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Volume LXXXI

for 1992

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Survey Excavation on the Long Field at Rookery Farm, Great Wilbraham

W.H.C. Frend & A. Cameron

During the mild winter of 1991–2, the opportunity was taken to explore the south end of the long field belonging to Rookery Farm, Great Wilbraham, where field-walking by Mr Barry Ward had produced a considerable amount of Roman pottery. Air photographs also revealed a number of ditches and enclosures indicating a farm-site with perhaps pens for animals (see Fig.1). Similar traces of a Belgic and Roman farm-settlement were found at Wyboston in Bedfordshire in 1954.[1]

Site 1

The site chosen for preliminary excavation was where there was a concentration of pottery (TL536567). It was 75 m. northeast of the south end of the gas-pipe trench and 350 m. west of the bridle path along the east side of the field. Given the restrictions of weather and the relatively short interval before sowing the spring crop, an area $3^1/_2$ m. x 10 m. was explored. Additional small soundings were taken in an area of dark grey earth 200 m. to the west of the site, and in a second, 100 m. to the southeast near the junction of a crook in the field and line of a modern ditch. In this work Professor Alastair Cameron and the writer were helped by Messrs Paul Firman, John Allen and other members of the Cambridge Archaeology Field Club. The south end of the excavated area was bounded by the line of the gas trench which runs diagonally across the field at this point. Below the plough 0.18 m.–0.25 m. deep was a layer of dark grey-brown friable earth, varying from 15 cm. deep at the south end of the trench to 45 cm. deep five metres to the north, and then diminishing to a level 35 cm. deep in the north end of the excavation (see Fig.2).

Level I

No construction was found anywhere in this level. On the other hand, it contained a large amount (some 300 separate sherds, mainly grey cooking ware) of coarse pottery fragments, including nearly 100 sherds of thick Horningsea ware derived from very large storage jars, with vertical combing decoration on both sides (Fig.6). Some of these fragments were found lying face downwards, their undersides burnt. No pattern, however, could be established and the soil below them was of the same soft, friable character, with similar evidence of burning, to that found above. Their use therefore to make a roughly laid pavement was hardly possible. In addition, rims of vessels of the second type of Horningsea ware were found: grey ware with a heavy grooved rim from a large storage jar. Other finds included a large quantity of hard, grey ware from cooking pots and pie-dishes, some of which appeared to be fragments of wasters, smaller quantities of burnished orange ware (Oxfordshire ware), and Nene Valley dark brown colour coated ware. A base of a beaker with metallic glaze, two sizes of black burnished pie dish and a very few fragments of shell-gritted ware were also found. (See Fig.4 and discussion of the pottery.)

Nearly all of the pottery came from the top 20 cm. of the deposit. Below this, the soil gradually changed colour to a lighter, sandier hue. This level (Ia) contained a few sherds

1 C.F. Tebbut, 'A Belgic and Roman farm at Wyboston, Bedfordshire', *Proceedings of the Cambridge Antiquarian Society* 50 (1957) pp.75-84.

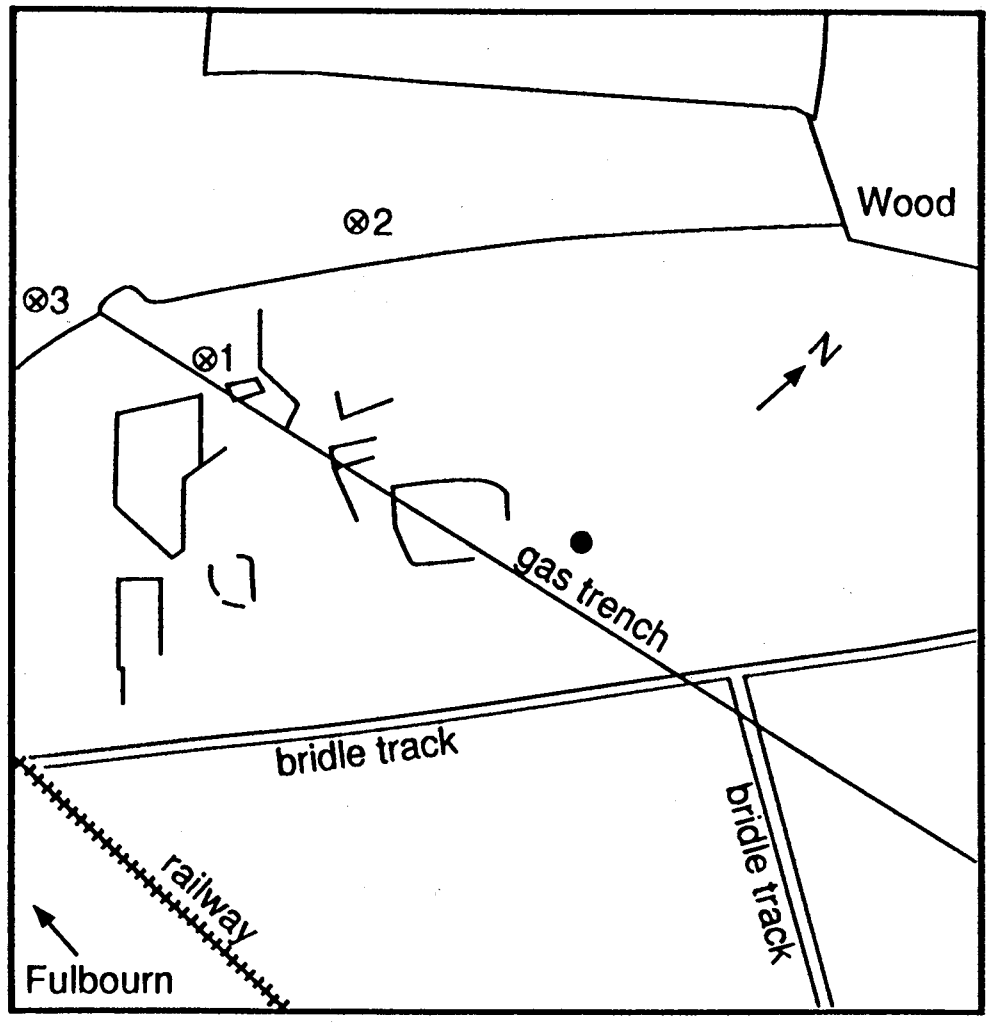


Figure 1. Rookery Farm Site. Great Wilbraham 1991–92:
1) Excavation 1992; 2) Burnt area; 3) Coins, lead and building material.
Field boundaries between 1,2 and 3 no longer extant 1992.

and its sandy character suggested flood or rainwash that had accumulated over the hard, cobbled surface that lay immediately below.

Level II was 0.45 m.–0.70 m. below the surface, below Ia. It was a well-laid layer of cobbles, consisting in general of two layers of hard flint pebbles in which some larger limestone stones and tile fragments had been mixed. This covered the whole of the excavated site from the edge of the gas trench. It sloped gradually downwards towards the north, reaching 0.60 m. below the surface at 5 m. depth. Thereafter it rose to a uniform 0.50 m. through the remaining part of the cutting. At the south end, and over the last five metres of the cutting, the cobbles had been laid directly on the sand and flint or chalk subsoil. Near the middle of the cutting, however, the cobbles overlay a further layer of dark earth containing artifacts (Level III) and the possible footings of a wall (Level IV). One metre beyond this to the north, (four to five more metres from the south end) it overlay a ditch cut sharply through the chalk running and east–west at a slight angle across the line of the trench (Level V) (see Figs.2 and 3).

The surface of the cobbles contained a few pieces of animal bone, some brick fragments, but few pieces of pottery, including part of the base of a mortarium. Apart from this, the fragments were all hard grey ware of indeterminate date. In three places, however, the

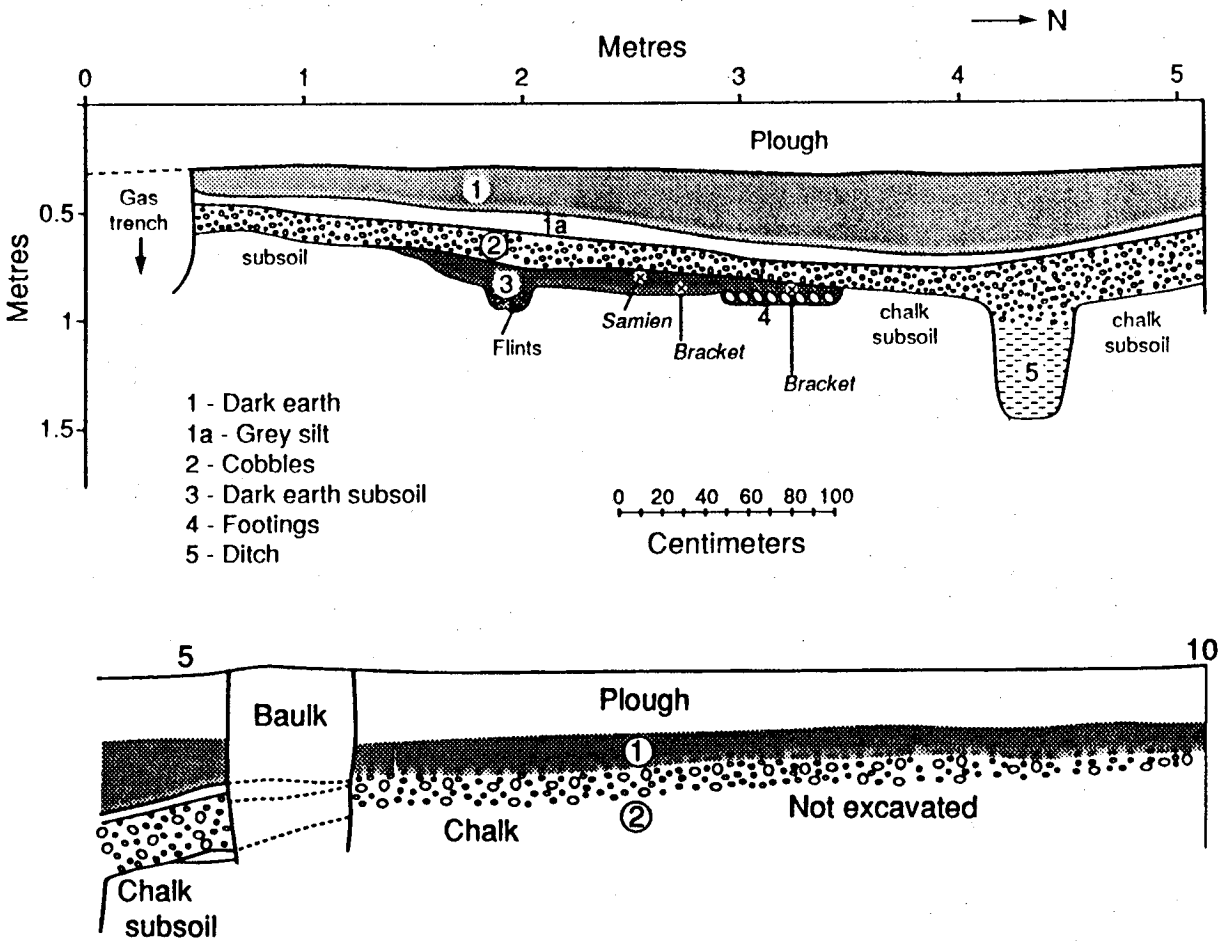


Figure 2. Cross-sections.

surface of the cobbles appeared to have been broken for the possible insertion of posts, though in no case was any stone packing found. A structure, using the cobbled surface as its floor and preceding the accumulation of rubbish on it, is possible but not proven.

There was time to remove the cobbles over the west half of the cutting. Immediately below them was *Level III*, 0.70 m.–0.80 m. below the surface, consisting of sticky dark earth as mentioned above, and loose flints, perhaps filling a shallow ditch. In this, part of the base and side of a Samian bowl type 31 (c.175 AD) and part of a small pair of bronze tweezers were found.

Level IV below III, was 0.80 m.–0.95 m. below the surface and consisted of light, mortar-flecked earth overlying a line of flints set in natural soil. These flints appeared to have been laid and to have formed the footings of a wall running diagonally southwest to north-east across the cutting. Some charcoal was found mixed in with the flints, and also formed a thin layer above them. A shallow hole containing wood fragments was found on the south side of the flints.

Lying on top of these possible footings and embedded in them was an iron bracket (Fig.5, no.12). A second lay a few centimetres to the south in the dark earth of Level III. These were probably for holding beams or other building materials together.

Level V was 0.70 m.–1.50 m. below the surface. It was a steep-sided trench cut into the natural chalk 0.75 m. to the west and 0.80 m. deep across the width of the cutting. It had been filled in with dark earth, some burnt. The bottom was slightly rounded. It contained some

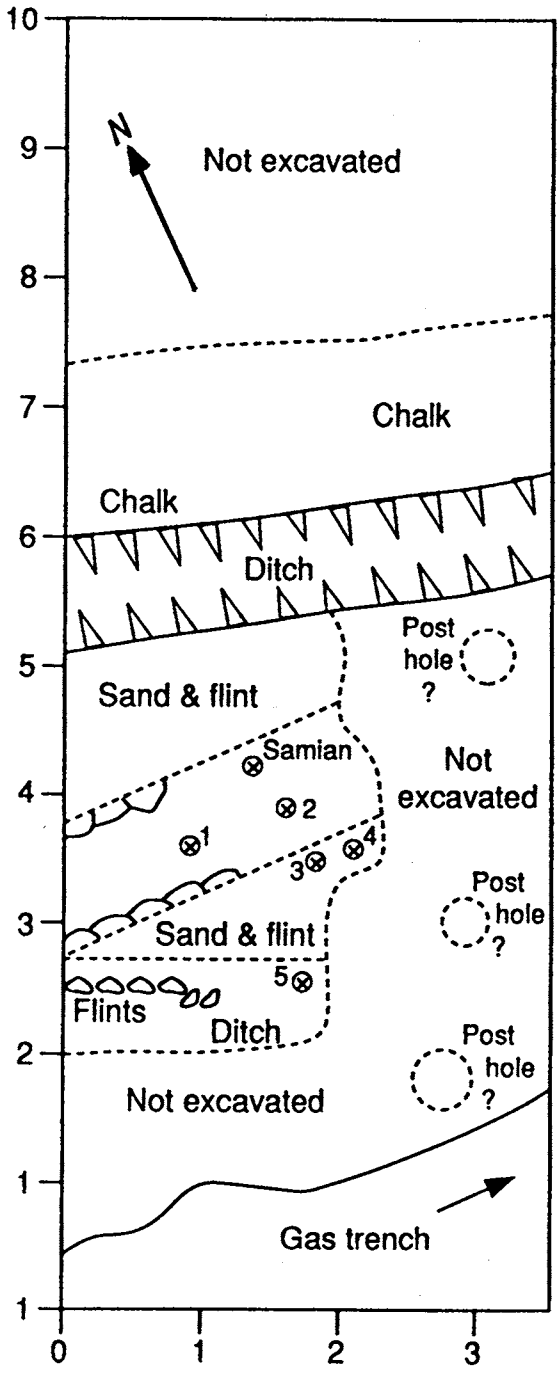


Figure 3. 1) Iron bracket; 2) Iron bracket; 3) Bronze tweezers; 4) Bronze strip; 5) Iron blade fragment.

strips of orange clay, possibly for building or puddling, fragments of which were found adhering to the south side. This ditch contained some animal bones, but only a few fragments of grey indeterminate pottery, and some loose flints. The trench had been kept clean during its period of use and may have been dug for drainage. Later, it had been filled in and covered by the cobbles.

Site 2

The small sounding one metre square in a wide circular patch of grey earth some 200 m. west of the excavation yielded evidence of burnt wood and some grey and orange pottery identical with that from Level I of the main excavation.

Site 3

Field-walking was carried out with Mr Albert Rank of Bottisham just west of the crook of the field at its south end. It produced two bronze coins: one Radiate billon antoninianus (Gallienus?), and the other 2AE Valentinian i, *Gloria Romanorum*. There was other evidence of late Roman occupation: some colour-coated ware and a fragment of a flue tile. A sounding indicated a hard, possibly cobbled, floor some 35 cm. below the surface which would repay further examination.

Conclusion

The main features, found over the whole extent of the trench, were the cobbles. The animal bones found on the surface suggest a cobbled yard, established later than c.175 AD, the approximate date of the Samian bowl found below it. The ditch belongs to this earlier period. At some date, perhaps early in the fourth century, the yard itself went out of use, to be covered first with silt resulting from exposure to the weather, and then by a thick layer of rubbish, including a large quantity of Horningsea ware and animal bones. The quantity of pottery, including small fragments of wasters and the iron slag nodules, suggests a kiln and iron-working nearby. The site must have been abandoned at some date in the second half of the fourth century and would repay further examination.

Acknowledgments

The writers are most grateful to Messrs Bidwell, C. Ascroft, tenant farmer of the Rookery Farm, and Brian Hyde-Smith Esq. for permission to dig and for their co-operation at all times.

The Pottery

From Level I

The pottery recorded here represents a sample of the very considerable number of coarse-ware sherds found in the limited area excavated. All come from a single level and must therefore have been in use at roughly the same time, which from other indications suggest the mid- to latter part of the fourth century AD.

Figure 4

1 Wide-mouthed cooking pot, with shallow everted rim, brown-red fabric and burnish of the same colour internally and externally, Oxfordshire ware.[2] The base of the same or a similar pot was found nearby.

2 Straight-sided pie dish of hard grey fabric, black brownish internally and externally. No decoration. Common type on third–fourth century sites.[3]

3 Rim of large storage jar. Hard grey ware having a very broad sloping rim, with double grooved protusions on the exterior and rouletting round base or neck.[4]

4 Cooking pot with everted rim. Hard grey ware with two bands of rouletting round neck. Common type on third–fourth century sites.

5 Cooking pot smaller, but similar to [4].

6 Small straight-sided pie dish, grey fabric with slight trace of orange, burnished internally and externally.[5]

7 Flanged, straight-sided bowl of hard, light grey ware.[6]

8 Cooking pot, hard grey fabric with wide everted rim. Common third–fourth century type.

9 Large storage pot, Horningsea ware, same type as Fig.6, over.

10 Base of small beaker. White pipe-clay fabric with brown colour coat design (unidentifiable) on exterior.

11 Cooking pot, hard grey ware, everted rim and groove round body. Common third–fourth century type.

12 Straight-sided bowl, dark grey fabric, flange less pronounced.

13 Base of large pie dish decorated with raised geometric pattern.

14 Straight-sided bowl, light grey fabric with black burnished interior and slightly curved rim.[7]

15 Cooking pot, hard grey ware, wide-mouthed, common third–fourth century type.

16 Cooking pot, wide mouth with a slightly downward dip in rim, black external burnish, grooved decoration around neck.[8]

17 Cooking pot, hard orange ware with burnish and small straight-sided rim.[9]

18 Bowl, hard white pipe clay fabric with brown colour coat, and beaded rim, imitation Samian, Dr. 31, fourth century.

19 Storage jar, similar to [3] above, but a larger vessel, brown sandy ware with lower ridge of rim more pronounced than [3].[10]

20 Cooking pot, hard grey ware with flat rim, common type.

21 Bowl (?), clay, hand-made port, softish grey-gritted ware with light orange exterior, straight sloping rim, a local fabric, no parallels known.

22 Base of tall beaker, white pipe clay fabric with red colour coat, rouletting on body, brown design on internal face, exterior colour coated, discoloured by burning.[11]

2 See R.J. Atkinson, 'A Romano-British potters' field at Cowley, Oxon.', *Oxoniensia* 6 (1941) p.16.
3 For local examples see F.G. Walker, 'Roman pottery kilns at Horningsea, Cambridgeshire', *Proceedings of the Cambridge Antiquarian Society* 64 (1913) Fig.55.
4 See *ibid.* Fig.51(8).
5 See *ibid.*, Fig.60.
6 Cf. W.H.C. Frend and B.R. Hartley, 'A Romano-British settlement at Arbury Road, Cambridge', *Proceedings of the Cambridge Antiquarian Society* 48 (1954) p.25, Fig.6 (no.54, dated 330-50).
7 Cf. *ibid.* p.31, Fig.5 (no.14A), though this example is dated *c.*160-90 AD
8 Cf. *ibid.* p.32, Fig.5 (no.24).
9 Cf. D.B. Harden, 'Two Romano-British potters' fields near Oxford', *Oxoniensia* 1 (1936) p.88, Fig.15 (no.23, 4th century).
10 See Walker, *op. cit.* Fig.51(8).
11 Cf. Harden, *op. cit.* p.201, Fig.21 (late 4th century).

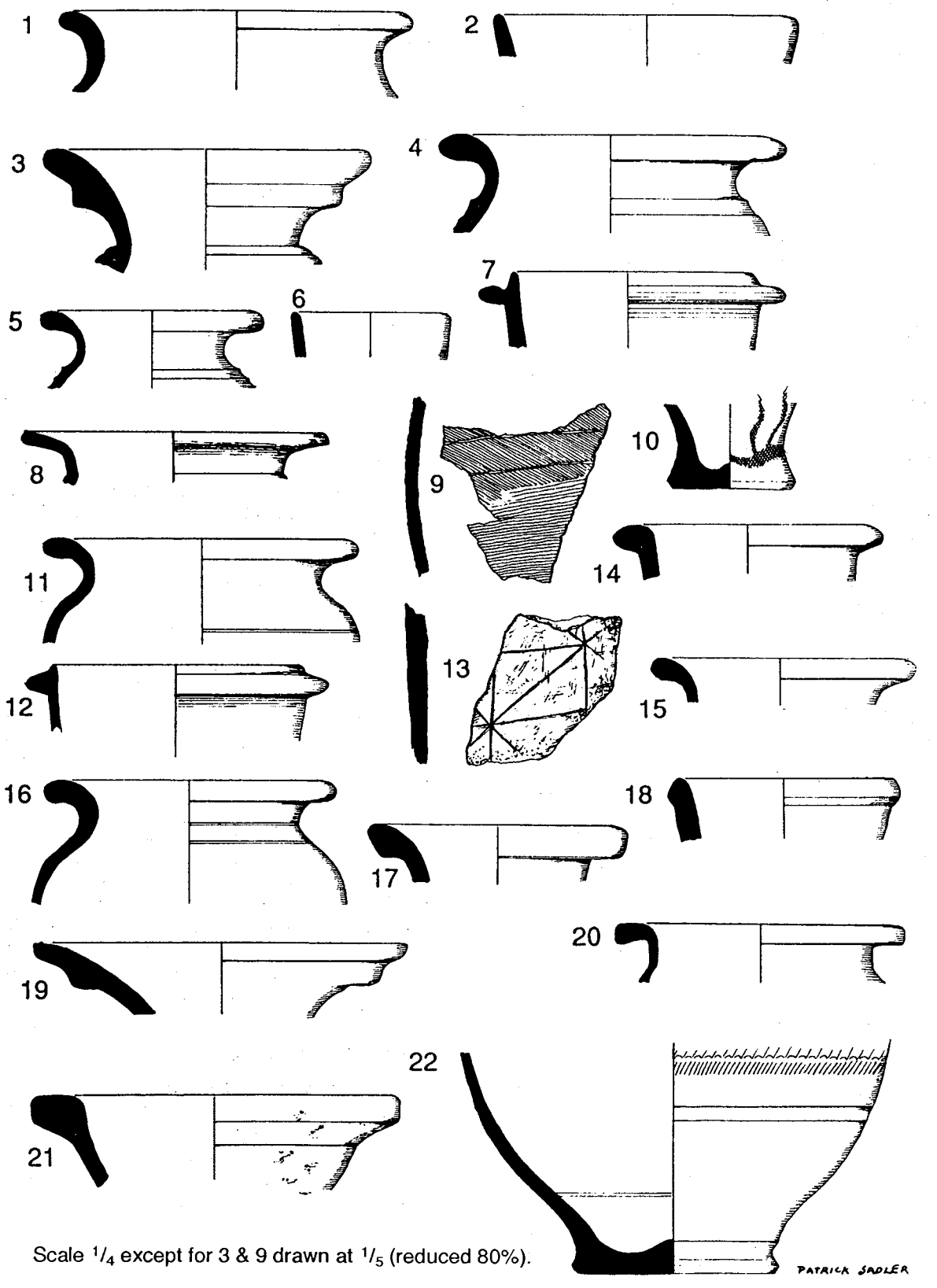


Figure 4. Pottery from Great Wilbraham Rookery Farm.

Figure 5, 8–11

8 Cooking pot, wide-mouthed, of hard brown fabric, brown burnish on neck and shoulder but rougher finish on body.

9 Bowl, deeply-flanged rim, hard white pipe clay fabric with brown external and internal polished colour coat.[12]

10 Bowl with wide shallow flange, hard white pipe clay fabric and brown external and internal polished burnish, traces of burning on exterior.

11 Lid or very shallow dish, hard white pipe clay fabric with black colour coat. On inside, a white painted design featuring a point with dots either side.

From Level III

Samian bowl, Dr. Type 31, about one third surviving, showing slight wear internally (not illustrated).

Part of base of Castor ware beaker, white fabric, black and orange burnish (not illustrated).

Figure 6

Fragment of very large storage jar, with wall, 1.65 cm. thick, including the edge of the base from Level I. On exterior linear comb decoration cut in close parallel lines. Similar decoration on interior but pattern interrupted at angle of 45° by parallel line of comb decoration, giving impression of basket weave. No rims were found.

Bronze objects (Level III)

Figure 5

5 Small narrow strip of bronze, purpose unknown.

13 Top part of small pair of tweezers, badly corroded.[13]

12 Cf. W.H.C. Frend, 'A Roman farm-settlement at Godmanchester', *Proceedings of the Cambridge Antiquarian Society* 61 (1968) p.39, Fig.11 (no.8).

13 Cf. D.S. Neal, 'The excavation of the Roman villa in Gadebridge Park, Hemel Hempstead', *Report of the Research Committee of the Society of Antiquaries of London* 21 (1974) p.141, Fig.62 (181 and 182).

Iron objects

Figure 5

From Level I

2 Iron peg, purpose unknown.

4 Fragment of knife blade.

6 Nail, Type ii with flat triangular head, flattened by hammering.[14]

From Levels I and III

1 Round iron slag nodule (weight 100 g.–125 g., diameter 5 cm.–7 cm.).

From Level III

12 Iron bracket (L. 15 cm. W. 1 cm.). Pointed handles at each end, 3 cm. long. Some traces of charcoal and mortar at end of handles. Strongly made and retains original shape.

15 Fragment of iron staple.[15]

The Bones

Anna Fernyhough

A considerable number of animal bones were found especially from Level I, where they were intermingled with the pottery. Most of the bones from this level were cattle, including six bovid phalanges and 18 fragments of sheep maxillae, one bearing teeth. Seven teeth exhibited heavy wear (bovid). Four tibia could be identified from fragments, probably sheep, but possibly dog. There were also six unidentified fragments of long bone, possibly split lengthways for marrow extraction, and one other unidentified long bone which had been cut cleanly by butchering.

Level II (The cobbles)

While several bone fragments could not be identified, two bovid proximal phalanges, one distal end of a large lower long bone of a bovid, and remains of at least one dog, including teeth and several dog phalanges were found.

14 Cf. Neal, *op. cit.* p.175 (no.491).

15 Cf. Neal, *op. cit.* p.177 (no.513).

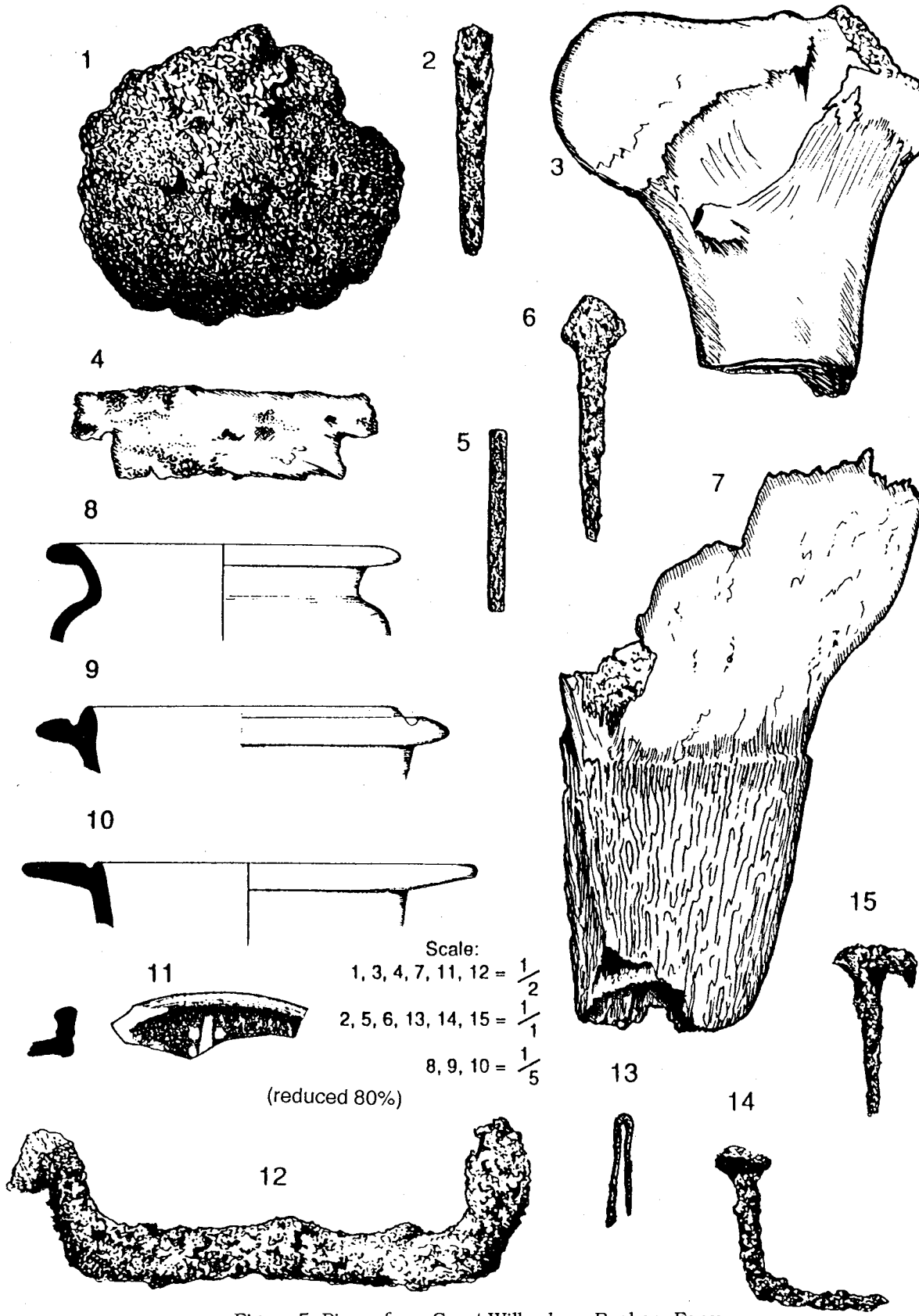
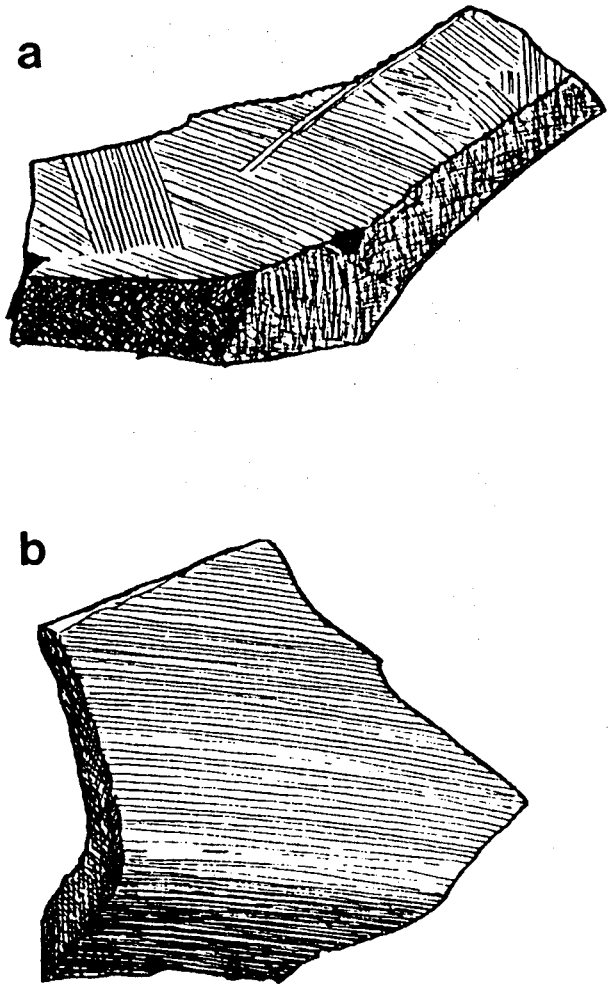


Figure 5. Pieces from Great Wilbraham Rookery Farm.



Level III

One fragment of the horn of an ox (Fig.5 no.7) and one butchered meat bone (probably ox, Fig.5 no.3). The horn was found adjacent to the Samian bowl.

The collection shows at least one dog skeleton, eight bovids (ox or cow) and two sheep. No pig was identified. This represents a minimum number of animals, but more could be represented by the remains. It is consistent with a farming site settled for a considerable period.

Figure 6. Pottery from Great Wilbraham Rookery Farm. Horningsea ware viewed from (a) above and (b) below.

Anglo-Saxon Burials at the 'Three Kings', Haddenham 1990

Ben Robinson & Corinne Duhig

Abstract

During January 1990 a team from Cambridgeshire County Council Archaeology Section undertook a salvage excavation at the 'Three Kings' Public House, Haddenham. The excavation was carried out in response to the discovery of inhumation burials, made during the digging of foundations for a car park. One intact double burial of the pagan Anglo-Saxon period and several disturbed burials were excavated.[1]

Introduction

In December 1989 an area of yard adjacent to the existing car park at the 'Three Kings' Public House was excavated by JCB in order to prepare foundations for a car park extension. The landlord, W. Presnell, allowed a friend who suspected the presence of antiquities on the site to prospect the area with a metal detector. Several artifacts, notably an iron spearhead and shield boss, were recovered. The County Archaeologist, Alison Taylor, was then approached and an inspection of the site was made. A single, seemingly intact, grave was discovered and Mr Presnell agreed to halt further work on the site, to allow time for the salvage excavation of this and any other remains that were likely to be disturbed by the car park construction. In the absence of developer funding, the work was paid for from the Cambridgeshire County Council Rural Management Division's Vulnerable Sites Fund.

Background

Haddenham village is situated five miles to the southwest of Ely, on the southern edge of the area of high ground which forms the Isle of Ely. This outcrop is comprised of Kimmeridge Clay, capped by Lower Greensand and Gault. The excavation site was in the centre of the village (Fig.1) at 37 m. O.D.

Excavations undertaken by I. Hodder and C. Evans in Haddenham parish throughout the 1980s have demonstrated the presence of settlement from the Neolithic to the Romano-British period in the area.[2] However, this settlement seems to have been concentrated on the surrounding fen, or on small gravel islands in the fen, rather than on the higher ground. Consequently there is a lack of occupation evidence prior to medieval times from the village itself. The only recorded finds are a Roman coin, bracelet and potsherds from Linden End, and Romano-British potsherds from Hinton Hall (Cambridgeshire Sites and Monuments Record). The 1969 excavation at Hinton Hall, to the northeast of the village, produced evidence of Saxo-Norman occupation, though unfortunately a high water table prevented examination below tenth-century levels (Cambs. SMR).

One piece of evidence which hints at early Anglo-Saxon settlement at Haddenham is St Ovin's Cross. This is the base of a commemorative stone to St Etheldreda's steward, who died in 676 AD. An inscription on the stone

1 The following conventions apply throughout this report: the site grid, although orientated on Grid North, has its own coordinate set; all burial orientations are given as 16-point bearings, 'head first' relative to Grid North; context/burial numbers are enclosed in square brackets.

2 Christopher Evans and Ian Hodder, 'The Haddenham Project', *Fenland Research* 2 (1985) pp.18–23.

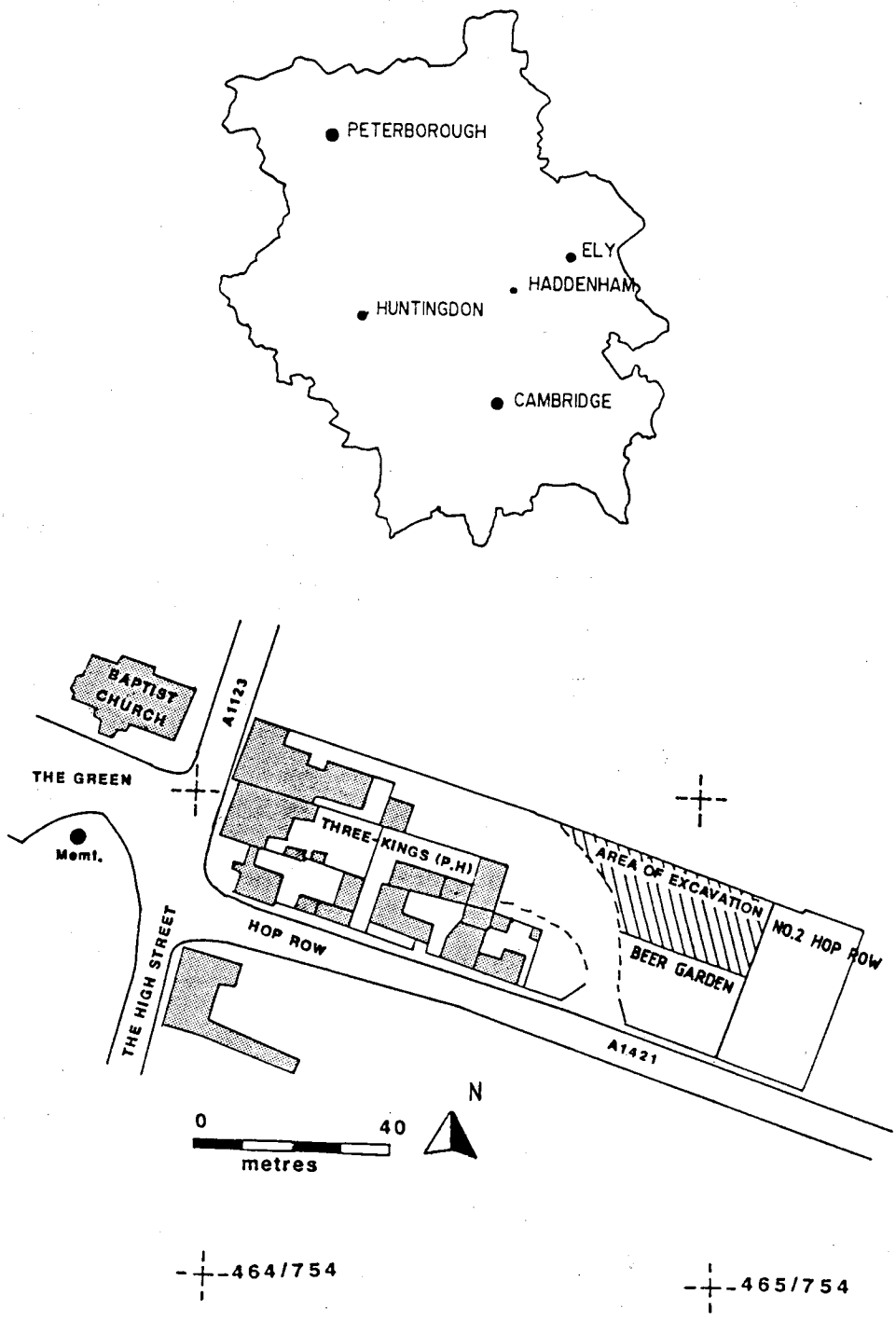


Figure 1. Location plan of the Haddenham 'Three Kings' site.

reads, 'O God grant thy light and rest to Ovin. Amen'. Until the eighteenth century it was situated in the village and used as a mounting block. It is now kept in Ely Cathedral (Cambs. SMR). It is hard to imagine such a monument being placed away from a settlement and its position could well have originally indicated Ovin's burial or birthplace. Later

Anglo-Saxon settlement is confirmed by the name of the village, the earliest recorded form of which is 'Haeda Ham' (Haeda's homestead) from 970 AD.[3] The Domesday Survey records Haddenham together with the separate hamlets of Hill Row and Linden End, which are now incorporated into the village.

The area of the excavation described below was cultivated until recently, producing famed early potatoes.

Excavation Strategy

The site, an area approximately 15 m. x 30 m., was excavated by mechanical digger, down to the level of natural sand, by the developer during December 1989. This involved removing up to one metre of overburden. A ballast of concrete rubble was then dumped across the site in all but a small area which surrounded the previously-located grave. The excavation spoil was examined by the archaeologists when they arrived at the site in January 1990, and a quantity of human bone and a large fragment of Anglo-Saxon pottery (Fig.7, [1000]:2) was recovered. The rubble was removed as it seemed very likely that more burials would be located in the vicinity. Due to the confined space this was achieved in stages, clearing the rubble from a small area at a time with a mechanical digger and then dumping it back when the area had been examined. Each cleared area was shovel scraped and then cleaned by trowelling, the features showing up as darker areas against the natural buff Greensand. It was intended that all features encountered would be sample excavated depending on size and importance, and that all burials would be recovered.

The excavation was carried out by a team of three archaeologists over ten days.

The Features

[1]

This large ditch was heavily truncated by the initial JCB excavation of the site though lower portions survived as a roughly rectangular area (8 m. x 3.5 m.) of mid-brown sandy silt (Fig.2). Excavation of the surviving fill revealed a few fragments of human bone, with a further concentration of human bone at its base [5]. Further to the west, three shallow depressions, one containing a cow's jaw, cut the natural sand, but beyond this the feature was entirely excavated away. Feature [8], with its similar fill, is probably a continuation of [1]. This feature was visible in the section formed by the site's boundary with a neighbouring property. Its profile was a flattened 'u' shape, 2.5 m. wide at the top and 0.9 m. deep. It was cut by a modern fence post but cut feature [9] and layer [10]. The act of cutting it appears to have caused disturbance to burials [2] and [7], as confirmed by the skeletal analysis (see *Skeletal Material*, below).

[2]

This burial was encountered adjacent to the northern side of pit/ditch [1]. The burial was very disturbed and incomplete, probably mostly due to the developer's excavations, though some disturbance may have resulted from the digging of ditch [1]: bones belonging to this individual, an adult female, were recovered from the assemblage [5] at the base of [1]. Only a portion of the right arm and lower legs remained *in situ* (Fig.5), their orientation suggesting that the burial was extended, supine and orientated ESE–WNW. This burial was accompanied by that of a child, of which only a left femur remained. There was no remaining trace of a grave cut; the grave fill survived in a few places near the bone as a yellowish mid-brown silty sand. There were no associated artifacts.

[3]

Burial [3] was one of two inhumations placed side by side in a single wide grave (Fig.3). It was from here that an iron shield boss and a spearhead were extracted by metal detecting, prompting the initial discovery of the site. The positions of these finds were not recorded though it was thought that the shield boss came from the chest area of the skeleton while the spearhead was situated somewhere near the left shoulder. After the area was cleaned the grave contrasted with the natural sand as an irregular sub-rectangular (1.3 m. x 1.95 m.) patch of yellowish mid-brown silty sand. Careful excavation revealed no sign of a coffin structure or other grave furniture. Initial clearance of the site had severely truncated the grave so that only the lower 20 cm. of fill remained, cut into the Greensand. The cut, visible in section, indicated a grave depth of 50 cm. though the upper part may well have been truncated by layer [10].

The burial was of a large male adult lying supine and extended and orientated

3 P.H. Reaney, *The Place Names of Cambridgeshire and the Isle of Ely* (Cambridge 1943).

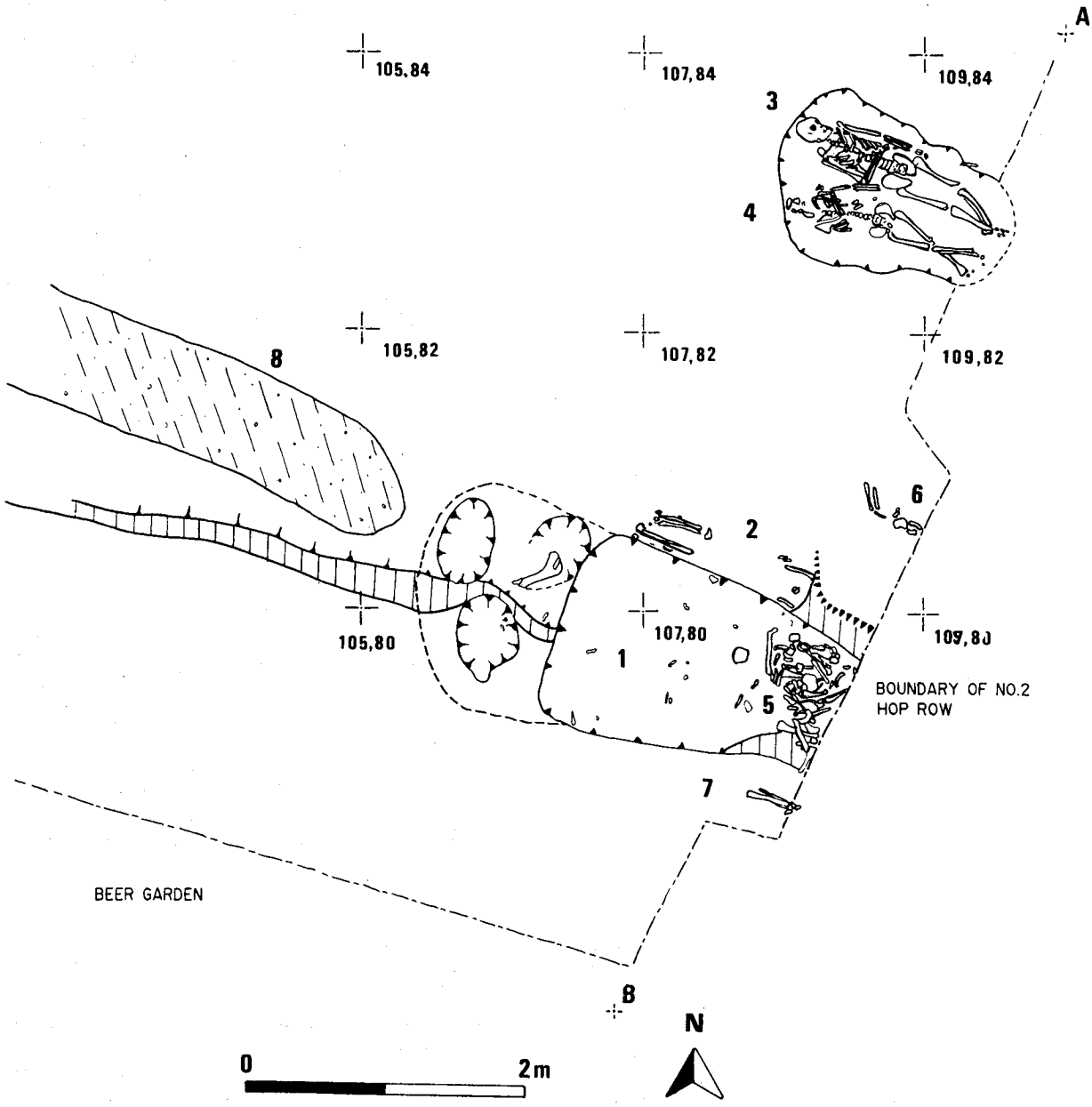


Figure 2. Plan of excavated features in the southeastern corner of the site.

WNW–ENE. The legs were crossed right over left at the ankles, the flexed right arm lay across the stomach, and the left arm was extended by the side. The skull was propped up by a 'pillow' of natural sand left unexcavated by the grave diggers, and was tilted slightly toward the left shoulder. The skeleton rested on a 'bed' of sparsely arranged pebbles which may have been deliberately placed; although such pebbles occurred naturally in the subsoil, here they were especially concentrated. The bone was very well preserved and the skeleton undisturbed and almost complete. Apart from the shield boss and spearhead, a number of other artifacts were associated with this burial: two iron shield studs, a fragment of iron shield grip, a buckle, an iron knife and a spear ferrule. The remains of a chatelaine group were found near the right hip, though the proximity of this to burial [4] casts a doubt over its ownership. The artifacts are discussed further below. Two small, abraded potsherds were found in the grave fill. Both are Anglo-Saxon but cannot be closely dated. One, a body-sherd, is of a very similar fabric to [1000]:2 (described below) but the other, a rim-sherd, is from a more thinly-walled vessel and is of a hard grey fabric with shell inclusions.

[4]

Burial [4] lay alongside burial [3]. Both rested in the same grave cut, and were sealed in the same fill. The skeleton was that of a female, slighter than [3], and with the bone equally well preserved. The skull had been damaged by the JCB during initial site excavation and was incomplete, though many fragments were subsequently recovered from the spoil. The burial was extended and supine with the right leg crossed over the left at the knee. The right arm was flexed and lay across the chest so that the right hand rested on the midpoint of the left humerus. The left arm was extended at a slight angle to the side so that the hand was beneath the pelvis of burial [3]. Grave goods associated with this burial included 30 amber beads, a bronze small-long brooch, a bone spindle whorl and a fragment of decorated bone, possibly part of a comb. The chatelaine group, mentioned above, may have belonged to this burial.

There was no sign of a re-cut to the grave or of disturbance to one of the burials by the other, indicating that they occurred at the same time. Burial [4] must have been placed in the grave first, since its left hand was beneath the male's pelvis. The grave partly extended into the neighbouring property and it was necessary to tunnel into the section in order to recover the lower legs of both skeletons.

[5]

A collection of miscellaneous human bones at the base of ditch [1] (Fig.4) was sealed by a thin layer of light-grey silty clay. It was noted at the time of excavation that at least two individuals were represented by the assemblage since there was a duplication of some bones. Post-excavation analysis (see *Skeletal Material* below) revealed bones belonging to burials [2] (with more fragments of a child) and [7], confirming that the cutting of feature [1] had disturbed those burials. There were no articulated bones amongst the scatter, demonstrating that the remains were fully decomposed when deposited; the thin clay covering was obviously an attempt at reburial. A large polychrome glass bead ([1]:1) was found in the bone scatter (Fig.7) but no other artifacts; if any existed they would almost certainly have been removed by the ditch diggers.

[6]

Another disturbed burial, this inhumation consisted of a few arm bones, pelvis fragments and two vertebrae from a child (Fig.4). The lower legs seemed to be complete and *in situ*, but could not be retrieved since they extended far into the section. Only a hint of grave fill remained and no grave cut survived. The burial had largely been disturbed by the clearance of the site, though it may have suffered earlier disturbance when pit/ditch [9] was cut (Fig.6). The few remaining bones suggest a burial orientation of WNW–ESE.

[7]

This individual, an adult male, was represented only by an articulated lower right leg (Fig.4). Again only a small amount of grave fill remained. As with [6], the disturbance probably resulted from a combination of the cutting of ditch [1] (Fig.6) — more bones belonging to this burial were found amongst the assemblage [5] at the base of ditch [1] — and initial clearance of the site. A burial orientation of WNW–ESE is tentatively suggested.

[8]

This feature was severely truncated during the initial clearance of the site and survived

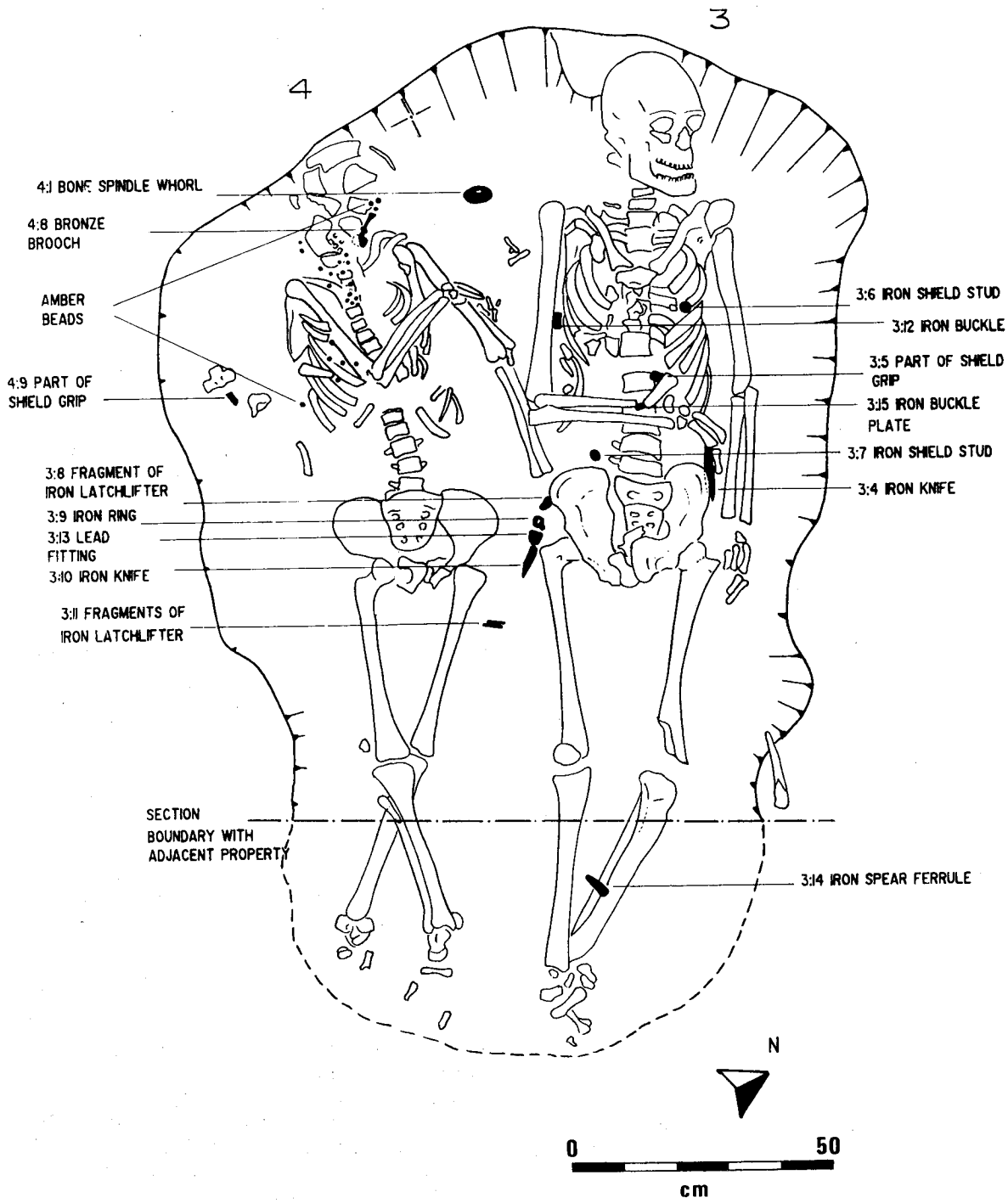


Figure 3. Double burial [3] and [4].

only to a depth of 15 cm.–20 cm. cut into the natural sand. The fill was a dark-brown silty sand bordered on its south side by a narrow, low ridge of pure clay, which may have been the remnants of a lining (Fig.2). The fill contained nothing but a few scattered animal bones. It is likely, due to the similarity of fills and position, that [8] is actually the bottom of ditch [1]. The feature continued northwest across the site before being lost under the existing car park.

[9]

This large ditch or pit (70 cm. deep, 120 cm. wide), though visible in section (Fig.5), did not survive the clearance of the site and therefore it is not known how far it extended to the west. Its fill was a homogenous light-grey clayey silt, overlain by the topsoil. It cut [10], [1] and the natural sand. It may also have accounted for disturbance to burial [6]. No datable material was recovered from this feature.

[10]

A band of mid-brown loose silt, 30 cm. thick, was visible in section. It seems to have truncated burial [3]/[4] and overlies burials [2], [6] and [7], but was cut by features [1] and [9]. It might be either a medieval or post-medieval ploughsoil though unfortunately it was entirely removed across the site and no datable material could be extracted from the section.

Other Features

Three rectangular pits (1.60 m. x 0.75 m.) were found near the centre of the excavated area, each containing a pig skeleton. The fill of the pits, a very loose greyish dark-brown silt, contrasted greatly with the fill of the graves containing human burials, leading us to believe that these features were of a much later date.

The Artifacts [4]

The artifacts, with only three exceptions, came from the virtually-intact burials [3] and [4] (see Appendix A). The lack of grave goods from the other burials is consistent with the disturbance to them but may not have been entirely due to the recent clearance of the site. The spoil from the site (dumped on farmland two miles west of Haddenham adjacent to the A1123) was combed by a metal detector and although much more human bone was encountered, no artifacts were discovered. This may suggest either an initial dearth of grave goods, or previous grave robbing. The three exceptions are described below.

[1000]:1 A plain flat copper-alloy ring recovered from the spoil remaining on site. Possibly part of an annular brooch (Fig.7).

[1000]:2 A large sherd of Anglo-Saxon pottery. Approximately one-quarter of the vessel survived (including a portion of rim, but without a base), showing that it was part of a small, hand-made, carinated bowl with a linear groove decoration (Fig.7). The fabric was black (with some very light brown patches due to differential firing) and hard, with very small inclusions, possibly of felspar. It cannot be closely dated, but probably accompanied a burial.

[1]:1 A large polychrome bead (yellow swag-and-dot design on red background) found amongst the scatter of bones [5] at the base of feature [1] (Fig.7).

Burial [3] (Figs.3, 8, 9 and 10)

[3]:1 The shield boss (classified Dickinson Group 3) was discovered by metal detector and removed without having its position recorded. It was said to have been situated the correct way up, mid-way between two iron studs ([3]:6, [3]:7), a position confirmed by the presence of a fragment of shield grip. The studs were possibly fastenings for a strengthening or decorative shield strap, or protective (perhaps leather) coating. The position of these artifacts shows that the shield was placed on the chest, rather than on any grave covering. In this case we would expect to see them considerably more scattered than they were found here, losing articulation as they gradually worked their way down through the collapsing grave.

This type of shield boss is commonly found in the southeast of the country and associated with burials of the sixth century, though some occur in the seventh century. Several examples have been found with Swanton H-2 spears,[5] as in this case.[6] Three fragments of iron shield grip were found ([3]:5, [3]:15, [4]:9) with attaching studs. The grip was narrow (< 2 cm.) and traces of a covering survived. Z- and S-spun threads

4 Artifact identification by A. Taylor. Textile identification by E. Crowfoot.

5 M.J. Swanton, *A Corpus of Pagan Anglo-Saxon Spear Types* (Oxford 1974).

6 M.G. Welch, *Early Anglo-Saxon Sussex* (Oxford 1983).

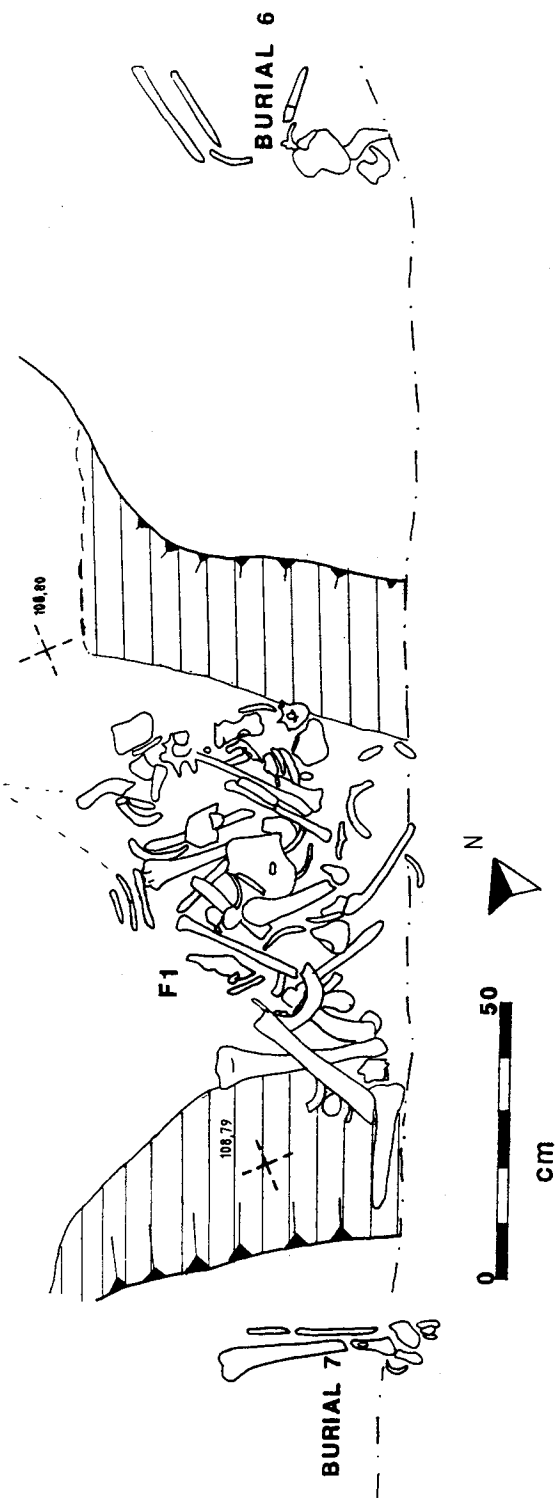


Figure 4. Plan of bone scatter [5] at the base of feature [1]. Burials [6] and [7] also shown.

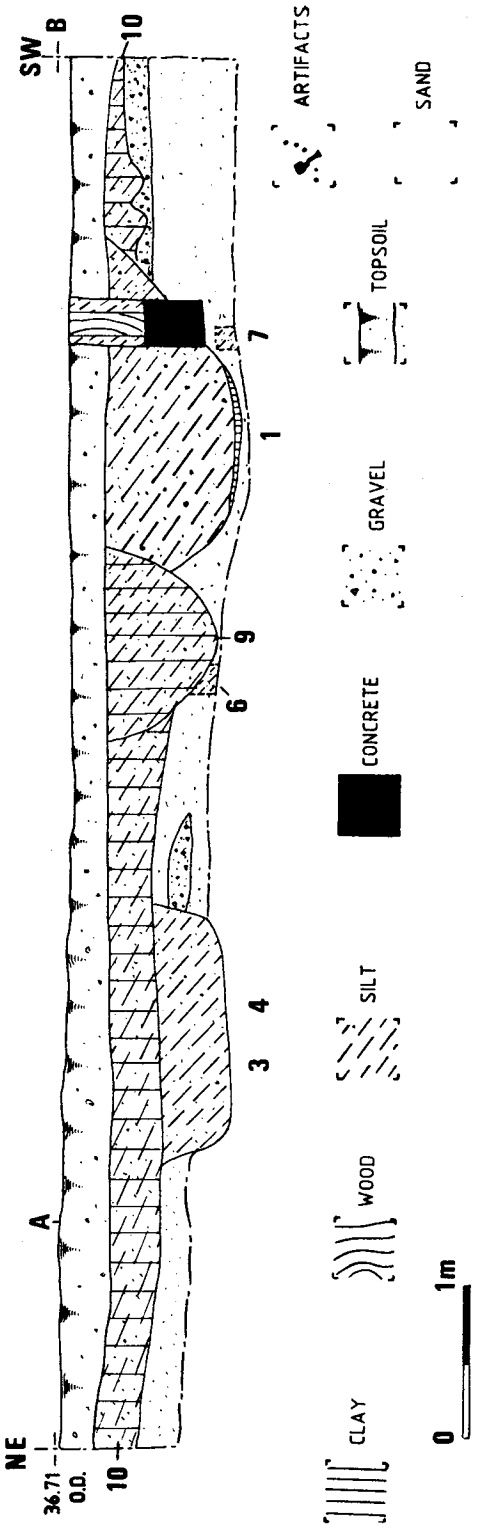


Figure 5. Disturbed burial [2].

were clear though the weave and textile were unidentifiable. The width of the grave suggests that the complete shield must have been no more than 75 cm. in diameter.

[3]:2 The spearhead (classified Swanton H-2) was also removed without recording but might have been located near the left shoulder. The cleft shaft was broken, the lower portion having an intact haft-securing rivet with traces of mineralised wood. The blade was ogival in shape and 14 cm. in length, half the length of the entire spearhead. A conical iron ferrule ([3]:14) was found near the feet, suggesting a spear length of no more than 1.6 m. The spear is of a common type, popular in the early sixth century, although it is also found in slightly later graves.

[3]:3 The tweezers were also extracted from the grave without recording and it is not absolutely clear that they came from the male skeleton at all; however, they are more usually found with male burials and were therefore provisionally assigned to [3]. Only one blade was recovered, with a small arc of attaching ring, both made of copper alloy.

The tweezers were 6.5 cm. in length, decorated near the fulcrum by four parallel lines. A patch of mineralised textile, Z-spun and of unidentified weave, was found on the underside of the ring end. The upper surface of the tweezers had fine Z/Z-spun textile, possibly tabby weave.

[3]:4 The knife was located above the left side of the pelvis, with the blade pointing towards the feet as if hung from a belt. The blade was 10 cm. in length, straight-backed and with a curved, tapering cutting edge. The handle did not survive though its iron core did (3 cm.). The shape of the knife suggests a fifth- or sixth-century date.[7]

[3]:8, [3]:9, [3]:10, [3]:11, [3]:13 These objects were initially all assigned to [3] because they were situated closer to this burial than to burial [4]; however, this might be a false indication of their ownership. The objects did not appear to be arranged in any particular fashion, but it was found later that [3]:11 and [3]:9 fitted together to form an iron implement 14 cm. in length, 0.8 cm. in width and 0.4 cm. in breadth, with an iron attaching ring at one end. This object may be the shaft of a latchlifter (of which the head is missing) or it may join (though the joint is not obvious now) to [3]:8, which is the head of a latchlifter whose shaft is of similar dimensions to those described above. The larger fragments of the above all had traces of mineralised textile. Coarse Z/S-spun twill (?) and Z/Z tabby medium twist were identified. The remaining objects in this group were an iron knife [3]:10 (smaller than [3]:4, and missing its handle core, though otherwise similar) and a lead fitting. The knife too had very deteriorated mineralised textile remains attached to it: Z/S spun, probably twill weave. The lead fitting, roughly circular (3.7 cm. diameter, 0.4 cm. thick, damaged on one side), with a deep square impression in the centre, has a purpose which is now unknown. One suggestion is that it was a knife pommel, but this is unlikely since its weight would have severely affected the balance of the blade. A similar object (although made of bronze) was found in grave 76 at Burwell,[8] but again, there were no clues as to its function. Several factors suggest that the whole group, in fact, belongs to burial [4]. It was situated between the left arm and left side of [4], and though closer to [3], was still very much in proximity to [4]. Burial [3] already had a similar iron knife, so the duplication would be unecessary. Finally, latchlifters are more usually found with female burials.

[3]:12 A 'D'-shaped iron belt buckle with pin which was found on the left side of the chest. It is a common sixth-century form.

Burial [4] (Figs.3 and 11)

[4]:1 A spindle whorl, made of dense bone, 4.5 cm. in diameter, 3 cm. high, with a central hole 1 cm. in diameter.

[4]:8 A bronze, square-headed small-long brooch with a shovel foot. This was found tucked slightly under the left side of the skull, pin-side down, with the head pointing towards the foot of the grave. It is plain apart from a simple decoration of incised parallel lines near the middle of the shaft. Analysis by Scanning Electron Microscope, at the University of London Institute of Archaeology, revealed that the brooch is mainly copper, with tin and a little lead also present.[9] The pin attachments on the rear of the brooch had traces of an iron pin. This is a poorly-cast example of a form commonly found in sixth-century burials of the Anglian region. Most of the early examples of this type were found in south Cambridgeshire[10] and so it

7 *Ibid.*

8 T.C. Lethbridge, 'The Anglo-Saxon cemetery at Burwell, Cambs', *Cambridge Antiquarian Society Communications* 30 (1929) pp.97-109.

9 Margot Wright, personal communication.

10 E.T. Leeds, 'The distribution of Angles and Saxons archaeologically considered', *Archaeologia* 91 (1945) pp.1-106.

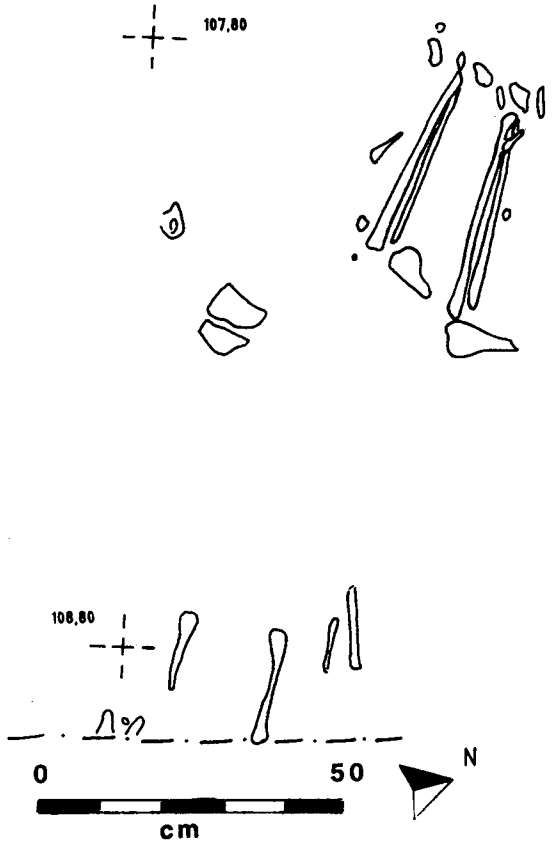


Figure 6. West-facing section at eastern boundary of site (line A–B on Fig.2).

may well date from the earlier part of the sixth century. This date is also suggested by M.G. Welch.[11] Remains of mineralised textile were located on the brooch and pin attachment. Z/Z medium twist (2/2 ?) twill were identified.

[4]:32, [4]:31, [4]:19 These comprised a total of 11 segments of silver-in-glass beads. Each segment was barrel-shaped and 0.35 cm. long. They were situated above the left and right clavicle, and it is not known whether they were part of the necklace or some other decoration.

[4]:2, [4]:3, [4]:4 *et al.* In all, 29 amber beads were found, five large (> 1 cm.) and the rest medium-sized (0.5 cm.–1 cm.). No trace of the necklace thread remained and the beads were all slumped on the right side of the chest, with the exception of two which were found close to the brooch. The cluster furthest from the neck was 20 cm. away, perhaps indicating a loop necklace rather than one which was tight around the neck; however, there seem to be too few beads for a necklace of this type. Only one brooch was present, so the beads could not have been worn in a style commonly encountered, slung between brooches. One end of the necklace may have been stitched onto clothing (or another organic attachment which has not survived) with the other end fastened to the brooch.

11 Welch, *op. cit.*

The Skeletal Material

Corinne Duhig

This assemblage contained only one undisturbed burial; other graves had been intersected by ditches, the resulting commingling of bones presenting an interesting challenge in analysis (see Appendix B). Some bone was eroded, but most was in very good condition.

The undisturbed grave was a double burial, containing the almost-complete skeletons of a tall middle-aged man, showing the changes of degenerative joint disease and an unusual pathological condition of the spine, and a slight younger woman who was, at least osteologically, in perfect health. From the other graves and pits, nine other individuals can be identified, in varying degrees of preservation. Three are male: one fully adult, one approximately 18 years old, and the third probably between 18 and 22. Of the three adult women, none of whose ages can be estimated, one is very short and gracile, another is a little taller and rather heavier in build, and the third is represented only by two fragments but appears to have been quite small. At least three children are present, the age of one of which can be established as seven years, another being about 12, and the last of an age between these, approximately nine years old.

Signs of pathological conditions are few, with the exception of number 4 (the man from the double burial), and those that can be found are those of arthritic change and some small signs of localised infection. Overall dental health was exceptionally good.

Methods used for ageing are those of Gilbert and McKern, Lovejoy *et al.* and McKern and Stewart;[12] sexing follows the

12 M.B. Gilbert and T.W. McKern, 'A method for ageing the female *os pubis*', *American Journal of Physical Anthropology* 38 (1973) pp.31-8; C.O. Lovejoy, R.S. Meindl, T.R. Pryzbeck and R. Mensforth, 'Chronological metamorphosis of the auricular surface of the ilium: a new method for the determination of adult skeletal age at death', *American Journal of Physical Anthropology* 68 (1985) pp.15-28; T.W. McKern and T.D. Stewart, *Skeletal Age Changes in Young American Males: Analysed from the Standpoint of Age Identification* (Natick, Mass.

methods of Phenice and Ubelaker[13] and height estimation uses the formulae of Trotter and Trotter and Gleser.[14]

Feature 1

Diagnostic fragments of three individuals were present in this ditch, although there is insufficient material to suggest that three complete skeletons had ever lain in this area. Individual 1a is a gracile woman, represented by an almost complete femur, all measurements of which are well within the female range, and a badly-preserved frontal bone; height can be estimated, from the length of the femur, as approximately 154 cm. or 5 ft $^1/_2$ in. Number 1b is a portion of the femur of a young adult male, showing the recent fusion of the distal epiphysis, a process occurring between 20 and 22 years of age. The frontal bone and distal femur of another male have been classed as 1c, the frontal sinus development suggesting that this was an older adult than the previous one.

The remaining bone material cannot be allocated to a particular individual, but the three separate sets of ankle and foot bones confirm the minimum number of individuals. Some fragments from this context are heavily eroded, as are some from the spoil heap: although they cannot be definitely associated, it is probable that cranial vault fragments from the spoil heap belong with the 1a frontal bone.

One atlas vertebra was present, and shows double articular facets like those of the man in burial 3; however, although this may be a heritable trait, no familial relationship is necessarily implied.

Some cow and horse bones were also present.

Burial 2

These are the bones of a right arm and a pair of lower legs, measurements of the femur (bicondylar width) indicating a possibly-male individual, but all measurements of the tibiae confirming the subjective impression that this is a female. Slightly more robust than 1a, her height would have been around 161 cm. or 5ft $3^1/_2$ in. From their position as shown on the excavation plans, it is clear that these bones are the *in situ* portions of a once-complete skeleton; the humerus can be paired with that of 5b, and it is suggested that 2 and 5b are portions of the same individual, whose original grave [2] was disturbed by feature [5].

Also included with this material was an immature left femur which belongs with the child's bones numbered 5c, described below.

