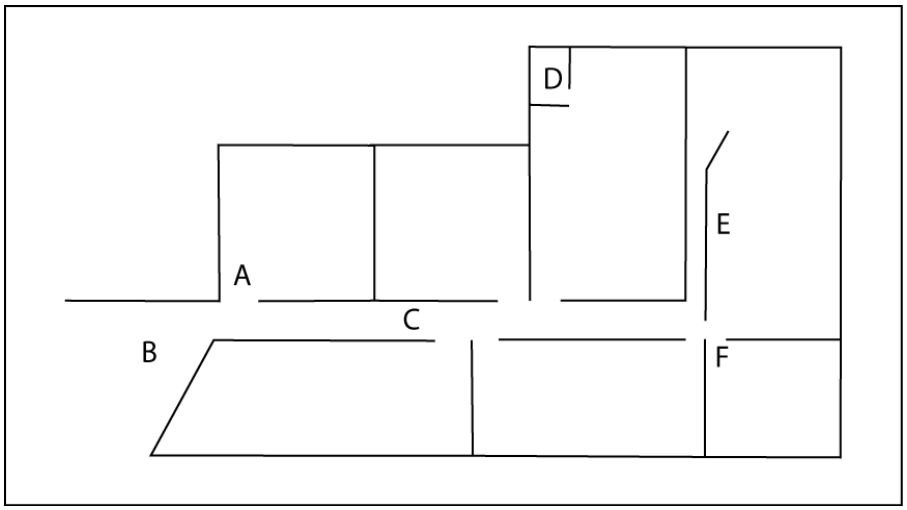

Figure 57: Field system components. A = Corner gate, B= funnel entrance, C= track, D = Pen E= race, F= Drafting gate arrangement.

The scale and approach of husbandry can then be considered in relation to:

- Parcel size (large = extensive or large scale, small = intensive or small scale);
- Parcel shape (curvilinear and rectilinear parcels facilitate handling in different ways);
- Parcel uniformity (a greater range of sizes may indicate a greater range of functions);
- Parcel arrangement (indicating integration or lack of it between pastoral and arable uses);
- Scale of the overall 'system' that can be attributed to individual 'holdings' (scale of the operation);
- Relationship to possible 'open' grazing (indicating increased grazing availability);
- Location, scale and organisation of settlement and evidence for arable (integration or lack of it);
- Evidence for housing and shelter of animals (folding, manuring, and possibly specific management options for goats and pigs or seasonal use e.g. lambing);
- Watering holes/access to water (affect on daily management requirements).

Examples of simplified hypothetical landscapes are shown in Figure 58. These are only intended as broad types, and variation and transitional layouts are to be expected. It is important in this regard to consider the individual type, range, number and complexity of arrangement in each individual case in order to propose the scale and type of land use. Neither should analysis lose sight of the impact in arrangements of the natural form of the land, location of water and pre-existing anthropogenic landmarks or places of memory. Establishment of the chronology and sequence of construction, use and abandonment is also essential.

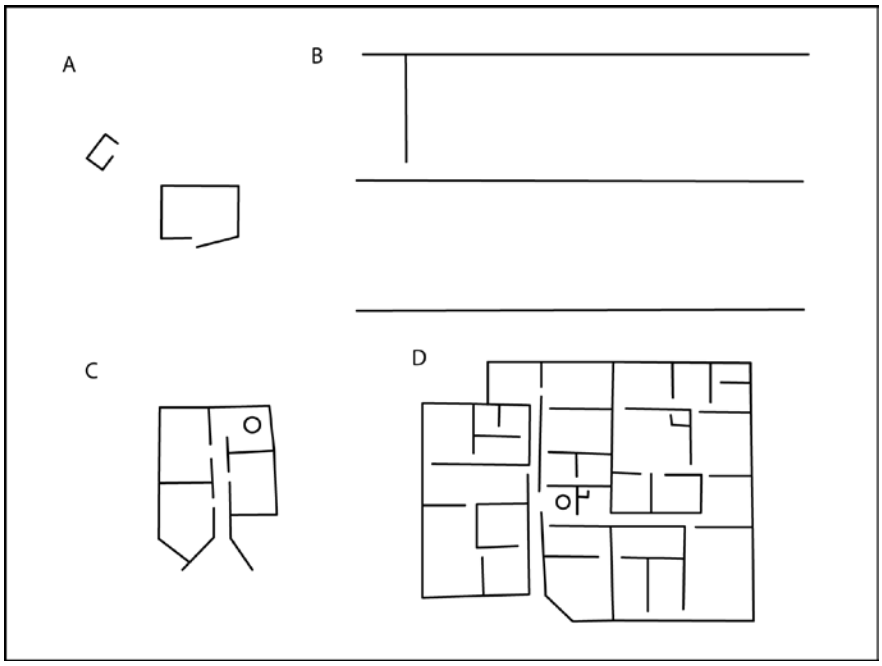

Figure 58: Hypothetical field system arrangements. A = Isolated small structures and enclosures in an unbounded landscape = extensive, B = Large, evenly sized land parcels with few stock handling features = extensive, C= Clustered block arrangements of small-medium similarly sized parcels with some stock handling features and buildings set in an unbounded landscape = pastoral, possibly with an arable component, small scale utilising extensive grazing, D= Large blocks of bounded land exhibiting a variety of parcel sizes, and range of stock handling features and buildings = Integrated pastoral and arable agriculture with extensive and intensive features.

Whilst some boundaries make use of the natural lie of the land (e.g. contour reaves on Dartmoor, fields at Hunter's Tor, Chysauster, and Halangy Down, (Ashbee 1996:19; Rose *et al* 1996; Silvester and Quinnell 1993:18-25)), utilise rock outcrops or cliffs (e.g. several sites on Dartmoor, Cheddar, Leskernick and Poldowrian (Bender *et al* 1997; Fowler 1978:33; Harris 1982:55;)), or use natural boundaries such as watercourses (e.g. Milsom's Corner, Woolston and Worthy (Chapter 4 Sections 2 and 3), Simon's Lake (Butler

1997:82-3)), the majority are apparently 'terrain oblivious'. Rather than being an indication of centralised 'planning', we should see these, as Wickstead proposes (2008b:85) as land management tools, a method of regulating grazing. They not only occur on Dartmoor, but on Scilly (e.g. Thomas 1978:13) and in the Cadbury landscape at Sigwells (Chapter 4 Section 2), and are recognisable elsewhere. The difference between the two approaches indicates two different methods of grazing management, with the latter more extensive in nature.

It has been possible to identify likely stock-proof boundaries from the height of existing banks and walls at several sites across the south west (Bender *et al* 1997:148; Fleming 1978a:102; NMR Record 196859). There is convincing evidence for the existence of hedges at Hillfarrance, Long Range, Castle Hill, Shaugh Moor, Metha, and Trevilson (Gale 1999a:60; Gale 1999c:157; Gale 2004:85,87; Jones and Taylor 2004:43; J. Jones 2006 Orme and Morgan 1982:227), and possibly others from the range of wood species identified. Evidence from the wood charcoal from the South Cadbury environs hints at the possibility of hedging in some periods (Chapter 4 Sections 3,6,7). These type of data are widely available from later prehistoric sites in southern Britain, but the suggestion of the presence of hedges is an infrequently offered interpretation. Reconsideration of wood charcoal assemblages in the light of this possibility would provide useful additional insight. Fences, defining or sub-dividing enclosures have been noted at Cannard's Grave (Birbeck 2002:111), Dibble's Farm, Christon (Fowler n.d.), Wotter Common (Smith *et al* 1981:269), Castle Hill (Fitzpatrick 1999:67), Trethellen Farm (Nowakowski 1991:82), and Goonhilly Downs (Smith 1984). This alerts us to the possibility of more ephemeral land division or sub-division that needs to be considered in the analysis of systems.

Field components

A general observation needs to be made that whilst many individual components of fields have a use in handling more than one type of livestock animal, the ones which we can commonly identify are most useful for handling sheep and cattle. Pigs and goats can be managed and moved in slightly different ways. Corner gates have been identified as diagnostic of systems designed with livestock in mind (Chapter 3 Section 2.2), and these are frequent features across the south west. They appear to occur practically everywhere

that rectilinear fields have been recognised, and are also frequent at junction points of land parcels in upland curvilinear agglomerated systems. Few have been excavated, but we should not assume they are all the result of shoddy workmanship or damage. Excavated corner breaks at Field Farm, Shepton Mallett (Leach 2008:22), Hillfarrance (Smith and Tetlow 2006), Castle Hill (Fitzpatrick *et al* 1999), and Gwithian (Nowakowski *et al* 2007) are all convincing, whilst at Yarford, one had posts probably representing the gate structure (Figure 59 Point A).

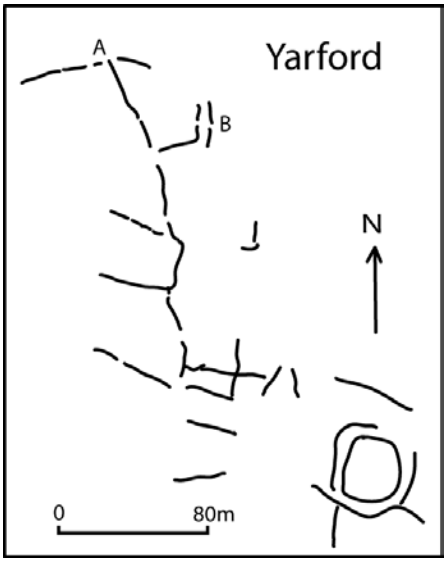

Figure 59: Yarford, Middle-Late Iron Age fields and Late Iron Age enclosure (after Wilkinson *et al* 2003). A = corner gate with associated postholes, B= possible double ditched track.

Features that could be interpreted as possible races for handling animals have been noted at Patteson's Cross (Fitzpatrick *et al* 1999), whilst the staggered arrangement at Castle Hill (Fitzpatrick 1999:67), may not constitute a race as such, but has features reminiscent of a drafting gate. An Iron Age example at Langland Lane (Figure 60; Fitzpatrick 1999) does however provide a convincing combination of funnel and drafting gates. These types of features are likely to be widespread, occurring at Flag Fen (Pryor 1997), South Hornchurch (Guttmann and Last 2000:332), and a possible example at Middle Farm, Dorchester (Butterworth and Gibson 2004).

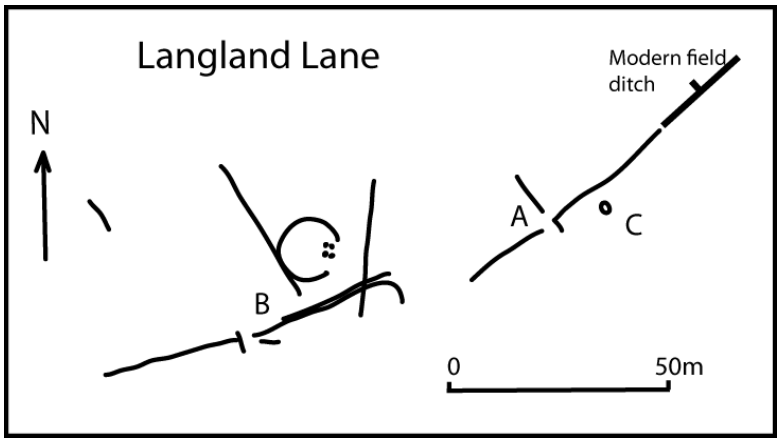

Figure 60: Langland Lane, Devon (After Fitzpatrick 1999). Point A= corner gates; B = possible race/sorting gates; C = large pit adjacent to field boundary (watering hole?). Note the proximity of the building to the stock handling equipment.

