

Daws Castle, Somerset, and civil defence measures in the 9th to 11th centuries

by Jeremy Haslam

Abstract

Recent excavations on the line of the defences of the late Saxon hill-top burh at Daws Castle on the coast near Watchet (Somerset) are re-examined in order to elucidate its relationship with the Burghal Hidage burh at Watchet. Two distinct phases of construction are distinguished - the first, the stone-revetted bank of a fort which encircled part or all of the hill-top; the second, a separate fort with a massive stone wall and bank. The former can be seen as a component of a more general system of forts and other military installations of the earlier 9th century. The second can be identified as the defences of a hilltop burh which has analogues in the Aethelredian hilltop burh at South Cadbury, amongst others. A date in the mid to late 990s is suggested for the dating and context of these forts. This is placed in the context of archaeological and other evidence for the extent and nature of civil defence measures which were organised by King Aethelred against the Vikings of the period. This same context is also suggested for the composition of the Calculation of the Burghal Hidage, as a prescriptive formula created to facilitate the reorganisation of burhs and their territories for the defence of England against the Vikings at this time.

Introduction

Ex excavations on the line of the defences of the hill-top fort at Daws Castle, on the north coast of Somerset, in 1982 have posed questions about the relationship between this fort and the burh at Watchet, a fort of the Burghal Hidage lying 3 km to its east (McAvoy 1986; cf Aston 1984, 192-3; Gathercole 2003, 6-7.) It is the purpose here to reassess the results of these excavations, and to propose an alternative model for the development of these two sites in the late Saxon period which is perhaps more in accord with other developments in the south-west of England in the two centuries before the Norman Conquest. Evidence will be given which suggests that a fort at Daws Castle was built in the early part of the 9th century as part of the provision of a system of defensive measures against attack by the Vikings; that this was replaced by the burh at Watchet as one element of a new system of the defence of Wessex instigated by King Alfred in the period 878-9; and that subsequently Daws Castle was utilised as a new but short-lived burh of King Aethelred in probably the late 10th century, on a scale analogous to the archaeologically better-documented site at South Cadbury Castle, also in

Somerset. The forts or burhs of this later period are placed in the wider context of the archaeological and documentary evidence for the civil defence measures which were put in place by King Aethelred in the face of the increasing Viking onslaught on the Anglo-Saxon state from the 980s into the early 11th century.

Daws Castle

The archaeological evidence from Daws Castle can best be interpreted by recognising that the defences as excavated fall into two quite distinct phases or episodes (periods 1 & 2). These have been somewhat conflated in McAvoy's interpretation, allowing him to conclude that the hillfort was the site of the late Saxon burh of the Burghal Hidage (McAvoy 1986, 57-9). There are a number of reasons, however, for questioning this temptingly straightforward equation. McAvoy's interpretation is based in part on the presumed equivalence of the length of the defences of the hillfort with the length expected from the assessment of its hidage given in the Burghal Hidage, an argument which the writer has shown as having no predictive value (Haslam 2009). Furthermore, the fact that it is not possible to determine whether the defences of either phase encircled the hilltop on its seaward side to the north, or to estimate the likely extent of the erosion of the cliff face over more than a thousand years, means that the total length of the defences is unknowable. Nor does McAvoy discuss the role of the town and port of Watchet at the base of the hill in King Alfred's programme of burh-formation. The likelihood that this was at some stage provided with defences needs to be accommodated to the developmental sequence which can be inferred from the excavated evidence at Daws Castle.

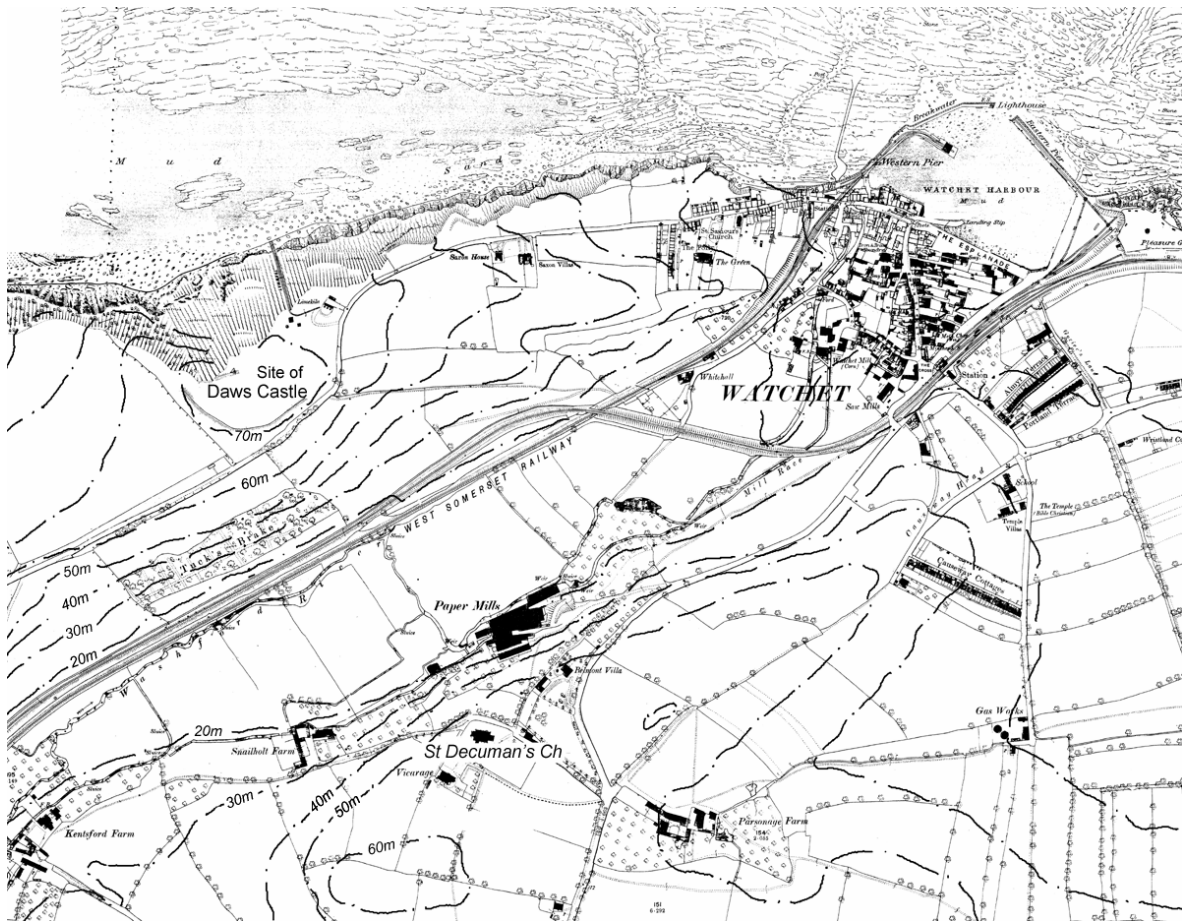


Fig. 1 The burh of Daws Castle, in relation to Watchet and St Decuman's church to the south. (Based on OS 1:2500 map of 1888). (Low res image)

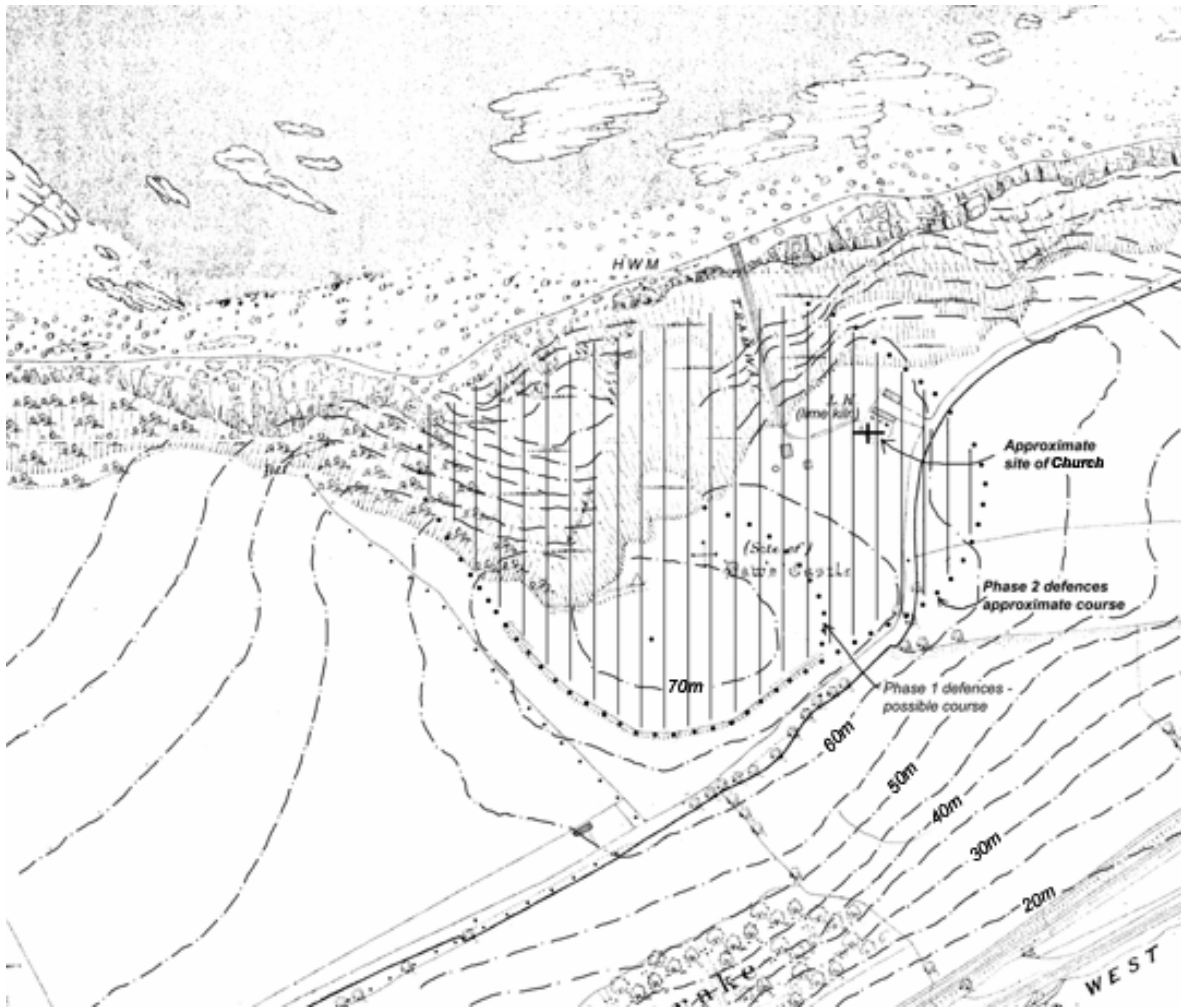


Fig. 2. Daws Castle, Watchet, showing possible courses of the period 1 and period 2 defences - area of period 2 burh shown in hatched lines. (based on the OS 1:2500 map of 18**.) (Low res image)