Burial 3

In one undisturbed grave were this tall, robust man and the female, number 4. The male skeleton is almost complete, lacking only a few small hand and foot bones and one vertebra, and in good condition: the skull was not crushed, so little repair was needed, and no teeth were lost postmortem. The excavators, commendably, recovered the hyoid bone and an ossified thyroid cartilage.

This man was almost six feet tall (181 cm. or 5 ft $11^1/_4$ in.), with correspondingly heavily-built bones showing strong muscle markings. His skull is rugged and the jaw is deep. Generally, the condition of the pubic symphysis is considered a more reliable age indicator than other methods available and would, in this case, not have given an age estimate greater than 35 years. However, a number of features point to his having been aged 40 to 50: the extreme and uneven tooth wear, the degenerative changes in the cervical and lumbar spine, the obliteration of the skull sutures, and the state of ossification of the thyroid cartilage.

The pathological features in the spine, often described as 'arthritic' changes but correctly referred to as degenerative joint disease, are extreme. The vertebral surfaces are cavitated, and development of matching nodules and cavities on adjacent surfaces shows that the intervening discs were badly degenerated. Bony spurs between the vertebrae would have curved round the spreading discs. There are related changes in the hip and shoulder joints, with erosion and bony lipping, probably also due to cumulative stresses on these joints over the years. The

1957); J.M. Suchey, D.V. Wiseley and D.Katz, 'Evaluation of the Todd and McKern-Stewart methods for ageing the male *os pubis*', in K.J. Reichs (ed.), *Forensic Osteology* (Springfield, Illinois 1986) pp.33–67.

13 T.W. Phenice, 'A newly developed visual method of sexing the *os pubis*', *American Journal of Physical Anthropology* 30 (1969) pp.297-301; D.H. Ubelaker, *Human Skeletal Remains: Excavation Analysis, Interpretation* (Washington 1989).

14 M. Trotter, 'Estimation of stature from intact limb bones', in T.D. Stewart (ed.), *Personal Identification in Mass Disasters* (Washington D.C. 1970) pp.71–83; M. Trotter and G.C. Glese, 'Estimation of stature from long bones of American whites and negroes', *American Journal of Physical Anthropology* 10 (1952) pp.463-514.

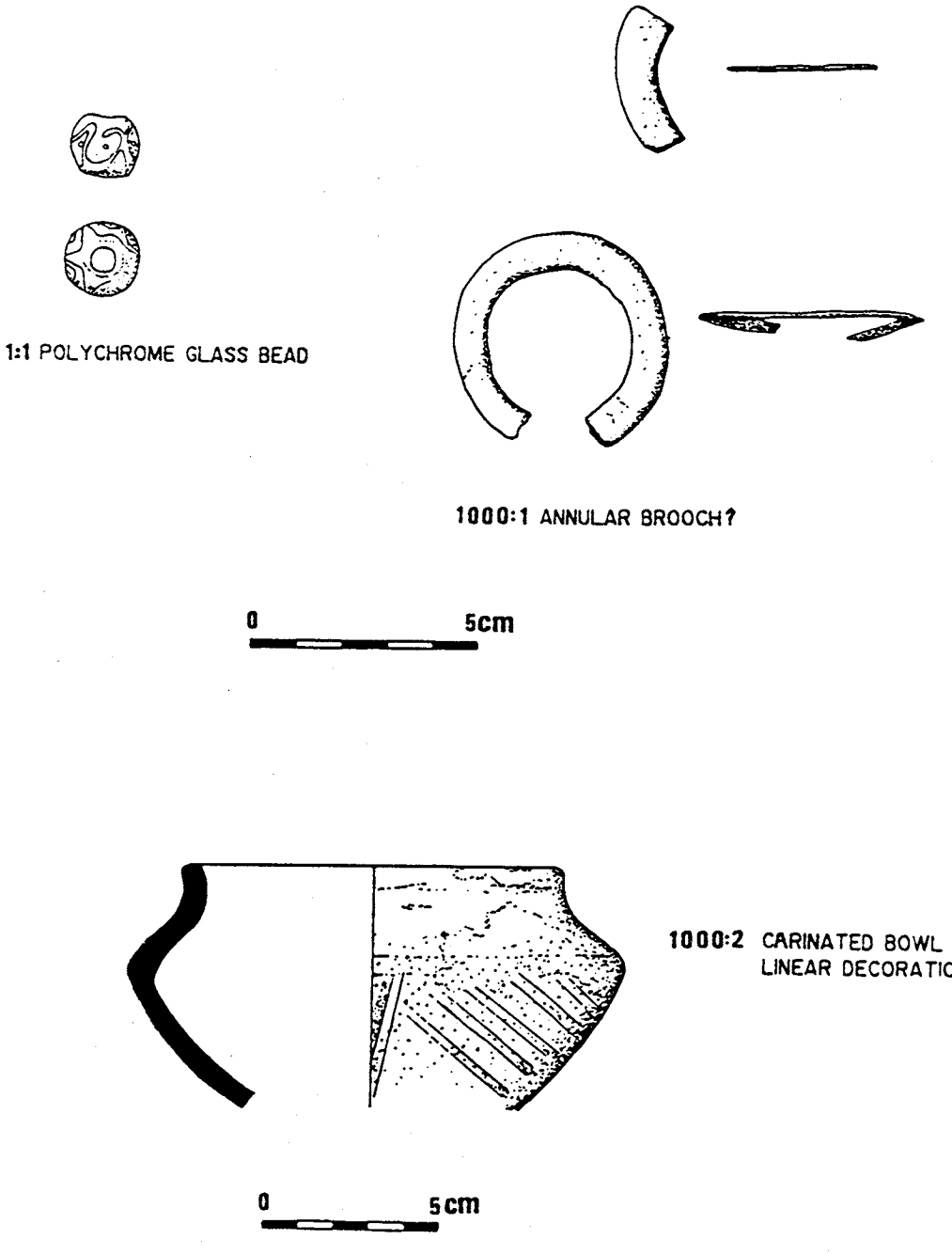


Figure 7. Miscellaneous artifacts.

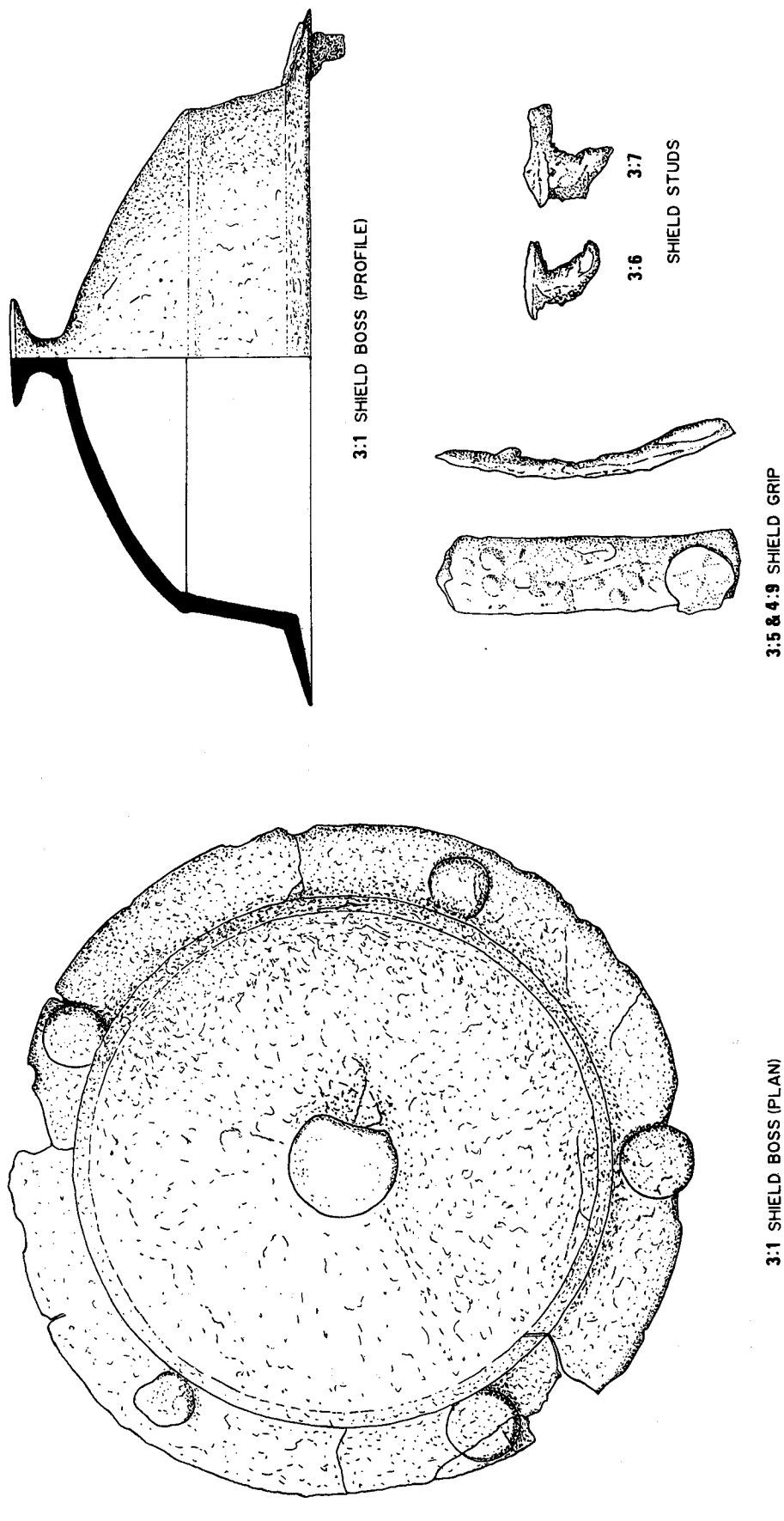


Figure 8. Burial [3] (male) grave goods.

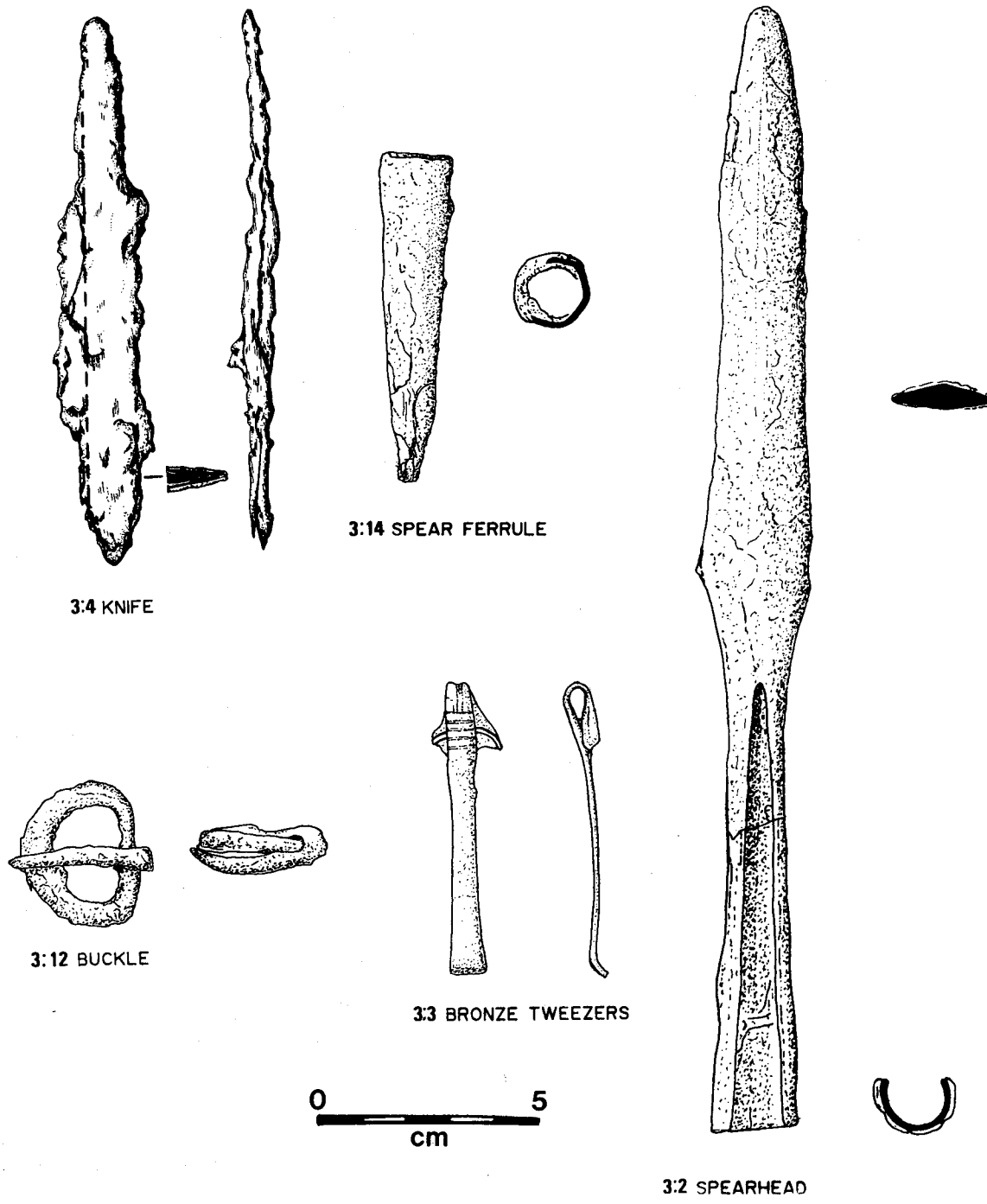


Figure 9. Burial [3] (male) grave goods.

same features of age are found in modern people, but heavy manual work probably accelerated the process in the past.

Unconnected with these changes is another, much less common, change in the spine: a lumbar stenosis. The vertebral arch, through which the spinal cord passes, is unusually narrow and would have caused a neural insufficiency, known as claudication, during or after exercise, with numbness, tingling and pain down the sciatic nerve. In the present day, these symptoms are more frequently seen in patients with the intermittent claudication resulting from hardening of the arteries.[15] Whilst not disabling, the condition would have given this man discomfort or pain

15 T.D. Hawkins, personal communication.

if manual work or exercise was required of him.

There are also a number of interesting aspects to the teeth, which were mostly in extremely good condition. Despite the very heavy wear, only two molars had been lost before death, and the socket of only one of these showed signs of an abscess at the root — abscesses tend to develop when infection enters the exposed pulp chamber of a heavily-worn tooth. Some calculus (tartar) was present. The lower right third molar was impacted, being angled against the adjacent tooth, and dental caries had developed on both, due, presumably, to food packing and inadequate cleaning; an unusual pattern of wear on the upper molar was caused by the angled tooth below.

Curiously, although one wisdom tooth was impacted, the rest of the dentition was well spaced, with a gap between the upper front teeth (median upper diastema). In the lower jaw, the lateral incisors were missing, but there was no sign of their having been present, and we must take this as a case of congenital absence of teeth; absence of lateral incisors is second in frequency only to that of wisdom teeth.

As mentioned above (see number 1), there are double articular facets on the occipital condyles of the skull and on the atlas vertebra, another developmental variant of no clinical significance.

Burial 4

The female buried with number 3 was, equally, almost complete. Sadly, the works which had led to the original discovery of these skeletons had broken away part of the right side of the face, which was lying highest in the grave, and portions of the vault, and the skull was shattered. However, the recovery of some of the missing fragments from the spoil heap has enabled the skull to be almost completely reconstructed.

This slightly-built woman was about 5 ft 1 in. to 5 ft 2 in. tall (156 cm. to 158 cm.), and can be aged fairly closely to between 18 — because of the very recent eruption of her wisdom teeth — and 20 — when the basilar suture at the base of the skull closes. Unusually for the time period, she appears to have had perfect dental health, with no tooth loss, no caries or abscesses and minimal tooth wear: for the Saxon period, average tooth loss was 14% and caries 6%.[16] She did not, however, have perfect dental hygiene, as a medium degree of calculus was present throughout the tooth row. This may be due, in part, to inadequate natural cleaning of the mouth because of overcrowded and misaligned teeth: the anterior dentition is crowded, as is often found in small people, with winging of the upper central incisors. She would have had an overbite, as is common in modern Europeans but unlike the edge-to-edge tooth occlusion more general in past populations.

There is no sign of disease on this skeleton, other than a small infective focus on one vertebra. Considering the possibility of a family relationship between numbers 3 and 4, various characteristics which tend to be inherited were compared (for example, the congenital absence of teeth in number 3), but nothing of significance was found, so it is more likely that this woman was the wife of 3, rather than his daughter or other close blood relation. Furthermore, her skull form is rounded, as most Saxon skulls are, but his is long.

Burial 5

A very large number of bone fragments from ditch [1] could be sorted into groups belonging to three individuals. The first, 5a, contains the pelvis, both arms, upper legs and portions of the skull of a male of approximately 18 years of age, whose wisdom teeth had just erupted and whose growth was just ceasing as the long-bone epiphyses were fusing. It was found that the lower legs of this young man are clearly those marked number 7 (feature [5], as the plans show, cut burial [7]). Measurements of the leg bones show that he was around 165 cm. or 5 ft 5 in. tall.

The bones of 5b, a mandible of female form, left arm bones and a few vertebrae, are now grouped with those of individual 2, described above.

Number 5c is the youngest person found at this site, a child of seven years represented by a mandible, from which the age can be determined by the state of tooth eruption, and some limb bones; one femur was found with skeleton number 2. The size of the limb bones confirms the age estimate.

More fragments of cow bone were found in this area.

16 D.R. Brothwell, *Digging Up Bones* 2nd ed. (London 1972).

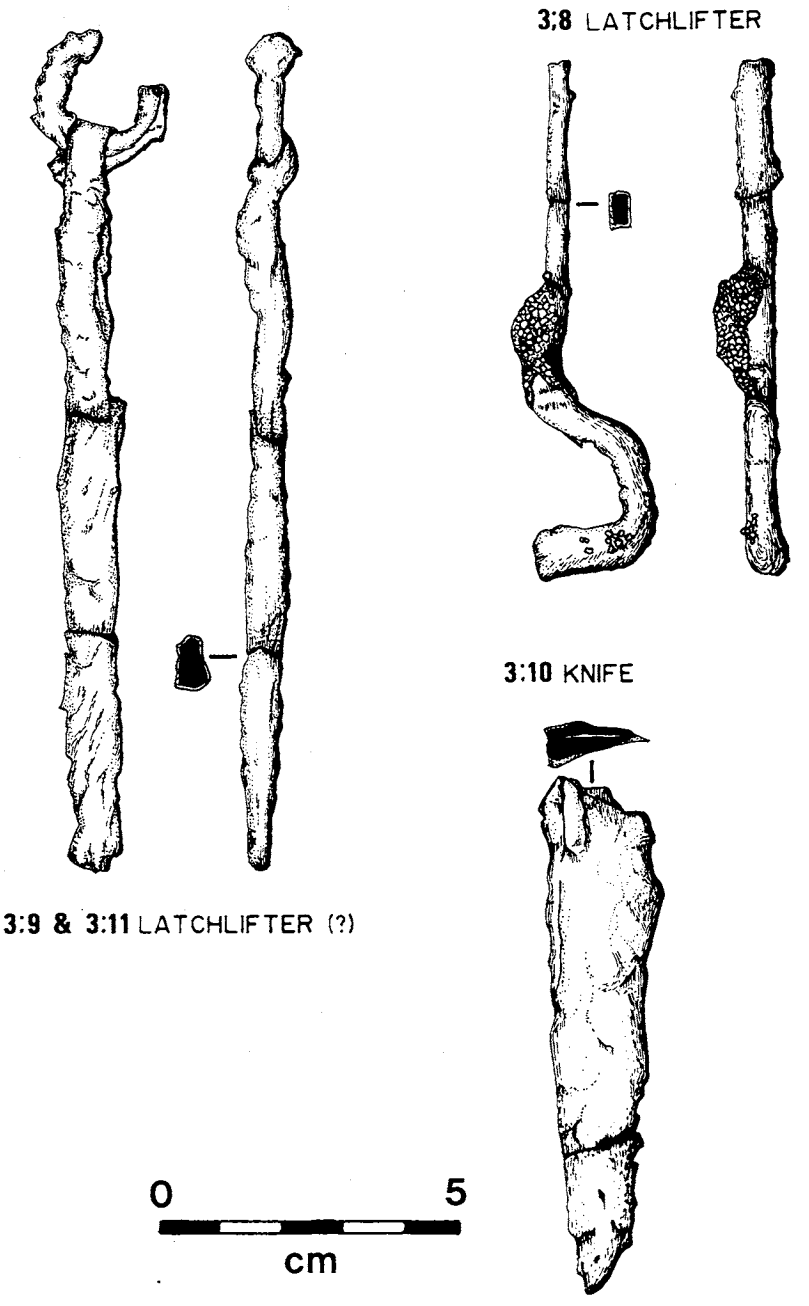


Figure 10. Burial [3] (male) grave goods.

Burial 6

An older child than the previous one was found in burial 6, which contained arm and leg bones, part of a pelvis and two vertebrae. The pelvis and legs show the state of epiphyseal fusion found in late childhood, six to 12 years, and the length of the femur suggests the upper half of this age range. The arm bones, all very eroded, do not necessarily belong to the same individual.

Spoil heap bones

More than 80 fragments were identifiable from the spoil heap, some of which could be reconstructed into complete or near-complete bones. A few vault fragments could be

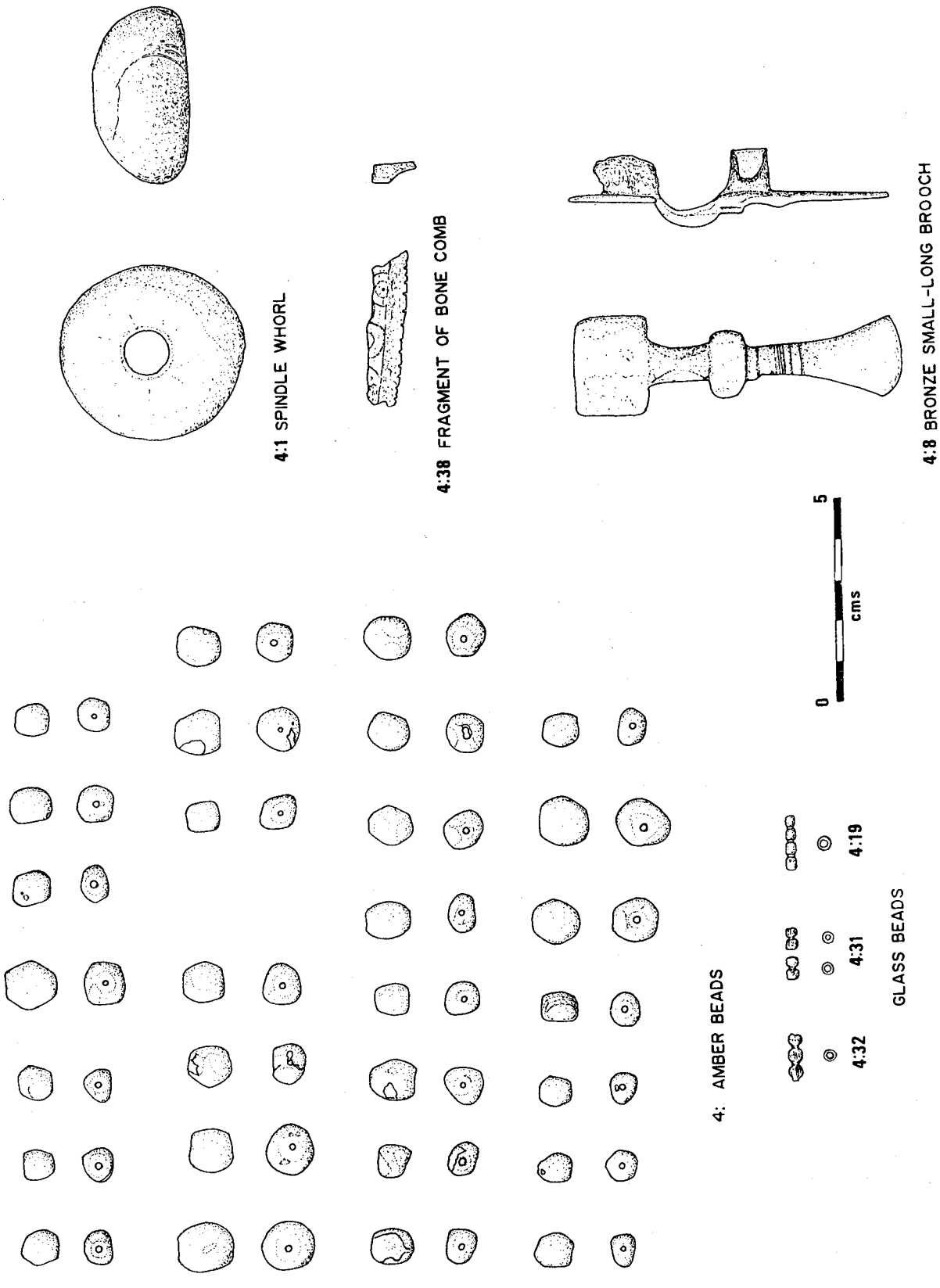


Figure 11. Burial [4] (female) grave goods.

joined to those from feature 5, while others, most usefully, were from the skull of the female in the double burial, and aided the reconstruction.

Seven portions of innominate bones were present, three being female in conformation. Whilst it was not possible to allocate them definitely to any one of the female skeletons from this site, neither could the possibility of their belonging together be excluded, so that the minimum number of individuals remains unchanged. However, amongst the five partial femora were a pair of bones which clearly cannot belong to any other skeleton, so that at least one more individual — another female — was present. An immature humerus represents a child intermediate in age between numbers 5c and 6.

One of the innominates, probably that of a male, has severe arthritic changes to the acetabulum, with bony lipping and eburnation (polishing due to breakdown of the joint and direct bone-to-bone contact). Parallel changes on the head of the femur would be expected in such a case, but no signs of this condition can be seen on any femora from the site. Another innominate, this time of a female, shows slight breakdown of the surface of the pubic symphysis suggestive of advancing age. The striation and new-bone formation on the surface of an isolated fibula indicates infection, which may be localised or systemic — in the absence of related bones, it is impossible to determine.

Discussion

Despite the lack of datable artifacts from burials [2], [6] and [7] it may be safely stated that they are broadly contemporary with burial [3]/[4], that is to say that they all probably date from the first half of the sixth century. The burial ground is situated prominently, at a high point on the Haddenham ridge. The utilisation of ground on hills, knolls and spurs is a characteristic of many other pagan Anglo-Saxon cemeteries of the region (Fig.12). The grave alignment is similar for each of the burials (where it could be discerned) and they are well spaced. This suggests that the graves had markers of some sort and that the cemetery was not in use over a long period.

A key question posed by the discovery of the burials at Haddenham is the total extent of the cemetery. The burials were all confined to the southeast corner of the area examined and continuation of the cemetery to the west seems unlikely. However, two graves extend into the neighbouring property to the east, and the beer-garden to the south remains unexplored. It is not suprising that nothing came to light during the recent construction of the neighbouring house to the east (no.2 Hop Row) since it is of a design which requires very slight foundations. The burials encountered may form part (the proportion of which is unknown) of a group or cluster of burials within a larger cemetery. Such groups are often seen in pagan period Anglo-Saxon cemeteries and were noted at the recently excavated 'Barrington A' cemetery.[17] Here, a possible explanation of this grouping was thought to be a family connection between individuals. At Haddenham, the examination of the skeletons for visible heritable characteristics could not establish any blood relationships, but this does not automatically exclude the possibility of familial groupings.

The lack of evidence for coffins in this cemetery is consistent with the findings from most other local cemeteries of the period. The exceptions are Shudy Camps[18] and Barrington 'A'[19] where three graves were furnished with a bed-like structure. The theory that graves were sometimes covered by planks, on which were placed objects such as spears and shields, can be discounted in the case of burial [3]/[4]. Here the situation of the artifacts does not indicate the degree of post-depositional disturbance that would result from such an arrangement. Replaced textile remains with differing spinning and weaving patterns suggests that the individuals were buried clothed, and not in shrouds. The presence of a belt-buckle supports this argument.

The discovery of burials confirms that there was a contemporary Anglo-Saxon settlement somewhere in the vicinity, but no traces of such a settlement have been found. The glimpse of the cemetery which we have will not enable us to establish settlement extent or longevity. However, suggestions as to its location can be made based on topographical evidence. The view that pagan Anglo-Saxon cemeteries are always sited well away from their associated settlements has recently been questioned; contemporary settlement within 500 m.–600 m. of the cemeteries (and even burial within the settlement) has been demonstrated in a growing number

17 Tim Malim, *Barrington Anglo-Saxon Cemetery* (Cambridge 1989 and 1990).

18 T.C. Lethbridge, *A Cemetery at Shudy Camps, Cambridgeshire* (Cambridge 1933).

19 Malim, *op. cit.*

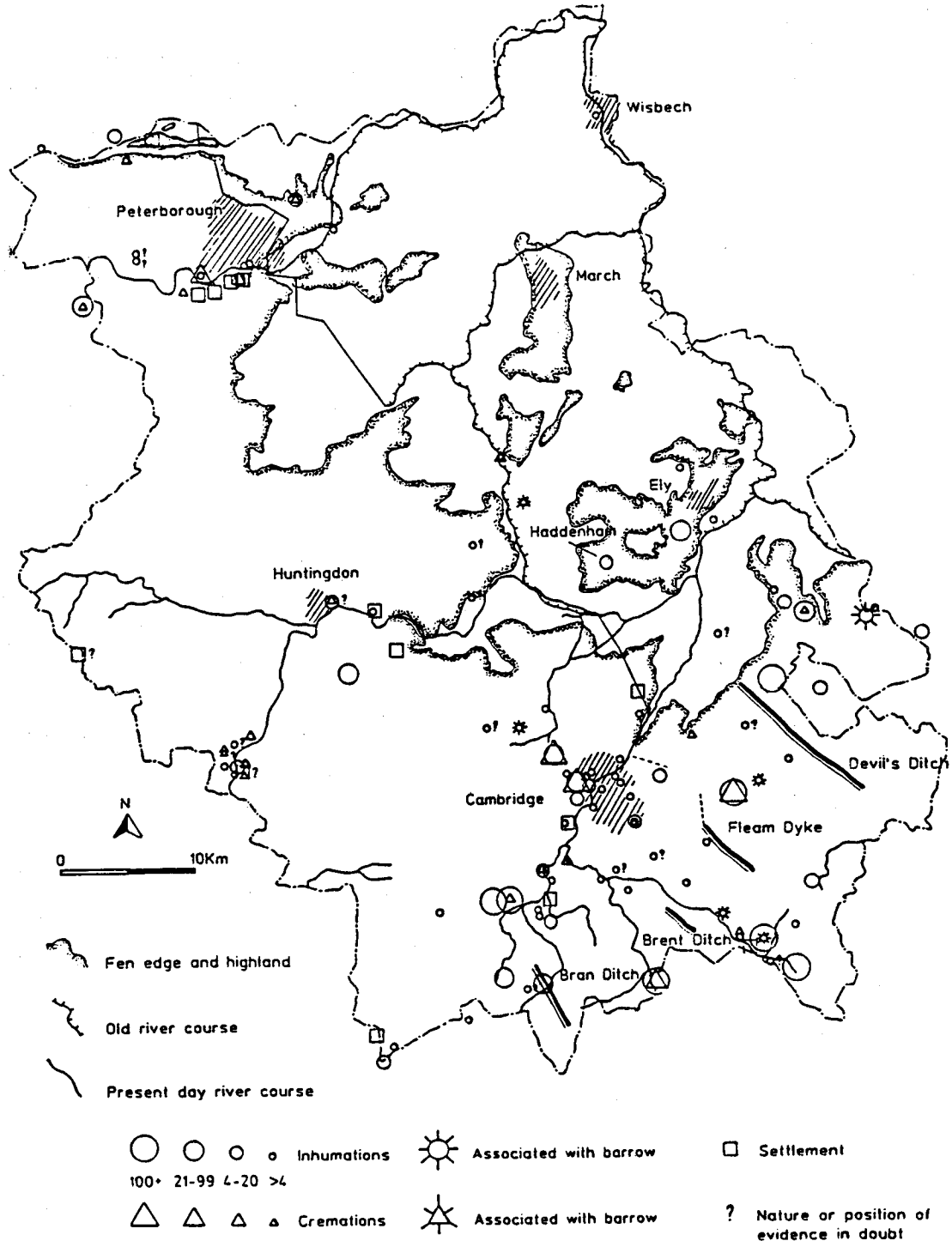


Figure 12. Anglo-Saxon burials (5th–8th centuries) within Cambridgeshire, Courtesy of A. Meaney (1992).

of sites throughout the country.[20] The surrounding fen, which would have almost certainly have been waterlogged and uninhabitable during this period,[21] provides us with the outer limit for an area of potential occupation. We are left with an area which forks into two narrow ridges continuing southwesterly to Aldreth and westerly to North Hill. To the north the ground slopes into the fen at Haddenham End Field and to the east the available land stretches beyond Wilburton (Fig.13). It is further suggested that any settlement would not have been situated in an exposed position on top of the ridge, but instead would have nestled close to the fen edge where a good range of resources would be available. A situation between the 10 m. and 30 m. contours satisfies both criteria. However, we may not be searching for a single settlement. Nucleation took place gradually throughout the Anglo-Saxon period and an early cemetery such as this may have been used by a number of scattered homesteads in the vicinity.[22] It is possible that the scant traces of such homesteads lie undiscovered in various situations across the suggested area.

Disturbance to the burials had undoubtedly occurred during the initial clearance of the site, but evidence of earlier disturbance was also present. The diggers of ditch [1] had obviously encountered graves [2] and [7], feature [5] representing the unceremonious reburial of the remains. It is probable that any grave goods were extracted by the ditch-diggers, as it is unusual for burials of the pagan period to be unaccompanied by grave goods — at the very least an iron knife is often placed in the grave — and the only artifact found with this assemblage, a bead ([1]:1), could easily have been missed. It is impossible to determine when this disturbance occurred, although it was probably comparatively recently (see Appendix C). Not all discoveries of this kind were followed by a visit from a local antiquarian and a report in local publications.

The small number of burials encountered during this excavation and the lack of knowledge we have about the extent of the cemetery prevents us from making detailed statistical comparisons with other Anglo-Saxon cemeteries in the region. However, the information gained from this excavation will enable us to monitor future development in the area, and this may eventually provide us with a more complete view of Anglo-Saxon cemetery at Haddenham.

Acknowledgments

The authors wish to acknowledge the help of the following: Cambridgeshire County Council Rural Management Division, Vulnerable Sites Fund, for financing the excavation; Mr W. Presnell, landlord of the 'Three Kings', for reporting the initial finds and for his excellent hospitality; The Institute of Archaeology (London) for artifact conservation; Elizabeth Crowfoot for identification of the textile remains; Alison Taylor for the artifact identification; Tim Malim for supervising the excavation and report; Simon Bray for help with the excavation and report; Audrey Meaney for comment on the report; Erika Guttmann for comment and proof-reading the text; and all the villagers of Haddenham who took such an interest in the progress of the excavation.

20 A. Boddington, 'Models of burial, settlement and worship: the final phase', in E. Southworth (ed.), *Anglo-Saxon Cemeteries: A Reappraisal* (Liverpool 1990) Chapter 20; H. Godwin, *Fenland: Its Ancient Past and Uncertain Future* (Cambridge 1978).

21 Godwin, *op. cit.*

22 Boddington, *op. cit.*

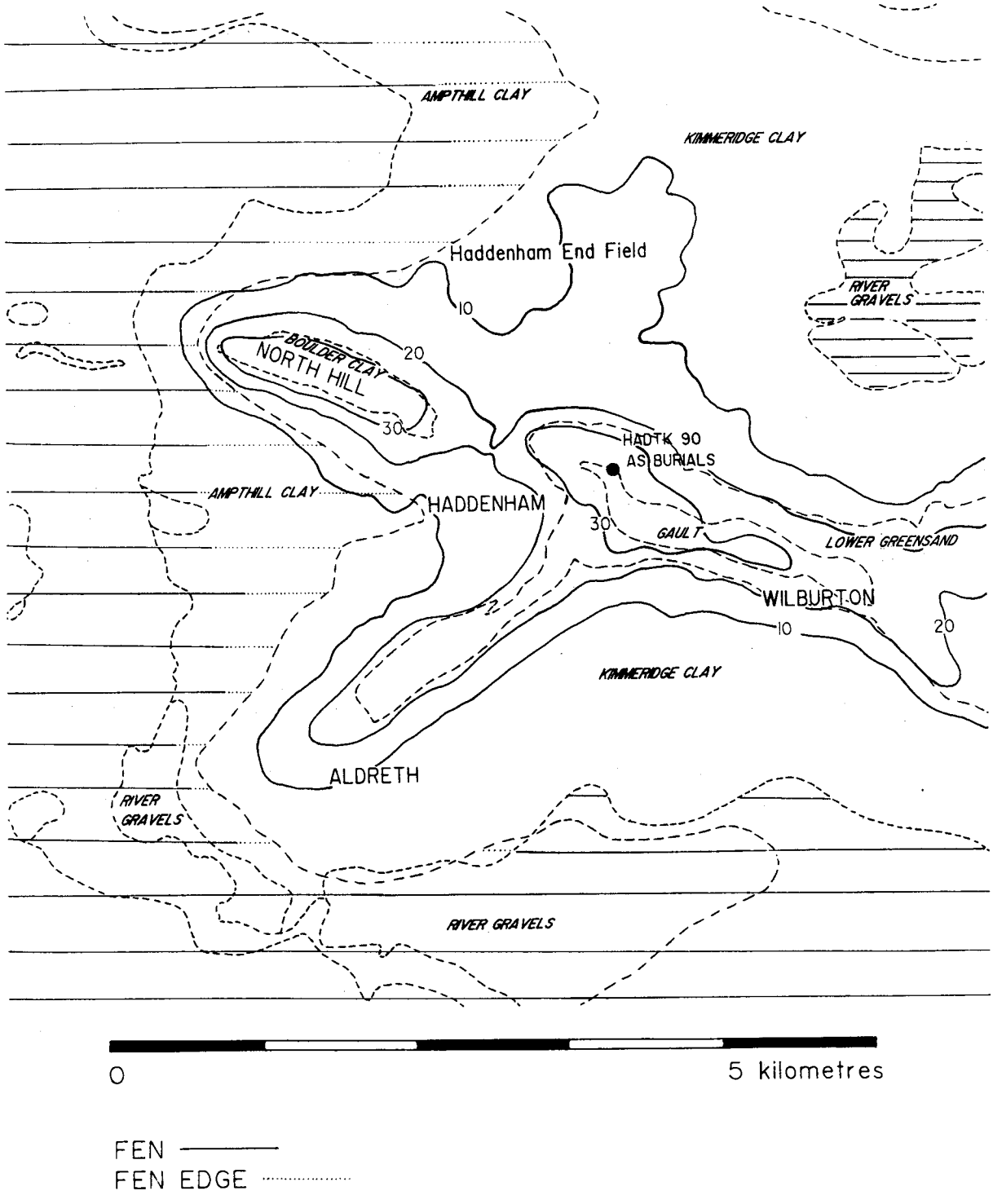


Figure 13. Geological/topographic map of the Haddenham area. Based upon Ordnance Survey map No. 188 Institute of Geological Sciences, with the sanction of HMSO (Licence No. LA 07649 X).

Appendix A
Artifact Catalogue

Find number	Small-find number	Object	Material	Dimensions (in cm.)	Description
1	1	Bead	Glass	diam. 1.6, ht 1.5	Polychrome, white swags, dots on red
3	1	Shield boss	Glass	diam. 18, ht 8	Dickinson GP3
3	2	Spear head	Iron	lt 28, blade 14	Swanton H-2. Ogival blade, cleft shaft
3	3	Tweezers	Bronze	lt 6.5	Only one blade. Frag. of ring attached
3	4	Knife	Iron	lt 13, blade 10	Hawkes D, Evison 2
3	5	Shield grip	Iron	lt 4.5, wt 1.7	Fits with 4:9. Attaching studs present
3	6	Shield stud	Iron	diam. 1.8, lt 1.8	For a strap?
3	7	Shield stud	Iron	diam. 1.8, lt 1.9	For a strap?
3	8	Latchlifter	Iron	lt 6, wt .05	Square head
3	9	Unknown	Iron	lt 6.5, wt 0.7	3 frags. Latchlifter shaft? Ring attached. Fits 3:11
3	10	Knife	Iron	lt 8.5	As 3:4. No handle core
3	11	Unknown	Iron	lt 7.5, wt 0.8	2 frags. Fits 3:9
3	12	Buckle	Iron	lt 3, wt 1	D-shape with pin
3	13	Unknown	Lead	diam. 3.7	Square hole at centre
3	14	Ferrule	Iron	lt 7.5	Conical
4	1	Spindle	Bone	diam. 4.5	Central round hole whorl
4	2	Bead	Amber		
4	3	Bead	Amber		
4	4	Bead	Amber		
4	5	Bead	Amber		
4	6	Bead	Amber		
4	7	Bead	Amber		
4	8	Brooch	Bronze	lt 8	Small-long shovel foot
4	9	Shield grip	Iron	lt 2.5, wt 1.7	Fits with 3:5
4	10	Bead	Amber		
4	11	Bead	Amber		
4	12	Bead	Amber		
4	13	Bead	Amber		
4	14	Bead	Amber		
4	15	Bead	Amber		
4	16	Bead	Amber		
4	17	Bead	Amber		
4	18	Bead	Amber		
4	19	Bead	Glass	lt 1.2, diam. 0.35	Silver in glass. 4 segments
4	20	Bead	Amber		
4	21	Bead	Amber		
4	22	Bead	Amber		
4	23	Bead	Amber		
4	24	Bead	Amber		
4	25	Bead	Amber		
4	26	Bead	Amber		

Artifact Catalogue (cont.)

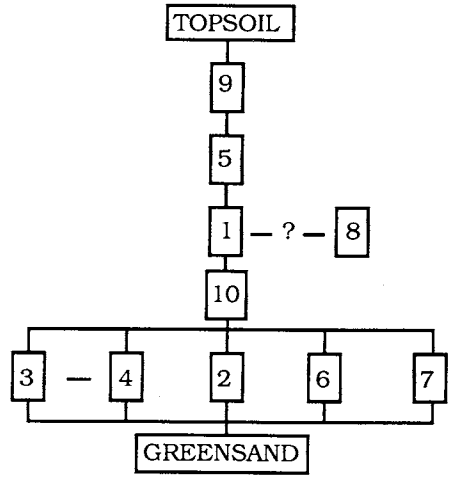
Find number	Small-find number	Object	Material	Dimensions (in cm.)	Description
4	27	Bead	Amber		
4	28	Bead	Amber		
4	29	Bead	Amber		
4	30	Bead	Amber		
4	31	Bead	Glass	diam. 0.35	Silver in glass. 3 segments
4	31	Bead	Glass	diam. 0.35	Silver in glass. 4 segments
4	32	Bead	Amber		
4	32	Bead	Amber		
4	33	Bead	Amber		
4	34	Bead	Amber		
4	35	Bead	Amber		
4	37	Bead	Amber		
4	38	Bead	Amber		
4	38	Comb?	Bone	lt 3.8	Fragment of comb? Grooves (teeth?), circular stamped design
1000	1	Brooch?	Bronze	diam. 4.7	Part of annular brooch?
1000	2	Potsherd	Pottery	6 x 6	1/4 of AS bowl. Carinated, linear

Appendix B
Burial Catalogue

Burial/feature number	Sex	Age	Completeness	Comments
1a	F	Adult	Frontal, L femur	
1b	M	20–22	R clavicle, R dist femur	
1c	M	Adult	Frontal, R dist femur	
2	F	Adult	R arm and lower legs	Belong with 5b
3	M	40–50	95%	
4	F	18–20	95%	
5a	M	*c.* 18	30%	Belong with 7
5b	F	Adult	Mandible, R dist clavicle L arm, some verts	Belong with 2
5c	N/A	7	Mandible, some limb bones	L femur found with 2
6	N/A	6–12	L arm, R femur, L innominate, verts	
7	M	*c.* 18	10%	Belong with 5a
(2/5b	F	Adult	35%)	
(5a/7	M	*c.* 18	40%)	

N.B. Spoil heap contained 80 fragments from which at least two different individuals were identified: adult female and child seven to 12 years

Appendix C
Site Matrix



Three Earthwork Surveys

Cambridge Archaeology Field Group
Susan C. May

During the 1980s the Cambridge Archaeology Field Group conducted three site surveys which have not yet been published widely. They are presented here as drawn plans with brief notes on documentary evidence and pottery finds. The three sites are at Cobbs Wood, Wimpole; Overhall Grove, Boxworth; and St Etheldreda's Church, Histon. Each site was surveyed using triangulation and offsets, and sections were taken with a dumpy level.

The first two sites appeared to be moated medieval homesteads, most probably manors. The Cobbs Wood site is one of the largest in western Cambridgeshire, containing about $1^3/_4$ a. within the primary moat and one acre in the attached enclosure, whereas the Overhall Grove site, with a moated area of about $^1/_4$ a., is amongst the smallest in the area.[1] The third site appeared to be the earthwork remains of a medieval church.

Cobbs Wood Moated Site, Wimpole, TL346516 (Figs.1–3)

This site is recorded by the Ordnance Survey and the Royal Commission on Historical Monuments,[2] but lacked a detailed survey because of the heavy tree cover. The Cambridge Archaeology Field Group attempted to rectify this in 1984, 1985 and 1988 following the removal of dead elms. The site lies within Cobbs Wood on the National Trust Wimpole Hall Estate, in the east of the parish, and is 37 m. above O.D., near the junction of lower (grey) chalk and gault clay.

Survey (Figs.1–2)

The site has a double enclosure, ditch [T] being much the deepest and the remains of the principal moat, with [U] probably its continuation. These enclose a relatively flat subrectangular platform [V], not shown by the Ordnance Survey. The moat's banks are on the outside. There are also remnants of a bank ([W]) extending approximately southwards from and at right angles to this external bank. Ditch [X] on the west side is a more recent field boundary ditch.

The much narrower ditch [Y] had far less standing water than [T] and its spoil was deposited on the inside. The bank between the two 'moats' had recently been breached by contractors so that their relationship could not be tested. However, sections taken of the contractors' cut, [A1–A2], [B1–B2], showed the possible make-up of the bank.

The long ditches at the north of the site ([Z]) are nowhere near as large as [T] and probably not part of the original moat. No obvious signs of house remains were found.

Surface Finds (Fig.3)

Pottery of the eleventh to thirteenth centuries was recovered both inside and outside the moated enclosure, generally from land which had been disturbed in the removal of trees. Forty percent of the 132 sherds are St Neot's wares of eleventh- and twelfth-century forms, and include small pots and shallow bowls with everted rims.

Other items include a shoulder probably of twelfth-century Thetford ware with a horizontal band of rouletted fine lattice decoration (Fig.3[8]); one piece of yellow/buff glazed

1 Royal Commission on Historical Monuments, *West Cambridgeshire* (London 1968) pp.lxii–v.

2 *Ibid.* p.225 Monument 19 (written description only).

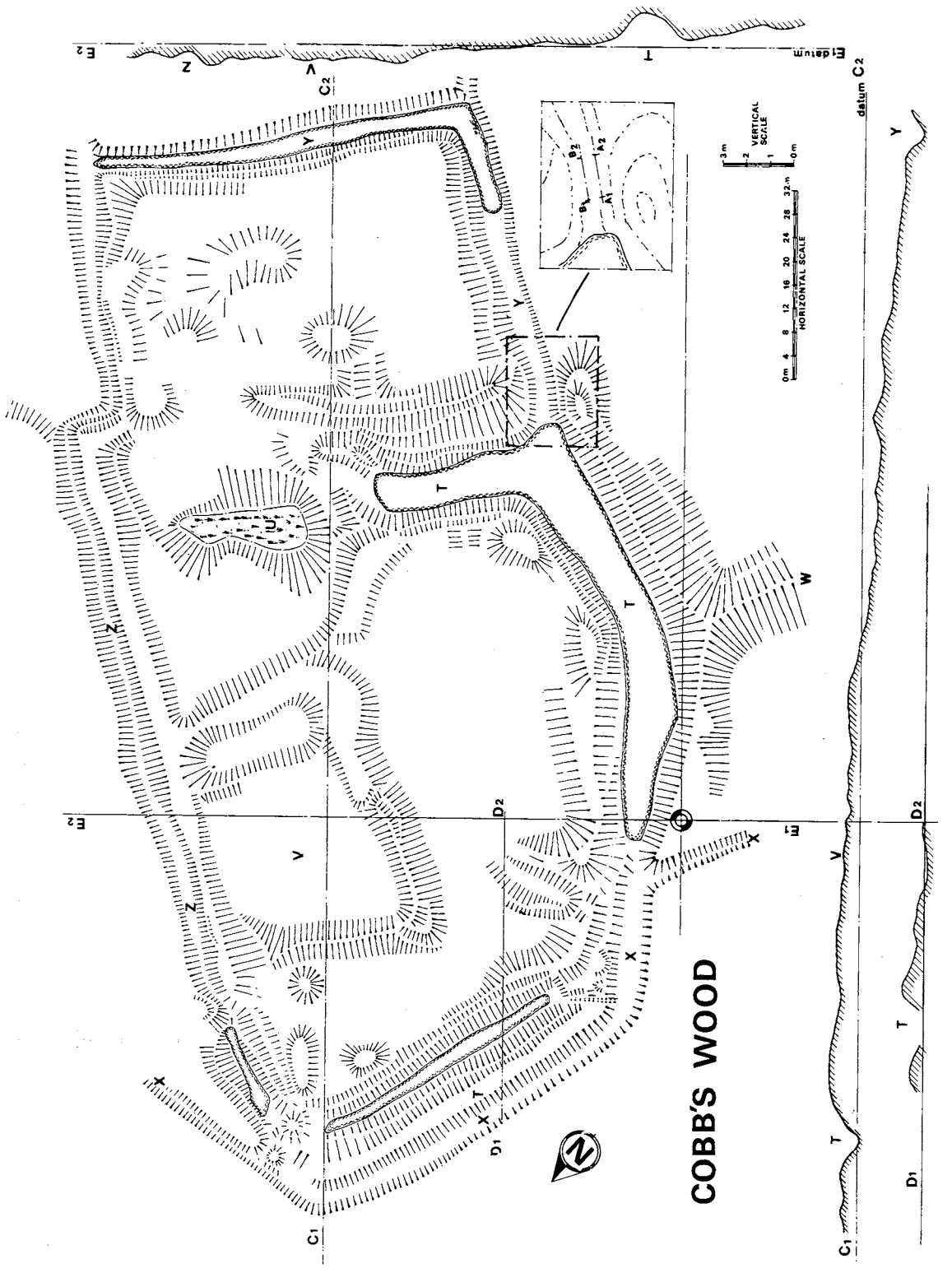


Figure 1. Cobb's Wood survey plan.

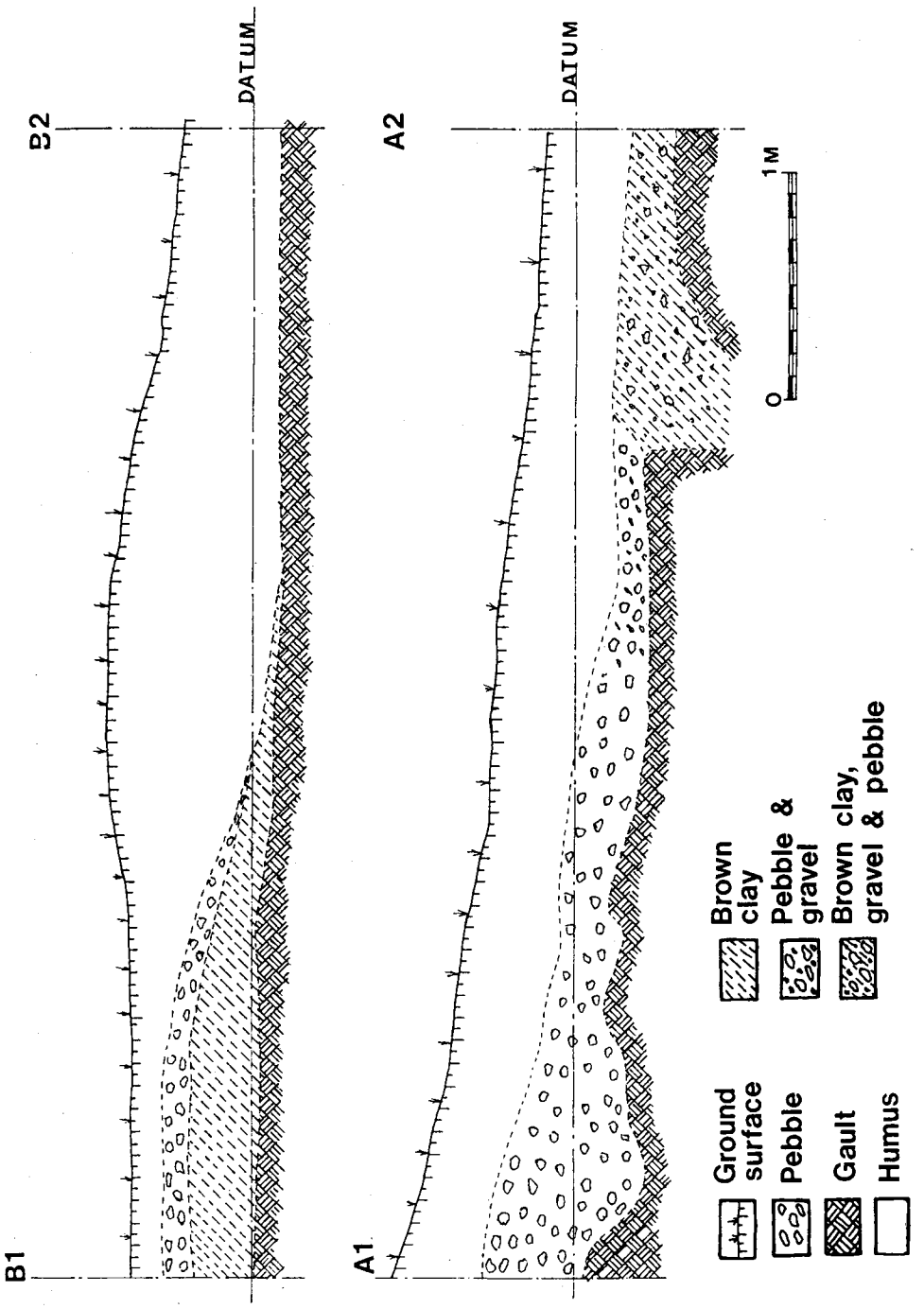


Figure 2. Cobb's Wood. Vertical stratigraphy sections A1–A2, B1–B2 (see insert Fig. 1).

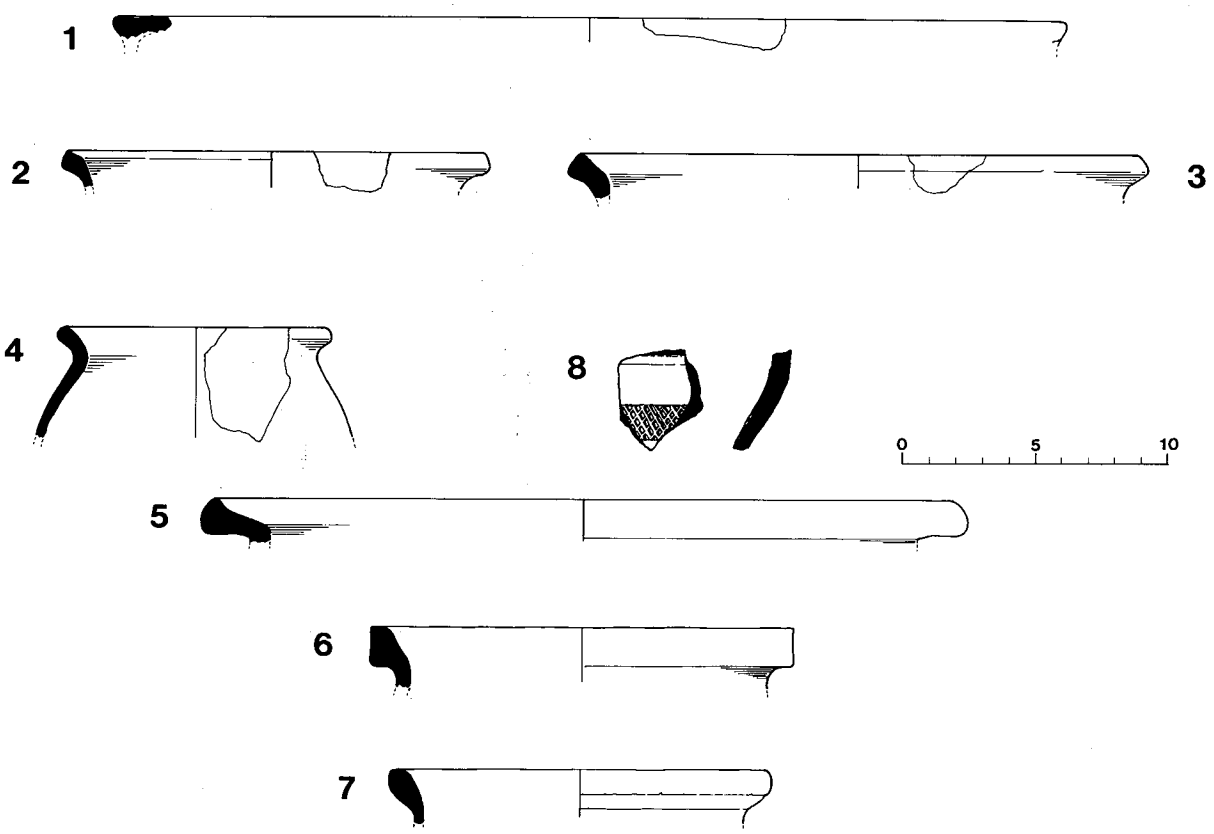


Figure 3. Cobb's Wood. Surface pottery finds.

ridge tile, possibly of the thirteenth century; and a small two tone (buff and orange on orange core) slipped and glazed piece similar to Sgraffiato ware and possibly from Heddingham. Three other glazed sherds may be fifteenth century or later. Most of the remainder are sandy wares of twelfth/thirteenth century date. Pottery of a similar type and date was found in the arable field to the north.

Figure 3 Details

1 Bowl of St Neot's ware with hammer-headed rim, dark grey fabric with purple brown surfaces.

2 Vessel of St Neot's ware with everted rim, flattened on the inside, dark grey fabric, light brown surfaces blackened on edge of rim.

3 Vessel of St Neot's ware with everted rim hollowed on inside, dark grey fabric, light brown surfaces blackened on edge of rim.

4 Vessel of St Neot's ware with simple everted rim, grey fabric, light brown surfaces. Shell inclusions fine.

5 Bowl of St Neot's ware with flanged rim hollowed on top, dark grey fabric and rim surfaces, buff under rim.

6 Vessel of St Neot's ware with everted rim squared and hollowed on outside, light grey fabric, light brown surfaces.

7 Vessel of St Neot's ware with everted rim thickened on outside, grey fabric throughout.

8 Shoulder, probably of twelfth-century Thetford ware, grey fabric.

Historical Evidence

The site may be associated with the lost settlement of Wratworth, which was recorded in the Domesday survey as having 32 inhabitants, but which had disappeared as a separate entity by 1279[3] although a manor of Wratworth survived into the seventeenth century.[4] Hare's 1638 map of Wimpole Manor

3 Victoria History of the Counties of England, *Cambridgeshire and the Isle of Ely. Vol.5*, ed. by C.R. Elrington (Oxford 1973) p.263.

4 Indenture, Cambridgeshire Record Office (CRO) R52/12/8/12a.

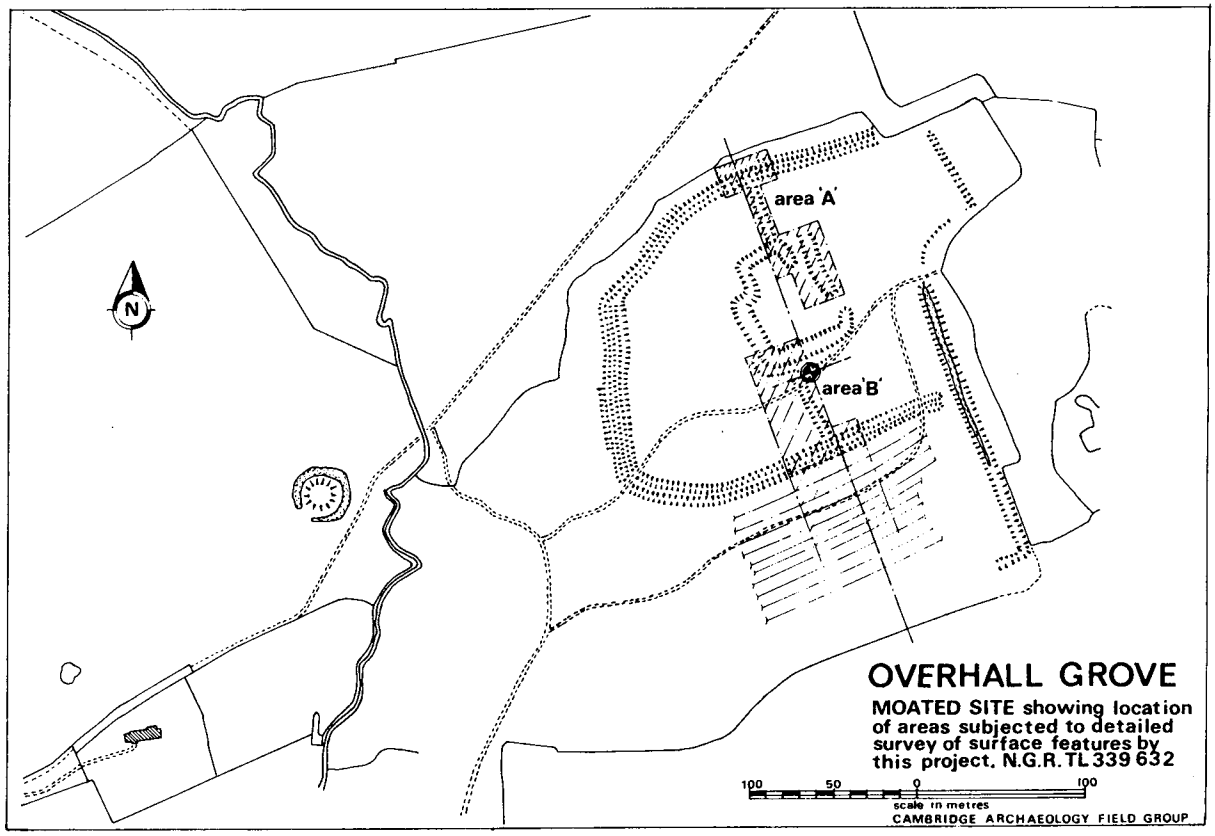


Figure 4. Overhall Grove. General survey map.

shows wooded enclosures called Cobbs and Ratford covering the area of Cobbs Wood, together with nearby enclosures called Great Cobbs, Francis and Walters.[5] The Francis and Walter families each held the manor of Wratworth at different times, and the second manor held by the Francis family passed to the Cobbs by marriage in 1376.[6] The Hare map also shows the area from Cobbs Wood to the north of Cobbs Wood Farm as existing enclosures, surrounded by open fields. The ditches shown as [Z] on the survey plan appear to correspond to land boundaries on this map. The moated site lies within the wooded area but was not indicated on the Hare or later maps until the second edition of the Ordnance Survey of 1903.

Overhall Grove Moated Site, Boxworth, TL339633 (Figs.4–7)

This site has been recorded by the Ordnance Survey and the Royal Commission on Historical Monuments,[7] and is a scheduled ancient monument. In 1984 the Group was asked by the County Archaeology Officer to attempt a detailed survey of cross-sections of the earthwork to examine the chronological relationship between the moat and the outer ditch, and this was carried out in 1984–6.

The site, owned by the Cambridgeshire and Bedfordshire Wildlife Trust, lies in a wood on a slope of boulder clay close to the boundary with Knapwell, and comprises a roughly rectangular moat surrounded by a larger enclosure contained on three sides by a double ditch.

Survey (Figs.4–6)

Area A had previously been thought to contain an original entrance at [a1], but the survey indicated that the moat carried through, creating a shape reflecting that of the north-western corner of the moat. The channel from the outer bank of the moat at [a2] to the outer ditch at [a3] is considerably shallower than either the moat or the ditch, and appears to be a later overflow channel. In Area B there is

5 CRO R77/1.

6 Victoria History of the Counties of England, *Cambridgeshire and the Isle of Ely. Vol.5* p.266.

7 Royal Commission on Historical Monuments, *West Cambridgeshire* pp.30–1 Monument 15.

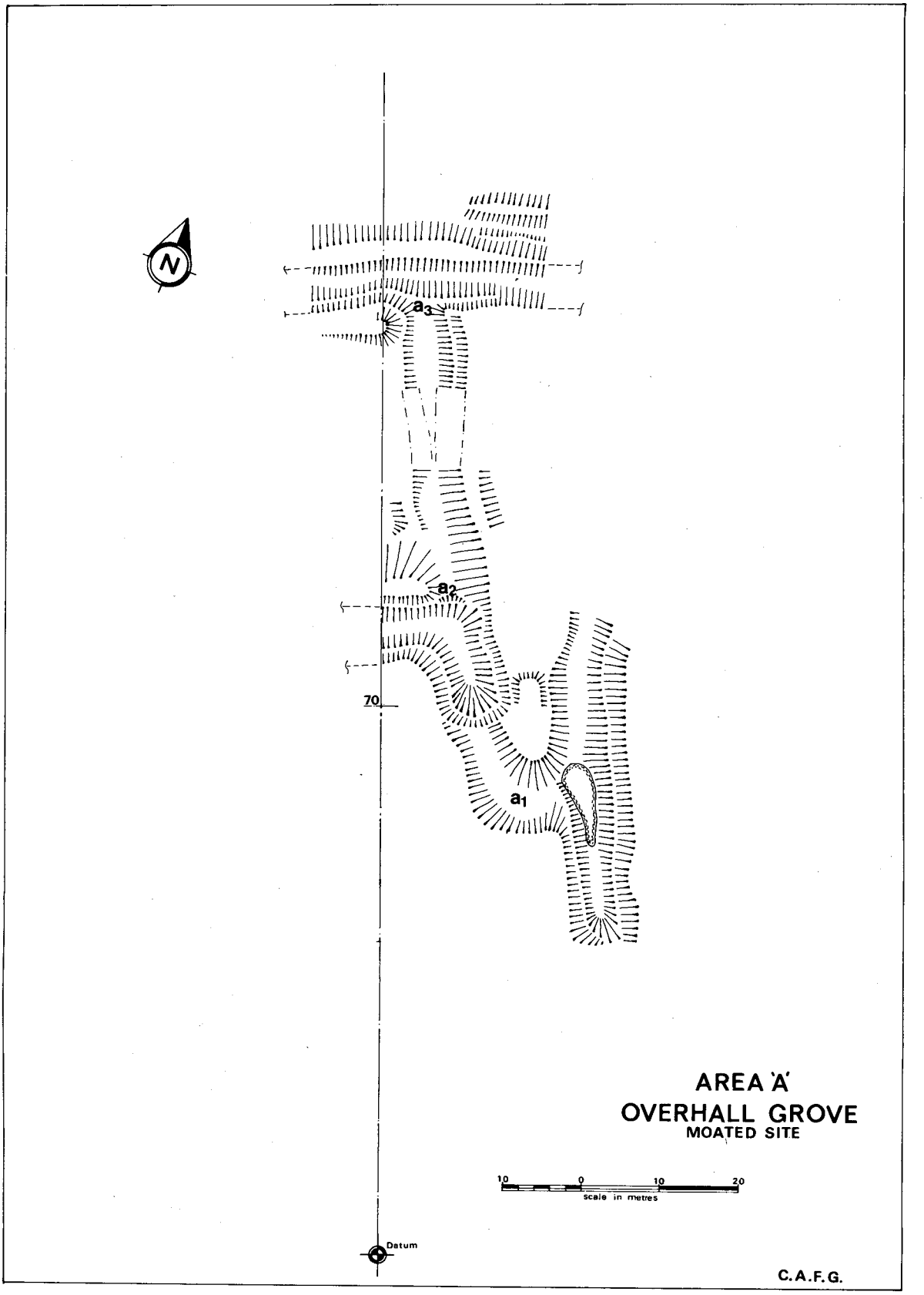


Figure 5. Overhall Grove. Area A survey map.

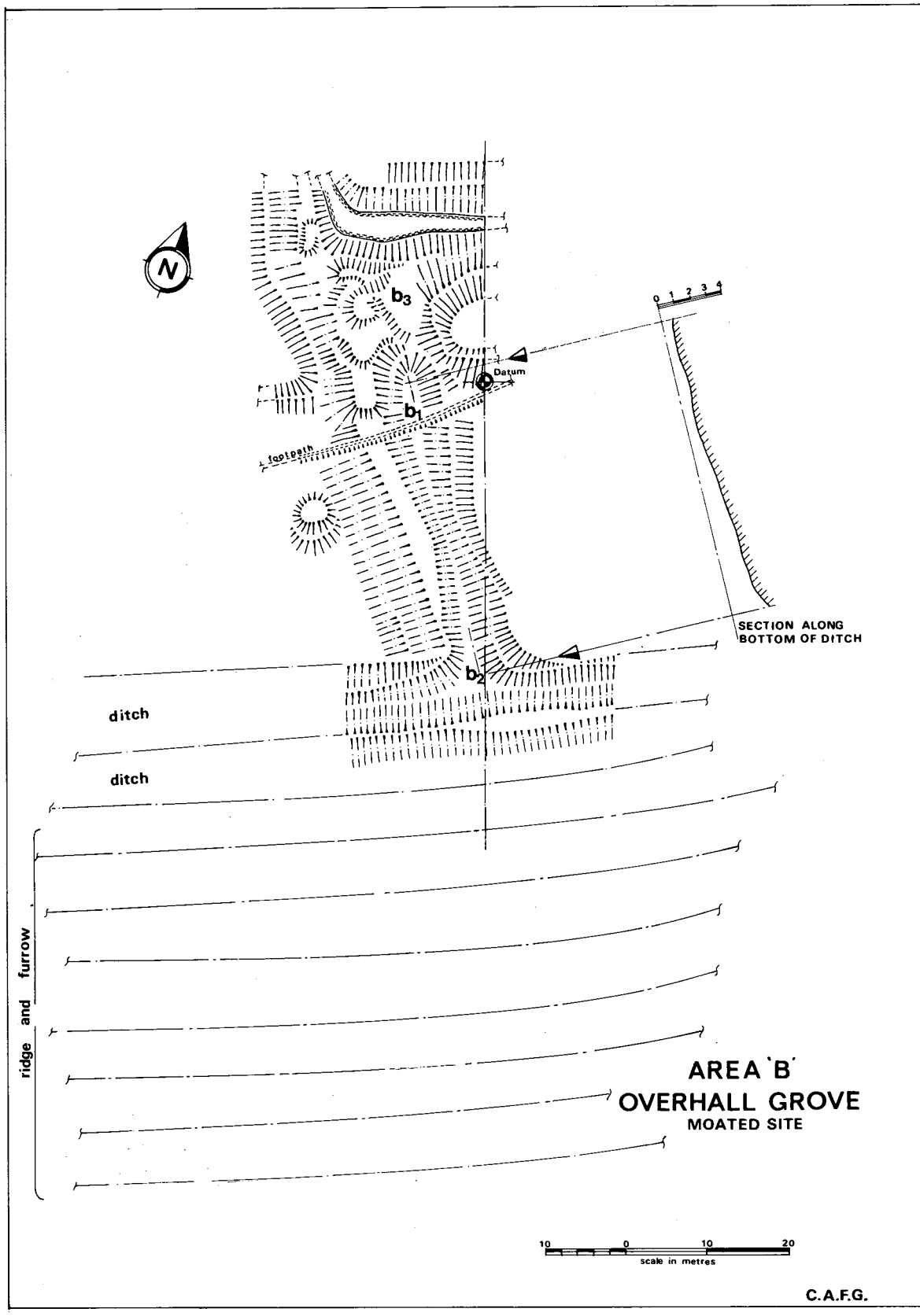


Figure 6. Overhall Grove. Area B survey map.