The arrangement of space

Tracks are very frequent components of landscapes, and are important for understanding the degree of livestock mobility around and within systems. Tracks are of most use in moving animals and more likely to be created by their passage. Where tracks occur within field systems, they are probably indicative of integration with arable production, which requires closer control of animals to avoid trampling crops, compacting soil and providing controlled manuring. In unenclosed landscapes tracks may be indicative of longer distance movement of stock. Where the sides of tracks are continuous with boundaries meeting the outer edge of the system, and especially where there is a funnel shaped arrangement, the deliberate organisation of 'interior' and 'exterior' can be postulated. For example, at Corringdon Ball (Butler 1997:83), a trackway opens into the corner of an area that has been enclosed on two sites by the surrounding field system. Many curvilinear and agglomerative systems in the south western uplands open onto unenclosed land. In some cases, such as Craddock Moor (cf Herring 2008:83) have internal trackways leading to the unenclosed area. It is clear in these cases that the enclosed space only describes the core of the utilised landscape, and seems indicative of a flexible, extensive, but integrated system. The relationship of enclosed to possible 'open' grazing informs on the scale and focus of systems. Wickstead (2008b:200) has identified a number of large but enclosed blocks of land that encompass settlement and smaller land parcels and what she terms 'common pasture'. Funnel entrances are typical post-medieval method of channelling stock from open land into an enclosed system.

Where this type of entrance is orientated toward steep or high ground, or low lying wet areas, the likelihood of seasonal use of wider areas for grazing should be considered. If land is likely to have been accessible all year round, an extensive managed open grazing system is likely, utilising folding of animal on enclosed fields. Some of the clearest examples however are provided by the Milsom's Corner and Sigwells systems (Chapter 4).

The degree of integration of pastoral and arable farming, the way in which animals and their needs were incorporated into and probably dictated the shape of everyday life and the seasonal task round, and movement within bounded landscapes can be understood by considering the relative location, scale and organisation of fields and settlement. The 'nested' appearance of some systems has been noted above. Where this occurs, the smaller 'fields' (paddocks and/or gardens?) tend to cluster and have proximity with stock handling features and houses (e.g. Birch Tor (Fleming 1978b:21)). In these cases mixed farming can be postulated. The location of houses, and the degree to which they cluster, can be variable. However, the possibility that animals were handled very close to the domestic setting has been noted in a number of cases. Fences within 'settlement' areas that may relate to stock handling have been noted at Gwithian (Megaw *et al* 1961 Nowakowski *et al* 2007), Trevisker (ApSimon and Greenfield 1972:320), and Chard Junction Quarry, Thorncombe (Valentin 1998).

It has been suggested that the unusually hostile soils full of refuse and plant macrofossils at Homeground (Chapter 4 Section 7) may represent reuse of a house as a byre. There are various instances in the south west where houses have internal features such as drains and eroded floors suggested to relate to housing animals (e.g. Trevisker, (ApSimon and Greenfield 1972:368) and Bodrifty, (Dudley 1956)), and we should be more open minded when considering structures. In the Gwent Levels (Hamilakis 2000:279; Bell 2000a:341) animals were housed, but it is not clear whether this was the primary or a secondary function of the building. Very small stone or less structurally coherent structures on Dartmoor can be likened to those identified ethnographically and archaeologically as lambing pens/shelters (*cf* Tani 2002:115). The larger peripheral spaces in Early Iron Age houses have been suggested as relating to housing or co-housing livestock (Pope 2007:217-8). Using the term 'building' rather than 'house' would

encourage a more flexible understanding of the various functions that a structure might fulfil during its lifetime. The provision of housing may also relate to more ephemeral evidence of foddering which can be suggested at a variety of south western sites (Allen 1999:62; Clapham 1999a**;** Gilbert and Straker 1999; Jones and Taylor 2004:112; Nowakowski 1991; Orme and Morgan 1982:227). Where foddering is identified it strengthens the possibility of animals being housed and should be looked at in conjunction with the structural information.

Access to water is a crucial consideration in determining the scale of pastoral agriculture and the daily round of the operation of systems: animals, especially cattle, either have to have immediate access to water (i.e. where watercourses are incorporated within systems), or need to be moved regularly to access it. Provision of artificial sources of water indicate an adaption to reduce the necessity of moving animals either at all, or at least any distance. Watering holes and simple wells have been identified in several places. This includes Langland Lane, Castle Hill and Patteson's Cross (Fitzpatrick *et al* 1999; see Figures 60 and 61 above). The shape and erosion of the edges of a pit at Metha (Jones and Taylor 2004:102) suggest a similar use. A pit at Hillfarrance (Smith and Tetlow 2006) has demonstrated the potential of these features for providing a valuable range of environmental data. Waterholes have been identified at a number of sites in central Southern Britain, including seven Middle-Late Bronze Age examples at Reading Business Park (Brossler and Allen 2004a:30-32; 2004b) and one at Northmoor, Oxfordshire (Allen 1990). A large Bronze Age pit and a smaller undated one parallel with the field boundary at Poundbury Farm, Dorchester (Wessex Archaeology 2001) may have fulfilled a similar function. Absence of obvious, readily available sources of water similarly needs consideration.

5.4 Having Herds and Using Herds– animal husbandry at South Cadbury and beyond

5.4.1 Species, herds, and the husbanding and handling of animals

Across the south west, demonstrated most clearly in the South Cadbury environs, the proportions of species lie within the range for later prehistoric southern Britain. The Bronze Age animal bone assemblages are generally small (e.g. Wilson 2004:105;

Hambleton 2008:15), whilst there are more numerous Iron Age assemblages, and assemblages of greater size, available for study, so it is unsurprising that we are able to consider them in greater detail. Hambleton (1999:68-86) demonstrated that there was variation in culling practice between Iron Age assemblages from similar topographical zones, geologies, and types of site for cattle and sheep. However, there are unfortunately too few data to consider topographical or geological variations in species abundance within the Cadbury Castle or SCEP assemblages, let alone the wider south west. This also applies to attempts to detect specialised production or redistribution between sites. Most differences between sites probably relate to consumption and disposal activities rather than the economic or ecological catchment.

Wild or tame?

The general rarity of wild species in south western assemblages during the Bronze Age and Iron Age is similar to the rest of southern England (Hambleton 2008:28,31,37-39; Maltby 1981; 1994:10). Fish remains are generally scarce during the later prehistoric period in southern Britain, even where sieving has taken place (Dobney and Ervynck 2007; Hambleton 2008:30). The two pike teeth identified by Feider (2008) at Sheep Slait are currently the only fish remains earlier than the 12th Century AD known from the SCEP sites, despite extensive sieving. This is in common with the wider region, except in coastal areas which produce a variety of marine species (e.g. Ashington Bullen 1930; Chaplin & Coy 1964; Gray 1980; Ingrem 2003; NMR 303279; Sturgess 2007; Turk 1967; 1968; 1969; 1970; 1971; 1978; 1984; 1986) and there does appear to be a genuine dichotomy between the wetlands and coasts and the 'dry' land across the region. This also contrasts with eastern England and the south coast (Dobney and Ervynk 2007; Willis 2007), having more in common with Atlantic areas (Mulville 2002:35; Boyle 2005:80) and deserves further study. Utilisation of marine resources in these areas may have altered the balance of reliance on livestock, and changed the conceptual relationship with the wild world.

Beginnings

The evidence for Beaker and Early Bronze Age settlement in the Cadbury area and across the south west is generally scant. Colluvial depth, destruction of upland sites by modern

ploughing, and the ephemerality of magnetically detectable features may in part explain a lack of settlement information in the South Cadbury environs, and may be conspiring to prevent us understanding the true distribution and nature of Early Bronze Age land use across the south west. In dating the Cadbury area linears to the earlier Bronze Age, they appear precocious. However, we should be alert to the possibility that more currently undated rectilinear systems are of early date. Fields glimpsed at Bridport Community Hospital (Graham and Richards 1993) are suggested to date to the earlier Bronze Age, and the wide-spaced, long rectilinear systems that begin to appear on Dartmoor at the end of the earlier Bronze Age, continuing throughout the Middle Bronze Age (Fleming 1978; 1985; Johnston 2005; Amesbury *et al* 2008; Wickstead 2008b) are part of a similar tradition. Much more dating information is needed to unscramble the sequence and moment of the appearance of this type of land division. The faunal assemblages from the Cadbury area are far too small to draw conclusions of how they related to the land, beyond the fact that the main livestock species were present. Other south western sites, indicate some emphasis on cattle, although much of the quantified material comes from deposits that accumulated in very particular circumstances (ApSimon 1997; Mulan and Boycott 2004; Hamilton-Dyer 2000; Hickling and Seaby 1951; Levitan 1990; Levitan *et al* 1988; 1989; Mulan & Tetley 1938; Van Wijngaarden-Bakker 1976). Both sheep and cattle would fit into the practical operation of these large scale and simple field systems. However, scale alone cannot imply livestock size. It may imply either extensive land use or larger numbers of smaller livestock. However, whilst there was a desire to bound space, and perhaps manage grazing and prevent roaming and mixing of herds, there is little to indicate nucleation of activity or integration with arable agriculture. This was an extensive approach that may not have differed greatly in the daily round from what had gone before.

The bounded land

The Middle Bronze Age was a period of enormous and prolonged expansion of boundaries across southern Britain (e.g. Yates 2007) providing numerous south western examples (e.g. Birbeck 2002; Butler 1997; Fitzpatrick *et al* 1999; Fowler 1978; Gingell 1992:155-6; Herring 1997:177; 2008; Jones and Tinsley 2001:157; Lane u.d; Leach 2008;

McOmish *et al* 2002; NMR Record 1370115; Quinnell 1997:33; Rose *et al* 1996; Smith and Tetlow 2006; Somerset HER 11298; Thomas 1985; Wainwright and Smith 1980:66; Wickstead 2008b; Yates 2007:72). Some demonstrate continuity of use into the later Bronze Age, Iron Age and beyond (e.g. West Penwith); continuity, adaption and abandonment (e.g. Dartmoor); and disuse or reversion to open grazing followed by 'reinvention' (e.g. South Cadbury environs). The fields at Milsom's Corner (Chapter 4 Section 3) fit into this broader picture. The relationship that we see in the Cadbury Castle landscape, of increased complexity of parcel size and arrangement, co-location of settlement and unenclosed and enclosed land, appears similar to that in the south western uplands, and may have been a common occurrence. For example, pasture beyond the recognised fields on the Marlborough Downs may have been utilised (Gingell 1992:156). Across the south west, wells and watering holes are mainly associated with the larger land parcels utilised in the Bronze Age. Animals pastured in unenclosed land would have free access to water with little supervision. Artificial watering places replaced this need, limiting the necessity for daily movement, and clearly demonstrating a more locally focussed management of stock.

