

## THE NATIONAL MAPPING PROGRAMME IN NORFOLK, 2003–4

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This report outlines the archaeological results of the aerial photograph mapping undertaken by the Norfolk section of the National Mapping Programme during 2003–4. The aims and objectives of this English Heritage project, which is being undertaken by staff of Norfolk Landscape Archaeology, were presented in full in a previous interim report (Massey *et al.* 2003). In brief, the project involves the mapping of archaeological sites from aerial photographs to a scale of 1:10,000 and providing synthetic comment on them (Bewley 2001). The team is continuing to map the archaeology of the coastal zone, which has been prioritised as part of an English Heritage national initiative to assess the archaeological importance of the coastlines of England, as outlined in *England's Coastal Heritage* (Fulford *et al.* 1997). The results from the aerial mapping of the coastal zone will be combined with those from the Norfolk Archaeological Unit's coastal field survey, to be undertaken in the summer of 2004. The field survey will form the final phase of the Norfolk Rapid Coastal Survey, an English Heritage funded project.

A total of 28 Ordnance Survey 5km<sup>2</sup> quarter sheets had been mapped up to April 2004 (Fig. 1), and a coastal strip from Terrington St Clement in the west to Ingham in the east has now largely been covered. This mapping has identified 1224 new sites. It has also added significantly to the knowledge of 462 previously known sites, which were recorded on the Norfolk Historic Environment Record (NHER). Most of these existing sites had been originally identified by the aerial photographer Derek Edwards.

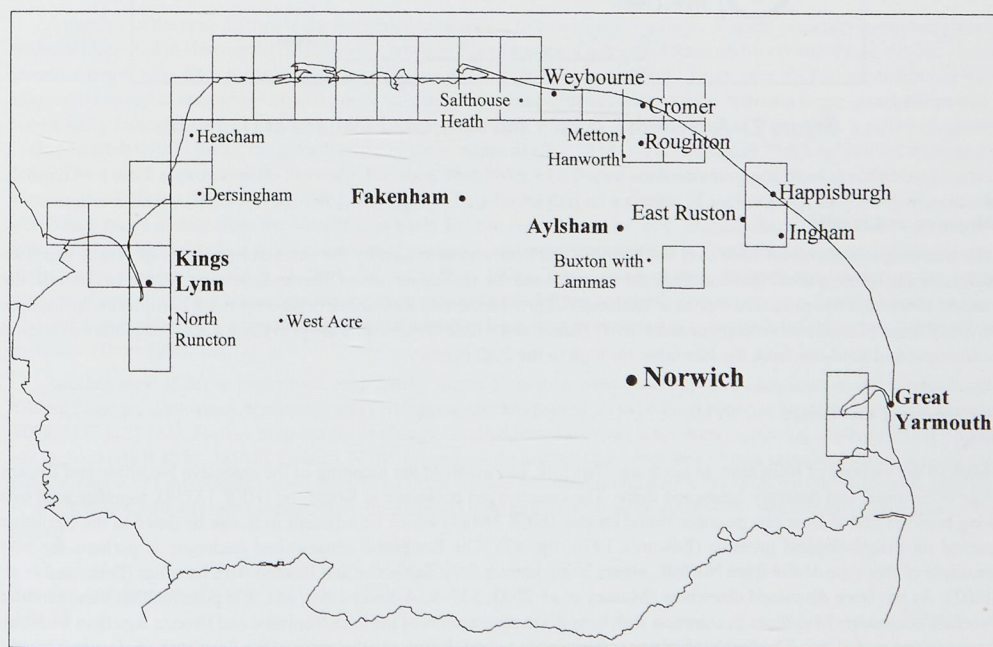


Figure 1. Map showing progress of Norfolk NMP project to date and location of main sites discussed in text