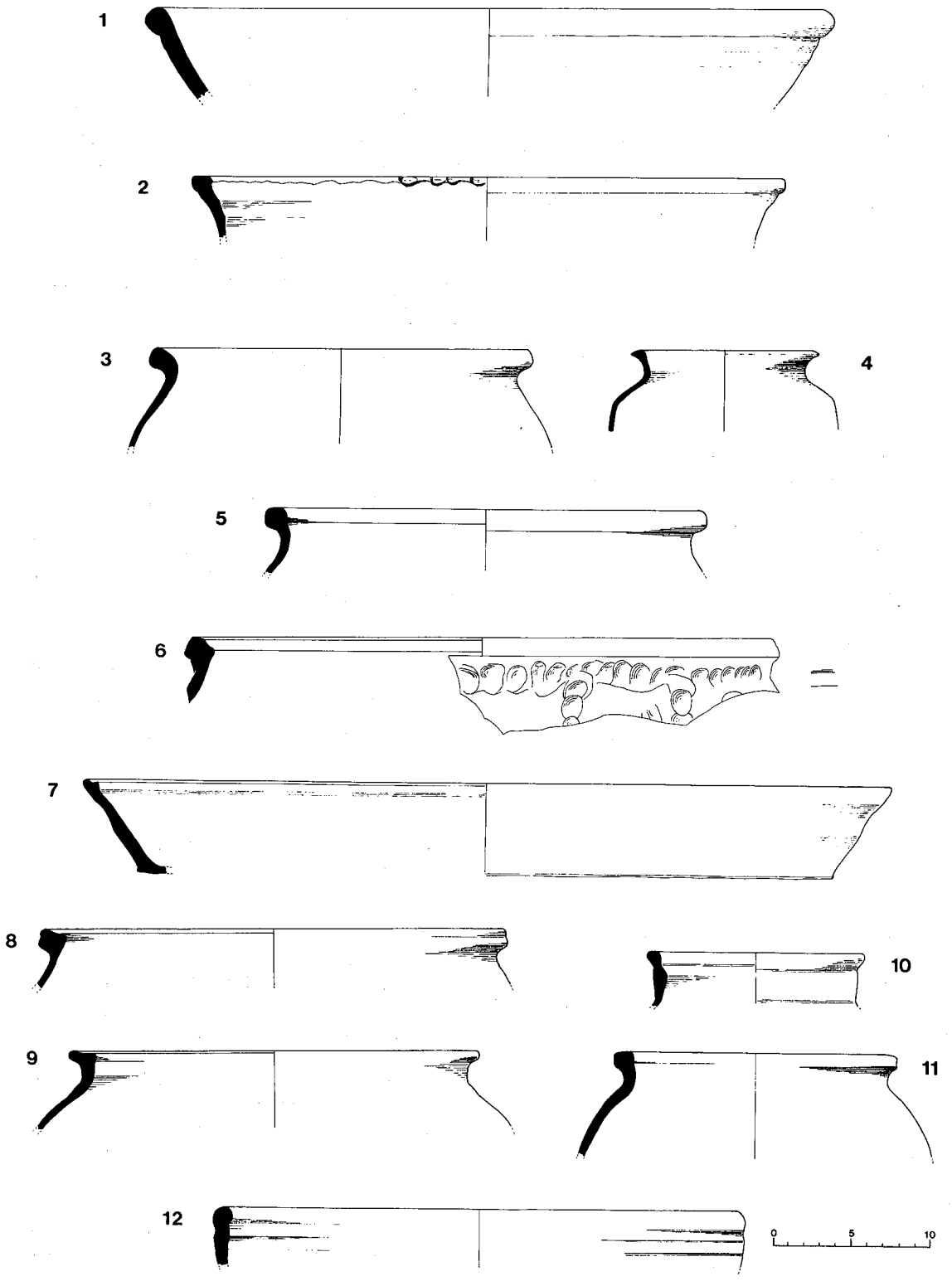


Figure 7. Overhall Grove. Surface finds.

a similar channel, [b1] to [b2], with the upper end stopped up, probably deliberately ([b3]). This area, however, had been extensively disturbed by badgers. No ridge-and-furrow was identified within the enclosure between the moat and the outer ditch, but it did occur immediately outside the outer double ditch on the southeast, running approximately parallel to it. Ridge-and-furrow was observed to be extensive within the wooded area but was not surveyed further.

Surface Finds (Fig.7)

Some 200 sherds of pottery dug up by badgers were found within the moated site and a fragment on its immediate outer edges, but none was found further out into the enclosure. Many are of such a large size as to suggest a rubbish dump as their provenance. They are largely of the twelfth and thirteenth centuries, though some date from the fourteenth century. Seventy are shell-tempered and appear to be of developed St Neots type, including several pieces of a vessel 32 cm. in diameter at the rim with thumb-stripping horizontally underneath the rim and vertically down the body (Fig.7[6]). The 15 glazed sherds are considered to be mostly of the thirteenth century, several of Heddingham type. The remaining sand- or grit-tempered wares are generally of the thirteenth/fourteenth centuries including cooking pots with flat topped rims, and a rope twist handle. Twenty-one of the sherds are sooted or blackened.

Figure 7 Details

Shell-tempered rims

1 Bowl with thickened rim rounded and undercut on the outside, grey fabric, internal surface dark brown, external surface blackened and lumpy.

2 Bowl with thickened rim rounded on the outside with finger moulding on the inside edge, fabric red/brown with grey core, surfaces darker brown, shell inclusions sparse.

3 Vessel with everted rim thickened on the outside, grey fabric, surfaces light brown.

4 Vessel with everted subtriangular rim, dark grey fabric, light brown surfaces, variably darkened.

5 Vessel with everted thickened rim flattened on top and undercut inside and outside, light grey fabric, surfaces buff.

6 Vessel with angular thickened everted rim with horizontal thumb stripping on outside under rim and vertical thumb stripping at intervals, grey fabric, surfaces buff.

Unglazed rims, sandy fabric

7 Bowl with upright rim hollowed on inside, fabric red/brown with dark grey core, slight surface glitter.

8 Vessel with rectangular everted rim hollowed on top, fine light grey fabric with light brown surfaces.

9 Vessel with flanged rim flat-topped and slightly hollowed, hard grey fabric, surfaces light brown with blackening under rim.

10 Vessel with upright internally moulded rim, grey fabric, surface red/brown with slight glitter, blackening on outside and rim.

11 Vessel with flat-topped rectangular rim, grey fabric, surfaces light brown with slight glitter, variably blackened.

12 Bowl with upright rounded rim, undercut inside, some rilling on outside, fabric light brown with grey core, slight glitter.

Historical Evidence

The site is generally believed to be the site of Overhall Manor; the name was in use by about 1480.[8] Botanical evidence indicates that the woodland is secondary, of the sixteenth century,[9] and John Layer, writing in the first half of the seventeenth century, described the site of Overhall Manor as 'decayed'.[10] The boundaries of the wood are much as are shown in a 1650 map of the parish[11] and in the inclosure award map of 1843,[12] but the maps give no indication of a moat, and the Ordnance Survey was not

8 Walter Rye (ed.), *Pedes finium: or, fines relating to the County of Cambridge, levied in the King's Court from the Seventh Year of Richard I to the End of the Reign of Richard III* (Cambridge 1891) p.157.

9 Information from the Cambridgeshire and Bedfordshire Wildlife Trust.

10 W.M. Palmer, *John Layer (1586–1640) of Shepreth, Cambridgeshire: A Seventeenth-Century Local Historian* (Cambridge 1935) p.98.

11 CRO TR373/P1.

12 CRO R60/24/2/P.

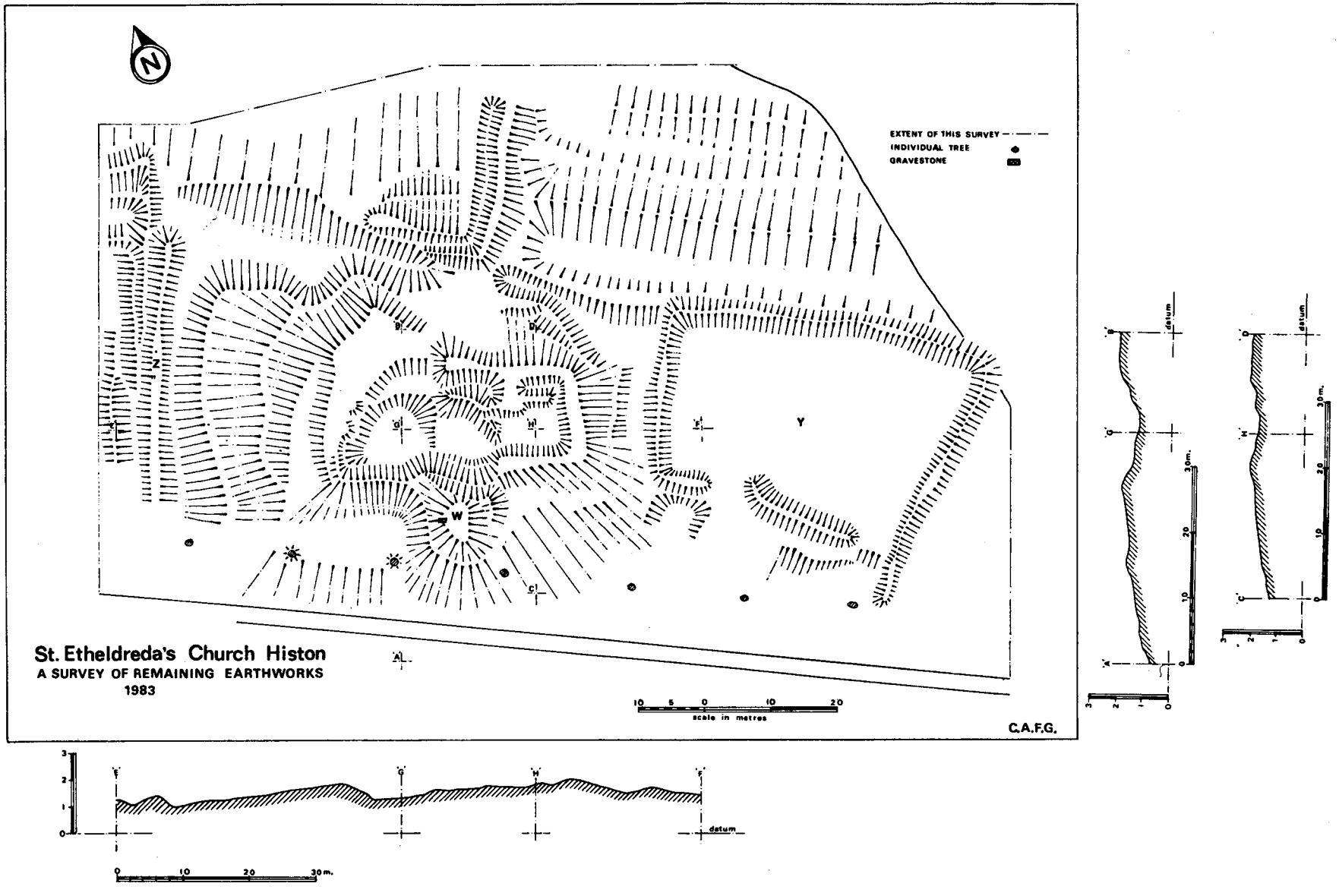


Figure 8. St Etheldreda's Church, Histon. Survey map.

aware of its existence until after 1900.[13]

St Etheldreda's Church Site, Histon, TL434640 (Fig.8)

The site of this church exists only as earthworks in meadow at Abbey Farm, and is merely marked as a site by the Ordnance Survey. A gazetteer of 63 parish churches in Cambridgeshire that had gone out of use by 1982 indicated only four with no twentieth-century description, of which St Etheldreda's was one.[14] Consequently, a full survey was undertaken in 1982–3.

Survey

The outline of the church walls surviving as banks between one-half and one metre high is indicated in the area [G] to [H], and seems likely to represent a simple chancel, nave and tower structure. The existence of a tower is evident from steeple bells recorded in 1552.[15] The trapezoidal banked enclosure to the east of the church ([Y]) is understood to be an area levelled by the present owner's family. The linear bank to the west ([Z]) is thought to be the boundary of the churchyard, but the mound to the southeast of the church (W) is likely to be a tree mound despite the existence of a gravestone lying on it. Ridge-and-furrow remains can be seen to the northeast of the church beyond the limits of the churchyard and continue into a meadow further north, through which the path also continues.

Historical Evidence

In the middle ages Histon had two churches; the other was dedicated to St Andrew and still stands. They stood 200 m. apart at Church End and are shown on Saxton's map of 1576, Robert Morden's map of 1695 and Emmanuel Bowen's map of 1751;[16] on the latter two maps, the churches are shown on either side of the main road. St Etheldreda's was in use by 1190 — a charter of William Bishop of Ely of that year refers to an annual pension from the church — and belonged to the Benedictine abbey of Eynsham.[17] By 1588 the two churches were in effect united,[18] and by the end of the sixteenth century St Ethel-dreda's was demolished,[19] with the possible exception of the chancel.

No pottery was recovered from the site as it was down to grass.

Acknowledgments

The permission of the landowners — the National Trust (Cobbs Wood), the Cambridgeshire Wildlife Trust (Overhall Grove) and Mr Rowley (St Etheldreda's, Histon) — respectively, for access to their land is gratefully acknowledged, and thanks are also due to Mr Hoole of Cobbs Wood Farm for his cooperation and to David Hall for looking at the pottery.

13 T.M. Hughes, 'On some earthworks at Boxworth and Knapwell', *Proceedings of the Cambridge Antiquarian Society* 10 (1903) pp.237–40.

14 Alison Taylor, 'Churches out of use in Cambridgeshire: a discussion, gazetteer and excavation on two sites', *Proceedings of the Cambridge Antiquarian Society* 72 (1982–3) pp.30–8.

15 Victoria History of the Counties of England, *Cambridgeshire and the Isle of Ely. Vol.9*, ed. by A.P.M. Wright and C.P. Lewis (Oxford 1989) p.106 n. 57.

16 Christopher Saxton, *Counties of Northampton, Bedford, Cambridge, Huntingdon and Rutland* (1576); Robert Morden, *Cambridgeshire* (1695); Emmanuel Bowen, *An Accurate Map of Cambridgeshire Divided into its Hundreds* (1751).

17 Victoria History of the Counties of England, *Cambridgeshire and the Isle of Ely. Vol.9* p.103.

18 *Ibid.* p.104.

19 *Ibid.* p.104; Cambridge University Library Ely Diocesan Records H3/48/Histon, no.2.

A Note about the Transept Cross Aisles of Ely Cathedral

J. Philip McAleer

It is generally agreed that the north and south end walls of the two-aisled east transept at Ely Cathedral were intended to have the aisles returned across them. In this way, the aisle vaults were to form the floor of a gallery which constituted the second stage of the elevation, in the manner still preserved at Winchester Cathedral (1079–93) (Plate 1).[1] The debate has not been what was intended but, rather, whether such cross aisles and galleries were ever actually built.[2]

In his architectural history of the cathedral, published in 1868, D.J. Stewart commented that the evidence of a cross aisle having abutted the east and west side aisles of the transept had formerly been clear, particularly in the south arm.[3] Writing in 1953, in his history of the cathedral for the *Victoria County History*, T.D. Atkinson noted Stewart's remark, and further commented '... it would seem that these evidences were removed within his [Stewart's] own memory. We must accept this clear statement'.[4] Then, however, Atkinson proceeded to cast doubt on it: 'But it is possible that what Stewart saw was the "toothing" formed in the walls of the side aisles for bonding in the cross aisle at a later but not distant time'. Atkinson proposed that the architectural evidence pointed the other way. The arches of the cross aisle in the south arm, he argued, would have sprung from round piers; he considered this an awkward arrangement. Atkinson therefore thought that the south transept arm was only built after the idea of a south (cross) aisle had been abandoned. Since, in the north arm, the corresponding piers are compound rather than round, he felt that the cross aisle had 'probably' been built there, because the shape of the pier was more suitable for the arches of the cross aisle. Atkinson only considered one feature of the two transept arms and so based his argument on logic rather than on architectural evidence; he also ignored the stylistic evidence which suggests the south arm is actually earlier than the north arm, not the reverse.[5] His conclusions

1 For Winchester see R. Willis, 'The architectural history of Winchester Cathedral', *Proceedings of the Archaeological Institute of Great Britain* (1845; reprinted in *Architectural History of Some English Cathedrals: A Collection in 2 Parts of Papers Delivered During the Years 1842–1863* [Chicheley 1972 and 1973] and, separately, by the Friends of Winchester Cathedral [Winchester 1980]) pp.23–8.

2 A. Clapham, *English Romanesque Architecture. Vol.2. After the Conquest* (Oxford 1934) p.38, n.1 ('Never actually executed in masonry'.); N. Pevsner, *Buildings of England: Cambridgeshire* (Harmondsworth 1954) p.276 (of the south arm: '... so one may presume that the original plan was for a balcony the width of one whole bay, exactly as it still exists at Winchester. Whether this was ever built or not, cannot be said'.), p.277 (of the north arm: '... but the narrow balcony, replacing also what was, or was meant to be, a wider one ... must have been put in almost immediately after the completion of the transept ...').

3 D.J. Stewart, *On the Architectural History of Ely Cathedral* (London 1868) p.31.

4 T.D. Atkinson, '[Topography, City of Ely:] cathedral', in *Victoria History of the Counties of England* (*VCH*). *Cambridge and the Isle of Ely*. Vol.4. (London 1953) p.51, n.15, for this and the following quotations. Stewart, *op. cit.* p.32, blamed the removal of the marks of the junction on masons employed to clean the church of its coats of plaster and white-wash.

5 At the lower level, which is all that concerns us in this instance, the later date for the construction of the north arm vis-à-vis the south is the appearance of cushion capitals in the two north chapels of the east side, and then on the piers of the west aisle. From this point on, cushion capitals are used exclusively at Ely, in contrast to the volute capitals

were in contrast to Stewart's, for the latter wrote as if he was certain that both end aisles had been built.

Archaeological evidence has recently come to light which strongly supports the thesis that the cross aisle of the south arm was actually built. In her Ph.D. dissertation, S. Ferguson reported remains of groin vaulting which would have covered the eastern of the two bays of the cross aisle proper.[6] The remnants of this vault (Plate 2) are located in a space behind the arcade of the narrow walkway, or 'bridge', which now connects the gallery levels above the transept's east and west aisles (Plate 3). Access can now be gained from a hole broken through the side wall of the fourteenth-century stair-turret, which is located at the junction of the east aisle and the walkway. The stump of a rubble vault survives, bonded into the well-cut ashlar of the inner face of the south wall of the transept arm. The vault still even has an area of plaster on its under surface. These remains are clearly those of a vault which has been torn down, not of one which was never completed.[7]

Thus, despite Atkinson's objections, there is strong evidence that a cross aisle was built in the south arm. Other more easily visible architectural features, hitherto ignored, support the hypothesis. For, despite Stewart's report (before 1868) that the evidence, 'at one time very distinct', had been 'obliterated', and Atkinson's apparent failure to see any evidence to the contrary, there remain, I think, strong indications in the spandrels of the east and west sides of both transept arms that the cross aisles were indeed built.[8]

The former existence of the two bays of the cross aisles has been mostly hidden by careful rebuilding of the outer order of the arch of the southernmost bay on each side. The unmoulded voussoirs of the outer archivolts are identical in style to the other arches of the east and west aisles, so much so that initially they all appear to be of one — original — build. However, the spandrels above the round piers in the south arm (Plates 4 and 5) each bear a distinct vertical scar at exactly the point where one would expect the face of the arcade of the cross aisle to have abutted the east and west side aisles. In addition to the vertical scars, there is an important irregularity which is nearly identical on each side. Unlike the other arches of each aisle, the southern end of the outer order of each of the penultimate bays does not spring from the pier capital with a series of voussoirs whose extrados describes a curve parallel to their intrados. Rather, the curve of the extrados becomes defined only at a point well above the impost surface, at the sixth course on the west side and the ninth on the east. The best explanation of this anomaly is that it was likely that the springing of these orders had initially been built at right angles to an existing flat wall. The vertical scar occurs at just the point where the face of an abutting arcade would be expected, well to the north of the axis of each pier. It is clearest above the point where the extrados curve begins, and is particularly evident due to an irregularity in the plane of the spandrel: the new section was not quite aligned with the old in terms of its surface plane.

The reconstruction of the southernmost arch on each side has, on the whole, been carried out quite carefully in order to create an impression of continuity and uniformity with the bays to the north. It is very likely that the close stylistic agreement of the two orders of the end arcades is due to the fact that the outer orders are indeed actually the arches of the cross aisle reset. The early groin vaults of the western aisle of the south arm are separated by wide transverse arches of only one order. These arches project only slightly below the surface of the vault. In the end bays, the arch spanning from round pier

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which appeared in the south arm and southeast bays of the north arm. On the exterior, there is a change in the design of the window frames at the northeast angle of the north arm: the windows of the north and west wall have jamb-shafts and a continuous billet moulding surround, while those of the south arm (west wall and east bay of south wall — all the windows of the east walls of both arms have been altered) are smaller, with plain jambs and a moulded arch.

6 S. Ferguson, 'The Romanesque cathedral of Ely. An archaeological evaluation of its construction' (unpubl. Ph.D. dissertation, Columbia University, New York 1986) Appendix C pp.308–10, Figs. 44, 47–8.

7 Ferguson, (*ibid.* p.310, Fig.47) also pointed out other evidence of the vault inside the fourteenth-century stair turret in the form of an 'arched mortar joint that follows the elliptical section of a groin'. This scar is actually five voussoirs of the outer order of the southernmost arch of the east aisle, which is embraced by the turret, cut back to conform to the curve of the inner wall of the turret.

8 Ferguson, (*ibid.* pp.194,310) mentioned 'scars' and 'masonry disturbances' in the east and west spandrels of the south transept arm's aisle arcades but did not provide any further details; nor did she discuss (pp.116–18,176) the evidence for the construction of the cross aisle in the north arm. Her Figs 85 and 151 imply that the north cross gallery was never even started, let alone built; cf. p.322, n.46 (on p.329), 'it [is] impossible to determine whether a transept tribune had been built before the present bridge was put in'.

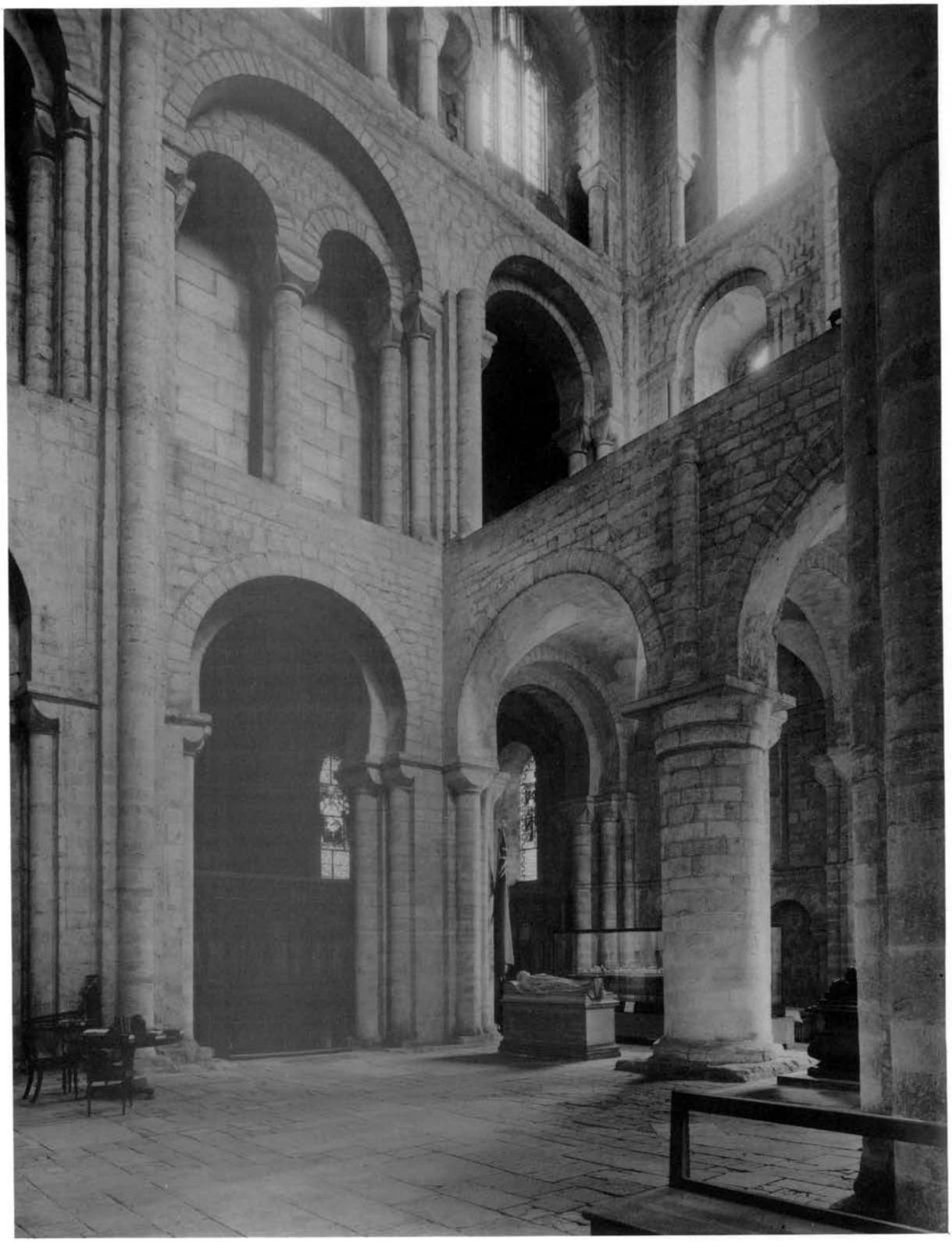

Plate 1. Winchester Cathedral. North transept arm. (photo: RCHME, Crown Copyright)

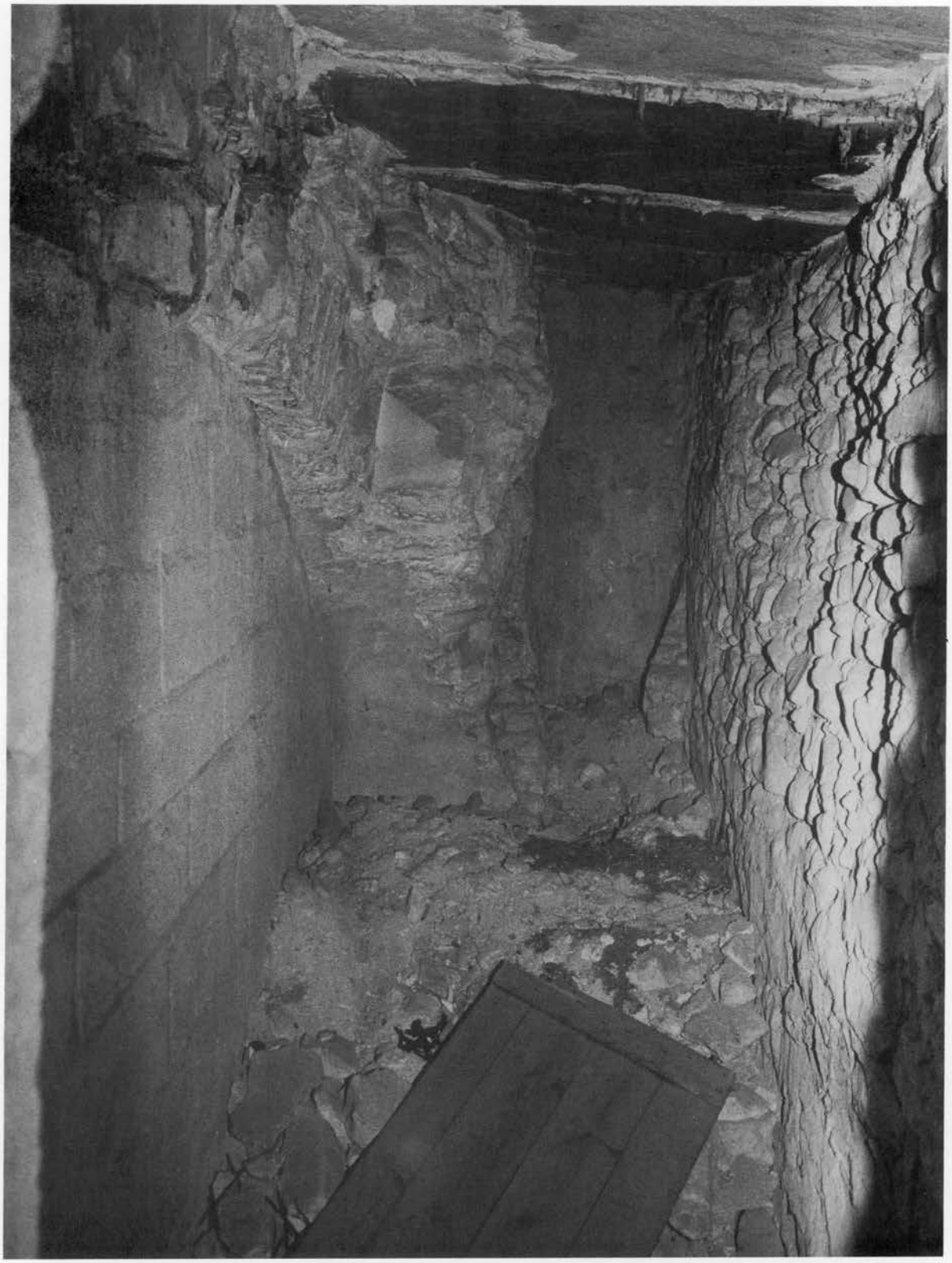

Plate 2. Ely Cathedral. Remains of groin vault against S wall of transept (inside bridge structure). (photo: author)

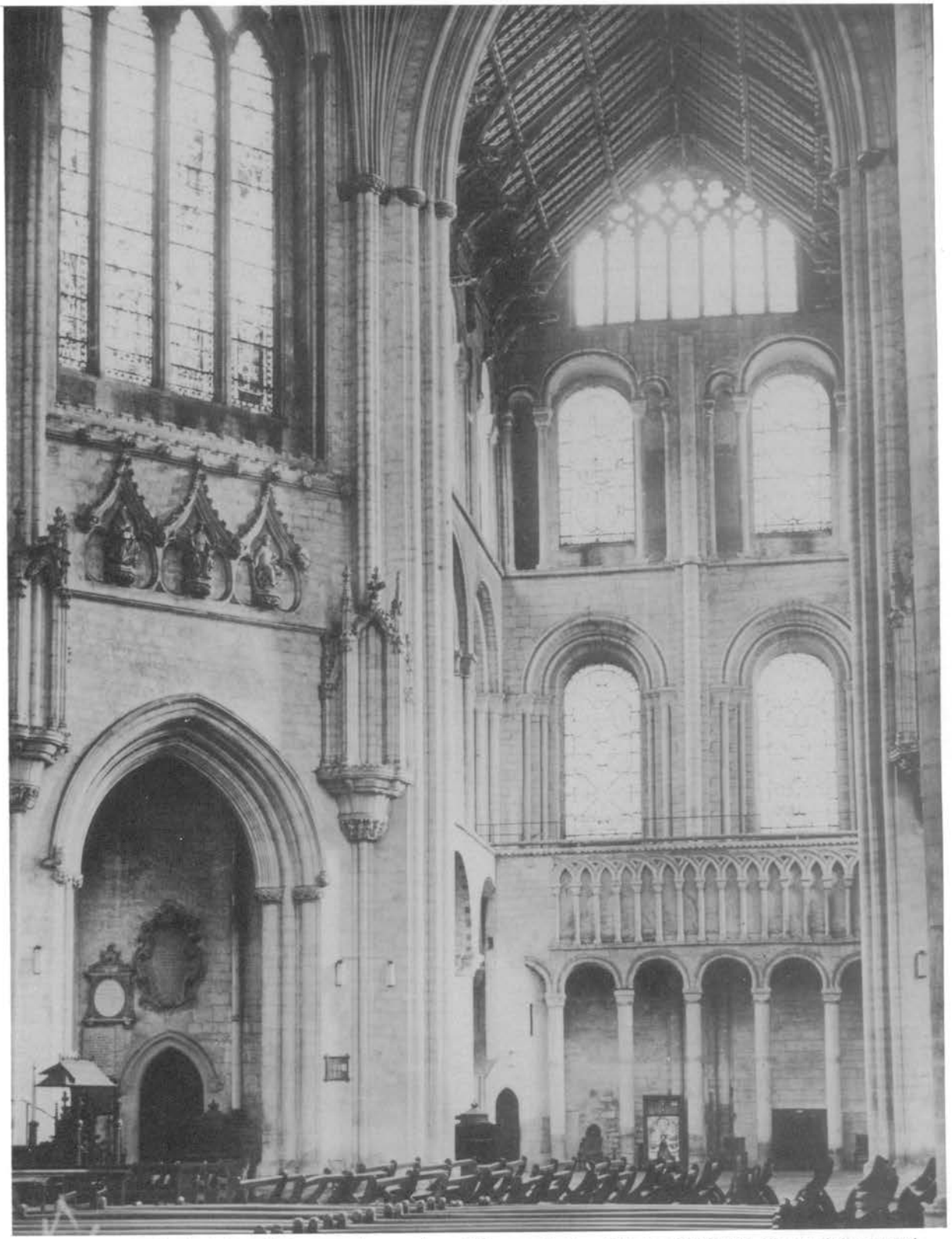

Plate 3. Ely Cathedral. South transept arm viewed from octagon. (photo: RCHME, Crown Copyright)

to wall was necessarily supplemented — and strengthened — by the addition of the voussoirs of the single order of the dismantled arches. The billet-decorated string-course above must also have been reset from the cross bays.

This evidence on the south side can be matched on the north closely enough, despite the different conditions, to support the conclusion that the cross aisle here, too, was actually built. There is no parallel to the inserted stair-turret of the south arm, as the original newel-stair in the north wall (just west of the north responds of the east arcade) begins at floor level. However, evidence of the former groin vault of the cross aisle can be found below the vaults of the narrow cross walkway (Plate 6). In the middle of the wall, the original respond for the cross aisle pier is still in position, consisting of a double layer of pilasters with a half-shaft on the axis and smaller shafts in the angles. The respond was placed between the two end windows and is now under the central bay of the arcade supporting the walkway. Above the east angle-shaft of this now 'useless' respond, the springing of a groin vault is still visible, a fragment which makes no sense in the context of the vaulting of the walkway which actually engulfs it. The former transverse arch has been cut back and refaced to form a curving surface which rises over the respond half-shaft.[9]

Due to the asymmetrical design of the pier system of the Ely transept arms, the piers which correspond in position to the round piers on the south are compound on the north. (They are those which Atkinson thought a more appropriate support for two arcades departing at right angles to each other.) On both the east and west sides, disturbances in the masonry of the piers indicate once again the removal of a cross arcade. On the east side, these irregularities are especially evident at the level of the capital and impost (Plate 7). The shaft which here rises from pier base to gallery floor string-course is neatly constructed up to the level of the volute capitals of the aisle arcade. At that point the coursing of the shaft includes one unusually high course and is succeeded by one unusually low course. These courses correspond to the coursing heights of the adjacent arcade capital (high) and impost (low). The surfaces of the two courses are not in the same plane as the curving surface of the half-shaft below, and bulge out slightly. Their form and the irregularities of their surfaces can be explained as the result of the cutting away of the outward-flaring portions of a volute capital and chamfered impost. In addition, it should be noted that the ends of the converging sections of the arcade imposts have been cut away on an irregular diagonal. Above this level, the continuation of the half-shaft is notable for the bumpy irregularity of its surface. This can be compared to the smooth regularity of the curve of the shaft below.[10] The masonry of the spandrels to either side is also clearly disturbed and rough-surfaced, which suggests that a wall had been ripped out and that blocks for the continuation of the lower half-shaft had been inserted.

The situation on the west side of the north arm is almost exactly identical (Plate 8). Once again, at the level of the arcade capitals, which here are single scallop ('cushion') in form rather than volute, there is an interruption in the general uniformity of the heights of the courses. A high course is followed by a very low one, thus corresponding to the heights of the capitals and impost to either side. The slightly projecting surfaces of these blocks, as on the south, sustain the interpretation that a capital and impost have been trimmed back to continue the curve of the half-shafts. Here, too, the adjoining ends of the arcade imposts have been hacked off. Consequently, the zone at the level of the capital and impost, on both the east and west sides, forms a distinct contrast to the corresponding zone of the southernmost pier on the east side (now partly engulfed by the pier of the fourteenth-century Octagon). As no capital was intended or removed at this point, the shaft at the level of the respond capitals of the pier consists of two narrow courses of masonry with the impost directly abutting the shaft on each side (Plate 9). Furthermore, the upward continuation of the half-shaft in the end bay displays the same irregularity of surface as that on the east. The coursing of the masonry in the adjoining spandrel surfaces is likewise disturbed, again suggesting that the shaft above the level of the impost has been inserted. It would also seem, as on the south, that the arches under the cross gallery were reset to form the north arches of

9 Ferguson, (*ibid.* pp.321–2) attributed this addition to Wren's restoration campaign (see below n.11) on the basis of its 'smooth-grained stone'.

10 Atkinson, 'Cathedral', p.51, n.15, did observe a 'slight kink in the shaft against the northeast pier rising from floor to roof'. This he explained as follows: 'This shaft would be interrupted by the wall of the cross-aisle; when that was removed it was found that the upper part was not exactly over the lower part; thus the length of shaft to be built to connect the two had to be built slanting'.

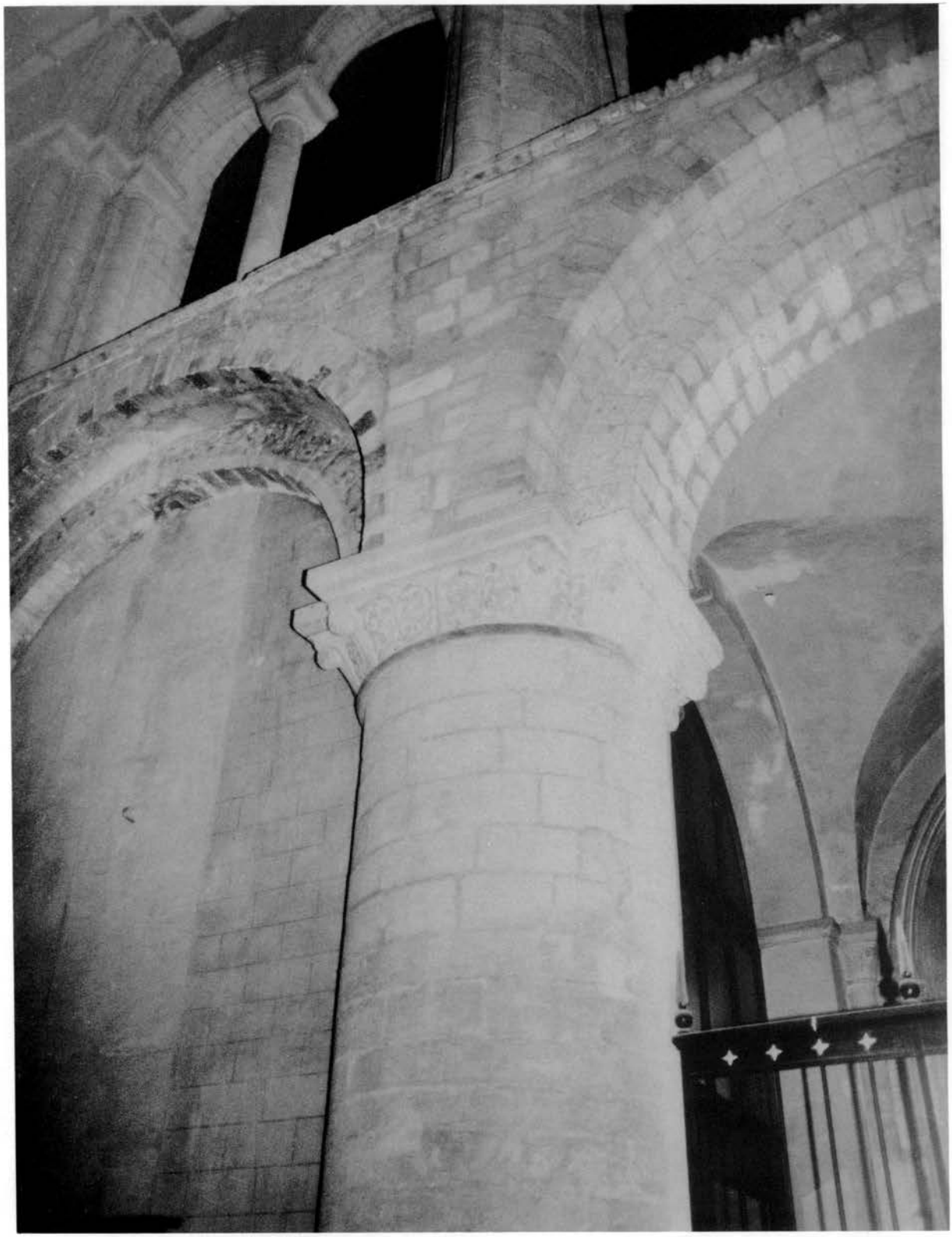

Plate 4. Ely Cathedral. Spandrel above south pier on east side of south transept arm. (photo: author)

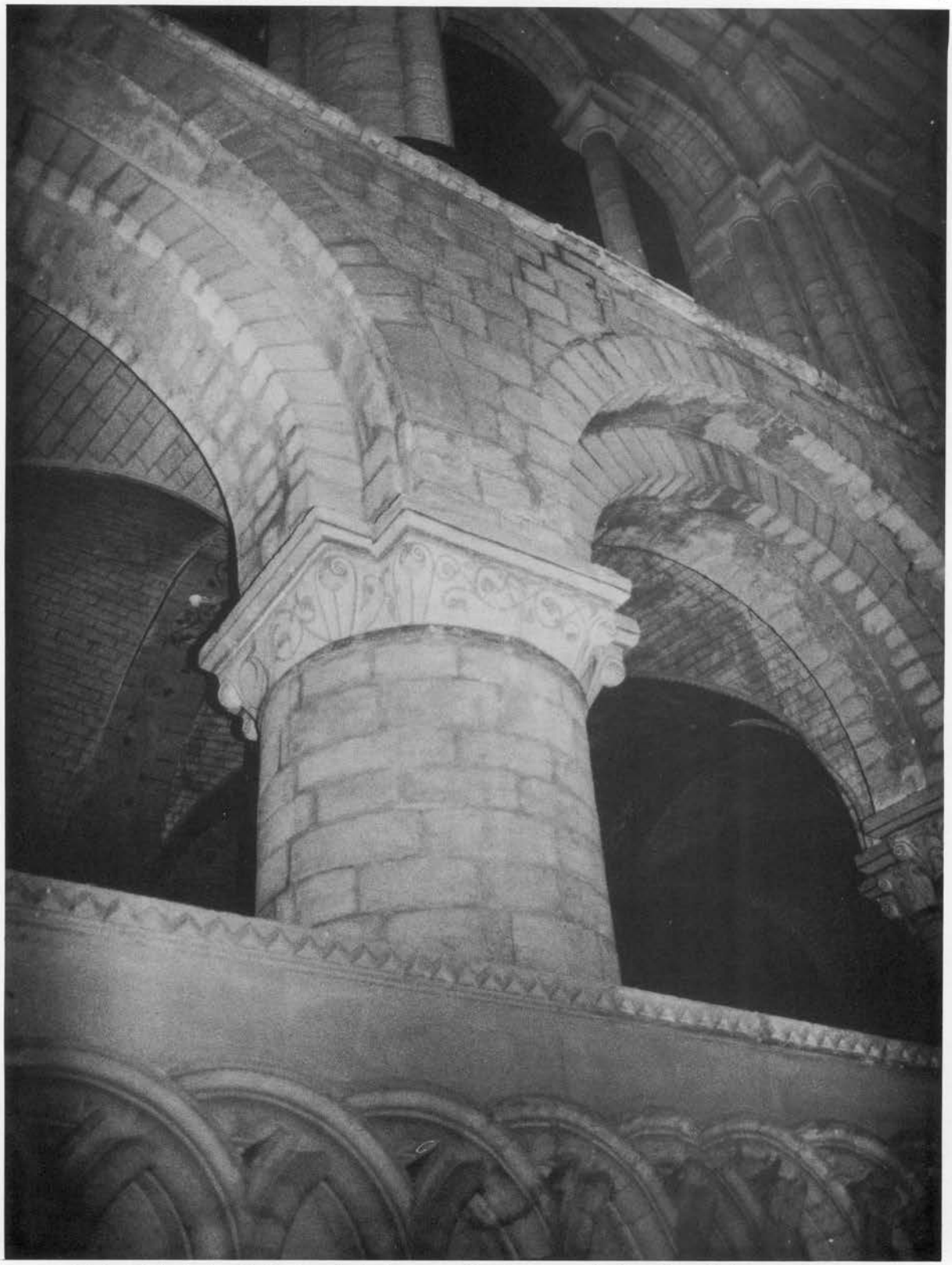

Plate 5. Ely Cathedral. Spandrel above south pier on west side of south transept arm. (photo: author)

Plate 6. Ely Cathedral. Remains of groin vault under bridge across north wall of transept. (photo: author)

Plate 7. Ely Cathedral. Spandrel above north pier on east side of north transept arm. (photo: author)

Plate 8. Ely Cathedral. Spandrel above north pier on west side of north transept arm. (photo: author)

the aisles.[11] Thus, the spandrel areas of all four locations provide ample testimony to the construction of both cross aisles.

The cross aisles were, therefore, built; it then may be asked why — and when — they were removed. Unfortunately, there is no evidence which would allow an answer to the former question beyond remarking that in some way they had lost their function.[12] The latter question is almost equally impossible to answer, since there is no evidence except that which is suggested by the style of the walkways which replaced the two bays of the cross aisles (Plates 10 and 11). Obviously, the style of the walkways can only produce an approximate date, since the dating depends upon comparisons with other parts of the building which, undated by any precise external evidence, are equally dependent upon a subjective interpretation of the evolution of the features which constitute their style. Consequently, there is no firm evidence by which to establish when the cross aisles were removed.[13] The most distinctive feature of the walkways is the band of intersecting arcading of the southern one, a motif which first occurs in the primary structure only in the westernmost bay of the south aisle of the nave. The conclusion could be drawn that the crossing aisles were removed as the western transept was begun, that is, at a period around 1150 or later.[14]

Nonetheless, it can be observed that there are strong stylistic differences between the lower level of the transept aisles and the succeeding gallery level (Plates 4, 5 and 9). These differences are marked most obviously by the change from volute capitals to the peculiar and distinctive form of the cushion or scallop capital, which was to prevail at Ely throughout the remainder of its long building history, and by the shift from blunt, unmoulded arches to the use of roll mouldings. There is, in the over-all quality, a conspicuous coarseness or crudity to the earlier work which yields to a more refined, even more delicate work which is still robust but no longer so blunt and insistent. The destruction of the choir perhaps makes the gap between the two levels appear greater than it actually was at Ely — that is, a transitional or evolutionary stage may have been present in the gallery (and clerestory?) of the choir. Alternatively, the change in character of the work could be explained by the passing of a certain period of time during which the general style evolved, so that the opening of a new

11 The last arch on the west, at the north end, has been rebuilt, due to the collapse of the northwest angle of the transept in the seventeenth century. It collapsed on 29 March 1699: the Chapter blamed an earthquake (Cambridge University Library, E.D.C., 4/6/8, item 12); this was no doubt the earthquake of 1692. Rebuilding was supervised by Christopher Wren (E.D.C., 2/1/2 [Order Book, 1660–1729], p.229; 4/5, item 40).

12 The removal of the two bays of the cross aisle would not have affected either access to or the function of the gallery level on the east side of the transept arms or around the east end, as a newel-stair was located in the east bay of the north end wall. There may have been chapel altars in the gallery transept arms, but no physical evidence of them has survived: see A. Klukas, '*Altaria superioria*: the function and significance of the tribune chapel in Anglo-Norman Romanesque. A problem in the relationship of liturgical requirements and architectural form' (unpubl. Ph.D. dissertation, University of Pittsburgh 1978) pp.382–4. At Winchester, a three-foot deep arched alcove in each east bay formed a recess for an altar at gallery level: see Klukas, pp.368–9, 374; he suggested 'the transept bridges [at Ely] allowed responsive singing across the choir stalls'.

These ideas are repeated again in Klukas, 'The continuity of Anglo-Saxon liturgical tradition in post-conquest England as evident in the architecture of Winchester, Ely, and Canterbury cathedrals', in *Les mutations socio-culturelles au tournant des XIe–XIIe siècles (Spicilegium Beccense. Vol.2. Actes du Colloque international du CNRS: Études anselmiennes, IVe session, Le Bec-Hellouin, 1982)* (Paris 1984) pp.114,116,118 (where he notes 'traces of paint and other decoration [in 'the north transept eastern tribune' at Ely] point to its original function as a chapel space'; he, however, mislocates the position of the stair vices in Fig.2, placing one in the eastern angle buttresses of each arm. Neither was included in the original phase of construction; eventually, one was inserted in the north arm, at the end of the east arcade, during the second phase).

13 Ferguson, *op. cit.* pp.191–5, dated the walkways to *c.*1106–9, on the basis of the base mouldings of the columnar arcade which she compared to those appearing in the nave. Her fourth building 'phase', *c.*1106–10, comprising the present second, third and fourth bays of the south nave arcade with the third and fourth bays of the south aisle wall, was characterised especially by 'short bases and straight chamfered filleted [more correctly, "astragaled"] abaci'.

14 In her dating of the walkways, Ferguson, *op. cit.* pp.191–5, ignored the intersecting arcading; she dated, p.249, the beginning of the west transept to 'by at least 1125'. Pevsner, *op. cit.* p.276, simply remarked that '[i]ntersected arches seem to appear at Ely only in the second third of the C12 ...', and, p.278, suggested that the style of the nave and west transept are so different that work 'must have been interrupted' during the civil war between King Stephen and the Empress Matilda.

'Short bases', bases with a rather vertical profile in which the scotia and torus are given equal emphasis, are also characteristic of the west bay as are a mixture of hollow or straight chamfers to the abaci, as occurs in the intersecting arcading of the south walkway. Some of the abaci in the west aisle bay, i.e., those against the aisle wall, also have an astragal.

campaign introduced the latest fashion or tastes. The new campaign, therefore, formed a sharp contrast to the previous one because the evolution of one stylistic phase into another was not accomplished at Ely itself. On the other hand, one could argue that the change in style was not due to a significant lapse of time, but rather to the introduction of a new workshop with more advanced or up-to-date ideas which replaced a more old-fashioned, conservative one.

In any case, it is clear that when the construction of the gallery level was carried out, any idea — if such there had been — of continuing the gallery arcade across the end of the transept arms had been abandoned. The gallery piers which stand over the end piers in each aisle arcade show no sign of any preparation for a cross arcade. Nor do they bear any sign of alteration, as appears on the piers below, which would signify the removal of capitals for a cross arcade. It seems unlikely that the cross aisle was intended to support two upper stages because the arcade arches could only have been of one order, rather than of two as on the east and west aisles, and so probably would not have been strong enough to play that role.[15] However, as the gallery at Ely was unvaulted, the east and west arcades would have to have been extended to the end walls to support the clerestory and its passageway, even if a screen arcade had also been carried across between them.

Winchester Cathedral offers the closest surviving parallel for this aspect of the architecture of Ely. Illustration of how the relation between the cross aisle and gallery to the side aisles and galleries (and clerestory) might have been solved at Ely is, however, not possible as the builders at Winchester abandoned the design after completion of the cross aisle. A half-shaft introduced above the impost of the central pier, which is round, in contrast to the other aisle piers of compound form, suggests that a screen at gallery level may have been intended, but it clearly was never executed. The half-shaft, at both the north and south ends, terminates rather feebly without a capital, several courses below the edge of the platform (Plate 12). None of the facing responds of the last gallery piers, in the form of half-shafts, shows any evidence that a capital to support a cross arch ever existed.[16]

Regardless of the height to which it was initially projected to carry the cross aisle at Ely, the results are likely to have looked visually awkward and uncomfortable — unresolved. If only an aisle was intended, with its vaults forming a platform between the east and west aisles at gallery level, the continuation of the upper elevation of gallery and clerestory straight to the south or north terminal wall would have produced an odd effect, as it does today at Winchester (Plate 1). If the gallery arcade was to have been carried over the cross aisle arcade, producing a screen effect, its termination at the sill of the clerestory level would have resulted in an equally odd appearance. Only if a clerestory had been carried across the end walls above the aisle and gallery arcades, would there have been a complete, 'finished', design. This solution, however tidy from the interior point of view, would have eliminated the possibility of a coherent transept façade for the exterior: the aisle and gallery, with the gallery covered by a sloping wooden roof, would be seen to wrap around the taller nave-like volume of the central void of the transept arm. Whether these visual considerations concerned the builders is a moot point. They clearly elected to maintain the tradition of a transept façade in the form of a wall all in one (vertical) plane.

There are no exact parallels elsewhere for the appearance of the cross aisles and their galleries in the transept arms of Winchester and Ely. Galleries do appear in the transepts of a number of Norman churches, both earlier and later than the two English examples, but they are all in the context of transept arms which lack east and west aisles. The earliest Norman example may have been Jumièges Abbey (1040–67), where evidence indicates that the entire area of the transept from crossing to end wall was filled by a platform.[17] In other, and later, churches in

15 An observation paralleling that made with regard to Winchester Cathedral: see J. Crook and Y. Kusaba, 'The transepts of Winchester Cathedral: archaeological evidence, problems of design, and sequence of construction', *Journal of the Society of Architectural Historians* 50 (1991) p.309 (Appendix B).

16 Willis, *op. cit.* p.24, considered a gallery arcade a possibility on the basis of these shafts. Crook and Kusaba, *op. cit.* p.309, think that any intention of a gallery arcade was unlikely.

17 L.-M. Michon et R. Martin du Gard, *L'abbaye de Jumièges* (Paris 1927) pp.59–62; cf. L. Musset, *Normandie romane. Vol.2. La Haute-Normandie* (La Pierre-qui-Vire 1974) pp.116–17. Similar transept platforms may have existed at Bayeux Cathedral (begun 1046/9), and in several English buildings. Extended galleries have been suggested for Westminster Abbey (begun *c.* 1050) and Lincoln Cathedral (1072–92) and once existed at Christchurch Priory (Hampshire, begun before 1100). For the former see R.D.H. Gem, 'The

Normandy, the 'platforms' were confined to the portion of the transept arm which projected beyond the line of the aisle walls.[18] Such platforms or galleries still remain at Saint-Étienne (begun c.1063) and Saint-Nicolas (begun 1083) at Caen,[19] Cerisy-la-Forêt (last quarter of the eleventh century),[20] and the abbey church of Saint-Georges at Saint-Martin-de-Boscherville (begun c.1115).[21] At Saint-Étienne and Cerisy, the platforms are associated with upper level apsidal chapels on the east. This also seems to have been the case at Saint-Ouen (1056/66–1126) at Rouen, where the platform was probably two bays wide to correspond with the two apsidal chapels in each arm on each level.[22]

In three of these four surviving cases, the axial pier is compound and an axial shaft of the pier rises up into the spandrel area to end ineffectively, without a capital, below the level of the platform floor.[23] At Cerisy, the shafts suggest an intention to construct a cross arcade at the second level; there are short shafts with capitals engaged against the pier, between the galleries over the choir and nave aisles, and the projecting bay.[24] From the height of these shafts, it is clear that the arcade would not have been as high as the regular gallery openings. Similarly, nook-shafts at the east and west ends of the galleries at Saint-Nicolas, with capitals at the same level as those of the arcading which fronts the aisle roof-space, imply an intention to continue an arcade of similar height across the gallery.[25] The same explanation is possible for the heavy projecting jambs at each end of the south gallery at Saint-Étienne, which now stop so inconclusively at a level below the capitals of the adjacent jambs of the choir or nave galleries.[26] At Saint-Georges de Boscherville, the axial or central pier is round and, in contrast to the other buildings and Winchester, there is no half-shaft 'decorating' the spandrel.[27] Yet, even here, half-shafts at either end of the galleries, with capitals at the same level as those belonging to the arcading which fronts the roof-space, were probably intended to be linked by an open arcade of similar height to that zone.[28] Thus, the evidence of Cerisy suggests that a cross arcade at gallery level is not an impossibility at Ely and Winchester, and, as at Saint-Étienne and Saint-Nicolas, it may well have been intended when work began.[29] None of the Norman

Romanesque Rebuilding of Westminster Abbey', *Proceedings of the Battle Conference on Anglo-Norman Studies (1980). Vol.3.* (1981; reprinted as *Anglo-Norman Studies. Vol.3.* [1982]) pp.40,46, Plate 5; for the latter two see Clapham, *op. cit.* pp.22,26,38. For further on Christchurch see C.R. Peers in *Victoria History of the Counties of England. Hampshire. Vol.5.* (1912) pp.101,105–6. Romanesque York Minster is another possibility: see E. Gee, 'Architectural history until 1290', in G.E. Aylmer and R.E. Cant (eds), *A History of York Minster* (Oxford 1977) pp.117–18.

18 In England, Canterbury Cathedral (1070–7) may have been an example of this restricted form: see F. Woodman, *The Architectural History of Canterbury Cathedral* (London 1981) p.31, Fig.13. Worcester Cathedral (1084–1113?) certainly was: see R.D.H. Gem, 'Bishop Wulfstan II and the Romanesque Cathedral Church of Worcester', in G. Popper (ed.), *Medieval Art and Architecture at Worcester Cathedral (The British Archaeological Association Conference Transactions for the Year 1975). Vol.1.* (1978) pp.28–30. In these Norman and English buildings, the 'tribunes' or platforms were associated with upper level eastern transept chapels.

19 L. Serbat, 'Caen: architecture religieuse' *Congrès archéologique* 75 (Caen 1908) I pp.34–5 (Saint-Étienne), p.55 (Saint-Nicolas).

20 A. Rhein, 'L'église abbatiale de Cerisy-la-Forêt', *Congrès archéologique* 75 (Caen 1908) II pp.561–3.

21 Musset, *La Haute-Normandie*, pp.151–2, Plate 72. Upper-level transept chapels were lacking at Saint-Georges.

22 A. Masson, *L'église abbatiale Saint-Ouen de Rouen* (Paris 1927) pp.27–9. The outermost double chapel survives in the rebuilt north arm. The blocked arcades of an aisle remain in the north transept arm (with slighter traces in the southern) at Saint-Taurin, Evreux, c. 1100: G. Bonnenfant, *L'église Saint-Taurin d'Evreux et sa Chasse* (Paris 1926) pp.40–2, Plates IV,V.

Aisles across the ends of the transept arms were intended at Lessay (E. Lefèvre-Pontalis, 'Église de Lessay', *Congrès archéologique* 75 [Caen 1908] I p.244), and at Notre-Dame-de-Guibray, Falaise (Serbat, *op. cit.* p.35, and Rhein, *op. cit.* p.562).

23 See L. Musset, *Normandie romane. Vol.1. La Basse-Normandie* (La Pierre-qui-Vire 1967) Plates 14,17,32,60. Serbat, *op. cit.* pp.34–5, had no explanation for these half-shafts 'sans objet', although he rejected the explanation of G. Bouet, 'Analayse architectural de l'Abbaye de Saint-Étienne de Caen', *Bulletin monumental* 31 (1865) pp.440–1.

24 See Musset, *La Basse-Normandie*, Plate 60. For Rhein (*op. cit.* p.563) it appeared impossible to determine 'leur role primitif'. Rhein, p.563, identified the existing low balustrade of blind arcading as 'moderne'; Musset, *La Basse-Normandie*, p.158, claimed it was original ('romane').

25 The gallery has been completely removed from the north arm.

26 There is no evidence of similar jambs in the north arm, though the insertion of an elaborate eighteenth-century screen could have occasioned their removal.

27 See Musset, *La Basse-Normandie*, Plate 72. The axial piers at Saint-Taurin were also round: see Bonnenfant, *op. cit.* Plate V.

28 The shafts are now used to support the later vault ribs.

29 This conclusion is at variance with that of Crook and Kusaba, *op. cit.* p.310, n.50. After a brief consideration of three Norman examples, they decided '[t]he most likely explanation of the half-shafts is that they were entirely decorative'. C. Wilson, 'Abbot Serlo's church at Gloucester (1089–1100): its place

buildings indicate how the design may have been 'resolved' at clerestory level. Indeed, they rather imply that there was no resolution.

The other major but inexact parallels for these buildings are found in the two great pilgrimage churches of Saint-Sernin, Toulouse, and Santiago de Compostela. Since they were both begun in the 1070s, they are only slightly earlier than Winchester and Ely.[30] The transept arms of Saint-Sernin and Santiago possess aisles on the east and west which are continued across the end walls, and each of the aisles has a vaulted gallery above. The end galleries, of course, were covered by half-barrel vaults, as is the case with the galleries over the aisles elsewhere in these buildings. However, as the internal elevation of these buildings lacks a clerestory, the design of the two levels of the three sides of each arm could be identical, with the elevation completed by a barrel vault on east and west and closed by a lunette wall at the ends.[31] Therefore, because of the two-storey elevation and the use of vaults both at gallery level and over the main spaces, a completely coherent, symmetrical, 'finished' design results, in contrast to the wooden-roofed, three-storey elevations of the English and Norman churches.

The design of the transept elevation on the exterior of the pilgrimage churches was also complete, since the main roof over the high vaults was of a broad pitch and at a level close to the lean-to roof over the half-barrel vaults of the gallery.[32] On the end wall, the emphasis was on the wall corresponding to aisle and gallery, with the lunette wall of the vault showing only partially between gallery roof and main roof. This contrasts with the tall gable walls of the English and Norman churches with their steeply pitched roofs.

Platforms or galleries across the ends of aisleless transepts are found occasionally elsewhere in non-Norman churches such as Preuilly-sur-Claise (Indre et Loire), Saint-Sever (Landes), and Saint-Chef (Isère),[33] to which Saint-Genou (Indre) may also be added. However, of these buildings, only Saint-Sever seems at all relevant: a two-bay aisle at the end of the transept arm supports a gallery with a screen of four arches rising to a level just below the springing of the barrel vault covering the arm.[34] This is the most concrete parallel for what may have been intended at the Norman churches.[35]

There were, therefore, no proper precedents or models for the three-aisle transept arms as projected by the builders of

in Romanesque architecture', in T.A. Heslop and V.A. Sekules (eds), *Medieval Art and Architecture at Gloucester and Tewkesbury* (*British Archaeological Association Conference Transactions for the Year 1981*). Vol.7. (Leeds 1985) p.76, n.10, suggested that this half-shaft may have echoed wall shafts over the columnar piers in the choir. L. Hoey, 'Pier form and vertical wall articulation in English Romanesque architecture', *Journal of the Society of Architectural Historians* 48 (1989) p.267, n.60, noted that these shafts had 'no real place to go', suggested that they may 'have been intended to participate in some sort of screen or balustrade spanning the tribune platform', and pointed to similar 'illogical' shafts at Saint-Étienne and Cerisy.

30 M. Durliat, *L'art roman* (Paris 1982) pp.487,543. Of the classic group of five Pilgrimage churches, Santiago and Toulouse are the only ones in which the aisles are carried around three sides of the transept arm. At Saint-Martial, Limoges, and Sainte-Foi, Conques, the smallest, there were no cross aisles (or galleries). In the case of Saint-Martin at Tours, the cross aisle formed the inner half of a massive four bay tower-porch built over each transept end. See K.J. Conant, *Carolingian and Romanesque Architecture, 800–1200* (Harmondsworth 1959) Figs 28 (plans), 30 (Saint-Martin).

31 For Saint-Sernin see: M. Aubert, *L'église Saint-Sernin de Toulouse* (Paris 1933) pp.20–6; J. Peyrade, *Saint-Sernin de Toulouse* (Toulouse [c.1956]) unnumbered plates. For Santiago see: K.J. Conant, *The Early Architectural History of the Cathedral of Santiago de Compostela* (Cambridge [Mass.] 1926) Fig.19, Plate VI; *idem*, *Carolingian and Romanesque*, Fig.29.

32 For the restoration of the 'original' roof levels at Saint-Sernin by E. Viollet-de-Dic, carried out after 1860, see M. Durliat, *Saint-Sernin de Toulouse* (Toulouse 1986) pp.195–7, and, for the (possible) return to the late Medieval roof form, pp.199–203. For Santiago see: Conant, *Carolingian and Romanesque* Plates IVA,52A; *idem*, *Cathedral* Plates II,IV,VII, Fig.12.

33 Rhein, *op. cit.* p.562, drew attention to these examples.

34 See: E. Fels, 'Saint-Sever-sur-l'Adour', *Congrès archéologique* 102 (Bordeaux et Bayonne 1939) pp.345–64, especially pp.351,354–6,363. The church was begun before 1072.

35 For Saint-Genou, *c.* 1080/1110, where a non-projecting transept possessed galleries under towers oblong in plan, see F. Deshoulières, 'L'église de Saint-Genou', *Bulletin monumental* 105 (1947) pp.41–53. For Saint-Pierre de Preuilly, *c.*1100, where tribune levels surmounted by towers open towards the crossing through pairs of twin arches, see R. Crozet, 'Les églises de Preuilly-sur-Claise', *Bulletin monumental* 92 (1933) pp.306–8,325. For Saint-Chef, where chapels in two storeys are located under an oblong tower at the end of each arm, as part of an apse and transept added to an earlier nave *c.*1100, see M. Varille and E. Loison, *L'abbaye de Saint-Chef en Dauphiné*(Lyon 1929) pp.98,103–4,116–20, Plates II,IV,VII–VIII, Fig.2 (on p.100).

Plate 9. Ely Cathedral. South bay of east side of north transept arm. (photo: author)

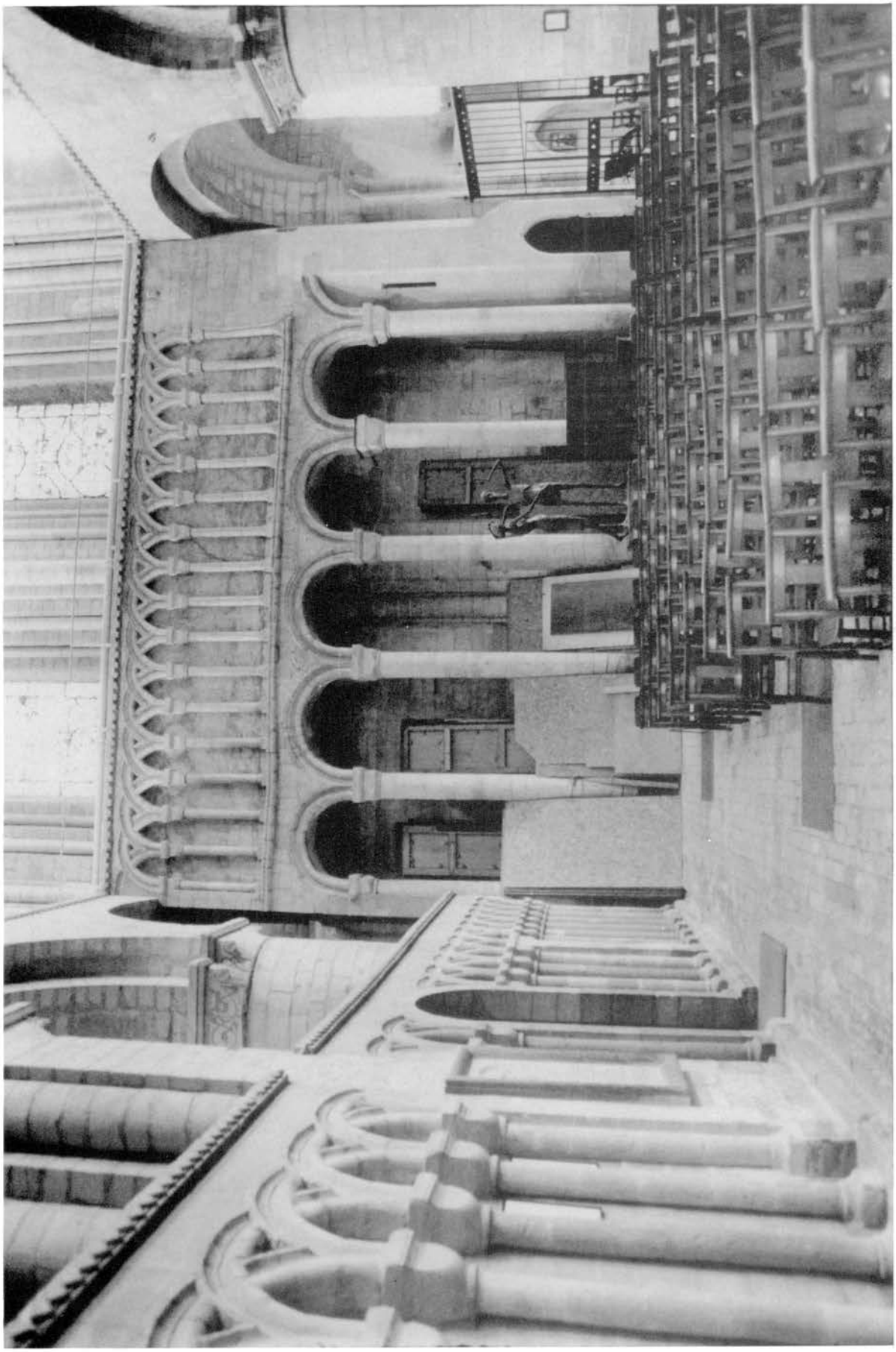

Plate 10. Ely Cathedral. Walkway of south transept arm. (photo: author)

Plate 11. Ely Cathedral. Walkway of north transept arm. (photo: author)

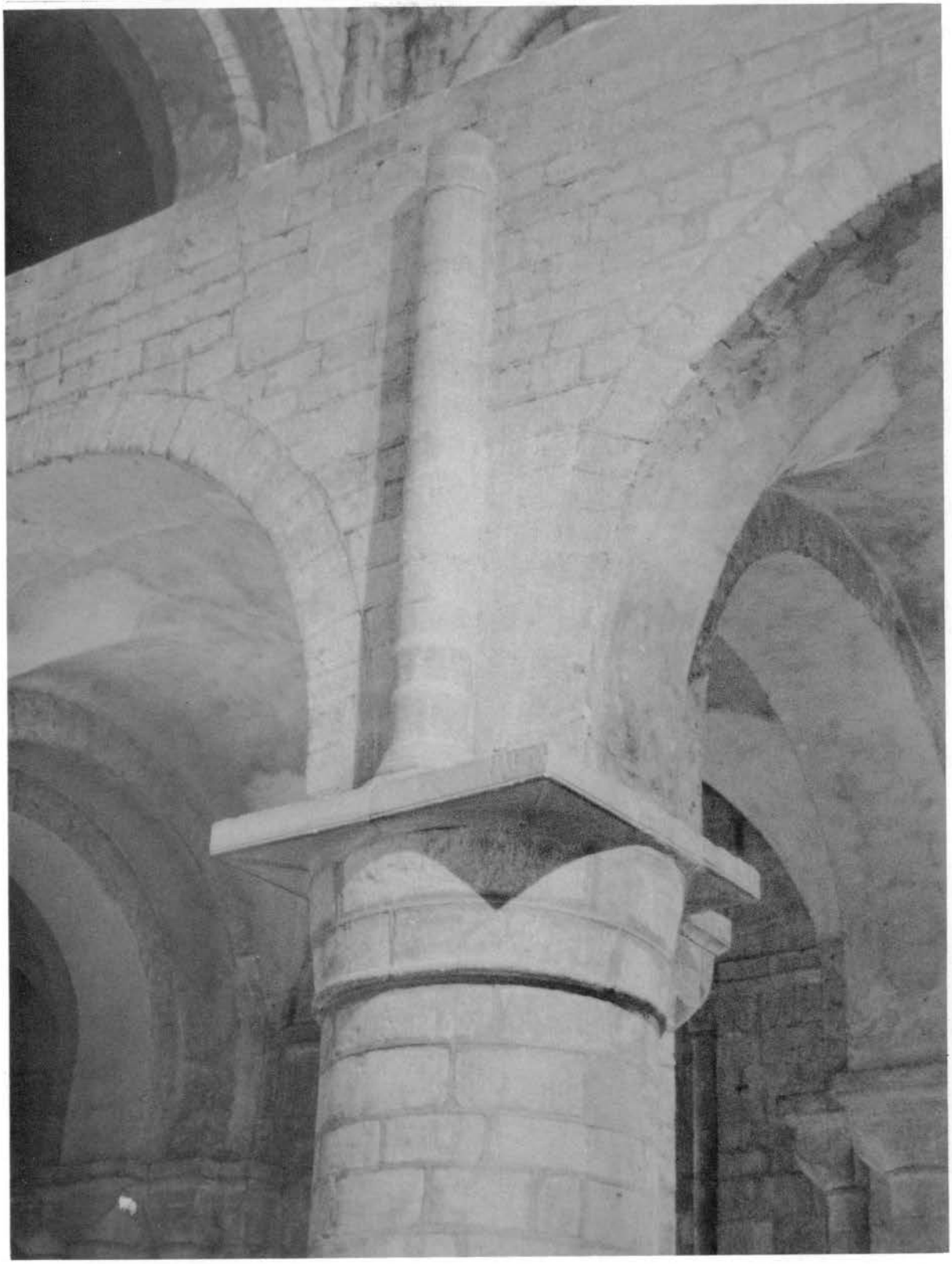

Plate 12. Winchester Cathedral. North transept arm, detail of round pier and spandrel half-shaft. (photo: author)

Winchester and Ely.[36] It is possible that a second-level arcade was abandoned because it resulted in an even more visually awkward solution, in the context of a three-storey elevation, than that of terminating the elevation at the floor of the cross gallery. But it still seems curious that at Winchester and in the Norman churches this truncated design was not finished off, particularly by the termination of the shaft with a capital and a more visually effective — and possibly functionally efficient — horizontal element than a billet string-course, perhaps in the form of a coping or balustrade. This suggests that arguments based upon an idea of a visually resolved design are not totally adequate to explain the removal of the cross aisle at Ely. Nonetheless, by removing the two bays of the cross aisle, they produced a situation more capable of being resolved as a harmonious design, on both the exterior *and* interior. As it seems that the twelfth-century rebuilders carefully reset the arches of the cross aisles to form the last arcade arch on east and west in each arm, thereby preserving the visual continuity of the original design at that level, it can be suggested that they could have been motivated by aesthetic (or stylistic) concerns.[37]

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36 Fels, *op. cit.* p.359, suggested that the origin of these transept end galleries was to be found in the transept of Saint-Riquier.

37 This would hold true whether the alteration was carried out as early as 1106/9 or as late as after 1150, for by both dates the use of moulded arcade voussoirs had replaced the original plain ones.

The Medieval Wall Paintings of St Mary and All Saints, Willingham

Julie Chittock

The village of Willingham lies eight miles to the northwest of Cambridge. Its church, dedicated to St Mary and All Saints, dates mainly from the fourteenth century, although some Early English work remains, including the lancet window at the west end of the south aisle. The wall paintings which are now to be seen in the nave of the church were exposed when Willingham's rector, the Reverend J. Watkins, undertook the restoration of the church in the last decade of the nineteenth century. These paintings, which include a number of post-Reformation paintings (see Appendix), were subsequently the subject of a paper given by M.R. James to the Cambridge Antiquarian Society in 1895. The following year, C.E. Keyser discussed Willingham at greater length in the *Archaeological Journal*.[1] These nineteenth-century sources, although inaccurate in some respects, do contain invaluable descriptions of the way the paintings appeared a century ago, and I have referred to them where they record details which have since been lost. It should be remembered that the series of paintings which is to be seen in the church today is a palimpsest and that at no time prior to their exposure were all the paintings visible contemporaneously. In recent years, conservation work has been carried out on a number of the medieval paintings, including the two thirteenth-century female saints, the St Christopher and the Last Judgement, as part of an continuing programme of restoration (see Appendix).

