ST ANDREW'S HOSPITAL, DENHALL CHESHIRE

AN ARCHAEOLOGICAL SURVEY REPORT

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RCHM
ENGLAND

ST ANDREW'S HOSPITAL, DENHALL

ELLESMERE PORT AND NESTON

CHESHIRE

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CONTENTS

LIST OF FIGURES

1. INTRODUCTION

The RCHME survey has shown that the traditional site of St Andrew's Hospital correlates to a complex of buildings and structures situated at the northern edge of a small cove on the Wirral shoreline. The site is badly robbed, but evidence has been found for a possible L-shaped infirmary hall and chapel surrounded by a number of other buildings of mostly indeterminable form or function. Half the area of the hospital seems to overlie the silted floor of the cove, while the other half was constructed on an artificial terrace levelled into the former estuarine scarp. It is suggested that a previously unrecognised stone wall retaining the rear edge of this terrace - now heavily robbed - formed the eastern boundary of the hospital precinct. The terrace is located next to a natural spring which may have been the main source of fresh water for the hospital.

A number of possible platforms and banks have been identified built out into the cove. Although these are difficult to interpret satisfactorily, it is suggested that the most probable explanation of them is as simple quays for the offloading of small boats acting as lighters for sea-going vessels anchored further out in the Dee estuary. The documentary evidence for Denhall as an outport of Chester between the 13th and 17th centuries is briefly reviewed.

Other principal features identified comprise a series of drainage features dug through the floor of the cove after it silted, plus a probable Post-Medieval lime kiln. The survey has also identified a track running around the edge of the cove, presumably connected with access to the hospital and/or the use of the postulated quays.

2. BACKGROUND TO SURVEY

In late 1996, Adrian Tindall, the Principal Archaeologist within Cheshire County Council's Environmental Planning Department, approached the RCHME to request an analytical survey of earthworks in Chapel Field, Denhall, assumed to be those of the documented Medieval hospital of St Andrew. The site is a Scheduled Ancient Monument, old county number Cheshire 100, new national number 23645 (English Heritage 1987, 7; 1996, 8). The survey was needed as the first stage in the formulation of a management plan for the site to be drawn up by the County Council, English Heritage, and the site's new owners, Ellesmere Port and Neston Borough Council. Following discussions and a field visit, the RCHME agreed to survey the whole field at the scale of 1:1000 within Ordnance Survey National Grid, and also to instal a number of permanently marked survey stations on site from which National Grid coordinates could in future readily be regenerated. The survey was grant-aided by Cheshire County Council, English Heritage, and Ellesmere Port and Neston Borough Council. On the recommendation of the RCHME, gradiometer and resistivity surveys were commissioned by the County Council to be carried out alongside the earthwork survey so that the respective survey grids could be correlated precisely. This geophysical work was undertaken by GSB Prospection, whose report (GSB Prospection 1998) should be read in conjunction with the present report.

3. SITE LOCATION, TOPOGRAPHY AND LAND USE

Chapel Field (National Grid Reference SJ 302 747) is situated in the very north-western corner of Burton parish in Wirral, on the former shoreline of the Dee estuary some 13km (8 miles) downstream from Chester. Although the hospital of St Andrew is usually described as being located at Denhall, the Medieval township of that name (now no more than a single farm and a few houses) actually lies a little to the north of the hospital in the adjacent parish of Ness.

The Dee estuary is today heavily silted with the river confined to a narrow artificial channel in the west. Before 1737 and the opening of the New Cut, however, the main channel ran much nearer to the English side of the estuary and to Denhall. This channel was still in part extant in the 19th century (Ordnance Survey 1895), but has since silted further and is no longer traceable above Little Neston (Ordnance Survey 1979). Opposite Denhall, the estuary is occupied by salt marsh used in the main as sheep pasture and as a wildfowl reserve. The marsh is still prone to flooding at spring tides when shallow water can lap against the base of the modern road embankment along the western edge of Chapel Field (personal observation).

In Chapel Field a gentle rise up in the land surface away from the level of the marsh marks the position of the original shoreline, and indicates that a small cove formerly existed here at the mouth of a small stream valley draining west to the Dee (fig 3). The hospital site is located along the northern edge of this cove (see sections 6 and 7 below). The cove is now completely silted save for a pond fed by a spring at the foot of the estuarine scarp close to the hospital, and is also cut off from the estuary by a road embankment linking the modern Station Road and Denhall Lane which run down to the former Dee shoreline either side of the cove. The antiquity of the embankment is unclear, although a road in this position existed by 1817 when it was called Denna Lane (Cheshire Records Office QDE 1/24a-b). The valley debouching into the cove is also now dry. Whilst this may be a consequence of alterations to the drainage pattern caused by the construction of the North Wales and Liverpool Railway line across the valley in the late 19th century, earlier maps (Ordnance Survey 1895) show it as already dry, and a more likely explanation is that the surface drainage has always been intermittent or was re-routed underground as the result of agricultural improvement earlier in the century. Aerial photographs taken earlier this century by the Royal Air Force (RAF 1941) show that two channels cut through the cove silts and connecting the mouth of the valley with the surviving pond were then both wet. However, earth-moving operations carried out by the previous owner of Chapel Field within the last ten years (A Tindall, personal communication) have disrupted the drainage in the valley floor, and water no longer reaches the pond from the valley. The south-eastern corner of Chapel Field was also the scene of fly-tipping at this time, and although the spoil has since been cleared away traces of rubble remain in the topsoil, and any earthworks there may once have been in this part of the field have been destroyed (fig 3).

Chapel Field is presently down to rough pasture, grazed by sheep.

4. PREVIOUS RESEARCH

The earliest plan of archaeological features in Chapel Field that has been located by the RCHME is that published on later editions of the 1:2500 scale County Series Ordnance Survey maps (*eg* Ordnance Survey 1912). This shows the pecked outline of a building oriented east-west measuring some 12m by 4m described as 'Site of Chapel', although the source of this depiction is unknown since earlier editions of the map (*eg* Ordnance Survey 1898) show only a cross. In 1961, the OS Archaeology Division revised the depiction to include an earthwork platform around the postulated chapel site, but recorded no other features in the field. This depiction was published on subsequent maps (*eg* Ordnance Survey 1964), while the original survey plus a brief written description were lodged in the Archaeology Division Records, now part of the National Monuments Record (NMR) curated and maintained by the RCHME. The description includes the observation that there is no evidence which necessarily connects the chapel with the site of St Andrew's Hospital (NMR No. SJ 37 SW 4, authority 3).

In 1980, students from Chester College under the direction of P J Davey carried out general contour and hachured surveys of the whole of Chapel Field, with more detailed contour surveys of four small areas which contained apparent structures. This led to the identification of at least two rectangular structures in proximity to the traditional chapel site plus other features including a circular mound interpreted as a Post-Medieval limekiln. The subsequent report (Zarek 1983), whilst noting the uncertainty over the precise location of the hospital and the fact that documentary evidence points to the likelihood of quays and associated structures in the general area (see section 5 below), nevertheless came down in favour of interpreting the recorded features as elements within the hospital layout. The new findings were incorporated into a subsequent revision of the scheduling description (English Heritage nd).

There are no certain records of any excavations within Chapel Field: it is rumoured that the headmistress of a school in Heswall may have carried out a small unofficial exploration sometime before 1955 (letter in Cheshire Sites and Monuments Record), but this information cannot now be substantiated. The documentary history of the hospital has been studied in some detail in two recent publications (Kettle 1980, 184-6; Booth 1984, 28-31), and is precised below (section 5).