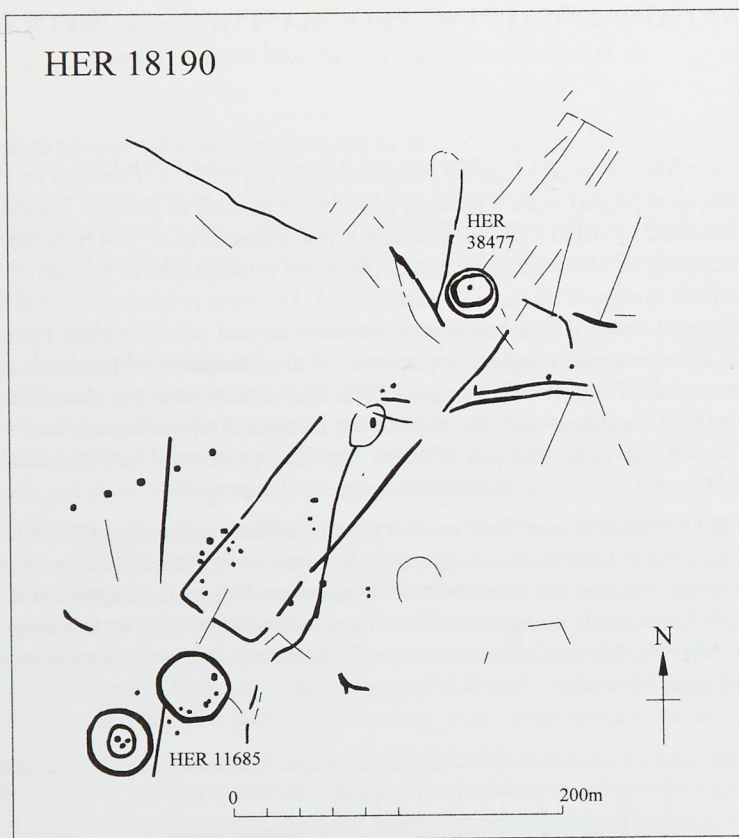


Figure 2. A Neolithic cursus and associated features at Hanworth

### Mapping and results

The mapping of the coastal zone over the last year has been characterised by the extensive stretches of World War Two defences and training areas that dominate the coast around the seaside resorts of Sheringham and Cromer. In contrast, the coastal hinterland has produced a diverse landscape of prehistoric and Romano-British crop-mark complexes, in addition to many areas of medieval settlement and activity. Taken as a whole these results are providing a detailed picture of coastal settlement and land-use from the Neolithic through to the 20th century.

### *Neolithic and Bronze Age*

(Fig. 2)

Work in the vicinity of Roughon, in north-east Norfolk, has involved the mapping of the extensive Neolithic and Bronze Age ceremonial and funerary landscape there. The causewayed enclosure at Roughon (HER 13358), together with two long barrows and at least one possible round barrow (HER 38485) which lie adjacent to it, can be dated to the Neolithic period on morphological grounds (Edwards 1978, fig. 47). The Roughon causewayed enclosure is perhaps the best example of this type of site from Norfolk, others being known from Salthouse and Buxton with Lammas (Brennand *et al.* 2002). As has been discussed elsewhere (Massey *et al.* 2003, 337-9; Ashwin 1996, 46), it is possible that these circular Norfolk enclosures have more in common with hengiform monuments of the later Neolithic and Bronze Age than with true causewayed enclosures. The presence of a possible cursus a short distance to the north of the Roughon enclosure (Oswald *et al.* 2001, fig. 6.7) was not confirmed during the mapping.

A Neolithic cursus (HER 18190; Fig. 2) has been mapped in the parish of Hanworth, 1.5km to the north-west of the Roughon complex. At Cardington (Bedfordshire) and Springfield (Essex) cursus monuments were located a similar