The Paintings

Two Female Saints

Representations of saints were painted in the nave during the thirteenth, fourteenth and fifteenth centuries. The earliest are two female saints painted on the splays of a thirteenth-century lancet window set into the west wall of the south aisle (Plate 1). The lancet window was blocked when the south aisle was extended in the fourteenth century and both window and paintings were only rediscovered as a result of the late nineteenth-century restoration programme.[2]

Both of the female saints are thirteenth-century in date, and are superimposed on a masonry pattern incorporating stem-encircled roses, which was painted earlier in the century. The saint on the north splay is dressed in a red cloak with yellow lining, white dress and black shoes. Her head is veiled. She carries two martyr palms and a book, open with its cover uppermost, the cover being decorated with intersecting red lines. On the south splay is depicted another female saint, a slender and graceful figure in contrast to the solid figure of the north splay. The feet are especially elegant in their positioning. The saint sways her weight onto her right foot and the left is pointed in the opposite direction. Her red dress and yellow cloak with white lining follow her form closely and, like her counterpart, she carries a book. The

1 J. Watkins, 'On the history of Willingham Church', *Proceedings of the Cambridge Antiquarian Society* 9 (1894) pp.12–20; M.R. James, 'On the wall paintings in Willingham Church', *Proceedings of the Cambridge Antiquarian Society* 9 (1895) pp.96–101; C.E. Keyser, 'On recently discovered mural paintings at Willingham Church', *Archaeological Journal* 53 (1896) pp.160–91.

2 James, 'Wall paintings', p.101.

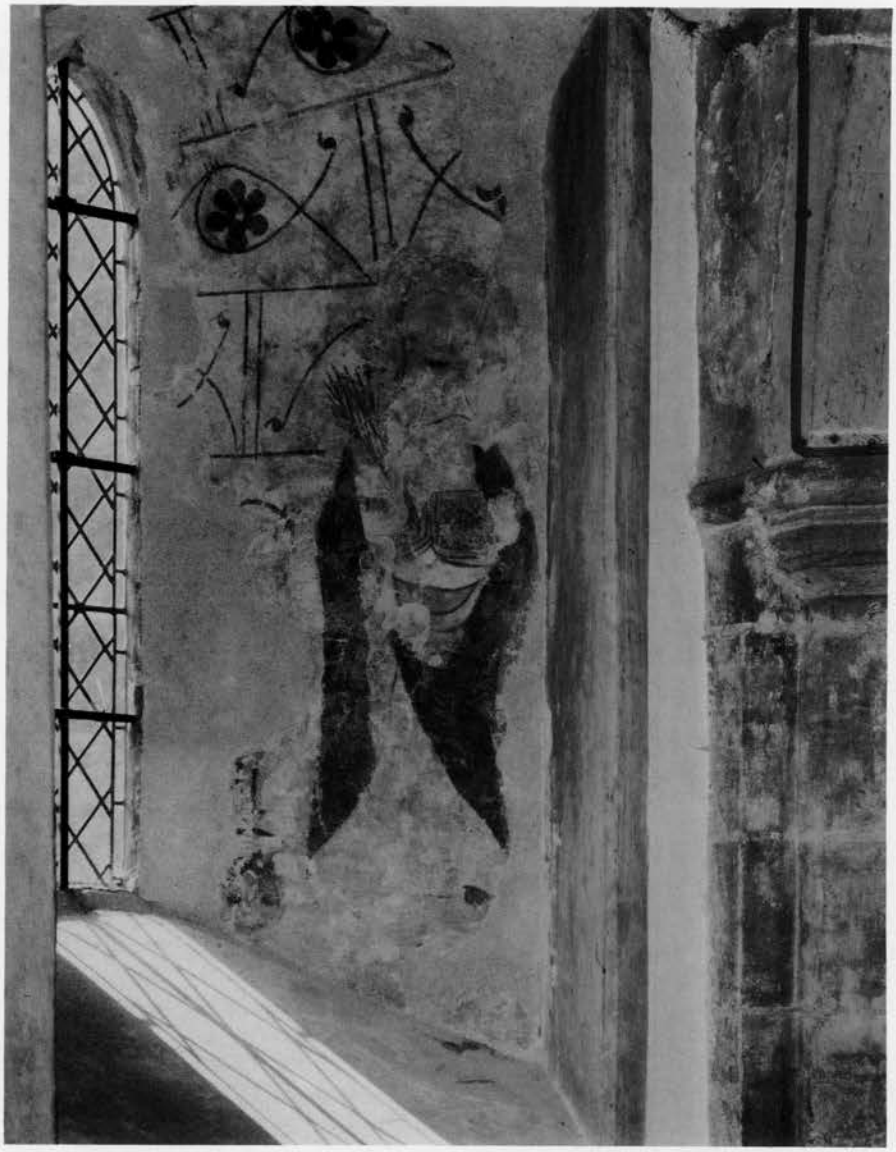

Plate 1. Female Saint, window splay (north), west wall.
(photo: RCHME, Crown Copyright)

right hand, and any attribute it may have held, have been lost.

St Christopher

The figure of St Christopher is depicted in the spandrel between the second and third arch from the east end of the north wall (Plate 2). This situation is unusual, as the vast majority of wall paintings of St Christopher were sited directly opposite the main entrance to the church, where they could be readily viewed by passers-by. This practice grew from the belief that to look on St Christopher's image was to ask for protection against sudden (and thus unshriven) death. At Wood Eaton (Oxfordshire), the fourteenth-century St Christopher is accompanied by a scroll which reads: '*ki cest image verra le jur de mace mort ne murra* ' (who sees this image shall not die an ill death this day). Although the Willingham St Christopher is situated too far to the east on the north wall to face the south doorway directly, it can still be seen from the threshold of the church.

The saint stands in water populated with fish. In his right hand he holds a staff, with his left he supports the Christ Child against his left shoulder. There is direct eye contact between saint and Child. The Christ Child raises his right hand in blessing and holds an orb in his left. The almost stationary pose of

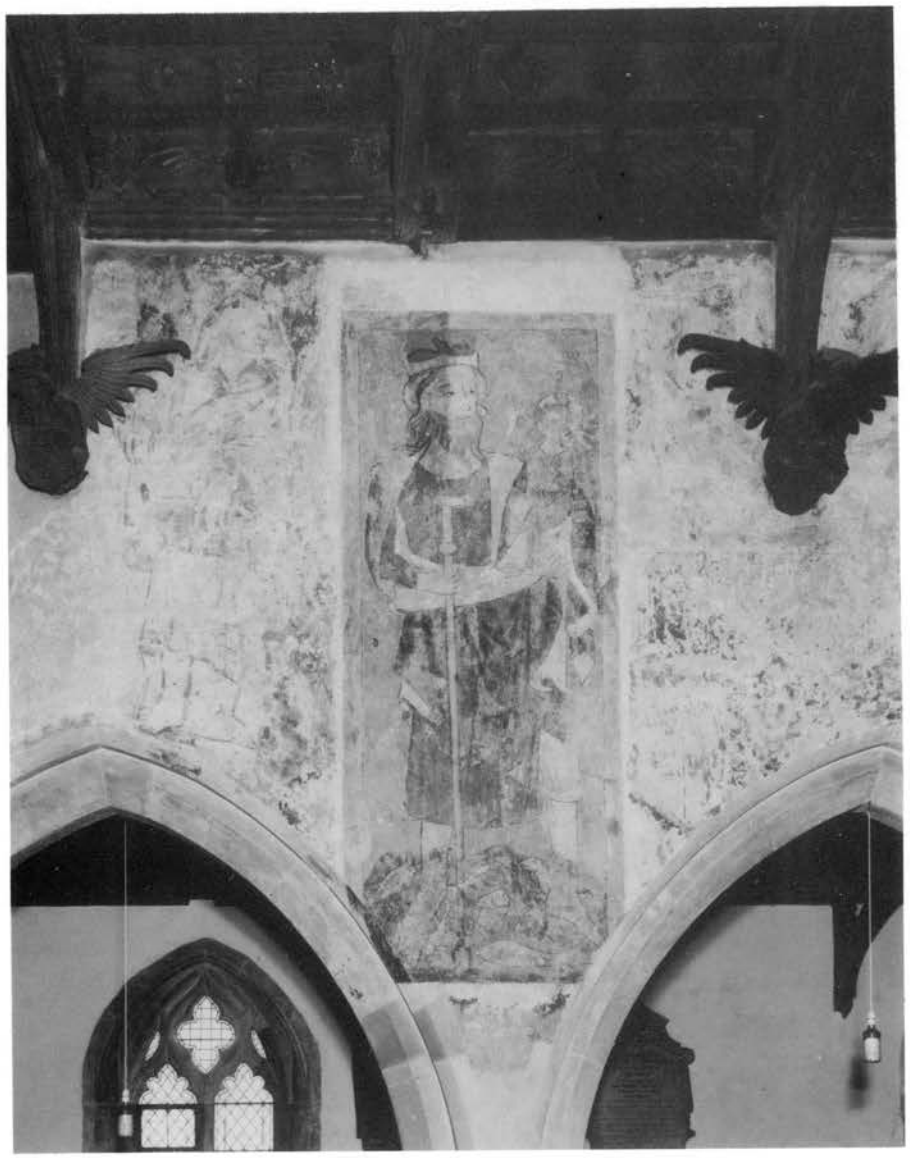

Plate 2. Saint Christopher, north wall of nave.
(photo: RCHME, Crown Copyright)

this saint, and the position in which Christ is held, are typical of fourteenth-century representations of the saint. Within the fourteenth century, the painting is typical of the 'Paston Group' St Christophers which derive many elements of their composition from a thirteenth-century miniature in the Lambeth Apocalypse.[3] Such elements include the breeches tied at the knee, the bearded St Christopher, the 'heaped' water and the fish within it.

The saint's headwear affords an unusual degree of precision in dating the painting. He wears a soft red cap edged with fur. This style of cap appears in a number of early fourteenth-century illuminated psalters, notably the 'Fenland Group' of manuscripts — the Gough, Ramsey, Barlow and Peterborough Psalters — produced for the Benedictine Abbeys of the Fenland.[4] Of these, the most striking comparison between psalter illumination and wall painting is to be found in the Barlow Psalter, dated 1321–38. In the Beatus Vir initial of the Barlow Psalter (f.15), the sleeping Jesse wears a cap which shares all

3 H.C. Whaite, *St Christopher in English Medieval Wall Painting* (London 1929) p.21.

4 L.F. Sandler, *The Peterborough Psalter in Brussels and Other Fenland Manuscripts* (London 1974) pp.108–26.

the details of the Willingham cap, including the indented crown, and the small fold of cloth protruding from its centre. The painting of the Miracle of Joseph's Rod on the wooden altar frontal from Odda's Chapel (near Deerhurst, Gloucestershire), *c.*1350, also includes a cap of the same type. Such comparisons point to a date of 1320–50 for the Willingham St Christopher.

St George

On the same wall as the St Christopher is a painting of St George. Much of the painting has been lost, but still visible are the legs and tail of St George's horse, the wings, tail and scaly skin of the dragon trampled by the saint's mount and, at the top of the painting, St George's raised sword. A cable border forms a frame. Although it is possible that St George was painted to form a pair with St Christopher, the former was painted half a century or more later — perhaps over a earlier image which was contemporaneous with St Christopher. The later date of St George is indicated by the compositional elements which were still visible to Keyser: 'In the left hand corner are the King and Queen looking out from their castle; the Princess and the lamb can also be made out, and there is said to be a demon discernable on the east side of the picture.'[5] The compositional elements of princess and lamb, the King and Queen, and the castle (or city of Silene), all indicate a fifteenth-century date. These features show without doubt that the Willingham St George was based upon the events in the saint's life as presented in Jacobus de Voragine's *The Golden Legend.* Although written *c.*1275, this text did not become well known in England until the fourteenth century, when a French translation by Jean Bilet de Vigny began to circulate.[6] It was only in the fifteenth century that a knowledge of the legend as recounted by Voragine became evident in wall paintings of St George.

Further indication that several decades separate the paintings of St George and St Christopher is found in the manner in which St George kills the dragon. St George was typically shown driving an intact lance between the beast's jaws. In this painting 'his spear is broken, and he is brandishing his sword in the act of dealing the finishing stroke to his vanquished foe'.[7] Comparison with Willingham can be found in the fifteenth-century stained glass of North Tuddenham (Norfolk), where broken lance and raised sword are again to be found.

The Blessed Virgin Mary

In addition to the single figures of saints to be seen in the nave, a short series celebrating the Blessed Virgin Mary was painted in the first half of the fifteenth century. This comprised an Annunciation above the second arch from the east end of the north wall, and scenes of the Visitation and Assumption above the first and third arches from the eastern end of the south wall.

Of the Annunciation little now remains and one has to rely on the nineteenth-century accounts for an indication of its original appearance. James was able to make out the figure of the Archangel Gabriel holding a sceptre, and above a scroll reading '*Ave gracia plena dominus [tecum]*', and a little to the east of this the fragments of the Virgin's scroll which originally read, '*Ecce ancilla domini fiat [mihi secundum verbum tuum]* '.[8] According to Keyser, Mary was painted kneeling on a faldstool.[9]

In contrast to the Annunciation, the Visitation (Plate 3) is one of the most complete paintings in the church, the only serious lacunae being in the area of the Virgin's head. Mary and Elizabeth stand side by side on a grassy hillock, the hooded figure of Elizabeth to the west. They mirror each other both in dress — pale gowns beneath blue cloaks lined with ermine — and in pose. They are not clasped in the close embrace seen in earlier representations of the Visitation. Instead they are turned towards each other, each raising a hand in salutation, with the inscriptions '*Magnificat anima mea Dominum*' and '*Benedicta tu est in mulieribus*' on scrolls curved about their respective heads. This restrained form of greeting enables the pregnant condition of both women to be displayed to the full. In fact, the pronounced swelling of their wombs is the most striking feature of the painting. As if to provide further emphasis, the dresses have been converted into 'maternity dresses' through the insertion of laced openings at the front. The same laced opening (and general composition) can be seen in the Visitations at Hexham Abbey (Northumberland) and in the stained glass of

5 Keyser, *op. cit.* p.188.
6 Jacobus de Voraigne, *The Golden Legend*, translated and ed. by G. Ryan and H. Ripperger (New York 1948) pp.232–8.
7 Keyser, *op. cit.* p.188.
8 James, 'Wall paintings', p.99.
9 Keyser, *op. cit.* p.188.

Plate 3. Visitation, south wall of nave.
(photo: Alan Fawcitt)

St Peter Mancroft, Norwich and East Harling (Norfolk).

Fragmentary traces remain of the Assumption of the Virgin: the lower part of the Virgin in ermine robe and surrounded by rays, a cloud to the right, and an archangel below her feet. The iconography of the Willingham Assumption differs from that seen in the wall paintings at Chalgrove and Broughton (Oxfordshire), and Croughton (Northamptonshire). These paintings show St Thomas receiving the girdle cast down by the ascending Virgin, a version of the apocryphal event derived from the Narrative of Joseph of Arimathea.[10] The cloud and archangel in the Willingham Assumption show this painting to be based on a different tradition, one originating from the text of the Pseudo-Melito, in which the Archangel Michael rolls the stone away from the Virgin's sepulchre, enabling her to ascend in a cloud.[11]

10 M.R. James, *The Apocryphal New Testament* (Oxford 1986) p.217.

11 James, *New Testament* p.216.

Emblems of the Passion

On the south wall of the nave, above the two eastern arches and below the level of the Visitation and Assumption of the Virgin, are three painted shields. The easternmost shield is charged with a Crown of Thorns, still clearly visible. In the centre of the space within the crown there is painted a spurt of drops of red blood and a trace of black paint, all that remains of 'the Five Wounds of Christ' noted by James as accompanying the Crown.[12] On the next shield to the west can clearly be seen the single subject of the Five Wounds. On the third shield are a Tau-cross and Scourges of the Flagellation. Of the scourges only the handles remain to view. It is probable that these images were painted in the 1400s as a surge in popular devotion to the Five Wounds occured in that century.

The Last Judgement

The painting of the Last Judgement was also executed in the fifteenth century. The restricted colour range suggests an early fifteenth-century date.[13] It is situated over the chancel arch (the expected position for this subject) and continues for three feet onto the south clerestory wall. It originally extended onto the north clerestory, although nothing of this can be seen today due to paint loss and later over-painting. A single-light window has been inserted into the east wall of the nave, above the centre of the chancel arch. This has destroyed the figure of Christ and any others which may have comprised the Judgement Group. The base of the rainbow upon which Christ would have been seated is still visible; the two ends rest on clouds on either side of the window.

To the north of the window an angel, originally paired with one on the south side, sounds the last trumpet. Below the window, to the north and south, at least seven naked figures rise from their graves, some in shroud cloths, all raising their hands in attitudes of prayer and supplication towards the area originally occupied by Christ in Judgement. Below the rising souls, on the north side of the Doom, is a procession of saved souls including one bishop, distinguishable from the other naked figures by his mitre. This group approach the Heavenly City where they are met by an imposingly large St Peter who bears keys of a similar scale. It is probable that the celestial city was the subject visible to James on the north clerestory.[14]

Below the rising souls on the south side of the Doom, the side of the Damned, there is a demon facing southward. Below this is a group of souls, encircled by a chain and accompanied by a fiend. Lower still there is a Hell's Mouth inside of which is a cauldron in which more souls are being tormented. On the south clerestory wall are a further three demons. The lowermost of these faces eastward holding the end of the chain (painted 'red-hot') which ensnares the Damned on the east wall. Following its conservation in 1988, this demon can be clearly seen immediately to the east of the Visitation. It has a winged, speckled body and grotesque features — a flattened nose, drooping ears, and teeth which protrude from the lower jaw. These details have been rendered in an almost comical fashion, in the same spirit as the demon of the Wymington Judgement (Bedfordshire) which vainly preens itself as it balances on the nose of the Hell's Mouth.

Decorative Schemes

In addition to the figurative paintings at Willingham, several areas of medieval decorative schemes can be seen. Yellow and black chevrons and a marble pattern in black and grey can be distinguished on the soffits of the arcades. A fifteenth-century diaper pattern — deep red, with stylised leaves or flowers on a light red ground — decorates the eastern ends of the north and south walls of the nave. On the south wall, above the second arch from the east, is another diaper of white flowers on a dark green ground.

The most significant of the decorative schemes is seen on the wooden screen of the Ely Chapel. Its south side is decorated with a pattern of Popinjays arranged lozenge-wise in groups of four (Plate 4). In the centre of each group of birds is a five-petalled flower design, surrounded by a diamond-shaped pattern of dots. The popinjays are green against a red ground.

Assessment

The large number of medieval paintings surviving at Willingham, and the range of their dates spanning three centuries, provide within this one church examples of the main subject areas to be found in medieval

12 James, 'Wall paintings', p.97.

13 J.E. Ashby, 'English medieval murals of the doom: a descriptive catalogue and introduction' (unpubl. M.Phil. thesis, Department of Medieval Studies, University of York, 1980) p.380 n.4.

14 James, 'Wall paintings', p.97.

Plate 4. Popinjay Design, screen, Ely Chapel.
(photo: RCHME, Crown Copyright)

wall painting. The categories of individual saints, biblical scenes (the Virgin series), the Doom, devotional images (the shields bearing emblems of the Passion) and decorative motifs are all represented. The only main type of medieval wall painting not found at Willingham is the Morality, a non-biblical subject preaching a moral, such as the Seven Deadly Sins or the Wheel of Fortune, subjects to be seen in the nearby Cambridgeshire churches of Hardwick and Kingston respectively.

The identification of the subjects of the paintings is generally unproblematic with the exception of the pair of thirteenth-century saints. An identity has been suggested for the saint on the north splay of the lancet window. This is based upon the short, thick red line high on the figure's neck (Plate 1). The Anglo-Saxon St Etheldreda developed a tumour on her neck which she viewed as the price to be paid for wearing jewels about her neck when young. The tumour was treated, leaving a wound which was miraculously healed after her death.[15] A neck wound would therefore not be inappropriate in a representation of this particular saint, and in the guides available in the church the painting is described as an image of St Etheldreda. As Etheldreda was foundress of Ely Abbey, it would certainly have been fitting to have had an image of this saint in a church which was not only in the see of Ely, but which belonged to a manor granted to the Convent of Ely ('to God and St Etheldreda') in the late tenth or early eleventh century.[16]

There are, however, a number of reasons why a St Etheldreda identification is problematic. To begin with, members of the conservation team who worked on the painting in 1979 interpreted the 'wound' as simply the mouth. Even if the line is accepted as a neck wound, this iconography would be highly uncommon for a St Etheldreda. The usual representation of the Anglo-Saxon saint shows her with the habit and pastoral staff of an abbess, holding a book, and sometimes wearing a crown in reference to her royal birth. The Willingham saint bears a book but is shown neither as an abbess nor with any emblem of royalty, and thus stands in marked contrast to the images of St Etheldreda such as those on the roodscreens at Westhall (Suffolk), and Upton and Gately (Norfolk). Finally, the two martyr palms do not accord

15 Bede, *Ecclesiastical History of the English Church and People. Book 4 Chapter 19*, ed. by B. Colgrave and R.A.B. Mynors (Oxford 1969) p.394.

16 Watkins, *op. cit.* p.13.

well with a saint who died a virgin but not a martyr. Unfortunately, the attributes of book and palms are too ubiquitous to suggest an alternative identity for the saint on the north splay. For the same reason no identity can be hazarded for the south splay saint.

The identity of St Christopher is beyond doubt. There are, however, elements within the painting which further suggest how the image would have been understood by its original audience. It is interesting to note that the fish are not generalised representations: the artist has taken the trouble to depict recognisable species of fish. On the far left is a burbot, distinguished by its anal fin. The perch, between the saint's legs, is identifiable by the shape of its dorsal fin and the roach, immediately below, by its strong dorsal line. Finally, an eel is visible behind St Christopher's left leg. In the twelfth century, a monk of Ely listed the varieties of local fish in the *Liber Eliensis*: '... innumerable eels, large pike, even pickerel, perch, roach, burbots and lampreys'.[17] The burbot is comparatively rare beyond the fens, and medieval East Anglia was renowned for the quantities of eels found there. It is thus evident that just as the artist at Longthorpe Tower decorated the Great Chamber with bittern and curlew, birds that are a feature of the East Anglian fens, so the artist at Willingham painted the varieties of fish which characterised the local waters. This St Christopher therefore fords a river which is marked out by its fauna as being a fenland waterway.

Moving to another detail of the painting, the lower end of the saint's staff terminates in what appears to be two metal prongs. At Peakirk (Cambridgeshire), East Wellow (Hampshire) and Aldermaston (Berkshire) the terminus of St Christopher's staff has been identified as a type of eel-spear known as an 'eel-glaive'. The staff at Willingham is, however, very different from the eel-glaives seen in the above paintings. These consisted of flat blunt tines, between which the eel was wedged rather than impaled upon, and thus had a distinctive rounded shape.[18] The other type of eel-spear had many tines set close together.[19] The implement depicted at Willingham is therefore not the more commonly represented eel-spear, its two narrow prongs showing it to be a medieval fish spear.[20] That St Christopher is shown holding such a tool may have implications for the way its audience responded to the image. At Willingham, as in numerous other churches, St Christopher appears on the same wall as St George. One suggested explanation for this recurring phenomenon has been that St Christopher 'in some degree typified the Third Estate or the Common Man',[21] whilst chivalrous St George spoke to those of more elevated status within the parish. This theory finds some support in the painting at Willingham in which St Christopher carries a fish-spear. Fisheries formed a vitally important part of the medieval fenland economy. (Record exists of an open water fishery on Willingham Mere in 1277.)[22] To take fish in any number, baited hooks would have been used or nets employed, either from a small boat or hung from weirs. The fish-spear was not an implement which was used in catching quantities of fish: it was rather the instrument of the man looking to take a handful of fish from the water (possibly illicitly) to supply the next meal. A saint who forded the waters of a fen and steadied himself with a fish-spear would have been one with whom the ordinary men and women of the parish could have identified more readily.

The general decline in quality which is apparent in wall painting after 1400 is well illustrated at Willingham. The fourteenth-century St Christopher is without doubt the artistic high point of the paintings which survive. The folds of the saint's draperies are carefully delineated and most gracefully arranged. Moreover, the directness of the shared gaze and the gentle demeanour of St Christopher lend a certain intimacy to the portrayed interaction between Christ and saint.

17 H.C. Darby, *The Medieval Fenland* (Newton Abbot 1974) p.28.

18 J.G. Dent, 'Fish spears and eel glaives: some notes on development and design', *Folk Life* 23 (1985) p.112.

19 *Ibid.* p.111.

20 J.M. Steane and M. Foreman, 'Medieval fishing tackle', in M. Aston (ed.), *Medieval Fish, Fisheries and Fishponds in England* (B.A.R. British Series 182 1988) p.140. An insight into the use of a long-shafted fish spear of this type is provided by the continuing practice of taking fish from the fens by this method. J. Wentworth Day recorded his memories of turf-diggers and sedge-cutters, who could stand in the bows of a turf-boat 'with a fourteen foot long dart in one hand and watch the lode waters for the glancing shadow of a jack [pike] ... Then came the sudden swift shoot of the shaft through the palm of the hand, and the dart was out with a five-pound jack ... quivering on its tines' (*The Modern Fowler* [London 1934] p.269).

21 E.W. Tristram, *English Wall Painting of the Fourteenth Century* (London 1955) p.140.

22 Victoria History of the Counties of England, *Cambridge and the Isle of Ely. Vol.2*, ed. by L.F. Salzman (London 1948) p.69.

The fifteenth-century paintings in the church are notably coarser in both design and execution. The sense of rapport between St Christopher and the Christ Child is no longer to be found in the meeting of Mary and Elizabeth in the scene of the Visitation. The attention which is drawn to their exaggerated pregnancies can be seen as an example of the tendency to caricature which occurred in the fifteenth century. In the 1400s, emphasis in wall painting was increasingly placed on conveying the identity of figures or scenes at the expense of artistry. In this painting, the wombs of the two women are used as keys to identification, thus making the depicted scene immediately recognisable as the Visitation.

The Last Judgement, from the same century, is again generally cruder in execution than the earlier St Christopher. For example, the figures of the Blessed approach St Peter with a very stiff-legged gait. The various compositional components of this painting are highly typical of a later medieval Doom with no surprises in the choice of scenes and figures included in the arrangement. Perhaps less imagination has been displayed by the artist at Willingham than is to be found in other contemporary Dooms. At South Leigh (Oxfordshire) many of the Blessed are joyfully coming face to face with those they had known in life. At Lutterworth (Leicestershire) some souls help others to escape the grave. At Willingham, however, the souls rising from the dead are uniform in pose, all hands raised in adoration toward Christ.

The fourteenth-century Popinjay motif is notable not for its quality but for the source of the design, which is an unusual one in English wall painting. Keyser observed, 'No similar scheme of decoration appears to have been noticed in England'.[23] There is, in fact, a parallel provided by the decorative painting on and around a tomb recess in the north transept of Rochester Cathedral, Kent.[24] Here, popinjays are also arranged to form a lozenge pattern on a red ground. The designs differ in that the Rochester birds are surrounded by green vinescroll and face ahead, whereas at Willingham the heads are turned back towards the tail. However, details such as the long, divided tails mark out both sets of popinjays as being unmistakeably the same bird and, regardless of head position, in both designs the birds forming the upper half of the lozenge face inwards, those in the lower half face outwards.

Steven Rickerby has dated the Rochester pattern to the first half of the fourteenth century and the Willingham popinjays to *c.*1340. He cites the wall paintings in the Byward Tower, Tower of London, thought to have been executed for Richard II in the 1390s, as a more sumptuous version of the Rochester and Willingham designs. 'Here gilt popinjays, together with royal lions and fleur-de-lys, form an overall lozenge pattern against an emerald ground.'[25]

Rickerby has suggested that Italian textile hangings may have been the inspiration for this type of painted decoration.[26] He notes that a brocade with similarities to the Rochester design is depicted in a Florentine altarpiece of *c.*1365 by Nardo di Cione (National Gallery, London). However, a yet closer comparison to the Willingham popinjays can be found in a fourteenth-century wall painting in the Palazzo Davanzati, Florence. This mural in the 'Sala dei Pappagalli' is in fact a painted imitation of hanging wall-coverings. The design consists of green popinjays arranged lozenge-wise within parallel lines, exactly as at Willingham in the direction of their bodies and heads. Again, in similarity to Willingham, petalled flower motifs are also incorporated into the design.[27] This unexpected parallel supports the theory that Italian textile design or painting was the source of the English decorative schemes. Thus, Italianate influence is to be found not only in a cathedral church and the royal Byward Tower but also in a provincial parish church.

Acknowledgments

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23 Keyser, *op. cit.* p.190.

24 S. Rickerby, 'Conservation of medieval wall paintings in Rochester Cathedral', *Friends of Rochester Cathedral Report* (1988) pp.9–12.

25 *Ibid.* p.10.

26 *Ibid.* p.10.

27 Personal observation.

Appendix 1
Catalogue of Wall Paintings, St Mary and All Saints, Willingham

Subject	Date	Recent Conservation	Conservation Team
Pair of female saints	13th century (*c.*1250–75)	1979	The Eve Baker Trust
St Christopher	14th century (*c.*1320–50)	1983	The Eve Baker Trust
Popinjay decorative motif	14th century (*c.*1340)		
Last Judgement	15th century (first half)	1988 (Demon with chain)	Hirst Conservation
		1990–1 (North /South sides)	The Perry-Lithgow Partnership
Virgin Series (Annunciation, Visitation, Assumption)	15th century (first half)	1988 (Visitation)	Hirst Conservation
St George	15th century		
Diaper decorative motif	15th century?	1988 (South wall)	Hirst Conservation
Three Shields bearing emblems of Passion	15th century?	1988 (Shield with Crown of Thorns)	Hirst Conservation
Post-Reformation Paintings			
Series of 5 Virtues	17th century	____	
Series of 9 (Surviving) Apostles	17th century	____	
Series of texts from Ten Commandments	17th century	____	

Changes in the Huntingdonshire Landscape, 1550–1750

Stephen Porter

Early-modern Huntingdonshire was a small county covering 231,400 acres, with a population of perhaps 30,000 in the mid-seventeenth century,[1] and an economy that was based almost entirely upon agriculture. The basic division within the county is between the peaty fenland in the northeast and the clay upland which covers much of the remainder. The upland can be further subdivided into three parts: the area south and east of the Ouse, that lying in the centre of the county, and the western uplands, known as the Huntingdonshire Wolds. In addition, the two major river valleys of the Ouse and Nene provide two smaller, but distinctive, areas (Fig.1).[2]

Huntingdonshire is commonly included with East Anglia when the farming regions of early-modern England are defined,[3] and so far as the fenland, southeast and centre of the county are concerned, that designation fits quite nicely, but the western upland and the northwest have features that were more characteristic of the adjoining parts of the East Midlands.

In the mid-sixteenth century, much of the Huntingdonshire landscape consisted of open fields, and arable farming predominated. The pattern of open-field agriculture was modified in the fenland and along the valleys of the rivers Ouse and Nene. Although much of the fenland was flooded in the winter months, it provided seasonal pasture and crops of hay. The river valleys were also liable to inundation, but the meadows along the banks provided fine grazing land. Some woodland remained, particularly in the centre and east of the county. During the next 200 years this landscape was subjected to a number of processes, as the county's agriculture was considerably modified.

Enclosure, Drainage and Woodland Clearances

The enclosure movement in the county began in the fourteenth and fifteenth centuries, but did not gather momentum until the second half of the sixteenth century, when it was stimulated by the dispersal of the estates of Ramsey Abbey into lay hands. Enclosure took several forms: large-scale enclosures at the level of farm or parish, the creation of parkland, the taking-in of small areas in a piecemeal fashion, the improvement of fenland and waste, and the clearance of woodland.

The beginnings of large-scale enclosure can be seen in the suppression of the open fields of Abbot's Ripton by the St John family in 1471, although there was little similar activity for almost a century thereafter.[4] In 1566, Robert Derwell enclosed his manor of Little Gidding, and during the 1580s parts of the common fields of the Earl of Essex's

1 The acreage is from the 1801 census; Victoria County History, *Huntingdonshire. Vol.2*, ed. by William Page, Granville Proby and S.I. Ladds (London 1932) pp.101–5. The population figure is based upon the Hearth Tax returns for 1666; Public Record Office (hereafter PRO) E179/249/1.

2 D.W. Fryer, *The Land of Britain. Part 75, Huntingdonshire*, ed. by L. Dudley Stamp (London 1941).

3 *The Agrarian History of England and Wales. Vol. 5.i, 1640–1750*, ed. by Joan Thirsk (Cambridge 1984) p.198.

4 R.H. Tawney, *Religion and the Rise of Capitalism* (London 1938) pp.145,303.

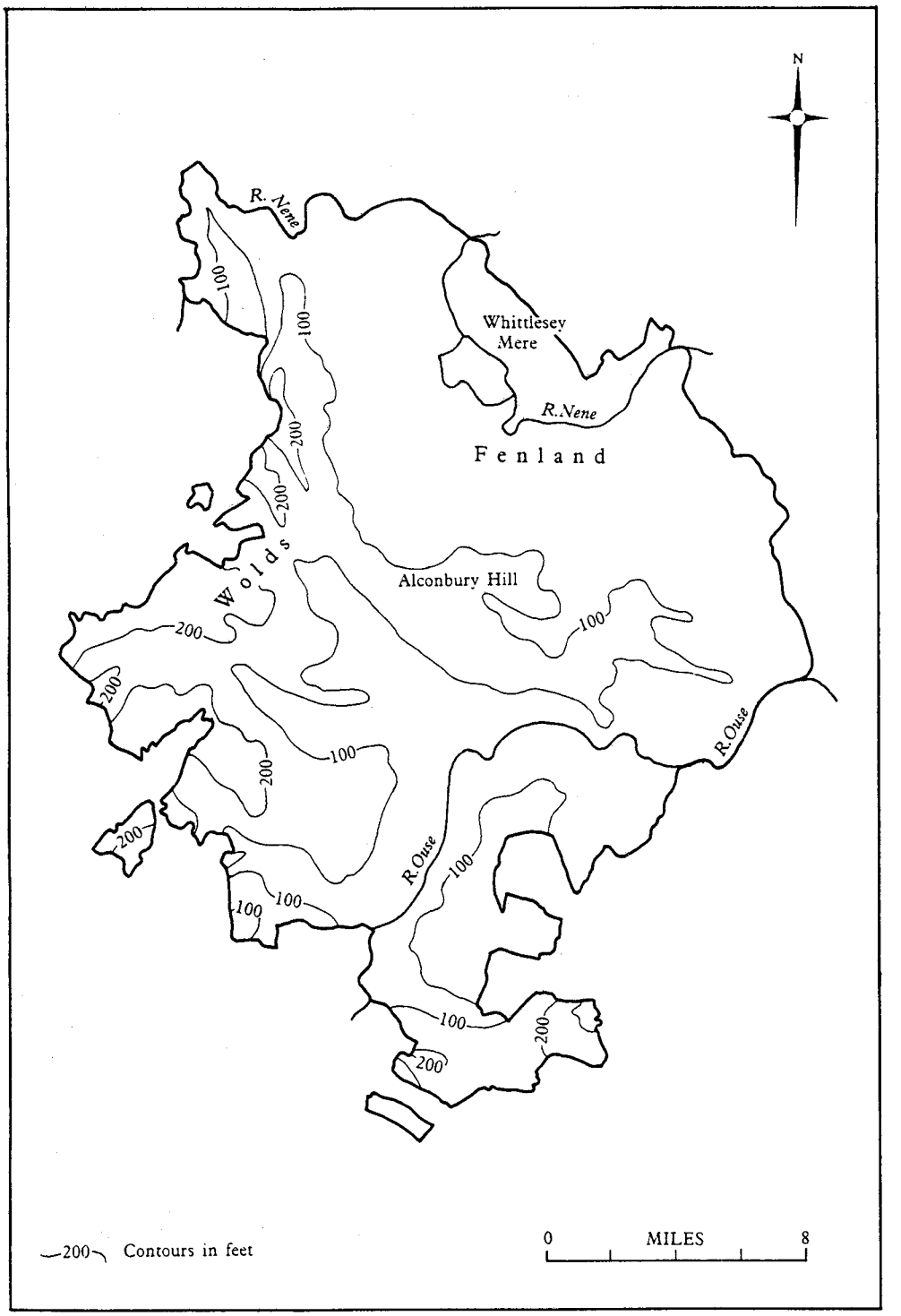


Figure 1. Relief.

manor of Keyston were 'improved and made into severall closes'.[5] The pace of enclosure quickened in the late sixteenth and early seventeenth centuries, and although Huntingdonshire had not been included in Wolsey's Inquisition of 1517–19, or the Tillage Statutes of 1597, it was one of the seven counties investigated by the enclosure

5 M.W. Beresford, 'The poll tax and census of sheep, 1549', *Agricultural History Review* 2 (1954) pp.26–7; PRO LR2/216/73.

commissioners appointed following the Midland Revolt in 1607. They were ordered to report places 'decayed, deserted or depopulated', houses that had been pulled down, and any land that had been converted from tillage into pasture within the previous 30 years.[6] Although the commissioners' returns have to be treated with circumspection because of the partiality of those who gave evidence, they do indicate the nature of the activity that was taking place.

One-half of the parishes in the county were mentioned and 7677 acres — less than 4% of the total area — were reported to have been affected by enclosure or conversion in the period under investigation. This was a smaller area than that reported from Northamptonshire, Leicestershire, Lincolnshire or Bedfordshire, but was similar to that for Buckinghamshire, and exceeded the area said to have been enclosed in Warwickshire.[7] The nature of the returns precludes close comparison of the figures, however, and the chief point of interest is that the process recorded in Huntingdonshire was similar to that taking place in the East Midlands. Many of the presentments for Huntingdonshire concerned conversion from tillage to pasture, normally of relatively small parcels of land, and were justified by the need to keep more livestock and thereby obtain more manure for arable fields. Ironically, Sir Oliver Cromwell, one of the commissioners, was reported for converting 70 acres of land at Sawtry.[8] Most enclosure activity which was mentioned by the commissioners concerned a group of parishes along the line of the Alconbury Brook, at Coppingford, Hamerton, Steeple Gidding and Buckworth. At least 720 acres in Buckworth had been enclosed or converted in the years immediately preceding the enquiry. The enclosure of Conington, a little to the north of these parishes, was one of the estate improvements carried out by Sir Robert Cotton and his son Sir Thomas, and was apparently already completed by the time that the investigation took place.[9]

Government action to prevent or limit enclosures was ineffective, and the process continued. At Keyston in 1618, Sir James Wingfield took in almost 1650 acres of the remaining open field land — a small amount continued unenclosed until the nineteenth century — and in the following year Sir Robert Beville enclosed 300 acres of arable land in Chesterton and Haddon. Wood Walton was probably enclosed in the 1620s and early 1630s.[10] In 1630 the high price of grain and threats of dearth again prompted the government to investigate the causes. The justices in Derbyshire and Nottinghamshire and, as in 1607, Leicestershire, Northamptonshire and Huntingdonshire, were instructed to inquire into enclosure and conversion. The returns for Huntingdonshire are fairly complete and include reports from 20 parishes.[11] Many of those referred to in the 1607 report are again mentioned, while Great Staughton also attracted a good deal of attention. As with the earlier returns, the amounts of land reported were generally small. Among the larger areas included were 100 acres in Pidley which Thomas Stoanes claimed that he had temporarily converted to pasture 'to bring it into hart, being worne out with tillage'.[12] At Hemingford Grey, 17 farmers had enclosed 228 acres of ground by consent because they were frequently flooded and so had become unsuitable for arable land. The justices also found that 320 acres had recently been enclosed at Hamerton. This was part of a gradual process by which the open fields of that parish were removed; the last two farms there were enclosed in the late 1660s.[13]

Government intervention because of the high prices of the 1630s was no more effective than it had been earlier in the century. In 1631 the dowager Duchess of Westmorland enclosed part of her manor of Woodstone, obtaining the King's licence to do so, and during the next few years almost 300 acres at Buckden were enclosed.[14] The same period saw the crown's own involvement in the enclosure movement in the county, as the Caroline government sought to increase revenues from crown lands. In 1635 the Queen's manor of Somersham was surveyed and 1125 acres of common land and fen were subsequently enclosed and leased to a local family, the

6 PRO C205/5/1.

7 E.F. Gay, 'The Midland Revolt and the Inquisitions of Depopulation of 1607', *Transactions of the Royal Historical Society* New Series 18 (1904) pp.195–244.

8 PRO C205/5/1 f.4.

9 R.B. Manning, 'Antiquarianism and the seigneurial reaction: Sir Robert and Sir Thomas Cotton and their tenants' *Historical Research* 63 (1990) p.280.

10 Huntingdon Record Office (hereafter HRO) Glebe terriers, Keyston; Victoria County History, *Huntingdonshire. Vol.3*, ed. by William Page, Granville Proby and S.I. Ladds (London 1936) p.183; PRO SP16/187/7.

11 PRO SP16/187/7; SP16/189/81,94.

12 PRO SP16/189/94.

13 PRO SP16/189/94; HRO Glebe terrier, Hamerton, 1709.

14 PRO SP16/187/7; SP16/377/99; *Calendar of State Papers, Domestic, 1629–31* p.544; *Acts of the Privy Council, 1630–31* p.180.

Jermins. This enclosure of common pasture, rather than of open field arable, caused much resentment, and in 1641 a number of the inhabitants of adjacent villages broke down fences and filled in ditches. The enclosures were not restored until after the Restoration, when the fences were again smashed down.[15]

The 1650s saw changes in a number of parishes. The open fields of Chesterton were enclosed in 1650–1 and those of Steeple Gidding — which were already much reduced in size — were enclosed in 1655 (Fig.2).[16] Agreements were also made for enclosures at Wistow and Broughton. Other enclosure activity in the second half of the seventeenth century saw the completion of the enclosure at Hamerton and, in about 1690, the lord of the manor took in a 'great parcel of ground about two miles in compasse' in Eynesbury Hardwick.[17]

By the early eighteenth century, Buckworth, Bury, Coppingford, Midloe, Washingley and Water Newton were also completely enclosed, although it is not possible to date exactly when the changes had taken place.[18] Apart from the enclosure of Caldecote by agreement in 1734,[19] there is little evidence of further large-scale activity before the parliamentary Acts of the 1760s and later.

The chronology of this type of enclosure shows that, in common with many other English counties, most of the activity came in the hundred years or so after *c.*1570. Enclosure on a parish scale certainly made a considerable impact locally upon both the landscape and the economy, but there is definite evidence for only 14 of the 101 parishes being completely enclosed by 1750 (Fig.3), although a number of others were largely enclosed by that date. Those without common fields by the mid-eighteenth century were mostly small parishes; eight of them had an area of less than 1500 acres,[20] and only three covered more than 3000 acres.[21]

The early enclosed parishes were also distinguished by the fact that they were dominated either by lords of the manor, or by a few large landowners who were able to carry out an enclosure with little or no effective opposition. Those parishes which contained a relatively large number of freeholders were not enclosed until the era of the parliamentary Acts.

It is clear that in a number of cases depopulation followed enclosure. There are references to the removal of farmers at Leighton between 1590 and 1607, and at Buckworth it was reported that a number of farmers had 'departed the towne'.[22] The enclosure of Steeple Gidding certainly resulted in depopulation and by 1666 the parish contained only eight households.[23] In that year, eight of the 14 parishes completely enclosed by 1750 had a density of fewer than ten households per 1000 acres, and a further four a density of between ten and 15 households, compared with a mean for the whole county of almost 30 households per 1000 acres.[24]

The enclosure history of these parishes may also have been affected by their relative accessibility. An increasingly important element in the rural economy was the nearness to navigable waterways, which provided cheap and easy movement for bulky produce such as grain and malt. Of the 14 enclosed parishes, six lay on the Nene or abutted the fenland, with its many navigable channels,[25] but seven of them stood upon the Wolds along the western edge of the county,[26] and were placed at a comparative disadvantage in the production of grain. They were, however, adjacent to the two main roads through the county which were used by drovers moving livestock from the north to the pastures of East Anglia and the markets around London (Fig.4). The parishes in the west of Huntingdonshire also lay upon some of the county's heaviest and most intractable clays, which were badly drained and difficult to work. In the centre and east the clays were better drained and generally lighter.

15 PRO SP16/540/408; E317 Hunts 7. *Calendar of State Papers, Domestic, 1638–9* p.189. *Lords' Journals. Vol. 4, 1628–42* p.252; *Vol. 11, 1660–6* pp.439,492.

16 HRO Glebe terrier, Chesterton, 1693; SM18/120; SM19/121.

17 PRO C78/610/11; C78/712/24; E134 9 Wm. 3, East. 22; HRO Glebe terrier, Hamerton, 1709.

18 W.G. Hoskins, *Fieldwork in Local History* (London 1967) p.120; HRO SM6/190; LR5/315; ddX 34 A/3, B/19; acc.590.

19 HRO ddF 5/22; PM1/16; Kent Archive Office U350, C2/143.

20 Caldecote, Chesterton, Coppingford, Little Gidding, Midloe, Steeple Gidding, Washingley and Water Newton.

21 Abbot's Ripton, Conington and Wood Walton.

22 PRO C205/5/1.

23 HRO SM19/121.

24 The calculation is based upon the households enumerated in the Hearth Tax returns for Lady Day 1666, which include both payers and non-payers; PRO E179/249/1.

25 Bury, Caldecote, Chesterton, Conington, Water Newton and Wood Walton.

26 Buckworth, Coppingford, Hamerton, Little Gidding, Midloe, Steeple Gidding and Washingley.

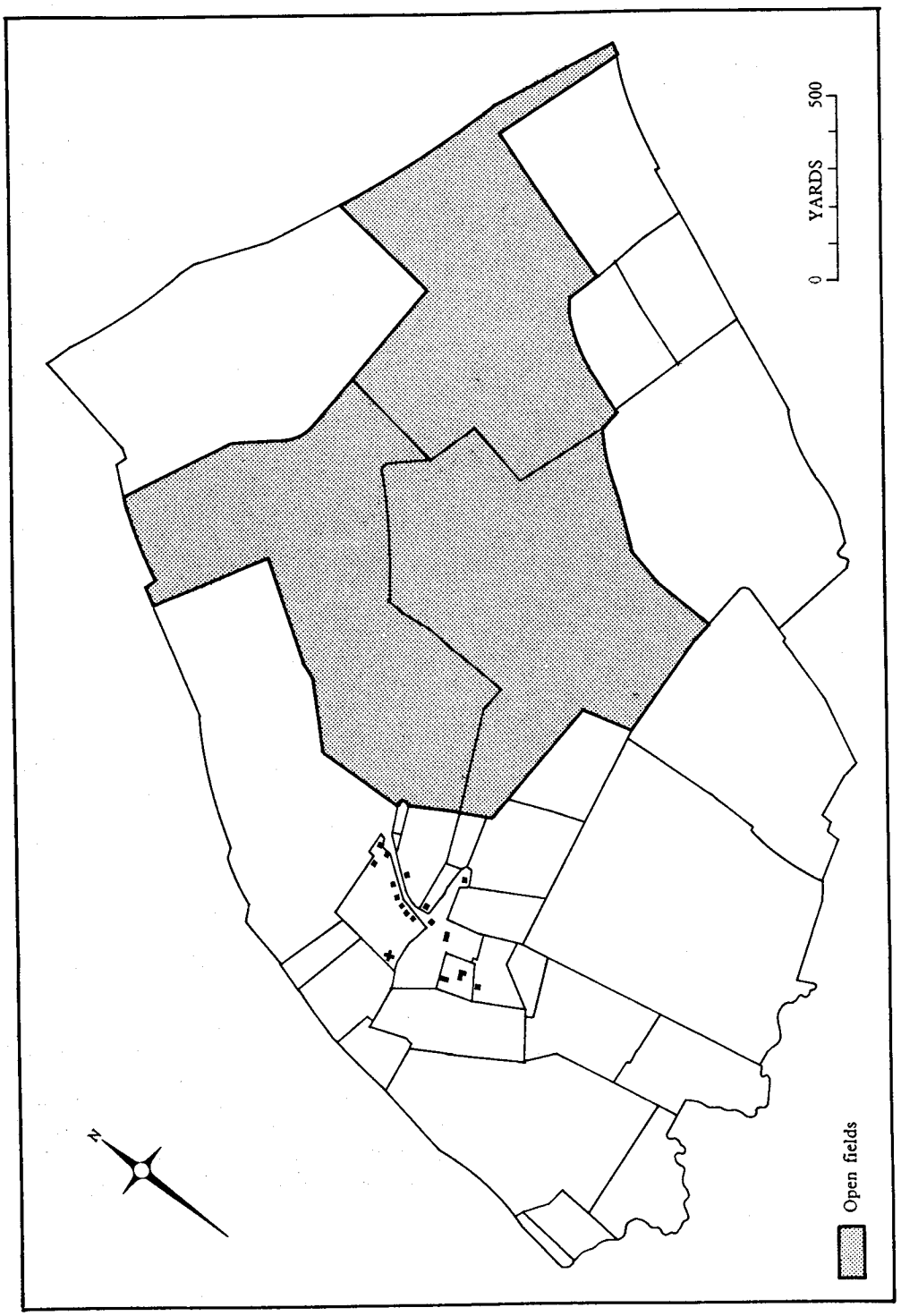


Figure 2. Steeple Gidding in 1648, just prior to enclosure.

Enclosure was also taking place to create and enlarge parkland. For example, in the years 1610–15 the Earl of Suffolk enclosed an area of almost 45 acres out of Somersham Chase and made it a park 'for the feede and quiet of the deer'.[27] Similarly, the Bishop of Lincoln enclosed 295 acres at Buckden in the late 1620s and incorporated them into his park, which, by the middle of the century, covered 425 acres.[28] Both of these enclosures caused such resentment that the fences were thrown down during disturbances in 1641, although they were subsequently restored.[29] By the mid-eighteenth century the other large parks in the county were the Earl of Manchester's at Kimbolton, the Earl of Sandwich's at Hinchingbrooke, and Sir Robert Bernard's at Brampton. The total area within the county given over to parkland was, however, relatively small.

Throughout the period, piecemeal enclosures were taking land out of the open fields. Because they did not arouse the opposition of the government — which recognised that they were 'In no way prejudiciall ... but are very necessary for the maintenance of tillage'[30] — evidence of the progress and scale of such small enclosures is scanty. Some of the cases which did attract attention concerned very small amounts of land, such as the half acre enclosed by William Warner at Glatton. Perhaps more typical was the close of eight acres made by Oliver Green at Great Gransden, mentioned in the returns of 1607, and the five closes totalling 17 acres in Colne and Needingworth that were taken in by various farmers and were noted by the justices in 1630. They were all made by yeomen or husbandmen, the men who predominated in this kind of activity. Such enclosures rarely created any friction, for they were usually carried out by individuals on their own land, or by agreement between a number of farmers. Some small enclosures were designed to protect temporary grassland and were thrown open again at the end of the ley. By the mid-eighteenth century, piecemeal enclosure had considerably reduced the area of open field land in some parishes. Maps of Grafham and St Ives which were drawn at that time show comparatively large areas in enclosed fields.[31] Other parishes had hardly been affected, however. A survey of Waresley in the southeast of the county, taken in 1749, shows that, excluding the park, only a little over 6% of the agricultural land was enclosed.[32]

Similar enclosures were being made around the edge of the fenland. These were part of individual drainage schemes, such as the work carried out at the instigation of Sir Edward Montague in Caldecote Fen between 1577 and 1581. In 1586 and 1587 Henry Cromwell leased out a number of 'fen closes' in Ramsey and Bury Fens, and a few years later the tenant of two enclosures at Conington brought a suit against his landlord for not fulfilling an agreement to drain them.[33] Such work culminated in the early seventeenth century in a more ambitious plan aimed at making a large part of the fens 'summer ground'. Considerable technical problems were encountered and also some opposition, such as a riot at Holme Fen in 1637 that was provoked when cattle were being cleared in order to allow drainage works to begin.[34] Neglect and deliberate destruction of many of the works during the Great Rebellion meant that much of the task had to be repeated before the Bedford Level could be declared 'drained' in 1652. Although much was achieved, the silting of the outfalls and shrinkage of the peat as it drained brought a renewal of flooding to the Bedford Level before the end of the seventeenth century. A great deal of local drainage work was carried out within the framework of the larger schemes and, despite the many problems, much fenland was successfully drained and enclosed. Both Conington and Fletton fens were taken in, for example. Some closes were incorporated into existing farms; a holding at Sawtry St Andrew in 1709 included four enclosures in the fen and the farm of John Newton at Stilton in 1752 contained 20 acres of enclosed fenland. New farms were also created out of the fenland, such as a farm at Denton which covered $76^{3}/_{4}$ acres of land described as 'drained'.[35] The largest part of the Huntingdonshire fens remained open, however, being divided into lots separated only by drains and ditches.

27 PRO E317 Hunts 7.
28 PRO C205/5/1; C54/3462/43.
29 PRO E126/11 Hil. 23 & 24 Chas. 2, ff.54v,58; *Lords' Journals. Vol. 4, 1628–42* pp.281,284,304.
30 Victoria County History, *Huntingdonshire. Vol.2* p.90.
31 HRO LR9/330; SM16/182.
32 Bedfordshire Record Office FE 140.
33 E. Kerridge, *The Agricultural Revolution* (London 1967) p.42; H.C. Darby, *The Draining of the Fens* (Cambridge 1956) pp.16,20.
34 *Calendar of State Papers, Domestic, 1631–3*, p.501, where it is misdated to 1632; see K. Lindley, *Fenland Riots and the English Revolution* (London 1982) pp.94–5.
35 HRO Glebe terrier, Sawtry St Andrew, 1709; acc.40, add lx, i; ddX 33.

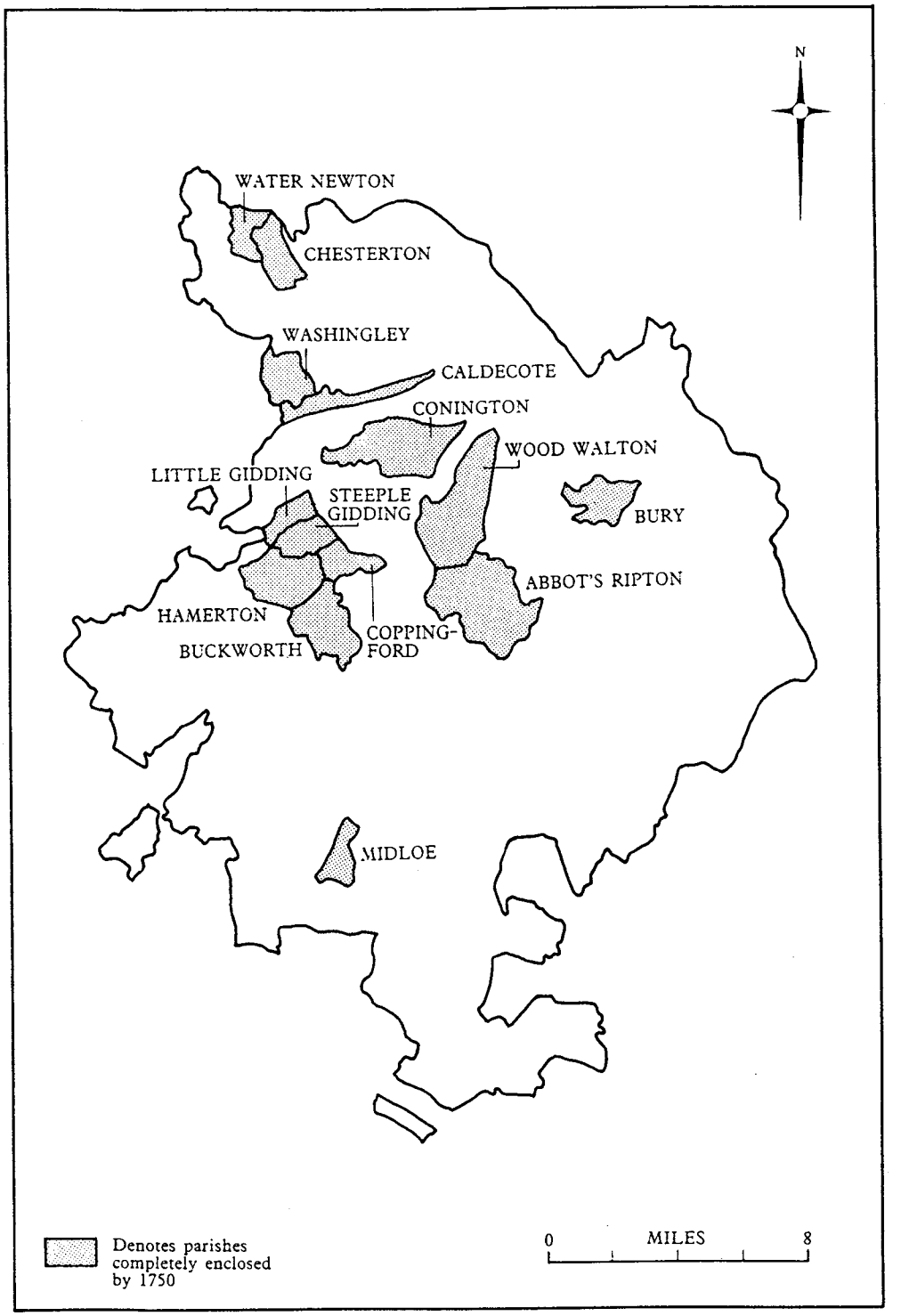


Figure 3. Parishes enclosed by 1750.

Another element of landscape change related to drainage works was the control of flooding in the river valleys, where much land was subjected to seasonal inundation. In 1625 a farmer of Woodstone on the Nene was recorded as the owner of three acres of drowned meadow, valued at only a few shillings.[36] The flooding was partly due to the state of the rivers themselves — in 1618 the Ouse was said to be 'Generally foul and

36 HRO acc.1091.

overgrown with weeds'[37] — but it was also affected by the condition of the fens. The cutting of the Bedford River from the Ouse at Earith and the construction of artificial courses for the Nene helped to regulate the flow of water. The improvements to the rivers themselves, which were undertaken primarily for navigational purposes, were equally important. By the early eighteenth century both the Ouse and Nene had been made navigable through Huntingdonshire, although the improvements did not entirely eliminate the risk of flooding.

The clearance of woodland was a further process which modified the landscape during the period. By the mid-sixteenth century some parts of the county had little woodland. This was particularly the case in the west, where Leland found that there was 'but litle wood yn sight, but whereas the villages be sett'.[38] Indeed, a survey of Keyston taken in 1589 found that 'There are neyther woode nor underwoode pertayning to the sayde mannor saving some okes and elmes growing in hedgerows'.[39] The central and eastern parts of the county still contained considerable areas of wood, although assarting steadily reduced their extent. In 1593, 26% of the Kimbolton estates was still woodland, but by the mid-eighteenth century the proportion had fallen to 11%. In 1607 a close of 46 acres in Kimbolton was described as 'lately woodground now being newly stubbled' and six years later newly-made assarts totalling 113 acres were itemised in Upton, Wood Walton and Washingley.[40]

Clearance was further stimulated by the sale of crown, ecclesiastical and royalist estates during the Interregnum. They included the manor of Somersham, which contained 6204 timber trees and 548 acres of coppice wood, valued together at almost £2720.[41] Weybridge Forest, too, was sold and the removal of wood from it was unchecked after the Restoration. The mid-seventeenth century saw the clearance of woodland in other parishes. At Wistow 116 acres of woodland known as Great Rooks Grove, shown on a map of 1618, was still described as a wood 30 years later, but by 1682 the trees had been removed and the area divided into six closes of pasture.[42] Field names in other parishes indicate the making of similar assarts, for instance 'The Littlewood' of $30^1/_2$ acres in Diddington was referred to in 1659 as ploughed land 'lately stocked upp'.[43] The cutting down of woodland could create problems, such as those experienced by the tenants of Eynesbury Hardwick, who complained that the lord of the manor's clearances had left them insufficient timber for them to make their farm implements.[44]

The removal of timber indicates how severe was the pressure for farming land, for the woodlands were themselves very profitable. By the 1640s the price of timber was four-and-a-half times higher than it had been a century earlier, bringing a considerable income to landowners who managed their woods. Those on the Kimbolton estate were cut on a 16-year cycle and the sales of timber brought in an estimated £344 yearly, while profits from the sales of wood from the crown lands in Somersham averaged £70 annually between 1620 and 1636.[45] Nevertheless, it is clear that the area of woodland was considerably reduced by the early eighteenth century. Almost all of Weybridge Forest had been removed by then, and the main belt of surviving woodland lay across the centre of the county, from Warboys Wood in the east, through Broughton Wood, Monk's Wood at Alconbury, to Aversley Wood near Sawtry.[46]

Field and Farm Sizes

Enclosures at the level of parish and farm produced a field pattern that was characterised initially by large units. There was often little addition to the length of field boundaries, for the former open fields and furlongs were adopted with little change. At Keyston 'the Great Pasture called Morden Field' of 840 acres was one of the open fields which was not subdivided at enclosure. The mean area of the new closes in that parish was 66 acres.[47] At Buckworth the new fields averaged between 80 and 100 acres. In Covington 'the great pasture called Mill Pasture' covered $136^1/_2$ acres and 'The Severalls', 85 acres. Gidding Grove contained a field of 90

37 T.S. Willan, *The Navigation of the Great Ouse between St. Ives and Bedford in the Seventeenth Century*, Bedfordshire Historical Record Society 24 (1946) p.3.
38 *The Itinerary of John Leland. Vol.1*, ed. by Lucy Toulmin Smith (London 1907) p.3.
39 PRO LR2/216/73.
40 HRO ddM 65/26, 22A/3; PM 3/3; PRO SP14/195/16.
41 PRO E 317 Hunts 7.
42 HRO PM 1/3, 5/9; ddX 134/5–6; Bedfordshire Record Office FE 291.
43 PRO C54/4024/5.
44 PRO E134 9 Wm. 3 East. 22.
45 HRO ddM 65/26; *Calendar of State Papers, Domestic, 1636–7* p.256.
46 HRO TLR/401, An Accurate Map of the County of Huntingdon Actually Surveyed after a New method in the Years 1730 and 1731 By William Gordon.
47 HRO Glebe terriers, Keyston.

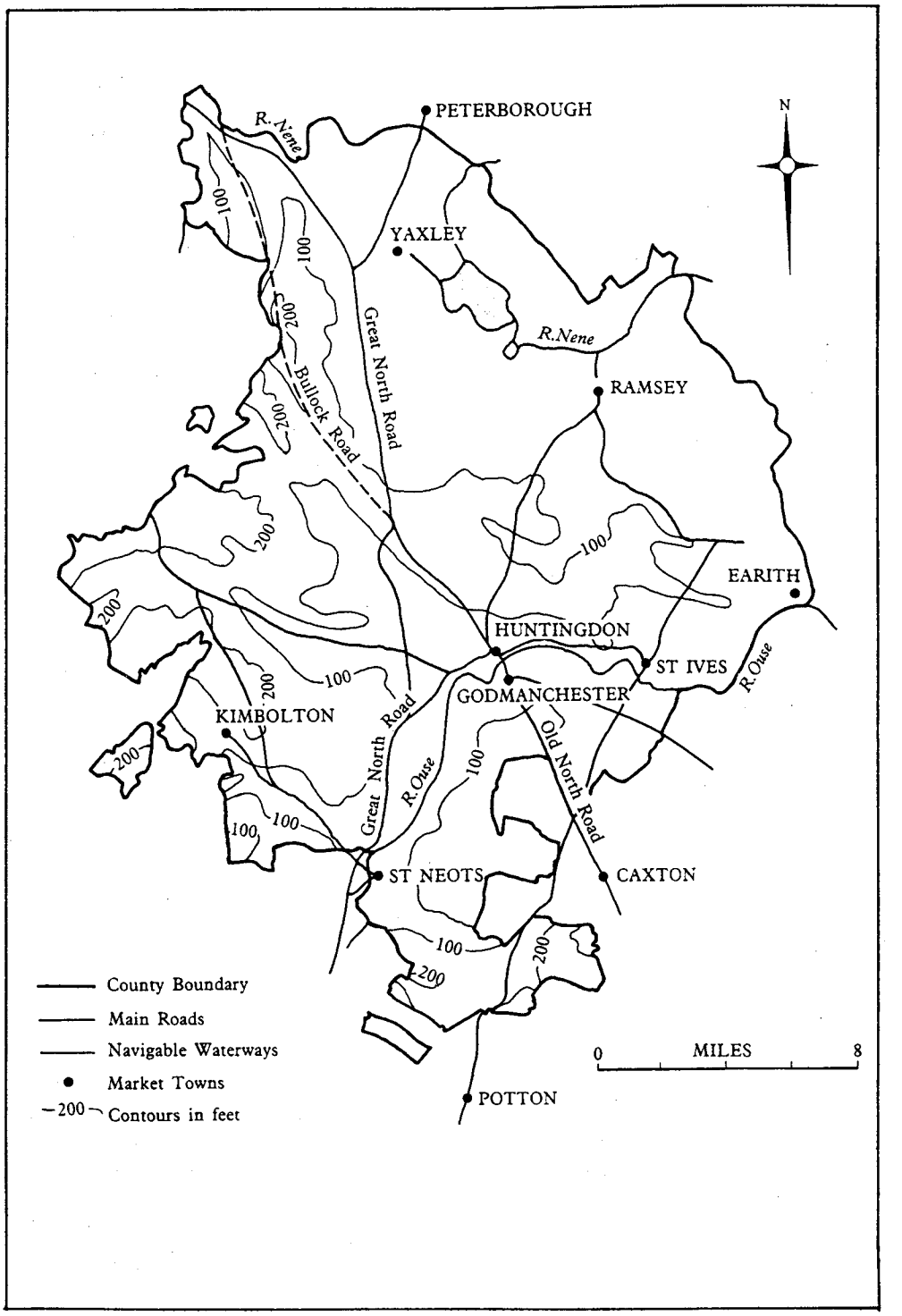


Figure 4. Communications and market towns.

acres, and the mean size of enclosures there was $40^1/_2$ acres. At Midloe, Steeple Gidding, Washingley and Water Newton, 25 to 30 acres was a more usual size for enclosures.[48] Large fields of more than 100 acres were a

48 E. Pollard, M.D. Hooper and N.W. Moore, *Hedges* (London 1974) pp.50,55; HRO ddX 34A/3; SM 18/121; acc.590; PRO C54/4005/2; C54/4007/16.

characteristic feature of the new enclosures which were being made in the Midlands during the period.[49]

Large enclosed fields were designed primarily for livestock raising, but the disadvantages of lack of shelter in winter and shade in summer, and the difficulty of regulating the grazing of stock, led to their subsequent subdivision into smaller units. References to this process are fairly common. A close of pasture of 120 acres at Midloe was separated into 'several closes' and another enclosure of 45 acres was divided into two. At Brampton the pasture known as Crofts Close was 'divided into two with a hedge'.[50] Thus field size in enclosed parishes was steadily reduced. At Steeple Gidding it fell from a mean of 33 acres immediately after enclosure to 24 acres by 1774, and at Buckworth the average field size had fallen to 16 acres by 1839. By 1716 the small parish of Coppingford was divided into 47 plots, including the wood, with an average size of under 18 acres (Fig.5).[51]

In the fenland the initial division into lots was in units of 300 to 500 acres, but subsequent subdivision produced lots which were much smaller. In Wistow Fen the average area was a little over six acres in the 1670s and 1680s. Such lots were mostly rented by farmers from Wistow itself, the only exceptions being a farmer from the adjacent parish of Warboys and another from the 'upland' parish of Broughton, three miles away. Lots of five acres seem to have been typical at Farcet, and in Earith Fen the figure was $4^1/_2$ acres.[52]

The available evidence for farm sizes indicates that there was a trend to larger farms during the period. The 1607 returns contain numerous allegations of the engrossing, or amalgamation, of farms in both enclosed and open field parishes. The holdings affected seem mainly to have been of those smaller than 60 acres. Enclosure was the cause of some of the changes and the enclosed land in the county contained some large farms. Upper Stow Farm covered $363^1/_2$ acres at the end of the sixteenth century and Gidding Grove Farm 366 acres a century later. In the 1750s a farm in Covington was recorded as being almost 400 acres, and two farms on enclosed land in the north of St Neots parish were $672^3/_4$ acres and $364^1/_2$ acres in extent.[53] Large farms were also found in open field parishes. In the almost entirely unenclosed parish of Waresley in 1749, over 60% of the farmland lay in three farms, each of which exceeded 200 acres. The Pedley estates in Tetworth contained a number of farms in excess of 200 acres and in 1725 only 17% of a 303-acre farm in that parish was enclosed.[54] Although farms of 100 acres or more were common over much of the county, in some of the more densely populated parishes in the lower Ouse valley, smaller units predominated. At Bluntisham-cum-Earith in 1733, holdings of fewer than 50 acres covered 30% of the farmland and were occupied by 75% of the inhabitants.[55]

In contemporary terms Huntingdonshire was a county of comparatively large farms, and this was a feature which became more marked as the period progressed. The available data produce a mean farm size of 64 acres for the years 1550–1650 and of $107^1/_2$ acres for 1650–1750.

Land Use

Changes in the landscape were matched by a number of changes in land use. In the enclosed parishes, the extinction of open fields and common rights was almost always followed by the conversion of arable into grassland. A number of protestations to the contrary were made by contemporaries, but they are unrepresentative and misleading, being made to the crown's commissioners to excuse enclosures, rather than as impartial statements.[56] Only four of the 562 acres of enclosed land in Midloe in 1658 were arable, and at Bury in 1691 two farms covered 490 acres in closes, 40 acres of which were under the plough.[57] A survey of Hamerton made in the mid-seventeenth century relates that most of the parish's 1700 acres were pasture. A century later none of the 'high land' in Conington was ploughed, except for a close of 81 acres which had been used for woad.[58]

49 W.G. Hoskins, *The Making of the English Landscape* (London 1955) pp.117–18.
50 PRO C54/4007/16; E 317 Hunts 3.
51 HRO acc.40 dd 16C/3; SM6/190; Pollard *et al.*, *op.cit.* p.51.
52 HRO ddX 124; CL2/2/14–15.
53 HRO SM19/126; PM4/5; acc.40, add 16C/1; Pollard *et al.*, *op.cit.* p.55.
54 Bedfordshire Record Office FE 140; Bradford Central Library Spencer Stanhope Collection, MS. 1384.
55 C.F. Tebbutt, *Bluntisham-cum-Earith* (London 1941) p.90.
56 Leonard's acceptance of such statements has suggested that Huntingdonshire was atypical in this respect, which it was not. E.M. Leonard, 'The inclosure of the common fields in the seventeenth century', *Transactions of the Royal Historical Society* New Series 19 (1905) pp.132–3.
57 PRO C54/4005/2; C54/4007/16; HRO ddM 19/4.
58 HRO ddX 151; acc.40, ddlx 1.

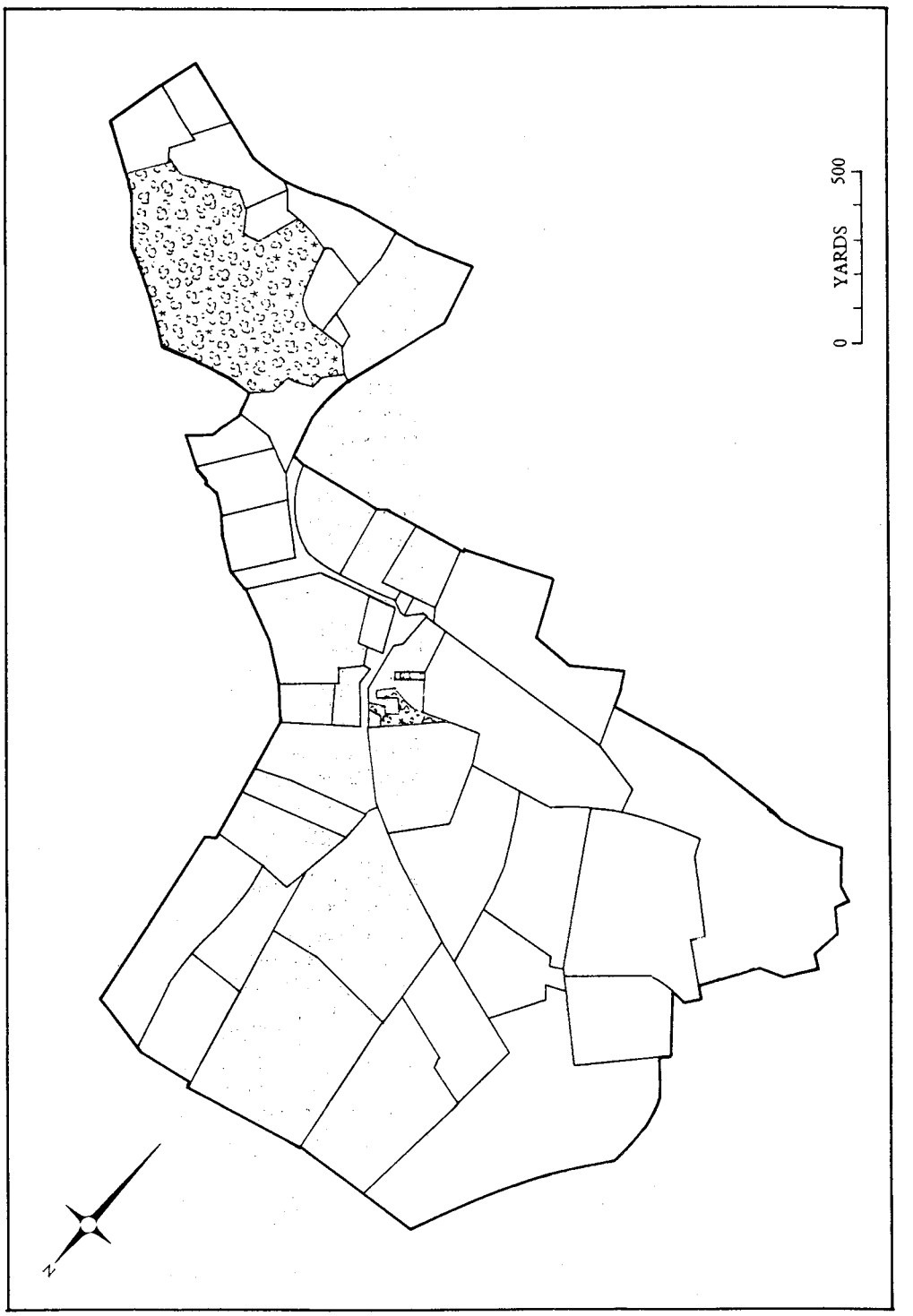


Figure 5. Coppingford in 1716.