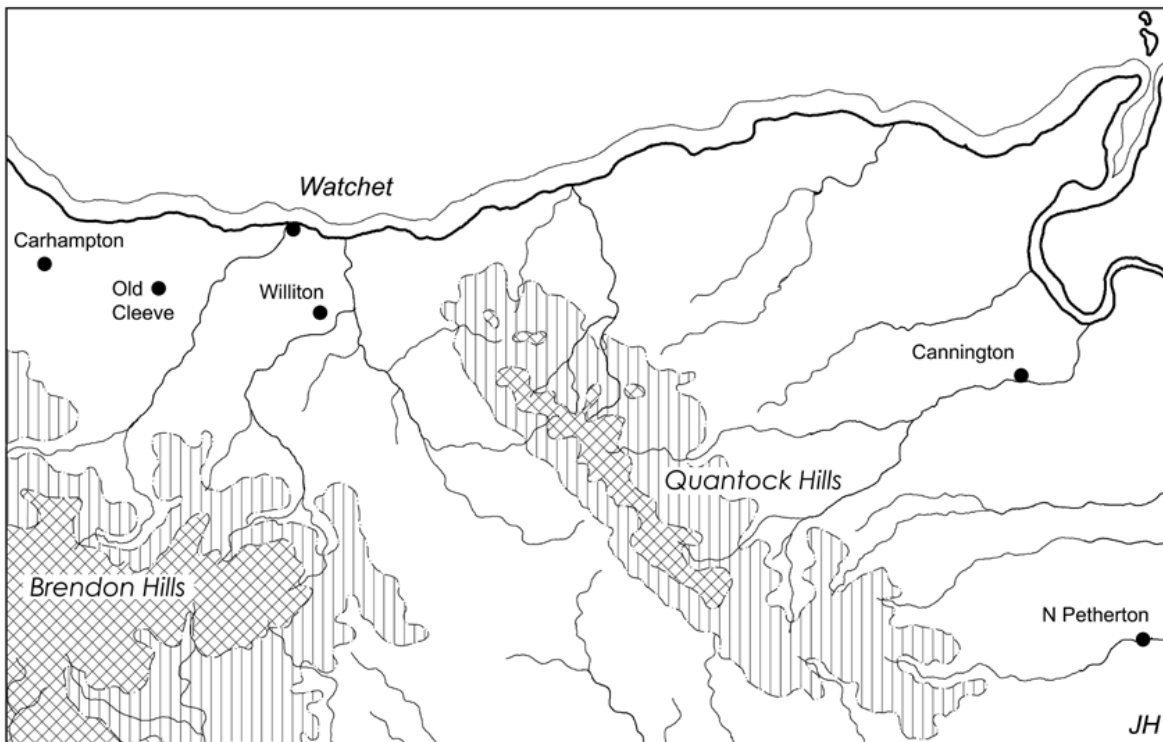


Fig. 3 - The setting of Watchet and Daws castle, including the surrounding royal manors (Carhampton, Williton, Old Cleeve, Cannington and North Petherton) (low res image).

Fig. 4 - to be added - reproduction of McAvoy's section(s).

The burh of period 1

A important aspect of the reassessment put forward here is that the archaeological evidence can be interpreted in terms of a rather different developmental sequence than is suggested by McAvoy, and can be analysed in terms of two separate phases. No consideration has been given to the possibility that the primary defences of the hillfort could be earlier than the late 9th century. The only dating evidence for this phase is a carbon 14 date of 730 +/-40 from a bone within a layer of redeposited soil which was a component of the primary construction of the bank (McAvoy 1986, 51). This provides a possible date for occupation of the site of the hillfort, without regard as to whether it was defended or not, and provides a *terminus post quem* for the construction of the defensive bank itself. This dating evidence is thus consistent with a phase of fortification in the early 9th or possibly late 8th century suggested below.

There are other aspects of the excavated evidence which are not consistent with the suggestion that these defences are those of an Alfredian burh. One issue is the interpretation of the sequence of the layers of McAvoy's phases 1a and 1b as separate processes or events. Phase 1a is interpreted as layers produced by the construction of a marker trench, into which a

dry-stone wall was added in phase 1b, described as a separate and later process (McAvoy 1986, 51). Although the wall appears to have been robbed to a considerable degree to provide building material for the later wall of the defences of period 2, the whole sequence is more consistent with the process of the creation of a bank with a retaining stone wall as a single unit, whether or not there was an initial 'marker trench'. The unitary construction of the wall and the bank argues against the interpretation of this as the defence of the Alfredian burh of 878-9. The banks of newly-constructed burhs of this period were invariably built of local materials with the use of turf or sometimes a wooden palisade as a fronting revetment, to which mortared stone walls were added shortly afterwards to stabilise the bank and to strengthen the defensive capabilities of the original defences (Biddle 1976, 135-7; Radford 1978; Alcock 1995; Haslam 2003, period 2; Haslam 2009, 98-100, 103-4). The constructional details of these primary defences at Daws Castle are therefore not typically 'Alfredian'.

In the second place, hill-top burhs of the Burghal Hidage system of 878-9 which were not provided with a defended garrison (i.e. which did not have facilities to accommodate a permanent population) were invariably located in earlier hillforts, acting as signalling stations and as temporary refuges or marshalling points for the local *fyrð*. The existence of already-standing fortifications would have been an essential pre-requisite in the construction of the more isolated forts which were part of a system which was arguably put in place over a short time period (Haslam 2005). The hillfort at Daws Castle was, however, new at the time that the first period defences were built. If King Alfred's surveyors had decided to build a new fort in the area as part of this new system, it would seem to be more reasonable to have spent the equivalent effort, in terms of the expenditure of resources, in creating a permanently-garrisoned burh at Watchet itself, rather than in constructing a completely new fort on an inaccessible hill-top site which would not have been garrisoned.

The alternative is to suggest that the defences of McAvoy's phases 1a and 1b are of an earlier fortress, constructed (as suggested above) between the late 8th century and the mid 9th century. This would have been intended as a defence, refuge, lookout and/or signalling station built to guard against possible Viking incursions up the Severn estuary, as well as to guard this area of north Somerset and its royal estate centres (Fig. 3). The appearance of public obligations shown in charters of fortress-work from the mid 9th century in Wessex could be taken as implying a perceived need on the part of the kings of Wessex at this time for the systematic provision of defensive works designed to guard against Viking attack. However, the documentary evidence for these obligations only comes from booked land. There is every reason to believe that these obligations had been customary for some time before the mid 9th century, especially since they were prevalent in Mercia from at least as early as the mid 8th century (Stenton 1971, 309-14; Brooks 1971; Abels 1988, 61). Similar obligations would have supplied the labour for work on the numerous dykes, such as Wansdyke, built in Wessex in earlier centuries. Wansdyke itself has been reasonably dated to the early 9th century (Draper 2005; Reynolds & Langlands 2006). It would be entirely appropriate to the historical

circumstances of the time to recognise that the primary defences of Daws Castle belonged to a burh which could have been constructed in the first half of the 9th century by means of these general obligations. This can most reasonably be seen as a response to the increase in hostile attentions from the Vikings in the 830s, one fleet of which fought against the king and the forces from several shires at the royal vill at Carhampton, very near Daws Castle, in 836 (Whitelock 1979, 186). The geography of the area suggests that this force would very probably have landed at the site of Watchet itself. As such, the burh at Daws Castle would have been a direct precursor of the system put in place in 878-9.

This burh can be placed in a wider context, at least in western Wessex. Nicholas Brooks has indeed suggested that the documentary evidence implies that some or most of the Burghal Hidage fortresses date from earlier in the ninth century, though the writer has given reasons for holding that the system of the burhs of the Burghal Hidage was new in the particular circumstances of 878-9 (Brooks 1996, 129; Haslam 2005). Consideration should be given, however, to the likelihood that Alfred's new system used elements from an earlier system, and that some or most of the 'temporary' forts of the Burghal Hidage were inherited from it. It is probable, also, that these early 9th century forts formed part of a more general system which included defended bridges, herepaths, causeways and look-out/signalling stations. It is argued by the writer that a bridge over the Axe river, linked with a causeway over the Somerset Levels, was later augmented by the construction of a burh at Axbridge as part of King Alfred's new system of 878-9, and similar inferences can be made with regard to a hill-top burh and bridge over the Parrett river at Langport (Haslam forthcoming). Similarly, a hill-top burh at Bredy, S. Dorset, can be inferred to have formed part of this general system of look-out stations before the construction of a burh at Bridport as part of the system listed in the Burghal Hidage. The charter of 846 in which King Aethelwulf booked to himself a large chunk of S. Devon (Whitelock 1979, 522-4) also shows landscape and place-name information from which it can be inferred that a general system of defensive measures comprising forts, look-out points, herepaths, meeting places and trackways was already in place in the area at the time. Both Terry Slater and Paul Luscombe have discussed the function of the fort at Halwell in this context, which was later to become a burh incorporated into the Burghal Hidage scheme and which was soon after replaced by a new burh at Totnes, and how these earlier elements were utilised by Alfred as essential components in his systematic defence of Wessex (Haslam 1984a, 259-62; Slater 1991; Luscombe 2005, 113-6). A similar function may well provide a context for the phase 1 fort at Oldaport, S Devon, immediately to the west of the area of the South Hams discussed by Slater (Rainbird 1998).