distance from earlier causewayed enclosures (Last 1999, 88). At the time of writing, the Hanworth cursus is one of six such monuments recorded in the NHER and the first to be mapped by the National Mapping Programme. The site is visible as the crop-mark of a rectangular ditched enclosure with square ends, aligned north-east to south-west. It measures 55m wide and may be 380m long, although its north-east end is not clearly visible. Its topographical location and orientation are likely to have been significant; it lies almost equidistant between two minor tributaries of the River Bure and may be aligned upon the higher ground of Roughton Heath to its north-east. The crop-mark of its enclosing ditch is masked in places, but a genuine break appears to exist at its south-west end forming an entrance 6.5m wide. Two ring-ditches at its south-west end (HER 11685) and a third at or within its north-east end (HER 38477) probably represent the remains of round barrows, and are large enough to suggest that a Neolithic date is plausible. They are arranged on a similar alignment to the cursus, but their chronological relationship with it is not clear. A small oval enclosure within the cursus (HER 38478) may also be of Neolithic date and might have had a ceremonial or mortuary function. It is perhaps comparable to curvilinear enclosures or ring-ditches recorded at Brampton (Cambridgeshire) which include a small, penannular ring-ditch within a Neolithic long mortuary enclosure and two curvilinear enclosures on the line of the outer ditch of the cursus (Malim 1999, figs 7.4a and b).

The large number of round barrows and ring-ditches in the vicinity of Roughton indicate the continued significance of this area into the Bronze Age. The causewayed enclosure and long barrows already described lie on the south-eastern side of one of the largest barrow groups in Norfolk. The relationship is similar to that identified between the Salthouse Heath causewayed enclosure, long barrow and dispersed barrow cemetery (Massey *et al.* 2003, 339), and this pattern is also seen elsewhere in the county (Ashwin 1996, 48). In the 5km map square containing Roughton parish, seven previously recorded round barrows and five new probable round barrow sites (where the mound is visible as an earthwork or crop-mark) have been mapped. In addition, 27 probable ring-ditches have been mapped at sites already recorded within the NHER, with at least eight new ring-ditches and ten further possible ring-ditches being found. This equates to a total of 57 probable round barrow sites, very few of which now survive as upstanding monuments. Most of these sites are found on Roughton Heath or in the area to its south-west, close to the Neolithic cursus and causewayed enclosure described above. A possible new earthwork round barrow has also been identified on Kelling Heath (HER 27984), 200m to the north-west of an existing scheduled barrow (HER 6248). Both are situated on the edge of an elevated plateau of the Cromer Ridge. The prevalence of surviving or recently destroyed round barrows in heathland locations reflects the fact that these poorer, podzolised soils were not taken into cultivation on a large scale until relatively recently (if at all) and therefore escaped the plough (Lawson 1981, 56–8). Numerous crop-marks of other plough-levelled barrows and ring-ditches can be seen surrounding the remaining heaths. Despite this bias, there is some evidence that the lightest soils, which were most susceptible to podzolisation, were preferred for siting barrows (Lawson 1981, 63).

A number of the ring-ditches in the Roughton area appear to form distinct groups. A linear cemetery comprising seven has been identified in Hanworth (HER 38448), while in Roughton itself a group of three relatively small ring-ditches cluster around a larger ring-ditch measuring 60m in diameter (HER 364779 and 38500). Elsewhere, this arrangement has been interpreted as representing use of a site over an extended period of time, with smaller barrows being arranged around a pre-existing focus (Brown *et al.* 2002, 17–18). Approximately 175m to the south-east of this group, a rather enigmatic C-shaped ditch with bulbous, hengiform terminals was mapped (HER 38501). This measures 23m long and 9m wide, and is defined by a ditch approximately 2m wide. It closely resembles a C-shaped enclosure mapped from aerial photographs at Wormingford, Essex (Brown *et al.* 2002, 20, fig. 5). This forms part of a cluster of monuments, including ring-ditches which may range in date from the Neolithic to Early Bronze Age. A number of C-shaped ditches have also been mapped from aerial photographs close to the causewayed enclosure and cursus monuments at Fornham All Saints, Suffolk (Martyn Barber, *pers. comm.*; Oswald *et al.* 2001, fig. 4.25; Dyer 1996). While many of these features may represent the partial remains of ring-ditches, a horseshoe-shaped enclosure with pit-defined terminals and an entrance flanked by pits or large post-holes resembles the C-shaped enclosure at Roughton. It has been interpreted as a plough-levelled barrow or hengiform enclosure (Dyer 1996, 14).