The extent to which livestock farming was adopted on enclosed land is illustrated by those probate inventories for the period 1660–1749 which were made in August, September and October, when farm values were at a maximum. Those relating to farms in the 14 enclosed parishes show that livestock accounted for 84% of combined crop and livestock values. By contrast, in a group of parishes covering a similar area in the southeast of the county, where comparatively little enclosure had taken place, the proportion was 40%.[59]

Graziers became increasingly common and relatively prosperous men, some of them surpassing the local gentry in wealth. Fifteen of the 140 farmers in the northern and western parts of the county whose inventories have survived from the period 1700–49 were described as graziers; they were outnum bered only by the yeomen and husbandmen. The graziers farmed on an almost wholly commercial basis and on a considerable scale; two-thirds of them kept flocks of over 100 sheep and one-third had more than 30 head of cattle.[60] In addition, some farmers developed pig fattening as a specialised part of their farm economy; Leicestershire and Northamptonshire were said to produce some of the finest pigs in England.[61] In Huntingdonshire, John Simpson bought 80–100 cattle and 250–300 sheep yearly during the 1730s for summer feeding on his farm at Covington, purchasing stock from as far away as Hinckley, Northampton and Market Harborough. In 1739, a typical year, his gross profit on livestock was 37% of his receipts of £681 17s 6d.[62] His was a relatively small business compared with that of Henry Nunall, who held two farms in the neighbouring parish of Bythorn. In the early years of the eighteenth century he and his partner Isaac Holford were engaged in supplying livestock to the Victualling Office of the Royal Navy. They were awarded three contracts to supply a total of 5246 hogs, which they bought for £7399 10s, and in the autumn of 1704 they undertook to deliver 1146 cattle. When Nunall died in December 1705 his personal estate was valued at over £3000.[63]

The switch to livestock farming in enclosed parishes reflects a complex of factors, but their physical characteristics of soil and aspect, the smallness of their populations, a relatively favourable price for wool over grain, and also their comparative disadvantage in the production of grain, must all have contributed to the change. The three adjoining parishes of Great Gidding, Little Gidding and Steeple Gidding provide a corrective against giving too much emphasis to environmental characteristics in attempting to explain such changes, however, and show how contrasting farming systems were in use in neighbouring parishes over a long period. Great Gidding remained a parish of open field arable land until the mid-nineteenth century and had experienced very little enclosure even by 1858, while its two smaller neighbours were enclosed in the mid-sixteenth and mid-seventeenth centuries, and both went over to permanent grassland following enclosure.[64]

While enclosed lands were usually used as permanent pasture, temporary grassland or leys became more common on the open fields. The system of convertible husbandry seems to have been adopted in Huntingdonshire during the middle of the sixteenth century. The practice was to take some strips out of the open field rotation and to lay them down to grass for between six and 12 years. This served not only to increase the area of grazing land, but also to restore the fertility of the soil. Ley farming was in use throughout the county, although the scale of the practice is difficult to estimate. Leys were commonly included in the total arable area when farmland was surveyed, and were not itemised. Nevertheless, some evidence is available. At Everton in 1616, $18^{1}/_{2}$ acres of a farm of $159^{3}/_{4}$ acres were in leys. In 1630, 100 acres at Pidley were reported to have been converted to pasture as leys, and at the end of the seventeenth century blocks of 20 and 40 acres were being managed in this way in St Neots parish.[65]

Selected grass seeds were gradually adopted for the laying down of the leys. In 1697 a farmer who was answering interrogatories on the improvement of 'a cold sort of clay ground' at Eynesbury Hardwick,

59 HRO probate inventories, acc.186,1091. For the index employed here see, J.A. Yelling, 'Probate inventories and the geography of livestock farming: a study of east Worcestershire, 1540–1750', *Transactions of the Institute of British Geographers* 51 (1970) pp.115–17.

60 Based upon probate inventories, HRO acc.186,1091.

61 G.E. Fussell, 'Animal husbandry in eighteenth century England. Part two, sheep, swine, horses and poultry', *Agricultural History* 11 (1937) pp.207–8.

62 HRO ddX 31.

63 PRO E126/19, ff.78–9.

64 M.W. Bereford and J.K. St Joseph, *Medieval England An Aerial Survey* 2nd ed. (Cambridge 1979) pp.86–94.

65 Bedfordshire Record Office FE 162; PRO SP16/189/94; E134 9 Wm. 3 East. 22.

expressed the opinion that if it were to be 'laide downe and sowne with Clover, Sinckfoile, Rayfoile and such like seed and well and sufficiently manured and compost then the said ground might in three or four years recover its former fertility'.[66] There is further evidence of the growth of clover and ryegrass in the south of the county during the early eighteenth century: at Offord Cluny, for example, and at Tetworth, where in 1728 a farmer had nine acres of clover in addition to 187 acres of grain and pulse. By the mid-eighteenth century, clover was also recorded in the centre of the county, at Abbot's Ripton.[67]

Fenland drainage allowed crops of grain to be grown on ground that had hitherto been seasonally inundated. In 1666 a farmer at Farcet had 33 acres of grain in the fen; 14 years later John Cope of Pidley had 12 acres of grain in the fen in addition to 43 acres in the uplands.[68] Coleseed was one of the most widely adopted crops for such land. It was being grown in Norfolk as early as 1551, but it was not until the seventeenth century that it became a common crop. The oil from its seeds came into widespread use for lamp fuel and for oiling wool, while the residue was employed for fuel cakes and fodder, and the stubble could be grazed.[69] Careful preparation of the ground was required for the crop, including paring and burning. A common rotation was to follow coleseed with two years of oats and one of wheat, the land then being put down to grass for a number of years. Coleseed was recorded in 13 parishes on and around the fenland in Huntingdonshire, commonly in parcels of smaller than 20 acres. There was a decline in the area of the crop grown after *c.*1720, however, perhaps because of the deteriorating physical conditions in the fenland.

Drainage considerably increased the area of land from which hay could be taken, an important factor for farmers both in the parishes lying on the fenland and in the nearby 'uplands'. Along with the greater area available for pasture, this helped to increase the numbers of livestock kept. Indeed, the most common use of the fenland after drainage was to graze the land with cattle, sheep and horses. The occupiers of 'improved' land in Somersham and Earith fens fattened cattle there until Michaelmas and then stocked them with sheep for a further seven weeks or so. The ground was usually flooded during the winter months and was let to tenants until the spring.[70] In a group of fenland parishes the mean cattle herd was 15.3 head in the period 1610–59, rising to 17.5 head in the period 1700–49. The mean flock size doubled over the same period, from 26 to 52. The fens were also a centre of horse breeding. A farmer who died in Ramsey in 1686 owned 44 horses and in 1748 a farmer there had 43 horses in all, seven of them yearling foals. Earith fair was noted for its horse sales. The stock of Francis Bellamy of Ramsey, a typical fenland farmer, listed in July 1719, included 28 acres of oats and coleseed and 12 acres of grass, 15 cattle, 27 sheep and 17 horses. Bellamy's total personal estate was valued at £129 9s 2d.[71]

The river meadows were also made more productive by the activities of the drainage engineers. Considerable crops of hay were taken from them and the grazing was much improved. Defoe saw 'A most beautiful Range of Meadows ... from Peterborough to Northampton ... the Land rich, the Grass fine and good, and the Cattle, which are always feeding upon them, Hay-Time excepted, numberless'. Those along the Ouse were also extensive. The Portholme at Huntingdon was measured at $239^{3}/_{4}$ acres in 1757, and Pettis' survey taken in the 1720s identified 358 acres of meadow at St Ives, representing 20% of the farmland. The Ouse meadows, Defoe thought, were 'the most beautiful ... that I think are to be seen in any part of England; and to see them in the Summer Season, cover'd with such innumerable Stocks of Cattle and Sheep, is one of the most agreeable Sights of its Kind in the World'.[72]

Economic Influences

The economic background to these changes was one of rising prices for both grain and livestock until the mid-seventeenth century, and a decline thereafter. Large-scale enclosures and fenland drainage schemes in the earlier part of the period were related to the

66 PRO E134 9 Wm. 3 East. 22.

67 HRO Quarter Sessions, 1/1/3, 1744; acc.2068; Bradford Central Library Spencer Stanhope Collection, MSS. 1384–5.

68 HRO acc.186.

69 Joan Thirsk, *Economic Policy and Projects: The Development of a Consumer Society in Early Modern England* (Oxford 1978) pp.68–72; G.E. Fussell, 'History of cole (Brassica sp.)', *Nature* 176 (1955) pp.48–51.

70 PRO E134 36 Chas. 2 East. 13.

71 HRO acc.186, probate inventories of Mark Destow, 1686, John Sargent, 1748, Francis Bellamy, 1719.

72 HRO PM 1/10; SM16/188; Daniel Defoe, *A Tour Thro' the Whole Island of Great Britain. Vol.2*, ed. by G.D.H. Cole (London 1927) pp.509–11.

prevailing high level of prices. The response of the farming community to the fall in grain prices after the middle of the seventeenth century was to concentrate more upon livestock raising, for the prices of livestock products fell less sharply than did those of grain. The higher output of meat, dairy produce and grain that followed these developments was partly absorbed by the domestic market. Increasing prosperity was matched by a rising demand for agricultural produce, despite a slackening in the rate of population growth. In particular, the increasing size and wealth of London considerably influenced the economy of nearby counties. Londoners had a considerable involvement in the land market in Huntingdonshire,[73] which also fell within the orbit of the metropolitan market for both grain and meat; corn and malt were shipped down the Ouse and Nene and along the east coast to the Thames, while livestock were driven overland to Smithfield and the markets around the capital.[74]

Indeed, one of the concomitants of the expansion of agricultural output was the improvement of communications. The Ouse was progressively improved from 1618 onwards and St Ives and St Neot's both became important inland ports. There was a considerable increase in trade on the river in the second quarter of the eighteenth century, due partly to the larger size of the vessels used, some of the bigger ones being decked in order to protect their cargoes.[75] The Nene, already navigable to Alwalton, was also cleared, and by 1730 boats could reach Oundle. The network of waterways in the fenland served the villages around its edge and in 1720 it was said that the market at St Ives was 'frequented with great Numbers of Boats from the Fens'.[76] Similarly the main roads, some of which had become 'very ruinous and almost impassable' — partly because of the movement of livestock along them — were repaired under the aegis of a number of turnpike trusts.[77] In addition to domestic demand, considerable amounts of grain began to be exported, stimulated after 1673 by the government's bounty, and by the 1740s roughly 660,000 quarters were being shipped overseas annually. Much of this trade was across the North Sea to the Low Countries, a trade which Huntingdonshire, with its access to the east coast ports, was well placed to exploit.

The buoyant demand for corn that resulted was a major reason for the search for new arable land in the fenland, woodland and waste. This was pursued relentlessly in some places, as at Great Catworth, where the inhabitants complained in 1749 at the 'great encroachment made of late years upon the common lands belonging to the said Parish by plowing'.[78] This, in turn, produced a need for more pasture. In some parts of the county suitable land was laid down to permanent grassland, but ley farming also contributed towards the solution to the problem, as well as helping to raise the levels of soil fertility and thereby also increasing crop yields.

The Regional Context

The changes in the rural economy of Huntingdonshire were a part of the general contemporary process of adaptation to the physical and economic conditions. The enclosure and conversion of the heavy claylands was a feature of the period over much of lowland England, especially in the Midlands. So, too, was the adoption of ley farming, the expansion of the productive area, and the introduction of new crops. These changes resulted in a greater intensity of land use, more flexible farming systems, and the accentuation of local variations in agriculture. All of these effects can be identified in Huntingdonshire and contributed to the gradual but not inconsiderable changes in the landscape of the county before the period of large-scale enclosures by parliamentary Acts.

The changes in the Huntingdonshire's landscape between the mid-sixteenth and mid-eighteenth centuries were comparable to those in the nearby counties. The enclosures undertaken in the parishes in the centre and west of the county, for example, were similar in character and chronology to those in the East Midlands, especially in

73 *The Agrarian History of England and Wales. Vol.4, 1500–1640*, ed. by Joan Thirsk (Cambridge 1967) p.243; PRO C54/3407/6, C54/3440/31, C54/3462/43, C54/4012/3; E 317 Hunts 3; HRO ddX 134/2, 7, 17; Shropshire Record Office 924/588,592; Bedfordshire Record Office FE 180; PM 1144.

74 For an example of the corn trade to London, see PRO C113/13, journal E, 1681, pp.101,105, ledger 1681, f.113; I owe this reference to the kindness of Dr John Chartres. For livestock, see Stephen Porter, 'The livestock trade in Huntingdonshire, 1600–1750', *Records of Huntingdonshire* 2 (1982) pp.13–17.

75 *Commons' Journals. Vol.25, 1745–50* pp.786–7.

76 *Commons' Journals. Vol.19, 1718–21* p.243.

77 *Commons' Journals. Vol.23, 1737–41* pp.593–4.

78 A.W.M. Weatherley, 'Great Catworth, Huntingdonshire', *Transactions of the Cambridgeshire and Huntingdonshire Archaeological Society* 4 (1930) pp.52–3.

Leicestershire and Northamptonshire. There, too, early enclosures involved an entire parish and were carried through by a single lord, and in the seventeenth century enclosures were generally by agreement amongst a few owners. The enclosures were also similar in that they affected small parishes with small populations, were carried out to increase the area of pasture, and were followed by, although were not necessarily the sole cause of, further falls in the numbers of inhabitants. There is less documentary evidence for enclosures carried out between *c.*1650 and the period of the parliamentary Acts, perhaps because they provoked less opposition, or because there was no longer any government sympathy for those opposed to them, and so no-one to whom those who felt themselves victims of the process could appeal.[79] It is clear that, in addition to the enclosure of entire lordships and large areas, piecemeal enclosures on a relatively small scale were effected throughout the period, again resembling the activity in nearby counties, such as northern Buckinghamshire.[80]

The southeastern part of Huntingdonshire, on the other hand, was more East Anglian in character, retaining a higher proportion of common field than the parishes to the north and west of the Ouse, and without any enclosures of entire lordships. This area concentrated chiefly on increasing grain output, particularly barley for malting, exploiting the improvements in riverborne transport. In this respect, farming in southeast Huntingdonshire was very similar to that on the claylands of neighbouring Cambridgeshire.[81]

Similarly, the changes in that part of the fenland that lay within Huntingdonshire were characteristic of those taking place within the Fens around the Wash during the period, with several successful small-scale drainage and enclosure schemes preceding the large-scale undertakings of the mid-seventeenth century. The specialisation in farming which followed drainage was also typical, in terms of the growing of coleseed, for example, as was the impact of the deteriorating conditions caused by the increasing problems resulting from the effects of the draining.[82]

Concentration on change inevitably risks concealing the degree of continuity in the landscape. Indeed, so much of the county was unchanged that roughly one-half of the total area was enclosed by parliamentary Act after the mid-eighteenth century rather than by agreement before then. This also applied in a group of counties in the Midlands, comprising Northamptonshire, Oxfordshire, Cambridgeshire, Bedfordshire, Leicestershire and Rutland.[83] The similarities between Huntingdonshire and Cambridgeshire are further apparent when allowance is made for the fenland, which had not been in open fields, for then the proportion of both counties enclosed by Act was much more than a half; in Huntingdonshire indeed it was something like three-quarters.[84] Nevertheless, to categorize Huntingdonshire as a county in which the predominant landscape changes between the mid-sixteenth and mid-nineteenth centuries resulted from parliamentary enclosure would be to overlook the considerable alterations that had occurred in the two centuries before that process got under way. Indeed, few parishes were unaffected by the changes of the sixteenth and seventeenth centuries and in almost one-fifth of them such changes made a greater impact than did those which resulted from the enclosure Acts.

79 J. Yelling, 'Agriculture 1500–1730', in R.A. Dodgshon and R.A. Butlin (eds), *An Historical Geography of England and Wales* 2nd ed. (London 1990) pp.181–5; *idem*, *Common Field and Enclosure in England 1450–1850* (London 1977) pp.46–54.

80 Michael Reed, 'Enclosure in North Buckinghamshire, 1500–1750', *Agricultural History Review* 32 (1984) p.140.

81 Margaret Spufford, 'Rural Cambridgeshire 1520–1680' (unpubl. M.A. thesis, University of Cambridge 1962) pp.25–43; Michael Turner, *English Parliamentary Enclosure* (Folkestone 1980) pp.55–8.

82 *The Agrarian History of England and Wales*. Vol. 5.i., pp.204–5.

83 Turner, *op. cit.* pp.180–1.

84 The area of the fenland in Huntingdonshire was *c.*80,000 acres; Fryer, *op. cit.*; for Cambridgshire see Turner, *op. cit.* pp.56–7.

Who Were the Fen People?

Polly Hill

In the fenland area which I denote 'the East Cambridgeshire peat fens'[1] the very great majority of those who cultivated the drained fenland, before the grand agricultural revolution of very recent times, did not live *right in the fen* but in a village situated on a fen 'island' or 'upland' such as Isleham, Burwell or Haddenham. Accordingly, the population of 'ordinary fenlanders', whose livelihood was derived directly from toiling on the land, whether as farm labourers or smallholders[2] or both, was intermingled with the general population of traders, artisans, building workers, publicans and many others who were to be found in all East Anglian villages where farming and farm labouring were formerly the primary occupations. As this was so, is it to be presumed that the 'ordinary fenlander's' way of life resembled that of the 'ordinary rural East Anglian'? Or were fenlanders 'peculiar people', as is so often supposed?[3]

It was the impossibility of building secure habitations on a foundation of peat, not a craving for village life, which meant that most of those who cultivated this peat fenland were detached from the land. With hardly an exception the fen uplands supported ancient villages, with Gothic churches, many of them very large,[4] which were earnestly inspected by Pevsner. Even before the advent of the railway these villages were not nearly as isolated as is commonly supposed, partly because many of them were linked by artificial waterways to the fen river network. People flowed in and out of the villages and most of the parishes in this section of fenland had population densities in 1801 which were of the same order as that for Cambridgeshire generally.

The small proportion of the population in the eastern peat fens which was not in the uplands[5] occupied habitations which were on small hills, on the hard beds of certain extinct waterways, on the hard edges of heavily embanked rivers, or (to some small extent) on the banks of other waterways. The scientific

1 See Fig.1. I am not, of course, claiming that this area typifies the East Anglian fens, whether they be situated in Cambridgeshire, Suffolk or Norfolk; in particular the silt fens must be distinguished from the peat fens. However, constant reiteration that this article is mainly concerned with a specific section of the Cambridgeshire peat fens has been avoided as far as reasonable.

2 Smallholders, as distinct from farmers, are usually defined, by fen dwellers and others alike, as those who depend on family labour only — except, perhaps, at harvest time. See Appendix 1.

3 This was certainly the general impression given by several speakers at the 1991 conference of the Cambridge Antiquarian Society — 'Living off the Fen'.

4 Burwell church, for instance, might have had a congregation as large as 500.

5 It is perhaps appropriately mentioned here that the 'upland' of Wicken, despite its Gothic church, was quite unusual within the context of the Cambridgeshire peat fens, for its maximum altitude was only eight metres, compared to 36 metres at Haddenham, and the habitations in the parish are considerably dispersed, not only at Upware, on the river Cam, but also at Dimmocks Cottage, Padney, High Fen Farm, Fenside Road, Thorn Hall and elsewhere — all on the 1:50,000 O.S. map. Indeed, in 1851 only ten of the total of 27 farmers in the parish lived in the central village; however, one of them at Hall Farm, by the church, farmed the largest acreage revealed by an analysis of detailed census material covering 11 villages in the peat fens in 1851 — on his 1600 acres (rounded figure) he was recorded as employing 36 men, 21 boys and 22 girls. It is no wonder that the famous Wicken Sedge Fen, owned by the National Trust, should lie so close to the centre of the village, but it is wrong to believe that it had never been threatened with drainage. There were about 14 dwellings situated at the end of Wicken Lode, the oldest to be identified dating from 1772. (Information from Sylvia Ballard of the National Trust.)

Proceedings of the Cambridge Antiquarian Society LXXXI pp. 97–114.

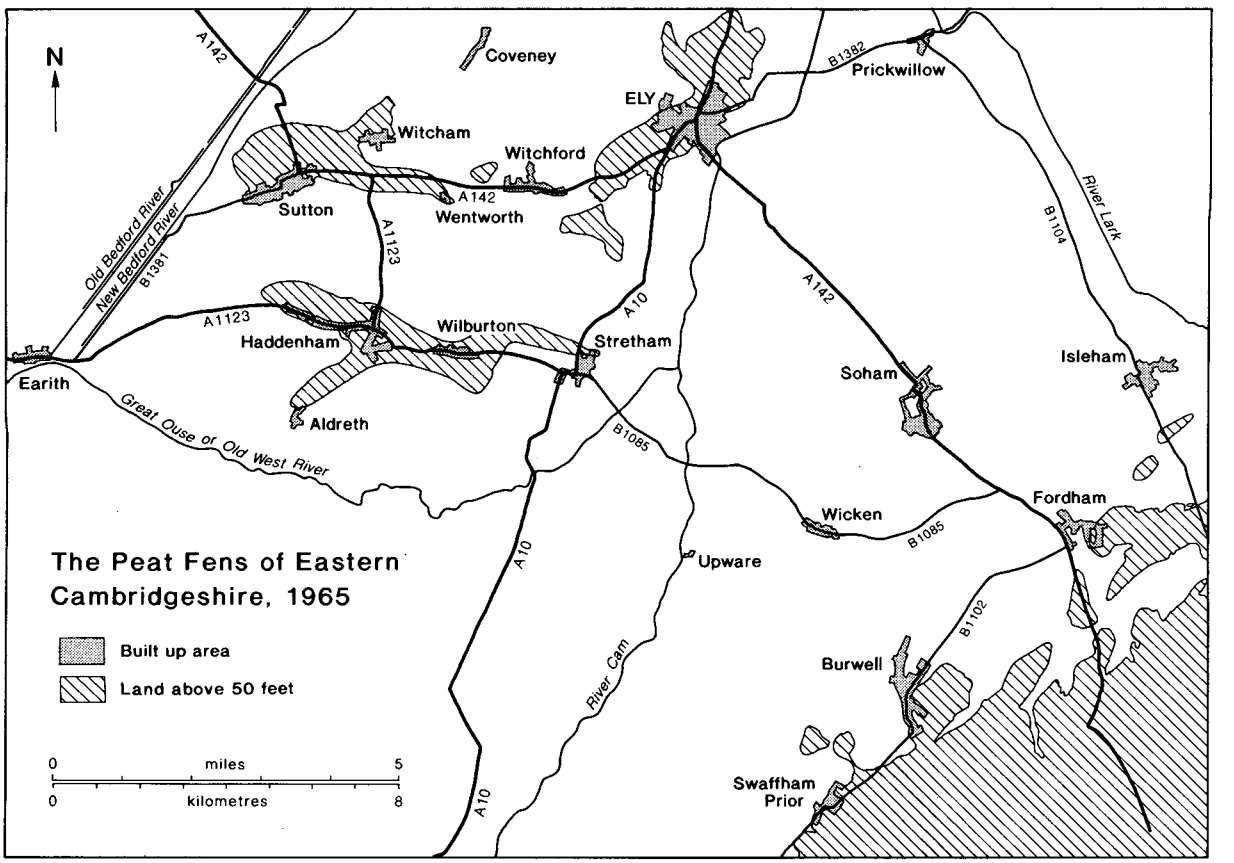


Figure 1. The peat fens of eastern Cambridgeshire, 1965.

community was unaware of the significance of the extinct waterways until 1932 (despite a mention of them by the excellent J.A. Clarke[6] as long ago as 1852), when an amateur investigator, Major Gordon Fowler, first studied and mapped them;[7] the original publication of his work, which caused a sensation, coincided with the creation of the Fenland Research Committee (1932–40), which was essentially an academic archaeological body.

None of the extinct waterways or small hills was able to support a population of any size and it so happens that a community known as Isleham Fen (see Fig.2), which was strung out for some two miles behind the huge western embankment of the river Lark, was much the most populous lowland 'settlement' in the peat fens. By studying the nineteenth-century history of that Fen community I hope to show that fenlanders would not have been 'peculiar people' even had it happened that they had usually lived on or near their land; in particular I shall stress that they were mobile people, not eccentrics locked up in ignorance of the ways of the wider world.

6 *Fen Sketches: Being a Description of the Alluvial District Known as the Great Level of the Fens with a Brief History of the Progressive mprovement in Drainage and Agriculture* (London 1852) .

7 Although Fowler distinguished more than two types of extinct waterway — see, for example, his 'The extinct waterways of the Fens', *The Geographical Journal* 83 (1934) pp.30–9 — it is nowadays usual to refer only to roddons (known as rodhams in the fen) and slades. Roddons are formed of silt which had been deposited by tidal action; slades occur on the edges of the fens (such as at Isleham Fen, which is near chalk uplands), where tidal influence was negligible or non-existent, so that shell marl was the base. The beds of slades are so hard and compacted that they have often been mistaken for Roman roads, such as those in Isleham parish. See A.K. Astbury, *The Black Fens* 2nd ed. (Wakefield 1970) for the relationship between slades and Roman roads and canals in Isleham fen; and also for his hypothesis that the straight section of the Lark river shown in Fig.2 is artificial (p.33). See, also, C. Taylor *The Cambridgeshire Landscape* (London 1973) p.204. I am grateful to Mr S.C.A. Holmes, who was formerly the District Geologist for East Anglia and S.E. England, for valuable information on the extinct waterways — which deserve to be the subject of a research thesis.

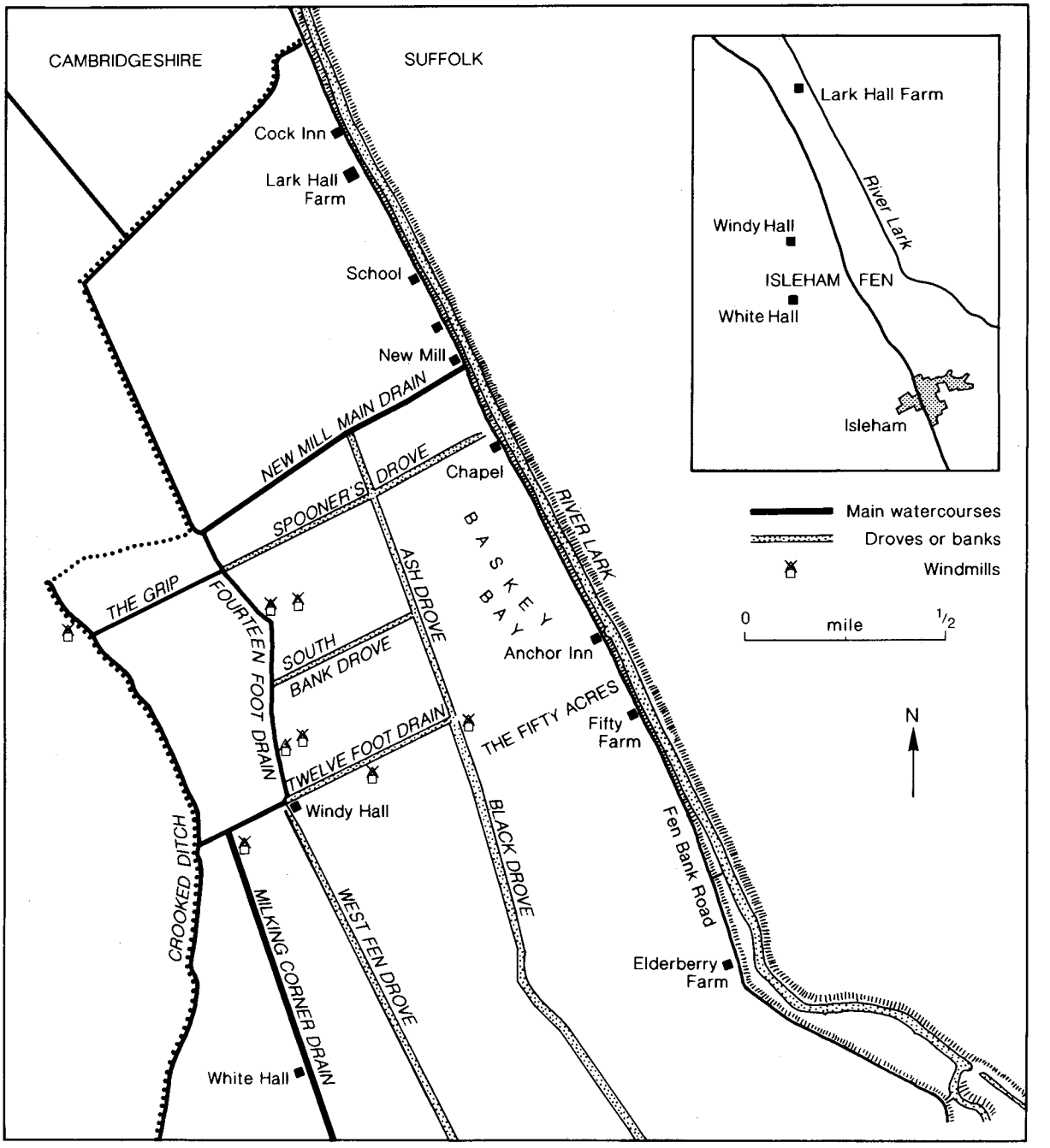


Figure 2. Map of Isleham Fen in 1900.

Life in the fen uplands in modern historical times has been little studied, the notable historians having been, with few exceptions, medievalists or others who stopped short of the nineteenth century. Of course the renowned historical geographer the late H.C. (Sir Clifford) Darby followed up his first book *The Medieval Fenland* [8] with many publications on later fenland drainage; but as a sociological approach has been generally lacking, the glamorous history of the drains has ousted the mundane history of the people.

There is also the fact that, as Joan Thirsk has put it,[9] rural historians of the nineteenth century have found it so 'much easier to

8 Oxford 1940.

9 In J. Thirsk and J. Imray (eds), *Suffolk Farming in the Nineteenth Century* (Ipswich: Suffolk Records Society 1958) p.17.

generalise than to particularise'. Because farming was so depressed for nearly two-thirds of that century a great proportion of the literature on it sprang from anxiety about the future.

> In consequence, surviving records consist to a large extent of summary conclusions, generalisations and recipes for salvation ... *The strong sense of localism which emerges from the study of husbandry in earlier centuries tends to be submerged in the nineteenth century by the weight of information illustrating national trends.* [My italics.]

More recently, the objective study of English country life has been much neglected and our view of it has become 'obscured by a sentimental or romantic outlook which is a peculiar characteristic of the English'[10] — how otherwise can the extraordinary popularity *and* respectability of *Akenfield*[11] be explained? False notions of life in the fens as a peculiar type of rural idyll have been reflected in the great popularity of the novel *Waterland*[12] by Graham Swift who has hardly any personal experience of the fen background.

My great difficulty in discussing the fens in ordinary Cambridge circles has been that the stereotypical notion of 'rural idyll', touched as it is with benign eccentricity, is heavily qualified by dogged derogatory attitudes. Any mention that one is 'working on the fens' is almost bound to provoke immediate reflexes on such matters as incest, wide-spread drug-taking, consanguineal marriage and over-large families. I doubt if any of these beliefs is properly justified by present evidence and I tentatively suggest that they satisfy an emotional need for an exotic hinterland, which relieves the boredom of living in a city which is not in the fens, though close to sea level.

Of course nowadays, at least in the eastern Cambridgeshire peat fens, the term 'fenlander' has little meaning. Despite the astonishing post-war agricultural revolution the fen *land* still exists, for even though much of it has come to resemble a prairie, it will always continue to require heavy and intricate drainage. But relatively very few of those who live in the ancient uplands now derive their livelihood from the land. In 1989 I was told that there were only two farm workers living in Isleham village, compared to over 200 in 1851.[13] The farm workers who are employed by the great agribusinesses which now cultivate much land in Isleham and Soham parishes are all mobile in the double sense that they sit all day on heavy agricultural machinery and travel to work by car, often from some distance away.

Before examining the history of the defunct community known as Isleham Fen, I touch on the nineteenth-century background in the eastern Cambridgeshire fens, with special reference to demography. As already noted, the fen parishes were well populated in 1801, despite the concentration of populations in the uplands. The acreage per head of population for Staploe Hundred,[14] in which nine parishes, including Isleham, Burwell and Wicken, were grouped, was 6.2, a figure equal to that for Cambridgeshire as a whole; and within that Hundred the fen parishes had the highest population densities. The corresponding area per head for Staine Hundred, which included the Swaffhams, was 7.4 acres; and for the individual parishes of Haddenham, Stretham, Sutton and Wilburton, all in Witchford South Hundred, the figures varied only between 6.8 and 8.2 acres. Considering the differing circumstances of each parish, including the varying proportions of each area which consisted of hard upland or of fen arable and grazing grounds, as well as the differing occupational compositions of the village populations, which is revealed by the censuses, it is evident that fenlanders were quite mobile.

Between 1801 and 1851 the population of each fen parish expanded greatly and regularly. Some parishes, notably Soham and Fordham, whose populations increased by as much as 135% and 126% in this period, had presumably attracted an influx of farm workers from neighbouring parishes.

Between 1851 and 1861 something extraordinary happened in Cambridgeshire: the population after rising very steadily since 1801, suddenly fell by 5% — i.e. from

10 W.M. Williams, 'The social study of family farming', in D.R. Mills (ed.), *English Rural Communities* (London 1973) p.116.

11 R. Blyth, *Akenfield: Portrait of an English Village* (Harmondsworth: Penguin 1972).

12 (London 1963). The book jacket describes Swift's fenland, with its fictional geography and place names, as 'not just a superb evocation of place but also a vision of England and the strange, stubborn English temperament'. 'This Fenland, this palpable earth raised out of the flood by centuries of toil ... is a magical a miraculous land.'

13 The exact figure is unknown. As many as 182 householders were recorded in the census as being farm labourers, but the occupations of unmarried sons were not always recorded.

14 Unfortunately the projected volume of the *Victoria County History* which relates to this area has not yet been published.

185,000 to 176,000. There was no other English county which suffered a larger decrease and there were only three other counties whose populations did not increase. While this remarkable change (remarkable within the whole English context) affected Cambridgeshire generally, for a majority of parishes showed some population decline, it was particularly consistent and marked in the parishes within the areas of the peat fens, both east and west of the Bedford rivers.

The authorities[15] are agreed that outward migration (probably mainly to northern cities), together with some migration overseas, were the main causes of this sudden population decrease and certainly changes in underlying vital statistics (birth and death rates) would be unlikely to have varied so much as between neighbouring parishes, despite occasional localised cholera epidemics, as to account for the large variations in population decline. So it seems that many fenlanders, far from being embedded in ignorant isolation in the fens, were alert to the possibilities offered by removal.

The drop in population in 1851–61 heralded a sustained long term decline. In most parishes, in the eastern peat fens, populations fell steadily in each decade after 1851 until the end of the century and in several of them for much longer — thus the population of Isleham parish fell in each decade between 1851 and 1961. However, people moved into as well as out of the fen parishes, high mobility having been encouraged by railway development. In a few parishes, notably Burwell, Haddenham and Wicken, the population decline was temporarily stemmed, if it was not stopped, in 1861–71, owing to the influx of workers for coprolite digging.[16]

As many as 21 people left Isleham parish for America in March 1852, complaining that 'free trade had produced no work and no money'[17] — they alluded, of course, to the agricultural depression which followed the 1846 repeal of the corn laws. Earlier, in April 1851 it was reported[18] that as many as 150 people were similarly due to leave Soham — 'some in debt from bad crops and bad prices'.

Turning to railway development, Ely was linked by rail to Cambridge and London as early as 1845 and in 1846 the line from Ely to March and Peterborough was opened — it was no wonder that the horizons of fenlanders were widened in the 1850s. Most interestingly, the intricate rail network in the eastern Cambridgeshire peat fenland was carefully designed to ensure that *nearly all the uplands of any importance were within a mile or two of a station* and in due course this did much to promote market gardening and horticulture — not activities which readily spring to mind as flourishing particularly in the fens in the last century.

As the *Sixth Report* of the Children's Employment Commission, 1867, provides a vivid, unrivalled and detailed account of the miserable employment conditions which prevailed in the eastern peat fens, it is the subject of Appendix 2 below. The Commission was concerned to examine the notorious gang system which had involved groups of children, some as young as seven, together with women (few of whom were married) in working on farms under a man called a ganger; it may have existed unfettered in the fens for some half a century until, following the Commission's report, the Gangs Act of 1869 was passed.[19]

It has sometimes been supposed that these gangs travelled from place to place and involved married women in abandoning their households. But this is a myth for it is clear from the evidence presented to the Commission that the fenland gangs were essentially devices for escorting children and young people *by day* from their homes on the hard uplands to their work on farms up to three or four miles away. One witness noted that the fenland population was located for the most part in large towns or villages 'a few cottages only being distributed about the fen'.[20] While he regarded the want of a proper distribution of cottages over the lands on which labourers were employed as a 'manifest evil', neither he

15 Including H.C. Darby, 'The movement of population to and from Cambridgeshire between 1851 and 1861', *The Geographical Journal* 110 (1943) pp.118–25. See also R. Butlin, 'Small-scale urban and industrial development in northeast Cambridgeshire in the nineteenth and early twentieth centuries', in U. Sporrong (ed.), *The Transformation of Rural Society, Economy and Landscape* (Stockholm 1990) pp.217–26.

16 Coprolites were phosphatic nodules, which were found beneath the peat, on top of gault clay, in certain Cambridgeshire parishes, which were extracted for use as fertilisers; quite large numbers of labourers were briefly employed at wages much higher than those of farm workers.

17 *Cambridge Chronicle* (20 March 1852).

18 *Ibid.* (10 April 1851).

19 Which controlled the public, though not the private gangs — the latter having been recruited by an employer of the farmer for whom the gang worked.

20 F.D. Longe, *Children's Employment Commission* HMSO 3796 (London 1867) p.12 (see Appendix 2).

nor anyone else noted the impossibility of building lines of cottages on peat! [21]

The general expansion in the scale of fenland farming away from the hard uplands, consequent upon improved drainage and farming techniques, was an adequate explanation for the persistence of this disgracefully exploitative system. Besides, many farmers were attracted by its cheapness,[22] despite the fact that by 1851, as the detailed popu-lation censuses show, very few 'agricultural servants', i.e. unmarried men who lodged with their masters, continued to be employed, so that many labourers had become essentially casual workers, whose work was irregular and seasonal and whose mobility was pronounced.

The question of female employment in the fens in the last century is fraught with difficulty, not only because, as we shall see, census enumerators in rural areas ignored women's occupations, but also because it is possible that women became marginalised as time went by owing to the introduction of new agricultural tools and equipment, including mowing and reaping machines in the 1850s and 1860s — the male occupation of 'claying' had become well established as early as 1830.[23] However, it seems that in the 1860s it was not uncommon for farmers to employ their labourers' wives and maybe some of their children.[24]

Wheat and barley were the predominant crops in the peat fens; owing to claying they flourished luxuriantly — as did the weeds which were conveniently and cheaply cleared by the gangs. There were numerous other crops, notably cole seed, resembling the present day oilseed rape. Probably it was only with the development of horticulture, towards the end of the century, that married women had proper employment, though smallholders' wives had always had many duties on the land and in the care of livestock.

Darby regarded the cutting and drying of turf (or peat) as one of the characteristic male occupations of the medieval fenland;[25] it was still very important in the last century when much peat was sent by water to Cambridge, though serious statistical obstacles prevent its proper study.[26] However, as will be seen, turf digging, despite its marked seasonality, was much the most dependable type of occupation in Isleham Fen in mid-century, presumably because it was more remunerative than farm-labouring. From the angle of the census enumerator the fact that most turf cutters were also farm labourers made it difficult to decide on the main occupation — which was usually the only one to be recorded. And those turf cutters who worked on land that they owned, or more probably rented, were effectively smallholders.

Fortunately both Godwin[27] and Marshall[28] provide us with excellent descriptions of turbary. Marshall is especially strong on the elaborate and ingenious drying process, in which women and children often participated.

The occupation of 'windmill operator' is missing from the nineteenth-century censuses for the very good reason that most windmills were small devices owned by individual smallholders-cum-labourers, which were operated intermittently. Perhaps one day archaeologists may find it possible to make proper estimates of the numbers of drainage windpumps that once stood in the peat fens and elsewhere, for even in these days of agribusiness the farmland must still be drained by drains and dykes on which most of the old mills stood;[29] meanwhile it is impossible to assess the reliability of R.G. Baker's well-known map of Cambridgeshire, 1821, on which more than 200 windpumps are shown. Most of these devices were pre-

21 See Appendix 2. J. Kitteringham, 'Country work girls in nineteenth-century England', in R. Samuel (ed.), *Village Life and Labour* (London 1975) p.98, wrongly explained that this was because 'there were many "closed" parishes, where cottages had been pulled down by their owners to avoid liability for poor rates, while their tenants moved away to "open" parishes where they could find places to live'.

22 Farm wages were notably low in East Anglia, but as piece rates were often paid there are no reliable statistics. (Workers at Exning, near Newmarket, just south of the fens, who actually struck for a rise in weekly wages from 13s to 14s, were defeated by a lockout of 1874.)

23 The clay from beneath the peat was disinterred by cutting trenches and was spread over the land, the block soil being returned to the trench. See D. Summers, *The Great Level: A History of Drainage and Land Reclamation in the Fens* (Newton Abbot 1976) p.194.

24 *Children's Employment Commission*. See also Kitteringham, *op. cit.*, for the general suggestion that employers preferred labourers with working families.

25 *The Medieval Fenland* pp.82 *et seq.*

26 The published, summarised census statistics never mentioned this occupation which must have been subsumed under some other heading such as farm labourer, as there was no category of 'other'.

27 Sir Harry Godwin, *Fenland: Its Ancient Past and Uncertain Future* (Cambridge 1978).

28 Sibyl Marshall, *Fenland Chronicle* (Cambridge 1967).

29 Drains, which are fed by dykes, are the main channels; they cannot feed into the elevated rivers unless the water is lifted.

sumably small wooden tarred structures, owned by individuals, which were later sometimes known as 'outliers' or 'skeleton mills'.[30] With their flapping cloth 'common sails', which some say were usually white or black, but which might sometimes have been red, such mills were analogous to the farm tools and equipment used by smallholders and farm workers; especially in summer, there was usually insufficient wind for their operation.

I hope readers will agree that the important matter of the post-Vermuyden public drainage systems, which were based successively on steam, diesel and electricity, which has received so much distinguished attention, may suitably be neglected here — taking for granted that that good servant steam transformed the lives of many fenlanders. The first Cambridgeshire steam engine was erected at Littleport and Downham where 80 windpumps were supplemented by a 30 h.p. steam engine at Fen Mile Bank in 1819–20; the second was at Upware (Fig.1). The famous Stretham engine, which is well preserved today, was erected in 1831. Although by 1850 there were at least 15 steam engines in Cambridgeshire, as late as 1888 about a third of all the drainage mills in the peat fens were still wind engines.[31]

In the Cambridgeshire peat fens the shrinkage and wastage of the peat, which had followed the Vermuyden drainage, became much more pronounced as steam replaced wind; however, the outflows were much improved and floods were far less alarming than in earlier times. The famous Holme post, which is depicted in so many books, was set up near Whittlesey Mere in 1848, when steam had reached its full development; the post showed that by 1932 the total thickness of peat had diminished from 24 to ten feet.

30 Possibly somewhat similar to that at the National Trust property at Wicken Fen, which came from the neighbouring Burwell Fen; the inner workings of this mill probably date from 1886, but the outer structure was made in 1908 — the earliest mills of this type at Burwell Fen were erected in 1841. Presumably it had been by the erection of even more rudimentary windpumps that private farmers, showing great enterprise and initiative, had avoided the total calamity that would otherwise have resulted from the shrinkage and wastage of the peat which had followed Vermuyden's drainage — a disaster which had culminated in the collapse of Denver sluice in 1715. (For the detailed drainage of Swaffham and Burwell Fens see C. Taylor, *op. cit.* pp.210–21.)

31 H.C. Darby, *The Changing Fenland* (Cambridge 1963) Fig.100.

The History of Isleham Fen

To the north-northwest of the ancient village of Isleham[32] lies the land of Isleham fen. To the east is the river Lark which, like all rivers in the Cambridgeshire peat fens, resembles an elevated aqueduct, for it flows high above the level of the surrounding peat fenland,[33] which has sunk over the centuries owing to drainage. Known at one time as the Mildenhall river, the Lark here marks the boundary between Cambridgeshire and Suffolk; it is a tributary of the Great Ouse and comes from Bury St Edmunds.

It is likely that the community of Isleham Fen (here denoted the Fen) first came into existence in the last quarter of the eighteenth century. Just after the rebuilding of Denver sluice in 1748–50, an Act of Parliament of 1754–8 had established a Drainage Commission for the Soham and Middle Fen Drainage District, an area of some 16,000 acres, in which the Fen was situated, which, according to the Act's preamble, had 'for divers years' been 'annoyed with waters' to the 'great loss and impoverishment' of its inhabitants. Among the powers of the Commissioners, who were mainly large landowners, were to erect large windmills to improve the drains, including one which ran from near Isleham village through the Fen, and to strengthen the banks of rivers including the Lark. The drainage tax, which was to be levied only on lands subject to inundation, was to be, initially, at the heavy rate of two shillings per acre annually. Included among the 'common grounds', which were to be taxed at half the normal rate, was the Fifty Acre Farm of Isleham Fen which then, as now, was owned by a charity. It was ominously stated that those convicted of cutting down or destroying banks, mills, etc., might be transported.

The Middle Fen Commissioners (this was their usual title) were soon overwhelmed by

32 Pronounced Izleham — it was Gisleham in the Domesday Book.

33 Nowadays the Fenbank road stands at exactly sea level; the lowest point in Isleham parish away from the river has an altitude of minus two metres — it is at the junction of the Twelve and Fourteen Foot Drains (Fig.2).

financial problems[34] as well as by floods.[35] In 1777 a great tract of Middle Fen which had been given up and abandoned could be seen half a mile from Ely: 'there you see the ruins of Windmills, the last efforts of an industrious people'.[36] Again, in 1799 there were deep floods between Ely and Soham, which must have affected Isleham Fen.

Is the significance of the agricultural revolution which occurred in the fens in the first half of the last century sufficiently appreciated? This is the period when 'the gunning-boat and fish-net were relinquished for the plough and spade', the 'improving farms' soon bringing 'ample remuneration to the masters and a more comfortable subsistence to the men'[37] — the period when the increased demand for employed farm labourers accounted for the growth of Isleham Fen. In 1852 Clarke wrote that '... under-draining, bone-manuring, guano, ridge-culture, four-course-system, two-handled ploughs, drills, cake-breakers, corn-crushers, horse-shoes, thrashing-machines, Leicester rams, improved short-horns, &c...' had all been mainly invented or brought into play since 1800.[38] However, he was certainly wrong when he insisted that around the turn of the eighteenth century most grazing land had been converted into tillage owing to improved drainage and enclosure, for in many areas summer grazing lands persisted well into this century.

The Cock Inn, which was situated to the extreme north of the Fen, was licensed as early as 1771; it survived for about a couple of centuries. Though it may have been established primarily for the benefit of watermen on the Lark, two other nearby public houses, the Anchor (licensed in 1812) and the Horse and Groom (1817) had surely been mainly intended for the Fen community.

In 1841 the total population of Fenbank was 268.[39] Such a considerable population, mainly consisting of cottagers who were farm labourers and/or peat cutters, must have built up slowly over a period. The earliest map which is on a scale large enough to indicate individual dwellings was R.G. Baker's aforementioned publication of 1821, which marked the Fenbank road behind the Lark embankment, various habitations and at least eight windpumps close to the river. The earliest documentary reference[40] to the existence of a farm at the Fen would suggest that the farmstead was not an isolated residence, for Lark Hall Farm[41] was a large mature holding of some 300 acres with yards, gardens and plantations. Finally, the erection of an isolated hut in 1816, about a mile west of the river, on a five-foot high hard land which was part of a larger slade, was evidence for the existence of a community closer than Isleham village; the settlement on this slade came to be known as Windy Hall (see Fig.3), the interesting and long history of which is briefly related below.

The unpublished[42] detailed census statistics by household, which were first collected in 1841 (and which, owing to the operation of a hundred-year secrecy rule, are available only until 1891) provide the basis of this history. Although this material is much consulted by numerous members of the public in pursuit of their family histories, not much use of it has been made so far by historians of the Cambridgeshire fens.

For each individual household the names of all members, including children, were recorded, as well as the relationship to the household head, age and birthplace; while the 'main occupation' (see below) of the male household head was nearly always recorded (there were few female householders), female occupations were hardly ever recorded.[43] Although in 1841 and for some decades to

34 In 1787 arrears of taxes were as high as £3089. But the Commissioners continued to call meetings, for otherwise the whole Middle Fen would have become inundated (from detailed documents kindly made available by Archer & Archer of Ely, the lawyers who later took over the collection of the Middle Fen drainage rates). The trouble with the private millers was that they tended to throw water at each other.

35 As in Burnt Fen, north of Prickwillow. See the excellent pamphlet by the late J. Beckett, *The Urgent Hour: The Drainage of the Burnt Fen District in the South Level of the Fens 1760–1981* (Ely: Local History Publications Board 1974). (High opportunities of undertaking similar work on other Drainage Commissions await the eager historian interested in post-Vermuyden drainage; the first such Commission to be created was that for the Haddenham etc. Level in 1727.)

36 According to a report cited in H.C. Darby, *The Draining of the Fens* (Cambridge 1956) p.130.

37 J.A. Clarke, *op. cit.* p.146. (This perspicacious, lively author realised that many cottagers continued, after the general drainage, to live in the uplands — which he denoted the 'hards' or islands.)

38 *Ibid.* p.140.

39 As the four previous censuses related to Isleham Parish as a whole, individual households not being distinguished, the earlier population of the Fen is unascertainable.

40 *Cambridge Chronicle* (3 March 1815).

41 In about 1833 the holding was at least 304 acres in extent, in two distinct portions, each extending back a mile or so from the river.

42 Available on microfiche in the Cambridgeshire Record Office.

43 Even in villages proper, it was only when a woman had an unusual non-farming occupation, such as publican or school teacher, that it might have been recorded.

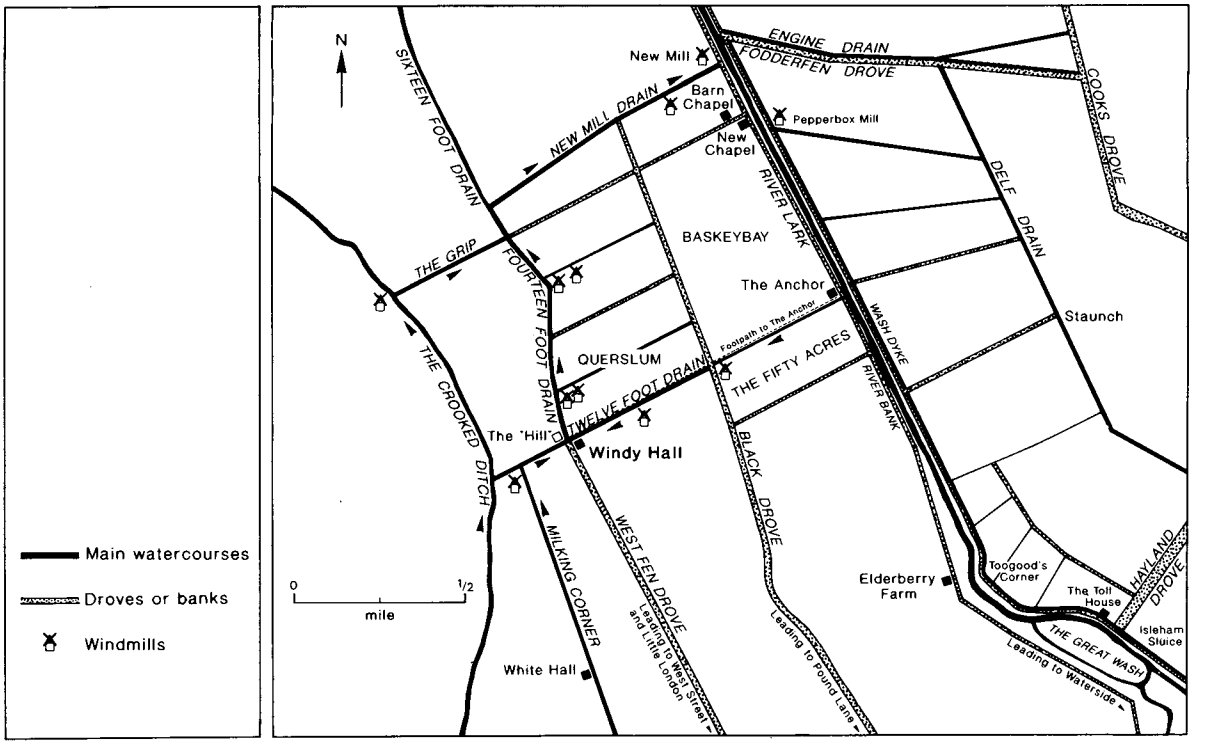


Figure 3. This map of Windy Hall and its environs is reproduced, with permission, from the genealogical project of Edward and Thomas Wells.
(The Isleham to Prickwillow road (B1104 in Fig.1) was not completed until 1940.)

come, the censuses were the only source of official published sequences of statistics relating to numbers of farmers and their acreages in Britain generally, examination of sequences of unpublished detailed figures, which were of course always bulked in published census reports, suggests that they were quite inaccurate and defective.[44] Acreages, which sometimes went unreported, were apt to be guessed or rounded, especially when the holding consisted of a number of separate farms, numbers of labourers were often not reported (as they should have been) and enumerators were often hard put to it to determine whether farming was the main occupation. Enumerators occasionally overcame the latter problem by listing two or more occupations; but they did this unsystematically so that, for example, the farmer/publicans, who were important people in the Fen, might have happened to have been given either occupation. But the research worker cannot but be thankful for such detailed material, and strive to make the best use of it, warts and all.[45]

In all the fen uplands, without exception, the main recorded male occupation was 'agricultural labourer' (sometimes denoted 'labourer'); but, as already noted, considerable proportions of all male householders had other primary occupations.[46] However, the

44 There were many difficulties. Thus, for example, the holdings of larger farmers (proper) often consisted of several or even many separate 'plots' or farms and smallholders did not necessarily think in terms of acreages at all. See Appendix 1.

45 One has to sympathise with the enumerators whose task was made very difficult by urban bias over the classification of occupations, and false assumptions about the degree of literacy, such that each respondent was supposed to fill in his own census schedule. It is interesting to reflect that as most of the men were out all day, many of the respondents must have been women, which perhaps accounts for the apparent accuracy of most age-reporting, of children in particular.

46 In 1851 about a half (48%) of the 379 male householders in Isleham village were agricultural (or general) labourers or turfmen; as, in addition, 11% of householders were farmers, nearly two-thirds of the householders gained their livelihood directly from the land. A great diversity of other occupations supported the remaining 110 householders. Among them were 41 artisans, builders, etc. (including blacksmiths and wheelwrights); 16 watermen and bargees (indicating the importance of water transport to the village); 15 traders, shopkeepers etc. (including four grocer/drapers and three butchers); and eight shoemakers. At that time the village had a large number of public houses or beerhouses;

Fen was different: there the very great majority of all male householders were agricultural labourers, smallholders or peat diggers, sometimes (to the confusion of enumerators) pursuing two or all of these occupations. Also the Fen dwellers were better able to pursue subsistence activities (see below).

In 1841, as in later years, the great bulk of the Fen population consisted of nuclear families, living in tiny cottages, which were straggled out for about two miles (like beads on a chain, from which some beads were missing), behind the huge Lark embankment, over which domestic water supplies were drawn. The only other buildings were one large farmstead, four public houses (the newest being the Spade and Beckett) and a Baptist chapel erected in 1841. The employed agricultural labourers would have worked on Lark Hall or the Fifty Acre farms, or with farmers resident in Isleham village or in other nearby parishes in Cambridgeshire or Suffolk.

From the run of six censuses, 1841–91, it is clear that most men, as well as women, married in their early or mid-twenties and that then, as in this century, the Fen knew no old maids and few widowers. Except, for some unknown reason, in 1851[47] the very great majority of households consisted only of a husband and wife, or a widowed person, with or without unmarried children; grandparents were very rare. It was only in unusual circumstances, such as where widowed mothers were in charge of farms or a public house, that sons remained at home, or returned home, after marriage, a rule which was perhaps not wholly explicable in terms of the small size of most cottages, for the youngest son might, at least temporarily, have occupied the second bedroom. Then, as in this century, if a prospective bridegroom were unable to find an empty cottage on Fenbank, he would necessarily have removed. So mobile was the population that it may be that some sons preferred, in any case, to remove on marriage to start a new life, especially as their wives were often not Fen women.

In 1841 about a quarter of all male householders (29%) and of their wives (23%) had been born outside Cambridgeshire; judging from later censuses,[48] they had probably mostly come from Suffolk parishes just over the river, notably Mildenhall. Of course there is no means of judging the degree to which the Fen population had originated in Isleham village.

Turning to the male householders' occupations that were recorded for the Fen in 1841, it seems best to group together 'labourers' (20 of them) and 'agricultural labourers' (numbering eight) on the supposition that many of them would have been employed on both drainage and agricultural work, in which case nearly a half of these 60 men would have been categorised as 'farm workers' in this century. Otherwise there were ten turf diggers (who presumably also had other occupations), six turfmen (who were presumably turf traders), four publicans, two watermen, and a carter, a gamekeeper, a wheelwright, a gardener and a carpenter. For various reasons no reliability attaches to the figure of five 'farmers'.[49]

The 1841 census, like all subsequent ones, is silent on the occupations, if any, of women and children — probably some of them were gang workers? Elderly Fen women who had been employed farm workers in the 1930s had no opinion as to whether they were following in their grandmothers' footsteps;[50] but we may take it for granted that Fen women had always been interested in the rearing of small livestock and that wives of smallholders worked hard on their husband's farms.

Turning to 1851 when the Fen population (including Windy Hall) reached its peak of 293 (in 59 households, three of them headed by women), the most striking change since 1841 was the degree to which individual agricultural labouring families had moved out to be replaced by others. Only seven of the total number of 27 agricultural labourers in 1851 had been there in 1841 and of the 20 new

many of the publicans must have had other important occupations, such as farmer, for the recorded number of four in the census was absurdly low. (The non-farming population was particularly mobile: thus in 1851 about a third of it had been born outside Isleham parish.)

47 In that year as many as 12 of the 59 households included 'visitors' or 'lodgers', many of whom were also found in Isleham village; seven of the 24 outsiders were children. There were only four uninhabited cottages in the Fen, so even if they were not tied and were in good repair they could not have accommodated all the outsiders.

48 The 1841 census was inferior in a number of ways, one of which was its failure to record the actual birthplace, which was given as either Cambridgeshire or elsewhere. (The 1991 census relapsed in a somewhat similar way.)

49 Thus no publicans were recorded as being farmers as they were in subsequent censuses. The very word 'farmer' was probably apt to be found too awe-inspiring by those who regarded themselves as smallholders.

50 So mobile were Fen people that few of their grandparents had lived in the Fen, their names usually being unknown.

names none (with the possible exception of a few called Brown) could possibly have been sons who had been living with their fathers in 1841. So the turnover of labourers had involved the recruitment of new men.[51] However, it was interesting to find that the turf cutters were a much more stable element in the population: of the 16 men so occupied in 1851, as many as nine had been there in 1841, and two of them were the sons of former turf cutters.

In 1851 only 64% of the male householders in the Fen, and 49% of the wives and widows, had been born in Isleham parish. As nearly all of those from other parishes had come from localities within, say, ten miles of the Fen, one should imagine labourers as having been constantly walking about in search of work.

The census figures for farmers in 1851 are again quite suspect: there were supposed to have been only three of them, one at Lark Hall Farm, one a son of the late publican at the Cock Inn (30 acres) and one smallholder (seven acres). But as was the case until the 1930s, it is safe to say that most Fen labourers were employed by farmers living elsewhere.

Between 1851 and 1861 there was possibly little long-distance removal from the Fen, the population having fallen by only eight persons to 285. But however this may have been, the composition of the population continued to change all the time, and only three of the 33 new household heads in 1861 were sons of men who had been there in 1851. As many as five of the seven householders who were classified as farmers were connected with the beer trade; two were publicans, one was an ex-publican and there were a widow and a son of a former publican. The two actual publicans were a newcomer from Hertfordshire and one William Aves, who was probably the only Fen man (apart from those at Windy Hall) whose descendants were still in the Fen in the 1930s.

It is as unnecessary, as it would be tedious, to relate more than a few of the detailed census figures for 1871 to 1891, as the trends that had already established themselves were later sustained, the composition of the declining population continuing to undergo great change. In 1891, when the population (217) was only 74% of its peak in 1851, the number of households was no smaller, average household size having fallen from 5.0 to 3.6 persons. In 1881 as many as six households were headed by widows and as the censuses are, in general, so neglectful of the occupations of women, it is interesting to identify them. Three of these widows had taken over their husband's farms. They were Susan Watson, publican of the Horse and Groom, Mary Ann Human who employed three men on her farm of 43 acres, and Sarah Brown who employed two men on her farm of 54 acres, although she had two unmarried sons living with her. The other three widows were a nurse and the widows of a fisherman and a labourer.

In the 1891 census 11 farmers and one farm bailiff were enumerated — acreages went unrecorded, but four of them were for once denoted 'small farmers'. Apart from one bargeman, all the working male householders were denoted 'agricultural labourers' though presumably some of them might have derived more income from peat digging, which was still flourishing; a Church of England school having been established in 1879 there was also a teacher. (A new Baptist chapel had been built in 1872.)

It is clear from the censuses that every male householder regarded himself as having a formal main occupation (however intermittent that may have been) and that most of the farm workers were employed by farmers resident elsewhere (see Appendix 1). But most ordinary Fen farm workers in the last century would presumably have resembled those in the 1930s[52] in having supplemented their wages by means of such occupations as the rearing of animals (pigs, horses, cattle and fowls), the cultivation of their garden plots or allotments (growing vegetables, notably potatoes, for household consumption and possibly flowers for sale), fishing[53] (notably for eels), the catching of wild fowl and moles (for skins) — all these and other subsidiary occupations, which are popularly regarded as having been those on which fenlanders were

51 Judging from the Isleham Burial Register very few labourers had died since 1841. (Incidentally, corpses cannot be buried in peat.)

52 My enquiries relating to the 1930s were based on conversations with former Fen dwellers; most of whom were then resident in Isleham village for the Fen community had completely collapsed, though very slowly, over a period of about 25 years after 1945. (Unfortunately my brief article 'The rise and fall of a fen community', *Cambridge Anthropology* 12 [1987] [actually 1989] pp.67–75, has been superseded by my later work and my privately printed booklet *The History of Isleham Fen in the 1930s* [1990] is out of print.)

53 The Anglian Water Authority finally killed off all the fish in the river Lark by discharging excess effluent from its sewage works at Mildenhall, for which act it was convicted in July 1988, receiving a small fine.

primarily dependent,[54] are well described by Elijah Wells,[55] who was born in Isleham in 1896.

Although the male occupants of the remote Windy Hall would have had special opportunities to pursue such 'subsistence activities', until 1881 they were always denoted as labourers or peat cutters in the censuses. Thanks to the magisterial genealogical work of two of the great grandsons of a son of the founder of Windy Hall[56] — in which many hundreds of their forebear's descendants are identified, and where much valuable material relating to the rather mundane history of Fenbank is also provided — the slowly changing fortunes of this small branch of the well-known and very large Wells family is documented. Descendants of the original Thomas Wells (1817–99) — he was the third son of the founder Joseph Wells (1773–1858) — were at Windy Hall until 1945.

There were many drains and dykes near Windy Hall, which was close to the Crooked Ditch which carried spring water from the chalk hills to the south (Fig.3). Dozens of different people held land in the area, which was known as Querslum (i.e. Quarrelsome); it abounded with windpumps and at one stage Thomas Wells operated at least one of them himself.

When a member of the Wells family married he was allotted land on the slade on which to build a new dwelling, of which there were five in 1841; very few Wells families removed to Fenbank, though several (at least) migrated in mid-century to northern cities to work in cotton or woollen mills. A few years ago the Wells genealogists identified some 400 descendants of the original Thomas;[57] they were very widely dispersed.

In the 1851 census seven out of ten of Joseph's grandchildren were denoted 'scholars' in the census, because they were attending the Sunday School[58] at the Barn Chapel on Fenbank; like many other Fen dwellers, members of the Wells family were ardent dissenters. In 1881 Thomas Wells was at last recorded as cultivating 23 acres. It is hard to believe that he and the other Windy Hall residents had all abstained from cultivation on their own account until then, especially as, in earlier times (though perhaps not at Querslum?), it had still sometimes been possible to 'appropriate land' by the mere act of cultivating it.[59]

In the 1930s there were only three other families, two of whom were connected with the beer trade, whose forebears could be traced back (say) half a century; a member of the Aves family (p. 107 above) was then remembered as having grown the new crop, sugar beet, before the beet factory was opened at Queen Adelaide, near Ely, in 1925. Throughout the nineteenth century, the publicans were the undoubted 'aristocrats' of the Fen,[60] and their families intermarried. A widow would usually have succeeded her husband both as licensee and smallholder, being in turn succeeded, if only in the former position, by a son. For men, but not for women, the public houses would have been the community's social centres. Otherwise

54 J.A. Clarke, *op. cit.* p.141, supposed that outside the fen uplands there was 'a wilder race of fishermen and fowlers — rude amphibious men, wading through plashes on stilts, trapping waterfowl in nets, skimming the broad and ready acres in boats, stalking over morasses with leather breeches, leggings, and jack-boots, and journeying annually to Sturbeach [Sturbridge] Fair, at Cambridge, to purchase the requisite clothing for their families.' It is one of the main contentions of this article that from the early nineteenth century onwards such men would usually have been ordinary fenlanders, who derived their main livelihood from farm labouring, and/or peat digging — work which was apt to be intermittent. Clarke noted (p.262) that while the demand for labourers had increased consequent upon drainage and enclosure, the real income of agricultural labourers had not risen; and, owing to the increased population, 'fishing and fowling' would not 'suffice' as it had done at one time (p.263).

55 *Fenland Boyhood: A Fenman Remembers the Pastimes, Skills and Landscapes of a Lost Paradise* (Mildenhall: Museum Publications 1983).

56 See Edward and Thomas Wells, *Thomas Wells of Windy Hall* (photostat 1989) p.69. See, also, the same authors' *The House of Elijah Wells* (photostat, published by Edward Wells, 5 Riverside Way, Mildenhall, Suffolk, and by his brother 1990) p.118. The original Thomas and Elijah were respectively the son and grandson of Joseph, the original settler at Windy Hall.

57 I am grateful to the Wells brothers for this and other information.

58 See *ibid.* (1990) p.23, for statistics of attendances at that Sunday School for each alternate year from 1862 to 1900.

59 When the 'Soham Estate', which included Lark Hall Farm on Fenbank, was auctioned in December 1876, having been owned by the late J. Dobede of Soham, the advertisement stated that the 'ancient fences or boundaries were in many cases removed' so that in some cases it was impossible to identify with any certainty the descriptions contained in the conveyance. (Cambridge University Library Map Room, PSQ.18.307.)

60 There was a lack of social distinction between smallholders and farm workers who often belonged to the same household. The unmarried sons of smallholders, who lived with their fathers, were usually employed by others as farm workers; and very few sons took over their father's land when he died, perhaps mainly because it was usually rented on an annual basis.

there was only the Baptist Chapel and, from 1879, the Church of England School, which also served as a church.[61]

Almost everyone, except for the publicans, the occupants of the school house, and the small number of farmers proper, would have lived in a mean cottage on Fenbank.[62] These cottages were presumably inferior to those in the 1930s when living conditions were so appalling that, particularly during winter, ordinary daily life must have been harsher than in much of the rural tropical world today where it is so often lived on verandas or in the open air — though it must be added that everyone recollected the food as having been rather good. Family life would have been lived in the kitchen, which was the only warm room, as front rooms were hardly ever used; all the washing up and bathing would have been done in the kitchen using water from the river. Presumably there was also usually a wash-house or back-house. The privy stood at the end of the garden, the contents of its bucket being buried in a hole in the ground. The parents' bedroom, over the front room, would have been reached by a steep staircase, or maybe only a ladder; as for the children's sleeping space, this would have been an ill-ventilated landing or loft at the head of the stairs or steps. To my mind the greatest hardship suffered in the Fen was not the hard (though often intermittent) work on the land, with its poor wages and conditions, nor the isolation, the muddy road, the need to haul water over the high embankment — but the miserable housing which smallholders, as well as prestigious horsekeepers, so often had to endure, as well as ordinary labourers.[63]

61 There was no shop. The likelihood is that in the last century, as in the 1930s, the Fen was mainly provisioned by itinerant traders, from farther away than Isleham village, some of them with horses and carts.

62 Unfortunately, I can find no information on who owned these cottages, which in the 1930s were sometimes 'tied' and in pairs.

63 Whether labourers' living conditions in the uplands were equally poor is not known, but tradesmen presumably built some decent habitations. Isleham village would have benefited from cheap supplies of the locally quarried building material — clunch. An interesting article by an author who lived in Chatteris, west of the Bedford rivers, who actually noted that both farmers and labourers often lived in villages or towns not on their land, condemned the cottage accommodation available there as 'miserable wretched hovels' — which were, of course, 'hot-beds of immorality'. A.S. Ruston, 'The fen country', *Journal of the Farmers' Club* (November 1970) p.49.

Demographic Misbeliefs

As I am only too well aware, from prolonged field experience in West Africa, of the dangers, even the absurdity, of amateur demographic analysis, and as I appreciate the justification for the generally contemptuous attitude of the professionals towards the amateurs, it is with great temerity that I approach the question of family size in the Fen in 1851–81. The question is whether the census statistics confirm the widely held belief, of present-day fenlanders and others alike, that 'Fen families used to be very large'?

After a long and somewhat painful search, I have come to the surprising, and still tentative, conclusion that there seem to be no published statistics on 'family size' in the mid-nineteenth century for English rural communities or localities with which the Fen statistics might appropriately be compared. My first instinct was to play safe by dropping the whole matter, but I then reflected that as the belief in 'large families' is itself vague, so the question could be approached in a very general way by enquiring whether the census statistics seem to indicate 'surprisingly large families'. I say at once that I think that they do not.

For each of the four census years 1851 to 1881, it seemed best to note the family size for each of the mothers aged between 35 to 40, for as girls then married considerably later than they do today, few of their daughters would have been old enough to have left such households and hardly any of their sons — for bachelors were never householders. Although, of course, some of the families of mothers of this age were still incomplete, a high proportion of all the children who would ultimately be born to such mothers would already have been born. As in Isleham Fen there were only 27 mothers in the five censuses 1841 to 1881 which fell into this age group, the statistics were supplemented by similar figures relating to 56 mothers in Isleham village in 1851 — the latter mothers had 59 sons and 62 daughters living with them, which suggests that few of their daughters had made early marriages or gone into domestic service.

Table 1 shows that, especially in Isleham village in 1851, large families with seven or more children were quite rare — the largest having no more than nine children. In

Table 1. Numbers of Children Living with Mothers aged 35 to 40 Years.

No. of children in family	Nos of mothers			
	Isleham Fen, 1841–81		Isleham Village, 1851	
		%*		%*
Nil	—	—	5	9
1	2		6	
2	2	30	9	50
3	4		13	
4	7	26	9	16
5	4	15	10	18
6	4	15	1	neg.
7	1		1	
8	1	15	2	5
9	2		—	
	27	100	56	100

* Rounded figures

Isleham Fen in the five census years 1841 to 1881 over half (56%) of the families of wives in the 35 to 40 age group had no more than four children, the corresponding percentage for Isleham village in 1851, where there were five childless women in this age group, having been as high as 75%.

Ignoring considerations of high infant mortality, do these figures indicate a notable degree of philoprogenitiveness in those high Victorian days, when large families were commonplace among the upper classes, given that it is well known that agricultural workers generally had higher fertility rates than most other manual workers? I think not. I also think that it was the existence of a few very large families in (say) the two decades prior to 1914, such as did not exist in the Fen in the 1930s, which might have accounted for the ex-Fen dwellers' belief that their forebears were so fertile.

As for the incidence of consanguineal marriage, the fact that the composition of the Fen population underwent constant change, makes it appear quite unlikely (as does the evidence of former Fen-dwellers themselves) that marriage between close kin was preferred.[64] This mobility meant that the Fen was the antithesis of the stereotypical closed fen community. Only four householders, two of them at Windy Hall, were there (as householders) in each of the five census years 1841 to 1881; the total number of male householders recorded in these censuses was 190, of whom as many as 106 had been householders in one census only; there was no significant core of 'permanent residents' except at Windy Hall. But even if there had been a high incidence of 'in-breeding' in the peat fens, I have been told, on the highest medical authority that, for genetic reasons, this would not have accounted for the marked incidence of the dread illness Huntington's chorea in some localities, as is sometimes suggested.

The other common demographic misbelief relates to the incidence of incest. I am told[65] that it was because it was so commonly believed that fen dwellers were particularly incestuous that the Cambridgeshire social services made special enquiries there which were said to have confirmed this belief. But as we have learnt more recently, the *general* incidence of incest (involving particularly fathers and daughters) is far higher than had hitherto been realised. It yet remains to be proved that there was a higher incidence of incest in such a village as Isleham as in a comparable non-fen Cambridgeshire community.

Finally on the matter of derogatory misbeliefs, I turn to consider the interesting question of opium in the fens in the nineteenth century; I do this with special reference to three emotional and repetitive publications by

64 Of course the real question, which cannot be answered, is whether there was more 'in-breeding' in the fen uplands than in Cambridgeshire villages generally; this would seem unlikely given the high degree of mobility revealed by the detailed censuses and their excellent (even superior) communications with the wider world. Mr Thomas Wells, see n.57 above, has told me that he thinks he has found relatively few cases of cousin marriage among the hundreds of descendants of Thomas Wells (1817–99).