5. DOCUMENTARY EVIDENCE

The foundation of the Hospital of St Andrew at Denhall is normally attributed to Alexander Stavensby, bishop of Coventry and Lichfield, in the early 1230s. The earliest definitive reference to the hospital's existence comes in 1238 when the bishop endowed the master of the hospital 'which is next to the seashore' with the revenues of the church of Burton for his own use and for the aid of the poor and shipwrecked under his care. The grant was subsequently confirmed by pope Gregory IX in 1241. But it is likely that Stavensby had been planning a hospital here for some time and that building work was underway before 1238: the church at Burton had been *ab antiquo* a prebend of Lichfield Cathedral but sometime around 1230 Stavensby transferred the prebend to Tarvin - as recorded in a confirmation of the charter by the dean and chapter of Lichfield of 1231 x 4 - as part of his scheme for 'building the hospital of Burton in Wirral' (Kettle 1980, 184; Booth 1984, 26-7). It has been suggested that an entry in the Pipe Rolls of 1184-5 to the prebend of Bauewell is a scribal error for Denhall, and that the hospital already existed at this time and may even be a pre-Conquest foundation (Stewart-Brown 1938, 43), but this is unlikely (Kettle 1980, 184).

The dedication of the hospital to St Andrew is first recorded in a land grant of 1238 x 93. Although such a dedication is uncommon amongst hospitals, it is explicable given Stavensby's express intention that his foundation should cater for the poor and shipwrecked - St Andrew is the patron saint of fishermen. The same deed also records that the community was a mixed one of 'brothers' and 'sisters' thereby also implying that they lived under some form of religious rule, but there are no further references to the presence of women. The confirmation of this deed in 1293 was issued in the 'Hall' of the hospital (Kettle 1980, 184-5; Booth 1984, 28).

St Andrew's was never a rich community. In the 14th century the mastership was valued at £10 per year. There are no records of the hospital receiving endowments other than the church of Burton, although by the latter part of that century it did hold property in St John's Lane, Chester, and members of the community seem to have had certain privileges including a fishery and anchorage in the Dee within the hospital's bounds, and the right to levy tolls on goods offloaded there for transhipment to Chester. Despite these privileges and the fact that Denhall remained an outport for Chester into at least the 17th century before changes to the course of the Dee forced sea-going ships to dock elsewhere in the estuary, it seems that the hospital was in financial hardship by the 15th century. These hardships came to a head in 1495 when William Smith, bishop of Lichfield, judged St Andrew's as too impoverished to continue as an independent institution and amalgamated it with another hospital, St John the Baptist in Lichfield. Henceforth all St Andrew's revenues were transferred to St John's, and the Denhall site was let out with the hospital buildings retained as the parsonage house to Burton church. In 1535, the estate was valued at £13 6s 8d, and in 1664 when the hospital was occupied by the curate John Litherland it was assessed for seven hearths. In 1738 part of the hospital buildings were demolished and a new parsonage built elsewhere in the parish. The remaining structure, by then in a ruinous state, was pulled down in 1751 apart from one outlying building in use as a barn (Kettle 1980, 185; Booth 1984, 29-31).

The hospital is not marked on the maps accompanying either the 1817 Enclosure Award or the 1848 Tithe Award for Burton (Cheshire Records Office QDE 1/24a-b and DDX 398), nor on the Ordnance Survey first edition 1" series of 1840 (copy in NMR), although the site of a chapel indicated at SJ 3013 7476 on an Admiralty chart of 1869 (Zarek 1983, 37) and on subsequent Ordnance Survey 1:2500 scale maps is conventionally accepted as denoting its

position. There is no independent evidence to substantiate the association, but since the cartographic evidence is only a century or so later than the final demolition of the hospital buildings it is likely that local memory of where the hospital used to stand was still reasonably precise. Certainly such a location agrees with the 13th-century description of the hospital as 'next to the seashore', and both the Enclosure and Tithe Award maps indicate that this area was glebe land (*ie* it belonged to the Church) in the 19th century. The modern name of Chapel Field, however, appears recent: in 1848 the Tithe Award labels this Denhall Field (Cheshire Records Office DFI 61/4).

In 1897 it was recorded that traces of the hospital were still visible, and that stone from the site had been used to construct Burton Barn and also a wall around the field in which the hospital lay (Gamlin 1897, 234-5). The latter is undoubtedly the ruinous stone wall still evident around the majority of Chapel Field, whilst Burton Barn is presumably the modern day Barn Farm at SJ 3185 7375, called Burton Barn in 1872 (Ordnance Survey 1895): this is a Grade II listed building said to be 17th-century and later incorporating a former tithe barn (DoE 1974, 2).

6. THE EARTHWORKS: CATALOGUE AND DESCRIPTION

The plan of the earthworks in Chapel Field as recorded by the RCHME is shown in fig 3. For the purposes of description the plan has been broken down into a number of morphological categories, and features within categories given individual catalogue numbers. The following categories have been used: terraces and platforms; buildings; walls and robber trenches; other structures; water features; tracks; field boundaries; modern disturbance. These are highlighted on a series of interpretative diagrams (figs 1-2). Topographical features are referred to by the terms first used in section 3 above.

Terraces (TE) and Platforms (PL) *(fig 1)*

TE1. A large but somewhat irregularly-shaped terrace with maximum dimensions of *c* 40m by 40m has been levelled into the natural estuarine scarp at the north end of the cove. The terrace's rear edge seems previously to have been thought to be the natural cliff edge or shoreline (*eg* Zarek 1983, 40 fig 12 and 43; English Heritage nd), but has very definitely been cut back and sharpened up, and also has a number of very artificial-looking right-angled turns in its course: in fact there is strong earthwork evidence that this scarp as it exists today is the product of a formerly almost vertical cut-face which has collapsed following the robbing-out of its retaining wall (see WL1 and WL2/RT2 below). In the west, the edge of the terrace is defined by a low scarp rising up from the level of the cove silts and marking the foot of the estuarine scarp. In the south, the terrace borders a small gully in the original estuarine scarp, in the base of which lies a spring (see WF1 below). A number of buildings or possible structures sit on the terrace (see PL1, RB1-RB2 and OS2 below), which is also connected by a low bank or causeway (BK5 below) to another large platform, PL3, built across the mouth of the cove.

PL1. A building platform is terraced back into the redefined estuarine scarp which forms the rear edge to terrace TE1 (see below). This is the traditional site of the hospital chapel. A close-contour survey of the feature was carried out by Chester College in 1980, but published without detailed comment (Zarek 1983, 46 fig 17). There is little surface evidence for the form of the building which formerly occupied the platform: a low bank down its western edge may represent some form of wall-line buried beneath spoil and tumble, and evidence of a slight ramp in the south-west corner may preserve an original route up onto it, but the platform floor is now irregular and slopes gently from north to south probably as the result of stone-robbing. Allowing for the western bank to be a wall, PL1 could have accommodated a building with maximum dimensions of 15m by 10m. The geophysical survey yielded high resistance readings and gradiometer anomalies indicative of structural remains on the platform, although no detailed building plan was forthcoming (GSB Prospection 1998, fig 4).