Another area of dense prehistoric crop-marks forms an east-to-west band between East Ruston and Happisburgh. Among these are enclosures, trackways and several ring-ditches presumed to be the remains of Bronze Age round barrows (HER 21773, 21774). Further crop-marks of plough-levelled round barrows have been mapped at Stalham (HER 36107) and Ingham (HER 8221, 38542). Overall, NMP mapping in the last year has identified 33 new possible barrow ring-ditches and has mapped 51 previously known sites. In addition six new potential round barrow mounds have been located, only one of which (the Kelling Heath example described above) may still survive as an earthwork: this awaits verification on the ground.

#### *Iron Age and Romano-British* (Fig. 3)

The significance of the area around Roughton in the Neolithic and earlier Bronze Age appears to have continued, or revived, in the Iron Age. A number of probable Iron Age square barrows have been identified to the south and west of the village (*e.g.* HER 38476; Fig. 3). Such features are not well attested in Norfolk. Square enclosures excavated on the line of Norwich Southern Bypass were interpreted tentatively as a type of late Iron Age square barrow, with miniature ramparts possibly enclosing a shallow cremation



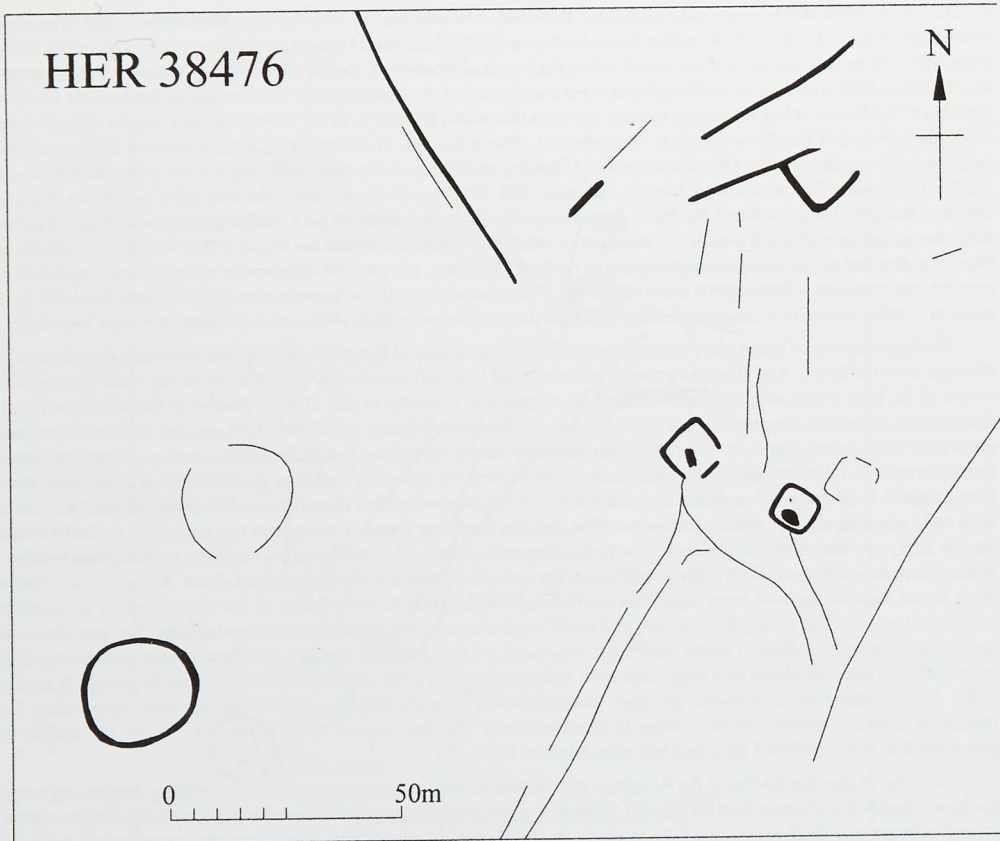


Figure 3. Three possible Iron Age square barrows at Roughton. They lie at the junction of three trackways which also probably date to the Iron Age. Two ring-ditches, probably the remains of Bronze Age round barrows, lie to the west.