65 Personal communication.

Virginia Berridge,[66] but with no reference to fen poppy-growing, the extent of which is inestimable. The main argument in favour of there having been heavy opium consumption in the middle of the last century is that bad health[67] and poverty necessitated this.[68] In the 1850s opium could be bought in any shop — it was obtainable in Cambridge on market day as related by Charles Kingsley;[69] but the 1868 Pharmacy Act restricted sale by unqualified vendors, legislators having become fearful of misuse of the drug by the industrial working class.

Berridge states (1981 p.39) that, according to an analysis in 1862 of which no particulars are given, 'more opium was sold in Cambridgeshire, Lincolnshire and Manchester than in other parts of the country'. She also unconvincingly claims (1981 p.40) that the area where opium eating was common 'can be delineated fairly clearly'; this area is supposed to have included Boston and Louth in the north and St Ives and Huntingdon to the southwest, and was said to be especially concentrated on the Isle of Ely. Finally, it is stated, no reference being given, that in 1867 the British Medical Association considered that Norfolk and Lincolnshire consumed half of British opium imports. On the basis of such inadequate evidence we are assured (1979 p.313) that 'opium use was as normal for the people of the Fens as it was for Coleridge and de Quincy' — 'their colourless lives are temporarily brightened by the passing dreamland afforded them by the baneful poppy'.[70]

66 'Fenland opium eating in the nineteenth century', *British Journal of Addiction* 72 (1977) pp.275–84; 'Opium in the fens in nineteenth-century England', *Journal of the History of Medicine and Allied Sciences* 34 (1979) pp.293–313; V. Berridge and G. Edwards, *Opium and the People: Opiate Use in Nineteenth-Century England* (London 1981).

67 While only a few cases of ague (malaria) were reported from the fens after mid-century, rheumatism was often said to be particularly prevalent there. But were the fen villages on the uplands any more unhealthy than other Cambridgeshire villages?

68 In Berridge *et al.* (1981) p.44, it was wrongly reported that under the gang system women were away from home for long periods so that they neglected their households.

69 *Alton Locke* (1850).

70 A citation from a writer on Lincolnshire — see Berridge *et al.* (1981) p.45.

Conclusion

Apart from the sophisticated work of Godwin[71] and Marshall,[72] the literature on the East Anglian fenland has little to say that is reliable about the humdrum day-to-day working life of the ordinary fenlander who worked on the newly-drained fenland in modern historical times before the recent agricultural revolution; it has certainly not been emphasised that in some large sections of fenland, such as the peat land of eastern Cambridgeshire, the ordinary fenlander was usually an employed farm labourer, who was sometimes also a peat cutter, who commonly lived in an ancient village on an upland, with the butcher, the baker and the candlestick maker as his neighbours. Nor has the contribution of the women and children who worked in gangs been generally understood.

In the absence of reliable information, oral beliefs based on a curious mixture of sentimental and derogatory attitudes (see p.100 above) have *spontaneously* filled the vacuum — for it is difficult to believe that the curious views of such an author as the Burwell physician, Charles Lucas,[73] have had much influence. These general beliefs amount to an oral tradition or myth, being invulnerable to rational argument. By studying the history of that open community Isleham Fen, I hope I have done a little to stimulate new thinking.

I suggest that the compulsion to denigrate fenlanders is so deep-seated that it goes back to Vermuyden's time, when Cambridge University was strongly opposed to the fen drainage. The University felt that its river Cam was threatened; they needed their lovely flowing water, their long-distance navigation, their peat for the college kitchens — all of which was about to be destroyed in the interests of certain wild men.

While Oxford often wrongly believes that Cambridge is 'in the fens', it is a curious fact that the University and the city have never been well integrated with that hinterland, until quite recently. Most Cambridge colleges showed little interest in acquiring significant

71 *Op. cit.*

72 *Op. cit.* The author records the oral memoirs of her father who lived in an immense windmill in the Huntingdon fens. I need hardly emphasise that residents of such windmills were very unusual people.

73 Who quoted with approval the views of a Londoner who had written to him in 1862 that the people in Grunty Fen, near Ely, were 'amphibian', the girls having 'yellow and spotted bellies and webbed feet'. *The Fenman's World: Memories of a Fenland Physician* (Norwich 1930) p.52.

acreages of newly drained farmland. Nowadays it is consistent with tradition that Oxford tourist coaches should explore the lovely surrounding countryside, including Blenheim Palace and Stratford-upon-Avon, whereas the Cambridge coaches very seldom get as far as Ely cathedral.

It is surely because the landscape around Cambridge is so mundane[74] — so unexotic — that there was an unconscious need to postulate the existence of a hinterland inhabited by strange people; so it was that exotic, even idyllic, features accreted, modifying the original derogatory myth. This modified myth persists even though so many commuters to Cambridge now live on the fen islands and promontories.

I conclude by citing the unbiased testimony of Daniel Defoe,[75] whose journey began in 1722 soon after the collapse of Denver sluice:

> As these Fens appear cover'd with Water, so I observed too, that they generally at this latter part of the Year appear also cover'd with Foggs ... One could hardly see [Ely Cathedral] from the Hills and not pity the many thousands of Families that were bound or confin'd in those Foggs, and had no other Breath to draw than what must be mix'd with those Vapours, and that Steam which so universally overspread the Country: But notwithstanding this, *the People, especially those that are used to it, live unconcern'd, and as healthy as other Folks, except now and then an Ague, which they make light of, and there are great Numbers of very antient People among them.* [My italics.]

General Acknowledgments

I wish to acknowledge the great help I have received from the Cambridge county and city archivists and from the Cambridge University Library. In 1987–9 I benefited greatly from conversations with many former residents of Isleham Fen, particularly with Mrs Direna (Rene) Turner, who was born in the Cock Inn; I am most grateful to them all.

74 This is not prejudice. C. Taylor is an enthusiast for the Cambridgeshire landscape, yet admits that none of the great names in English literature who attended the University, not even Wordsworth, left any writing of merit on the county landscape, *op. cit.* p.21.

75 *A Tour Through the Whole Island of Great Britain* (London 1968, first published 1724–6) p.80.

Appendix 1

Who Were the Fen Farmers?

This article has made little reference to fen farmers proper (as distinct from smallholders) — to those who were responsible for employing the great proportion of all the men who derived their livelihood directly from the land. The names of most of these farmers, unless they were absentees,[76] were re-corded in the detailed censuses but, unfortunately, the census enumerators quite often failed to record acreages and numbers of labourers, so that smallholders with small acreages who employed family labour only, cannot necessarily be distinguished.

Who were the farmers in the peat fens in the nineteenth century? I present the hypotheses that relatively small proportions of them were former smallholders whose scale of operation had expanded; that land was commonly rented; and that farmers were apt to be mobile, moving between the parishes.

A detailed analysis of the census statistics for a number of villages in the peat fens shows that the identity of farmers (including smallholders) underwent constant change — a fact which was necessarily concealed by 'the mask of the aggregates' presented by the published census figures. Moreover, there was a remarkably low propensity for sons to take over from their fathers. In the case of Isleham village only 19 of the 44 farmers recorded in the 1851 census were resident farmers in 1861, the corresponding intercensal figures for 1861–71 and 1871–81 having been only 14 out of 28 and 17 out of 46. In Haddenham parish only 22 of the 59 farmers in 1851 were still there as farmers in 1861; it is interesting that the 'non-stayers' were on the average larger farmers than the 'stayers', and were more likely to have been born outside Haddenham. The statistics for Sutton were similar. The numbers of farmers who featured (themselves or their sons) in each of the three censuses in 1851 to 1871 were only eight in both Isleham and Haddenham and four in Sutton. Had many of the farmers been former smallholders they would surely have been more securely rooted in their villages?

76 Very occasionally the detailed censuses relating to the villages recorded the existence of farm bailiffs; but other men, such as foremen, who were in charge of the farms of absentee farmers, were never enumerated as such.

A unique enquiry into land ownership, which was undertaken in 1873,[77] showed that there were few large landowners resident in the villages in the Cambridgeshire peat fens; only 21 owners of 500 acres or more were resident there, of whom as many as eight were in Ely, including the cathedral authorities. The total area owned by the other 13 large landowners was only 9319 acres, of which 1578 acres were owned by C.P. Allix of Swaffham Prior, and 983 acres by O.C. Pell of Wilburton. It would seem that many village farmers must have rented some or all of their land.

As few of the village farmers were able to live on their land (as did the farmer at Lark Hall Farm in Isleham Fen), so they might have lacked attachment to it. Of course there were exceptions, such as the Robins family of Isleham village, which employed 48 men and 18 boys on (a rounded) 1300 acres in 1861, and who probably flourished for as long as a century; as well as being farmers, they were timber, coal and general merchants and lime burners. But in general little continuity emerges from the census figures.

Probably a fair proportion of the drained farmland in the 1850s was still mainly pasture, having received little fixed investment. The mobile farmers, such as the series which occupied Lark Hall Farm in the years after 1815, would have found it easy to sell or remove their livestock.

Material relating to farm auctions towards the end of the century[78] shows that the ordinary large farm holding consisted of many dispersed or separate portions or 'farms' — which justifies a sceptical attitude towards the accuracy of the total acreage figures in the census.[79] Much of the tenanted land in the 28 auction cases which were examined was on an annual basis, and there was little evidence of long leases.

Finally, it is interesting to note that in the 1870s Cambridgeshire (including the Isle of Ely) had a smaller proportion of large estates over 1000 acres than any other English county with the exception of Cumberland, Middlesex and Northumberland.[80]

77 The enquiry was based on valuation lists for rating in each parish, and included building land as well as farmland. The Cambridgeshire figures are in Vol. I of *Return of Owners of Land 1873* (London 1875).

78 A collection of printed material relating to advertised auctions of farm property is held by the Map Room of the Cambridge University Library.

79 As constantly reiterated here, economic historians are much given to uncritical acceptance of the published census statistics of the sizes of farm holdings.

Appendix 2

Notes on the Sixth Report of the Children's Employment Commissioners 1867 (HMSO 3796)

Men's Wages

While it was reported by many witnesses that male labourers' wages were commonly 10s a week (1s 8d daily), it was also emphasised that piece work was common and popular with both parties. Piece workers might have received 13s to 15s weekly, more than the prestigious 'horsemen' (ploughmen who cared for the horses) who might have got 11s or 12s. Harvest wages, however, were higher — maybe 18s weekly for a month. It was generally reckoned that a man got 2s an acre for hoeing. Scattered throughout the report are references to unemployment and irregular employment; sometimes the children's gang work might have been a family's sole means of support.

Women's Wages

For women who worked independently, not in gangs, daily wages of 10d were commonly mentioned. In Isleham, where labour was regarded as 'very plentiful', women were said to have got as little as 8d or 9d daily.

Children's Wages

Whether they worked in gangs or not, children's wages were age-related, starting perhaps at 6d daily, at the age of seven. But public gangers may have pocketed part of the wages themselves.

Cost of Gang Work

It was generally reckoned that the gang work, which was mainly on distant farms, cost less than the work of independent labourers — say 1s 8d per acre for hoeing, when a man would get 2s.

80 See P. Jenkins 'Cambridgeshire and the gentry: the origins of a myth', *Journal of Regional and Local Studies* 4 (1984) p.13.

Attitude to Gang Work

Many farmers and others were opposed to gang work mainly on moral grounds because the sexes were mixed — many sanctimonious views were expressed. One farmer with (a rounded) 1000 acres said that there was an increased demand for child labour owing to greater production of root crops — potatoes, carrots and mangolds. 'It is frequently the case now that able-bodied labourers are remaining idle, when the children and women are sorting potatoes' (p.54).

Importance of Gangs

An elderly Soham man said that nearly half the land in the parish was cleared by gangs (p.60).

Geographical Distribution

Gangs were particularly common in the Isle of Ely and in those parishes, including Isleham and Soham, which lay between the Isle and Newmarket.

Types of Gang Work

Evidence relating to the types of gang work in Chatteris, west of the Bedford river, is cited here as it gives an idea of the multiplicity of tasks that might have been performed. Members of the gang 'are employed in different kinds of agricultural work, such as picking couch grass, commonly called "twitch" and in planting potatoes, and afterwards weeding and cleaning the crops till they become too high, and haymaking ... and then gang work nearly ceases till harvest ... And after harvest is all over, then comes on digging up and picking up potatoes, and carrots, and mangold wurzels, and cutting off the tops and tails or roots of the carrots and mangolds, and separating the small ones from the large, for London markets, or for putting down in ... pits, covering them with straw, and then earth to preserve them through the winter ... The potato and other land is then cleaned by picking out the "twitch" etc., to prepare it for wheat, and after that the gangs lie idle till about the end of February or the beginning of March ...' (p.52).

Appendix 3

A Brief Note on Land Purchase in Isleham Parish

So little has been recorded about changes in land tenure in the fens consequent upon improved drainage that I append the following brief note.

It is clear from two detailed maps of the farmland, which were both probably issued between 1844 and 1848,[81] that at some stage the fenland in Isleham parish, like that in many other similar areas,[82] had attracted a host of outside land purchasers, many of whom had acquired small acreages, most of whom must have rented out their land.[83] Assuming that the land had been severely flooded before the drainage effected by the 1754–8 Act, these maps presumably record the changes in land tenure which had resulted from that drainage, modified by subsequent developments.

As is well known, Soham parish was most exceptional in never having had a parliamentary Act of enclosure, and it now appears that the same applied to the fenland in Isleham parish north of Isleham village, which borders Soham parish, for the only Isleham Enclosure Map (1854) covers only the land south of the village.

81 The first of these was based on a survey of 1833 (or somewhat earlier), being a small portion of a very large 'Plan of Part of the Bedford Level and Lands adjacent subject to the Eau Brink Tax', which was a tax to finance the Eau Brink Cut in the Great Ouse tideway; this plan was not issued until 1844, the date of an accompanying book of the same title by the surveyor J.G. Lenny, which merely listed the names of all the so-called 'proprietors' (either owner/occupiers or tenants) and their acreages. The land was mapped again, possibly in 1844, in connection with the commutation of tithes into cash payments. (Both maps are in the Cambridgeshire Record Office.)

82 See Summers, *op. cit.* p.167.

83 The total number of farm holdings of an acre or more in the fen north of Isleham village was about 90 — far more than the number of farmers or smallholders in Isleham parish. So who were the purchasers? See reference to Querslum on p. 108 above.

Wyatville's Remodelling and Refurbishment of Sidney Sussex College, 1820–1837

Peter Salt

Introduction

'There is no getting away from the fact that Sidney Sussex College is architecturally the least attractive of the old colleges in the universities.' So wrote Nikolaus Pevsner, adding that this was 'to do ... chiefly' with the architect, Jeffry Wyatt, later Sir Jeffry Wyatville.[1] During the 1820s and 1830s, the external appearance of the College was largely transformed to Wyatville's designs. The extent of this transformation can be appreciated by considering the College prior to Wyatville's intervention. The buildings in Hall Court were faced in red brick dressed with stone, and were basically those constructed at the time of the foundation in 1596, under the supervision of Ralph Symons. They included an east range which contained, either side of a central screens passage entered from a porch, the Hall and the Master's Lodge (the latter with the kitchen and buttery beneath); wings containing chambers ran westward from this range and were linked by a screen wall which completed the court and contained the entrance gateway to the College (Figs.1–3). The architecture of Hall Court was externally symmetrical and almost domestic in appearance, which perhaps helped to prompt Baron Waldstein to describe the newly completed College as 'a palace'.[2] To the south of these buildings a Chapel and Library were initially adapted from the buildings of the friary which had previously occupied the site. A south range of chambers was added in the early seventeenth century in a broadly similar manner, forming, with the Chapel and Library range, a second three-sided court. During the eighteenth century the Hall and parts of the Master's Lodge were remodelled internally and there were repairs and simplifications elsewhere in Hall Court. However, the only part of the College to be wholly rebuilt was the Chapel and Library range, reconstructed in an austere classical style to the designs of James Essex in 1776–82 (Fig.3).[3] Apart from the Chapel and Library, therefore, the College retained prior to 1822 much of its early appearance; an early nineteenth-century commentator drew, like Waldstein, upon a domestic analogy, but to the College's discredit; it resembled, he claimed, 'a misshapen and unsightly house'. By the late 1830s, in contrast, the College had been, according to the same writers, 'entirely remodelled'[4] — its two courts had been brought together into a more

1 Nikolaus Pevsner, *The Buildings of England: Cambridgeshire*, 2nd ed. (Harmondsworth 1970) p.158; cf. Royston Lambert, 'Our Gothic Revival', *The Bull and the Porcupine: Sidney Sussex College Magazine* (1959) pp.2,4 (I am grateful to Professor Beales for drawing this piece to my attention, and for lending me his copy of this scarce publication.)

2 *The Diary of Baron Waldstein*, trans. G.W. Groos (London 1981) p.91. For the architectural history of the College in general, see Robert Willis and J.W. Clark, *The Architectural History of the University of Cambridge ... Vol.2* (Cambridge 1886) pp.736–50; *An Inventory of the Historical Monuments in the City of Cambridge* (hereafter *R.C.H.M.*). *Vol.2* (London 1959) pp.203–4.

3 On the eighteenth-century work, see works cited in previous note, and R.C. Smail, 'Sir James Burrough at Sidney', *Cambridge Review* 81 (30 April 1960) p.495; Thomas Cocke, *The Ingenious Mr Essex, Architect* (Cambridge: Fitzwilliam Museum 1984) p.12; *idem*, 'James Essex, 1722–1784' in Roderick Brown (ed.), *The Architectural Outsiders* (London 1985) pp.98–9. For the smaller changes to the exterior of Hall Court, which nonetheless significantly affected its character, see below, n.133.

4 J. and H.S. Storer, *Cantabrigia Illustrata* (Cambridge 1835) p.27.

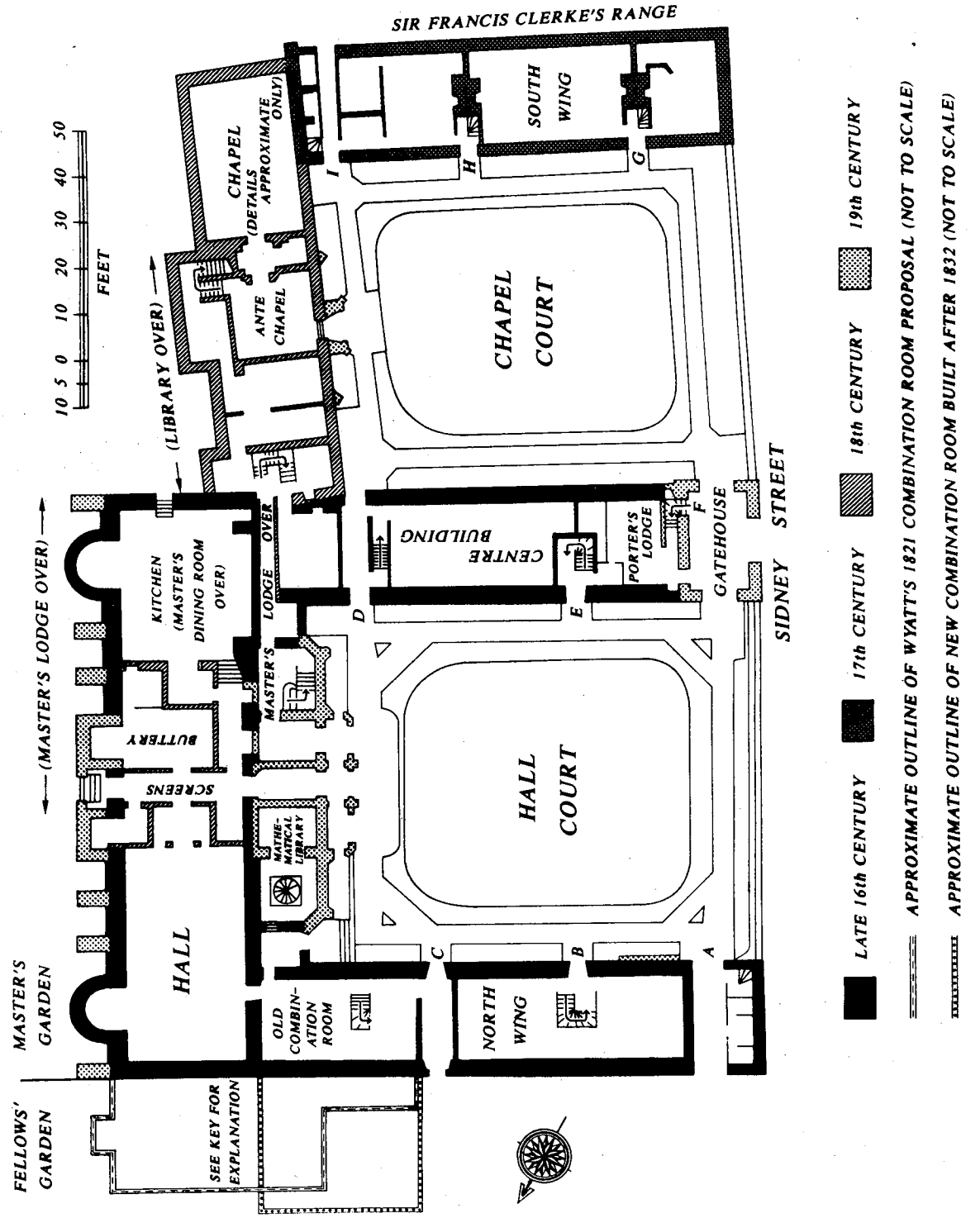


Figure 1. Plan of Sidney Sussex College after Wyatville's remodelling, (adapted, with permission, from *Inventory of the Historical Monuments of the City of Cambridge*, Vol.2 [London 1959]p.205; details of parts of the buildings altered or demolished since 1833 are approximate only)

unified composition, with a prominent new gate tower at their junction, and the buildings had been given the appearance of being constructed completely of stone, although the brickwork remained beneath the surface and the eighteenth-century interiors of the Hall, Library and Chapel survived within (Fig.12).

The College had initially consulted a local architect, Charles Humfrey, who produced a scheme for the restoration and improvement of the Hall and Master's Lodge, together with the provision of a new Mathematical Library, in June 1820.[5] Humfrey's plans were not carried out, however, and in October 1820 Wyatville was brought in to survey the College.[6] Wyatville produced in the following March a range of plans, some of which involved extensive and even fanciful improvements, but at the core of which were three alternative designs of roughly similar scope to Humfrey's,[7] one of which was largely executed in 1822–3.[8] Later, in 1824, Wyatville produced plans for a second phase of work, involving the refacing of the two courts and the creation of the present gate tower; these were carried out (with a few modifications) in the 1830s, together with the construction of a new Senior Combination Room (since demolished).[9]

The College's decision to employ Wyatville in itself demands explanation. Wyatville was the son of Joseph Wyatt of Burton-on-Trent, and a member of a ramified and long-lasting dynasty of architects — he trained under two of his architect-uncles, Samuel and James. By the 1820s he was, according to Howard Colvin, 'one of the half-dozen leading English architects' — in 1820, half-way through his career, he already had commissions from four dukes, one marquess and seven earls to his credit. From 1824 he enjoyed the distinction of being employed by George IV as architect for the remodelling of Windsor Castle, to the king's evidently great satisfaction: on the day that the first stone was laid, the architect was authorised by the king to call himself 'Wyatville' and to adopt the word 'Windsor' as his motto; in 1828, on the completion of the royal apartments, he was knighted and granted a residence within the Castle. Wyatville was therefore an architect of radically different standing from any previously employed at Sidney and arguably of greater national reputation than others employed by Cambridge colleges in the early nineteenth century; his experience, furthermore, lay in the design and refurbishment of country houses — institutional buildings were relatively scarce amongst his executed commissions.[10] Part of the explanation for the decision to employ Wyatville may lie in the contribution to the project of the College's Master, William Chafy, as will be discussed below.

The available sources for the history of the architectural transformation of the College under Chafy are substantial. There is an extensive collection of original architectural drawings, although relatively few survive for the later stages of the project — there are no drawings of the Combination Room as ultimately executed[11] and the only drawings relating specifically to the Chapel are sketches.[12] Correspondence between the Master and the architect survives from both the earlier and the later stages of the work, and the College Order Books provide a record of formal decisions regarding the buildings throughout the period. While no specific building accounts have been traced, the Bursar's Accounts and records of College Audits throw light on the cost of the building project and on the general financial background against which it took place. In addition, the

5 Sidney Sussex College MSS, 'Plans and drawings of Sidney Sussex College by Jeffry Wyatt, 1821–1833' (hereafter: Wv), G1–2.

6 Sidney Sussex College MSS, Masters' Records (hereafter: MR.), 116/3/10, William Savage's account for 'Attendance with Mr Wyatt in taking Dimentions of the College and Grounds: 8 Days'.

7 Wv/A1–4, AA2–15. Some of these plans are dated 'March 1821', some '1821', some not at all, but it is reasonable to assume that they are all, in fact, exactly contemporary. There were three alternative schemes, not two (as stated by C.W. Scott-Giles, *Sidney Sussex College: A Short History*, 2nd ed. [Cambridge 1975] p.92), although only two drawings survive for the third scheme.

8 MR.44 (Bursar's General Account, 1808–28) p.247 (laying of foundation stone); Wyatville's certificate that the contractor had completed the works 'agreeably to the Terms of the contract' is dated September 1823: MR.116/1/25.

9 Wv/C1–11. On the chronology of the construction of this phase, see below.

10 Howard Colvin, *A Biographical Dictionary of British Architects, 1600–1840* (London 1978) pp.959–63; Derek Linstrum, *Sir Jeffry Wyatville: Architect to the King* (Oxford 1972) p.31 and *passim*; J.M. Robinson, *The Wyatts: an Architectural Dynasty* (Oxford 1979) p.125. Jeffry Wyatt was licensed to use the name Wyatville by royal warrant dated 6 November 1824, although in practice he used the longer name from August 1824 — at Sidney, there are drawings signed with the longer name dated 22 October 1824: Linstrum, *Wyatville*, pp.48,221; Wv/C1–11. For simplicity, and in order to distinguish Sir Jeffry from other members of his family, he is henceforth identified as 'Wyatville' throughout this paper. See also below.

11 The only record of the appearance of the Combination Room as built seems to be the outline ground plan shown by Willis and Clark, *op. cit. Vol.4*, Plan 26.

12 Wv/D37; L6.

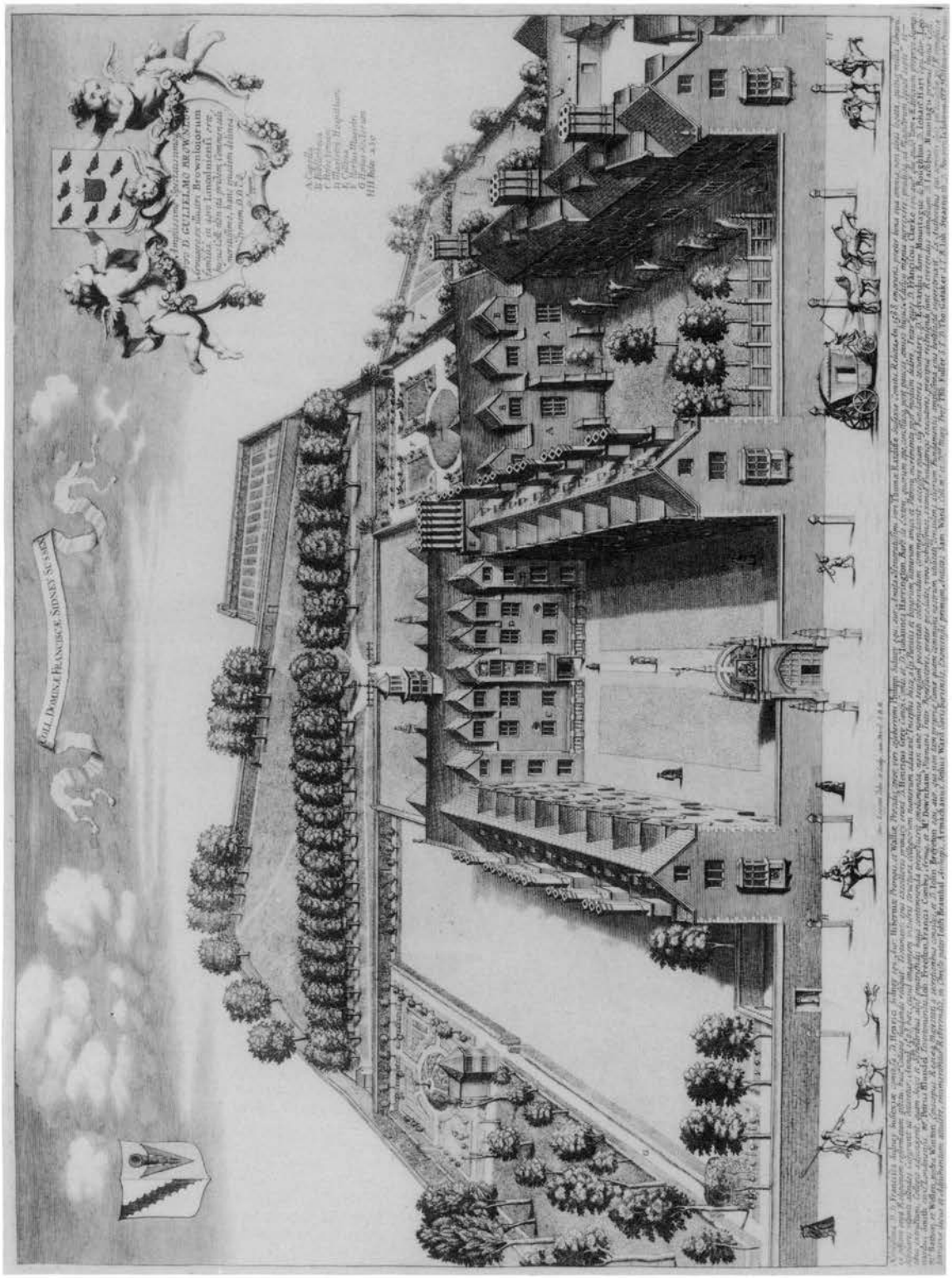


Figure 2. The College from the west, c.1688. (David Loggan, *Cantabrigia Illustrata* [Cambridge (1690)])

first phase of the works was marked by a prolonged dispute between the College and the contractor for the works, and material relating to this, not available to former scholars, has recently come to light in the College archives.[13] There appears, therefore, to be sufficient material to warrant an attempt to investigate the aims and aspirations of both the College and its architect more closely than was possible within the restricted compass of earlier accounts of the project.[14] This paper assesses, in turn, the origins and aims of the building project, and both the College's selection of Wyatville and its relationship with him and with the contractors. Finally, the financing and progress of the work are considered. The project was, however, intimately linked with the history of the Taylor legacy, and an account of this connection is an appropriate starting point.

The Taylor Legacy and the Building Project

Although there was a close link between the remodelling of the College and the augmented prosperity of estates bequeathed to the College by Samuel Taylor of Dudley, in the West Midlands, who died in 1732, expenditure on building was not something anticipated in Taylor's will. Taylor had been admitted as a pensioner in 1688 and took the LL.B. degree in 1704. By his will of 1726 he bequeathed property to the College in order to fund a Fellowship (transmuted by the College into a Lectureship) in mathematics, 'it being, in his Apprehension, a Study very useful and beneficial to the public Interest and national Good; which Sort of Study, in the Time of his being a Student ..., was, as far as he did observe, much neglected.'[15]

During the 1810s, however, the value of the Taylor estates was spectacularly increased by the discovery of minerals on the property. In November 1813, the College agreed, at an Audit, that proposals should be published for letting a previously unexploited coal-mine on the Dudley estate.[16] Negotiations proceed-ed slowly; in the event, the mines were vested in trustees by a private Act of Parliament of 1818; the trustees — one of them, John Chafy, presumably a relative of the Master — were empowered to let the mines for up to 40 years at a peppercorn rent.[17] It is not clear what sums accrued to the trustees in consequence of the lease; Lord Dudley and Ward had at one stage offered £18,250 for the property,[18] though possibly for the freehold rather than for the lease. However, Lord Dudley's offer may give some idea of the value of the mineral property in relation to the College's resources. The College rent roll, of around £2800 a year in 1818–20, would imply a capital value of the College estates of around £90,000 to £140,000.[19] These figures are probably underestimates, because it appears that the rent roll did not include fines taken on the renewal of beneficial leases, but they may give a sufficient idea of the sums involved to show that the opening of the mines was a welcome windfall for one of the less prosperous Cambridge colleges, which was still feeling the financial effects of its eighteenth-century building activities.[20]

Taylor's will had anticipated the discovery of exploitable minerals on the property, in which case the additional income was to be devoted to 'the Maintenance and Education of such Student or Students, Scholar or Scholars of ... Sidney Sussex College, who should principally and in most particular Manner addict and apply himself or themselves to the Study of the Mathematics'.[21] The College

13 Correspondence relating to the first phase forms part of the recently-found bundle relating to the dispute between the College and the contractor for the first phase, catalogued as MR.116/1–2. Three letters from Wyatville to the Master, dated 1831–3, with accompanying papers, are also in the archives: Wv/L2–6. Later letters were printed, presumably from originals in the Chafy family archives, in Rev. W.K.W. Chafy, *Gesta Chaforum* (privately printed 1910) pp.239–40.

14 For earlier accounts, to all of which this paper is indebted, see above, n.2, and Linstrum, *Wyatville*, pp.233–4.

15 John Venn and J.A. Venn, *Alumni Cantabrigienses. Part 1, Vol.4* (Cambridge 1927) p.209; Acts of Parliament, Private (printed), 58 George III, c.39 (hereafter *Act 1818*) pp.693–5. The neglect of mathematics was probably general in mid-seventeenth-century Cambridge, but Taylor's benefaction to Sidney was one of a number in the century from 1650 which extended the teaching of mathematics in the University, commencing with the establishment of the Lucasian chair in 1662; Sidney was one of a number of colleges to benefit from Lady Sadler's 1710 bequest to found mathematical lectureships: Christopher Wordsworth, *Scholae Academicae* (new impression, London 1968) Chapter 7, especially pp.64–5,72–3; W.W. Rouse Ball, *A History of the Study of Mathematics at Cambridge* (Cambridge 1889) pp.47,89,91,105; cf. Scott-Giles, *op. cit.* p.52.

16 MR.7 (Minutes of proceedings of College Meetings, 1813–54) 1 November 1813. *Act 1818*, p.696 states that the mines 'of Coal and other Minerals ... have never been opened'.

17 *Act 1818*, pp.697–8.

18 MR.7: 25 March 1816; 16 June 1817.

19 MR.66 (College account book, 1818–62) audits for 1818–20; the rate of return from land appears to have been in the region of 2%–3%: F.M.L. Thompson, *English Landed Society in the Nineteenth Century* (London 1963) pp.37,40,55,254.

20 See below.

21 *Act 1818*, p.695.

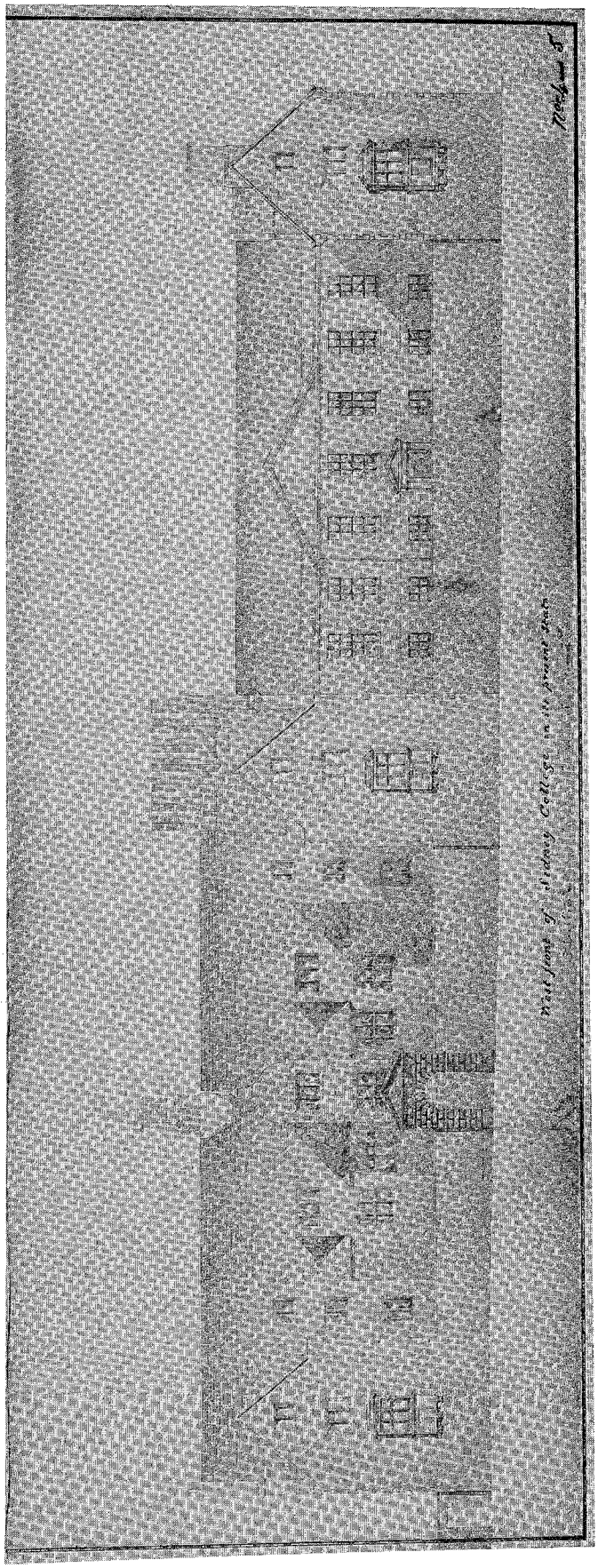


Figure 3. The west front of the College immediately prior to Wyatville's remodelling .
(Wv/C4; photo: RCHME, Crown Copyright; reproduced with permission of Sidney Sussex College)

had already given some effect to this provision of the will by establishing, in 1792, an 'Exhibition ... for the encouragement of the study of Mathematics' out of surplus income from the Fund, albeit not arising from mineral extraction.[22] However, given the scale, relative to the College's existing income, of the increase in the value of the estates following the opening of the mines, it was perhaps only to be expected that the College would decide to seek permission to apply some of this new wealth elsewhere than in the creation of mathematical scholarships, despite the terms of Taylor's will. The College determined in November 1817 to seek counsel's opinion on making application to Parliament to devote only six or seven thousand pounds to the founding of six mathematical exhibitions, and to lay out 'the remainder of the Money ... in the Purchase of Advowsons'. It is not surprising that the College should have endeavoured to apply its windfall to the purchase of presentations to ecclesiastical livings, since they provided preferment for Fellows who left the College (as most did, at a relatively early stage in their careers, not least because College statutes forbade Fellows to mar-ry).[23] Indeed, the purchase of advowsons may well have seemed a high priority to a College which, though small, had fewer livings in its patronage in the 1820s than all but three colleges, one of which was the newly founded Downing.[24] At this stage, therefore, while the Master and Fellows hoped to devote some of the Taylor windfall to general College purposes, building does not appear to have been uppermost in their minds.

In the event, when an Act of Parliament was passed in 1818 to regulate the expenditure of the income from the lease of the mineral rights on the Dudley estate, it required that it be devoted to ends which differed from those envisaged in the College order of November 1817. In part, the statute did provide for carrying out Taylor's intentions much in the manner that the November 1817 order had envisaged: income from the capital obtained from the lease of the mines was to be appropriated, in accordance with the will, amongst such College members 'as shall appear ... to be the best Proficients in Mathematical Learning'.[25] In addition, however, the Master and Fellows were authorised to lay out up to £100 yearly, 'in the Purchase of ... Mathematical Books and Treatises, and Mathematical Instruments, for the Use of the said Students and Scholars', and to apply up to £4000 'in erecting, building, altering or fitting up and preparing a convenient and proper Place for the Reception of such Mathematical Books and Treatises and Instruments, and to make ... Provision for their safe Custody and Preservation'.[26] A further Act of 1823 expanded on this by empowering the Master and Fellows to spend an additional £4500, partly on the building project sanctioned by the 1818 Act, but also on providing rooms for the residence of Mathematical Exhibitioners, since the provision of such rooms 'would tend further to promote the Views and Intentions of the Testator'.[27]

The setting aside of the 1817 scheme to purchase advowsons in favour of the promotion of mathematical scholarship provided for by the two statutes may have been forced on the College by a realisation (perhaps in the light of counsel's opinion) that Parliament would not sanction so open a diversion of some of the money to general College purposes as would be implied by the purchase of advowsons.[28] However, the devotion of such considerable resources to mathematics not only fitted Taylor's intentions to promote the subject; it also fitted in with the established pattern of studies in the University.[29] Mathematics had come, by the opening of the nineteenth century, to dominate the Senate House examination (which had succeeded the 'exercises' as the basis for determining the standard of candidates for the B.A. degree); 'the non-mathematical components of the ... examination ... withered to vestigial forms'.[30] The studies pursued in the

22 MR.2 ('Acta Collegii Dominae Franciscae Sidney Sussex', 1637–1863) pp.112–13,149–50.

23 MR.7, 11 November 1817; John Gascoigne, 'Mathematics and meritocracy: the emergence of the Cambridge Mathematical Tripos', *Social Studies of Science* 14 (1984) pp.562–3.

24 'A Trinity man' [J.M.F. Wright], *Alma Mater. Vol.2* (London 1827) pp.169–202.

25 *Act 1818*, p.700.

26 *Ibid.* p.701.

27 Acts of Parliament, Private (printed), 4 George IV, c.25, pp.390–1.

28 The purchase of advowsons was not abandoned as an aim. Chafy bequeathed £1000 to the College in 1843 to form 'The Advowson Fund' and the College embarked on a new campaign to purchase advowsons in 1847, when the financial implications of the building works had at last been resolved: Chafy, *Gesta*, p.327; MR.2, 4 May 1847.

29 This and the following paragraphs owe much to my reading of Chapters 4–5 of Dr Searby's forthcoming volume and to references provided there.

30 Rouse Ball, *Mathematics*, pp.92,211–12; *idem*, *Cambridge Notes* (Cambridge 1921) pp.279–80,293; Gascoigne, 'Mathematics and meritocracy', pp.548,551–3,574; *idem*, *Cambridge in the Enlightenment* (Cambridge 1989) p.272; D.A. Winstanley, *Unreformed Cambridge* (Cambridge 1935) pp.48–53; *idem*, *Early Victorian Cambridge* (reprinted, Cambridge 1955) pp.150,155. There

University were not so narrow as this might imply. The part of the Senate House examination which contemporaries regarded as 'mathematical' embraced those physical sciences to which mathematics had been successfully applied, such as mechanics, hydrostatics, optics and astronomy — hence the College's concern to provide space for 'Instruments'.[31] Furthermore, undergraduates' studies were not in practice so heavily dominated by Mathematics as was the Senate House examination, something which is reflected in the existence at Sidney, at least by 1810, of a College prize for classics, to which were added prizes for English and Latin 'Declamations' in 1823 and for divinity in 1832 — this last was awarded on the basis of annual College examinations, as was the classics prize from 1823.[32] Nonetheless, such studies were not recognised by the University prior to 1822, and contemporaries generally felt that the study of mathematics was central. At Trinity, the Classical Lecturer did not teach the third-year undergraduates, rightly calculating that [students'] time thenceforth ought to be wholly occupied in preparing for the Schools and for the Senate-house'; a students' guide of 1807 claimed that those who neglected mathematics had little hope of persevering in '*any* literary pursuit'.[33] It has been argued that, by 1800, 'Cambridge's mathematically based curriculum was ... increasingly removed from the interests of both the larger scientific community and the offspring of the landed classes who ... were attending the universities in growing numbers'; the introduction of the 'previous examination' in 1822 meant that the University required some study of classics and of the Bible from all undergraduates. Nonetheless, mathematics continued to form the principal part of the Senate House examination, which remained the only route to honours until the middle of the nineteenth century; a number of leading Cambridge men would offer, in the 1830s and 1840s, spirited defences of the centrality of mathematics in a liberal education.[34]

However, while the Taylor windfall was devoted in part to the improvement of facilities for the Mathematical Lecturer at Sidney, it may be questioned how important a contribution this was to undergraduate education. In many colleges, the Lectureships had become sinecures by the end of the eighteenth century; their stipends, fixed by statute, had been rendered insignificant by inflation, and their lecturing duties had been taken over by the Tutors.[35] There is no direct evidence as to how assiduous or effective Sidney's Taylor Lecturers were thought to be in this period. The College apparently regarded the appointment as a preferment for its own members: twice during the 1810s and 1820s it was decided to leave the Lectureship vacant until it could be established whether a Sidney undergraduate who was qualified to take it could be found; all the Lecturers who served between 1810 and 1838 subsequently became Fellows, and it appears that the Lectureship served as temporary preferment for College Wranglers aspiring to the Fellowship, pending the appearance of a vacancy.[36] How-ever, unlike most statutory College Lectureships, the Taylor Lecturer was well paid: his stipend was £120 per annum in 1810 and rose twice between then and 1850 in line with the increasing income of the Taylor es-tates.[37] Furthermore, during the periods of vacancy, the College appointed a Fellow to carry out the Lecturer's duties and granted an additional stipend in respect of this.[38] This may suggest that the Lectureship was more than a sinecure. Nonetheless, however assiduous the Lecturer, it is probable that his activities were marginal to the careers of many undergraduates. College lectures were seen as much more appropriate to undergraduate study than such University lectures as were delivered,[39] and J.M.F. Wright claimed to have

were few candidates for degrees in civil law and medicine at this date: Winstanley, *Unreformed Cambridge*, pp.58–62.

31 Rouse Ball, *Notes*, p.280,283; *idem*, *History*, p.199; see above.

32 *Cambridge University Calendar* (1810, 1823, 1832) (all references to the *Calendar* are to the entries for Sidney); cf. *Autobiographic Recollections of George Pryme, Esq. M.A.* (Cambridge 1870) p.55.

33 Wright, *op. cit. Vol.2*, pp.23–4; Gascoigne, *Cambridge in the Enlightenment*, pp.270–1.

34 Rouse Ball, *History*, pp.211–12; *idem*, *Notes*, pp.293–4; Gascoigne, *Cambridge in the Enlightenment*, pp.270–2; Winstanley, *Early Victorian Cambridge*, p.158; 'Academicus', *A Letter to the Rev. Christopher Wordsworth, D.D.* (Cambridge 1822) pp.15–16; B.D. Walsh, *A Historical Account of the University of Cambridge and its Colleges, in a Letter to the Earl of Radnor* (London 1837) pp.103–6; M.M. Garland, *Cambridge Before Darwin* (Cambridge 1980) pp.41–2,49–51.

35 Winstanley, *Unreformed Cambridge*, pp.269–70.

36 MR.2, pp.199,215; *Cambridge University Calendar* (1810–41). Because of the statutory requirement that Fellows devote themselves to the study of divinity, the Lectureship was not tenable with a Fellowship: *Act 1818*, p.695.

37 *Cambridge University Calendar* (1810, 1811, 1846).

38 MR.2, pp.199,215.

39 Winstanley, *Unreformed Cambridge*, pp.179–81; *idem*, *Early Victorian Cambridge*, p.179; Wright, *op. cit. Vol.2*, pp.34–5; Pryme, *op. cit.* p.121; Walsh, *op. cit.* pp.57–8,61.

'much profited' from the first-year Greek lectures at Trinity.[40] Nonetheless, B.D. Walsh, a Fellow of Wright's College, described the College lectures in his critical account of the University as 'in many cases not very superlatively excellent'. This resulted, he claimed, partly from the 'very imperfect way in which they are not infrequently conducted' but also from the insuperable problem of lecturing to the wide ability range contained in colleges which set no educational requirements as a condition for entrance; in smaller colleges, lecture audiences could even include undergraduates from different years.[41] Many undergraduates from throughout the ability range consequently employed private tutors. This was a development which did not go unopposed and which had yet to reach its height in the 1820s, but Wright, who went up to Trinity in 1815, was able to neglect College lectures in his final year with the connivance of the lecturer, who recognised that his treatment of his material had to be attuned to 'the slowest capacities', and would therefore restrain a bright student.[42]

The devotion of the Taylor windfall to the improvement of the Taylor Lecturer's facilities may therefore have done relatively little to improve mathematical education in Sidney. The decision to use the Taylor moneys in this way may instead reflect the way in which the improvement of the Lecturer's facilities could be made to further the College's other needs. For example, it may be suspected that, in constructing a new Combination Room at a cost of £650[43] and allocating the old one to the storage of the Mathematical Lecturer's instruments, the Fellows had the new Combination Room more clearly in their sights than the improved facilities for the Lecturer. Even the Taylor Library, which was established under the first Act, appears to have acquired, in the 1830s and 1840s, works which dealt with geology, biology and chemistry, as well as ones dealing with mathematics as then understood in Cambridge.[44] The specifications for building work which were obtained in 1820 and 1821 indeed suggest that, in embarking on such work, the College had wider interests than those of mathematical scholarship in mind. When the College decided in October 1822 to undertake a second phase of building, and to seek legislation permitting the use of further moneys from the Taylor property in order to finance it, the College minutes record that the measures to promote mathematical scholarship which would be mentioned in the resultant 1823 Act were not the only projects envisaged. It was also proposed that at least one of the College's courts be refaced — a plan not mentioned in the Act.[45] The variety of aspirations which the building works of the 1820s and 1830s were apparently intended to fulfil indicates that the College would probably have wished to undertake building at about this time, even had the Taylor windfall not occurred. Were the Master and Fellows in fact still diverting — or trying to divert — the Taylor money away from the will's provisions for the expansion of mathematical education and into more general College purposes, albeit in a less blatant way than by the purchase of advowsons? This question cannot readily be answered since, if the building projects in fact served wider purposes than the mathematical ones mentioned in the Acts, so it seems equally to have been anticipated from the start that building expenses might not be covered wholly by the Taylor money. As early as April 1820, it was decided to hold a Fellowship open in order to finance 'extraordinary repairs'.[46] The building programme was indeed by no means wholly financed from the Taylor windfall — the Acts of Parliament provided £8500 out of a total expenditure of a little over £14,000.[47] It is impossible to say precisely what proportion of the expenditure could be deemed to have served the purposes laid down in the two Acts, but, in practice, a substantial general refurbishment of the College (including an

40 Wright, *op. cit. Vol.1*, pp.127–8,153.

41 Walsh, *op. cit.* pp.62,70–1; Winstanley, *Unreformed Cambridge*, p.275.

42 *Ibid.* pp.275,331–3; Pryme, *op. cit.* p.48; J.W. Blakesley, *Where Does The Evil Lie?* (London 1845) p.16; Rouse Ball, *Notes*, pp.303–4; Wright, *op. cit. Vol.2*, pp.24–5.

43 MR.56 (Bursar's General Account, 1829–56) p.524.

44 Based on a selective survey of works published in the 1830s and 1840s contained in a later catalogue of the Taylor Library in the College Muniment Room, uncatalogued. I am grateful to Professor Beales and to Dr Searby for prompting this line of enquiry.

45 MR.7, 24 October 1822.

46 MR.2, p.205.

47 An account drawn up in May 1833, which excludes the work on the Chapel, for which the Master paid, gives the figure of £13,063. It must be based either on estimates or on contracts which excluded certain details, since items such as the grate for the Combination Room were accounted for separately as late as 1834–5: MR.56, pp.523–4,98. To this must be added the additional £430.8s.11d paid to Westmacott under a court order of 1827 (see below) and Wyatville's fees which, as listed in the College accounts, totalled £798.9s.0d (again, presumably, excluding his fees relating to the Chapel): MR.44, p.263; MR.56, p.134.

extension of the Master's Lodge) was partly financed out of the Taylor funds, even though an improved provision for mathematical scholarship could be seen as a somewhat incidental consequence of much of the work. Certainly the extension of facilities for mathematical scholarship became intimately involved with the satisfaction of a wider range of needs and aspirations, which will be considered in the next section.

The Origins and Aims of the Building Project

Mathematics and Building

The decision to improve facilities for mathematical study had some direct architectural implications. A College order of April 1820 determined that 'the College Hall [should] be thoroughly repaired and fitted up, out of the Money given to the College by the late Act of Parliament for the Sale of the Dudley Coal Mines, to receive Mathematical Books and Instruments; and be rendered convenient for the Mathematical Lecturer to deliver his Lectures therein.'[48] Charles Humfrey's preliminary report and scheme, produced in June 1820, proposed the erection to the west of the Hall of 'rooms for the Reception of *Mathematical Books, and Instruments*, and to open a Communication with these rooms from the Hall (or Lecture room)'. Humfrey's plan was essentially to fill in the recess between the tower in the northeast angle of Hall Court and the Hall porch with a new building, which would have presumably accommodated the mathematical books and instruments on both of its two floors (Fig.4, 'C'); what changes he envisaged to the Hall itself are not clear.[49]

Wyatville's executed proposal for a Mathematical Library was not dissimilar, but Wyatville evidently believed that Humfrey had provided insufficient space. Wyatville pointed out in one of his drawings that, in his design, the Library, although in essentially the same location as Humfrey's, 'is made to project from the Turrets in the angles, because if the outside walls were kept even with them [as in Humfrey's plan], it would not leave the space above 9 feet wide' (Fig.1).[50] Furthermore, at least one of Wyatville's proposals envisaged providing the Fellows with a new Combination Room so that the old one, at the northeast corner of Hall Court, could become 'a receptacle for the Instruments'. This suggestion was ultimately adopted in essence, although an alternative scheme did not provide a new Combination Room (in this scheme the new building to the west of the Hall would have projected even further into Hall Court, so that the library could be confined to the first floor, and the ground floor be devoted to the 'Instruments').[51] Despite the reference to 'fitt[ing] up' the Hall in the 1820 order, and even though the Act of 1823 spoke of expenditure having been undertaken in this area, Wyatville's schemes barely involved changing the interior of the Hall. Apart from some proposed measures for structural strengthening which were not in the event carried out,[52] the only internal change proposed was an improvement to the ventilation of the Hall stove. According to Peter Salway, the eighteenth-century ceiling of the Hall incorporated arrangements for ventilation through the central rose via a chimney pipe linked to an orifice in the roof, and it appears that this was the only provision. Wyatville noted that an advantage of one of his proposed structural changes was that it would facilitate 'making a flue for the great hall' and his more detailed drawings provided for one running under the Hall floor

48 MR.2, p.205.

49 Wv/G1.

50 Wv/AA6. Wyatville's Mathematical Library was certainly intended to include part of the upper floor of the extension, with access via a staircase in the corner tower, which is shown, as though it had been constructed, on Wv/L5 (not dated, but on paper with the same watermark as Wv/L4, dated 24 April 1832). There was not a staircase in this position by the early twentieth century, however; pencil annotations to Wv/AA7 show 'Hackforth's bedroom' on the first floor in this location (Hackforth was a Fellow from 1912 and moved away from this part of the College in 1924–5: *Sidney Sussex College Annual* [1924] p.2; [1925] p.2; [1957] pp.23,29). The spiral staircase within the library which existed in more recent years (shown on the plan published in *R.C.H.M. Vol.2*, p.205 and in Fig.1) is not shown in any of Wyatville's drawings.

51 Wv/AA6; AA11. The third scheme survives only in the form of two elevations, which are ambiguous as to the provision of a new Combination Room. The internal arrangements are therefore difficult to assess: Wv/AA14–15.

52 See below.

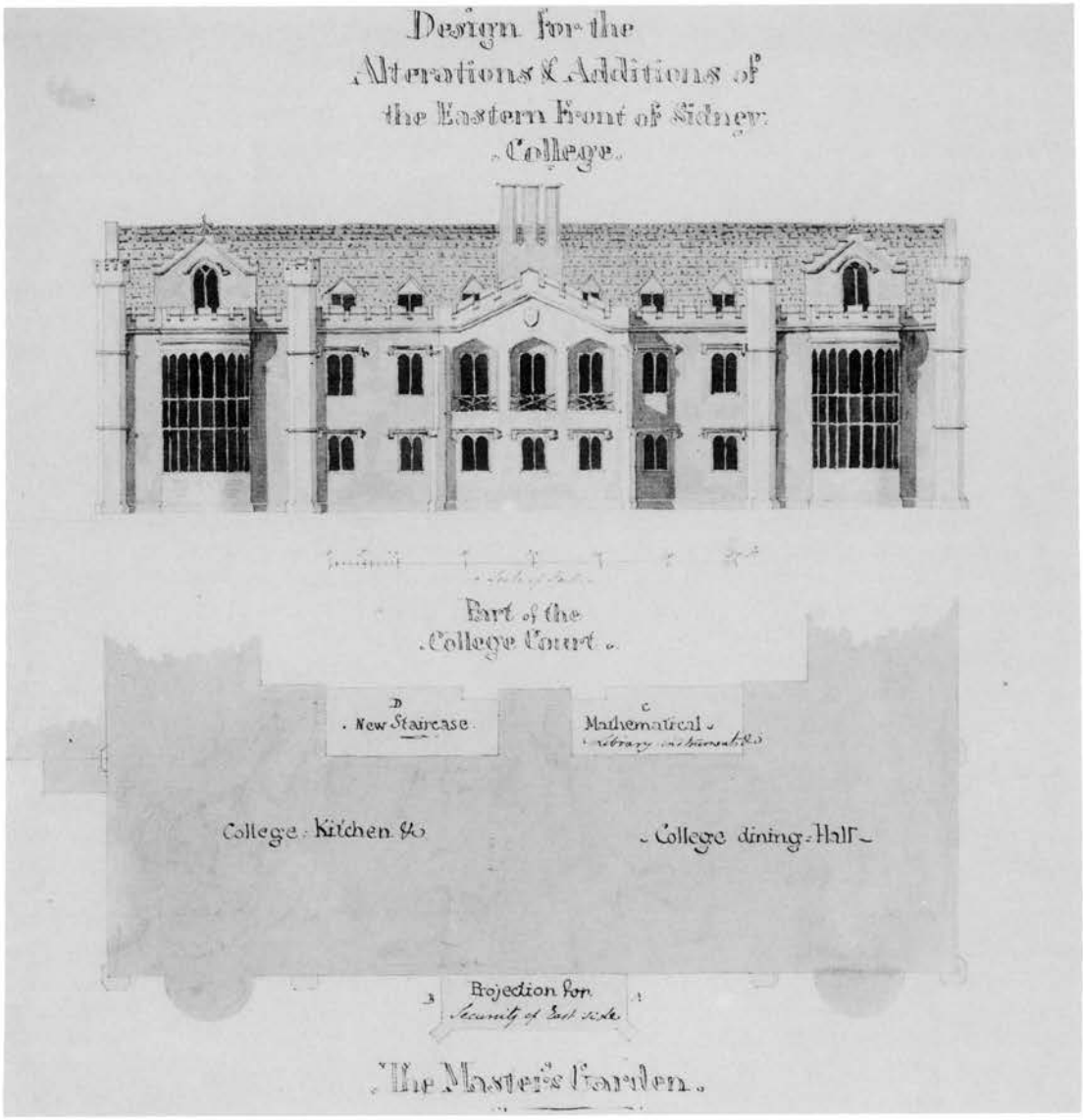


Figure 4. Humfrey's proposals, June 1820: east elevation of Hall and Master's Lodge; plan. (Wv/G1; reproduced with permission of Sidney Sussex College)

to an outlet at the northeast corner.[53] Beyond this, some repair work was done: the fairly substantial sum of £81.8s was spent on cleaning and repairing the walls and ceilings of the 'Hall, Library &c' prior to painting in 1823.[54]

The provision of rooms for Mathematical Exhibitioners stipulated by the second, 1823, Act fell within the second phase of building. Although Wyatville had pointed out in March 1821 that additional accommodation might be formed in the Hall roof,[55] in the event the additional rooms were provided by extending the attics of the three existing east–west ranges of the College. On the centre and north wings, Wyatville raised the roof line and

53 Peter Salway, 'A College hall restored', *Country Life* 127 (25 February 1960) p.382; Wv/AA6; AA7; B17. A stove is not shown in Ackermann's view of the Hall, published in 1815; nonetheless, the absence of reference to it amongst Wyatville's drawings suggests that it was not designed by him. It had presumably been installed shortly before 1820: R.R. Williamson, *Ackermann's Cambridge* (London 1951) Plate 18; Willis and Clark, *op. cit. Vol.2*, facing p.742.

54 MR.44, p.263; MR.116/2/26. The ironwork of the gateway into the Hall was painted in Prussian blue, the standard colour for internal ironwork for most of the Georgian period, and the columns under the gallery were marbled in imitation of porphyry. Cf. Steven Parissien, *Paint Colour* (The Georgian Group Guides, 4, n.d.).

55 Wv/AA14. Some drawings have pencil amendments implying proposals for a full extra floor over the Hall, but these may not be contemporary: Wv/A4; B6; B7.

added new windows (some of them, if Loggan's print of about 1688 is to be believed, a reinstatement of ones which had been removed), so that the third floor of the centre building contained four sets and the third floor of the north wing six. There is no record of the earlier layouts so it is impossible to judge exactly how much accommodation was added, but the rooms which resulted from Wyatville's alterations were undoubtedly more spacious and lighter than those which had existed before.[56] Wyatville proposed minimal internal changes to the south wing. It was only at the last minute that it was decided to remodel the attic of this wing internally; plans do not survive, but it was presumably at this stage that the area was rearranged in the form which survived until 1968, with new dormer windows to the south further increasing the light in the attic rooms.[57] This improvement of attic accommodation echoed eighteenth-century improvements in other colleges, for example at St John's, where Cole described Essex's work of the 1770s as 'giving a new and better Air to their Garrets'.[58]

Other College Needs

Wyatville's modifications thus improved the quality, as much as the quantity, of accommodation. This is one indication of how the refurbishment of the 1820s and 1830s served, as has been suggested, wider purposes than those mentioned in the two Acts. Indeed, although ostensibly for Mathematical Exhibitioners, the improvements to the attics may have been aimed at solving a more general accommodation problem. Sidney experienced a rather unsteady increase in the numbers of undergraduates matriculating in the years between 1800 and 1820. The average number matriculating each year around 1840 was about ten, as opposed to the seven or so matriculating in each year around 1801.[59] Sidney's experience was shared by other colleges: during the 1810s and 1820s, numbers of students in the University as a whole were expanding, creating difficulties with accommodation. In 1818, the University agreed to appoint two pro-proctors to assist the proctors in the enforcement of discipline, on account of the great increase in the number of students and the necessity of their lodging in the town.[60] At least nine colleges, beside Sidney, constructed additional accommodation in the 1820s.[61] Recalling the reasons behind Corpus Christi's building project, the Master noted that 'the change from a state of war to a state of peace had occasioned an influx of students to the Universities', while Trinity College accepted 'the expediency of making an increase in Chambers in consequence of the great increase of admissions and with a further view of bringing the Students to reside wholly within the Walls of the College'.[62] The additional buildings also made it possible to preserve in the face of reviving numbers the practice for each man to enjoy the privacy of a set of rooms to himself, which seems to have become the rule during the eighteenth century at both Oxford and Cambridge.[63]

The provision of additional accommodation may, therefore, have served more general aims than those stated in the 1818 and 1823 Acts. It is apparent, furthermore, that some of the building work was aimed at resolving an even more fundamental problem. Humfrey's report of June 1820 makes clear that work on the Hall was believed to be necessary, not simply in order to render it 'convenient for the Mathematical Lecturer to deliver his Lectures', but in order to avert collapse. 'The whole of the Eastern part of the College

56 Wv/C4–10; D3; D25. On the probable removal of original dormer windows in the eighteenth century, see below, n.133.

57 Wv/E1. A survey of this wing, made in August 1968, prior to the internal reconstruction and reroofing, is in the College archives, uncatalogued.

58 Cocke, 'James Essex', pp.101–2; Willis and Clark, *op. cit. Vol.2*, p.318.

59 The trend has been derived from calculations of an average for five years about any given year, based on data in MR.31 (Admissions Register, 1706–1843). I am grateful to Nicholas Rogers for help in gathering these data. The unevenness of the figures may owe something to the disruption caused by building work, although matriculations also dipped in the 1810s, reputedly as a consequence of arson attacks in 1812–13. Little damage seems to have been done to the buildings but, because the attacks were blamed on a student of the College, they allegedly cost the College 'its reputation, and with that, its sons': Scott-Giles, *op. cit.* pp.93–4; Wright, *op. cit. Vol.1*, p.106.

60 Christopher Brooke and Roger Highfield, *Oxford and Cambridge* (Cambridge 1988) pp.266–7; Henry Gunning, *Reminiscences of the University, Town and County of Cambridge from the Year 1780. Vol.2* (London 1854) p.316.

61 Eight are listed by *R.C.H.M. Vol.1*, p.lxxxiv, to which can be added Trinity Hall (1823): *R.C.H.M. Vol.2*, p.253; building was also considered at Gonville and Caius: Christopher Brooke, *A History of Gonville and Caius College* (Woodbridge 1985) pp.193,208.

62 Willis and Clark, *op. cit.*: *Vol.1*, p.302; *Vol.2*, p.651; cf. *ibid. Vol.2*, p.178.

63 Edward Miller, *Portrait of a College: A History of the College of St John the Evangelist, Cambridge* (Cambridge 1961) p.76; Brooke, *Caius*, p.208; H.M. Colvin, 'Architecture' in *The History of the University of Oxford. Vol.5*, ed. by L.S. Sutherland and L.G. Mitchell (Oxford 1986) p.843.

(towards the Master's Garden) is in a very dilapidated Condition', reported Humfrey:

'it is in Danger, from there having been a very considerable lateral pressure upon the outer walls; more especially at that part of the Building which separates the Master's Lodge from the College hall; for here the east wall has *Bulged:* this has been caused chiefly by the weight of the Roof; which has become defective probably from the decaying of the Wall plates, and from the Tye beams having in Consequence lost their hold: It has become necessary to apply a remedy for the injury already sustained, and to prevent all apprehension of future Mischief.'

Humfrey therefore proposed 'to erect some additional building on the East side, projecting into the Master's Garden ... being placed exactly against the weakest part of the present external wall ... to resist the lateral pressure before spoken of;' the elevation which he submitted showed this forming the base of a veranda for the Master's Lodge (Fig.4, 'A–B'). Furthermore, he reported that 'A Complete reparation of the outside walls' (involving the cutting out and replacing of decayed bricks), 'new Gutters (to keep the Foundations dry)' and new windows were 'absolutely necessary'. The roof was to be stripped and its timbers repaired, and a new covering was to be provided in the then-modish Welsh slate.[64]

Humfrey's proposals were not carried out, but Wyatville's more extensive proposals of March 1821 show a concern with much the same structural problems which it was intended, in part, to solve in the same way. Like Humfrey, Wyatville pointed to the decay of the roof structure, which he again proposed to rectify by repairing the decayed timbers and by reslating the roof. Wyatville's proposals for dealing with the bulging east wall varied. On several drawings he suggested more or less complete reconstruction; in the event, more restricted works appear to have been carried out, as envisaged in the first of Wyatville's initial schemes, with a fore-building on the east front similar to Humfrey's (and likewise supporting a veranda for the Master) and brick buttresses supporting the old wall, which was rebuilt only upwards from the wall plate of the roof (Figs.1, 10–11). At the same time, however, Wyatville attacked the structural problems of the range nearer their root, adding to the roof additional tie beams resting on heightened external walls to east and west, in order to reduce the lateral thrust exerted by the roof on the walls.[65] Furthermore, Wyatville saw the structural problems of the Hall and Lodge range as deriving not only from the pressure of the roof, but also from the absence of cross walls tying the east and west fronts together. He also noted that subsequent alterations had not always been soundly carried out: 'the Master's Drawing room chimney', he observed, 'is on a Timber partition'. As with the east wall, Wyatville proposed drastic solutions which were not fully executed. He suggested building cross-walls, one of them in the Hall immediately to the north of the gallery, 'leaving a large open arch to the Hall Gallery'.[66] In the event, the contract drawings of May 1821 specified simply a 'New wall to be built under the chimney of the Master's Drawing room', although iron pillars, not mentioned in Wyatville's drawings, were added in the College kitchen, beneath the Master's Lodge, possibly as a supplementary measure decided on after work had commenced.[67] Less information survives regarding the structural condition of the rest of the College, although a contemporary depiction shows one of the oriel windows at the end of the east–west ranges, overlooking the street, supported on timber brackets — these oriels were later found to be beyond repair.[68]

Humfrey's and Wyatville's schemes not only provided for essential structural repairs; they also improved the quality of the living accommodation. Bringing modern domestic convenience to historic fabrics was a frequent concern of mid- and late-Georgian builders, in Cambridge and elsewhere. As

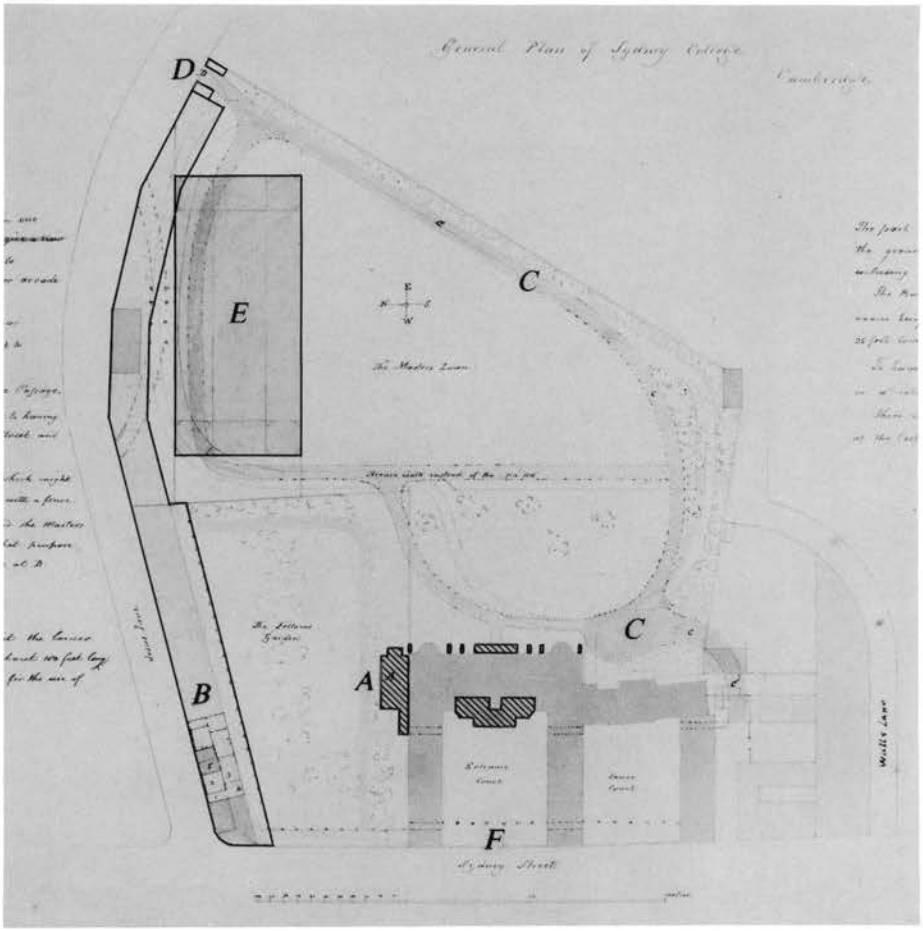
64 Wv/G1–2; cf. MR.2, p.205. On the spread of Welsh slate as a roofing material in the late eighteenth and early nineteenth centuries, see Alec Clifton-Taylor, *The Pattern of English Building.* 4th ed., ed. by Jack Simmons (London 1987) pp.170–1. There is a reference to 'slating the whole old building' in 1679 (MR.29A [Account book 'D'] pp.24,26), and pre-Wyatville depictions of the College appear to show stone slates. If it replaced stone slates, then the new roof would have had the virtue, given the building's structural problems, of being lighter than its predecessor. Cf. Clifton-Taylor, *op. cit.* pp.104,170.

65 Wv/A4; AA4; B7; AA14; AA11; AA3; B13. I am grateful to my father for explaining the mechanics of Wyatville's modifications to the roof. It is possible that the lateral pressure from the roof had been exacerbated by alterations made to it when the Hall was ceiled in 1747–50, but Wyatville noted that the Hall walls had then been panelled and plastered in such a way as to conceal the fact that the walls were already badly out of true: Wv/A4.

66 Wv/AA7. The drawing room chimney had presumably been constructed after November 1813, when Chafy was given permission to amalgamate two rooms in order to form a drawing room: see below.

67 Wv/B2; MR.44, p.263.

68 J. and H.S. Storer, *Illustrations of the University of Cambridge. 1st series* (Cambridge [1829]); Wv/D38; E2 (design for replacement oriels).



Wyatville's proposed additions to Hall and Master's Lodge range

Wyatville's other proposed new buildings

A – Proposed new Combination Room

B – Proposed houses or shops

C – Proposed carriage drive

D – Proposed gateway

E – Proposed 'public building'

F – Proposed 'promenade for the use of the Students'

0 100 200

Feet

Figure 5. Wyatville's site plan, showing proposed buildings, March 1821. (Wv/A1; reproduced with permission of Sidney Sussex College)

Dr Cocke has observed, it was difficult in the late Georgian period to take a romantic attitude towards seventeenth-century and earlier accommodation without more effective methods of heating and of artificial lighting than were then available to counteract the ways in which such accommodation fell short of contemporary standards of comfort.[69] Improvement in convenience and in comfort was something for which Wyatville was to become renowned — he provided corridors in his remodelling of Windsor Castle, for example.[70] It was Humfrey, however, who first proposed balancing the extension accommodating the new Mathematical Library with a staircase; Humfrey's stated purpose was 'to preserve the Uniformity of the principal court of the College',[71] but such a stair would have presumably served a function similar to that of the staircase which Wyatville placed in the same location and which, he pointed out, provided more private and convenient access to the Master's Lodge than had the previous arrangements (Fig.1, Fig.4, 'D').[72] Wyatville's scheme also extended the Ma-ster's Lodge above the new Mathematical Library and the new Hall porch, providing the Master with a new library and additional bedrooms. It appears that other work went on inside the Master's Lodge beside that reflected in the surviving drawings, since a document refers to the painting of 'New work' in the breakfast room.[73] Wyatville also gave consideration to the formation of a new carriage drive to the Master's Lodge, entered from Jesus Lane (Fig.5, 'E'). This suggestion may have been seriously entertained since, when the eighteenth-century gateway was removed from the front of the College, it was re-erected at the point where Wyatville had suggested providing 'a College like gateway' into the Master's drive.[74] The Fellows and undergraduates also gained 'convenience' from Wyatville's changes: the Fellows were expelled from their existing Combination Room in order to make room for mathematical instruments, but they were to gain 'a new and comfortable Combination room';[75] the provision of lighter, as well as more numerous, rooms for undergraduates has already been discussed. Furthermore, the College as a whole, as well as the Mathematical Lecturer and his audience, obviously benefited from the improved flue of the Hall stove.