In the Cadbury area and across the south west, houses often occur scattered within the fields. Houses elsewhere precede, are contemporary with, and post-date the fields to which they appear to relate (e.g. Brossler and Allen 2004a; Guttmann and Last 2000; Hey and Muir 1997:73; Pryor 1980). Complexity, local development of the landscape, and the changing priorities and practicalities of the divided land, draws attention to the nucleated and integrated nature of the agricultural arrangements. Middle Bronze Age faunal assemblages across the south west contain relatively even proportions of cattle and sheep (goats are rarely positively identified, a state of affairs that continues to the end of the Iron Age) with small amounts of pig, is similar to elsewhere in Britain (*cf* Hambleton 1999:46; 2008:46; Maltby 1990:249). The even mix of cattle and sheep, and lack of clearly skewed age at death profiles seem to imply small scale flocks and herds with a range of outputs. There does not appear to be a concentration on one set of aims that outweighed others.

Continuity and change

The Late Bronze Age and Early Iron Age in the Cadbury environs provide a variety of problems of dating and visibility akin to those outlined more broadly by Haselgrove and Pope (2007), and the current lack of radiocarbon determinations for SCEP does not help. There are, however, similarities with other areas during the Bronze Age/ Iron Age transition, with a mixture of continuity and change. The Sheep Slait ringwork (Chapter 4, Section 4), has parallels in the south east of England, but is far outside of the accepted distribution. The previous perception of these sites as aggrandized evidence of the prosperity of elites in the south east of Britain (Yates 2008:126-7), is challenged by its presence alone, but there are few other south western sites that offer insight into this period. Lack of boundaries in the Cadbury Castle landscape and the wider south west is not at odds with ideas of reduction of population and scarce resources (Haselgrove and Pope 2007:7) manifested elsewhere in the rebuilding of houses. Hambleton (2008:47) detected a slight increase in pig abundance in the Late Bronze Age/Early Iron Age, which is reflected at Cadbury Castle and Sheep Slait (Chapter 4 Sections 4 and 5), but nowhere else in the region. There is a general increase in sheep/goat through the later Bronze Age which complies with a general trend across southern Britain (e.g. Hambleton 2008:45; Hamilton 2000a; Lawson 2000; Maltby 1992; Powell *et al* 2005:189; Serjeantson 2007:86; Smith 1977:60; Wilson 2004:106), although there is much inter-site variation. The limited information that we have on herd structures appear to indicate a similar approach to sheep/goat husbandry as later in the Iron Age. However, this is an area where we are still considerably lacking in data and which should be a priority for further investigation.

A more communal way of life was expressed through eating. Pigs were apparently of particular importance in both consumption and deposition at Sheep Slait and on Cadbury Castle (Chapter 4 Section 4) and should be seen in the context of the widely attested habits of large scale consumption in central southern Britain (Cunnington 1923; Lawson 2000; McOmish 1996; Needham and Spence 1996; Thomas *et al* 1986). Midden deposits within later hillforts have been suggested for Meon Hill, Quarley Hill (McOmish 1996:74) and Balksbury (Hawkes 1940). The extensive layers in the plateau area of Cadbury Castle (Chapter 4 Section 5) may well comprise a similar deposit. McOmish (1996) suggests

refuse was not used for manuring because middens signified wealth and status, but it may indicate that manuring was not yet common (Serjeantson 2007:89). In the Cadbury context it may relate to the lack of contemporary fields and arable production. McOmish comments that middens as feasting sites '*play a pivotal role in a society abruptly changing from a domination by mainly unenclosed, dispersed, settlement forms to one where boundaries become important, either enclosing domestic space or dividing the wider landscape*' (1996:75), but this does not fit with the lack of enclosure in this case. If the earlier Iron Age was one of inward looking communities and competition (Haselgrove and Pope 2007:8), the nucleation of settlement on Cadbury Castle (Chapter 4 section 5) makes sense. Sites such as Balksbury, enclosed and refurbished through the Bronze Age/Iron Age transition, may have been central stock enclosures (Wainwright and Davies 1995:107,111). Livestock appear to have been brought within settlement areas (*cf* Serjeantson 2007:89); it certainly appears they were been being moved around the landscape, and if they were corralled within hill top enclosures, this may partly explain the apparent midden layers on Cadbury Castle.

Creation and re-creation

New systems of small, rectilinear parcels appeared across the Cadbury Castle area in the Middle Iron Age (Chapter 4 Section 6), and this seems to roughly coincide with new creations of small square/rectangular fields across the entire south west peninsula (references in Appendix 4), although in particular locations, especially in the far west, there is evidence of greater continuity from previous periods (Thomas 1978:7,14-15). The Cadbury area fields appear at the same time as the development of the hillfort. Fields occur in hillfort hinterlands elsewhere in the south west, and in particular are attached to hilltop enclosures (Gater *et al* 1993; Grinsell 1976; Johnson and Rose 1982:159-160,162; Quinnell 1986:115; Silvester and Quinnell 1993), although the chronology is ill understood. There was variability in the creation of hillfort hinterlands, and may present a different sequence to Wessex sites such as Danebury (Cunliffe 1995: 13-18), Maiden Castle (Sharples 1991), and elsewhere (Collis 2002; Fulford *et al* 2005:151). In the Cadbury area the fields continue into the Late Iron Age, but eventually fell into disrepair (Chapter 4 Section 6 and 7). Smaller enclosures came into being and there appeared to be a re-

orientation of the landscape, although the approach to husbandry reflected in heard and flock structure was apparently stable.

In the Iron Age there was a return to utilising an 'infield'/'outfield' approach, with funnel entrances and tracks quite clear in the layout of some of the South Cadbury systems. Further afield, the evidence for exploitation of more marginal land is also abundant, although this is clearer for wetlands than it is for the uplands. The Levels around the Severn Estuary were all utilised during the Iron Age. Whether the 'Lake Villages' (Coles and Minnitt 1995) reflect specialist tasks carried out in liminal places, or mobile seasonal resource exploitation, remains unclear due to considerable gaps in our knowledge. There is little to differentiate the domesticated faunal assemblages at Meare (Bailey 1979; Bailey *et al* 1981; Cornwall and Coles 1987) from other dryland Somerset sites of the period, and more cattle are present in other wetland locations (Hamilton-Dyer 2002a; Heslop and Langdon 1995; Miles and Miles 1969). There are reasons to believe that there is a greater density and variety of sites on the Levels (Miles and Miles 1969). There is variety in wetland exploitation, with some attempts to manage the water (*cf* Evans 1997; Evans and Serjeantson 1988; Gardiner *et al* 2002; Willis 2007:115-6). The nature of exploitation, how that responded to changing water levels in the first millennium BC, and how it related to surrounding dry land could be addressed by additional field survey. There is considerable work to be done in this area.

Regionally, the general abundance of sheep increases markedly during the Iron Age and has similarities with Wessex, but contrasts with greater proportions of cattle to the east and north (Hambleton 2008:49-50). It therefore may reflect a regional preference. Although in modern times beef and dairy cattle have been kept in more fertile lowland areas of the south west of England, sheep are the dominant species (Defra 2008:8), and it may well be that the suitability of sheep on exposed coasts and uplands is of very long standing. Sheep tend to be suitable for landscapes where water is less easily available (Grant 1984), and whilst the south west has high rainfall, access to water is variable. South western Iron Age systems seem largely devoid of watering holes. This may indicate a model in which sheep were regularly moved within highly regulated systems of small fields, and onto wider areas of grazing at suitable times. Iron Age sheep/goat ages at

death across the south west agree with the Cadbury Castle data in their emphasis on individuals under 1 year. This is similar to the rest of southern Britain, implying animals kept for a range of products (Hambleton 1999; 2008:60,148-151), but more importantly that flocks were actively and skilfully managed for sustainability (Hambleton and Randall forthcoming). In general terms therefore, there appears to be a greater difference between the Bronze Age and the later Iron Age than is detectable between the south west and the rest of southern Britain in the Iron Age. The stability in sheep numbers at Cadbury Castle through the Iron Age contrasts with Danebury which indicated slight reductions in sheep and cattle after *c*310BC (Jones 1995:51), although this may be an artefact of not entirely analogous period divisions.

In the Middle and Late Iron Age, the similarities in sheep production between the Cadbury Castle and SCEP assemblages are notable. There may have been movement, redistribution and sharing of animals between the various locales, but this is not visible because of an apparently uniform approach to husbandry. This is important as the hillfort hinterland may have actually comprised a definable economic and social unit, recognisable both to the people that inhabited it, and archaeologically. This may be a similar situation for that proposed for Balksbury (Maltby 1995: 87). At Nettlebank Copse (Hamilton 2000b:107) there was possible division of sheep into age/sex cohorts, which may be echoed at Sigwells and Sheep Slait (Chapter 4 Section 6), but the samples are limited. Seasonality of site use as seen in the Danebury Environs (Hamilton 2000b:107) has not been postulated for any of the Cadbury sites. Most differences can be explained by taphonomic factors or sample size, and there is no reason to believe that there was preferential *occupation* of any given locale at a particular time of year. However, there were certainly seasonal *activities* at those sites. The slight reduction in stature of animals at Danebury, interpreted as due to over-stocking and poor nutrition (Ryder 1993:308), does not occur in the Cadbury Castle sheep, although there are indications from pathologies that some overgrazing may have occurred (Chapter 4 Section 6.1).

The minority interest in cattle at Cadbury Castle and elsewhere in the south west closely fits the Wessex model of small cattle herds concentrating on secondary products (Hambleton 1999:87,88), rather than a greater emphasis on cattle shown in the Thames

Valley. The culling profile for Iron Age cattle at Cadbury Castle is similar to several sites, including Danebury, where there are elevated numbers of very young calves. These are however in the minority; most have more adult cattle (Hambleton 2008:69). The husbandry strategies and aims for cattle may therefore have been more variable and localised than for sheep. Houghton Down and Suddern Farm show a slight change in emphasis in the exploitation of cattle over time, with possibly more of them taken earlier for meat (Hamilton 2000c:136; 2000d:185-6), possibly indicative of greater degree of surplus (Hamilton 2000a:67). This may be replicated at Cadbury Castle (Chapter 4 Section 6.1). Pathology in earlier Iron Age cattle at Houghton Down seems to indicate use for traction (Hamilton 2000c:136), which has been proposed for cattle in the Cadbury Castle assemblage throughout the Iron Age, and again reinforces the possibilities of the newly emerged fields being involved in greater integrated arable production.

Across the south west, there is little indication that pigs were of particular importance (*contra* Hambleton 1999:46). Various methods of pig keeping can be employed (Chapter 2), and the small numbers of animals could have been easily accommodated within the farmed landscape, although we do not have conclusive evidence for sties. Having established the likelihood of using buildings as animal housing we should not reject the idea of sty pigs. As noted above, the most field system features could apply to pigs but are more indicative of sheep or cattle, which chimes with the generally minority role of pigs in assemblages. We should also not continue to make assumptions about the proportion of woodland from the abundance of pig and deer (e.g. Wilson 2004:106). It has been suggested (Chapter 4 6.1) that, given the far less regular and seasonal nature of pig culling, especially during the later Iron Age, pigs may have been regarded as a back-up household animal rather than an integrated part of a strategic approach. However, in particular places they may have been produced in greater numbers for processing and exchange. The assemblage at Mount Batten, Plymouth (Grant 1988) may indicate the processing and preservation of pigs, and its location and cross channel links indicate the likely involvement of the local Middle Iron Age animal economy in longer distance exchange. It is a matter of regret that we have no other sites in the area with which to

currently compare it. It would be extremely useful to be able to examine the relationship of this coastal site with a productive hinterland.