PL2. A low scarp running parallel with, but some 10m inside, the modern boundary in the north-west corner of Chapel Field, has not been recognised before but is a coherent and continuous feature suggestive of the inner edge of an L-shaped platform. There is no earthwork evidence for former building ranges on the platform so defined, although it is possible that either or both the features just to the east - catalogued below as low banks (BK2-BK3) - are actually wall lines; if so, this might indicate that the platform is really far broader and not L-shaped. The western 'arm' of the platform forms part of a high resistance anomaly (GSB Prospection 1998, fig 4) contiguous with platform PL3 to the south (see below).

PL3. A very definite platform lies adjacent to the western edge of the field immediately south

of PL2. A close-contour survey of this part of the field in 1980 identified the general rise-up in the ground surface here, but failed to recognise it as a platform (Zarek 1983, 42 fig 14, and 43). The feature, which has been built out over estuarine silts at the mouth of the cove, is rectangular in plan. Its generally level surface stands only a few decimetres above the level of these silts, but extends for some 40m north-south by at least 15m across (its western edge now lies beneath the modern road embankment). Close to its northern end it is overlain by a flat-topped bank or causeway (see BK5 below) approaching from the north-east, which in turn is overlain by an L-shaped wall, WL4, running down the north and east sides of the platform. Although it is probable that PL3 is the site of a building, there is no evidence apart from the size of the platform for the form this building took: WL4 is unlikely to be structural (see below), and three robbing hollows (see RT3-RT5 below) dug into PL3's surface are more likely to be speculative attempts to locate building stone than the robbing-out of extant wall-lines. PL3 coincides with a large area of high resistance readings identified by the geophysical survey (GSB Prospection 1998, fig 4), although the area so defined extends beyond the northern edge of the earthwork platform as far as the north-west corner of Chapel Field, and fails to differentiate between PL2 and PL3.

PL4. The eastern edge of a possible platform is indicated by a low scarp running at an angle to the southern half of Chapel Field's western edge. The feature seems to have been overlooked previously in favour of a gully (see RT6 below) which lies less than 5m away parallel to it, but which is actually cut into its surface. As with PL3, PL4 seems to have been built out over the estuarine silts at the mouth of the cove, and is also now partly overlain by the modern road embankment. It is, however, quite different in form being as can best be judged far longer and possibly narrower. In the north it is cut by the pond outlet WF6, but does not seem to re-emerge on the other side suggesting that it originally terminated here anyway, and is separated from PL3 by a *c* 6m-7m gap. The feature lies outside the area of geophysical survey.

PL5. A fifth possible platform lies well away from those so far described on the eastern edge of Chapel Field, and is another not previously recognised. It is a sizeable feature, part terraced into and part built out over the northern side of the small stream valley, now dry, which debouches into the cove's south-east corner. The identification of the feature as archaeological is, however, tentative, for there must be a possibility that it is connected with earth-moving operations known to have taken place in this part of Chapel Field within the past ten or so years (section 3 above). Historical vertical aerial photography of the site held in the NMR is at too small scale and/or masked by shadow to resolve the question. No building is marked in this position on any of the 19th- or 20th-century maps consulted by the RCHME.

Buildings (RB) *(fig 1)*

RB1. A probable rectangular building is situated towards the north-western corner of Chapel Field. It overlies the truncated natural scarp marking the western edge of terrace TE1, at the latter's north-west corner. The feature has not been previously identified, but what appear to be the west, east and south sides of a building oriented north-south with maximum overall dimensions of *c* 12m by 10m are represented on the ground by very slight, spread, grassy banks, 3m-4m wide and no more than 0.1m high. There is no earthwork indication of a north wall; however, the building does abut the west end of platform PL1 - the reputed site of the hospital chapel (see above) - and it is possible that RB1 therefore originally adjoined the south wall of the latter building in an L-shaped arrangement. No stonework is visible in the banks,

and it is unclear whether they represent actual wall-lines or simply piles of rubble left over from where these have been robbed out. If the former, the south-west corner of the building is missing, and the bank marking the east wall stops short of the platform edge perhaps marking the site of the original entrance. The earthworks correspond in general position and form to a three-sided sub-rectangular feature open to the east picked up in the recent gradiometer survey (GSB Prospection 1998, fig 4), although the latter would suggest the presence of a north wall to the building not visible in the earthworks, and also raises the possibility that the building extended further to the south.

RB2. A very definite rectangular building lies some 25m south-east of RB1 but still on terrace TE1. It was the subject of a close-contour survey by Chester College students in 1980, who described it simply as a formless series of features of rectilinear plan (Zarek 1983, 43 and 45 fig 15), although a subsequent revision to the English Heritage scheduling description interpreted the remains as those 'of a building measuring approximately 14m by 10m' (English Heritage nd). On the ground the building appears as a rectilinear mound with a raised lip or bank along its edge. This bank is a rather spread feature in the east, but would seem to represent demolition debris and/or tumble overlying wall lines surviving *in situ* a few courses high. As such, the earthworks indicate a rectangular building measuring perhaps 14m by 9m and oriented north-north-west by south-south-east. A break in the centre of the east wall suggests the position of the entrance. A generally raised area of ground attached to RB2's south-east corner extends as far as a water channel, WF2 (see below), and is probably an annex to the main building. RB2 was not picked up by GSB Prospection who categorised the site as part of a more general area of low resistance readings and increased magnetic noise (GSB Prospection 1998, fig 4), but *pace* their filtered plot of resistance data which seems to show the outline of a building in this position (*ibid*, fig 9).

Walls (WL) and Robber Trenches (RT) *(fig 1)*

WL1. A break in slope in the face of the redefined estuarine scarp immediately north of terrace TE1 and the alleged chapel site PL1, is possibly due to the presence of a robbed wall line. If so, the wall presumably acted as a retaining and/or boundary wall (see also TE1 above and WL2/RT2 below). The fact that the feature survives as a break in slope rather than a trench suggests that something of the lower courses of the wall may still survive below ground.

WL2/RT2. A line of sandstone blocks just visible through the turf for *c* 3m would seem to represent the lower course(s) of a wall still surviving *in situ*. The wall lies towards the bottom of a steep scarp defining the rear edge of terrace TE1. The presence of these blocks does not seem previously to have been noticed. Their line is continued for a further 15m to the south-east by a robber trench, evidenced on the ground as a sharpening up of the base of the scarp. The wall presumably served to retain the ground at the rear of the terrace, and probably formed part of the same feature as WL1 above.

WL3. A very short length of low bank runs at right angles from the rear edge of terrace TE1, and is probably the remnant of a wall defining the southern edge of that terrace.

WL4. A length of wall survives as a tumbled L-shaped bank running along the northern and eastern sides of platform PL3 at the western edge of Chapel Field. It was first recognised and surveyed in 1980 when it was interpreted as part of a building 10m x 30m in size (Zarek 1983, 40 fig 12, 42 fig 14, 43 and 47). However, in the south the wall continues off the

platform as far as the pond outlet, WF6 (see below), and there is no evidence that any wall ever returned off it along the southern edge of the platform. This suggests that WL4 does not form part of a building sited on the platform, but is more likely to have been a wall segregating the platform off from other parts of the site. It overlies a long, flat-topped bank or causeway, BK5 (see below), which runs onto the northern edge of the platform from the north-east.