Dignity and Style

Both Humfrey and Wyatville sought to give to the College a dignity and aesthetic appeal which, to contemporary eyes, the existing structure sadly lacked. This aspect of the work may have been of especial concern to the Master, Chafy, whose influence over the project was, it will be argued, considerable.

Chafy was Bursar as well as Master, and noted that it was his 'Duty' as Bursar 'to superintend all the Repairs and Alterations of the College'; indeed, it was alleged, during a dispute with the contractor for the first phase, that Chafy had given orders to the contractor directly, without going through Wyatville.[76] However, Chafy had scope to influence the conception, as well as the execution, of the refurbishment. Chafy was Master at a time when, according to Winstanley, heads of Cambridge houses were generally 'at pains to stress the dignity of their office'.[77] Indeed, Chafy's view of magisterial and bursarial authority is probably reflected in his opposition to the attempts of the Fellows of Christ's to appeal against the conduct of their Master and Bursar: Chafy was said to have taken the view 'that it was *merely* a dispute about the Bursar's expenditure; ... that the Bursar was the best judge of expenditure...'[78] Chafy had in fact obtained the Mastership of Sidney despite, rather than because of, the desires of the Fellows. When he was first a candidate, in 1807, he attracted only his own vote. He became Master in 1813, when the Visitor 'declared that Mr Chafy ought to have been chosen' after the disqualification of the Fellows' choice on the ground that he had never been a Fellow.[79] Chafy evidently found little difficulty in expressing his views forcefully, whatever the context. As Vice-Chancellor, Chafy opposed a motion by the Chancellor for an address to both houses of parliament to promote the abolition of the slave trade as 'a censure of the Ministry that he [Chafy] supported', and

69 Cocke, 'James Essex', pp.101–2.
70 Linstrum, *Wyatville*, pp.38,181,182.
71 Wv/G1.
72 Wv/AA6, AA7. Wyatville speaks, in regard to the staircase, of giving access to each floor while obviating 'the need for going up and down as at present'. The meaning of this is not clear, as Wyatville's drawings give little clue as to the earlier arrangements. Cf Willis and Clark, *op. cit. Vol.2*, p.738.
73 MR.116/2/25.
74 Wv/AA7; A1.
75 Wv/AA6; B17.
76 MR.116/3/15; MR.116/2/1. Cf. the observation that, in a far less important building project, Chafy 'gave directions about everything': MR.116/3/17.
77 Winstanley, *Unreformed Cambridge*, pp.276–7.
78 Gunning, *op. cit. Vol.2*, pp.257–8, my italics.
79 Winstanley, *Victorian Cambridge*, p.9 and n.; Gunning, *op. cit. Vol.2*, pp.286–7.

did so (at a meeting in the vestry of Great St Mary's) 'so loudly and so vehemently, that the parishioners (who had in leaving the church to pass the vestry-door) crowded together in order to learn the cause of this uproar' — in so doing, Chafy put the University at risk of an 'unseemly contest' between the Chancellor and Vice-Chancellor.[80] When a boundary wall between the College and adjoining property was, in Chafy's view, inadequately constructed, he was said by one witness to have expressed his displeasure by kicking it down twice.[81] Such strong expressions of sentiment probably derived from a certain self-righteousness. Chafy may have had himself in mind when he lamented in a sermon that 'the iron dart of persecution, envenomed with the poison of malice, ceases not to wound and lacerate those amongst us who are most eminent for piety and virtue'.[82] It seems probable, therefore, that Chafy's conviction of his own rectitude ensured that he furthered his own projects as Master of Sidney with the same determination, and with the same indifference to the opinions of others, as he showed in University affairs and, indeed, in his pursuit of the Mastership itself.

The likelihood that Chafy's influence was pivotal in the decision to refurbish the College is increased by his sense of his social position and his desire to enhance it. Chafy was, as he put it in his obituary of his father, 'descended from an ancient and respectable family in the county of Dorset': his father was for a while a Fellow of Sidney and was subsequently a minor Canon of Canterbury Cathedral. A youngest son and without inherited means, the Master's father had married a relative who was an heiress, and was able to build up some landed income and apparently to obtain a grant to bear arms in 1823.[83] The Master added to his father's lands, leaving at his death, according to his obituary in the *Gentleman's Magazine*, 'property far surpassing in amount even the expectations of those most intimately acquainted with his affairs'; the Master's son was able to live, from his marriage, the life of a gentleman.[84] Chafy was occasionally ridiculed for pos-sessing social pretensions;[85] according to G.M. Edwards, although Chafy had been a sizar as an undergraduate, as Master he discouraged poor men from entering the College.[86] Indeed, with the growth of the Chafy estates went increasingly exalted connections: Chafy's father had been a domestic chaplain to the fourth and fifth Earls Cowper, and Chafy's sister married into the peerage; Chafy himself married a co-heiress of John Westwood of Chatteris, sometime High Sheriff of Cambridgeshire and Huntingdonshire.[87] Such connections were no doubt consolidated by the lavish entertainment for which Chafy was to gain a reputation: according to Gunning, Chafy's 'covetousness (which in many respects was almost inconceivable) did not extend to his entertainments, which were always on a costly scale; and I believe nothing pleased him better than to provide the most choice wines that could be procured, and to see them freely taken'.[88] Such hospitality may help, together with a measure of public support for the Court, to explain both Chafy's appointment by George III in 1814 as a Royal Chaplain and the renewal of this appointment by three subsequent

80 *Ibid.* pp.289–90. No doubt Chafy's behaviour should be put in the context of his position as a royal chaplain; Gloucester's election as Chancellor had been opposed by 'the Court'. Cf. *ibid.* pp.274,293–4; see below; *Dictionary of National Biography. Vol.61*, ed. by Sidney Lee (London 1900) p.349.

81 MR.116/3/16.

82 William Chafy, *A Sermon Preached at the Parish-church of Gillingham ... on ... July the 31st 1803 on Occasion of the United Exertions ... Called Forth by His Majesty Against the Threatened Invasion* (London 1803) p.11.

83 Chafy, *Gesta*, pp.95,80–2,86,88,93; the Chafy lineage is traced back to a John Chafy of Sherbourne, buried in 1558, in *Burke's Genealogical and Heraldic History of the Landed Gentry*. 17th ed., ed. by L.G. Pine (London 1952) p.403.

84 Chafy, *Gesta*, pp.182,186,199,295,317–18; *The Gentleman's Magazine*. New series, 20 (1843) p.214.

85 Gunning, *op. cit. Vol.2*, pp.290–2,352–8. Note especially the parodist's putting into Chafy's mouth the words that 'the Heads of Colleges ... could not of course have mixed themselves up with the Corporation [of Cambridge]. They have uniformly and pointedly kept themselves aloof from that body, not deeming it consistent with the dignity of their office, and the character they bear in the University, to connect themselves in any way with a body like the Corporation.'

86 Venn, *Alumni Cantabrigienses. Part 2, Vol.1* (Cambridge 1940) p.549; G.M. Edwards, *Sidney Sussex College* (London 1899) p.222. Edwards, who became a Fellow of Sidney in 1881, quoted no source, and may have been drawing on College tradition.

87 Chafy, *Gesta*, pp.84,86,87,178–81.

88 Gunning, *op. cit. Vol.2*, pp.369–70. According to Chafy, *Gesta*, pp.292,328, Chafy revived 'The Family', a select dining club, whose members were leading figures in the University establishment, which is described (without mentioning Chafy's involvement) by Winstanley, *Early Victorian Cambridge*, pp.398–9.

monarchs.[89]

A desire on Chafy's part to provide a setting appropriate to his status may therefore have been an important factor shaping the project; indeed, it continued a pattern of improvements to the Master's Lodge which had begun at the start of Chafy's Mastership. He had then obtained permission to make a new entrance to the Lodge from the Ante-Chapel; this was subsequently withdrawn but Chafy instead obtained permission to throw two rooms together so as to form a drawing room. He was permitted to take down the old wainscotting and to replace it with wallpaper, probably making the room lighter, as well as more fashionable, in the process.[90]

However, Chafy's personal concern with the project was not confined to the refurbishment of his own apartments: he carried the cost of the external refurbishment of the Chapel out of his own pocket.[91] To Chafy and to his contemporaries, the architectural standing of the College probably seemed to be an important aspect of its general reputation. It was said in 1827 that Corpus 'has lately claimed a pre-eminence in the University for its new buildings'.[92] By the time that the second phase of work at Sidney was being considered, in 1824, major building projects in the Gothic revival style were under way at Trinity, Corpus Christi and King's Colleges; while this building boom was prompted by accommodation problems which have already been discussed, the interest which was taken in the appearance of these new buildings is shown by their depiction, alongside older work, in the collections of engravings of Cambridge architecture then in vogue.[93] Indeed, Colvin has suggested that, in eighteenth-century Oxford, 'when a knowledge of architecture was fashionable among the aristocracy and gentry, Colleges whose membership was increasingly being drawn from those ranks of society would naturally share the tastes of their class' — this led a number of colleges to undertake monumental buildings without the support of outside benefactors and often in the face of financial difficulties.[94] Similar influences may have been at work in early nineteenth-century Sidney. Although Chafy's greatest enthusiasm was perhaps for horticulture,[95] he showed just the kind of 'gentlemanly' interest in scenery and in architecture which would help to explain the decision to improve the College aesthetically. Chafy undertook tours to the Lake District in 1811, to Scotland in 1812, and to Wales in 1824 or later, and his accounts of the scenery are peppered with the vocabulary of fashionable early nineteenth-century romantic taste. The scenery was frequently deemed to be 'sublime', even to be 'sublimely awful' or to show 'awful sublimity'; 'horror and beauty' could be linked.[96] Architecture — often assessed in the early nineteenth century, like scenery, for its romantic qualities — also fell under Chafy's notice. Although he never mentioned in his journals the names of architects whose buildings he visited or admired, and although he could commit the blunder of describing pillars supporting Gothic arches as 'Corinthian', he nonetheless reported on some buildings with great enthusiasm. The buildings which he admired suggest no preference for particular styles or periods — they extended from medieval Gothic to early nineteenth-century Gothic revival, from late seventeenth-century classicism to early

89 Chafy, *Gesta*, p.182; *Dictionary of National Biography*, *Vol.9*, ed. by Leslie Stephen (London 1887) p.436. For Chafy, the Duke of Gloucester and the Court, see above, n.80. It is notable that the only publications by Chafy in the Cambridge University Library and British Library catalogues are sermons given on occasions of political significance: besides *A Sermon Preached at Gillingham*, he also published *A Sermon Preached before the University of Cambridge in Great St Mary's Church on ... July 15, 1830: Being the Day of the Funeral of ... King George the Fourth* (Cambridge 1830). Both works included praise of the monarch; the latter opined that George IV 'lived beloved and revered by all classes of his people, and ... descends into the grave amidst the general lamentation of the nation, with scarcely a single instance of disaffection to his person or government' (p.15).

90 MR.2, pp.180,181. Comparison of Wyatville's survey (Wv/A2) with Harraden's depiction of 1799 (Richard Harraden, *Picturesque Views of Cambridge* [Cambridge 1800] Part II, Plate XVII) and with Baldrey's view of 1809 (published on the University Almanack for that year) suggests that the creation of the drawing room involved altering windows at the centre of the west front and adding an iron balcony at roughly the point where Humfrey and Wyatville later suggested a veranda for the Master. See also n.95.

91 See below.

92 Wright, *op. cit. Vol.1*, p.109.

93 *R.C.H.M. Vol.1*, p.lxxxiv; Willis and Clark, *op. cit. Vol.1*, pp.cxvii–cxxix.

94 Colvin, 'Architecture', pp.842–3.

95 Chafy, *Gesta*, pp.184,188,209. A plan for remodelling the Master's garden, dating from Chafy's Mastership and apparently carried out before 1820 (cf. Wv/A1), has recently been found in the College archives by Mr Rogers.

96 Chafy, *Gesta*, pp.130,140,160,169,142–3,144–5,124,162,189–92.

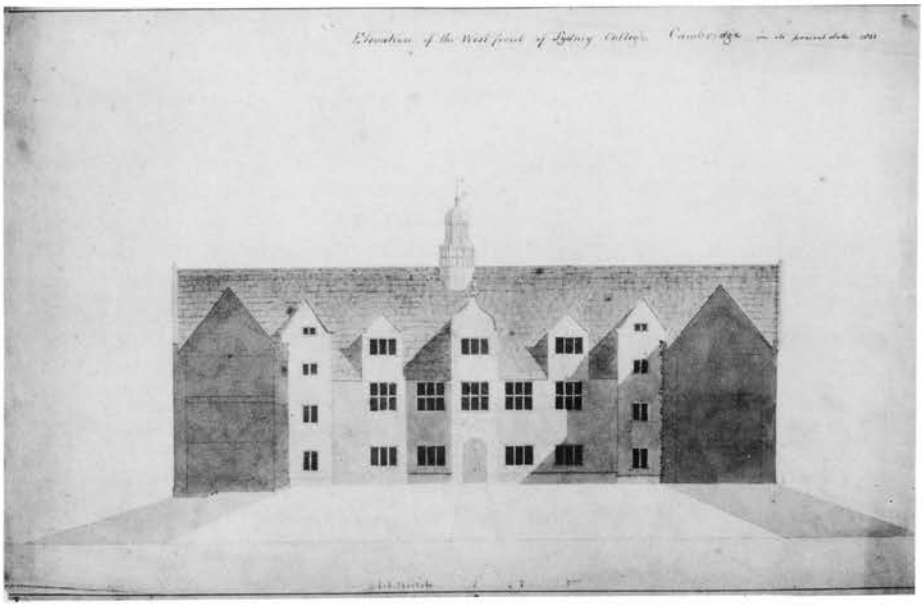


Figure 6. Wyatville's drawing of the west front of the Hall and Master's Lodge as existing, 1821. (Wv/A3; photo: RCHME, Crown Copyright; reproduced with permission of Sidney Sussex College)

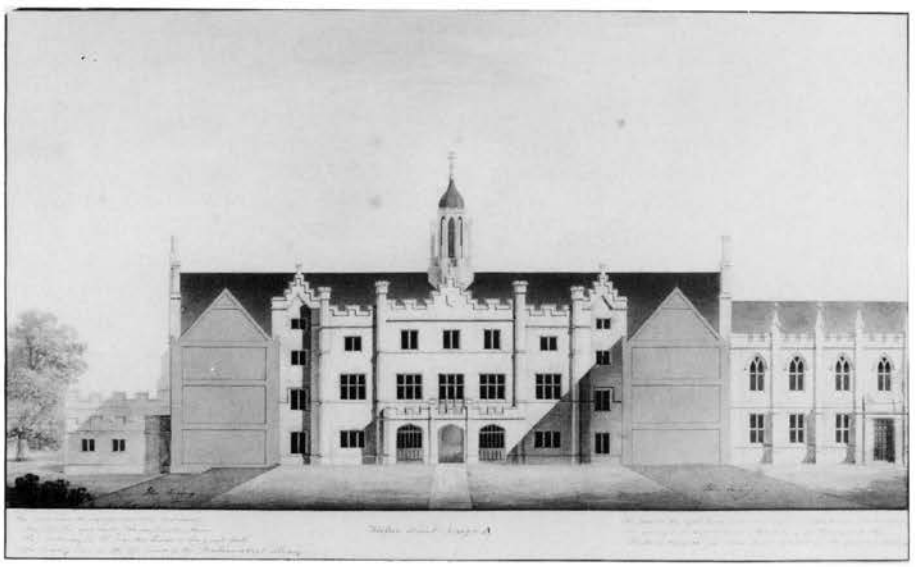


Figure 7. Wyatville's proposal for the west front of the Hall and Master's Lodge, 'Design A', 1821. (Wv/AA5; reproduced with permission of Sidney Sussex College)

nineteenth-century neo-classicism.[97] However, in this eclecticism, Chafy's taste was perhaps no other than typical of the 1820s.[98] Furthermore, communicating with

97 *Ibid.* pp.131 ('Corinthian' pillars), 105,111 (medieval Gothic), 131,145,171 (Gothic revival), 132,176 (late seventeenth- and early eighteenth-century classical), 106–7,132 (neo-classical). See especially his comments on the Pelham Mausoleum at Brocklesby, designed by Wyatville's uncle, James: a 'superb building ... well deserving a journey of ten times the distance we went to see it' (*ibid.* pp.106–7; Colvin, *Dictionary*, p.952).

98 Cf. J.M. Crook, *The Dilemma of Style* (London 1987) Chapter 1 and especially pp.34–5.

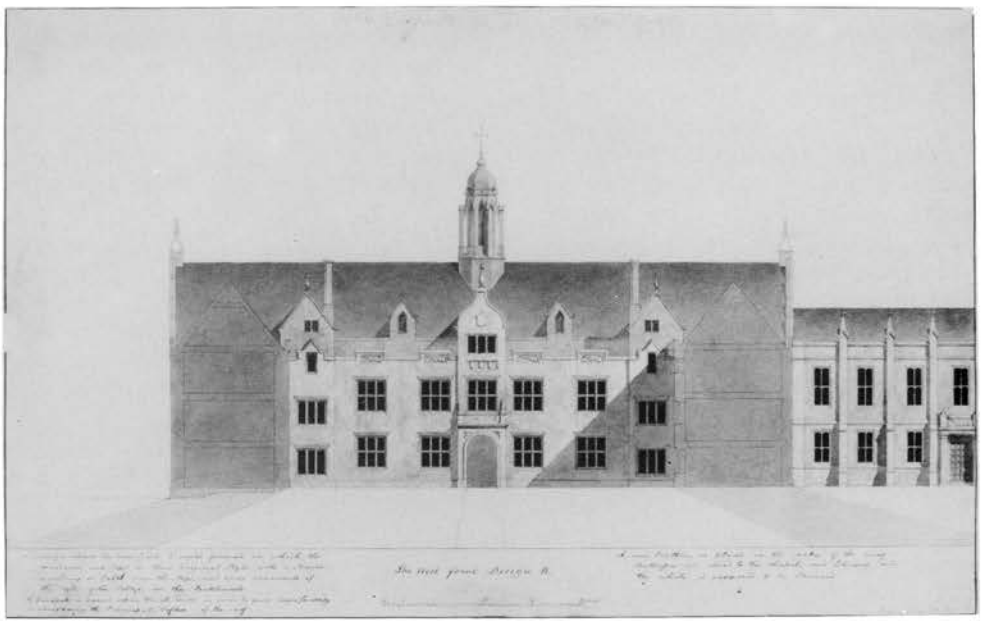


Figure 8. Wyatville's proposal for the west front of the Hall and Master's Lodge, 'Design B', 1821. (Wv/AA10; reproduced with permission of Sidney Sussex College)

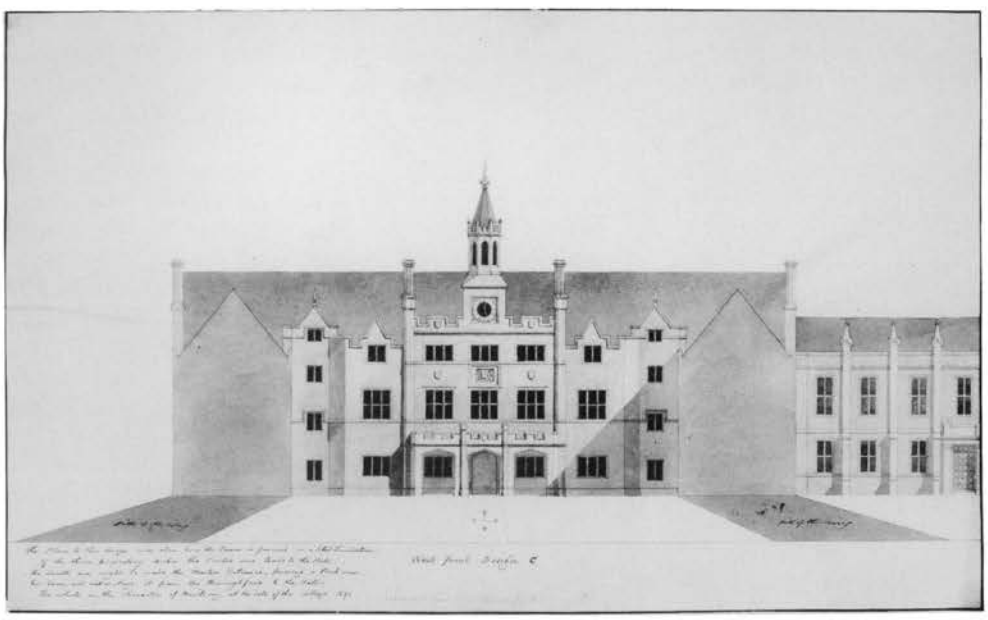


Figure 9. Wyatville's proposal for the west front of the Hall and Master's Lodge, 'Design C', 1821. (Wv/AA15; reproduced with permission of Sidney Sussex College)

Chafy regarding details of the Chapel front in 1833, Wyatville could compliment the Master on his knowledge of architecture, sending an explanatory drawing and notes, but insisting that 'the questions were such that your own genius would easily answer'.[99] The contribution of Chafy's aesthetic interests to the shaping of the project should not be discounted, therefore.

How far Chafy's taste was offended by the sight of Sidney as it stood in 1820 is unrecorded, but others, as noted in the introduction, certainly found it aesthetically lacking. Yet much survived of the original buildings, and architecture of their period — no longer purely Gothic but, on the other

99 Wv/L6.

hand, not fully adapted to classical ideals — was viewed with interest and sympathy in the early nineteenth century, by Wyatville amongst others, as offering scope for evoking historical associations and for creating a 'picturesque' outline, without sacrificing domestic convenience.[100] Indeed, the Duke of Devonshire — one of Wyatville's patrons — observed that generally Wyatville's aim was 'to restore in the character of the place he improved. The compliment he liked best was, that people should point out one of his creations, and say ... "that part is old" etc.'[101] There are signs of this self-effacing approach at Sidney, at least in the later stages of the work. A proposal to introduce an arched moulding on the east front of the Chapel was described by Wyatville as giving 'a notion that an entrance had been once there' — he was happy to leave the building looking as if it had evolved, and was not concerned that his own contribution should be clear.[102] The changes at Sidney probably did not, therefore, spring from a lack of sympathy for the character of the original buildings. Nonetheless, it has been suggested that, of Wyatville's proposals for the first phase of the work, only one — design 'B', which was not executed — was primarily intended to restore the putative original appearance, while the others — including that executed — sought to 'Gothicize' the College.[103] Certainly, the work carried out in the first phase involves features not now regarded as typical of Elizabethan architecture: four-centred arches; a groin vault in the portal of the gate tower; battlements; octagonal pinnacles; even some small lancet windows; above all, perhaps, the manner in which, in consequence of the creation of the new gateway in the second phase, the courts were entered from one corner, a piece of 'picturesque' planning out of sympathy with the usual Elizabethan concern for symmetry (Figs.1,7,10 and 13). Equally, design 'B' lacks most of these anachronistic features, although even it includes small lancet windows on the west front (Fig.8).[104] However, Wyatville seems, in fact, to have regarded himself as keeping within the bounds of the College's original style in all of his proposals. He apparently regarded features of the designs for Sidney which now seem un-Elizabethan as appropriate to a building of the 1590s. The introduction into design 'C' of a tall clock tower capped by an octagonal lantern and spire (hardly, to modern eyes, in the spirit of Elizabethan architecture) did not prevent him claiming that 'the whole [is] in the Character of Building at the date of the College 1596' (Fig.9).[105]

Thus, if at some points Wyatville introduced features which seem anachronistic to modern eyes, this probably reflects less a desire to change the College's style than a confusion as to what constituted the vocabulary of Elizabethan architecture. Wyatville's design for Nonsuch Park, in Surrey, made in 1802–3, was described as 'Elizabethan', even though it featured the battlements, octagonal pinnacles and four-centred arches which he also introduced at Sidney and which, to modern eyes, seem more 'late Gothic' or 'early Tudor' than 'Elizabethan'; furthermore, one elevation of Nonsuch was asymmetrically 'picturesque'.[106] This acceptance as Elizabethan of features now associated with earlier Tudor architecture may seem surprising, since Wyatville had himself worked on major Elizabethan houses (including Longleat and Wollaton, strictly symmetrical buildings whose ornament was drawn from a largely classical vocabulary), and had shown himself capable of imitating their style. Two drawings by Wyatville 'for Lodges in the style prevailing about the end of Queen Elizabeths Reign' incorporate a classical order and other classical or mannerist features such as strapwork and a round-headed arch.[107] However, the classical features of Longleat and of Wollaton represent only one aspect of Elizabethan

100 Christopher Hussey, *English Country Houses: Late Georgian, 1800–1840* (London 1958) pp.13,18; Linstrum, *Wyatville*, p.53.

101 Linstrum, *Wyatville*, p.38. Wyatville was deemed to have succeeded in this aim at Windsor Castle: *ibid.* p.182.

102 Chafy, *Gesta*, p.240. The drawing mentioned by Wyatville in this letter cannot now be located and this façade has been heavily altered, but a nineteenth-century painting (reproduced *ibid.* facing p.181) suggests that this proposal was carried out. A similar desire to create the effect of a building which had evolved may explain Wyatville's readiness to use the same hybrid porch in connection with widely differing styles of window in his early proposals for the Chapel: Wv/AA5; AA10; AA15 (Figs 7–9). It is also striking that the eighteenth-century classical gateway, having been removed from the Sidney Street front, was not destroyed, but was re-erected in the Fellows' Garden. There is, however, no evidence to show whether this was done on Wyatville's suggestion; it may (for example) have been suggested by Chafy, whose catholic architectural tastes have already been noticed.

103 Scott-Giles, *op. cit.* p.92; Pevsner, *Cambridgeshire*, pp.159–60; cf. Linstrum, *Wyatville*, p.233.

104 Wv/AA9–10.

105 Wv/AA14; AA15. Cf. AA9; AA10.

106 Linstrum, *Wyatville*, p.73, Plates 34–5.

107 *Ibid.* Plates 17,20; British Museum Print Room, 198.C15, fo.31, Fig.175.

architectural fashion. A number of later Elizabethan buildings, labelled 'heroic' by Mark Girouard, were probably consciously inspired by the architecture of the fifteenth century and of the first decades of the sixteenth century, showing a relative sparseness of classical detail linked to a varied skyline and an emphasis on height.[108] Such features promoted the common — if not universal — Georgian classification of Elizabethan architecture as 'Gothic'. Repton referred to buildings of 'that peculiar kind called Queen Elizabeth's Gothic, in which turrets prevailed, though battlements were discarded, and Grecian columns occasionally used'.[109] Elizabethan buildings of this type were readily assimilated into a portmanteau style described in the early nineteenth century as 'Old English' or 'mixed', embracing features of English architecture from the end of the fifteenth century to the beginning of the seventeenth.[110] Furthermore, the 1590s buildings at Sidney showed a blend of features similar to that found in Girouard's 'heroic' Elizabethan buildings, which may have resulted, as Girouard claims was the case elsewhere, from a deliberate antiquarianism rather than from an uninformed conservatism.[111] There were few classical details, except in the Hall porch and in the gateway, which had both been destroyed by Wyatville's time; the gabled skyline, the bows on the east front, and the vertical emphasis (created by the tall narrow bay over the Hall porch and by the flanking towers in the corners of Hall Court) were all features common to the 'heroic' style (Fig.2). In addition, there were four-centred arches over some minor doorways (there had also been one in the destroyed gatehouse).[112] Given that a distinction between early Tudor and Elizabethan styles was not always drawn in the early nineteenth century, and given the extent to which the character of Sidney reflects the close links between Elizabethan and late Gothic architecture, Wyatville's introduction of certain anachronisms, despite his stated intention to keep to the original style of the building, may become comprehensible.

Wyatville's Elizabethanism was certainly no more than skin-deep. He employed modern constructional methods, the battlements of his proposed new Combination Room being intended to conceal a low-pitched roof of the type made possible by the widespread use of slate in the early nineteenth century. Such devices were, however, general amongst architects working in historical styles at the time.[113] Even if Wyatville did introduce

108 Mark Girouard, *Robert Smythson and the Elizabethan Country House* (New Haven 1983) pp.32–7; see further, *idem*, 'Burghley House, Lincolnshire', *Country Life* (23 April 1992) pp.58–61 and (30 April 1992) pp.56–9.

109 Nikolaus Pevsner, 'Good King James's Gothic', in *idem*, *Studies in Art, Architecture and Design. Vol.1* (London 1968) pp.160–1.

110 Hussey, *op. cit.* pp.17–18,25. For further examples of the range of treatment which Wyatville could describe as Elizabethan, see Linstrum, *Wyatville*, p.58, Plate 21. Cf. Pugin's dismissal of the fashion for the Elizabethan style as a cover for 'anachronisms and anomalies': *ibid.* p.263 n.18.

111 On the conservatism of Elizabethan and early Stuart collegiate architecture, see John Summerson, *Architecture in Britain, 1530–1830.* paperback ed. (Harmondsworth 1970) pp.174–8, but cf. Pevsner, *Cambridgeshire*, p.148, for a case in which this conservatism was more self-conscious than Summerson seems to allow. That Sidney's architect, Ralph Symons, was not unacquainted with the architectural currents of the 1590s is suggested by his use of the then-fashionable semi-circular form for the bows on the east front: Pevsner, *Cambridgeshire*, p.160. The curved gable (with concave curves flanking the apex) over the Hall porch (Fig.6) would also have been a very advanced feature in the 1590s. Similar gables do feature at Moreton Corbet, Shropshire, dating from 1579, but it has been suggested on stylistic grounds that they are a later alteration. Such gables are more commonly found on seventeenth-century buildings, occurring in work of after 1620 at a number of Oxford colleges, as well as in the 'Brick Building' of Emmanuel College, Cambridge (1633–4): O.J. Weaver, 'Moreton Corbet Castle', *Archaeological Journal* 138 (1981) pp.44–6; A.F. Kersting and John Ashdown, *The Buildings of Oxford* (London 1980) pp.109,135,160; Tim Rawle, *Cambridge Architecture* (London 1985) Fig.92. The oval windows which also appear in Loggan's depiction (and also on the east front in Wyatville's drawings of the College prior to remodelling) likewise came into general fashion only in the 1630s, but similar windows appear in the gateways of Trinity College, also dated c.1600, so that this appears to have been a local fashion around this date: *R.C.H.M. Vol.2*, pp.222,231; cf. Howard Colvin, *The Canterbury Quadrangle, St John's College Oxford* (Oxford 1988) p.55 and n.47. Nonetheless, since the College accounts for the seventeenth century are incomplete, the possibility of a seventeenth-century repair programme, accounting for some of the more 'advanced' features of the buildings, cannot be ruled out.

112 The details of the porch and gateway appear in Loggan's engraving, which Wyatville could, of course, have consulted, though there is no evidence that he did so. According to Wyatville's drawings of the existing structure, there were four-centred doorways on the south front of the central range, but not on the north, where there is some reason to think that changes took place in the eighteenth century: Wv/C6; C8; see below, n.133. The use of four-centred arches may again be a piece of self-conscious conservatism; cf. their employment by John Smythson in fireplace designs for Bolsover Castle, otherwise largely inspired by Serlio: Girouard, *Smythson*, pp.239–45. Cf. the rather earlier combination of classical detail with a four-centred arch in the Gate of Honour at Gonville and Caius College, dating to 1573–5: *R.C.H.M. Vol.1*, Plate 133.

113 For the Combination Room: Wv/B19; cf. J.M. Smith and E.M. Yates, 'On the dating of English houses from external evidence', *Field Studies* 2

anachronistic details, in other aspects of his work he showed sympathy with the character of the existing buildings. The emphasis on the vertical which Wyatville created at many points in Sidney (most conspicuously in the gate tower and in the new lantern over the Hall) was not alien to the original design, whose vertical emphasis has already been noted (Figs. 2 and 12). In balancing the verticality of his design with horizontal string courses, Wyatville was using a device common enough in late sixteenth-century building, if one absent from Sidney. Other features which Wyatville introduced into Sidney had precedents in other Elizabethan buildings in Cambridge. Though Sidney possessed no battlements, the stepped gables which Wyatville applied to the College appear in the Library wing at Trinity Hall; equally, in the second phase, Wyatville introduced individual drip-moulds over windows, a feature seemingly absent from Elizabethan Sidney but present, for example, in the second court at St John's College, like Sidney the work of Ralph Symons.[114] On the other hand, Wyatville avoided the introduction of details which might have been authentically Elizabethan, but which were alien to the 'heroic' manner of the buildings, such as the applied orders and open-work cresting which he used, in imitation of the existing house, at Longleat.[115]

Indeed, the extent of Wyatville's efforts to preserve 'the style of the building at the date of the College' becomes more clear when his work is compared with the proposals of Humfrey. On the east front of the Hall and Master's Lodge, Humfrey's proposed changes would have altered the character of the building much more than Wyatville's (Figs.4 and 10). Humfrey proposed topping the forebuilding (introduced for structural reasons and essentially copied by Wyatville) with a pedimented superstructure which gave a classical central emphasis lacking in the original façade. Wyatville also gave a little more emphasis to the centre of the façade than the original design had possessed,[116] but his readiness to leave the end bows and the gables above them as the strongest elements in the east façade contrasts with the weight which Humfrey planned to place at the centre, and may reflect Wyatville's knowledge of Longleat and Wollaton, Elizabethan houses with elevations in which the ends were much more strongly emphasised than the centre.[117] Furthermore, in Humfrey's scheme the kitchen bow was to be modified by 'the Introduction of new Stone work, and false lights', so as to be 'precisely uniform' with that of the Hall, destroying the slight asymmetry of the original façade — Wyatville originally proposed doing this as well, it is true, but he later relented, preserving the original asymmetry (uncharacteristic though it is of the more fashionable architecture of its date).[118] On the west front, Humfrey's proposals would have given the Hall and Master's Lodge a straight façade, destroying the pattern of recession and advance typical of later Elizabethan architecture. Wyatville's proposals, on the other hand, retained the device — albeit with the new façade stepping forward where the Elizabethan one had stepped back, in order to create more internal space. Humfrey was not, of course, so

(1968) p.562. Cast iron supporting beams were used at several points: Wv/D12; D21; E2. Cf. the use of cast iron window tracery at Trinity: Pevsner, *Cambridgeshire*, p.176 n.

114 *R.C.H.M. Vol.2*, pp.187,252–3, Plate 234. Stepped gables are, of course, a common enough feature in 'provincial' Elizabethan architecture, especially in East Anglia and the East Midlands, and were used in some early nineteenth-century restoration projects by Nash (at Helmingham, 1800), by J.A. Repton (at Barningham, 1805–7) and by Blore (at Chediston, 1830s): Hussey, *op. cit.* p.19; *Burke's and Savills Guide to Country Houses. Vol.3: East Anglia*, by John Kennworthy-Browne *et al.* (London 1981) pp.86,222.

115 Linstrum, *Wyatville*, Plates 17, 20. An unsigned pencil sketch (Wv/H5) for a porch with a room above, evidently to be added to the east front of the Master's Lodge, with Gothic arches at ground level and a strapwork cresting forming a parapet, has been found associated with some Wyatville letters (Wv/L1 and L3–6). Comparison of the style of drawing with Wyatville's sketches in British Museum Print Room, 198.C15, and in the library of the Royal Institute of British Architects, suggests that this scheme is not by him. The arrangement echoes that adopted on the west front to enlarge the Master's Library beyond that provided in Wyatville's original designs (see below); Wv/H5 is perhaps an alternative proposal for extending the Lodge further than in Wyatville's original designs, rejected in favour of the Library extension.

116 The Elizabethan east façade had no windows at the centre (Harraden, *Picturesque Views*, Part II, Plate XVII), but Wyatville added a central window at second-floor level and incorporated the first-floor french windows formed earlier in Chafy's Mastership (see above, n.90) into two partly dummy mullion and transom windows, the more northerly of which appears to be in the centre of the façade and to be wider than its neighbours. The use of a four-light rather than a three-light window here seems, however, to have been a last-minute decision: cf. Wv/B12.

117 For the façades of Longleat and Wollaton, see Girouard, *Smythson*, Plates I,V.

118 Wv/G1; AA3; AA14; B13. Wyatville did, however, place his new lantern on the Hall range in a symmetrical position, rather than in the off-set location of the Elizabethan lantern. Cf. the reluctance with which William Wilkins abandoned symmetry in his Gothic New Court at Trinity: David Watkin, *The Triumph of the Classical* (Cambridge 1977) p.7.

distinguished an architect as Wyatville. Yet it is notable that even the archaeologically minded Rickman, together with his assistant Hutchinson, produced New Court at St John's, with its pointed-arched cloister, in response to a brief which asked the architects 'to follow as nearly as may be the style' of Ralph Symons' second court of 1598–1602, 'with such improvements as the Architect may suggest'.[119] Wyatville's 'improve-ments' to the style of Sidney were not extravagant or out of character by the standards of their day.

The extent of Wyatville's efforts to preserve the Elizabethan character of the buildings in Hall Court is also emphasised by comparison with the much more varied treatments which he suggested for the Chapel and Library range, whose 'original character' he regarded as having been 'quite destroyed' when the range was rebuilt in 1776–82 (Fig.3).[120] Wyatville's first designs for the Chapel and Library, made in 1821, showed, alternatively, pointed Gothic windows with Y-tracery, straight-headed cusped lights of the type used up to the mid-sixteenth century, or cross-framed straight-headed windows of a mid-seventeenth-century style. In 1824 Wyatville favoured pointed windows; in 1832 he was offering a choice between these and the cheaper straight-headed cusped lights which were ultimately provided, along with a porch with a Gothic arch and pinnacles (Figs.7, 9 and 12).[121] One contemporary, at least, regarded the Chapel as having been 'gothicized'.[122] A desire on the part of the Col-lege to give the Chapel a more ecclesiastical appearance may have lain behind the choice of this treatment, although any feeling that Essex's work was unecclesiastical did not extend so far as to prompt alterations to the interior. Wyatville may even have regarded his various designs as all in some sense Elizabethan. His expressed concern was to give the Chapel and Library 'a Character belonging to [their] *situation*'.[123] Nonetheless, he still allowed himself a much broader interpretation of the style in the context of the Chapel, where he deemed the existing structure unworthy of respect, than in Hall Court.

More radically, for a suggested free-standing 'public building' in the northeast quarter of the Fellows' Garden, which he proposed might be 'a Museum', Wyatville evidently envisaged a classical treatment, with a portico or colonnade to Jesus Lane (Fig.5).[124] Wyatville may here have been influenced by the general feeling that seems to have existed in Cambridge in the 1820s that the classical style, while not appropriate for properly collegiate buildings, might be in order for more 'public' or university structures.[125] However, Wyatville seems gener-ally to have lacked much sense that function should determine style, to judge by his observation on a plan for an unidentified house that the kitchen was 'to look like a chapel'.[126] Again, it seems most likely that Wyatville felt free to propose a classical treatment for the 'public building' because it was visually, as well as physically, detached from the rest of the College.

Wyatville's efforts to retain Sidney's Elizabethan character are the more interesting in view of the rarity with which the 'Old English' style was applied to institutional buildings in the 1820s. The remainder of the non-classical new buildings in Cambridge during that decade was in a late Gothic manner, making prominent use of pointed arches, cusped lights and window tracery, features which Wyatville largely eschewed in his 'Elizabethan' refurbishment of Sidney.[127] The competition for designs for the new Palace of Westminster, in which entries were invited in the Elizabethan style, as well as the Gothic, took place a decade after the basic designs for Sidney had been completed.[128]

If Wyatville generally sought to preserve the existing style of the College, and even to be self-effacing, why were so many changes deemed necessary? In contemporary eyes, the College suffered from the dual disability of having lost much of its original detail and of being faced in unfashionable red brick. Wyatville commented on the east front of the Hall and Master's Lodge that 'many alterations have been made, ... some of the

119 Willis and Clark, *op. cit. Vol.2*, p.278. For Rickman, see Colvin, *Dictionary*, pp.688–9.
120 Wv/A2.
121 Wv/AA3; AA9; AA10; C5; D37; L4.
122 Storer, *Cantabrigia Illustrata*, p.27.
123 Wv/AA9; my italics.
124 Wv/A1.
125 Watkin, *Triumph of the Classical*, p.6.
126 Derek Linstrum, *Catalogue of the Drawings Collection of the Royal Institute of British Architects: The Wyatt Family* (London 1974) p.65.
127 An exception to this pattern was a design for Gonville and Caius College, possibly made by William Wilkins in 1815, where the intention was certainly more Tudor than Gothic — all windows were straight-headed. However, the style, which incorporated window tracery and crocketed corner turrets, was richer than either that of the original buildings at Sidney or that adopted by Wyatville there; furthermore, the design was not executed. R.W. Liscombe, *William Wilkins, 1778–1839* (Cambridge 1980) pp.118–19, Plates 49–50.
128 Hussey, *op. cit.* p.26; cf. Pevsner, 'King James's Gothic', p.162.

windows have had their character changed'. 'The Ornaments at the angles of the Gables', he observed, 'have been nearly all omitted at the various repairs' — this was a reasonable deduction from the pinnacles surviving at the time of his survey of the College, although comparison of one of his schemes with Loggan's engraving suggests that Wyatville may have had an exaggerated view of how much had been lost (Figs. 2 and 11).[129] Wyatville also complained of the 'Barn-like appearance' of the north gable of the Hall.[130] He offered no comments on the west elevation of the Hall and Lodge,[131] though comparison with Loggan's view suggests the loss of considerable detail. The rusticated round-arched entrance of the Hall porch, shown by Wyatville, matched in style the eighteenth-century front gateway and probably dated from 1750; it replaced the 'jacobethan-classical' porch shown by Loggan. Loggan showed other carved detail above the doorway which had also disappeared by Wyatville's time (Figs. 2 and 6).[132] Wyatville's survey also shows that the south side of Hall Court was by 1821 devoid of the gabled dormers shown by Loggan (Fig.2), and topped by a severe straight parapet. The same had apparently happened on the north side of the north range — the dormers had perhaps been removed in order to obviate maintenance costs on accommodation which was redundant as student numbers declined in Cambridge from the middle of the seventeenth century.[133] Finally, Wyatville regarded Essex's Chapel and Library range, as has been seen, as out of character with the College. The Master and Fellows were probably anxious to change this range for aesthetic reasons; the 'intended Repair of the Chapel' was mentioned as early as 1820, but the work was delayed while other projects were carried out until, in the 1830s, Chafy offered to pay for it, suggesting that there was no urgent need for structural repairs.[134] The changes to the original fabric prior to 1820 therefore help to explain why Wyatville could be sympathetic to the style of the original buildings, and yet feel the need for extensive remodelling in the interest of aesthetic improvement.

Chafy's monument in the College Chapel emphasises that he found a building of brick and left one of stone.[135] By the early nineteenth century, red brick had long been an unfashionable building material. A commentator had written in 1766 that 'no public edifice ought to be built with brick unless it is afterwards stucco'd, for a mere brick face in such buildings always makes a mean appearance'. Where brick was still used, from the mid-eighteenth century onward architects preferred grey or white brick to red — Isaac Ware pointed out that grey brick would blend better with stone detailing, so that Sidney's combination of stone with red brick may have seemed particularly uncouth.[136] The prejudice against red brick continued into the nineteenth century: stone or imitation stone was widely used for college building projects in Cambridge in the 1820s, with white brick being used where brickwork was left exposed. In 1815 Gonville and Caius College decided to plaster 'the buildings in Tree Court ... with Roman cement', one of a number of very widely-used stucco mixtures intended to imitate stone which had been introduced in the late eighteenth century.[137] In about 1810 Harraden denounced Sidney's red brick as 'so gloomy, that no correctness of form or distribution of parts can counteract its impression'. Wright observed that Sidney faced the street in the same manner as Christ's, 'but not with the same effect, *its front being of brick*'.[138] Humfrey's proposal to cover the east face of the Master's Lodge and Hall with Roman cement would therefore have fulfilled a double purpose: not only

129 Wv/A2; AA9.

130 Wv/AA4.

131 Wv/A3.

132 See MR.35 (Master's account book, 1728–54), p.410 (cited in a manuscript note on p.180 of the College Muniment Room copy of Edwards, *op. cit.*) for expenditure on 'Repairs in the Hall & *Porch before it*' (my italics).

133 Wv/C6; Willis and Clark, *op. cit. Vol.2*, p.737 n.2; *R.C.H.M. Vol.1*, graph facing p.lxxxiii. It has been suggested (by Salway, *op. cit.* p.381) that Loggan's view is not entirely dependable as to details, since he also shows more gables on the front of the Hall and Master's Lodge than does Wyatville's survey. However, the existence of these other discrepancies suggests that simplifications carried out in the eighteenth century may be a better explanation. It is unlikely that the regular row of gables shown by Loggan on the south side of the court was a figment of his imagination, and the straight parapet shown by Wyatville seems improbable for the 1590s.

134 MR.2, p.205; see below.

135 Reproduced in Chafy, *Gesta*, facing p.328.

136 Dan Cruickshank and Peter Wyld, *London: The Art of Georgian Building* (London 1975) pp.192,178; cf. Clifton-Taylor, *op. cit.* pp.37–8,237.

137 *R.C.H.M.: Vol.1*, pp.lxxxiv,51,98; *Vol.2*, p.165; Willis and Clark, *op. cit. Vol.1*, p.189. On Roman cement: Cruickshank and Wyld, *op. cit.* p.192; Clifton-Taylor, *op. cit.* pp.367–8. See also *ibid.* pp.237–8, for similar efforts to conceal red brick frontages in the late eighteenth and early nineteenth centuries.

138 Richard Harraden and R.B. Harraden, *Cantabrigia Depicta* (Cambridge 1809) p.161; Wright, *op. cit. Vol.1*, p.106 (my italics). Cf. Wright's comments on St John's, *ibid.* p.107.

would the Roman cement have concealed repairs and additions to the badly decayed brickwork, it would also have added to the dignity of the building. Indeed, it is perhaps surprising that Humfrey wanted to face his new buildings to the west of the Master's Lodge and Hall with brick to match that of the rest of Hall Court, even in their alternative 'Gothic' version, rather than to give them a Roman cement facing as well.[139] There is, however, a parallel to this in the original proposals for New Court at St John's: here, where the College was anxious to match the style of the brick Second Court, a decision was made in 1827 to face the work in red brick. Nonetheless, stone facing was substituted at a late stage,[140] and similarly, at Sidney, Humfrey's proposal to match the existing brickwork was not followed up. Wyatville wanted to use stone or stucco for the west face of his equivalent buildings, and also suggested in 1821 that the rest of the inside of Hall Court — and ideally other areas as well — should be stuccoed to match; these further aspirations were satisfied in the second phase of building, with the new gate tower ultimately being faced in stone.[141]

Indeed, Wyatville's desire to give the building more prestige went beyond a mere refacing. His earliest proposals included a number of ideas intended to improve the grandeur of the College, notably the clock-tower, already mentioned, in one of his plans for remodelling the Hall and Master's Lodge range (Fig.9).[142] Wyatville's most ambi-tious ideas occurred in a site plan dated March 1821 (Fig.5). This suggested an in-ternal arcade along the Sidney Street fronts of Hall and Chapel Courts — about 180 feet long, it would have formed 'a promenade for the use of the Students'. A similar idea was later carried out by Rickman and Hutchinson in New Court at St John's College — arcaded courts indeed had precedents in Cambridge at Queens', Trinity and Emmanuel.[143] More remarkable was Wyatville's suggested 'public building' in the northeast quarter of the Fellows' Garden, which he envisaged might be 'a Museum, the centre room being 150 feet long by 35 feet wide', with a portico or colonnade to Jesus Lane. The proposal remained nothing more than an outline ground plan, but it nonetheless echoes other architects' aspirations to provide Cambridge with major neo-classical buildings in the early decades of the nineteenth century.[144] There is nothing to show whether these proposals (along with the incomplete indications of possible re-furbishments of the Chapel included in Wyatville's more detailed proposals of the same date) derived from instructions from the Master and Fellows or from a desire on Wyatville's part to show the potential for further work and possibly to win further business for himself in consequence.

While nothing more was heard of the 'public building', the proposal for an arcade along the Sidney Street front, involving the removal from the central wing of the ground floor rooms closest to the street, may have been the origin of the entrance porch which was constructed at this point during the second phase, replacing the gateway in the centre of the west side of Hall Court. This new porch, and the tower above it, were the most radical contributions which Wyatville made to the College.[145] By moving the entrance to the west end of the central wing, Wyatville rendered the two courts of more equal status, and made the full extent of the College obvious to those entering. The tower which Wyatville placed above the entrance increased the visual impact of the College, which was necessarily seen obliquely thanks to the narrowness of Sidney Street; the tower is especially telling when approached from the south, on account of the slight curve of the street. Wyatville's sensitivity to the College's relationship to the curving street is suggested by the ultimate decision to omit the oriel window on the north side of the gate tower (shown in his first proposal for the second phase), but to retain its twin on the south side, where the curve of the street gives it additional impact (Fig.15).[146] The replacement of one of the three roughly equal gables which the College had formerly presented to the street with a tower of greater height also accorded with picturesque ideas about the

139 Wv/G1-2.
140 Willis and Clark, *op. cit. Vol.2*, p.278.
141 Wv/AA4; B5. See below.
142 Wv/AA15.
143 Wv/A1; *R.C.H.M. Vol.2*, Plate 241. The particular arrangement in Wyatville's plan, an internally arcaded entrance wall with a central gatehouse, had a precedent in a collegiate context at The Queen's College at Oxford; the idea derived from well-known French sources: Jennifer Sherwood and Nikolaus Pevsner, *The Buildings of England: Oxfordshire* (Harmondsworth 1974) p.187.
144 Wv/A1; Watkin, *Triumph of the Classical, passim*. The idea of a museum was perhaps inspired by Viscount Fitzwilliam's bequest of his collections to the University in 1816; they had yet to be housed, although a site had been identified in 1821: *ibid.* p.11.
145 Cf. Linstrum, *Wyatville*, p.233.
146 Cf. Wv/C5.

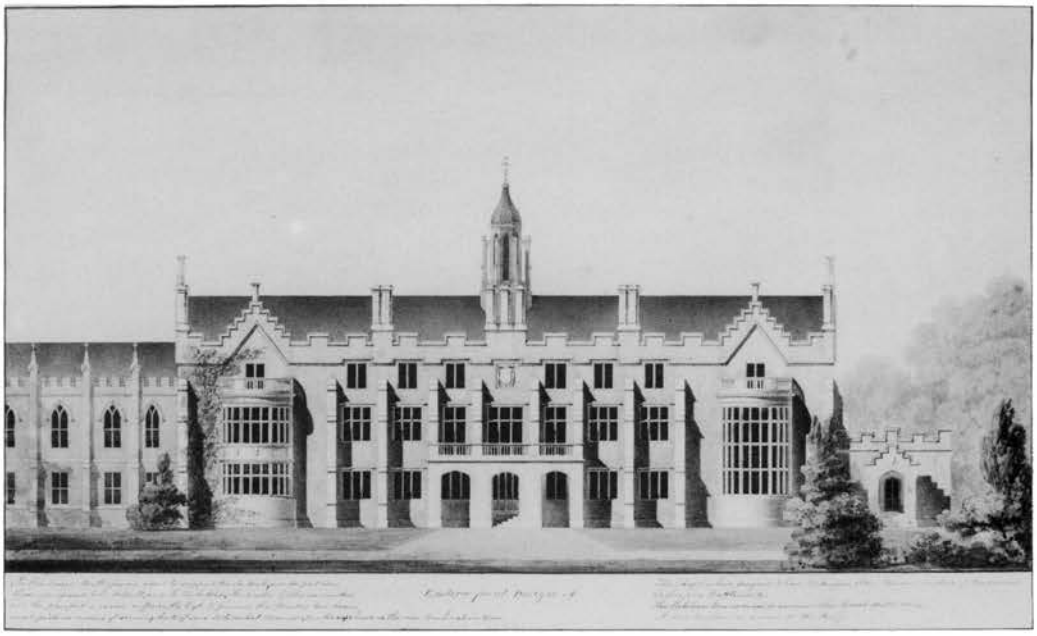


Figure 10. Wyatville's proposal for the east front of the Hall and Master's Lodge, 'Design A', 1821. (Wv/AA3; reproduced with permission of Sidney Sussex College)

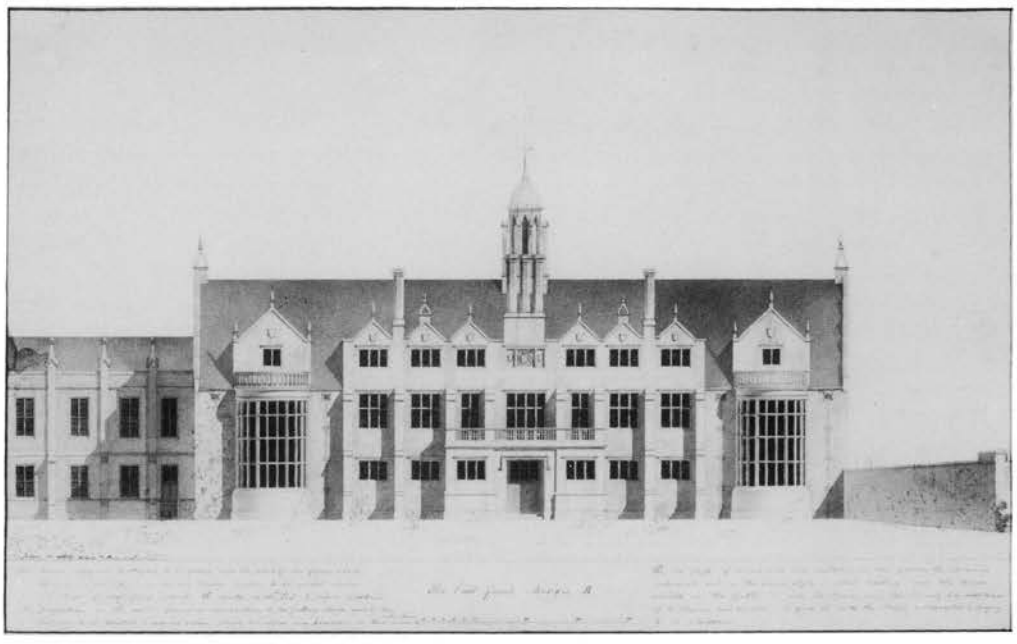


Figure 11. Wyatville's proposal for the east front of the Hall and Master's Lodge, 'Design B', 1821. (Wv/AA9; reproduced with permission of Sidney Sussex College)

introduction of variety into architectural outlines (Fig.12).

Grandiloquent though the gate tower may be, none of Wyatville's work at Sidney can be described as richly detailed, in comparison with such works of the next decades as Harlaxton Manor (by Salvin and Burn) or Stoke Rochford Hall (by Burn).[147] These works exploited with vigour the potential for enrichment in the form of strap-work, elaborate finials, ogee-capped turrets and fancifully-shaped bow windows offered by late

147 For Harlaxton: Hussey, *op. cit.* pp.239–48; Stoke Rochford: Mark Girouard, *The Victorian Country House* (Oxford 1971) Plate 27.

Elizabethan and Jacobean prototypes. Wyatville showed some leanings towards a more elaborate treatment for Sidney: one of his three 1821 proposals used the single surviving original open-work pinnacle on the east front as a prototype for new pinnacles on the end gables of the Hall and Master's Lodge range, and enriched all of the gables of the east front with pinnacles of one type or another (thus multiplying them beyond the number shown in Loggan's engraving) (Figs 2 and 11). On the other unexecuted design, one pinnacle was to be topped by a heraldic beast.[148] In the event, however, a relative austerity of external decoration prevailed: the surviving open-work pinnacle was removed and such new pinnacles as were added were to a simpler design (Fig.10). This austerity was reflected internally: the galleried Mathematical Library may have had some drama, but the drawings indicate that the detailing of the book-cases was simple, and lacked any features obviously intended to be 'Elizabethan'.[149] The same was true of Wyat-ville's designs for the Master's new Library (Fig.14) and of the Master's new principal staircase.[150] Nothing was done to reinstate the Elizabethan character of the Hall, which had been remodelled in the eighteenth century, although Wyatville had pointed out in 1821 that 'if thought desirable there would be no difficulty in restoring the Roof to its original open Character'.[151]

Financial limitations may explain the austerity of style, both inside and out, although it is still interesting to note that, while money was found to face the new gate tower in stone, relatively little was spent on decorative detail or on interior enrichment, in contrast to the rich decorative work carried out in the Hall, Combination Room and Master's Lodge in the eighteenth century. Wyatville seems in fact to have regarded the plain style of his interiors as being 'in the manner of the days of Queen Elizabeth'.[152] Indeed, austerity was adopted by Wyatville even where economy almost certainly did not impose it: C.R. Cockerell found a lack of splendour even in Wyatville's work at Windsor Castle. In the 1820s Wyatville designed two country houses, Golden Grove and Lilleshall, which share exterior details, as well as a general ambience, with his work at Sidney. They exhibit, suggests Linstrum, an austerity 'difficult to reconcile ... with the wealth of their owners'. Linstrum suggests that the austerity of external treatment which Wyatville adopted in these houses may have been inspired by the experience of working on Sidney's relatively unadorned fabric, although, as he points out, a part may also have been played by Wyatville's employment in about 1824 at Somerhill, a severe Jacobean house in Kent. Whatever its origin, this manner was not, in fact, peculiar to Wyatville. The exterior austerity of Sidney, Golden Grove and Lilleshall (if not the interior treatment) was echoed in some other 'Old English' houses of the 1820s and 1830s by other architects, such as G.S. Repton's Kitley (*c.*1820–5) and Salvin's Mamhead (1827–33) and Scotney (1835–43).[153] These buildings, together with Sidney, can perhaps be seen as reflecting, in an 'Old English' manner, the restraint which also marked not only neo-classical buildings in the 1810s and 1820s, but also the contemporary Gothic work of Wilkins.[154] Wyatville's work at Sidney may, therefore, have been severely detailed, but it probably seemed none the less fashionable and dignified for that.

Architects, Contractors and Craftsmen

Greater dignity may, indeed, have been something which the Master and Fellows hoped that Wyatville might bring to the College when they decided to employ him. Wyatville, a leading architect who enjoyed royal patronage from 1824, was certainly an architect of different character and standing from those previously employed by the College, who were local men. The College's eighteenth-century improvements had been designed by Sir James Burrough, Master of Caius and an amateur (albeit a distinguished one), and by his pupil, James Essex.[155] Humfrey, to whom the College had at first turned in 1820, was also a Cambridge architect. From 1815 he was engaged in developing houses on Maids'

148 Wv/AA9; AA14.

149 Wv/B35–6. The interior of the Mathematical Library was destroyed, apparently without record, *c.*1969.

150 For the Library: Wv/B27–37. For the staircase, no detailed drawings survive, but the existing stair is consistent with that shown in the plans (Wv/AA6; B1–4) and with an early nineteenth-century date, although it is described as 'modern' in *R.C.H.M. Vol.2*, p.206.

151 Wv/A4.

152 The phrase occurs on designs for Longleat: Linstrum, *Wyatville*, p.245.

153 David Watkin, *The Life and Work of C.R. Cockerell* (London 1974) pp.81–2; Linstrum, *Wyatville*, p.137. Linstrum draws attention to Scotney; all three non-Wyatville houses are illustrated in Hussey, *op. cit.* pp.168–74,193–205,220–9.

154 I am grateful to Dr Cocke for making this point.

155 Colvin, *Dictionary*, pp.168–70,297–300; Cocke, *Ingenious Mr Essex*; *idem*, 'James Essex'.

Causeway, close to the College, and his designs for similar houses on College property in Sidney and Sussex Streets were accepted by the College — his later works included the west tower of St Clement's church and some University buildings in Cambridge, as well as the Shire Hall and Gaol at Ely.[156] Other colleges employed the much more prestigious William Wilkins in the early 1820s, but he had close links with Cambridge.[157]

Wyatville, by contrast, had no obvious links with Cambridge before his employment at Sidney. Why did Sidney turn to such a quarter for the design of the improvements? Humfrey, the unsuccessful architect, may have been acquainted with Wyatville: Humfrey became a pupil of Wyatville's uncle, James Wyatt, in 1789, while Wyatville worked in his uncle's office from 1792 to 1799. However, it seems unlikely, on the face of it, that Humfrey would have introduced the College to an architect likely to supplant him.[158] It has been suggested that Wyatville's appointment is to be explained by the rôle of the Master, Chafy. Edwards pointed out that 'Wyatville ... was the architect employed at Windsor Castle' and suggested that he 'would on that account commend himself to Dr Chafy, Chaplain to the King'.[159] Unfortunately, the chronology of the situation does not entirely support Edwards' suggestion, since the invitation to Wyatville to work for the king, which came as a surprise to the architect, was not made until 1823–4, three years after he had made his earliest drawings for Sidney. However, attendance at Court as a royal chaplain presumably did bring Chafy into contact with some of Wyatville's aristocratic patrons, one of whom, the Duke of Devonshire, recommended Wyatville to the king. A similar recommendation to Chafy may well account for Wyatville being considered as a potential architect at Sidney.[160] When Wyatville came to be considered, some aspects of his prior experience would presumably have counted in his favour: although his work had been on houses rather than on educational institutions, it had included the adaptation to nineteenth-century requirements of two buildings of similar date to the College, Longleat and Wollaton.[161]

The nature of Wyatville's relationship with his patrons can be traced with the help of the recently discovered letters between Wyatville and Chafy.[162] No initial brief to the architect has been found. Wyatville's first surviving submission to the College in March 1821 consisted of a survey of the site and of the existing buildings, accompanied by three detailed proposals for remodelling the Hall and Master's Lodge range together with less detailed indications of other projects; the less detailed proposals may have been, as already suggested, speculative suggestions by Wyatville himself. The proposals for the first phase were assembled into a presentation volume, as was Wyatville's usual manner; should the designs not meet with approval, he begged that they might at least be added 'to the inferior class of your Library shelves. It was my intent to have sent a set of drawings that might have been admired for the beauty of execution if not of design, but (however anxious on this point) I have only in part accomplished this.' Wyatville's letter accompanying the drawings was, indeed, full of self-deprecation. He feared that 'a kind of expectation may have been raised that my designs will not satisfy. Now should this prove to be the case and that all my Ideas are useless I consider myself in no manner entitled to waste the time of the Gentlemen of the College and their property also.'[163] However, such self-deprecation may have been calculated. Wyatville's presentation of his ideas suggests some subtlety in his handling of his clients, similar to that which he subsequently used to show his designs for the remodelling of Windsor Castle in, as Dr Linstrum has put it, 'their most flattering light'. Some of the drawings for the second phase show Wyatville's proposals illuminated by sunlight from a direction from which it can, in practice, have rarely (if ever) shone, in order to enliven the proposed north façade of the south range with the shadow of the proposed new chapel bell-cot.[164] One of the three

156 Colvin, *Dictionary*, pp.438–9. Evidence relating to the Sidney and Sussex Street houses has been only recently brought to light; see MR.116/3/18.

157 Colvin, *Dictionary*, pp.893–6; Liscombe, *op. cit.*

158 Colvin, *Dictionary*, pp.438,959. This connection was also seen by Lambert, *op. cit.* p.4; Professor Brooke is responsible for the suggestion that it is unlikely to be significant here.

159 Edwards, *op. cit.* p.220.

160 Linstrum, *Wyatville*, pp.39,163. Cf. the reference in one of Wyatville's letters to Chafy's intention to be in London 'to attend the Drawing Room': MR.116/1/12. The chronological difficulties with Edwards' suggestion were, again, first noticed by Lambert, *op.cit.* pp.2,4.

161 *Ibid.* p.4, and see above.

162 See above, n.13.

163 MR.116/1/10. The presentation volume, which probably originally contained the drawings now numbered Wv/AA2–15, was seen by Dr Linstrum in 1968, but has since been dismantled. Cf. Linstrum, *Wyatville*, pp.25,170. Dr Cocke has pointed out to me the parallel with Repton's 'Red Books'.

164 Linstrum, *Wyatville*, p.170; Lambert, *op. cit.* p.6.

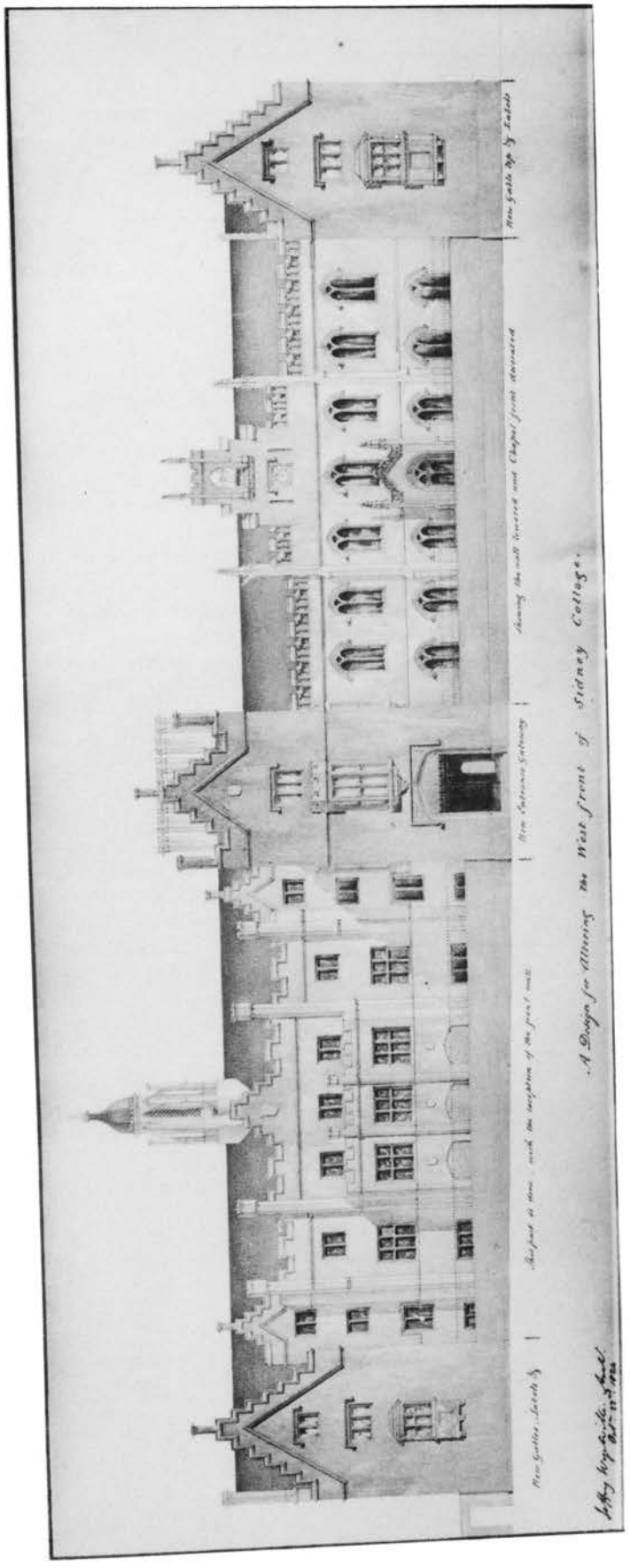


Figure 12. The west front of the College, showing the façade of the Hall and Master's Lodge as built to Wyatville's designs, 1822–4, and the proposals for the second phase, 22 October 1824. (Wv/C5; photo: RCHME, Crown Copyright; reproduced with permission of Sidney Sussex College)

original proposals (design 'A', essentially that adopted, and not the least expensive of the three) was presented more attractively than the others, being surrounded by depictions of verdure and of coloured skies, but this inconsistency of presentation may have been simply a product of the haste in which the drawings were prepared, rather than an attempt to make design 'A' seem more attractive than the others. Wyatville reported to Chafy that those who had seen the drawings were equally divided in their preference for design 'A' or for the cheaper design 'B'; Wyatville proclaimed himself 'doubtful'.[165]

However subtle Wyatville may have been about the presentation of his designs, he was flexible regarding their implementation. The detailed drawings for the first phase suggested several minor alternatives, especially with regard to interior details.[166] The only change significantly affecting the exterior, however, was the decision to extend the Master's Library westwards over the new Hall porch (Fig.12; cf. Fig.7). It is not certain that Wyatville himself authorised this change, which features in the surviving drawings for the first phase only on an unsigned overlay to Wyatville's drawing for the west elevation.[167] During the second phase, some modifications do appear to have been made without obtaining amended drawings from Wyatville — the decision to face the gate tower in stone rather than in stucco is recorded by an amendment to the relevant drawings which seems to be in the hand of Lapidge, one of the contractors.[168] As was not uncommon at this date, Lapidge was not only a contractor but also practised independently as an architect, and the survival of a drawing relating to the second phase which appears not to have come from Wyatville's office suggests that Lapidge may himself have designed revised elevations for the street façades of the north and south wings, apparently following the discovery that the Elizabethan oriel windows on these façades, which Wyatville had intended to retain, were beyond repair.[169]

Although Wyatville himself provided yet another drawing superseding this non-Wyatville drawing, the builders seem in the event to have followed some aspects of the non-Wyatville drawing, rather than of the Wyatville drawing which superseded it, in order to achieve consistency in the treatment of the west front gables.[170] This may suggest that Wyatville was unable to supervise the project very closely — this would not be surprising since he was in-creasingly absorbed in the work at Windsor Castle, where, he claimed, he spent two-thirds of his active time on site. In 1833 he admitted that an answer of his to a letter from the Master might have become 'buried at Windsor Castle'.[171] Even before Wyatville embarked on the Windsor project his exten-sive practice and occasional ill-health had meant that the drawings for Sidney were repeatedly delayed. In February 1821 Wyat-ville sent, as an earnest of his good intent, a certificate of the 'Clerks' (or rather pupils, some of whom would have architectural careers in their own right) who were engaged on the drawings,[172] and the haste in which they were finally prepared is evoked by Wyatville's plea to Chafy on 19 March to tolerate a few more hours' delay: 'I am fully engaged with all my assistants in pasting your drawings into a book ... with full confidence of dispatching them by this night's mail, but as it is now six o'clock it will be a hard run race, for I have difficulty in getting the paste to dry.'[173] Yet if the extent of Wyatville's commitments placed a strain on his involvement at Sidney, there can be no doubt of his continued interest in the work at the College — it appears that he

165 Wv/AA2–15; MR.116/1/10. On the relative cost of Wyatville's initial projects, see below.

166 Wv/B27–8.

167 Wv/B5a. Wyatville showed the modification in his general elevation for the projected second phase (Wv/C5), but the clumsy interior treatment of the Master's Library that results from the modification contrasts with Wyatville's original plans for a unified room, and may suggest another hand than his.

168 Wv/D1–2.

169 Colvin, *Dictionary*, pp.32,39,506; Wv/D38a seems not to be a drawing from Wyatville's office, since the presentation differs from other drawings (for example, the scale is stated, rather than being shown by a scale bar). Trouble with the oriels seems to be anticipated by a comment on one of Wyatville's drawings: Wv/D38.

170 Wyatville's further drawing is Wv/E2. The non-Wyatville drawing (Wv/D38a) had shown a revised profile for the peak of the gable, matching a revised profile which Wyatville had introduced when he produced detailed drawings for the elevation of the gate tower; Wyatville did not incorporate this revision in Wv/E2, but it was incorporated in the execution of the building.

171 Linstrum, *Wyatville*, pp.131,173; Wv/L6.

172 MR.116/1/8. The draftsmen who certified that they were engaged on the project were John Armstrong (perhaps a relative of Wyatville's former partner, another John Armstrong, who died in 1803: Linstrum, *Wyatville*, p.19), John Davies (cf. Colvin, *Dictionary*, pp.252–4 for a John Davies, albeit not there identified as Wyatville's pupil and described as abroad in '1820–1'), W.J. Donthorn (*ibid.* pp.270–1), Michael Gandy (*ibid.* p.329) and Charles Parker (*ibid.* p.620). This document enables Armstrong and Davies to be added to the list of Wyatville's employees and pupils given by Linstrum, *Wyatville*, p.260.