It has been proposed (Harcourt 1979; Moore-Colyer 1994) that horses were not bred during the Iron Age but obtained by rounding up feral animals, the assumption apparently being that the unenclosed landscape was in some way 'wild'. Not only should we perhaps start to think of these unenclosed areas as potentially managed, but the presence of young and foetal horse remains from Iron Age Cadbury Castle and sites in its environs (Chapter 4 Sections 6 and 7), contrasts with sites in Wessex such as Gussage All Saints and Bury Hill. These had mortality profiles that led to suggestions of capture of older feral horses (Hamilton 2000a:63-65; Harcourt 1979). Younger horses occurred at Bradley Hill (Everton 1981:223), Meare East and Hallen (Hamilton-Dyer 2002b; Levine 1986:67), which may indicate a regional difference and that horses were bred in some places (*cf* Powell *et al* 2005:190).

5.4.2 Animals as products

Meat

Virtually all of the south western Bronze and Iron Age animal bone assemblages were heavily fragmented and provide evidence of butchery. Meat was obviously an important output. Cut marks indicate that butchery practices were similar in later prehistory across the region and to other sites in southern Britain, consisting of light cuts aimed at disarticulating carcases. In addition, whilst we have material that might be described as day-to-day refuse, there are also several assemblages reflecting more specific consumption events and evidence of the salting and trading of meat products (i.e. Mount Batten (Grant 1988; Maltby 2006)). Serjeantson (2007:83) observes, *contra* Hill (1995a), that if meat was the primary concern, pigs are a better proposition than sheep. However, sheep were most numerous, and despite their smaller size, would still have been the primary contributor of meat. This does however indicate the variety of factors involved in choice of species and perception of value. Choice of species probably included taste preference.

Labour

The evidence for the use of animals for traction in the Bronze Age is rare for the south west mainly due to the paucity of sizable animal bone assemblages, but may also reflect less emphasis on arable production. Pathologies indicative of use of animals for traction were noted in Iron Age cattle at Cadbury Castle (Chapter 4 Section 6), and Alstone Road (Heslop and Langdon 1995:92), and are supported by the presence of parts of wheeled vehicles at Glastonbury Lake Village (Earwood 1988:89). The possibility of using dogs for guarding or herding animals has been considered in Chapter 2. Elevated rates of trauma in dogs may indicate use in herding, where dogs are susceptible to being kicked by livestock, and there is some indication of greater frequency of traumatic injury in dogs at Cadbury Castle (Chapter 4 Sections 6 and 7) and elsewhere in the region (e.g. Dibble's Farm and Caldicot (Gamble 1988; McCormick 1997)), but as discussed below, it is difficult to determine whether injuries have been caused in this way or through other causes.

Milk, milk products and manure

Cattle dairying may have occurred at Cadbury Castle, at least in the Iron Age (Chapter 4 Section 6), and may be hinted at in several other Iron Age assemblages in the south west. However, lipid analysis indicates that dairy products were in use from Neolithic onward across Britain (Copley *et al* 2005a; 2005b; 2005c), and other evidence supports this (Mulville 2005). The storable qualities of cheese (Serjeantson 2007:89) may have been particularly important. Preserved dairy products would address the need to ensure a stable food supply. A fragment of a Late Bronze Age probable cheese press came from Green Park, Reading (Taylor 2004:101). Perforated pot bases that may relate to dairy processing, also occur in small but constant numbers at Cadbury, but this has not yet been quantified.

A peak in deaths of sheep in the first year in life, evident in the Cadbury material is echoed across the south west, in common with other southern British assemblages. This begins in the later Bronze Age but tends not to involve very young animals. Use of sheep for dairying has been suggested by Tullett (2008:17) given the perforated pots from various Vale of Pewsey middens where sheep remains predominate. At Potterne the cull

profile was not regarded as suggesting subsistence flocks (Serjeantson 2007:84-5). Serjeantson (2007:80,83) argues that sheep milking in late prehistory was likely and observes that more milk and manure can be obtained from more smaller animals than fewer large ones. We should consider that sheep dairying may have been one motivation, although deaths in young animals can have a variety of aetiologies (Hambleton and Randall forthcoming). The small stature of sheep across the south west may be an indication, not of a disregard for 'improving' animals, but focus of their production being on their secondary products. We do however need to bear in mind the increased practicality of handling and foddering smaller animals that may also influence the picture. The role of manure in the later Bronze Age has been emphasised by the study of the large Wiltshire middens. Generally, the increase in sheep would have enabled maintenance of soil fertility and allowed arable expansion (Cunliffe 2004:76). The south western assemblages fit well in this context, but we have virtually no direct evidence to suggest whether this occurred in the south west. Analysis of soils should be a priority.

Textiles

There are instances of Bronze Age loomweights and combs across the south west, but there appears to be a marked increase in instances of textile production equipment in the Middle Iron Age. Spindle whorls, in particular, occur in some cases in considerable numbers. At Trevisker (ApSimon and Greenfield 1972:309,353) there was little evidence of textile working equipment in the Bronze Age levels, but they were common in the Iron Age. Loomweights came from Hayne Lane (Fitzpatrick *et al* 1999), and loomweights, spindlewhorls and combs have been recovered from Ham Hill, Harlyn Bay (Ashington Bullen 1930:96; St George Gray 1910:60; Preston-Jones and Rose 1987:92), Cadbury Castle (Chapter 4 Section 6) and many other locations. The increased finds of spindle whorls has been noted elsewhere (Cunliffe 2004:76; Lawson 2000; McOmish1996), suggesting a rising importance of wool production in the Iron Age. The number of spindle whorls and other objects used in textile production at Danebury suggested domestic production rather than an industrial scale process (Ryder 1993:312). However, whilst production may not have been centralised, it does appear to have increased, along with the increased numbers of sheep. What is currently obscure is whether sheep were kept to

provide textiles or whether textiles were just a desirable by-product of sheep. Textile production was one consideration, but one which may have made sheep more useful than cattle.

5.5 Animals and people

5.5.1 The daily/weekly/yearly round and the experience of animals

Alongside annual cycles, we can consider the pattern of, daily, 'weekly' and seasonal tasks. In the earlier Bronze Age, a 'free range' approach controlled the ranging of livestock, but enabled them to seek out new grazing and water without being led to it. Watering holes in large scale later Bronze Age systems may have replaced streams where these were not available. Whilst contact with the animals needed to be regular, it was no longer constant. In the Middle Bronze Age and later Iron Age, houses were scattered amongst the fields which suggests a close integration of the productive area and domestic space. The more integrated, 'domesticated' arrangements facilitated the probable reduction in numbers of people actively 'herding' animals, but alternatively would have led to the daily task of moving them to water (in the absence of watering holes) and weekly to fresh grazing, explaining the necessity of numerous tracks and droves within systems.

This localised and integrated, possibly more intensive approach, led to close penning and probable housing of animals. It would have allowed greater degrees of manuring and cultivation. We can envisage that in turn it would have created a new range of manual tasks that required organisation and negotiation between people, such as spreading muck, mending fences and constructing buildings and new boundaries. People may have been physically closer to 'home' but lives would have been as dominated by the needs of animals as they had been when people needed to watch them constantly. In proposing housing and co-housing of livestock throughout later prehistory, we accept that for many people their experience of animals was intimate, providing a valuable source of heat, a proximity that filled the human senses, becoming part of the smell, sound and sight of home. In these circumstances it would be surprising if longer lived animals such as cattle

did not acquire personality and biography, especially when these animals tend to show individual character traits and would have their own lineage.

The Danebury Environs Programme enabled the construction of a model of the Iron Age farming year (Figure 61; Hamilton 2000a:61). There is nothing in this model of the Iron Age farming cycle that conflicts with the findings from the south west. However, the data from Cadbury Castle indicates that there were particular notable moments within the annual pastoral cycle. The combination of the practical with social/ritual practices, embodied in particular in pit D817 (Chapter 4 Section 6), indicates that the year was more 'punctuated' than implied by the Campbell and Hamilton model. Pit D817 has several important pieces of information for us. At least at Cadbury, the lambing period was reasonably short, requiring concentration of labour. It also implies a lengthening of the winter cull, indicating a much more complex series of choices governing the selection of animals for culling that purely lack of fodder. Pit D817 also tells us that there were specific moments in time at which it was appropriate to engage in large scale consumption events, and not necessarily at the times that we would have assumed. These animals died in the first few months of life, indicating an event in summer. This may have been an event that necessitated the consumption of animals, or at which their consumption was appropriate, but was not directly related to the agricultural cycle. The possible events are numerous, but given the proximity of the pit to the southern circuit of the ramparts it is tempting to see it as related to inauguration, construction or repair.

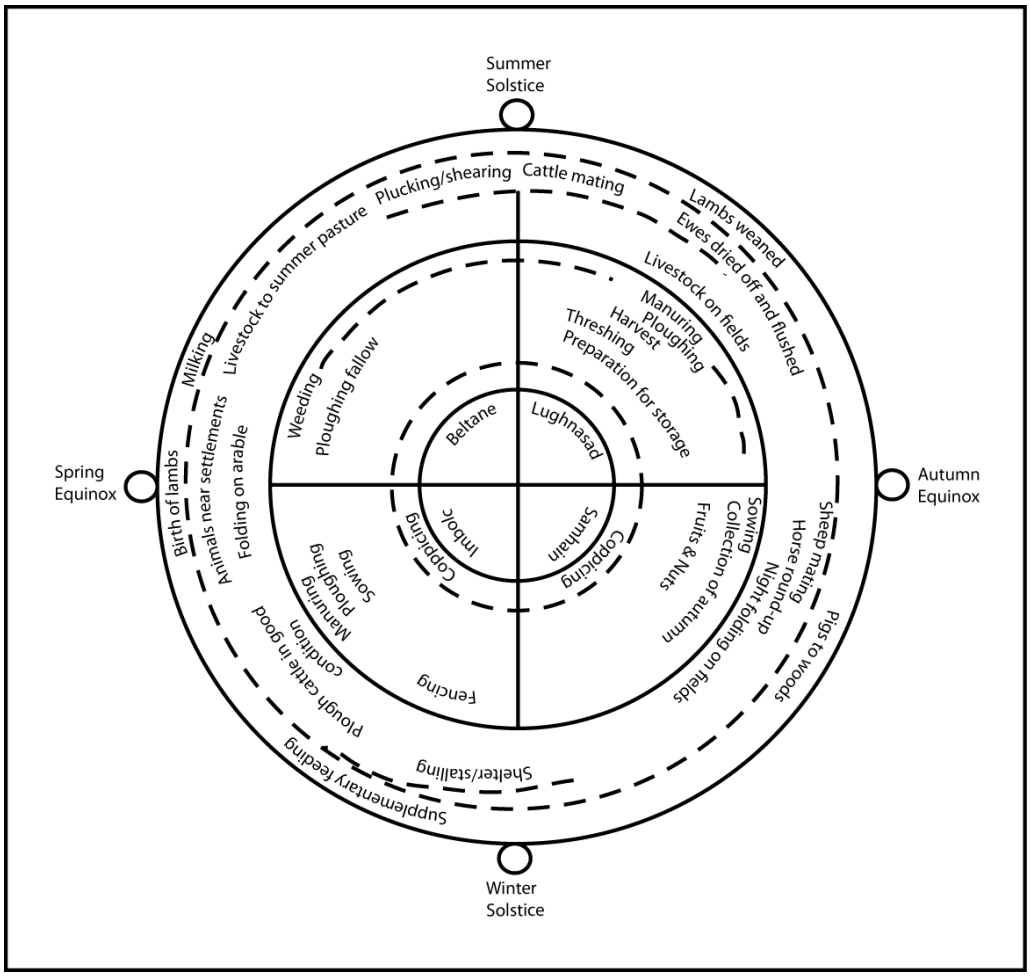

Figure 61: The Iron Age Farming Year (from Hamilton 2000a:58).