RT1. A very slight linear depression, only *c* 1m wide by 0.1m deep, is visible for 20m or so in the modern grass verge between Denhall Lane and the north-west corner of Chapel Field. Whilst it could be a path eroded by pedestrians walking along the verge, it continues the line of field wall FB1 down the north-east side of Chapel Field after the latter has dog-legged a little to the south as it approaches the north-west corner, and is more likely to represent the foundation trench of the wall's former course. The wall in this north-west corner of the field is very clearly of a more recent build to the rest. (See also FB1 below).

RT3-RT5. Three hollows upto 7m across and 0.5m deep scar the surface of platform PL3, and seem best interpreted as holes dug on a speculative basis to search for stone to rob for reuse elsewhere, although a very shallow curving trench in the bottom of RB3 may preserve the line of an actual wall. RB4 and RB5 both have indications of upcast around their edges.

RT6. A linear depression runs away south for 50m from the edge of the pond outlet, WF6, until it disappears beneath wall FB1 around the edge of the field and presumably the modern road embankment also. The feature was first recorded by Zarek who described it as 'a depression, possibly a track' (1983, 40 fig 12, and 47), while the scheduling description calls it a path (English Heritage nd). However, it is rarely more than 3m across at its widest point, and is most unlike tracks elsewhere on the site such as TR1 (see below). It also seems unconvincing as a path for it leads to and from nowhere. Another possibility is that it is a drain, but though it has a very slight fall northwards into WF6 it is difficult to see what it would have been draining. In the absence of more plausible alternatives, the most probable explanation of it is that it is another robbed-out wall-line - an interpretation strengthened by a short length of bank down its western side which may be upcast. It is cut into some kind of raised area, interpreted above as a platform, PL4. The feature lies outside the area covered by geophysical survey.

Banks (BK) *(fig 1)*

BK1. A low discontinuous bank, upto 0.1m high, is discernible above the redefined estuarine scarp at the rear of terrace TE1, and is possibly the same as that reported (but not surveyed) by Zarek (1983, 47) who suggested it might represent the eastern boundary of the hospital precinct (but see also track TR1 below). However, given the evidence produced by the present survey for a previously unrecognised wall actually retaining the terrace scarp, the existence of a second (boundary) wall so close must be considered unlikely. The feature is probably better explained as agricultural, perhaps an incipient plough headland going with the former field to the east whose boundaries are marked by FB2 and FB3 (see below).

BK2-BK4. These three features are all very similar in their earthwork form, and also lie close together in the north-west corner of the field. They have not previously been surveyed, although they are no doubt some of the 'other slight earthworks of an indeterminate nature' north of bank BK5 (see below) referred to in the scheduling description (English Heritage nd). They take the form of narrow flat-topped banks or causeways upto *c* 3m wide, but

standing only very marginally higher than the surrounding ground. The recent gradiometer survey seems to have picked up anomalies which correspond to parts of the courses of both BK2 and BK3, while the resistivity survey identified an area of high resistance readings which incorporates BK2 plus a discrete finger which coincides with BK3; nothing was revealed which matches BK4 (GSB Prospection 1998, fig 4). The interpretation of all three features is problematic. They are not unlike grassed-over raised paths, an interpretation which might draw support from the observation that they all radiate out from the north-east corner of platform PL3 and run across an area which is presumably cove silts. However, given the documented accounts of stone-robbing on the site in the 18th century, and particularly given the fact that BK2 and BK3 both showed up as high resistance readings, an alternative view of them as the foundation courses of wall lines should not be dismissed lightly (see also PL2 above).

BK5. This is another flat-topped bank similar in some ways to BK2-BK4 above, but far more substantial, standing *c* 0.3m high, and extending for 45m north-east from the corner of platform PL3 which it overlies; it seems formerly to have continued further west across PL3 as indicated by a length of scarp on the platform which is in line with BK5's northern edge. It is in turn overlain on the platform by the L-shaped wall WL4. At its other end, BK5 overlies a very gentle natural slope which marks the base of the estuarine scarp before it was truncated by the insertion of terrace TE1 (see above). This suggests that BK5 is a low causeway connecting the terrace with the platform: it is most unlikely to be a ruined wall-line since its top is both very wide and even. The feature was first recorded by Zarek (1983, 40 fig 12, and 43), and corresponds to a high resistance linear anomaly picked up in the recent resistivity survey (GSB Prospection 1998, fig 4), which might indicate the presence of stone.

BK6. This is very similar in form to BK3 above, comprising a very slight but broad flat-topped bank standing only *c* 0.1m above the surrounding ground. Its slightness of form accounts for it not having been recognised before. It runs for some 15m along the south side of the small gully in the base of which is the spring WF1 (see below), before kicking away south-west down the estuarine scarp for a further 35m as far as the edge of the pond WF4 where there is a suggestion of it broadening out or even turning through 90° to the south-east. No anomaly was detected in this position by the geophysical survey (GSB Prospection 1998, fig 4), indicating that the feature is probably constructed of earth not stone. It may be some form of boundary bank.

BK7. This is another broad, flat-topped bank, running for *c* 60m adjacent to and on the south-west side of channel WF7 which cuts through the cove silts. Its function is unclear, and it is possible that WF7 is actually the real feature and BK7 no more than upcast from it although if so we might expect BK7 to have a more irregular appearance. The only purpose that can be suggested for it is that it was created as some kind of mole to aid the offloading of small boats or lighters using the cove before it silted. A sample transect across both WF7 and BK7 was included in the geophysical survey (Area B) at the request of the RCHME to try and elucidate the nature of these features, but to little avail (GSB Prospection 1998, fig 4). It has not previously been recognised.

Other Structures (OS) *(fig 1)*

OS1. A sub-rectangular shallow depression, measuring some 7m by 10m and *c* 0.2m deep, lies towards the north-west corner of the field just west of the foot of the estuarine scarp. It should therefore lie on cove silts, and could conceivably be a small pond. The resistivity

survey identified high resistance readings around its edges (GSB Prospection 1998, fig 4), which may represent wall lines or perhaps a paved surface.

OS2. A sub-rectilinear mound measuring a maximum of 10m by 7m stands only 0.2m high a few metres south-east of building RB1. Its earthwork form is not really indicative of anything structural, but since it corresponds to a penannular high resistance anomaly (GSB Prospection 1998, fig 4) it may represent tumble or debris overlying building remains.

OS3. A mound of very irregular shape overlies the estuarine scarp close to the former cove shoreline south of bank BK6. It is highest in its central portion which is sub-rectilinear in plan, from which small fingers of material protrude to north and south. Its position is hinted at by small scarps recorded on the 1980 plan (Zarek 1983, 40 fig 12) but not then described further. It corresponds to a broadly rectilinear area of high resistance readings (GSB Prospection 1998, fig 4, fig 11 anomaly 4), which would seem to confirm the presence of stonework in the mound although if so it need not be structural. The mound overlies a series of small scarps and possible banks visible immediately to the east. These have generally rectilinear form and may represent further structures although no definite wall-lines can be confidently suggested from the earthwork evidence, and nothing was detected here by the geophysical surveys apart from two small areas representing fired material or hearths (GSB Prospection 1998, fig 4, fig 7 anomalies C and D). This evidence, together with the general proximity to the lime kiln, OS4 (see below), suggests that all these features are probably related to the kiln.