It is also clear that King Alfred was familiar with the existence of this system of fortifications, bridges and trackways in his use in 878 of the fort of Iron-Age and early Saxon date at Athelney, which was linked by a causeway and bridge to Lyng, and in the ability of his army of retainers to move around the area of at least central Somerset at will (Hill 1967; Leach 1976, 29-30; Aston & Leech 1977, 87-90; Aston 1984, 183-5; Keynes 1992, 149; Richardson 2003, 5-8).

The use of another fort in this pre-Burghal Hidage system is also shown by the deployment of a fort at *arx cynuit* in N Devon, at which the *fyrð* of Devon under Ealdorman Odda engaged with a force of Vikings from Wales which landed in N Devon in early 878 - probably in a pincer movement to entrap Alfred in his Somerset eyrie after his rout at Chippenham in January 878. In this case *arx cynuit* acted as a rallying point for the *fyrð*, drawn from at least the whole of north Devon, just as Halwell, at the centre of a network of ridgeways and herepaths which connected lookout points and probably beacons, was well placed to act in a similar way in the south. *Arx cynuit* is usually taken to have been Countisbury on the N Devon coast (Brooks 1996, 141), though a more plausible alternative has been suggested by Nick Arnold as being at Castle Hill near Beaford, nearer the Taw/Torridge estuary, which itself is a more likely landing-place for the Vikings than Lynmouth on the north coast (Arnold, forthcoming). Asser's unusually full description of the battle between Odda's forces and the Vikings includes the information that the walls (*moenia*) of the fort (which he appears to have visited himself) were 'raised in our fashion'. This can be reasonably taken to imply that the defences of *arx cynuit* consisted of some form of traditional stone-faced earthen wall - a 'Welsh wall', also known as *Cloddiau*, or 'Cornish hedge' (Arnold, forthcoming). The similarities of this description to the constructional details of the period 1 wall and bank at Daws Castle is striking. The function of *arx cynuit* as a refuge and rallying point for the county *fyrð* marks it out as a component in the general system of such places in the period before the formation of the Burghal Hidage system discussed above.

This hypothesis of the existence of a burh at Daws Castle as one element of an earlier system of forts pre-dating the Burghal Hidage system leaves unresolved its relationship with Watchet itself. The fort at Daws Castle must have been a distinctive feature of the landscape in 878-9. There are two possibilities which could characterise this relationship. Firstly, the earlier hill-top fortress at Daws Castle could have been reused by Alfred as a temporary fort, as was clearly the case with Pilton and Halwell in Devon, Chisbury (Wiltshire), Burpham (Sussex) and Eashing (Surrey), all of which are included in the Burghal Hidage. The development of Watchet could therefore be seen as resulting from the replacement of the hilltop burh at a later date, as already suggested by Mick Aston (Aston 1984, 193). This process which can also be recognised, for instance, in the replacement of Pilton by an urban burh at Barnstaple and Halwell by urban burhs at Totnes and Kingsbridge (Haslam 1984a, 94-102; for Kingsbridge, Haslam 1984a, 259-75), Chisbury by Marlborough (Haslam 1984b, 94-102), Burpham by urban burhs at Arundel and Steyning (Haslam forthcoming b), and Eashing by Guildford (O'Connell & Poulton 1984, 46). However, Watchet was itself included in the Burghal Hidage List, which argues against its secondary development in relation to Daws Castle. This creation of new burhs with regular urban layouts as replacements for non-urban temporary fortresses has been argued by the writer as taking place in the later 9th century as a response to the new Viking incursions of the early 890s (Haslam 2005; Haslam 2009, 103-4) rather than in the 930s in the reign of Athelstan, as argued by David Hill (Hill 2000). Even this development, however, arguably post-dates the production of the Burghal Hidage (Haslam 2005).

The other alternative is to suggest that the hillfort at Daws Castle was not used in the new Alfredian system of 878-9, but that the new burh of this date was located at Watchet itself. An argument against the use of Daws Castle by Alfred as a new burh is given by the archaeological evidence of the Phase 1 defences, which shows that these primary defences had not been refurbished at any time before the late 10th century phase of burh-building suggested above, but had been allowed to degrade naturally. In logistical terms, the provision of adequate defences for a new burh on the hilltop would have been a much more expensive process, in terms of the utilisation of available human resources, than providing for the defence of a somewhat smaller site at sea level. The garrisoning of the defences of the new burh at Watchet would have been made immeasurably easier by virtue of the fact that it would have been provided with a resident population (Haslam 2005). By analogy with Langport (Som), it seems probable that the present settlement at Watchet would have functioned as a royal market and port for sea-borne trade supported by, and serving the interests of, the adjacent royal centres of Carhampton, Williton and Old Cleeve, as well as Cannington and North Petherton to the east of the Quantock Hills (Fig.3), at a period rather earlier than the 870s. As such, it would possibly have acting as a coastal emporium or *wic*, which would have been controlled by these royal centres throughout the middle Saxon period (Aston 1986, 50, 58). This would place in context its choice as the site of the fortified burh of the new system put in place by King Alfred in 878-9 (Aston 1984, 192-3; Hill 1996b, 223-4; Gathercole 2003) in order both to enhance the security of the site and to facilitate the control of this trade by the king. It is possible, however, that the earlier defences and the hilltop site at Daws Castle would have been used on a temporary basis in association with the garrisoned burh below as a look-out post and signalling station, a function which can also be postulated in the arrangement at Langport.

The burh of period 2.

The most significant aspect of the defensive bank of McAvoy's period 2 is that it appears to have been an entirely new construction rather than a rebuild or revetment of the earlier defensive bank of period 1, albeit (at least on the south and west sides) on virtually the same alignment. This is represented by the construction of two main elements - firstly, a massive mortared stone wall along the line of the earlier bank, and secondly, a new bank piled up behind it. Together, the new wall and bank would have reached to over 3m above the primary land surface. McAvoy has suggested that this phase of the redefence of the earlier burh on the hilltop was either of early 10th century date, or, alternatively, commissioned by King Aethelred in the late 10th or early 11th century (McAvoy 1986, 58-9). The latter suggestion is based on the premise that similar mortared walls added to the fronts of the banks of late Saxon burhs belong to the late 10th or early 11th century. McAvoy does not however pursue the implications of the attribution of these new defensive system to the latter period.

Although the interpretation of the context of these added walls as belonging to the early 11th century has been a generally accepted paradigm for some time, recent work has suggested

that the walls added to the earlier earth- or turf-revetted banks of the defences of burhs in Wessex and the west Midlands (which can be seen in excavated evidence at Cricklade, Wareham, possibly Wallingford, Southampton, Christchurch, Lydford, Wilton, Oxford, Hereford, Tamworth and Winchcombe) were much earlier, and that they were built to stabilise their defensive banks in probably the late 9th century as a systematic response to the renewed Viking incursions into England in the 890s. This is discussed in detail by the writer in relation to the added stone walls at Cricklade, Christchurch and Oxford (for Cricklade, see Haslam 2003, period 2; for Christchurch, see Haslam 2009, 103-4; for Oxford, see Haslam 2010b), and in more detail below, as well as in Mercia (Bassett 2008). As was the case with all the other examples cited above (apart from South Cadbury), the stone walls were built as revetments to earlier banks, which is not the case at Daws Castle. Here, the wall of Phase 2 and its associated bank represent a completely new defensive system which was constructed on the line of, and overlying, the denuded remains of the earlier bank and wall.

This consideration therefore removes any constraints in the dating of the context of the defences of period 2 which is implicit in the dating of these supposedly analogous examples. However - and notwithstanding this reassessment of the evidence of these analogies - the redefence of Daws Castle with a substantial wall, bank and outer ditch invites comparison with the massive Ethelredian defences of the hillfort at South Cadbury. This was refortified with a similar bank, stone wall and ditch, and the interior of the hillfort laid out as the beginnings of a new settlement with its own church, a process which Leslie Alcock ascribes to the early 11th century (Alcock 1995, 154-7). At the same time the moneyers in the neighbouring mint of Ilchester are seen as being relocated within the defences of this new burh. In view of the close similarities in size and situation of the defensive systems at South Cadbury and Daws Castle, it would seem reasonable to suggest that the new defences of this phase at Daws Castle belong to a hitherto unrecognised new hill-top burh created by King Aethelred as one element of a wider system of defence against the Vikings at this period, which system also included Cadbury Castle, Cissbury, Dover and probably others.

Some support for this general hypothesis (but not for the date of its construction) is shown by two aspects of the archaeological and the landscape evidence. Firstly, it is supported by a remarkable series of observations relating to St Decuman's church, situated on a saddleback hill immediately to the south of Daws Castle (Fig. 1), which is arguably a pre-Saxon Celtic foundation (Calder 2004). The existence at Daws Castle of the field name 'Old Minster Field', and the evidence of burials found in the construction of a lime kiln at its eastern end, has suggested the presence of a minster church with burial rights on the top of the hill at the eastern end of the fort (see Fig. 2) (Dunning 1985, 165; Gathercole 2003, 6). The siting of the new church at Daws Castle on the eastern end of the suggested enclosure, shown by the evidence of the burials and the field name, would place it on a distinct flat area or shoulder of the hilltop adjacent to the defences immediately to the east, as can be inferred from the lie of the land at this point. This could represent an area which was artificially levelled for the purpose. If so, then

the course of the defences at this point could well have been extended from an earlier alignment of the period 1 defences, which would be expected to have formed an *enceinte* which was more symmetrically arranged around the highest point of the hill (see Fig. 2). The tower of this church - if indeed it had one - would have performed an important military function in acting as a look-out which would have considerably extended the field of view up and down the Bristol channel.