5.5.2 Organising animals and people

If we understand the ownership, inheritance, and tenure of land to have changed at various points in the past, perhaps views of the 'ownership' of animals also changed. In extensive systems where animals need to have a constant human presence, larger numbers of people may have had direct contact with them more regularly, and it is possible that they were regarded as both more equal partners in a mutually beneficial arrangement, and as a collective possession. Ownership of individual animals, as we would understand it, may have only accrued at the same point that the defining and confining the spaces in which they lived became the norm. It is possible that these changes in understanding may play a part in changing depositional practice discussed further below.

The daily/weekly/annual rhythms of pastoral farming had an impact on the lives of both animals and people. It has been noted that the punctuated nature of the year implies concentration of effort at particular times, but would not need a large workforce necessarily on a daily basis. Old Irish and Old Welsh contain words which translate as 'joint ploughing'. These words have a common root, which predates the split between P and Q Celtic. It expresses a legal arrangement between individual households to jointly carry out work on a co-operative basis on each other's land, until the work is complete and the co-operative is dissolved, but without the produce being communal property (Karl 2008:73). The stability and scale of the Middle and Late Iron Age sheep production in the Cadbury landscape, consumed or at least deposited within the hillfort, might imply a top-down communal mode of production. However, we might also consider a similar approach to 'joint ploughing'. Individual households, scattered among the fields might be entirely autonomous (Hill's atomised mode of production (1995b:51)). Sheep may have been managed to a degree communally, directed by specialists, and utilising a larger pool of labour at times in the annual cycle (lambing, plucking/shearing, culling) when it was required, but without the animals or land involved ceasing to be owned by individual households. The proposed short lambing period postulated above, would probably necessitate co-operation of this type, whilst consumption events would also have brought the community together.

5.5.3 The idea of animals

Disposal – Waste or feast?

The Middle Iron Age pit D817 at Cadbury Castle (Chapter 4 Section 6) was not the only evidence of a major consumption event in the South Cadbury environs. This was a practice that had antecedents since at least the Middle Bronze Age. Most later prehistoric buildings in the south west were generally 'clean', a common finding (Brück 1999:153-4). The location of animal remains is therefore significant. Where material clusters rather than being generally spread, we need to consider the possibility of communal consumption events. The possibility of this has been indicated at Middle Bronze Age Sigwells (Chapter 4 Section 3.2) and numerous features interpreted as cooking pits on Dartmoor (Baring Gould 1896:177; Wickstead 2008b:203-5). Greater

evidence for feasting dates to the Late Bronze Age/Early Iron Age transition. This has been considered in particular for the deposits at Cadbury Castle and Sheep Slait (Chapter 4 Sections 4 and 5), where there is much greater representation of pig and likened to practices in ringworks and middens discussed above.

The treatment of animals

We can consider attitudes to animals in general, and towards specific species by looking at the manner of their disposal and the rate and type of pathology affecting them. There is some evidence to suggest, both in the South Cadbury area, Ham Hill and further afield, that dogs and horses may have been afforded slightly different disposal, especially in the later Iron Age. Bone tends to be more complete, in better condition, is more likely to be deposited in a structured manner or as a whole/partial carcase. However, there are several examples from Cadbury Castle and its surrounding sites of both dogs and horses being butchered, and apparently subjected to the same processes as livestock. The attitude towards them appears to be ambiguous. Pathology may relate to the conditions in which animals have been kept, or the tasks to which they have been put, and we should also consider the possibility of abuse of animals. The evidence is, however, scant. There are some indications that dogs may have suffered more traumatic injuries than livestock (Chapter 4 Section 6; Everton 1988:54), but the numbers of dogs in assemblages is so low that it is impossible to say what was the overall prevalence of pathology, and whether this resulted from using dogs as working animals. It is unclear whether this is an artefact of other animals being culled after injury before healing could occur, use of dogs in herding and guarding livestock, or animals being maltreated.

Selected deposits

Both Associated Bone Groups (ABGs) and disarticulated material can be selectively deposited, and attest to a range of treatments and attitudes. In some cases, as in the Sheep Slait ditch (Chapter 4 Section 5), differences in species representation and the combination of other materials alerts us to the specific nature of certain deposits – but only if all of the materials from a particular location are considered as a whole. Deposition in southern Britain of items including animal burials, especially in boundaries and liminal

areas, seem to relate to the deliberate marking and dividing off of space and concern with the household's subsistence cycle. Brück (2007) suggests that enclosed sites on the joining points of linear boundaries may be related to an inter-community aspect of animal husbandry. What it does seem to indicate is a pre-occupation in the Bronze Age with marking the role of animals involved in production and linking them to the land in which they lived and the domestic space. Whilst this was not a practice that was noted in the SCEP landscape at this period, ABGs occurred at several south west later Bronze Age sites, occurring in ditch terminals or enclosure entrances. At Field Farm and Encie Farm, Somerset (Leach 2008:62; Hollinrake and Hollinrake n.d.: 6) partial or entire animals were deposited in apparently prominent locations. ABGs are, however, not common.

It has been argued in Chapter 4 (Section 6) that at Cadbury Castle, the deposition of cattle skulls, cows and calves, in the later Iron Age was entirely bound up with the concerns of the animal economy, but in particular it emphasised the role of cattle. Deposition of cattle skulls at Cadbury Castle and elsewhere have similarities to a range of sites of the period (e.g. Manning 1995). Cleaned cattle skulls were also noted at Battlesbury Bowl, and indicate a complex biography of which deposition was only the final act (Hambleton and Maltby 2008:91-2; Hambleton forthcoming). At Warren Hill on Salisbury Plain, Early Iron Age ditch contexts produced a group of butchered cattle skulls (Powell *et al* 2005:166). Greater proportions of large mammal fragments and cattle skulls in Iron Age ditch contexts at The Moor, (Chapter 4) follows depositional preferences at Winnall Down (Maltby 1985). It has been suggested that dairy or plough cattle due to their smaller numbers and longer lives gained biographies and retained personalities, which may have afforded them meaning and respect after death. The necessity of culling animals with which there were more developed and personalised relationships, may have necessitated, or been excused by, a ritualised approach. Sacrificial killing may have been achievable whilst being 'affordable', as the animals had already reached the end of their productive lives.

The symbolic importance of food in the Iron Age has been commented upon in relation to the facilities for the storage of grain within hillforts and the deposition of animals in pits. These may be part of communal redistribution and consumption that demonstrated an

ability to sacrifice resources (Sharples 2007:180). Although consumed as a communal event, the animals in the Cadbury Castle D817 pit (Chapter 4 Section 6) were rapidly deposited as largely intact sets of remains. Analogous events of mass killing and deposition can be identified but are very rare. Suddern Farm had one Middle Iron Age pit (Hamilton 2000d:180-1) that contained the remains of at least 23 sheep and lambs, four cattle skulls and partial skeleton, a whole juvenile cattle skeleton, three horse skulls and other parts, foetal/neonatal dog bones and a whole juvenile pig. In this case it appears that all of the animals died within a short period of time in the spring. Five pits full of animal remains at Vermand, Champs des Lavoirs, Aisne contained an MNI of 13 sheep, and 25 new born lambs as well as other species, interpreted as the result of feasting and sacrifice (Haselgrove 2007:502). These examples stand out as, although denser deposits of animal bone and ABGs are common, and multiple ABGs in the Iron Age frequently involve sheep/goat (Morris 2008b:128), they rarely occur on this scale, and appear to be specifically related to single and rapidly carried out events. Their rarity implies their relation to very specific and special events.

In the Late Iron Age there was in general terms a reduction in the number of ABGs deposited in hillforts (Morris 2008b:86). This is at odds with the evidence of the calf burials from Cadbury Castle but these may result from a lingering connection to a depositional practice of the Middle Iron Age that was very specifically linked to the economic basis (real or idealised) of the place. These were also spatially located in alignment with the probably mid-first century AD 'shrine', which appears to have had Iron Age predecessors. Its claim to a specialised function has been supported by the recent discovery that there was a significant group of disarticulated human remains and metalwork associated with it (Jones and Randall 2010). There is generally little connection between ABGs and possible 'shrines' (Morris 2008b:86) and this seems to indicate a very particular practice in this case.

There are some indications that particular species may have held particular specific meaning in particular places. Whilst the pre-occupation at Cadbury Castle was with cattle skulls, and whole neonatal cattle, at Ham Hill, the emphasis was on horses' heads (Appendix 5). None of the hillforts in the south west appears to have produced significant

numbers of bird ABGs as recovered at Danebury (Serjeantson 1991), whilst dogs seem to have been more significant on non-hillfort sites such as Sigwells or Dibble's Farm (Everton 1988:54). At the end of the Iron Age, the deposition of zoomorphic bronzework in some enclosures occurred; the duck and stag from Milber Down (Fox 1952a) may indicate a greater interest in wild species. The location from which these items have been recovered indicate deposition as a particular act, but whether this relates to the animals that they depict is open to discussion.

The inclusion of wild animals and birds tends to be generally higher in structured deposits in southern British Iron Age pits (Hill 1995a). However, whilst this occurs in the south west, it is infrequent. It has been noted that in the peninsula, identity may have been emphasised not via material culture, but through architectural display and the ownership of livestock (Henderson 2007); this may have placed more symbolic emphasis on domestic species. Within the Cadbury environs, and at Ham Hill, we begin to see a greater diversity of species in the Late Iron Age. Even then, this does not occur within the hillfort and it is other domestic animals that normally comprise a small proportion of the general assemblage, that are over represented – dogs and horses. There is only a single corvid. Wild species appear to have been less 'special' than elsewhere in southern Britain where they are a limited but constant presence (Morris 2008b:102-3). Perhaps they were less exotic; perhaps there was more of the 'wild' left. The different treatment of horse bone and its differential deposition in pits at Ham Hill and Sheep Slait (Appendix 5, and Chapter 4 Section 6) should alert us to the possibilities that these sites are not informing us of how horses were utilised in life, but their continuing biography and utilisation after death. Both horses and dogs were butchered, possibly in some numbers in the Middle and Late Iron Age at Cadbury Castle (Chapter 4 Sections 6 and 7), elsewhere in the environs, and beyond. However, the propensity for differences in deposition, discussed further below indicates they may have existed in a separate 'category' and that eating them may have been ideologically loaded.

Later Iron Age Cadbury Castle had plenty of pits, generally regarded as storage for surplus or seed corn (e.g. Cunliffe 1992; 2000; Reynolds 1974), and structured deposition of cattle skulls within them was a feature of the Middle Iron Age. This reduced in the Late Iron Age.