OS4. A penannular bank, about 1m wide across its summit and with a diameter of *c* 10m between outer tops, lies on the crest of the estuarine scarp immediately north-east of OS3. It was first recorded by Chester College students in 1980, who interpreted it as a lime kiln (Zarek 1983, 40 fig 12, 44, and 45 fig 16). The earthwork form of the feature certainly warrants such an interpretation, and two slight depressions in the top of the bank in the north and south may indicate the positions of diametrically-opposed draw holes. The feature showed up in both the recent resistance and gradiometer surveys (GSB Prospection 1998, fig 7 anomaly A, fig 11 anomaly 1). The kiln is not shown on the map accompanying the 1817 Enclosure Award, although a kiln is marked close to the shoreline some 450m south of Chapel Field at this date. It lies close to a track (see TR1 below) running around the edge of the cove, and also occupies a typical position for such structures in the corner of a field - indicated by the bank FB3 (see below) which approaches from the north-east.

There is no indication in the earthworks of the line of the ferrous pipe picked out by both the recent gradiometer and resistivity surveys (GSB Prospection 1998, fig 4). This might be considered surprising, since if the pipe were modern one might expect that a trench would have been dug to lay it which should still be traceable on the surface. This raises the possibility that the pipe is contemporary with the hospital, although against this observation is the fact that the geophysics points to it being of iron rather than lead, and also that its northern end is orientated on a 20th-century building in Denhall Lane called 'The Lodge' (Ordnance Survey 1964).

Water Features (WF) *(fig 2)*

WF1. A small spring exists at the base of a gully in the estuarine scarp in the region of SJ 3021 7474, indicated by this being the most easterly point in a strip of boggy ground draining west into pond WF4 (see below). The existence of a spring at this location does not seem to

Figure 1. Interpretative diagram showing terraces, platforms, buildings, walls, robber trenches, banks and other structures

have been previously recognised. According to Zarek (1983, 43) another spring formerly existed at the mouth of the dry valley further south, but this may have been the outfall of a land drain or culverted stream rather than a spring: in any case the feature no longer exists, presumably disrupted by the earth-moving operations which are recorded as taking place in the valley after 1980 (section 3 above).

WF2/WF3. Two parallel, narrow, channels connect the boggy area leading from the spring, WF1, to the modern pond, WF4. The northern channel, WF2, is at a slightly lower level than WF3, and is the only one that still carries water. This suggests that WF3 is the earlier of the two features and was probably replaced by WF2; the chronological priority of WF3 is further suggested by the fact that it is the most direct route between spring and pond. A possible reason for the replacement of WF3 by WF2 might have been in order to divert running water past the end of the south-eastern annex to building RB2. WF2 shows as a linear low resistance anomaly in the recent resistivity survey (GSB Prospection 1998, fig 4, fig 11 anomaly 5), presumably on account of the electrical conductivity of water draining along it.

WF4/WF5. A large 'frying-pan' shaped depression in the centre of the cove silts has been conventionally referred to as a pond, but is in fact an amalgam of two features: a fairly regular almost square pond element in the west whose sides clearly cut what seems to be part of an earlier stream channel, WF5 (the handle part of the 'frying-pan'), leading from the mouth of the dry valley. WF5 is largely dry due to the modern disruption to the drainage along the dry valley (see section 3 above), and pond WF4 is now fed solely by water from the spring WF1. The restricted supply means that the pond has contracted in size and depth and is now only *c* 0.3m deep at its centre. It seems excessively large for a beast pond, although this was no doubt its primary purpose. It predates 1872 (Ordnance Survey 1895).

WF6. This is the outlet draining excess water from WF4 into the estuary, although it is now dry due to the low water level in the pond. There is no indication of an arch through the field wall FB1 (see below), nor of a piped outfall emerging in the marsh side of the road embankment, although these features must exist or else the level of water in the pond would rise until it flooded out over the road embankment. The outlet's sides are of one build with those of the pond, indicating that the two are contemporary. However, it utilises and redefines an apparent original gap between platforms PL3 and PL4 which otherwise block off the cove from the estuary.

WF7. This is a broad shallow channel, upto 8m wide and *c* 0.3m deep, running north-west through the cove silts for about 85m into pond WF4. The feature has not been recognised previously. It is now dry, but aerial photography taken in the middle of this century (RAF 1941) shows that it formerly carried water from the head of the dry valley, via drain WF9, into pond WF4. However, WF7 is too broad to have originated simply as a drain. It is accompanied on its south-western side by a broad, flat-topped bank or causeway, BK7, which has been tentatively identified above as some kind of quay or mole. If so, WF7 may be no more than a convenient source of material to construct BK7; it seems too narrow to have served as a navigable channel for shipping coming alongside the mole. A sample transect across both WF7 and BK7 was included in the geophysical survey (Area B) at the request of the RCHME to try and elucidate the nature of these features, but without further clues as to the purpose of either (GSB Prospection 1998, fig 4).

WF8 and WF9 are both shallow, open drain-like features cutting through the cove silts: WF8 runs from the mouth of the dry valley to pond WF4 via the remnant stream channel WF5,

while WF9 is oriented on the same starting point but connects with pond WF4 via the head of channel WF7. Only WF8 was recorded by the 1980 survey (Zarek 1983, 40 fig 12, 41 fig 13, and 43). Both features were dry at the time of the present survey, but correspond to features visibly wet on 1941 aerial photography (RAF 1941). WF9 is now only traceable on the ground for the final 9m of its course before it connects with WF7.

WF10. The outline of a former pond is visible as a shallow, sub-rectangular, depression in the cove silts close to the south-west corner of Chapel Field. The feature was dry at the time of survey, although with indications of damper ground conditions at its northern end. The pond's existence was first noted by Zarek (1983, 40 fig 12, 44), although the present survey found no evidence for the shallow ditch that he claimed was visible running north connecting it to the outflow, WF6, from pond WF4. The most likely explanation for WF10 is that it is a pool that formed naturally as the cove gradually silted up.

A series of very slight gullies, each no more than *c* 1m across and 0.1m deep, are traceable running parallel about 10m apart over the north-eastern half of Chapel Field (fig 3). The slight earthwork form and wide spacing of these features makes them unconvincing as the furrow element in ridge-and-furrow ploughing, and they seem more likely to be land drains even though the soils here are sandy and presumably naturally free-draining. Although their existence has not been noticed before, the features are visible on aerial reconnaissance photography taken during the second World War (RAF 1941), and presumably date from the 19th century after this land was enclosed. They are clearly interrupted by the two areas of modern disturbance, MD1-MD2 (see below).

The present survey found no trace of four other field drains reported by Zarek (1983, 40 fig 12 and 44) as visibly darker bands of vegetation running east-west through the cove silts. As recorded on that plan, each drain should cut right across channel WF6. This is an unlikely scenario, and the proffered interpretation of the observed vegetation lines as drains must therefore be considered doubtful.

Tracks (TR) *(fig 2)*

TR1. A track runs around the edge of the cove, terraced into the top of the natural estuarine scarp. It has not previously been recognised, although it is conceivable that a short length of bank along its western edge where it passes limekiln OS4 is that referred to in the 1980 survey (Zarek 1983, 47) as possibly representing the eastern boundary of the hospital precinct (see also bank BK1 above). In the north it connects with the head of a small gully leading up from the spring WF1, suggesting that the gully also formed part of the track's course and was the means by which it led down onto the foreshore. Its course further south has been badly disturbed by the area of modern topsoil stripping, MD1 (see below), and also by the activities of rabbits, although aerial photographic evidence suggests that the rabbit damage here was already well advanced by the middle years of this century (RAF 1941). The track reappears south of MD1 and descends onto the floor of the dry valley before kicking sharply west along a terrace cut against the south side of the cove. The course of the track past the head of channel WF7 is uncertain. The earthworks hint the track may have forked with one branch continuing on along the top of the cove whilst the other took advantage of a natural break in the estuarine cliff to turn inland. However, the scarps which define the western continuation of the track lose width on the ground and seem to merge into a single feature - bank/field boundary FB4 (see below) - and it must be doubtful whether it really extended this way rather than swinging inland as suggested. Its northern end near lime kiln OS4 corresponds to

resistance and gradiometer anomalies identified in the recent geophysical surveys (GSB Prospection 1998, fig 4, fig 11 anomaly 2).