Michael Calder has recently put forward the case - quite independently of any consideration of the historical context suggested here - that this minster church at Daws castle was in fact St Decuman's church, which with its associated burial rights had been relocated to the hillfort at some period, subsequently to be returned back to its original site on the other side of the valley (Calder 2004, 17-21). Calder has suggested that the most likely context for the process of relocation would have been the creation of the supposed Alfredian burh on top of the hill at Daws Castle. However, if the church had been relocated, an arguably more appropriate historical context would have been the creation of the new burh by Ethelred in probably the late 10th century (the dating of which is discussed below). The non-urban hill-top burhs created by King Alfred in the system described in the Burghal Hidage were, by contrast, temporary refuges with no settled populations or garrisons which would have had no need for separate ecclesiastical provision.

Given the existence of a church at Daws Castle which would have been associated with the burials, there is, however, an alternative interpretation. These could be explained, not by a physical relocation of the old minster at St Decuman's to a new site (which seems somewhat drastic and indeed unnecessary), but by the creation of a separate church at the Daws Castle site as a royal chapel which was part of the new development of the royal citadel. The burials around or near this chapel could on this interpretation have been of individuals whose duties involved service to the king in his new citadel. This would be a close analogue of the unfinished church at South Cadbury, which has been interpreted as being more akin to a royal chapel than to a parish or minster church (Alcock 1994, 160). On this interpretation, the ancient church of St Decuman's would have remained where it had always been, serving a wider community, but having to accommodate a new 'parish' which would perhaps have been no larger than the royal citadel on the hillfort itself. The survival of its appellation as a 'minster' in the field-name would be no more than a memory of its special status, and of the fact that it had been used as a place of burial.

The second aspect of the evidence supporting the interpretation of the hillfort at Daws Castle as an Aethelredian burh lies in the subsequent fate of the new defensive wall, as shown in McAvoy's excavations. At some time quite soon after it was built it appears to have been almost totally destroyed, with the resulting destruction deposits spread out over the berm in front of the bank (MacAvoy 1986, Fig 2 and 57-59 - layers 66 & 67, section 1 area 5). McAvoy is uncertain whether to interpret this as a process of the robbing of the wall or its deliberate destruction (MacAvoy 1986, 57). However, the presence of large stones in this destruction deposit, some of

them up to 0.5 m in size, within a layer of rubble and mortar of nearly a metre in thickness, suggests that the wall was deliberately slighted rather than demolished for its re-useable stones. The build-up of relatively thin layers on the outside of the wall at Daws Castle before its destruction (layers are 68 & 69, overlying a mortar layer 109 derived from the wall's construction - section 1 area 5 - Fig 2 in McAvoy 1986) is consistent with the suggestion that the wall would have stood for only a short period before its destruction in 1016 or soon after. That the wall appears to have been totally destroyed to its foundations in one operation, leaving a clean foundation trench and the adjacent layers intact, is also more consistent with a process of deliberate demolition than of casual robbing.

The writer has interpreted very similar deposits in equivalent positions and stratigraphical sequence in excavations at Cricklade and Christchurch in the same way (Haslam 2003, period 3; Haslam 2009, 101), an interpretation which is also consistent with the excavated evidence from South Cadbury. As has already been argued, this evidence supports the interpretation that the burghal defences over possibly the whole of Wessex (probably generally excluding Roman sites, where their defences can be shown to have stood for some centuries afterwards) were deliberately razed to the ground, arguably by King Cnut some time soon after his accession to the throne in 1016, both as an aspect of the regime change which he instigated and as a systematic attempt to prevent the reuse of fortifications against himself (Haslam 2003, period 3; Haslam 2009, 100-2, 104-5).

Dating and context of the burh of period 2

The dating and context for the creation of the second period fortress at Daws Castle cannot be predicated on its use by known moneyers, as has been the case with both South Cadbury and Old Sarum. A mint was established at Watchet in the 980s, with 15 coin types from the reign of Aethelred (Blackburn 1974; Wedlake 1948; Watchet mint online index), but there is no evidence to show whether it was or was not at some period physically located at Daws Castle as an emergency expedient.

However, there are grounds for questioning whether the tight dating argued by Leslie Alcock for the construction of the royal fortress at Cadbury Castle in particular, as well as for those at Sarum and Cissbury, can be sustained. The question must be posed as to whether these forts were conceived and built in order for the process of minting to be carried out in a secure environment; or whether minting was removed from lowland locations to the safety of hill-top burhs which had in fact been built at a rather earlier date in response to wider concerns to provide security and protection against Viking attacks. Alcock's discussion of the dating of the defences of South Cadbury is premised on the acceptance of the first alternative, following Dolley's analysis of the coin evidence. He accepts a tight chronology for the construction of the burh based on the evidence of the minting patterns, viz, the establishment of minting at Cadbury by the move of moneyers from Ilchester in late 1009 or early 1010. The defences are ascribed to

this period on the premise that the purpose of the refortification was to establish and protect a borough, which in turn is signified by the presence of a mint (Dolley 1958; Alcock 1994, 168, & 166). In other words, without the mint there is no borough, and without a borough in its legal and administrative aspects, signified by the presence of a mint, there can be no defences. The construction of the borough's defences must therefore be co-terminous with the establishment of both. However, this somewhat constrained logic loses sight of the fact that a late Saxon burh was built as a secure royal administrative centre by means of public obligations with a number of functions, of which minting was only one. Furthermore, not all mints at this period were located in defended burhs, which implies that the process of fortification was not a necessary condition for either their location or function. The relocation of the minters to a secure environment cannot, therefore, be taken as being a necessary reason for the foundation of the burh. Following his line of argument, Alcock sees the construction of the defences and the move of the mint as the consequence of, or a response to, the ravages of Thorkell the Tall around Wessex in the summer of 2009. This premise is seen as being supported by the assumption that both the incomplete state both of the structure of the defences and of the unfinished church can be attributed to a supposed hiatus caused by Aethelred's absence in Normandy in 1013-4 (Alcock 1994, 166-9).

While the archaeological evidence is not inconsistent with this dating, it is however equally consistent with a situation in which the defences of South Cadbury could have been built at an earlier period (though still within Aethelred's reign), as part of a more general response on the part of the royal state apparatus to the threat posed by Viking attacks. The role of the hillfort at Old Sarum (Salisbury) (Wilts) illustrates this well. The Chronicle refers to the destruction of the burh at Wilton in 1003 by Swein's army, which passed Old Sarum on its retreat to the coast (Whitelock 1979, 239). It appears to have been as a result of this that the moneyers working in Wilton were moved to the relative safety of Old Sarum (Dolley 1954; Dolley & Metcalf 1961, 153; Shortt 1950; Blunt & Lyon 1990; Alcock 1995 166. See also RCHM 1980, xxix-xxxii; Haslam 1984, 124-5; VCH (Wilts) VI, (1962), 53-60). Alcock regards this development as 'an obvious prototype for the founding of a mint within the Cadbury defences' (Alcock 1994, 166). The account in the Chronicle, however, carries the implication that the hillfort of Sarum was by 1003 a central and focal place within the landscape, as well as already being augmented with refurbished defences, before the relocation of the mint there (Haslam 1984a, 124; VCH (Wilts) VI, (1962), 59-60). The move of the moneyers from Wilton to Old Sarum can be interpreted therefore as a consequence of the latter's perceived greater safety and defensibility, rather than the cause of its development as a burh. The same is likely to have been true of both Cadbury and Cissbury. There is every reason to conclude that the provision of the new defences of these hillforts would have been a process unrelated to the supposed function of providing security for minting activity (which was in fact taking place throughout this period at many undefended centres), and so unrelated in time to the relatively tightly-dated moves of the minters. From a strictly logical standpoint, the date of the move of the moneyers to the hillfort provides only a *terminus ante quem* for the existence of the burh there.

The general provision of hillfort defences at South Cadbury, as well as at Old Sarum, Cissbury and Daws Castle, can be most satisfactorily seen, therefore, as resulting from a more general programme of the provision of defensive measures for Wessex which can be placed in a somewhat earlier period in Aethelred's reign. That the defences at Cricklade were put in order at around this time, a process which involved the cleaning out of the earlier ditches which had become degraded and filled in during a long period of abandonment, suggests that these measures can be associated with this programme of the provision of a more general defence in depth (Haslam 2003, period 3). Similarly, a phase of refortification at Oxford, discussed further below, can best be ascribed to this period. These considerations suggest that this whole process of the creation of new defences and the refurbishment of old ones in the late 10th century was not so much a series of piecemeal responses to local emergencies, but together added up to a rather more wide-ranging and systematic provision of defensive measures than previous commentators have perhaps allowed. This is discussed in the following section, in relation to both the wider archaeological evidence and the suggested context of the Calculation of the Burghal Hidage. To set against this, however, due attention must be paid to the lack of success of the West Saxons in preventing the destruction of these newly-refurbished burhs during Viking raiding, which Richard Abels ascribes to the lack of any coordination between burghal garrisons and the *fyrd* (Abels 1988, 92). A date in perhaps the late 10th century would be a suitable context for the new phase of the organisation of the defences of Wessex and the building of these new burhs. Pauline Stafford has argued that a 'rethinking' of the defences of the land was well underway by 1006 with the beginning at that time of the 'coordination of military effort on a larger scale', of which the requirements for the provision of a fleet in 1008 was one aspect (Stafford 1989, 66-7). Certainly by this time the periodic Viking assaults were a well-established pattern. The Anglo-Saxon Chronicle records a number of raids by Vikings on coastal areas, from Thanet to Cheshire from 980, including raids 'everywhere on the coast' in Devon and Cornwall in 981 and on Dorset in 982, and further raids on Devon and Somerset, including specifically at Watchet, in 988 (Hill 1981, maps 108-129). Ryan Lavelle has, however, characterised these raids of the 980s as small in scale and probably not even of Scandinavian or Danish origin (Lavelle 2008, 52-6). However, the 988 raid in particular, which was clearly fought by at least part of the assembled *fyrd* of Somerset, could well have provided the stimulus for the creation of the securely-defended hilltop location at Daws Castle as one element in the provision of a system of defence-in-depth. As with Bredy on the south coast, the position of this new burh would have given it an unrivalled view up and down the coast - as no doubt it had done a century and a half earlier.