The pit scatters that developed in the wider landscape from the Middle Iron Age on are difficult to understand as storage, given that they are unenclosed, and several examples were clearly only excavated to receive deposition of various objects (Randall 2006). Van der Veen suggests (2007:427) that reduced pit use in the Late Iron Age was associated with a change in the way that food was used, from providing storage of food for feasting, with hospitality an essential element in bringing together the labour required to create hillforts, to Late Iron Age consumption of exotic foods and exclusive dining of the elite. In the Cadbury environs, pits continue to be constructed, in some areas in greater numbers, throughout the Late Iron Age, and their contents change, becoming increasingly complex and apparently deliberate in nature. The large scale pit scatters in the Cadbury landscape constitute a change in focus away from the hillfort (Jones and Randall 2010; Randall 2010). This reorientation and the structured deposition of animal and human remains, seem to indicate an alteration in concern from the communal agricultural cycle to the personal and mnemonic (Randall 2006). This may be indicative of wider changes in attitude, perspective, and social organisation on the eve of the Roman invasion.

5.6 Strategies, scale and society

5.6.1 Understanding change in farming strategies

Landscape organisation and animal husbandry are likely to be most archaeologically understandable when there has been change from one strategy to another. However, changes in organisation may precede technological change or territorial expansion, and may be less archaeologically visible (Barker and Gamble 1985:14). We therefore need to have a detailed and well dated understanding of landscape use over relatively wide areas; this has not often been the case. Lack of evidence for land division implies a generally extensive approach during several periods across southern Britain. However, whether we can apply labels such as ‘nomadic’ or ‘transhumant’, which cover a wide variety of practice and social structure, is less certain. Extensiveness is identifiable, mobility is more problematic. The Early Bronze Age is one of open land, and mobility is often assumed, but we still do not understand the scale over which this operated. The lack of large scale drove ways in the Middle Bronze Age perhaps suggests localised movement of small numbers of livestock. In contrast the Late Bronze Age linear boundaries of Wessex appear

to indicate movement on a grander scale. Hilltop enclosures, possibly related to stock management, occur on nodal points in the network (Cunliffe 2004:75). Early Iron Age unbounded landscapes also indicate an extensive and possibly mobile form of pastoral agriculture (e.g. Brück 2007; Serjeantson 2007), but similar issues apply. Middens have been regarded as accumulations of waste from stock brought together in seasonal gatherings from a mobile population of people and animals (Tullett 2008:16).

The difference between highly extensive and mobile pastoralism and integrated and partly intensive agriculture is one of a change in the daily and seasonal taskscape and the relationship of space, people and animals, and may rather result from a desire to organise tasks around the domestic space. From the later Bronze Age onwards, with more widespread land division, settlement, faunal and other assemblages, we are able to locate more classes of data and consider the relation of pastoral and arable agriculture. The identification of features indicating the 'inside' and 'outside' of systems, allows us to envisage an integrated and thoughtful management strategy. However, the idea of the use of 'outside' indicates that wherever this occurs, it is indicative of systems with a considerable pastoral component that, whilst it may have had intensive and integrated elements, was generally extensive in nature. This pattern repeats itself to a greater degree in the Middle Iron Age. We can therefore see an oscillation between two general forms of landscape use, repeatedly over time, within the same landscapes, an expression of lifestyle rather than determined by that landscape.

However, none of these developments occurred on a blank canvas. The earlier Bronze Age Sigwells linears (Chapter 4 Section 2) were aligned on, related to, or provided nodal points for barrows. The Middle Bronze Age enclosure at Milsom's Corner (Chapter 4 Section 3) was aligned on an earlier human burial. By the later Iron Age however, it was possible to obliterate another barrow at Crissell's Green (Randall 2009b), and incorporate it within cultivated land. Both of these actions may have been different methods of appropriating the past. The incorporation, respect and utilisation of earlier monuments in systems is a frequent occurrence from Kent (Allen and Lievers 2008:313) to Cumbria (Loney 2005) and East Anglia (Pryor 1996). The falling into disuse of the essentially Middle Iron Age Cadbury landscape in the last decades before the Roman invasion coincides with

the development of the Sigwells pit scatter, within which, marking space and encapsulating memory were combined (Jones and Randall 2010; Randall 2006), and may indicate a changing attitude to the way in which belonging or ownership were articulated.

5.6.2 The changing landscape

The earlier Bronze Age

The unenclosed landscape of the earlier Bronze Age indicates extensive pastoralism, allowing a relatively mobile approach. Allen suggests (2005:238-9) that hunting and foraging played a significant role during the Beaker period, and that domestic livestock and arable crops may not have formed the primary economic basis, and nothing considered here conflicts with this view. If domestic species were not economically fundamental, the lack of wild and presence of domesticated species in non-settlement (non-domestic?) assemblages may reflect what the economy was supposed to be like, rather than what it actually was. However, our lack of understanding of wild species is problematic. Likewise, locating landscapes in which nomadic pastoralists may have circulated has proved difficult (Field 2008:98, 102). Bradley (1972) outlined the problems of recognising mobile pastoralism, and use of monuments in interpreting landholding or territory can depend on the interpretation of the intensiveness of the agricultural regime (Kitchen 2001:112; Johnston 2001:99,107). It is also problematic in areas where monuments are rare or absent, such as in Somerset and elsewhere in the lowland south west. We need to make greater effort to identify buildings and structures and recover non-ceremonial deposits of animal bone for this period.

The later Bronze Age

Field systems, demonstrating increasing complexity, became widespread through the later Early and Middle Bronze Age. The transition from 'abundant' to relatively scarce cultivable land has been suggested as a cause of land apportionment (Thomas 1997:216), but this assumes that fields equate with cultivation, which we can now see is not the case. Wide expanses of unenclosed land between enclosed blocks in many areas do not, as Brück (2000:277) rightly points out, demonstrate land pressure. Barrett (1991;1994) suggests that portioning landscapes was due to a new concern with inheritance, and that

the change in the agricultural landscape is the result, not the cause, of social change. Brück (2000; 2001:150-151) sees the inception of fields as evidence of social fragmentation. However, fields may also have offered a new common identity (Field 2008:103).

It is contended above that we should see fields as the residue of practical choices which have roots in productive aims and the experience of animal husbandry. Descriptions of land apportionment as 'intensification' (Yates 2001), apparently meaning increased production is an inaccurate term (*cf* Chapter 3). Brück (2000:275) reviews and rejects agricultural 'intensification' as an explanation of the change from the Early to Middle Bronze Age. A collapse in soil fertility (*cf* Bradley 1984:91) in the earlier Bronze Age necessitating concentration on smaller areas of land had been suggested. However, colluviation cannot be used as a straightforward indicator of intensive land use (Brück 2000:277; Chapter 3). That the direct evidence of cultivation and volume of plant macrofossils is low for the entire south west seems indicative of a limited arable sector. We should consider that Bronze Age arable farming may not have occupied a great deal of space. If it was an intensified enterprise within a large scale and largely extensive pastoral system, we should expect direct evidence of arable cultivation to be hard to find, which it is. Cultivation was likely focussed on the most suitable soils in any given locality, and we can expect a high degree of variability, depending on the landform, water table, soils and substrate. Spatial divisions in the location of arable and pastoral farming have been suggested for the middle and upper Thames Valley (Yates 2001) and Essex (Murphy 1996), although there is no evidence for this in the south west. Neither does the scale of an operation imply intensive localised land use. At Fengate the system indicated grazing thousands rather than hundreds of sheep, and cooperation between specialist farmers (e.g. cattle farmers, arable etc) within local areas (Pryor 2006:106,149). However, the area was probably used for gathering and exchanging animals possibly reflecting an extensive but highly organised landscape.

The change between the earlier and later Bronze Age may be one of scale and efficient utilisation of land rather than being more intensive *per se*. Unbounded and bounded systems provided different methods of extensive husbandry. Their introduction may or

may not have resulted in greater production. This reinforces the idea of boundaries as conceptual, but only **because** they are practical. Bounded systems are more permanent and structured and indicate a concern with fixing the processes of the agricultural year in one locale with less ephemeral equipment. What they therefore signify is a concern with dividing the animals and space of one person or group from another, and their value in understanding tenure and territory is reinforced. This also reinforces that the process of land apportionment was instigated from localised imperatives, and that the generally conservative approach of people to change in their subsistence method is likely to have needed a variety of elements to be in place before change occurred within any particular locale. The large scale of the earliest field systems in the south western peninsula appear to have been a new way of ensuring the full utilisation of land in the 'traditional' extensive manner whilst avoiding conflict or competition, and by their nature imply the ability to provide the up-front investment in their construction. This appears to be more an attempt to preserve and/or maintain the husbandry methods of the past, whilst demonstrating new localised social coherence and co-operation.

Middle Bronze Age agricultural arrangements were therefore probably dependent on extensive pastoral agriculture with integrated elements of more 'intensive' but small scale arable production. Economic maximisation and desire for generation of surplus are not universal to all societies; neither is the concept of human exploitation of landscape a one way process. A more 'mutualistic' approach is suggested by Brück (2000:281). This fits with land use in which only part of the landscape is 'controlled', but all of it is in some sense utilised. There is a balance and sustainability inherent in this system that simultaneously seems to imply a focus on a 'home' locale, a constructed space of familiarity. In the earlier Bronze Age, it is the ceremonial monuments that provide the structured space (Brück 2000:282), whilst that structure is what shifts to the settlement in the Middle Bronze Age. Although the daily, weekly and seasonal tasks of caring for animals had not changed, the space in which it occurred was, whilst not entirely static, more fixed, so that the development of specific features and structured spaces for specific tasks were possible and held their own implications for memory and the perception of both the landscape and the task at hand. We have seen how animal

handling features and housing are co-located with settlement across the south west in this period. Livestock now enter within the domestic sphere, and their deposition on the edges of and within the domestic space indicate their acceptance within it.

Middle Bronze Age settlements, however, were not long lived (Brück 1999), and their mobility may relate to the wider space not being regarded as 'outside', but part of the integrated system. While a particular locale may attract construction of houses and fields for a few generations, the unenclosed landscape was also a familiar space, dwelt in and moved through with animals on a daily, weekly, and seasonal basis. Once 'this place' ceased to be the appropriate locale at 'this time', the establishment of settlement elsewhere within its purview was not a conceptual leap. Land use in the south west implies independent units, but different areas may have gone through changes at different times and in different ways, and there is a great deal more that could be done in understanding these processes regionally, especially in gaining greater chronological resolution. Regionally, change occurred against the backdrop of pre-existing practice and social memory of existing within particular landscapes, and is therefore variable (Jones 2008:169-170).

In the Late Bronze Age, a greater diversity of site types occur across Somerset echoing changes elsewhere (Brück 2007:26,29). There are fewer dated foundations of field systems, but some continuity. Indications of specialised animal production (*cf* Haselgrove and Pope 2007) in the Later Bronze Age do not occur in the Cadbury Castle landscape; the evidence points to specialised *consumption*, and the landscape itself certainly offers no indication of specialised locations for the husbanding of particular species. The superseding of Bronze Age field systems with Iron Age ones has been taken as a broad indication of a social dislocation with movement or gradual abandonment of systems (Bradley and Yates 2007) across central southern and south-eastern England. The blame for field systems coming to an end has regularly been laid at the door of climate change, certainly for the south west uplands. However, the dating of climatic deterioration and the degree of utilisation of landscape is not clear, due to dating constraints (Amesbury *et al* 2008:88,95; Caseldine and Hatton 1994; Johnston 2005:18b; Quinnell 1994b:76-77). Often landscapes continue to be used, but in different ways, with new objectives, or with

new ways of achieving the same thing. Further afield soil deterioration may or may not have contributed to abandonment at Hornchurch (Guttmann and Last 2000:351). The decline of contemporary sites in the Thames Valley (Yates 2008:49) evidently had a social origin. Land use is therefore again divorced from environmental determinants, and farmers most likely found ways to adapt their practice to their changing experiences of the land and weather.