TR2. A broad, shallow, linear hollow runs down the majority of the southern side of Chapel Field, and is probably the degraded remains of a hollow way representing an earlier course of the present Station Road. It has not been commented upon before, and lies outside the area of geophysical survey.

Field Boundaries (FB) *(fig 2)*

FB1. In the west Chapel Field is bounded by a ruinous low drystone wall made up of shaped blocks of local red sandstone. It has been suggested that parts of it represent the original boundary or precinct wall of the hospital (Zarek 1983, 44 and 47; English Heritage nd). But although the size and coursing of the blocks does indeed vary, there are no obvious butt joins and the different build quality between sections is perhaps more readily explained through variation in the size and quality of the stone supply during construction. Two other observations can be offered which point to FB1 being a relatively late field wall rather than precinct boundary. First, the L-shaped wall WL4 does not seem to be bonded to it. Second, although the north and south boundaries of the field at first glance seem to consist purely of an earthen bank - in the case of the latter topped by a hedge - vestiges of stonework are occasionally visible within the bank and point to wall and bank all being part of the same feature. A section of the wall in the north-west corner of the field consists of large, mortared, sandstone blocks, and is very clearly a rebuild of part of the wall on a slightly different alignment (see RT1 above for the wall's original course).

FB2-FB3. A low flat-topped bank, FB2, underlies the modern fence along the short north-east side of Chapel Field, and represents the original 19th-century boundary before the railway bisected the field at the end of that century (*cf* Ordnance Survey 1898). A similar but considerably more spread bank, FB3, which runs away south-west at right angles to FB2 from close to its southern end also predates the railway cutting; since it does not feature on any map consulted it presumably predates even the 1817 Enclosure Award.

FB4. A low bank, *c* 3m wide by 0.2m high and running north-east into Chapel Field from close to the field's south-west corner, is another old field boundary. The bank loses height and disappears after only 10m, although the line of its northern edge is continued by a small scarp which keeps to the same alignment for 15m before kicking off line slightly toward the north and seemingly becoming one side of track TR1. The line of a feature in this position is quite clearly visible on wartime aerial photography (RAF 1941), although it has not been recognised before on the ground. It does not correspond to any boundary shown on mapping consulted by the RCHME, suggesting that it too predates 1817. The fact that it runs almost parallel to FB3 raises the possibility that these two boundaries are broadly contemporary.

FB5. A discontinuous low stony bank just inside the present post and wire fence at the south end of the east side of the field represents the remains of the original railway boundary wall indicated on late 19th- and early 20th-century maps (*eg* Ordnance Survey 1898; 1912).

Modern Disturbance (MD) *(fig 2)*

MD1. A sub-rectilinear shallow 'terrace' in the approximate centre of Chapel Field immediately east of the cove scarp is not archaeological but would seem to be the result of

topsoil stripping. On the ground the feature truncates a number of land drains whose uninterrupted courses are clearly visible on wartime aerial photography (RAF 1941). The disturbance has therefore happened within the last few decades; the most probable context would be by the previous owner of the field within the last few years (section 3 above).

MD2. A very shallow irregular depression adjacent to the field's eastern edge is another recent act of damage, presumably dating to the same time as MD1 although this time the product of turf-cutting. MD2 definitely postdates 1941 for it cuts two field drains which aerial photographs of that year show as continuing uninterrupted right upto the railway cutting (RAF. 1941).

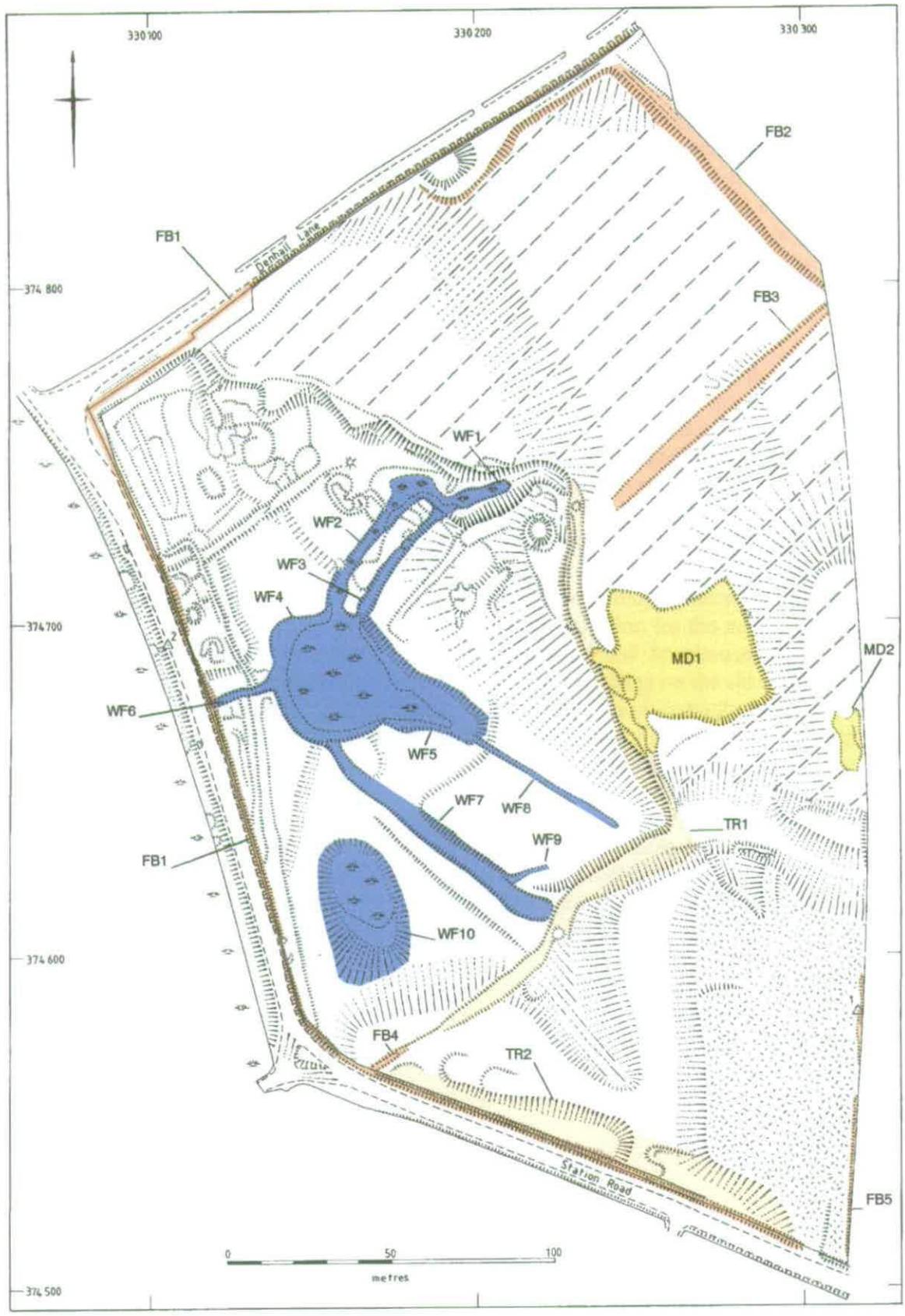

Figure 2. Interpretative diagram showing water features, tracks, field boundaries and modern disturbance

7. DISCUSSION

Hospitals in the Medieval period were not simply places which cared for the sick; in line with the cognate words hospice and hospitality, they frequently administered alms and shelter to the poor and homeless and, in the days before the roadside inn, might also offer food and lodging to the pilgrim and traveller. The fact that they were in the main religious institutions meant that even when they did nurse the sick, the emphasis was more likely to be on the spiritual care of the inmate's soul rather than the physical cure of his illness. Because of their role as both poorhouse and guesthouse, they were commonly sited on the outskirts of towns, near to major roads and shrines, and also at ports.