deposit (Ashwin 2000, 138–9). These, it was suggested, might have more in common with the square barrow tradition of northern France than that of East Yorkshire, and square ditched enclosures containing no visible grave have been identified and excavated elsewhere in south-east England (Wilson 1982, 86). The putative grave pits within the Roughton examples suggest that they may be more reminiscent of the East Yorkshire tradition. They occur singly or, in one case, in pairs and are sited beside, or are respected by, a number of trackways, the courses of which can be traced for up to 1.75km. The line of these in turn may have been influenced by the adjacent earlier prehistoric monuments, such as ring-ditches (Fig. 3) and the Hanworth cursus. They might also be associated with the Iron Age to Romano-British settlements and field systems described below.

Extensive evidence of Late Iron Age and Romano-British settlement activity was described in a previous interim report (Massey *et al.* 2003, 339–41), and subsequent mapping has added to this picture. At Hanworth, enclosures, fields and trackways surround the remains of at least three roundhouses (HER 38463); 2km to the east, a more extensive multi-phase field system is visible as crop-marks in the northern part of Gunton Park (HER 38499). Although undated, the morphology of large tracts of this system suggests an Iron Age to Romano-British date. The fields surround the crop-marks of at least one farmstead (HER 17739) whose rectilinear plan indicates a Roman date. The crop-marks of Romano-British farmsteads have also been mapped north of Ingham (HER 38540 and 38572) at sites where Roman pottery, coins and other artefacts have previously been recorded. Both of the Ingham sites comprise rectilinear enclosures arranged along ditch-defined trackways. Two penannular ring-ditches of 16m diameter at one of these sites (HER 38572) might also represent Iron Age roundhouses. Work continues on the mapping of further enclosures and field systems of Romano-British date visible amongst a dense area of crop-marks to the north of East Ruston and Happsburgh Common.



The NMP mapping has also identified a previously known Romano-British iron-working site at North Runcton, West Norfolk (HER 28000). A large and dense cluster of tap slag, burnt carrstone and Romano-British pottery and tile had been recorded on the surface of the plough soil (HER 33656). Two patches of burnt clay were also taken to indicate the locations of furnace sites. Within this area was a spread of surface material, 50m long by 10m wide. Consultation of vertical aerial photographs from 1976 revealed the crop-marks of a potentially massive enclosure measuring approximately 200m by 85m, defined predominantly by a single ditch but with a double ditch in places. The enclosure boundary has a wide causeway to the north, which forms an entrance into a broad trackway, alongside which the enclosure is aligned. The recorded location of the elongated spread of material appears to correspond with one of the main ditch terminals defining this entrance; it therefore seems likely that this material had been ploughed out of the top of the ditch, close to the terminal. The metalworking debris and pottery probably represents activities within the enclosure, perhaps near the entrance; alternatively the material might have been cleared into, or placed within, the ditch. Parched areas within the enclosure interior indicate the presence of possible walls and working areas. Some of these possible parched crop-marks, however, appear to define a building or enclosure that seems to be on a different alignment to the main enclosure. This would indicate a greater time-depth and complexity to the site than the date of the finds would initially suggest. Several other areas of Romano-British enclosures and field systems were also mapped within North Runcton parish (HER 27964 and 27969). This date was indicated by associated surface finds (HER 3363) and the morphology of the crop-mark sites themselves, which consist of a series of coaxial field boundaries and linear features associated with enclosures and pit-like features.