Into the Iron Age

The Early Iron Age has a general paucity of field systems not only within the Cadbury Castle landscape (Chapter 4 Section 5) but across the entirety of the south west, and has suggested a return to extensive and more mobile methods of husbandry, that may have been more communal and less 'domestic' in focus. A number of studies nationally covering the earlier Iron Age, summarised by Haselgrove and Pope (2007:13), point to localised differences (e.g. Wessex (Bradley 2000) and the Cotswolds/Thames Valley (Moore 2007a)), in the type of landscape utilisation, and differing use of bounded spaces for arable and pastoral agriculture. The importance of livestock has been stressed in relation to hilltop enclosures and middens (Brück 2007; Needham 2007), and it has been suggested that early hillforts were placed to regulate, facilitate and structure the passage of animals through the landscape on an annual cycle (Hamilton and Manley 2001). The scale of deposits in the Wiltshire middens may indicate a large communal herding strategy (Brück 2007:32). Consideration of this proposition for the south west of Britain is hampered by the lack of dating information for the vast majority of hilltop enclosures. However, the Cadbury Castle area has supplied evidence of large scale or structured consumption, and Cadbury Castle itself may have offered a communal space (*cf* Hill 1996). Communal 'ownership' of stock, and use of land implied by the unbounded landscape, fits with this picture.

South Cadbury and Ham Hill both occupy promontories that lie between two forms of landscape, and one may see them as access points between the high ground and the flat land leading out onto the Levels. It is tempting to see features such as the possible Late Bronze Age/Early Iron Age trackway leading across the escarpment down the slope to the valley below Cadbury (Chapter 4 Section 5), as an indication of this practice. However, we

are currently unable to define the scale over which animal movements may have occurred (*cf* Moore 2006:206). It does, however, raise the prospect that if emerging hillforts controlled passage, some of the animals that we find within them, possibly consumed and deposited as part of communal eating, may not have been reared on the immediately surrounding land. We could approach the questions raised in this context by stable isotope analysis. As this has begun to provide information about human and animal diet in the region (Britton *et al* 2008; Jay 2008; Johns 2003), we may also learn more about animal origins. Especially for the Iron Age, the degree to which sites or locales were independent or had reciprocal exchange relationships would benefit from further investigation.

The later Iron Age

The most significant finding of the examination of the Cadbury Castle landscape and faunal remains, and the striking way that they coincide, is the step change that occurs in the Middle Iron Age. New land divisions came into being (Chapter 4 Section 6), and sheep became the pre-dominant consideration of the animal economy. This is a phenomenon which repeats itself across the south west, although we need closer chronological resolution to understand the basis of practical localised choices. The sequence may have similarities and differences with other regions (Bradley and Yates 2007:97-8; Moore 2007a:264-266). One imperative in the change to sheep may have been textile production, which seems to increase in northern Britain (Haselgrove and Pope 2007:8) and, as we have seen, across the south west. Increased sheep numbers at Danebury has been linked to increased wool production or the need for manure to maintain fertility of arable land (Jones 1995:52). Serjeantson (2007) sees the aetiology of the sheep based economy in the necessity of textile production and manuring. Maltby (1981) has questioned the quality of Iron Age wool, so perhaps the latter is to be preferred.

Changes in early first millennium BC arable production have been regarded as responding to increasing population, declining soil fertility and increased scale of production and diversification in crops and soils (Jones 1981). There is little evidence for this in the south west. The arable economy in the South Cadbury environs appears limited. Despite >1800 soil samples, there are few occurrences of large amounts of plant macrofossils. If large

amounts of grain indicate 'producer' sites (van der Veen and Jones 2007:426), these remain to be identified in the south west, and we should consider whether the region had a generally lesser reliance on arable crops. What cultivation took place was probably, like the Middle Bronze Age, concentrated in small heavily managed areas, the wider landscape effectively providing the means of manuring. In the Danebury environs, it was considered that flocks and herds were not kept within permanent fields, but moved by herders on a daily, weekly and seasonal timescale that involved folding to provide manuring for fields (Hamilton 2000a:61). The increased emphasis on sheep in the Cadbury landscape commences in the Early Iron Age, and the lack of fields may indicate that the concentration on sheep came first, enabling an intensification of integrated farming on a small area of land within the immediate purview of the hillfort in the Middle Iron Age. We need more consideration of the mechanisms and relationships between arable and livestock production, and it may be that at different times and in different places change occurred due to differing imperatives. However, the complex organisation of the land in the South Cadbury environs indicates a highly regulated and organised approach that may have been able to incorporate the management and ownership of different species of animals at different social levels, and focused on closely controlled husbandry adjacent to the domestic space. The size and arrangement of parcels would be consistent with garden scale intensive cultivation. As this is the pattern of land division replicated across the south west in this period, we can postulate a change to a more integrated approach which seems to have concerns of long term sustainability and stability in particular locales.

Danebury and the Danebury Environs sites appear to show a change between the middle and later phases with an increase in the proportion of cattle kept, and new arable crops appearing (Hamilton 2000a:72-3). This contrasts with the Cadbury Castle area where there is long term stability in the proportion of species and use of landscape, although there are some indications that the system was breaking down in the Late Iron Age and bread wheat began to make an appearance at the end of the Iron Age. The change in the Cadbury landscape in the Late Iron Age involved the emergence of large unenclosed areas of pits mentioned above, as well as the creation of detached enclosures in unbounded

areas of landscape. This re-orientated focus away from the hillfort (Jones and Randall 2010; Randall 2010) coinciding with a change in the function of pits. Deposition altered from being a secondary function to the primary purpose; several examples were clearly only excavated to receive deposition of various objects (Randall 2006). As discussed above the deposition of animal remains in Middle Iron Age pits seems at least in part based on the perceived importance and biography of cattle within the productive landscape (Chapter 4 Section 6), but in the Late Iron Age changed to emphasise species which were not economically important. Activities included a need to mark deposits and incorporate items which can be interpreted as relating more to the individual person. This appears to reflect a fundamental change in people's perception of the world.

Small enclosures in unbounded land may imply the return to a largely extensive form of pastoral farming, but demonstrates an essential difference from the extensive approaches of earlier periods in the same area. There is no practical reason why an enclosed house would be needed in an extensive livestock system in the Late Iron Age, when it clearly did not in the Early Bronze Age or Early Iron Age. This form of enclosure is primarily the result of social choice. Bounded spaces are evident in Irish archaeology, and the law codes indicate penalties for those entering a space when they had no right to do so (Karl 2008:72). The tendency to enclose land and define individual households could potentially be linked to raised tensions over land (Haselgrove and Pope 2007:8). However, in the Cadbury landscape, the enclosing of land seems to have occurred in the Middle Iron Age, but the obvious marking of the domestic sphere with boundaries began in the Late Iron Age. Rounds emerge in Cornwall in the last part of the Iron Age (Henderson 2007; Johnston *et al* 1999; Russell 1971:56-60; Saunders and Harris 1982), with a variety of similarly demarcated spaces in the Cotswolds (Moore 2006:67-73). The incorporation of human remains into boundaries may have related the person's biography to the community's relationship with its landscape (Moore 2007c:95). This certainly seems to be the case at the end of the Iron Age in the Cadbury area. The occurrence of burials in or on boundaries in the South Cadbury Valley in the first century AD (Randall 2004) may be a result of the community's need to mark the importance of the bounded landscape of the

past at a time when society was under stress and that bounded landscape was ceasing to hold real practical and economic meaning.

The role of hillforts within their productive landscape

The role of the hillfort as a central location for the storage and redistribution of produce (Cunliffe 1995), must now be seen in the light of a range of other roles and functions (Hill 1995b;1996). For Cadbury at least, the activities carried on within it were probably different from those carried out elsewhere in the landscape (*cf* Bradley and Yates 2007). Nevertheless, those activities are a reflection of the life lived beyond the ramparts which directly contributed to the ability to carry out those activities. It also may have reflected the people's own perception of the importance of those activities in supporting their world. This study in some ways sets aside the issue of what hillforts were 'for' and simply makes the point that Cadbury Castle and probably other large nucleated settlements cannot be separated from the productive landscape. That landscape was both a necessity and enabled the existence of the hillfort; they were co-dependent, and the problem of 'which came first' will only be resolved by the application of a considerable programme of dating of both hillfort deposits and landscapes. This of course would only provide a narrative for individual places. Regionally and individually these places have their own biographies, and we should avoid the 'one size fits all' explanation of their aetiology and life.

5.7 Conclusions and directions

5.7.1 Reconnecting with the practical

The interconnectedness of all things

This study set out to consider the variety of circumstances, opportunities and constraints under which animal husbandry can be carried out, and has recognised the range of data that we can bring to bear. It has demonstrated that we can make much more realistic interpretations by building a picture from the full range of datasets, and considering them in conjunction with each other. In doing so, interpretation has in some respects turned full circle. From a critique of the study of fields and boundaries as relating mainly to tenure, and the avoidance of considering their practical role in animal husbandry and

arable cultivation, we have travelled via the various functions of fields through analysis of south western landscapes. We have in the end returned to the realisation that fields are the material residue of particular approaches to agriculture, and as such demonstrate reflexive choices. The range of decisions that particular practical approaches require are founded in social relationships and definitions of them. Changes in species representation in the Cadbury Castle and surrounding assemblages, and other Somerset assemblages has been seen to have occurred at the same time as broad reorganisations of land boundaries. Therefore, changes in husbandry can be more reliably postulated from the field evidence for areas of the region without animal bone. In addition, more nuanced understanding of husbandry can be attained by considering pathology rates in combination with landscape changes. Objects in combination with faunal data enable consideration of changes in emphasis on secondary products.

Rehabilitating the 'practical'

Whilst fully accepting the multiple uses and meanings of boundaries, including their social, spiritual and aesthetic values (Herring 2008:76), we can also approach understanding spaces via the experience of their daily use. Herring indicates the need to '*take the opportunity to reconstruct and deconstruct economies and societies from [fields]*' (2008:77). Understanding how fields functioned practically is a way of understanding the past individual and collective experience of landscape and livestock and a vital component in grasping motivation and change in prehistory. This study has focussed on establishing the 'practicality' of fields and while it in no way advocates the neglect of all of the myriad other 'uses' to which archaeologists put them (and which need not be the same 'use' perceived by those who constructed and lived with them!), it is proposed that we rehabilitate 'practicality' as part of the narrative of the prehistoric lived experience and the motivations behind aesthetics, social 'negotiation', tenure and territoriality.