The creation of a new 'minster' church, or perhaps more accurately a new royal chapel, within the defences of the hilltop burh at Daws Castle, as well as the intended provision of the church at Cadbury, also shows that these places were elements of a wider and more sustained attempt to reorganise the strategic as well as the social and perhaps also economic landscape of their areas. This perception has also been flagged up by Leslie Alcock (Alcock 1994, 168). It is

noteworthy that although minting activity resumed at the primary royal urban burh at Wilton in the reign of Cnut, it was also maintained at Old Sarum throughout the 11th century, together with the presumed associated administrative functions appropriate to its status as a royal burh (Shortt 1950; VCH (Wilts) VI, (1962), 59-60). This continuity of these royal administrative functions provides the essential context for the payment of the third penny from the borough of Salisbury at the time of Domesday (DB Wilts B4), as well as the later relocation of the cathedral of the combined bishoprics of Sherborne and Ramsbury and the construction there of an early Norman castle, both within the former hillfort and Aethelredian burh. A further example of the redefence of an earlier hilltop fort is provided by Oldaport, S Devon, in which still-standing stone walls of probably defensive nature have provided dating material which is consistent with a date of construction in the late 10th to early 11th centuries (Rainbird 1998; Rainbird & Druce 2004).

It can also be argued that these hilltop fortresses of King Aethelred represented a new development in a tendency towards royal aggrandisement and power. Cadbury Castle was developed in close proximity to the former Roman site of Ilchester, which there is every reason to believe had its Roman walls still intact, and which had possibly been developed as a burh in the 890s as a result of Alfred's programme of the augmentation of the primary burghal Hidage system (of 878-9) (Haslam 2009, 103-4). Similarly, Old Sarum was developed in close proximity to the Burghal Hidage burh at Wilton, and Cissbury (Sussex) placed in a similar relationship to the Burghal Hidage burh at Chichester (Donachie & Field 1994; Dolley & Elmore Jones 1958). It might be asked why the defensive capabilities of these already-existing burhs of a former era, suitably refurbished (as was the case with Cricklade, Christchurch and Oxford), were not seen as adequate for Aethelred's purposes. All these burhs, however, showed tenurial heterogeneity, in that they had been set up as settlements in part held by the king, and in part by several or many tenants-in-chief of the shire who held tenements in them (Stenton 1971, 526-35; Roffe 2007, 120-7). It would be reasonable to suggest that the creation of these and probably other new burhs by the king at this time, which were controlled by the king alone rather than shared by the tenants-in-chiefs of the shire, would have been a powerful factor in the aggrandisement of Aethelred's sense of the royal prerogative and power, which is seen in their singular development as high-status royal enclaves. This is indicated at Cadbury by the suggestion that the church could have been more akin to a royal chapel than a minster church (Alcock 1994, 160). This tendency would be not unrelated to the aggrandisement of both the king's own person and his own family dynasty, in heaven as well as on earth, which is well evidenced in the canonisation of his half-brother Edward the Martyr in 1000 at Shaftesbury, and the establishment of a mausoleum for him at Bradford on Avon very soon after this in 1001 (Sawyer 1968: no.899; Fell 1978; Haslam 1984a, 92-3; Ridyard 1988; Kelly 1996, 114-122 no. 29; Keynes 1998; Hinton 2009; Hinton 2010). It is hardly surprising that King Cnut, his successor, appears to have taken a decidedly dim view of this tendency, and, as argued above, had the defences of Daws Castle and South Cadbury (amongst others) slighted as part of his programme of regime change, with the consequent obliteration of these grandiose and dysfunctional royal citadels as tangible

symbols of a vanquished dynasty.

The civil defence measures of King Aethelred

The wider defensive measures of the late 10 - early 11th century

Since the burh at Daws Castle of this period cannot be seen in isolation, the question must be posed as to the character and extent of the physical measures which can be shown to have been put in place by Aethelred to counter the Viking attacks which were gaining in momentum from the late 10th century onwards. The context of these initiatives has been discussed by Richard Abels (Abels 1991; Abels 1996; Abels 2001), but the evidence has been considerably extended by more recent archaeological work. Richard Abels has argued that the burghal systems of the late 9th and early 10th centuries were 'gradually replaced by one less costly and better suited for peacetime', and that these systems were made redundant through their own success. Town defences were eroded in the face of replacement of permanent garrisons by *ad hoc* levies, and by the formation of private armies by lay and ecclesiastical magnates in the reign of Edgar (959-75), so that by the 980s 'the very memory of Alfred's burghal system had been forgotten' (Abels 2001, 21-3, 30). It is clear that the refurbishment of the burghal system in Wessex - and doubtless in other parts of the country too - and the creation of new royal defended citadels of the type seen at Cadbury and Daws Castle were part of what Abels has called an 'ambitious programme of military construction' (Abels 2001, 24). The general historical context would suggest that this was begun to be put in place around the turn of the 10th and 11th centuries, perhaps even as early as the mid 990s (above). It is possible that the major incursion of the Vikings at Watchet itself in 988, and perhaps the battle of Maldon in 991, could have gone a long way to providing a wakeup call which must have alerted Aethelred and his court to the need to look to the defences of the realm in a new way.

This historical model gains some support from a detailed examination of the archaeological evidence. However, the wider evidence for the existence of defensive systems at this period is somewhat equivocal, and entangled in misleading interpretations which it is necessary to unravel. The widespread observations at a number of sites in Wessex of the replacement by stone walls of the front revetments to primary earth and turf banks which had been supported with wooden palisades, has led previous commentators to the conclusion that these walls represent the tangible evidence of a process of refurbishment of these defences in the early 11th century in response to the new Danish onslaughts discussed above (e.g. Radford 1970, 81-103; Abels 2001, 25 & n.41)). This paradigm has been extended to the interpretation of similar archaeological observations in west Mercian contexts (Bassett 2008). This interpretation, although superficially attractive, has however been questioned by the writer, particularly in relation to the detailed archaeological evidence from Cricklade (Haslam 2003, period 3). The question is further discussed in relation to the origin of the defensive stone wall at Christchurch

(Dorset) (Haslam 2009, 98-100, 103-4). I have argued that these stone walls were constructed as replacements for more ephemeral primary timber and/or turf revetments in the 890s - a century earlier than usually accepted - as part of a general programme at this period of the consolidation of the defences of the initial system of burghal formation of 878-9 in Wessex which is listed in the Burghal Hidage document (Haslam 2005; Haslam 2009, 103-4) in response to renewed Viking threats against the Anglo-Saxon state at this time.

One of the main general arguments for the acceptance of this earlier date is based on the common-sense observation that the timber or turf revetments to earth and turf defensive banks would have had a short life-span, and would not have lasted intact for 120 years or so from their initial construction in the late 9th century until the early 11th. This conclusion is supported by a several observations from Oxford, where the stone wall fronting an originally timber-revetted earth, turf and gravel bank has been observed and excavated in a number of places (Durham *et al*/1983, 15; Wilkinson 2003; Munby 2003; Poore *et al*/2010). John Blair has argued, on the premise that the wall would have replaced the fronting timber revetment soon afterwards, that the wall should be dated to the early 10th century (Blair 1994, 148). This view is also shared by David Wilkinson, the excavator of one of the sites, who points to the relative instability of the timber revetment (Wilkinson 2003, 146, 150). Given that the earliest bank would have been built at the time of the formation of the Burghal Hidage system of forts in 878-9 (as I have argued elsewhere - Haslam 2005; Haslam 2009; Haslam 2010b), of which system Oxford was one component, the evidence would be quite consistent with a date for the insertion of the wall in the 890s, as suggested above.

These inferences are extended and strengthened by the results of recent excavations at the castle site at Oxford. These have shown that the defences were abandoned in probably the later 10th century, with the graveyard of St George's church extending over the area of the bank. A section nearby has also shown a rebuild of the inserted wall, which cut through one of the graves, in very probably the late 10th or early 11th century (Norton, pers. comm., Poore *et al*/2010). This sequence is replicated in the evidence from other sites in the southern as well as the northern part of the defences, in which a tertiary phase of stone wall defences replacing the secondary wall of the late 9th century can be recognised. This evidence can best be interpreted as indicating a general phase of the redefence of the burh in the late 10th or early 11th century (Haslam 2010b, 21-3). This phase also provides the context for the construction of the enigmatic St Michael's tower at the North Gate (Dodd 2003, 163-4; Haslam 2010b, 22-3).

The dating of the wall to a phase of the redefence of the burh at Oxford to the late 9th century is supported by the observations made in 1899 at the Clarendon quadrangle, in which a secondary stone wall replaced the primary timber-revetted bank, where it formed the eastern side of the primary burh (Munby 2003; compare Wilkinson 2003). This must be earlier than the extension of this primary burh to the east, which was arguably constructed in c.911 by Edward the Elder (Haslam 2010b). The early date for the construction of the wall is also indicated by the

detailed stratigraphy of the defences at Cricklade (Haslam 2003, period 3). This set of conclusions is however at variance with the view of Steven Bassett, who has interpreted the somewhat fragmentary evidence of the existence of secondary stone walls in the defences of burhs of the west Midlands (in a *tour-de-force* of archaeological analysis) as originating in the early 11th century (Bassett 2008, 180, 191 & n.6). This view is partly based on the supposed analogies of this ubiquitous feature with the secondary stone walls in Wessex burhs (which must include Oxford), which Bassett places in this period (Ibid.). However, the dating evidence for this overall conclusion is equivocal, to say the least, and the stratigraphical evidence from several of the places he discusses is susceptible to a different interpretation.