Very little is known about the detailed form or layout of hospitals at this early period. Few have been investigated archaeologically, and even fewer on a scale sufficient to recover much of the groundplan. Instead, most of our information comes from Medieval inventories allied with the architectural study of isolated standing buildings. It is thought that before *c* 1350 hospitals generally conformed to what is called the 'infirmary-hall' type, in which the inmates were housed in an aisled hall with a chapel at the east end so that the sick and infirm could hear mass without leaving their beds. Hall and chapel were frequently in line with each other, although variations are known in which the hall lay at right angles to the chapel in an L-shaped or T-shaped arrangement. But these two buildings were only components within a larger complex which would probably have included accommodation for the master and his religious and domestic staff, a kitchen, possibly a bakehouse and brewhouse, barns and cellars, and even a separate guesthouse for wealthy visitors depending on the size and status of the institution. In the larger, richer, hospitals there would almost certainly have been a well-engineered water management system to supply piped water for drinking and washing, and also for flushing the latrines and taking waste from the kitchen, as in contemporary monastic houses. However, in the present state of knowledge it is unclear whether all these features would have been present at each hospital, particularly the smaller, poorer institutions such as Denhall which are the least well-known (Carlin 1990; Prescott 1992; Smith 1980; Steane 1985, 100; Thomas *et al* 1997). It is against this general background and in the context of Denhall's likely role as an early outport for Chester (see below) that the foundation of St Andrew's hospital by bishop Stavensby *c* 1230 must be reviewed.

The RCHME survey has shown that the traditional site of St Andrew's Hospital at Denhall correlates to a complex of buildings and structures lying in and around the edge of a former cove in the Wirral shoreline. The degree of stone-robbing and disturbance to the site, combined with the silting of the cove, makes detailed interpretation of the earthworks difficult. But there are several features in the north-west corner of Chapel Field which, given the documentary evidence, seem interpretable as parts of the hospital, while those further south and west seem better interpreted as a succession of Medieval or later quays and associated features.

Nothing has been found which confirms the site of the hospital chapel shown by the Ordnance Survey, but since the indicated siting corresponds to an earthwork platform (PL1) orientated east-west, and all other platforms and buildings identified by the survey lie generally north-south, this remains the most likely site for it. However, at *c* 10m the platform's width is considerably greater than that of the chapel outline depicted on Ordnance Survey maps (section 4 above).

Few other elements within the hospital complex can be identified with any degree of confidence. The best preserved building is RB2, some 30m south-east of PL1. Its better state of preservation suggests that it remained in use longer than other buildings on the site and escaped the worst of the stone-robbing; if so, it may well be the outlying building recorded as remaining in use as a barn after the rest of the hospital was demolished in 1751 (section 5 above). Its original function is unknown, although the proximity of its small southern annex to the water channel WF2 raises the possibility that it had some kind of latrine or kitchen block attached. Another (probable) building, RB1, runs away south from PL1's west end, and if correctly identified is in the correct plan relationship to the platform to suggest that it is the infirmary hall - here lying at right angles to, rather than in line with, the chapel. The survey indicates that other buildings probably lay to the west of the chapel. The L-shape of PL2 raises the possibility that they were laid out in a series of ranges, perhaps even in a kind of semi-claustral arrangement, but if so it is impossible to differentiate individual structures.

PL1, RB1 and RB2 all lie on a terrace (TE1) excavated out of the natural estuarine scarp at the north end of the cove, close to a small spring (WF1). Both features were previously unrecognised, but the one presumably explains the other: *ie* the existence of the spring was a major factor influencing Stavensby's selection of this particular location as the site of his hospital. However, apart from the spring and the two channels WF2 and WF3 which lead from it, there is no indication that water was being piped or channelled to other parts of the site. The linear 'ferrous response' recorded in the geophysical survey passes very close to the postulated infirmary hall, but is more likely to be a modern cast iron pipe than a Medieval lead-lined drain (Chris Gaffney, GSB Prospection, personal communication; see also section 6 above). The survey has found evidence that the rear edge of the terrace was originally retained by a wall (WL1 and WL2/RT2; compare also the long unlettered linear gradiometer anomaly north-east of anomaly B (GSB Prospection 1998, fig 7) which is in the right position to be another part of this wall). The wall probably represents the eastern boundary of the hospital precinct.

Another wall (WL4) has previously been claimed as part of a large rectangular building, but the present survey has found no evidence to support such an interpretation (section 6 above). Instead, the survey has drawn attention to the fact that the wall overlies a large platform (PL3) which together with another probable platform to the south (PL4) effectively block off the mouth of the cove leaving only a narrow gap through which water might drain. It is difficult to interpret these features satisfactorily, but one possibility is that they are quays. This is also the most likely explanation of BK7 which runs out into the cove from the south. Since PL3 and PL4 would undoubtedly have restricted the scouring effect of the tide in the cove and have encouraged silting, BK7 is most probably an earlier structure which passed out of use when the others were constructed.

Although the identification of PL3, PL4 and BK7 as quays can not be proven from the earthwork evidence, it does seem the most plausible explanation. Certainly Denhall is known to have been an outport for Chester, where ships with too great a draught to sail to the head of the Dee estuary could offload their cargoes for transhipment by land, or else transfer their goods onto lighters for the final part of the journey upstream. Denhall is definitely recorded as fulfilling this role in the 15th and 16th centuries when it was only one of a series of such ports recorded along the Wirral coast (Wilson 1969), although the first mention of it as an anchorage is in 1283 when Edward I sent for his ship 'which is at Danewell or Parcum laden with wine' (quoted in Zarek 1983, 37).

Denhall may initially have found favour as an anchorage because of the existence of the cove identified in the survey, but if so it is unlikely to have been useable by anything but the smallest vessels and probably already suffered from silting before the construction of the two quays, PL3 and PL4, across its mouth. The earliest known chart of Chester Water (produced by Greenvile Collins between 1681 and 1686) shows the anchorage at Denhall as above the low tide mark suggesting that ships moored here would have lain aground on the sand and mud at slack water (Place 1994, 24-6). In the light of this evidence, simple quays against which small boats ferrying cargoes from ship to shore could moor are probably the only harbour facilities that would have been needed. This apparent lack of major facilities is certainly paralleled in the other outports. Parkgate for example, despite its prominent role in the passenger trade to Ireland between the 17th and 19th centuries, never had anything more than a simple sea wall. A stone pier was constructed out into the Dee at Neston between 1557 and 1559, but was a financial burden to the companies of the City of Chester that built it, and gradually fell into disrepair after 1604; it may also have encouraged silting (*ibid*, 16-17).