Re-integrating economy

We have noted that the term 'intensification' has been used in a way that covers both the greater production for a given unit but also where 'expansion' or 'increase' would be

a better description. The distinction may appear to be nit-picking but it does have some profound implications. Fields, when accepted to relate at least in part to animal husbandry have been generally seen to be an indication of general 'intensification' with emphasis on the increased labour requirements (e.g. Serjeantson 2007:80). However, as has been discussed in Chapter 2, intensification can occur in a number of ways and does not necessarily result in increased production. In addition, fields can be utilised in a way that is not intensive. Fields therefore do not indicate intensive production; they do however imply a particular approach to organisation, control, and as a result, social meaning. The foregoing has demonstrated that for most of prehistory the 'intensive' element was either strictly limited or non-existent. This more nuanced understanding can give additional support to arguments made from other sources. For example, the findings of this study support the views propounded by Brück (2000), regarding change in the middle of the second millennium. It is clear that these approaches could be employed in other regions and for other periods.

The identification of the inherent practicality of systems, the way they were designed to function (husbandry strategy), and how they achieved desired outcomes (husbandry aims), does not undermine the social importance of consideration of landscape organisation. In fact, by understanding how a given strategy may have functioned in relation to any given set of aims, we are able to more closely identify the points at which choice becomes apparent. Once the more subtle effects of change of practice have been identified, we are able to speculate in a more nuanced fashion as to how and why change came about. This study has shown that, not only are different combinations of aim and strategy theoretically possible, they do actually occur in the British archaeological record, and have the potential to assist in identifying and understanding both localised and more widespread change.

5.7.2 New data and approaches

New data sets

This study has contributed a major new faunal dataset from Cadbury Castle, which provides us with, not only an additional large hillfort assemblage to set alongside

Danebury, but important Late Bronze Age material. Cadbury Castle hillfort and the surrounding South Cadbury Environs Project sites, amount to in excess of 130,000 fragments, and provide statistically robust datasets that offer additional opportunities for interrogation. The analysis of the Cadbury Castle and Environs faunal material used here only reflects the data needed to address the issues at hand. A far more detailed analysis is now feasible, and should be carried out, particularly in examining butchery practice, element representation, metrical changes and intra-site deposition. The group of currently unpublished sites of various periods in the South Cadbury Environs, form an enlightening cluster of assemblages; we can begin to consider the necessity of understanding landscape layout and relationships between sites before reaching zooarchaeological conclusions. Re-consideration of the phasing of the Cadbury Castle deposits necessitated the examination of *c*120 boxes of pottery. This not only provides a future resource in its own right, but progresses the task of understanding a large number of features within the hillfort that have previously been excluded from analysis and publication.

It has also been possible to collate and clarify findings from numerous small investigations at Ham Hill, and variations between these neighbouring hillforts provide further indications that we cannot assume that the practices employed in one were the same in all. In addition, this study has drawn attention to the fact that the south-west peninsula, whilst it has admittedly difficult preservational environments, is not devoid of faunal remains. In particular, the coastal area of the Atlantic fringe provides extremely important assemblages. Some un-investigated sites have already been destroyed, although others remain, and these should be given curatorial priority. Whilst small or badly preserved assemblages may individually provide limited information, consideration of them in groups, establishing broad brush trends can have value when combined with supporting data.

Towards new approaches – lessons for field projects

Even given the large scale of the survey and excavated sample of the Cadbury Castle environs, which have produced phased plans and distributions over a wide area, the data are ultimately not entirely adequate for the task to which they have been put here, purely because of a lack of awareness at the time they were collected of the additional questions that could be asked. The approach was to track in broad brush the areas of the landscape that were occupied at given points in time over the longue durée. It was only with hindsight informed by the rich archaeological resource that it became clear what questions could be reasonably asked and answered from the data, and that the fields themselves had a tale to tell.

'*by ignoring such features....archaeologists are in danger of neglecting the complexities of how people inhabited their world and what would have been a fundamental part of everyday life.....They worked hard to construct and maintain such features, and have left their enduring legacy in these traces of themselves and their ways of life in the landscape. The study of land allotment in archaeology must therefore involve more than the mapping of boundaries, or the investigation of past agricultural techniques or technologies. Archaeologists and historians must treat these endeavours with the respect they deserve. It is a form of ethical contract between us and the dead*' (Chadwick 2008b:19).

Chadwick (2008b) comments at length on the problems of addressing the complexity of fields and the general inadequacies of excavation by developer funded archaeologists, although he was able to indicate some incidences of good practice. However, the value of labour intensive approaches needs to be appreciated by researchers and commercial units before it is likely to be applied. In the UK, even in area excavations, most attention is paid to boundary features, and then only small proportions are sampled (2-3% in some cases). However, failure to explore fields adequately creates a self-fulfilling prophecy of lack of expectation. Future projects really must incorporate far more detailed examination of fields, rather than regarding them as structural background noise to settlement. Project designs for fieldwork need to enable the placing of sites within landscapes; additional geophysical survey adjacent to areas that are targeted for excavation under PPS5 would be highly beneficial, covering areas that are not immediately under threat. Whilst this has obvious practical and funding difficulties in the

commercial arena, the current practice of examining incomplete snapshots of fragments of ditches severely limits the usefulness of any other information that might be gained from their excavation, and is effectively bad value for money.

We cannot continue to assume that fields are blank spaces with nothing to tell us. Interdisciplinary approaches in the Netherlands have resulted in far more detailed understanding of changes in Iron Age land use (Spek *et al* 2003), proving the worth of intensive sampling. Comparisons of test-pitting and open area excavation in Sweden have demonstrated the additional information available from more detailed field investigation (Petersson 1999). Therefore, future projects need to incorporate not only adequate and detailed examination of boundary features, but interior space, and the stratigraphy of fields, utilising a range of techniques and disciplines. The scheme for recognising components of pastoral landscapes described above indicates the opportunity to target effort in the most fruitful locations, and address directly the way in which landscapes grew, changed and were adapted from one generation to another. We can now focus our efforts of excavation and analysis on the most informative features. Structures such as gates, stock handling features and water holes provide information on sequence and longevity of use but also have high potential of yielding useful a wide range of environmental data.

Likewise, increased sampling of buried soils for examination of the soils and environmental data will enable us to address directly questions of the use of individual parcels of land. With regard to soil data, Lewis (2008:24) advocates site specific investigation applied extensively, with the holistic combination of approaches being able to address larger scale questions. As she indicates, this can be achieved effectively with 'key hole surgery', but care needs to be employed so that the individual context of the data can be fully appreciated and the sample is adequate to be representative of any given landscape. We should seek to integrate as many lines of enquiry as are likely to be available to us. Particularly, we should give faunal remains a higher profile when considering the archaeological potential of excavated material, especially in areas where their preservation is rare or they are likely to be in poor condition. Greater degrees of sieving would also be beneficial. Animal bone research cuts to the core of how

communities were able to function and spent most of their time. Further isotopic analysis is also required, both to clarify the structure of human diet, but to also explore the diet of livestock and explore animal origins and movement.

In practical terms, it is recommended that:

- The **full** extent of field systems should be explored and examined utilising geophysical survey;
- Greater proportions of ditches should be excavated fully (15%+);
- Possible stock handling features and gateways should be targeted for detailed examination;
- Boundary features away from 'high traffic' areas should also be examined to establish issues of the general sequence of construction, use, maintenance and abandonment, to balance examination of areas assumed to be 'high traffic';
- Areas within the bounds of land parcels should be examined, and temporary subdivisions of land parcels with fences, and small or temporary stock handling or housing structures should be expected;
- Areas of horizontal stratigraphy along boundaries and within land parcels should be examined with care. The remains of banks associated with ditches, fence lines and buried soils are likely to be ephemeral, but are highly valuable;
- Examination of soils and soil chemistry needs to be undertaken to determine the extent of erosion, disturbance, and trampling as well as direct land use and manuring activities;
- Waterlogged or potentially waterlogged features such as ditches and wells/watering holes should be examined carefully (particularly for erosion of the sides, and localised trampling) and sampled extensively for the range of environmental remains likely to be available given the soil type/locale (plant parts, wood, molluscs, faunal remains (including small mammals), invertebrates, etc);
- Excavation and interpretation of structures should not assume that they were only inhabited by people, and areas of worn floors, possible drainage and the pattern of artefact scatter and environmental evidence considered in this light;
- Recovery of faunal remains should be maximised. Bone survives even in hostile soils and particular care should be employed where its recovery is infrequent. Wet and dry sieving should be more extensively employed;

- Environmental specialists need to have access to information on of the structure of the landscape and artefactual information when considering their data, and be facilitated in working together to provide nuanced interpretations.

Unfortunately none of this is easy or cheap, but that should not prevent us, wherever possible, from bearing these issues in mind in all project designs where fields are part of the picture. We need to be open to alternative interpretations of a variety of data, including accepting the possibility of the existence of foddering, hedging, and use of buildings in housing livestock.

5.7.3 Future directions

There are several areas of the south west peninsula in particular that, in general archaeological terms, have very poor coverage, either because of the topography, the interests of researchers, or the likelihood of development related interventions. Given that many of these areas are immediately bordered by areas with extensive known archaeology, it is highly unlikely that they were not utilised – we just do not understand the nature or extent. This can be problematic, as where there is construction, it can be assumed that there is no archaeological value or interest and opportunities are lost. These areas, such as the lowland areas of Devon, Cornwall and West Dorset, need primary field research. Coastal and wetland areas are simultaneously potentially rich in a variety of data that may offer alternative models, and poorly understood in how they related to dry land areas, whilst many of them are under threat from erosion and changing water levels. Coastal erosion on the Isles of Scilly has already destroyed a number of unexplored sites, and changing hydrology in the Somerset Levels is problematic.

It is clear that all of the same data sets as have been used here potentially exist for the rest of southern Britain. The central observation is the degree of localised and sub-regional variation, be it in the form and organisation of husbandry and landscapes or chronology. Consequently, the examination of other regions of Britain utilising a similar approach, may begin to clarify regional variations and enable broader national comparison. The identification of field components and organisation can be applied to sites in all locations and of all periods, and much fruitful research could be done by taking

a similar approach to Romano-British and medieval landscapes. We should expect great variety in their manifestation and accept the likelihood that further work will require reconsideration and refinement. Another priority is to find new ways to explore the extent and scale of wider networks at play in the exchange and movement of livestock. Exploring herd and flock heterogeneity/homogeneity could be done by consideration of morphology, metrics and isotopic data.

5.7.4 Concluding comments

This study set out to consider how livestock were managed in the south west in later prehistory, and assess what contribution they made to economic and social life. This has proved to be far broader than a consideration of 'just animals'. The role of livestock was so central to the lives of everyone in the later prehistoric in south west Britain and beyond, that we cannot continue to relegate them to simplistic assumptions about economy. The pursuit of a livelihood was not only at the core of people's daily lived experience, but enmeshed in the range of decisions that they made, involving, creating and depending on social structure and meaning. The reality of daily existence was of the physical and social engagement of people and beasts, moving together through landscapes, with knowledge and trust, one of the other, handed on through generations. This in turn generated various ways of managing livestock that altered the landscape, profoundly shaping the space in which people and animals lived. The practical complexities of functioning landscapes were both a backdrop to the daily tasks involved in animal husbandry, and a tool in achieving the aims of keeping animals. Animals were a constant part of the 'view', often likely to be part of the home, perhaps regarded as personalities in their own right. They were consumed and disposed of in ways redolent with meaning, utilised in celebration and understood to be of fundamental importance to the functioning of the social, economic and perhaps spiritual world. Animals were not a side line in prehistory, but formed the core of daily experience and endeavour of human communities. Such experiences and endeavour were shaped by, and shaped, the landscape.