A case in point is the rear stone revetment wall at Albert Road (site 1) at Tamworth, which is stratigraphically later than a stone pathway to the rear of the bank but probably contemporary with a secondary wall at the front of the bank (Ibid, 205 & Fig. 20). The rear revetment wall, together with layers of the back of the bank, had clearly slumped onto and over the pathway through erosion during a period of neglect of the defences, sealing a coin of Edward the Martyr of 975-8 which was lost on the pathway no later than c.980, probably while the pathway was still being used (Ibid, 211-2 - alternative interpretation 5). The pathway is reasonably interpreted as belonging to the first phase of construction of the late Saxon defences in possibly the early 10th century (or earlier). This evidence shows not only that the pathway was open until the 980s (which is perhaps surprising in itself), but also that the construction of the rear revetment wall, which with other layers at the back of the bank had apparently collapsed over the pathway soon after the loss of the coin, must have been in place for some time before this happened. This is at least a possible interpretation of the stratigraphy as depicted in the section (ibid., fig 20), the details of which, as Bassett himself has pointed out, are by no means unequivocal (Ibid. 236, note 121). This being so, it is therefore not possible that it was constructed in the early 11th century, well after these processes had taken place. This is in direct contradiction to Bassett's confident statement this evidence provides 'an unassailable *terminus post quem* of 975-8 for the rampart's refurbishment in stone' (Ibid., 252.).

On other sites at Tamworth, the secondary stone wall was also present, though in some cases has not survived. On the Albert Road (2) site, the wall is suggested as having collapsed into the Saxon ditch (Ibid, 207, 209), as was the case at both the Marmion St site (ibid, 209-10, and Fig. 24) and the Brewery Lane site (ibid, 197, and Figs 9 & 10). Although on the latter site the existence of the wall is only inferred, in all three cases the stratigraphical sequences are more consistent both with the construction of the wall at an early stage in the development of the defences and with a period of neglect in the later 10th century (or their possible destruction in the hands of Olaf Guthfrithson in 940 - or both), than with the construction of the wall in the early 11th. A date for the augmentation of the defences with a stone wall in the early 11th century is anyway inherently unlikely at Tamworth, given the fact that it was divided between Warwickshire and Staffordshire at some time before this (Gelling 1992, 158), a process which would have effectively decommissioned it as a burh with a viable burghal territory.

At Hereford, other observations of the secondary stone wall have been made in several places, generally interpreted by Bassett as being built 'in response to the new Scandinavian military incursions of Aethelred II's reign' (Bassett 2008, 191). At Cantelupe Street, at the eastern end of the extension to the late 8th or early 9th century burh, the stone wall at the front of the bank (Ibid, 186 and Figs. 5 & 7) was clearly built to strengthen the front revetment of timber which was in a partial state of collapse and decay at the time. This has led Philip Rahtz to the conclusion that the wall is relatively early in the sequence (Rahtz 1977, 117), a view also put forward more recently (Thomas & Boucher 2002, 9-10). This situation is replicated at Oxford, discussed above. On the western side of the defences the period in which the stone walls to the front (inferred) and the rear of the defences were built to replace the timber revetments was succeeded by a long period of 'disuse and deterioration' (Bassett 2008, 186; Shoemith 1982, 73; Thomas & Boucher 2002, 9), which Bassett has argued should be dated to 'no earlier than the late 10th century' (Bassett 2008, 190-1). This is more consistent with the front and rear stone walls being built early in the defensive sequence, as originally argued by Ron Shoemith (1982, 73). Although the walls are usually dated to the early 10th century (ibid.), the archaeological context would be consistent with the proposed date of the refurbishment of the defences of c.880, as in Wessex, in the early 890s. The analogies with the Wessex burhs are brought out by the fact that, as at both Hereford and Tamworth, the original earth and turf defences of Cricklade were also refurbished with stone walls to both front and rear of the bank (Haslam 2003, period 2). These analogies, furthermore, arguably reflect the political realities of the time, when at least western Mercia became an extension of Alfred's kingdom from c.880, to form a new polity which contemporaries called the 'kingdom of the Anglo-Saxons' (Keynes 1998a, 24-6. 34-9, 43-4; Keynes 2001a, 44-8; Haslam 2005; Haslam 2011). It would be expected, therefore, that the details of the defensive policies of western Mercia in the last two decades of the 9th century would have reflected those of Wessex from the later 870s.

At Winchcombe, excavations on two sites have demonstrated the existence of multi-period defences of mid- and late-Saxon date (Bassett 2008, 213-26), characterised by the addition of stone walls to the earth defences of period 2 (?early 10th century). The walls are ascribed to the late 10th / early 11th centuries in the original report, a view with which Bassett naturally concurs (Bassett 2008, 214, 225). However, this view - as in all other instances where it is put forward - overlooks the consideration that timber-revetted banks are not likely to have survived intact for a century between the late 9th or early 10th century and the early 11th century, but would have required reinforcement with stone walls well before the latter date. The evidence is therefore more consistent with the construction of the walls at an early date in the development of the sequence, with a period of abandonment and collapse in the later 10th century being represented by the stone spread over and around the wall on both the Convent Close and Junior School sites (ibid, Figs. 26-8).

Steven Bassett has also put forward a reassessment of the results of the excavations on the northern defences of Worcester, to the effect that a defensive bank probably revetted with

timber was replaced with a substantial stone wall, which had collapsed towards the front (ibid, 226-30). This seems to be paralleled by observations of the line of the ditch on the eastern side where the remains of the wall have collapsed or been pushed into the ditch (Griffin and Jackson 2004, **; Bassett 2008, 228), which could be taken as indicating a period of abandonment some time after the construction of the wall. I argue the hypothesis elsewhere that Worcester was, with Hereford, created as a burh by King Alfred in c.880, with the addition of the stone wall being the result of the documented burh-building episode of Aethelred and Aethelflaed in the early or mid 890s (Haslam forthcoming b). The archaeological record of the slow filling of the ditch over two centuries or more on the City Arcades site is not therefore consistent with a subsequent phase of refurbishment of the primary bank in the late 10th - early 11th century, but rather with the complete abandonment of this defensive line. Furthermore, the northern defences of the late 9th - early 10th centuries were observed to have been dismantled in probably the later 10th century to make way for redevelopment by house plots (Holt 2005, 127). The subsequent episode of replanning of the area of the eastern defences argued by Nigel Baker and Richard Holt (Baker and Holt 2004, 173, 183-4) can, however, be questioned on both topographical and archaeological grounds (Haslam forthcoming b). This phase of abandonment is paralleled by a similar process of disuse and decay of the defences at Hereford at this time, noted above (Shoesmith 1982, 82), which Bassett dates to no earlier than the late 10th century. At Christchurch, some of the Saxon ditches, which had been filled with stones from the destruction of the wall in c.1016, had clearly been open and functional immediately before this event, from which it may be inferred that (as at Cricklade) they too had been cleaned out or re-excavated not long before following a period of abandonment or disuse (Haslam 2009, 98-105).

While these observations are only a summary of some of the complex and sometimes equivocal stratigraphic and other evidence from archaeological observations in these places, there is sufficient evidence to show that the first phase of stone walls added to earlier defensive banks are unlikely to have been the work of Aethelred in the late 10th or early 11th century, but would have been in place for a considerable time before this. Tamworth, divided between two shires at some time in probably the later 10th century, is anyway highly unlikely to have been refortified at this period. The most satisfactory evidence for an early date is that from Oxford, discussed above, where the defences with the fronting stone wall would have had to have been in place before c.911, and where a tertiary phase of the redefence of the burh, reflected in observations on the north and south of the burh of a similar phase of new walling, can be dated to the late 10th or early 11th century on the castle site to the west (Haslam 2010, 21-3).

The provision of new defences to some of the earlier Alfredian burhs in the late 10th or early 11th century is shown clearly in the archaeological evidence from Cricklade. Excavations over many years on all four sides of the defences have shown that these defences appeared to have remained in reasonably good order, and were maintained as a functional system for a considerable time into the 10th century (Haslam 2003, periods 2A-B; see also Haslam 1984, 106-11, 137). This was subsequently allowed to decay naturally through lack of use over an

appreciable period, most probably in the latter half of the 10th century. The ditches became partially or completely filled with rain-washed silt, and the intra-mural walkway became covered with erosion products from the back of the bank in which stones from the partially-collapsing rear revetment wall near the top of the bank were mixed. After the lapse of an appreciable period of probably several decades the defences were then recommissioned, a process which could be recognised in the cleaning out or recutting of the two inner ditches. The intra-mural walkway was not however reinstated in this process, perhaps because it had been so completely obscured by rain-washed clay and earth. The stone wall fronting the bank was clearly reused and probably patched up as part of this process. While there is no absolute dating evidence for these processes, there seems no archaeological or historical reason to look for any alternative explanation than that put forward in the report, in which I have suggested that this shows a period of abandonment in the latter half of the 10th century followed by an episode in which the defences were recommissioned in the early 11th century to meet the new Danish threats (Haslam 2003, period 2C). This should however be qualified by suggesting that this process of recommissioning the defences is likely to have been initiated somewhat earlier - as argued above - in the 990s.

It has seemed important to summarise this body of evidence in order to arrive at a clearer idea of what it was that King Aethelred did - and did not - put in place as his response to the new Viking invasions of the late 10th century, and to determine the conditions of the burghal defences before his new initiatives. To establish this is to understand both the limitations and the significance of the totality of his defensive response to the new Viking incursions of the late 10th and early 11th centuries. Many of the instances discussed above have provided archaeological evidence to demonstrate that, as Richard Abels has suggested, the reinforced defences of a number of burhs in both Wessex and western Mercia of the late 9th or early 10th centuries were subsequently abandoned and allowed to deteriorate and, in some places, to actually collapse, in probably the later 10th century. It is, however, difficult to establish what Aethelred did do to either replace or to resuscitate this abandoned system. He certainly built several hill-top burhs of the Daws Castle / Cadbury Castle type as centres of royal administration, and took steps to refortify others, amongst which can be counted Cricklade, Oxford and probably Christchurch, mentioned above, and London and Bristol, examined below. The ubiquity of the archaeological evidence of destruction deposits of the stone walls in other burhs in Wessex, in a phase of the razing of such defences in or after 1016 by King Cnut (Haslam 2009, 100-2, 104-5), suggests that these same defences had been generally refurbished to a new state of functional readiness in the preceding reign of Aethelred.