#### *Post-Roman and Anglo-Saxon*

Crop-marks of a group of over thirty rectangular pits, tentatively identified as Anglo-Saxon *grubenhäuser*, have been recorded at East Ruston (HER 38600). They range in size from 2m x 1.5m up to 7.5m x 4.5m, are clustered into four groups, and extend for a distance of 300m along a gravel ridge. No artefacts of Anglo-Saxon date have been recorded in the vicinity, however, and the features might be medieval or post-medieval gravel extraction pits. This again emphasises the difficulty of identifying sites of this period from crop-mark evidence alone (Massey *et al.* 2003, 341).

#### *Medieval and post-medieval*

(Fig. 4)

Two moats that survive as earthworks have been mapped, at Roughton (HER 6747; Fig. 4) and Metton (HER 38618). The site at Roughton has been variously interpreted as being associated with a possible medieval water-mill or representing village shrinkage, but its morphology on aerial photographs taken in 1946 and 1969 suggests that it is a moat. In both cases, ancillary enclosures, and in the case of Roughton a timber building, have been mapped from crop-marks visible outside the moats. At Metton the earthwork remains of possible fishponds have been identified 125m to the south-west of the moat, perhaps indicating a manorial, or at least high-status, site. Further extant earthwork moats have been mapped at Brumstead (HER 1072), Happisburgh Common (HER 8244), Lessingham (HER 8245) and Ingham (HER 8246).

Earthwork remains of post-medieval floated water meadows have been recorded at Lessingham (HER 38555, 38556 and 38560) and along a tributary of the River Ant at Dilham and East Ruston (HER 38442–4, 38446, 38449, 38451 and 39353). Parallel drains used to control the flow of water around the meadows were present in all cases, with earthwork banks in between these visible at some sites. The majority of the water meadows were only visible as earthworks on RAF vertical aerial photographs dating from 1943 and 1946, and most had been ploughed during the following three decades. Only the site at Dilham (HER 39353) survives as extant earthworks, so it is not surprising that it was the only site to have been previously recorded. Additional areas of floated water meadow were mapped at Roughton (HER 38468 and 38498). The 2001–3 NMP mapping had mapped several water meadow sites in West Norfolk, including examples from Dersingham to Heacham (*e.g.* HER 1534, 33387, 26837 and 2662). Floated water meadows were previously believed to have been relatively scarce in Norfolk and mainly concentrated in the west of the county (Wade-Martins and Williamson 1994, 25). Mapping to date in north-east Norfolk, however, would suggest that their rarity there reflects their destruction by arable agriculture rather than a genuine absence in the landscape. In view of this, it seems likely that further unidentified floated water meadow sites will be discovered around the periphery of the Broads landscape zone when that area is mapped during late 2004–5.

This year also saw a small amount of mapping undertaken in the King's Lynn environs, completing the western extent of the coastal zone. One of the more curious features of this area is the occurrence of small crop-mark and earthwork circles or ring-ditches, ranging from 6m to 18m in diameter. Generally they are defined by a raised circular bank with external narrow ditch, a circular platform or a single ring-ditch. They appear both as isolated features and in relatively large groups of up to thirty individual circles (HER 38235). They seem most likely to have been stack stands for either hay or corn, with the external ditch providing temporary drainage. Similar clusters of ring-ditches have long been known from aerial photographs of the silt fen, and a Roman date had been postulated (Silvester 1988, 197; Riley 1946, 15073). As a result of analysing the relationships between these circles and medieval strip fields, however, Wilson (1978, 45) has suggested a possible medieval date for these features. The King's Lynn examples all appear to be situated on reclaimed land, often surviving as earthworks overlying slight traces of ridge and furrow or drainage channels. In these cases a late, probably