It used to be thought that there was a progressive retreat of outports away from Chester with time as ships got larger and the Dee steadily silted. But recent research has pointed out that many of the outports known from the historical record were in use simultaneously, and the unsuitability of any one anchorage at a particular time was more likely due to the shifting nature of sandbars in the estuary than continued and progressive silting of the channel (*ibid*, 33-4); as late as 1707 it was claimed that vessels drawing nine feet of water (probably equating to 70 tons weight) could reach as far up the estuary as Chester at spring tides (*ibid*, 14). Denhall was still in use as an anchorage in 1689 when it is mentioned as one of three ports where ships in the Royal service should be cleared by Customs, and in 1690 ten ships are listed as lying there. But little is heard of Denhall after this time and the anchorage is omitted from Eyes' chart of Chester Water (as the estuary was historically known) of 1740. Denhall's demise after 1690 may have initially been due to natural changes in the Dee's course making it temporarily less suitable as a place of anchorage, but its fate was sealed by the opening of the New Cut in 1737 which diverted the main flow of the Dee away from its traditional course along the Wirral shore (*ibid*, 51-4; section 3 above).

8. SURVEY METHODOLOGY

The survey was carried out within Ordnance Survey National Grid using coordinates brought onto site by Leica single frequency Global Positioning System (GPS) equipment. OSGB36 coordinates were purchased for the triangulation pillar at Dodleston Gorse (OS station no. SJ44/T14) situated just over 1km east of Chapel Field, and used to fix the positions of two intervisible survey stations on site, both permanently marked. These two local stations were used to record hard detail and to set out a network of temporary control points (all within National Grid) marked by plastic pegs and degradable chalk marks, using an electronic theodolite and electromagnetic distance measuring (EDM) unit. Fibron tapes were then laid between the control points and archaeological detail scaled off and plotted by hand onto the emerging plan on site using standard graphical techniques of baseline and offset. A full description of the survey methodology is included in the survey archive in the NMR, together with guides to relocating the permanently marked survey stations on site.

9. ACKNOWLEDGMENTS

Field survey was carried out by Marcus Jecock and Stewart Ainsworth from the RCHME with assistance from Andrew Thompson, a student on placement from the Oxford Postgraduate Diploma in Professional Archaeology. The report was researched and written by Marcus Jecock and edited by Stewart Ainsworth, while the final survey drawings and illustrations are the work of Philip Sinton. Background information regarding previous work on the site was kindly provided by Adrian Tindall and Gill Collins of Cheshire County Council. The survey was undertaken with grant-aid from Cheshire County Council, Ellesmere Port and Neston Borough Council, and English Heritage.

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APPENDIX: Table of NMR numbers linked to survey

SITE NAME	COUNTY	DISTRICT	PARISH
St Andrew's Hospital, Denhall	Cheshire	Ellesmere Port and Neston	Ellesmere Port and Neston

NMR no	Unique Identifier	NGR	Site Name
SJ 37 SW 4	67143	SJ 3013 7475	St Andrew's Hospital
SJ 37 SW 20	1133165	SJ 30219 74725	Post-Medieval Lime Kiln
SJ 37 SW 21	1133179	SJ 3024 7467	Medieval/Post-Medieval track
SJ 37 SW 22	1133181	SJ 3015 7465	Possible Medieval/Post Medieval quaysides

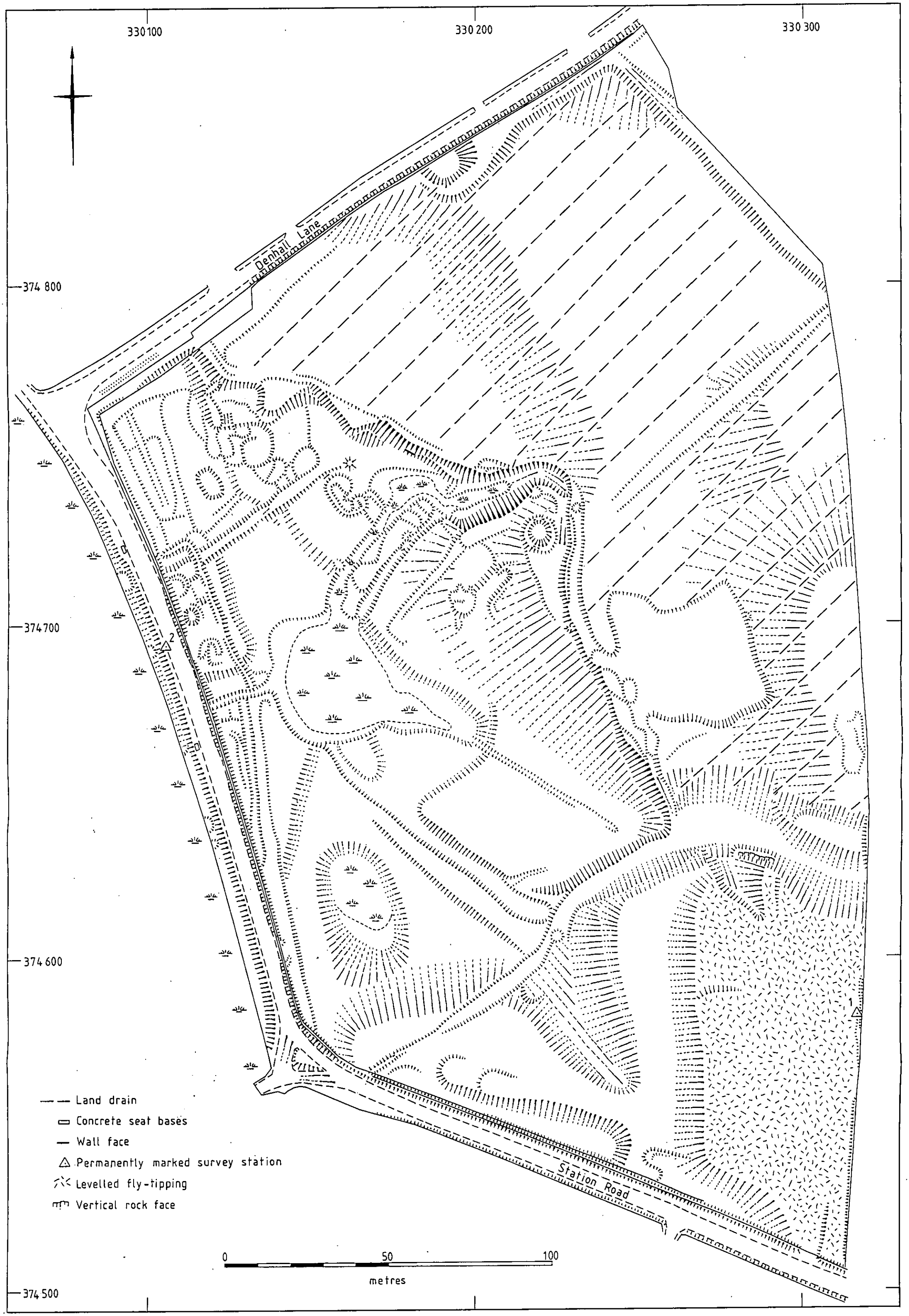

Figure 3. RCHME earthwork plan of Chapel Field at 1:1000 scale