Elsewhere, however, it is difficult to identify works of this period. It is possible that the late phase of defensive works at Hereford, in which the bank was raised by the addition of gravel to the top of the rampart, may have been his work, though this is usually ascribed to a documented phase of its redefence in 1055 (Bassett 2008). A possible further example of new burghal defences of this time is presented by the evidence of an 'early medieval' ditch with

associated bank and probable stone wall underlying the 13th century stone wall defences on the eastern side of Worcester (Bennett 1980, 74-5). This could possibly represent an eastward extension in the later 10th century of the late 9th century burghal defences which ran parallel to the High Street (see above). This date which would fit with the widespread evidence of the abandonment of defensive systems at this time, already discussed. As already mentioned, the defences of Oxford appear to have been substantially refurbished at this time.

It also seems doubtful, however, whether large new burhs at such places as Bristol or the eastern extension at Oxford can be ascribed to Aethelred's reign, as has been suggested. The formation of Bristol as a defended burh, usually ascribed to this period in a somewhat tenacious and long-lasting paradigm (Lobel & Carus-Wilson 1975, 3-5; Leech 1997; Brett 2005, 58-60; Brady *et al*/2009, 19), is predicated both on the presence of a mint which started production between 1009 and 1016 (Grinsell 1986), and the absence of historical references to it before this time. This is, therefore, in reality only a *terminus ante quem* for its existence, not evidence for its origin. More recently, however, Jean Manco has argued that it was a creation of King Alfred in the late 9th century (Manco 2009), with whose arguments I would concur. This would be quite consistent with an origin for the burh and its bridge within the context of the strategic imperatives which I have argued elsewhere resulted in Alfred's extension of the burghal system in the 890s (Haslam 2005, 146; Haslam 2009, 100). However, it is likely that an extension of the original Saxon burh to the east over an area later occupied by the Norman castle, suggested by Roger Leech (Leech 1997, 18-24), might well belong to the period of Aethelred's new phase of fortification in the late 10th or early 11th century. This hypothesis is supported by the importance of Bristol in the early 11th century shown in historical sources (Lobel & Carus-Wilson 1975; Horton 1997, 10-11; Leech 1997; Manco 2009). The construction of the eastern extension to the burh at Oxford has also been generally ascribed to the early 11th century, as a response to the massacre of the Danes at Oxford in 1002 (Cooper 1979, 22; Hassall 1979, 301; Hassall 1986, 122; Blair 1994, 158; Dodd 2003, 22-3). As I have recently argued elsewhere, however, this is more satisfactorily dated to c.911 or very soon after on the occasion of the accession of Edward the Elder to the lands of Oxford and London mentioned in the Anglo-Saxon Chronicle (Haslam 2010b).

Other works in towns can be more readily ascribed to the civil defence measures of the late 10th or early 11th century. Recent archaeological work at Bristol has identified a new burh forming an enclosure around the southern end of the bridge, marked by a ditch 12.5 m wide and 3 m deep, which was constructed in the early 11th century (Brady *et al*/2009, 19, 27-8, & fig. 3). This appears to be reflected in later documentary evidence, although was probably rather larger than the 'Arthur's Acre' identified by Roger Leech (Leech 2009). Similar bridgehead works appear to have been built around the southern end of London Bridge, with the reconstruction of the bridge on a different alignment from its Roman (and arguably mid to late Saxon) predecessor after its destruction in the 990s (Hagland & Watson 2005; Brown 2008, 56-7; Watson 2009, 148-9; Haslam 2010a). This carries the implication that the earlier defences of the Burghal Hidage

burgh of Southwark which lay to the south of the bridge were by this time either not in a fit state to refurbish, or had been lost in the phase of abandonment of defensive systems in the later 10th century discussed above, or were too large to make this worthwhile. These two examples alone are direct evidence of the strategic importance of bridges linked with burhs at the time, which continued this function from much earlier in the Saxon period.

Other aspects of the civil defence measured of the late 10th and early 11th centuries include the building of churches in key locations, whose towers acted as lookout posts and/or signalling stations. The new royal church at Daws Castle itself must have acted as such, considerably extending the range of visibility up and down the Bristol channel from its hilltop location. Two other new churches, at St Mary's at Dover castle and St Clement's at Sandwich, both of early 11th century date, are both situated on the highest points of these towns on the coast, and are likely to have played a similar role (Dover - Fernie 1983, 113, 115; Tatton-Brown 1988; Gem 2004, 295. Sandwich - Clarke *et al*/2010, 28). The field of view from the church at Dover, however, appears to have been rather more restricted than that from Daws Castle (Shapland forthcoming).

A number of towns in the south-east and east of England, however, could well have been developed by Aethelred, although in none of them is there evidence of defences. Amongst these are Hythe, New Romney and Sandwich in Kent, and possibly Great Yarmouth in Norfolk. The origins of Hythe can be characterised as an undefended new town of the late 10th / early 11th century, which was a replacement of earlier settlements further to the west in response to the silting of the Limen estuary (Tatton-Brown 1984, 24-6; KCC 2004a, 8). Its 231 burgesses at Domesday were appurtenant to two manors, 225 of which were contributed by the manor of Saltwood with its caput at Lympe (DB KEN 2,26;41), a royal manor until given to Canterbury in 1032. Similarly, Romney, which housed a mint in the reign of Edward the Confessor (1042-66) (Sylloge), had 21 burgesses and 50 burgesses contributed by two manors. The latter are stated as being discharged from all customary dues (other than three fines) in return for service at sea (DB KEN 2,43; 5,178), which may well have been true of those at Hythe. The burgesses of these two places which were appurtenant to these estates appear to have been responsible at the time of Domesday for the discharge of services which may be seen as the direct continuation of the ship-services which had been imposed by Aethelred two or three generations earlier. An analogous situation is recorded from Dover, where the customary burgesses (there is no record of non-customary burgesses) gave the king ship-service for 15 days each year in return for 'full jurisdiction'. (DB KEN D2). The topography of both Hythe and New Romney would be consistent with their origin as planned but undefended towns of this period, although in view of the importance of urban defences at this period indicated by the archaeological evidence in other places such as Oxford and Cricklade, described above, this might seem somewhat unexpected. A similar interpretation can be placed on the evidence from Sandwich, formerly a middle Saxon *wic*, but rebuilt on a new but probably undefended site from the later 10th century onwards, and which became a favoured harbour for the royal fleet of King Aethelred (Tatton-Brown 1984, 16-

22; 1988a, 226; Clarke *et al*/2010).

The Calculation of the Burghal Hidage

It is suggested here that the process of the refurbishment of the defences of at least some earlier burhs by King Aethelred provides a particularly appropriate context for the composition of the Calculation which is appended to version A of the Burghal Hidage document (Rumble 1996a; 1996b). This is not only of wider interest to the development of the Anglo-Saxon burhs in Wessex in the 9th century and later, but also arguably reveals much about the defensive strategies of King Aethelred at the crucial time of the late 10th and early 11th centuries.

One of the most puzzling aspects of the Calculation is that it is clearly seen by the compiler of the collection of documents in which is included, which dates to the early 11th century (Wormald 1996, 61), as a supplement to the information in the List and, by implication, an essential aid to its understanding. On closer analysis, however, it manifestly fails in this purpose. The List itself provides a statement of the number of hides appurtenant to each of the 30 burhs of Wessex, which, as I have argued in detail, comprised an integrated system of fortifications which was most likely to have been instigated and put in place by King Alfred in the years 878-9 to contain the threat posed by the Viking occupation of western and eastern Mercia (including London) at that time. Allied with this are other arguments which suggest that the List itself was composed and circulated within the context of the conception and implementation of the system as a whole (Haslam 2005, 135-45; Haslam 2009, 113-4). The List refers only to the responsibilities of men from a specific number of hides attached to every burh - its burghal territory - without clarifying how this related to either the creation or the upkeep of the defences of the burhs themselves. On the other hand, the Calculation assigns responsibilities for the defence and upkeep of the burhs on the basis of the lengths of their defences, and therefore overall sizes. As David Hill has rightly pointed out, the Calculation appears to reverse the information in the List, in that it 'explains not how to calculate the wall length from the hidage, *but how to calculate the hidage from the wall length*' (his emphasis). He goes on to point out that 'the thrust of the document [the Calculation] is towards enabling new [hidage] assessments to be made on the basis of wall length', and that it 'shows how to convert wall lengths . . . into hidages' - though he asserts, without critically examining this assumption, that these wall lengths were not those in the List (Hill 1996a, 93).

In spite of this, the Calculation is almost invariably thought of as being contemporary with the List itself, acting as a prescriptive explanation as to how the assessments for the system were to be worked out in practice (Hill 1996; Abels 1988, 5; Hill 2001). Hill has put forward the suggestion, which is based on the supposed contemporaneity of the date of the Burghal Hidage (including the Calculation) with the shiring of Mercia, that the Calculation was added to the List to aid in the establishment of new burhs in Mercia in the early 10th century (Hill 1996a, 94-5; Hill

2001, 158). I have already given reasons for seeing this as untenable, one of which is the complex of arguments suggesting that the List of the Burghal Hidage belongs not to the early 10th century, as generally held, but to the time of the formation of the system itself in 878-9 (Haslam 2005, 135-45; Haslam 2009, 113). In my own analysis of the purpose and context of the Calculation I have argued that it might even be earlier in date than the List itself, acting as an 'instructional ready-reckoner' to ensure that 'all elements in the system were constructed according to a central plan', and in providing the basis on which the sizes of the burhs could be worked out to fit the hidages available from each shire (Haslam 2005, 141, 145-8). This analysis was aimed at providing an explanation of the most likely way in which the information in the Calculation was conceived as complementing that of the List, without reference to any unverifiable situation in which either the Calculation or the List, or both together, were supposedly used to determine the sizes of burhs outside Wessex.