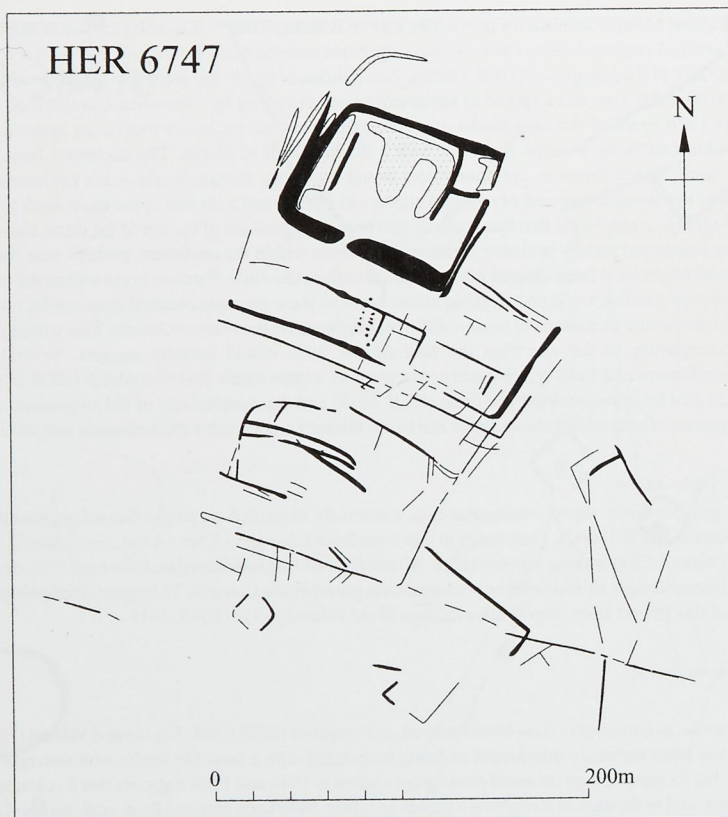


Figure 4. A medieval moat and associated enclosures at Roughyton. The remains of a possible timber building or other post-built structure are visible just to the south of the moat

post-medieval, date is indicated. The fact that some survive as earthworks reveals a shift in land use towards permanent pasture, and this has helped preserve a normally temporary agricultural structure within the landscape.

#### *Military*

The archaeology of the coast itself in the north-eastern part of the county is dominated by World War Two invasion defences and military training sites. The nature and extent of these sites ranges from the relatively ephemeral remains of the Sheringham Home Guard roadblock exercises (as illustrated in Kent's 1988 *Coastal Towns at War*) to the anti-tank ditches at Cart Gap, Happisburgh (HER 38588), which were almost 1km long

One particularly interesting group of military earthworks was recorded along the coast at West Runton. Aerial photographs from the early 1940s revealed that the access to Woman Hithe was heavily defended with beach scaffolding, barbed wire and anti-tank cubes. A complex network of slit trenches also ran along the cliffs, interspersed with minefields, pill-boxes and gun emplacements (HER 38316). The majority of these World War Two defences have either since been removed or have been destroyed by erosion. The earthwork remains of a large rifle butt from a firing range (HER 38315) still stands to the immediate west of the hithe, however. The 1941 RAF aerial photography shows this rifle range in use, with four parallel shooting banks and associated structures extending inland. To the immediate east on the same photograph are the contrasting dilapidated earthworks of a second rifle range, which had already been partially destroyed by erosion and had secondary World War Two defences cut into its bank. The aerial photograph evidence alone would suggest that a World War One firing range had been replaced by a World War Two one. Contemporary maps, however, suggest that two ranges were in fact constructed in 1914 (Storey 1999, 37). The western earthworks must have been restored and updated during World

War Two training, whilst the eastern butts were probably too damaged or too near the heavily defended hithe to make this worthwhile.

Within the training area on Kelling Heath, the remains of World War One slit trenches can be identified within the surrounding World War Two earthworks. Here a complex system of trenches, 'crenellated' in plan, had been constructed to create practice firing and front lines, linked by communications trenches to service and storage areas (HER 38414, 38418). These earthworks covered an area of heath up to 1km long. Other areas of World War One practice trenches were also identified as crop-marks along the coast at Weybourne (HER 17818). The NMP mapping has recorded evidence of World War Two training exercises on almost all of the heaths within the coastal zone. This includes small-scale World War Two military training areas identified on several sections of Roughton Heath (HER 38619–21).

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