It is apparent on further reflection, however, that there still seems to be a yawning contextual divide between the basic structure of the List, which assigns burghal territories to the burhs which represented a new system organised within already-existing shires, and the Calculation which, as Hill has observed (above), assigns hides (and therefore men) to burghal defences which were already in place. As has been argued elsewhere, when the prescriptive figures in the Calculation are applied to individual cases in which the real lengths of the defences of burhs are compared with their assigned hidages, they relate to the actual sizes of the defences on a sliding scale of correspondence from a nearly exact match (as at Winchester), to one where there is no discernible relationship (Brooks 1996, 130-1; Brooks 2003, 161 and esp. n.24; Haslam 2005, 146-7; Haslam 2009, 112-4). This is quite a different picture to the neat (but misleading) array of correspondences between hidages and lengths of defences shown in Hill's well-known diagram (Hill 1981, 85; see comments in Brooks 1996, 130-1). This not only undermines the validity of the all-too-common process of using the two sets of figures to make predictions about the lengths or positions of defences of burhs where these are uncertain or unknown. It also, perhaps more fundamentally, casts doubt on the basic premise that the figures in the Calculation were indeed used in the initial processes of the setting up of the burghal system in 878-9, as is usually assumed (and, as shown above, as I have argued myself). Since its prescriptive directives were, on this premise, honoured more in the breach than in the observance - and in varying degrees at that - it is difficult to accept that it had anything to do with the implementation of the basic processes to which it is usually supposed to refer. It must be concluded that both the contents and the contexts of the List and the Calculation are most reasonably seen as the products of different needs and circumstances, and are therefore not contemporary.

There is, however, a solution which resolves all the difficulties presented by the discordant emphases of the List and the Calculation. It is suggested that the Calculation was composed some considerable time after the creation of the original burghal system described in the List, and that it can best be seen as a prescriptive formula which was drawn up to help

implement a new defensive strategy in the face of Viking onslaughts against the Anglo-Saxon state of the late 10th and early 11th centuries, which process has been examined above. This context is consistent with the suggestion that it represents an attempt to reassess and re-establish the working basis of the information in the List in a situation in which the functional relationship between existing burhs and their hidages - in effect the territories assigned to the burhs for their construction, maintenance and garrisoning - had been forgotten. It offers a practical solution to the problem of re-establishing these burghal territories to the end of finding appropriate numbers of men to re-instate and support the full functionality of a system whose defensive readiness had been allowed to lapse, but whose physical components were still recognisable on the ground. This functionality is explicitly seen in the Calculation as including *weal-stilling*, the physical repair and reinstatement of the structure of the defences, and *waru*, the reinforcement of the obligations for *weal-stilling* and for the ongoing garrisoning of the reinstated burhs (Dodgson 1996; Rumble 1996c). This provides the most satisfactory explanation as to why the Calculation is geared to the determination of hidages (and by implication burghal territories) which are to be based on lengths of defences which were already known. This would be appropriate in the context of a new military initiative in response to the renewed hostilities of the Danes who were exerting increasing military pressure on the Anglo-Saxon state from the later 10th century and into the 11th, following a period in probably the third quarter of the 10th century or a little longer in which the burghal system had become redundant through non-use. Once these burghal territories had been determined again, the figures in the Calculation could have been used in the process of the creation of the new hill-top burhs of Aethelred, as well as the redefence of such places as Cricklade, Christchurch and Oxford, discussed above, and of other burhs in both Wessex and the Midlands.

The Calculation attached to the Burghal Hidage can therefore be seen as a prescriptive attempt to determine the appropriate assessments for the re-manning of the system, based on the lengths of the already-existing defences of the burhs which were to be used again in the refurbished system. It has already been argued by the writer that the formulae in the Calculation were in all likelihood based on the length of the defences of Winchester, combined with the knowledge that its burghal territory had once comprised an area of very nearly 2,400 hides (Haslam 2005, 146-7). Patrick Hase has demonstrated that the burghal territory of Winchester comprised around 2373 military (as contrasted with fiscal) hides (Hase, pers. comm.). This circumstance also fits the context of the preservation of the document in a manuscript collection which also originated from Winchester (Wormald 1996, 64). This would have provided the conveniently exact formula which allowed the originators of the new system of the late 10th century to prescribe how the number of men available for garrison and other duties in all other fortifications which were being reused in this system could be allocated. That the figures worked out in this way more-or-less matched the relationship between the actual lengths of defences on the ground and the hides available from their (reconstructed) burghal territories in other burhs, even if in most cases rather imprecisely, clearly gave the originators of the refurbished system

sufficient justification to enable them to assert that their prescriptions would have provided workable solutions on the ground. They would not have had to have factored in to their neat equations all the labour necessary to lay out and construct the burhs and their associated bridges, since most of this work had already been done, and the defences of the burhs were ready to be reused.

It is these aspects which suggest that the original work forces assigned to each of the burhs in the later 9th century would have been organised on a somewhat more flexible and less prescriptive way (Haslam 2005, 139; Haslam 2009, 113-4). Furthermore, in the context of the reorganisation of the defences of the whole of England in the later 10th century, the prescriptive formulae of the Calculation would have had to have been applied to burhs outside the confines of Alfred's Wessex, to which the List applies alone. The composition of the Calculation, and its uneasy correspondence to the figures in the Burghal Hidage, can indeed be seen in the longer perspective as being based on, or a re-application of, a customary formula for the assessment of military obligation which seems likely to have been utilised, for instance, in the construction of the linear earthwork of Wansdyke two centuries earlier (Langland & Reynolds 2006, 40-1).

The fact that many of the defences of the burhs in both Wessex and Mercia were not able to be made to fit these formulae - in effect being too large to be supported by the numbers of hides available in the shires which were set aside for them - emphasises the prescriptive and formulaic nature of the Calculation itself. It is clear from the division of each shire into burghal territories to support the primary system that the original assessment of each must have been based on a rough-and-ready perception of how many men could do the job, which numbers were themselves determined by the numbers of hides available for military service from each shire rather than their sizes and/or lengths of defences. However, the shortfalls built into the formulae of the Calculation would not necessarily have jeopardised the effectiveness of the refurbishment of the system as a whole, and could have been sorted out by those responsible for getting the system up and running again. It was, in short, not the problem of its authors, who clearly had a far more hazy understanding of the logistics of the situation than did the originators of the primary system in 878-9. In contrast with the refurbished system in the later 10th century, the systems of the later 9th and early 10th centuries would have been based on rule of thumb assessments in which the sizes, types, distribution and siting of the individual burhs would have been the determining factors, rather than the lengths of their defences alone.

This was, in short, a complex and heterogeneous system which was nevertheless successfully implemented on the ground to the extent that (with hindsight) it succeeded in its overall strategic objectives (Haslam 2005, 129-35). The detailed prescriptive formulae of the Calculation in fact obscures the complex balancing act which must have taken place in the minds of both the originators of the system and those on the ground (the ealdormen and thegns of the shires) who were responsible for its implementation, which process would clearly not have involved men being strung out along the lines of the defences of the burhs at 4 men per pole of

wall length. These considerations merely emphasise the disparities between the contexts of the initial formation of the system which was described in the List and that represented by the Calculation, and how they must represent different logistic and strategic requirements which arose out of needs and circumstances which were quite dissimilar in origin, nature and historical context.

In conclusion, it can be argued that the most appropriate historical context for the formulation of the Calculation attached to the List of the Burghal Hidage appears to be the increased Viking pressure on the Anglo-Saxon state in the late 10th century. The archaeological evidence discussed above shows that many if not most of the burghal defences - at least in Wessex and western Mercia - had been abandoned and in some cases had collapsed or been quarried away. At this time the collective memory of the court and its officials in Winchester appear to have recognised that there already existed a series of fortifications all around Wessex which had once formed an integrated system, and that this system had served the purpose of repulsing Viking attack on Wessex in the past. It must have been this knowledge which gave the strategists in the king's court the realisation that the refurbishment of this system could be supported by existing obligations for military service to meet the new needs of the late 10th century. In at least three cases - at Cricklade, Oxford and probably also Christchurch - the earlier burghal defences were refurbished to an extent. However, the frequent, if not ubiquitous, provision of stone walls to replace timber- and/or turf-revetted defensive banks should, it is argued, be placed in a context of a century earlier in which the Anglo-Saxon state was also under threat in a similar way.

In the context of the renewed pressure on the Anglo-Saxon state from the later 10th century, the king and his advisors were therefore faced with the necessity of refurbishing a redundant and probably decayed series of burghal fortifications, whose supporting infrastructure had also probably disappeared. Another way in which they attempted to counter this threat was by building new burhs on hilltop sites, as royal administrative centres, in a way which is exemplified at both Daws Castle and Cadbury Castle, amongst others. That these measures were part of a national scheme of defence, even though ultimately unsuccessful (unlike that of Alfred more than a century earlier), is a more reasonable hypothesis than to suggest that each was a local response to a particular incident. The failure of these measures to achieve the goal of the preservation of the Aethelredian regime need not necessarily imply that they were not in themselves well thought out or implemented on anything less than a substantial and indeed costly scale.

The context of this system is well illustrated by the Calculation of the Burghal Hidage. As Patrick Wormald has argued, the inclusion of both the List and the Calculation in the MS collection *BL Cotton MS. ortho B.xi*, whose constituent items were probably copied into a single manuscript in c.1006, shows not only that the Burghal Hidage List was used administratively at this time, but also that both together served 'to foster and celebrate the traditions of the English

people' in a way which perhaps referred back to the glorious days of King Alfred himself (Wormald 1996, 61, 64). It would be quite consistent with this context to suggest that both the List and the Calculation were brought together in this manuscript as essential sources which, even though they were not of the same date of origin, exemplified the basis on which a crucial act of state - i.e. a strategic plan of action against the new Viking incursions of the late 10th century - had recently been formulated and put into practice.

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