173 MR.116/1/9; cf. *ibid.* 6–8,10,15.

worked out the final details of the Chapel in a protracted correspondence with Chafy.[174]

Relations between Wyatville and Chafy did go through periods of difficulty. The efforts to which Wyatville went to demonstrate his attention to the preparation of the drawings for the first phase may suggest that he was conscious of impatience on Chafy's part. When, in January 1823, a dispute erupted with Westmacott, the contractor for the first phase, Wyatville evidently felt some initial sympathy for Westmacott. The architect signed a certificate entitling the contractor to an interim payment against Chafy's wishes and informed Chafy that it was 'perhaps proper to state that whenever the contractor calls for any explanation respecting the works I am under the necessity of hearing his complaints against you'. 'I fear', Wyatville concluded, 'that you [Chafy] have made up your mind to quarrel with me, or is all ... to be attributed to your "being much out of Temper" as your letter states[?]'[175] Nonetheless, even this letter is marked by a straightforwardness on Wyatville's part which perhaps rested on a close acquaintance. Wyatville's son had been admitted to the College at the end of 1821,[176] and Wyatville felt able in 1822 to ask that a pupil of his who was unable to continue in the architectural profession, but who had 'a fair expectation of a small living', might be admitted to the College as a pensioner.[177] The tension evident in early 1823 was certainly resolved by October of that year, when Wyatville wrote to Chafy to thank him for 'so readily liquidating my account' and for 'the gratifying expressions respecting my conduct and the effect of the works performed'. In the same letter Wyatville thanked Chafy for remembering his children, and recent enjoyment of either the College's or the Master's hospitality is implied by Wyatville's comment, in connection with a discussion of the best treatment for oak stair treads, that 'you cannot oblige all persons to keep to the centre, especially after your good Champagne'.[178] When the dispute with Westmacott became an argument over the sum due, Wyatville supported the College's position.[179] Chafy's relationship with Wyatville had indeed become cordial by the 1830s — Wyatville was a guest in the Master's Lodge for a week at the time of the installation of the Marquess Camden as Chancellor of the University, when Chafy hosted a breakfast of almost notorious sumptuosity.[180] No doubt Wyatville's intimacy with both George IV and William IV did something to compensate in Chafy's eyes for the architect's broad accent and tendency to dwell on financial matters in his conversation.[181]

Despite the dispute over the contract, Wyatville's work on the first phase evidently gave satisfaction and there was apparently never any question of employing a different architect for the second phase. That the Master and Fellows were ultimately pleased with their choice of architect may be inferred also from the College's decision in 1840–1 to purchase a copy of the published edition of Wyatville's designs for Windsor Castle.[182] In their initial choice of contractor, however, the Master and Fellows were much less happy, as should already be clear. Henry Westmacott, the contractor for the first phase of the work, has been identified by Dr Linstrum as a son of Richard Westmacott the elder, sculptor, and a younger brother of the more distinguished Sir Richard.; the identification is confirmed by the contractor being styled in the draft contract 'Statuary and Mason', since Richard Westmacott's son was a sculptor in his own right, as well as acting at times as a mason or contractor.[183] There is no record of his having worked at Cambridge, aside from his work at Sidney, and Wyatville believed that he wished 'to execute the works for the chances of gaining connections at Cambridge'.[184] Despite the fact that Sir Richard and his son were employed, both before and after 1822, on projects with which Wyatville was involved, it was an apparently chance encounter in London with one of the Fellows who was 'in [his] way' to his 'new curacy in Rutlandshire' which led to Henry Westmacott

174 Wv/L6; Chafy, *Gesta*, p.240.

175 MR.116/1/21-2.

176 Wyatville wrote to Chafy in January 1822 that 'so many of my friends ... have so reprobated me' for entering his son 'as a Fellow Commoner that I am under the necessity of requesting you to place him a degree lower. He also joins in this wish ... being very steadily inclined': MR.116/1/17. Cf. the entry in the admissions register of his admission as a major pensioner (i.e. Fellow Commoner) on 27 November 1821: MR.31, p.427; cf. Venn, *Alumni Cantabrigienses. Part 2, Vol.6* (Cambridge 1954) p.601.

177 MR.116/1/20.

178 *Ibid.* 26.

179 MR.116/2/29, 1.

180 Chafy, *Gesta*, pp.239–40; Gunning, *op. cit. Vol.2*, p.370.

181 Linstrum, *Wyatville*, pp.49,42–5.

182 MR.56, pp.194,198.

183 Linstrum, *Wyatville*, p.233; MR.116/1/6 (this document has come to light since the preparation of Dr Linstrum's account of the project in his *Wyatville*); Rupert Gunnis, *Dictionary of British Sculptors, 1660–1851*. Revised ed. (London n.d.) pp.421–2.

184 MR.116/1/18.

making an estimate for the College.[185] Westmacott gained the contract by putting in the lowest estimate, in competition with at least one other.[186] Chafy was evidently discontented with the progress of the works by January 1823, when he wished not to make an interim payment to the contractor which Wyatville held to be due.[187] Wyatville remarked that 'the direct cause for complaint as to delay has arisen from the first error of the Contractor in stating his notion of finishing the work in half the time that it would require to do it well', although the contractor later claimed to have lost time because he had been unable to work by candle-light, perhaps reflecting a fear of fire on the part of the College, which had been the object of arson attacks in 1812–13.[188] It was, however, ostensibly over the sums due to Westmacott that major difficulties arose, Westmacott claiming that works carried out over and above those contracted for entitled him to a payment of £3683.17s.10d., in addition to the £5000 due to him under the contract. Amongst the matters involved were not only additional repairs, but a decision to use stone ashlar, rather than Roman cement, on the back wall of the new Hall porch — according to Westmacott, the additional work included items carried out on Chafy's direct instructions, as well as matters ordered by or through Wyatville. Reporting to Chafy the sum of £8084.10s.0d. which Westmacott claimed to have spent, the College's solicitor, Robert Gee, resorted to triple exclamation marks.[189] The College, supported by Wyatville, argued that all the work carried out had been covered by agreements between Wyatville and Westmacott and that, since a number of items specified in the original contract had been omitted by mutual agreement, the additional sum due was only £269.[190] At issue seem to have been not only the cost of the work carried out, but also whether some work had been done at all: respecting the contractor's claim regarding 'Braces for Buttresses', the College's solicitor made a note that the clerk of works was to be called upon 'to prove that there are none'.[191] When, in October 1823, Westmacott refused to accept the payment of the £5000 due under the contract, with the addition of £269, as a final settlement, the College determined 'that any Demand, which he has on the College, may be sent to Mr Wyatt, who is named in the ... Contract, Arbitrator between the Parties'.[192] At more or less the same time, however, Westmacott commenced an action against Chafy in King's Bench; this suit was referred by the court to arbitration in March 1824.[193] The award was issued only in May 1827, after further heated disputes; Gee's letters refer to 'a stormy sitting' and to 'a rather warm altercation' between counsel for the two parties.[194] The College was obliged to pay £430.8s.11d. over and above the £5269 which Wyatville had initially argued was due, and costs were divided between the parties — the expenditure detailed in the Bursar's account, including lawyers' fees and expenses of witnesses, amounted to £666.15s.2d.[195]

Over-spending was perhaps inevitable in a restoration project where the extent of the repairs necessary could not always be ascertained until work had begun. Disputed items included the escalating cost of repairing the windows on the south end of the Master's Lodge, and the additional depth to which foundations had been dug.[196] It seems possible, indeed, that Westmacott had secured the contract by under-estimating the amount of repair necessary in some areas. Wyatville had written to Chafy in February 1822 that he supposed that the Master would expect Westmacott to carry out all the work listed in a rival estimate which had been higher, and that it would be Wyatville's duty to ensure 'that all may be done that ought to be in the carpenters work, because ... that branch is a matter of such uncertainty in regard to the Roof, that a most considerable variation may have occurred in the manner of valuing it, as well as the timbers under the pantry'.[197] It is also evident, however, that the College, through Wyatville, placed pressure on Westmacott to reduce his

185 Linstrum, *Wyatville*, pp.102,155,227,240,262 n.50; MR.116/1/28.
186 MR.116/2/13.
187 MR.116/1/21.
188 *Ibid.* 22; MR.116/2/6; see above, n.59.
189 MR.116/2/1, 6. Gee was presumably the attorney of Bene't Street, Cambridge, who was father of Walter Gee, sometime Fellow of the College: MR.116/2/5, 12; Venn, *Alumni Cantabrigienses. Part 2, Vol.3* (Cambridge 1947) p.30.
190 MR.116/2/33. It is not made clear what the omissions were; conceivably they included the new Combination Room, although this may never have formed part of the contract: see below.
191 MR.116/2/3.
192 MR.7, 29 October 1823.
193 MR.116/2/33.
194 *Ibid.* 7, 11.
195 *Ibid.* 2; MR.44, pp.281,'320' [in fact p.321], 327,329.
196 MR.116/2/33, 7, 8, 1. Cf. the unexpected necessity, in the second phase, completely to replace the oriel windows at the west ends of the wings: see above.
197 *Ibid.* 13.

Figure 13 . Hall Court seen from the entrance gateway.

estimate.[198] Indeed, it can be suggested that the protracted and bitter nature of the dispute with Westmacott owed something to Chafy's inability to negotiate. To the conviction of his own rectitude apparent in his behaviour in College and in the University may be added the 'notorious covetousness' mentioned by Gunning;[199] the result appears to have been repeated collisions with those employed by the College. In the course of the dispute over Westmacott's contract, Chafy criticised not only Westmacott, but also (briefly) Wyatville,[200] Gee (the College's solicitor), one Charles Muss (the glass painter), and James Parke (the arbitrator appointed by the King's Bench). Parke felt hurt by Chafy's suggestion that he was to blame for delays in the arbitration and told the Master that 'I have no power of being more expeditious than the parties choose that I shall be, and if they omit to bring forward their own case, or to urge on that of their opponents, the blame is with them, and not with me'. These protests did not, however, prevent Chafy from forwarding a further letter from the College 'earnestly' soliciting Parke 'to bring the Business to as speedy a Termination, as his own pressing Engagements will permit'.[201] Indeed, the refurbishment of the College itself was not the only College building project of the 1820s to lead to litigation: Chafy's refusal to agree to the claims of a contractor building new houses on College land led to the latter taking Chafy to court. The proceedings in Cambridge Assizes were interrupted by a 'display of popular feeling' against Chafy, although the implication of one observer, that the principal plaintiff was

198 MR.116/1/18.
199 See above.
200 See above.

201 Gee: MR.116/2/5; Muss: *ibid.* 14–15; Parke: *ibid.* 16–17. Their inferior position meant that Gee and Muss had to respond with apologies, rather than with the defiant tone adopted by Wyatville and by Parke. For Parke, a barrister who had been a Fellow of Trinity and who was raised to the King's Bench in 1828, see Edward Foss, *A Biographical Dictionary of the Judges of England* (London 1870) pp.497–8.

'savage' by nature as well as by name, suggests that this dispute was not wholly of Chafy's making.[202]

It comes as no surprise to find different contractors employed on the second phase of the work. The College agreed to proceed with the central wing and gate tower on 28 April 1831, giving the contract to Edward Lapidge. The contract for the north wing went in 1832 to Lapidge once again, but that for the south wing went to William Quinser and that for the Combination Room to one Peck.[203] La-pidge had — unlike Westmacott — practised as an architect in the Cambridge area and was, indeed, already known to Chafy, who had recommended him as a possible architect for certain University buildings in 1830.[204] Quinser and Peck were probably minor figures. Quinser is called a 'carpenter' in the accounts, although at one stage he was also paid for bricklaying — he did other minor work about the College in the 1830s, including the construction of a 'Bottle Rack'; Peck was also a carpenter.[205] The employment of men who were either already known to Chafy, or who lacked Westmacott's status as an artist as well as an artisan, and the division of the last stage of work amongst several contractors, probably reflect a desire for increased control resulting from the experience of the dispute with Westmacott.

Finance and Construction

It has been seen that the College was prepared from the start to spend, on building, money additional to that provided by the Acts of 1818 and 1823, relating to the Taylor property, and that, in the event, less than two-thirds of the expenditure was met by money deriving from the two Acts.[206] Several questions deserve investigation. What were the implications for the College's finances of the expenditure over and above the sums provided by the Taylor property; how far was the project shaped, in conception and progress, by financial considerations; what is revealed of the priorities of the Master and Fellows by the measures which they took in order to finance the building?

The College's readiness to undertake expenditure in excess of that provided for by the two Acts might be thought to have reflected the general air of prosperity which was felt in the College at the time, and which contrasted with quite recent financial difficulties. In 1814, the Master and Fellows had determined to sacrifice part of their dividends in the hope of putting the College's finances on an even footing, following earlier building activities. It was decided that 'during the present embarrassed state of the Finances of the College, occasioned by the late extraordinary Repairs &c, one third only of the lately increased reserved Rents of the Estates be appropriated to the Dividends of the Master and Fellows, and that the remaining two thirds be set apart for the Treasury'.[207] In 1820, however, this arrangement was partly rescinded. The Master and Fellows determined 'that the Abatement to the Treasury from the present half yearly Rental be only £300 in future', rather than the £341.16s.8d. at which it then stood, 'and that for every future Increase of Rent, where no Fine is taken, one third only of such Income shall go to the Treasury [rather than the two-thirds paid to the Treasury under the order of 1814], and that the Deduction, made from the divisible Rents, under the Head of "other Expences", be in future omitted — the State of the Treasury being now such, as no longer to require a greater Addition'.[208] As these orders imply, the prosperity which was felt by 1820 was a result not only

202 *Huntingdon, Bedford and Peterborough Gazette...* 497 (22 March 1823) (copy in Sidney archives at MR.116/3/19). MR.116/3-4 are papers relating to the case; see especially MR.116/3/8.

203 MR.2, pp.219,221; MR.56, p.524. Although the contracts themselves have not been located, the Bursar's Accounts show payments of fees for sealing contracts, firstly in April 1831 with Lapidge, and secondly in 1832 with Lapidge, Peck and Quinser; they also suggest that a foundation stone was laid in April 1831: MR.56, pp.40,56. However, detailed specifications for foundations (presumably for the gate tower) were not settled until 18 July 1831, and Lapidge signed drawings only on 20 July, including some for the north range: Wv/L2; D1-33. Drawings for the south wing were made, and signed by Quinser (and also by Lapidge where they related also to the north wing), in July 1832: Wv/E1-17; E19. No drawing relating to Peck's contract survives in the collection.

204 Colvin, *Dictionary*, p.506; Chafy, *Gesta*, p.209.

205 MR.56, pp.68,86,98.

206 See above

207 MR.2, p.185. Fellows' dividends, the result of dividing amongst the Fellowship the College's income surplus to its statutory duties and necessary expenses, had developed at Sidney, presumably, as elsewhere, as a means of compensating for the impact of inflation on Fellows' statutory stipends. Dividends were not statutory at Sidney, but were made as early as 1604; an eighteenth-century Master referred to their being 'passively' increased in ways which he did not think entirely legitimate. Edwards, *op. cit.* pp.66,144; cf. H.F. Howard, *An Account of the Finances of the College of St John the Evangelist in the University of Cambridge* (Cambridge 1935) p.131; C.L. Shadwell, *The Universities and Colleges Estates Acts, 1858 to 1880* (Oxford 1898) pp.10-12.

208 MR.2, p.205; MR.66, audits for 1820.

of the Taylor windfall, but also of rising rents. The College accounts refer in 1818 to substantial recent increases. Such increases in the period of growing agricultural incomes — and also of rising prices — which accompanied the Napoleonic wars are not surprising. Furthermore, during the early 1820s, when rents generally dropped, the College's rental income did sink somewhat. At Trinity, the general distress of the country and the consequent diminution of College revenue were arguments used by those who wished to oppose new building in 1821. At Sidney, however, the arrangements of 1814 and 1820 linked the payments made into the College Treasury to the nominal rent roll, rather than to actual receipts. Thus, when actual receipts did not match the theoretical rent roll because rents were unpaid or had been remitted, it was the dividends of individual Fellows, rather than the spending power of the College as a whole, which suffered — transfers to the Treasury were undiminished, and even increased, during the slump in rents. Furthermore, the upward tendency in receipts resumed, if at a slower rate, from 1826, so that the half-yearly rental income of £1407 in 1818 had become £1681 by 1828, despite a continuing fall in prices.[209]

College rentals therefore appear to have recovered earlier than many from the drop in agrarian rental incomes during the early 1820s, perhaps because long leases expired at this time and made it possible to increase rents in line with the long-term economic situation, rather than with the short-term one, or perhaps because of the timing of enclosures.[210] Increased income probably came not only from agricultural rents, but also from the development of property close to the College itself. Wyatville himself had suggested, on his plan of the College site dated March 1821, the construction of houses or shops along the Jesus Lane boundary which 'would add to the Income of the College' (Fig.5).[211] This plan was not carried out, but the College had already decided to undertake redevelopment of immediately sur-rounding property, agreeing in April 1819 that 'the Master and resident Fellows [might] ... make such arrangements as they may deem expedient for the Improvement of their Houses and other Property in Sidney and Kings Street'. Redevelopment was certainly carried out in both Sidney and Sussex Streets during the 1820s, by means of building leases. This must have resulted in an increased income from these properties, although the increase appears to have been taken in fines rather than in annual rents.[212]

Yet, although the Master and Fellows were conscious of the College's prosperity, they chose to finance the building programme in a way which ensured that a large proportion of this prosperity was reflected in their individual dividends, even though this involved a reduction in the size of the Fellowship, the sale of stock, and the entertainment of the prospect (at least) of borrowing. The immediate effect of the 1820 order to reduce the proportion of rent increases to be paid into the treasury was to increase the total rent

209 MR.66, audits for 1818–34; MR.2, pp.185,205; Thompson, *op. cit.* pp.212–13,230–5; *The Agrarian History of England and Wales. Vol.6*, ed. by G.E. Mingay (Cambridge 1989) pp.621–3; Peter Mathias, *The First Industrial Nation*, 2nd ed. (London 1983) Fig.20; Howard, *op. cit.* p.168 and graph facing p.113. For Trinity, see Willis and Clark, *op. cit. Vol.2*, pp.653–4; cf. *ibid.*, p.655.

210 An example of the kind of increase involved is provided by the rental income from Saleby, which was £278.10s.8d. in the half-year to Lady Day 1826 but was £539.8s.2d. in the following half-year; it had been decided in 1802 to seek permission to enclose here: MR.2, p.157. The history of the College estates has yet to be investigated, although there is further evidence of the College's involvement in the early nineteenth century in the enclosure process which did so much to increase rents generally: *ibid.*, 26 April 1842.

211 Wv/A1.

212 MR.2, p.201; MR.116/3/18, MR.116/4/9, referring to an agreement of 29 November 1820 between the College and Messrs Harris and Savage, by which Harris and Savage received a lease of College land for three years and covenanted to take down certain buildings and to erect 13 houses in Sidney and Sussex Streets, while the College covenanted to grant a 40 year lease of the houses to them. Construction was in fact protracted by disputes between the College and the contractors and by the financial failure of the latter; payments to a Mr Swan for 'superintending' the building of houses in Sidney and Sussex Streets feature in the Bursar's accounts as late as 1827 and 1828: MR.44, pp.'320' [in fact p.321],338. While the total rents from the houses (known in the accounts as 'Robson's tenements') were actually slightly lower in the 1840s than in 1820, fines of up to £200 were taken for the renewal of leases on individual properties in 1839–41: MR.66, audits for 1818–43; MR.56, pp.175,191. The houses in question were designed by Humfrey (see above), and evidently included those on the north side of Sussex Street, demolished in the 1930s, but shown by uncatalogued photographs in the College archives to have been of an early nineteenth-century character. Some of the houses of a similar character which survive (in commercial use) in Sidney Street are evidently those built in the 1820s, although the Royal Commission on Historical Monuments did not record them in its survey of buildings in Cambridge City dating from before 1850: *R.C.H.M. Vol.2*, map at p.305. For contemporary use of building leases by Jesus College in the development of New Square, and for some suggestion of the increased income following development on such leases, see *R.C.H.M.: Vol.2*, p.362; *Vol.1*, p.xcvi.

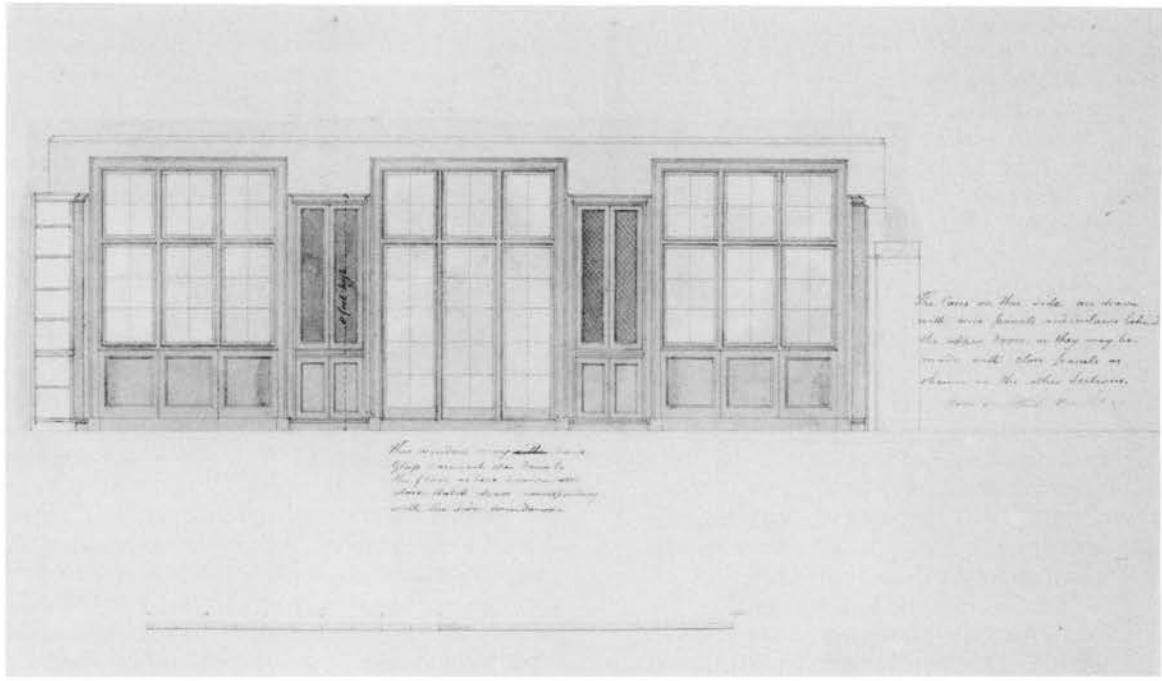


Figure 14. Wyatville's drawing for the interior of the Master's Library, west wall, January 1822. (Wv/B28; reproduced with permission of Sidney Sussex College)

available for division amongst the Fellows.[213] At the same meeting as they effectively voted this increase in their dividends, the Master and Fellows decided not to fill a vacant Fellowship, in order to finance the planned 'extraordinary repairs'. The number of vacant Fellowships had risen to three (out of a total establishment of 12 Fellows) by the Lady Day Audit in 1823, and the Fellowship was restored to strength only under an order of October 1825.[214] Meanwhile, in October 1821, when it was finally decided to proceed with Wyatville's scheme, the Master and Fellows had been empowered to borrow in order to make up the deficiency between the money from the Taylor property and the actual cost of building.[215] The second phase of building was not initially marked by similar reductions in the number of Fellows; rather the College decided, in October 1832, 'to sell £5000, the Amount of their Stock in the three per Cent Consols, for the Discharge of the Expenses (in part) of the Alterations and Improvements'.[216] In May 1835, however, it was again decided to hold a Fellowship vacant, although the expenses to be defrayed included not only the 'Expenses, as yet unsettled, connected with the late extraordinary Repairs of the College', but also 'the expenses still to be defrayed by the Fire, which happened at the [College's] Wotton Pillinge Estate' in Bedfordshire, around the start of 1831, and which necessitated substantial rebuilding there.[217] Having once embarked on the course of holding Fellowships open, the College did not succeed in restoring the Fellowship to strength until the end of 1841; for brief periods, three Fellowships were again vacant.[218] The financial implications of the building works were not fully resolved until 1847.[219]

Despite these difficulties, the Master and Fellows seem on the whole to have been fairly ambitious in their building plans from the time of Wyatville's appointment onwards. Plans seem to have been curtailed only when necessity demanded. Humfrey costed his proposals, involving the general repair of the Hall and improvements to the Master's Lodge,

213 MR.66, audits for 1820. Dividends soon suffered from the drop in rents of the 1820s, but the Fellows cannot have foreseen this at this stage.

214 MR.66, audits for 1820–6; MR.2, pp.205,207,209,212,213.

215 MR.2, p.209.

216 MR.2, p.223. £4156.5s. from this source were in fact applied to the building projects: MR.56, p.523.

217 MR.2, p.230. A labourer was reimbursed for 'his exactions at the fire at Wotton Pillinge' in January 1831: MR.56, p.34; subsequent building works are recorded *ibid.* pp.40,42,62,70.

218 MR.66, audits for 1836–41; orders regarding vacant Fellowships in MR.2, pp.232,237,239,240.

219 MR.2, 4 May 1847.

as well as the provision of a Mathematical Library, at less than £3000,[220] well within the £4000 provided from the Taylor estate by the first (and, at that stage, only) Act. The College's response was to turn to a more prestigious architect and to commission from him a more ambitious scheme. If Wyatville was asked to design within financial limits, no statement of these has survived, although the character of the three schemes which he provided in 1821 may suggest that he was designing proposals to fit different financial targets: his first scheme (design 'A') envisaged finishing the west front in stone, his second (design 'B') in stucco; design 'A' included a new Combination Room, design 'B' did not.[221] The second scheme would therefore have been cheaper, so the possibility of a need for economy was perhaps entertained. However, it was the first and more expensive scheme which was ultimately implemented. It seems that it was only in the autumn of 1821, when the College finally agreed to proceed with Wyatville's plans for the first phase, that certain economies were decided upon — the west front was to be faced in stucco rather than in stone and the new Combination Room was dropped; after estimates had been obtained, attempts were made to whittle them down.[222] The start of the work had already been delayed[223] and work which the College had apparently intended to carry out on the Chapel was also omitted from the first phase altogether; repair work on the Chapel had been envisaged as early as 1820, and Wyatville's drawings of 1821 show incompletely a variety of proposals for refacing it, but nothing was done in the first phase of the work.[224] The sum stipulated in the contract with Westmacott for the completion of the first phase was nonetheless £5000;[225] this exceeded the sum provided by the first of the Acts relating to the Taylor legacy. In practice, as has been seen, the cost of the work was higher still.

Despite this, however, and despite the fact that it had proved necessary to postpone some of the College's initial aspirations, the Master and Fellows expanded their plans when, in October 1822, they decided to seek further funds from the Taylor estate. Not only did they decide to resume the plan to provide a new Combination Room, and to construct the additional rooms for exhibitioners which would be mentioned in the 1823 Act; they also determined 'to finish ... [Hall] court in a manner similar to the New Building'.[226] The scheme which Wyatville produced in October 1824 went further still, proposing also the complete refacing of both the courts, including the Chapel, and the provision of the new gate tower.[227] Furthermore, this second phase seems to have been entertained with considerable confidence; detailed drawings for the new gate tower were produced in October, at the same time as the general drawings.[228] Nonetheless, although drawing work continued, construction of the entire second phase was in the event considerably delayed, and the idea of a new Combination Room was evidently dropped again for a time.[229] Amongst the factors which occasioned this delay was, no doubt, the prolonged dispute with Westmacott, which created for a while considerable uncertainty about the extent of the College's obligations. The College decided, in April 1825, to keep a Fellowship open 'in Consequence of the uncertain Termination of the Law Suit, with Mr Westmacot', and, urging the arbitrator to hasten the hearings in October 1826, Chafy wrote that 'the embarrassment ... that the Delay occasions is ... severely felt by every member of the Society'.[230]

Work on the second phase of building did not begin until after 1830 and was implemented in stages. The College decided to seek estimates for proceeding with the second phase and with the Combination Room (on a slightly different site from that first intended) in October 1830, and to enter into contracts for two successive stages of work in April 1831 and in June 1832.[231] Work on the living accommodation was nearing

220 Wv/G2.

221 Wv/AA3–6; AA9–11. The third design, for which no ground plan survives, shows a new Combination Room in the eastern elevation, but not in the western: Wv/AA14–15.

222 Wv/B5. The drawings for the Combination Room, Wv/B17–21, dated May 1821, are not signed by Chafy or by the contractor, and no interior details were drawn in January 1822 when the interiors of the Master's Library and of the Mathematical Library were drawn out: cf. Wv/B27–37. For attempts to get Westmacott's estimate reduced, see MR.116/1/18.

223 This can be inferred from the letters to Chafy from a would-be clerk of works to the project, recommended by Wyatville in July 1821: MR.116/1/30–1.

224 MR.2, p.205; Wv/AA3–15.

225 MR.116/1/6; MR.116/2/33.

226 MR.7, 24 October 1822.

227 Wv/C1–11.

228 Wv/D1–19.

229 Wv/D28, signed by Wyatville in October 1826 and counter-signed by Lapidge in July 1831, shows the north elevation of the north wing without a new Combination Room.

230 See above; MR.2, p.212; MR.116/2/16.

231 MR.7, 28 October 1830; MR.2, pp.219,221.

completion by the end of 1833, when payment was made for plastering new rooms in Hall Court;[232] furnishings for the new Combination Room were paid for as late as 1834–5.[233] As to the Chapel, detailed drawings were not prepared until October 1832, and it seems that no further action was taken until, in October 1833, the Fellows could thank the Master for having 'most liberally defrayed the entire Expence of repairing and beautifying the Chapel of the College'.[234] Wyatville was still working out designs for the Chapel, significantly intended 'to give effect at the least expense', as late as 1835, and he did not receive his fee for the second phase until 1837.[235]

Yet, despite these delays, the story of the final stages of the building project is not one simply of setbacks and economies. Strikingly, it was decided at a late stage to face the gate tower in stone rather than the stucco which Wyatville had envisaged.[236] Some of the new decorative work was done, in a manner typical of the period, with more attention to visual effect than to structural solidity,[237] but the gate tower, the focal point of the remodelled College (and the part first seen by visitors), was to be finished to a higher standard. Virtually the only sign of attention to economy in the execution of the second phase is a simplification of some of the detailing on the side fronts of Hall Court — grotesque rainwater spouts proposed in 1824 were not executed.[238] Wyatville's most fanciful proposals — his arcade along the Sidney Street front and his suggested 'public building' — were probably never entertained seriously, and the Master and Fellows were obliged to accept considerable delays in the execution of their plans. Beyond this, however, they showed relatively little inclination to cut their coat according to their cloth.

Thus, in embarking on the far from modest building programme of the 1820s and 1830s, the College soon found itself obliged to sell investments and to consider (at least) the prospect of borrowing. It also became embroiled in the practice of suppressing Fellowships which had marked the eighteenth-century campaigns for the remodelling of the Hall and for the rebuilding of the Chapel and Library. Indeed, the effects on the Fellowship of this last campaign had been felt as late as 1818, when a Fellowship held open in 1816 in order 'to defray the Expences of extraordi nary Repairs' was filled, restoring the Fellowship to strength.[239] Chafy and the Fellows of the 1820s might appear to have been irresponsible in reverting so soon to the suppression of Fellowships in order to finance a building project, especially as they at the same time partially dismantled the arrangement of 1814 by which the Master and Fellows had sacrificed part of their dividend to the defraying of past building expenses.[240] In addition, the second phase of building was commenced despite the further financial difficulties created by the fire at Wotton Pillinge. These could not have been foreseen, and the relationship between the fire and the building project was not entirely unfortunate (the accounts record that the 'Old Roof' of the College, presumably that of the central wing, was taken to Wotton Pillinge by water, where its materials apparently formed part of a new barn erected shortly afterwards).[241] Nonetheless, the College in fact committed itself to proceeding with the second phase and to the additional expense of stone facing on the tower possibly as late as July 1831,[242] af-ter the need to restore the damage at Wotton had become apparent.

Yet this behaviour was not, perhaps, as reckless as it seems. For one thing, the Master and Fellows may well have been unable to foresee one of the circumstances which occasioned the financial problems of the 1820s and 1830s: the slowness with which money from the Dudley lease became available, necessitating the borrowing of money from the

232 Wv/L7; MR.56, p.78.
233 MR.56, pp.86,98.
234 MR.2, p.227.
235 Chafy, *Gesta*, p.240; MR.56, p.134.
236 Wv/D1–2. Some idea of the cost of the gate tower can be obtained by comparing the contract for the centre wing, including the tower, priced at £3600, with that for the north wing, priced at £2144 (MR.56, p.524). On this basis, the tower accounted for around a tenth of the total expenditure — not, perhaps, excessive in relation to the visual impact which it makes.
237 Photographs taken in 1969 (in College archives, uncatalogued) show that the 'cap-stones' of the chimneys of the Master's Lodge range were built up in Roman cement on the basis of projecting slates inserted horizontally between the brick courses. Even James Wyatt's work at the Palace of Westminster included 'composition mullions and cement pinnacles and battlements': J.M. Crook, *op. cit.* p.42.
238 Wv/C7 for the initial proposals. Comparison with the nineteenth-century photograph published by Edwards, *op. cit.* (facing p.112) suggests that these details have not merely been lost in recent restorations, but were never executed.
239 Smail, *op. cit.* p.493; Cocke, 'James Essex', pp.98–9; MR.2, p.187; MR.66, audits for 1818.
240 See above.
241 MR.56, p.42.
242 See above. Instructions to face the tower in stone, rather than Roman cement, appear to be in the hand of Lapidge, who signed the relevant drawing on 20 July 1831: Wv/D1–2.

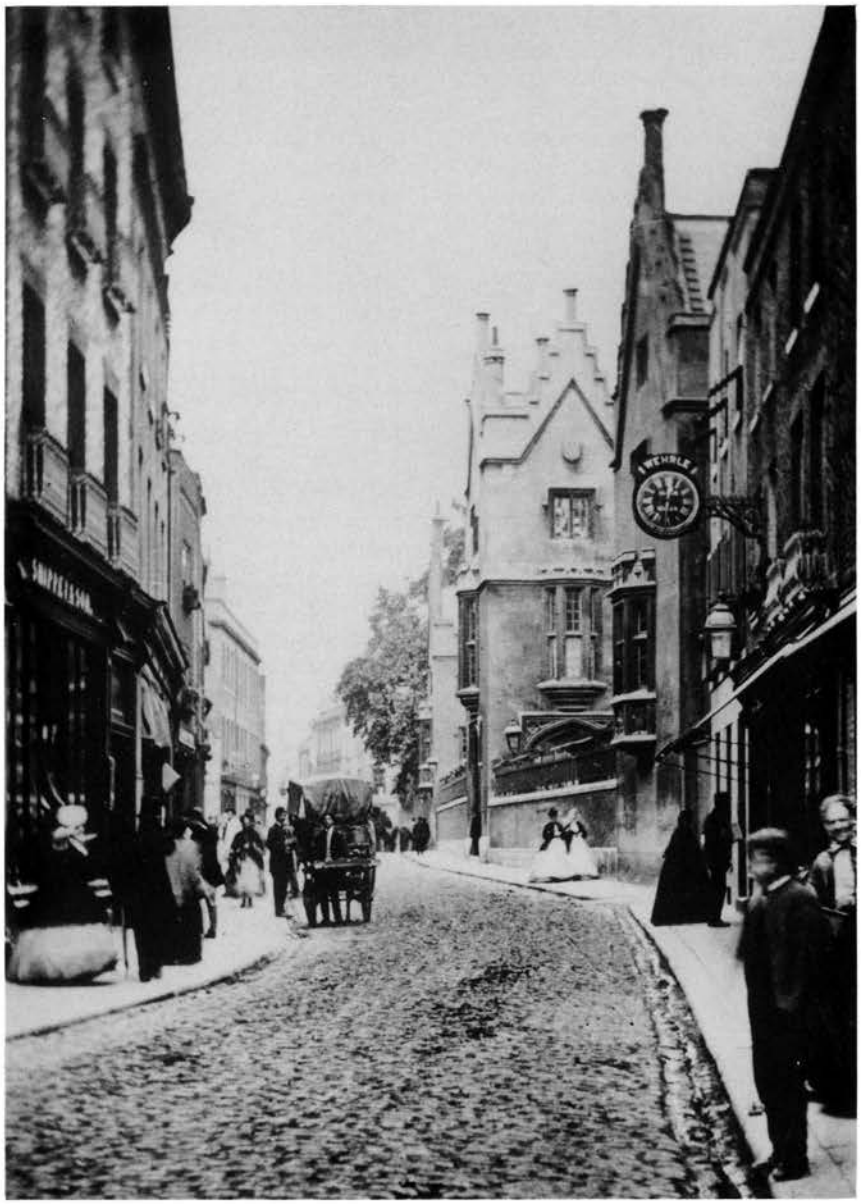


Figure 15. Sidney Street looking north, 1870. (Cambridgeshire Collection, Cambs. Libraries, reproduced with permission)

College Treasury which was not repaid until 1847.[243] Furthermore, the behaviour of the Master and Fellows in the 1820s and 1830s must be placed in a contemporary context. The order of 1820, reducing the proportion of new rents paid into the Treasury, was a partial undoing of a temporary arrangement by which Fellows had sacrificed part of their dividends in order to pay off earlier building costs. No doubt the Fellows responsible for the 1820 order saw themselves as doing something to restore normality.[244] St John's College did reduce Fellows' dividends substantially during the period; however, when the Master and Fellows of that College agreed to do this in 1830, it seems to have

243 MR.2, 4 May 1847. It is suggestive that no elections were made to the Taylor exhibitions, provided for by the 1823 Act, until 1835: MR.69 (Taylor Foundation: printed Acts of parliament and awards) unfoliated.

244 Indeed, in 1819 expenses had been such that the abatement to the Treasury under the 1814 order had been reduced in order that each Fellow's dividend should not sink below £60, which seems to have been thought of as the acceptable minimum. Despite the 1820 order, the dividend was to sink lower than this during the early 1820s: MR.66, audits for Lady Day 1819 and Michaelmas 1823.

been a response to necessity created by mounting arrears of rent rather than to a desire to redirect income towards the funding of building, towards which no steps were taken for another two years, according to the historian of the College's finances — and, at St John's, a Fellow's dividend was more than twice a Sidney Fellow's during the 1820s.[245] Dividends after all formed a major part of Fellows' income, thanks to the decline in the real value of statutory stipends.[246]

Borrowing was therefore very commonly resorted to (in preference to a cut in dividends) in order to finance college building campaigns in the 1820s (as had also been the case in the eighteenth century);[247] indeed, the widespread necessity for it was recognised in the Act of 1824 which permitted colleges to borrow from the Public Works Commissioners in order to erect new buildings for the accommodation of students.[248] Even where building funds did exist, they were inadequate to meeting the needs and aspirations of the colleges. Corpus Christi College — whose architectural problems were acute by the end of the eighteenth century — was sufficiently fortunate to have been given funds for building, and also sufficiently provident to have established a building fund by setting aside the money given, nominally for the purchase of plate, by Fellow Commoners. However, this fund had been accruing for over 60 years before the College was able to commence building, and money still had to be borrowed to meet a small deficit at the end of the campaign.[249] At St John's, a building fund was in existence by 1794, but borrowing was nonetheless necessary to finance the building works of the 1820s, as was also the case at Trinity, although the College promoted a 'Subscription ... among the present and former Members of the Society and the Public in general' to help to finance its new court.[250] The borrowing in which St John's indulged in order to finance the construction of New Court has been criticised by a modern historian as tending 'to throw the main burden not on the initiators of the arrangements but on their successors', and this view may not be wholly anachronistic: the opponents of building at Trinity regarded future room rents from the new building as an inadequate security for borrowing.[251] To many, however, borrowing probably did not seem to be a sign of financial mismanagement at a time when interest rates were low. Jesus College was able to finance its building in the 1820s by borrowing at $4^1/_2$% (from its own Bursar), while the building committee at Corpus used the low rates of interest prevailing in the 1820s as an argument for proceeding with building work.[252] Furthermore, there were other powerful arguments in favour of building in the 1820s, apart from the pressure on accommodation felt by many colleges. The Master of Corpus recalled a number of circumstances which had made the 1820s a propitious decade for building: 'The stocks were remarkably high. Building materials of all descriptions were fallen in price. Labourers were to be had in abundance at a moderate rate.'[253]

Sidney seems to have been the only College to decide in the 1820s to hold Fellowships vacant, in order to uphold its prestige through somewhat grandiose building. However, it has to be borne in mind that the suspension of Fellowships did not involve depleting the teaching strength of the College in this period, when normally the only Fellows formally involved in undergraduate instruction were the two or three who served as Tutors and Lecturers, and when even their rôle was not always large, as much teaching was in the hands of private tutors who were not necessarily Fellows. Indeed, the suspension of Fellowships would have involved little harm to scholarship either, since non-residence by Fellows was common at this period.[254] In giving priority to building over

245 Howard, *op. cit.* pp.137–8,168.

246 See above, n.207.

247 E.g. A.C. Crook, *From the Foundation to Gilbert Scott: A History of the Buildings of St John's College, Cambridge* (Cambridge 1980) p.67. I am very grateful to Professor Brooke for his comments on the general nature of College finances in this period.

248 Shadwell, *op. cit.* p.14. For the use of this source of loans by Trinity and St John's, see Willis and Clark, *op. cit. Vol.2,* p.654; Howard, *op. cit.* p.166.

249 Willis and Clark, *op. cit. Vol.2,* p.301.

250 A.C. Crook, *op. cit.* pp.73,83; Miller, *op. cit.* p.76; Willis and Clark, *op. cit. Vol.2,* pp.654–5,660.

251 Howard, *op. cit.* pp.172–3; Willis and Clark, *op. cit. Vol.2,* pp.653–4.

252 B.D. T[ill], 'James Webster, builder', *Chanticlere* 146 (May Term 1948) pp.7–8; Liscombe, *op. cit.* pp.122–3,125,129.

253 Willis and Clark, *op. cit. Vol.2,* p.302.

254 Sidney added to its complement of one Tutor and one Lecturer (in addition to the Taylor Lecturer, who was not a Fellow) by appointing a second Tutor in 1824 and either a second Tutor or a second Lecturer regularly from 1829. In practice, however, during the 1830s one Fellow often filled two of the three posts that resulted. See *Cambridge University Calendar* (1824–40). Furthermore, in Cambridge at large, while some Tutors were admired, others evidently contributed little to undergraduate education. Venn was contemptuous of his Tutor's contribution to his education: John Venn, *Early Collegiate Life* (Cambridge 1913) pp.258–9; but cf. the comments of George Pryme, a Trinity man, in Pryme, *op. cit.* p.37. J.M.F.

maintaining the size of the Fellowship in the 1820s and 1830s, while at the same time preserving the incomes of the individual Fellows, the College was not sacrificing teaching or scholarship to bricks and mortar — or even to stone and stucco. Rather the decision reflects the looseness of the links between the Fellowship and the educational process, which probably helped Chafy and the Fellows to see their reputation as resting, like that of a landed family, in splendid building, rather than in the scholarly achievements of either themselves or their pupils. This detachment between the senior members, on the one hand, and scholarship, on the other hand, was associated with a proprietorial attitude towards Fellowships (which could, of course, be held for life) — an attitude which also meant that Fellows felt it legitimate to think more about their entitlement to their individual dividends than about a duty to maintain the size of the Fellowship.

Conclusion

None of the above can vindicate the remodelling of Sidney from Pevsner's aesthetic criticisms, nor is it intended to do so. Aesthetic judgments must always be highly subjective, and the refurbished College divided opinions even when new. While the Storers described the College as having been remodelled 'not without considerable ingenuity and success', the freshly stuccoed College was dismissed by one critic as 'a very whited sepulchre' in 1844.[255] What an historical account can hope to do, however, is to provide some insight into the intentions of those involved and into the context in which they laboured. It has been seen that Wyatville's understanding of architectural history was not that of the late twentieth century; equally, the educational rôles of the College and its Fellows were not those of the present-day College and Fellowship. Even the social composition of the University can be seen as contributing to the desire to show an awareness of fashionable taste. Seen in this way, the remodelling of Sidney can, perhaps, be viewed more sympathetically. Christopher Hussey wrote that the restorations of ancient mansions undertaken in the 1820s and 1830s, 'in which romantic imagination and newly acquired knowledge [of historical styles] were given free rein, often falsified or obliterated the original', but were nonetheless 'labours of love' for that.[256] The same might perhaps be said of the refurbishment of Sidney during the same decades.

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Wright, another Trinity man, 'venerate[d]' his Tutor and obtained at least guidance on reading from him, although he also turned to more senior undergraduates for such advice: Wright, *op. cit. Vol.1*, pp.5,114,120–1. On Lecturers and private tutors, see above On the standing of private tutors, and the general pattern of residence by Fellows, see: Wright, *op. cit. Vol.1*, p.171 n.; Gascoigne, *Cambridge in the Enlightenment*, pp.9,12–13; *idem*, 'Mathematics and meritocracy', p.555; Winstanley, *Unreformed Cambridge*, pp.261–2,267; *idem*, *Early Victorian Cambridge*, pp.404,410–12; Garland, *op. cit.* pp.1–2,12.

255 Storer, *Cantabrigia Illustrata*, p.27; Chafy, *Gesta*, p.214 (citing the description of a Cambridge College, evidently intended to evoke Sidney, in a novel published in 1844).

256 Hussey, *op. cit.* p.25.

Field-Work in Cambridgeshire: July 1991–December 1992

Alison Taylor & Christopher Evans

The following field-work has been carried out by Cambridgeshire County Council Archaeology Section:

Alison Taylor

Excavations

Abbots Ripton TL230781

Steve Kemp, for Abbots Ripton Estates

Assessment trenches within the medieval village revealed a brick and timber parsonage dating to the sixteenth century (also shown on a map in 1623),[1] and medieval pottery indicating earlier settlement adjacent to the church. No archaeological features were noted in other trenches.

Balsham, Fleam Dyke TL548541

Gerry Wait, for English Heritage

A section across the bank and ditch of Fleam Dyke revealed an unexpectedly massive defensive earthwork, its ditch originally 4.5 m. deep and 8 m. wide, with near vertical sides and a flat bottom. At least two phases of ditch were observed — the earlier ditch was V-shaped — and three phases of bank. Artefacts were scarce, but confirmed a post-Roman date.

Barnack, Prehistoric Features TF057068

Tim Reynolds, for Star Quarries

Trial trenches through prehistoric cropmarks adjacent to the Welland revealed a buried prehistoric landscape including a hengiform monument, ring-ditches, a late Iron Age/Roman trackway, Iron Age plough marks and a river channel containing waterlogged wood, carbon-dated to 1980 ± 60 BP (Beta 53123), all sealed beneath post-Roman alluvium. Three Bronze Age burials (no grave goods) were found in a ditch in the quarry face, and carbon-dated to 3560 ± 70 BP (Beta 53122).

Barrington, Anglo-Saxon Cemetery TL37464959

Tim Malim, for English Heritage and South Cambridgeshire District Council

Approximately 2000 sq.m. in five trenches were opened by mechanical digger. Most burials were immediately apparent once the ploughsoil had been removed and all of the features were planned after hoe-cleaning. A magnetometer survey completed in April 1991 had already given a useful plot of major ditches, although it did not enable smaller features, such as graves, to be located. All of the graves that had been uncovered were excavated, but Iron Age features were only sampled, as the threat from ploughing was limited to their upper level.

The earliest feature was a ring ditch on the brow of Edix Hill 18 m. in diameter. It had been severely truncated by ploughing. It is thought to belong to a Bronze Age barrow which was presumably visible in Anglo-Saxon times and perhaps helped attract the cemetery to this site. However, extensive evidence for settlement remains dated only to the Iron Age. This included gullies and ditches, the largest still surviving to 1.5 m. wide by 1 m. deep, post-holes and pits, with one large area containing possible storage pits of which 28 were sampled. These were sur-

[1] Cambridgeshire Record Office, Huntingdon Branch PM 4/2/C.

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prisingly uniform, with flat bottoms, straight or beehive sides and were approximately 0.3 m. to 0.5 m. deep by 1.5 m. in diameter, though some were smaller and several were up to 2.5 m. in diameter. The only finds were small quantities of pottery and animal bone, one large jet ring and a ritual deposit of a complete dog skeleton with a cow skull over its head. Ritual dog deposits are not uncommon in Iron Age pits, but the association with cow skull has not previously been recognised. All of the features other than the graves appeared to have belonged to this Iron Age phase, but a strategy of minimal sampling, and the complications of dating both Iron Age and Anglo-Saxon features where domestic pottery is scarce, left some question marks.

Sixty-five Anglo-Saxon burials were excavated. Their state of preservation varied from approximately 5% of bone surviving in graves within the ploughsoil, to rare instances of 100% survival in deeper-cut graves. Bone itself was superbly preserved, so that even the smallest infant bones were retrieved, but there had been substantial damage by coprolite mining (which had removed the southern limits of the site), nineteenth-century land drains and excavations, metal-detecting and ploughing. Metalwork was normally in good condition but organic remains only survived as mineralised deposits. The burials ranged in date from early sixth to late seventh century.

Graves on the brow of the hill were most closely positioned and had suffered considerable disturbance. Shallow burials were severely damaged and artefacts were scarce. An interesting aspect of work this year was the recognition of graves which had been excavated in the nineteenth century, where artefacts had been removed and bones replaced, sometimes very neatly.

Study of human bone — one of the most rewarding aspects of the analysis of the finds from this cemetery — has produced very interesting results such as indications of leprosy, cancer, high levels of osteoarthritis, and evidence of good overall health and diet.

As in previous years, almost all of the richest graves were those of women. One very early grave contained a pair of silver wrist-clasps (Hines A) with a pair of 'marigold' design saucer brooches, 18 amber and two crystal beads. Slightly later, *c.*520 AD, a woman was buried with a pair of very small saucer brooches (one gilded) and a record number of beads for this cemetery (189 amber, three glass, two 'white substance' and one crystal), plus a latchlifter and a pair of wrist-clasps. She was part of a double burial with a man, who was accompanied by a spear (Swanton H2), knife and buckle. Two burials later in the sixth century had bags of objects with large purse-rings of ivory (or possibly mammoth tusk). One of these burials also had a great number of beads (146 amber and nine glass) and a pair of six-spiral decorated saucer brooches. The latest seventh-century burial had been virtually destroyed by ploughing, but its jaw area survived, accompanied by a necklace of seven silver rings, five blue and green beads and two gold pendants. One of these pendants was circular with a red glass setting; the other was a crystal in a gold sling.

Six men had spears, but only one grave had a shield-boss. An unusually deeply cut grave contained the only shield boss plus a spear, knife, buckle and bronze bucket.

Child bones normally had no grave goods associated with them, but one infant of about three years had a plain pot and eight glass beads. A neonatal infant was buried under the head of a slightly-built young woman, probably the mother, and another infant lay on a man's pelvis. A rare find was a child burial which had a small spear by his head. One part of the cemetery had a concentration of six children close together.

In one area an Iron Age ditch, in-filled by Anglo-Saxon times, was used for a string of 12 burials, of which eight were in double graves. Plague is a possible explanation to account for so many multiple burials, the re-use of a ditch in an area of scarce burials being explained by the ease of digging graves as opposed to excavating chalk marl in dry conditions.

Other grave goods in this cemetery included a bunch of four keys, two small-long brooches and one cruciform brooch, five pairs of bronze wrist-clasps, and two pots.

Interim reports on the first two years' work are available from Cambridgeshire County Council and the third report is in preparation. Artefacts will be deposited in Cambridge University Museum of Archaeology and Anthropology.

Bottisham, Villa Complex and Possible Roman Temple TL557605

Ben Robinson, for National Rivers Authority

Two concentric square or rectangular timber-frame structures (20 m. in length), with a circular structure at one end, were identified in a pipe trench, adjacent to a substantial Roman masonry building. An adjacent pit contained an iron ladle and knife and several small rivetted copper alloy sheets.

Brampton, Neolithic Mortuary(?) Enclosure at the End of a Cursus TL204716

Tim Malim, for English Heritage

One-metre-wide parallel ditches enclosed an area 90 m. long by 17 m.–20 m. wide. Orientation was from northwest–southwest, and the enclosure ditches curved in at both ends, leaving openings of 5 m. wide and 7 m. wide respectively.

A shallow horseshoe-shaped ring ditch was located within the eastern terminals, but no obvious monumental details were noticed at the western end. However, a number of narrow gullies crossed the monument, spreading out from it as antennae ditches, and these appeared to terminate internally as large post-holes. Several pits with evidence of burning were found on the west side, two of them cutting the original main ditch of the monument.

Finds were few, and their absence is significant, suggesting deliberate cleaning or a lack of domestic activity in the vicinity.

Brampton, Prehistoric Ditches and Settlement TL201715

Tim Malim, for Ekins Professional

Assessment trenches revealed the presence of an Iron Age 'settlement' enclosure containing the eavesdrip gully of at least one roundhouse (7.5 m. diameter), an associated contemporary ditched field system, and a series of earlier parallel ditches running north–south, which probably date to the Neolithic period. The density of finds was very low.

Brampton, Roman Rural Settlement TL206715

Ben Robinson, for English Heritage

A droveway separated small rectangular enclosures from an area of intensive farming-related activity, including an animal-powered grinding machine and four possible grain-drying kilns. Building stones and tiles indicate a substantial building in the area.

Catworth TL08657496

Lesley Hoyland, for Henry Boot, Southern Ltd

Assessment trenches revealed no archaeological remains.

Colne, Medieval Pottery Kiln TL37057603

Kit Watson, for THN and B. Bluff

Trial excavations within a farmyard on the outskirts of the present village revealed the first clear evidence for a medieval pottery kiln in this county. Two stoke-pits and large dumps of pottery sherds, including several obvious 'wasters', were discovered. A full report is awaited, but provisional notes by Hilary Healey revealed three fabric types, of which type 1, and possible type 2, seem to belong to the thirteenth century and type 3 to the sixteenth century. Type 1 (dark-brown to black surface, red and grey core) included jugs, pipkins, bowls, 'ginger jars' and at least one bung-hole jar; type 2 (harder fired, grey sandy ware) included jugs, bowls and a flat base, probably of a jug; type 3 (red, sandy fabric, some with white slip covered by glaze) included jugs, bowls, jars and two-handled jars with bung-holes. Glazed roundels on some of these sherds are strikingly like sherds from Bourne, Lincolnshire. This may suggest activities by itinerant potters around the Fen-edge.

Ely, High Barns TL550815

Gary Haley, for Wilcon Homes

Assessment trenches revealed no archaeological remains.

Eye TF22500285

Ken Welsh, for Peterborough City Council

Assessment trenches revealed sparse undatable features.

Fowlmere, Round Moat TL424458

Gary Haley, for Cambridgeshire County Council

A trial trench was excavated in the moat ditch to assess whether water-logged deposits survived, and whether removal of recent silts would enable a water-filled moat to be restored. The ditch profile (which was unexpectedly steep-sided and flat-bottomed) was recorded, but all of the deposits were completely dry. Unfortunately this seems to be typical of moats in Cambridgeshire, with most of them ceasing to hold water over the last five years, due to the fall in the water-table.

Fulbourn TL52555680

Simon Bray, for Vogan and Co. Ltd

Assessment trenches revealed no archaeological features.

Fulbourn, Worsted Street Roman Road TL529519

Gerry Wait, for English Heritage

Three sections showed that the agger west of the A11 consists of pre-Roman soil horizons, a foundation of rammed chalk and gravel metalling, with side-ditches. East of the A11 (which was a major Roman road) the apparent route of the Roman road had neither certain evidence of side-ditches nor of deliberate make-up.

Godmanchester, London Street, Roman Cemetery TL24707020

Lesley Hoyland, for Twigden Homes

Thirteen Roman skeletons were excavated. Eight were regularly spaced in rows, lying east–west, three being in nailed coffins. There were no gravegoods, although a bronze bangle and iron knife occurred as stray finds. The rest of the bones were already disturbed. This is clearly part of a larger cemetery.

Godmanchester, The Parks, Roman Cemetery and Settlement TL24707085

Tim Reynolds, for Church Commissioners

Six late-Roman burials, one with a pair of bronze bangles, and a number of second- and third-century pits, ditches and foundation trenches were located, but there was no sign of a putative Roman road.

Great Wilbraham, Borrow-Pit TL556546

Simon Bray, for R. and R. Civil Engineering

Assessment trenches revealed no archaeological remains.

Harston, Manor Farm Multiperiod Cropmarks TL418498

Tim Malim, for English Heritage

These were reported in *Proceedings of the Cambridge Antiquarian Society* 80(1991) p.119. The following carbon dates have subsequently been received:
i) 3460 ± 80 BP. Charcoal associated with human cremation in ring-ditch (Ox A 3639);
ii) 3420 ± 90 BP. Charcoal from posthole within ring-ditch (Ox A 3638);
iii) 1485 ± 75 BP. Charcoal from fill of Grubenhaus (Ox A 3637).

Hinxton, Roman Agricultural Cropmarks TL487466

Gerry Wait, for Mineral Planning Services

These cropmarks proved to be unusually regular enclosures with little trace of settlement. One burnt-clay and stone structure is thought to be a corn-drying kiln. There seems to have been no earlier occupation and it is thought the site was used for purely agricultural activities associated with a nearby villa.

Huntingdon, Mill Common TL23887148

Stephanie Leith, for Huntingdonshire District Council

Test pits revealed evidence of early medieval quarrying, some of it associated with reconstruction of the town in the late Saxon period.

Little Linton TL556473

Simon Bray, for S. Taylor Esq.

Early Saxon and medieval ditches were revealed on the site of the deserted village.

Little Linton Pipeline TL556473

Drew Shotliff, for Anglian Water Services

Investigations along a pipeline affecting medieval village earthworks identified new sites of various date. A substantial Neolithic/early Bronze Age flint scatter was recorded. Possible middle Iron Age occupation was identified. Further evidence for the presence of Roman buildings on the western outskirts of Linton was uncovered. A cobbled street surface was found to be an integral part of the earthworks of the site of the deserted medieval village of Little Linton. Dating evidence recovered from the latter indicated that houses surviving as earthworks were built at some point during the ninth to eleventh centuries.

Little Paxton, Neolithic Features TL179620

Mary Alexander, for Potton Investments

Assessment trenches revealed Neolithic post-holes and gullies, and field-walking produced numerous worked flints.

Milton, Mere Way Roman Road TL462632

Richard Ozanne, for Cambridge Water Company

The course of the Roman road has shifted slightly to the west of where it was formerly thought to have run: it survives as a green lane. Flanking ditches of the Roman road were 16 m. apart between the centres, and were 1.2 m.–1.4 m. wide and 60 cm. – 70 cm. deep. The agger was 45 cm. high and 10 cm. wide, and made up of hard-packed clay.

Orwell, Medieval Village TL36125034

Paul Spoerry, for South Cambridgeshire District Council

Assessment trenches in the centre of the village on two artificial ditched platforms produced a quantity of redeposited Roman pottery, but there was little evidence of medieval occupation on most of the site. Chalk foundations and clunch walls survived from buildings on the street frontage. Elsewhere, drainage ditches had been maintained to keep land dry enough for orchards and other land uses.

Pampisford, Brent Ditch TL51454753

Ben Robinson, for English Heritage

Two trenches through the Anglo-Saxon dyke at a point where the bank had been removed and the ditch ploughed flat showed that the original ditch had been 7 m. wide and 2.4 m. deep, with steep sides and a flat bottom similar to Devil's and Fleam Dykes. Four Roman coins were found near the base of the ditch.

Peterborough, Newark Hill TF208007

Ian Meadows, for Cambridgeshire County Council

Assessment trenches revealed extensive Iron Age and Roman features, one Iron Age silver coin (Coritanian), and early Saxon fragments, including part of a small-long brooch.

Stretham, Medieval Occupation TL511746

Lesley Hoyland, for the Church Commissioners

Saxo-Norman and early medieval ditches were found west of the present village, adjacent to a twelfth-century stone building which was excavated in 1990. The ditches indicated a gradual shift of this village eastwards, away from the Roman road.

Swaffham Prior, Devil's Dyke TL58456438

Gerry Wait, for Cambridge Water Company

A small section (8 m. x 3 m.) was excavated across the lower fill of the ditch. The ditch proved unexpectedly shallow (only 0.75 m. at the centre), as ditch fill had accumulated extremely slowly. It was also unexpectedly flat-bottomed and steep-sided. Three phases representing initial fill, stabilisation in open (grazed) conditions and a recent elder-dominated scrub growth were documented. Preservation of land molluscs was excellent.

Wicken, Dimmocks Cote TL545722

Simon Bray, for Euston Lime (Ltd)

Assessment trenches revealed Bronze Age ditches.

Wimblington (Stonea Camp) TL448931

Tim Malim, for English Heritage and Cambridgeshire County Council

A third season's excavations produced additional information about the Iron Age defences. The defensive ditches ranged in size from 3 m.–5 m. wide and 1 m.–2 m. deep. Well-preserved organic remains showed that on the western side ditches had held running water, but later may have been deliberately slighted, and an adult male (without grave goods) had been pushed into the upper fills. Other human bones from basal fills have been carbon-dated to 2070 ± 65 BP (Ox A 3620). Environmental evidence showed that the camp had been constructed in a managed wooded landscape of oak and birch and that the southern ditches had originally been water-filled. Trenching of the interior showed no evidence for settlement, perhaps a result of destruction from post-War ploughing. One ring-ditch was investigated. Its ditch contained post-settings but there were no features in the interior, and so its origins as a hut or ritual structure is still undecided.

Wisbech Market Place TL462096

Lesley Hoyland, for Fenland District Council

Small trial holes were excavated to determine whether proposed construction works associated with pedestrianisation of the town centre would disturb archaeological deposits. Features associated with nineteenth-century market stalls were noted, and traces of a sixteenth-century dump. Signs of medieval occupation were only apparent in sondages 1 m. in depth.

Watching briefs and, where necessary, *emergency excavations*, were carried out on the following pipelines: Childerley (medieval village and deer park); Chippenham Park and Fen River; Coton to Longstanton (Iron Age settlement); Diddington to Priory Hill (early Roman ditch and artefacts); Dullingham to Swaffhams (see Bottisham above); Hemingford to Huntingdon (middle Iron Age features); Impington to Girton (see Mere Way above); Linton and Gamlingay; Longstanton to Bluntisham; Swaffham Bulbeck to Bottisham (medieval water management system); Swavesey to Over; Thetford Aqueduct.

Surveys of earthworks were carried out at Doddington (Pocket Park), Huntingdon (Buttermel Meadow) and March (The Sconce).

In addition to the above excavations, archaeological *assessment reports* were prepared on the following development proposals: Alconbury-Fletton Parkway (A1 widening); Cambridge (Northern Relief Road); Cambridge (Southern Relief Road); Cambridge–Ely (A10 Corridor); Chippenham/Kennett (Borrow pits); Ely (Cambridge Road); Market Deeping (bypass); Sutton (nearby land), Peterborough.

Reports on all of the projects described above are available from the County Archaeological Office, Shire Hall, Cambridge.

Excavations have also been undertaken by the following organisations:

Birmingham University Field Archaeology Unit

Diddington TL199653

Iain Ferris and Peter Leach, for English China Clay Quarries

Assessment trenches located separate areas of Iron Age and Roman occupation and field systems.

Board of Continuing Education

Madingley TL393603

David Trump

A trial trench beside the medieval hollow-way revealed three phases of a substantial ditch and the cobbled surface of the village street. Much medieval pottery was recovered.

Cambridge Archaeological Unit University of Cambridge

Christopher Evans

A1(M) Field Survey

An extensive field survey programme has been conducted throughout the autumn and winter 1992–3. The project consists of an initial, rapid field-walking survey of the archaeology of an irregular route corridor approximately 2 km. wide extending from the A605/Fletton Parkway junction (Peterborough) northwest to Stamford (23 km.). This was not intended to be a comprehensive field assessment, but rather an extension of a consultative desk-top report prepared by the Cambridge Archaeological Unit. The survey focused on areas judged to have considerable potential, which had not previously been field-walked, and which would be affected by the choice of route. In total over 700 ha. were field-walked. The vast majority were walked on wide transects designed to locate sites, while a small number of fields were walked in more detail to more define accurately site locations. Some 27 new sites have been located, and another five accurately plotted.

New archaeological sites by period and underlying geology.

	Gravels	Limestone	Clays	Total	
Neolithic	0	7	0	7	(25%)
Bronze Age	1	4	0	5	(18%)
Iron Age	0	1	0	1	(4%)
Roman	3	9	1	13	(46%)
Medieval	0	1	1	2	(7%)
Totals	**4**	**22**	**2**	**28**	
	14%	79%	7%		

(one multi-period site counted twice)

These results are preliminary as the final fields have yet to be walked, and a finds study has yet to begin.

Cambridge — Brownlow Road TL442608

Archaeological investigations were carried out south of Brownlow Road in September 1991. During the investigations Roman features were discovered in the north of the development area; a single ditch of that period was recorded in the southwestern corner. The only other archaeological deposits discovered were of post-medieval and modern dates.

Cambridge — Cavendish Laboratories TL448582

In July 1991, workmen digging the foundation pits for electron microscopes in the Old Cavendish Laboratories, Free School Lane discovered substantial structural remains (walls up to 1 m. high) belonging to the medieval Austin Friary. A rescue excavation revealed evidence of Saxo-Norman occupation (yard surfaces and a ditch). The post-dissolution development of the site saw the construction of a cellared house and the Cavendish Laboratory. As a result of these investigations, the decision was taken to shift the position of the foundations so as to preserve *in situ* (i.e. bury) the Friary-related remains.

Cambridge — The Kitchens, Emmanuel College TL452583

In March 1992, a watching brief was conducted on two developer-dug trenches. In one, a substantial wall was observed relating to early College buildings dated to the 1580s. Further foundations and a cobbled surface representing three phases of activity were recorded in the other trench: the footing of a pre-College building as depicted on the Lyne map; two walls of the demolished Bungay Building and a path associated with it, which were part of the earliest phase of the College; and two brick culverts related to nineteenth-century kitchen extensions.

Cambridge — Jesus College Library TL542588

Anticipating the construction of a Library and Computing Centre in July 1992, an assessment was undertaken within the College grounds south of the Chapel. This area is thought to have been the fairground (later known as Garlick Fair) of the Nuns of St Radegund who occupied the site from the early thirteenth century (the College was established in 1500). Thirteenth- to fourteenth-century quarries, a ditch and a well, as well as a spread of moulded cob-/daub-like mortar fragments (possibly demolition debris from the fair-yard wall), were excavated. Post-medieval quarries, minor pits and postholes, and a College-associated midden, were also found. These remains were sealed by a massive eighteenth-century make-up horizon. Whilst carried on a sixteenth- to seventeenth-century foundation, the (Listed) brick wall that borders the eastern side of the site proved to be of late nineteenth- to twentieth-century date (it had been thought to be contemporary with its footings, hence the reason for its Listing).

Cambridge — Magdalene Street TL446590

A watching brief was conducted in July 1991 in advance of the construction of a rear extension to 21 Magdalene Street. Medieval structural features were recorded.

Cambridge — Newnham House TL444577

Archaeological excavations were undertaken in July 1991 in the courtyard of Newnham House, Newnham Road, in advance of an extensive redevelopment programme. Numerous nineteenth-century services and wall foundations were revealed. Two medieval pits, probably associated with a nearby fourteenth-century manor, were excavated.

Cambridge — St Andrew's the Great TL450584

The excavation in September 1992 of a trench across the north aisle and nave of the church, founded in the thirteenth century, revealed evidence of Saxo-Norman extra-mural activity. Footings relating to both the medieval and seventeenth-century churches were found to cut early cemetery deposits. The area occupied by the present north aisle may have been used as the cemetery until the building of the present church. A sequence of floors associated with the standing church was also exposed, suggesting that the building had subsequently been raised to its present level.

Cambridge — St John's College, Chapel Court TL447580

Following on from assessment works in 1991, excavations were carried out in the Master's Garden and Chapel Court throughout the spring of 1992, in advance of a major extension to the College Library. Two trenches were opened on either side of the Penrose Building: I in Chapel Court and II in the Master's Garden. The excavation uncovered a sequence from the Roman period to the nineteenth century. In Trench I there was a number of inter-cutting Roman gravel quarry pits and substantial dumped spreads of domestic refuse of third- to fourth-century date. Between the fourth and tenth centuries the site seems to have been subject to flooding. The alluvial layers that resulted contained little cultural material. However, there was considerable evidence from the Saxo-Norman period, consisting of two post-built structures with clay floors. Quantities of burnt grain were found in association with both and, with one, a hearth.

During the thirteenth to nineteenth centuries, the area between Bridge Street and the east–west channel was intensively occupied, with separate developments occurring in the individual properties at different times. Although shifting over time, the boundaries of these properties were generally set out at right angles to Bridge Street. Throughout the period, gravel surfaces were laid down, walls built and drains dug. In the easternmost properties two clay-lined tanks were dug, probably for the storage of fish and shellfish. The remaining areas of the site, in which none of the above features occurred, seem to have been gardens into which spoil and refuse were worked.

Cambridge — St John's College, Forecourt TL448587

During November 1991, a trench was dug in the lawn in front of St John's College Chapel in advance of service groundworks. Early walls were uncovered which are believed to be the east end of the Infirmary, dating to the thirteenth century. Additional structures were also discovered, which had not previously been recorded on plans of the College buildings.

Cambridge — St John's College, Playing Fields TL440585

To mitigate archaeological destruction within the Anglo-Saxon cemetery known to lie in St John's Playing Field, two trial trenches were dug in the summer of 1991 in advance of service groundworks. While ditches probably associated with a Romano-British field system were recovered, neither funerary-related features nor even Anglo-Saxon artefacts were found.

Cambridge — Trinity College, Burrell's Field TL440585

Excavations in August 1992 on the western First Terrace-edge of the Cam, beside the Bin Brook, revealed a later Neolithic/Early Bronze Age sub-circular ditch enclosure. Also identified was a series of Romano-British and medieval field boundaries relating to the utilisation of the River's floodplain water-meadows.

Cambridge — Trinity College, Gateway TL448586

In August 1991, a small sondage was excavated in the northern front lawn of Trinity College. Sealed by medieval yard surfaces, evidence of Saxo-Norman occupation was recovered. Natural sub-soils were encountered at a relatively high level, suggesting the location of a major east–west oriented natural ridge/terrace scarp.

Cambridge — Trinity College, The Music Rooms TL447587

During renovations to the 'Undercroft' located on the north side of the College in July 1992, a

watching brief was carried out. Three walls were exposed, one of which was probably the north wall of the fifteenth-century Cloister Court of the King's Hall. The remaining two relate to a small building which was erected after the demolition of the court in 1694.

Cottenham — Gravel Diggers Farm, The Lots TL489696

A programme of geophysical survey, field-walking, metal-detecting and open-area excavation was undertaken in September 1992 on land east of Long Drove, northeast of the village in Cottenham. Geophysical survey successfully located a number of eighteenth- and nineteenth-century land drains of a local type called 'bush-drains' and a single, presumably ancient, ditch. The field-walking and metal-detecting surveys repeated the results of the assessment: that few or no archaeological remains were present in the ploughsoil. The open-area excavations allowed the single ditch and the bush-drains to be sample-excavated. In spite of the excavation of eight, one-metre-wide sections, no dating evidence was recovered from this ditch. On the basis of a similarity of alignment with putatively Roman field systems to the west, this single feature is tentatively assigned to the Roman period. It would appear that there was no domestic occupation and very little intensive agricultural use of this area during any archaeological or historical period.

Coveney — The Wardy Hill Ringwork TL475820

Throughout the autumn of 1991, much of the Cambridge Archaeological Unit's energies were directed toward the English Heritage-funded excavation of this defended late Iron Age enclosure. Situated on the flank of Wardy Hill, the site would have commanded the northern approach into The Cove, a large marsh embayment on the north side of the Isle of Ely. Comparable to Wessex hillforts, the remarkable landward defenses (triple rampart entrance ditches) of the ringwork are without parallel in the region.

Six round buildings were excavated within the interior (one household unit/module rebuilt through time) and there is evidence to suggest that the ringwork may have been a high status residence. Earlier (Bronze Age?) features extend along the western side of the site. The ringwork was found to have truncated a burnt flint mound and much later Neolithic/Bronze Age flintwork was recovered.

Duxford

In September 1991, 11 trial trenches were excavated in the field immediately east of Duxford Airfield. Three sites were discovered, two of which could be contiguous: Hunt's Road (TL472466) and Chuck-a-Bush View (SMR: 09741; TL 475470). These include various linear features comprising extensive Roman field systems. Within the former area a large hollow, associated with Early Neolithic flint extraction, and a Bronze Age ditch enclosure, were also discovered. At the site of Coldham's Moat (SMR: 01007; TL478467) a seventeenth-century garden moat was found to overlie a previously unknown Saxo-Norman and early medieval manorial complex.

Ely — Upherds Lane TL535806

An archaeological assessment and excavation were conducted in May 1992 in advance of a small residential development. The earliest archaeological feature, apparently of Saxo-Norman date, may have been a paddock-related boundary ditch. A phase of medieval ridge-and-furrow agriculture in the south of the site was preceded by the cutting of a series of ditches, probably of boundary or drainage function. Following enclosure in the post-medieval period, the site appears to have remained under pasture for centuries with perhaps episodic arable activity.

Ely — Walsingham House TL541801

Anticipating an extension to Walsingham House within the Cathedral precinct, a 7 m. by 3 m. trench was excavated in September 1991. Iron Age, Romano-British, Saxo-Norman, medieval and post-medieval remains were discovered. A late Iron Age/early Roman pit and small gully were found: the first features of that date to be excavated in the city. Saxo-Norman and early medieval quarrying was followed by gardening under the aegis of the Cathedral and new building works in the eighteenth to nineteenth centuries.

Fen Drayton Reservoir TL333690

A field assessment was undertaken in October 1992 on a 25 ha. site, lying on the edge of the

alluvial terraces of the River Great Ouse just west of where it empties into the fen, northwest of Fen Drayton village. The investigations confirmed that the single cropmark known within the area represents a Romano-British settlement which originated in the second half of the fourth century AD. Two previously unknown sites were also revealed. The first, of Neolithic date, is an extensive area of ditches, gullies, post-holes and pits and is potentially a settlement. This had been plough-damaged in antiquity and subsequently buried by alluvium. The second site is marked by a small area of ditches of two phases, one probably Iron Age and the second Roman or later. The Iron Age features contained small quantities of pottery and bones and suggest a settlement in the vicinity. The second phase ditches may relate to management of the area as watermeadow. A complex series of alluvial deposits, probably of late-Roman to post-Roman date, was also recorded.

The Fenland Management Programme

As part of this English Heritage-funded project, four artefact scatters were assessed throughout 1992. In all but one instance, a variant of the project's basic site sampling policy was employed. Following gridded surface collection, one-metre-square test pits were excavated on a site-appropriate grid (20 m.–40 m.) in order to evaluate densities ploughsoil finds. Each were subsequently machine-expanded into five-metre-square test stations so as to investigate whether features survive in association.

No features did survive at either the small Neolithic scatter site at Stocking Drove Farm, Chatteris (TL398818), nor at the larger, very dense, spread of the same date at Honey Hill, Ramsey (TL235855). From the latter, some 9000 worked flints had been recovered during the course of field-walking from the 1 ha. hill-top. Unfortunately the site is totally ploughed-out, existing only in the ploughsoil and no buried soil horizon survives. A more extensive early Bronze Age scatter was tested at Eye Hill Farm, Soham (TL582772). While severely damaged by ploughing, a contemporary field system was discovered over part of the area. A middle/late Bronze Age spread at Lingwood Farm, Cottenham (TL451713) proved to have largely escaped arable damage. A buried soil survives, and rectilinear post-hole buildings, pits and, again, field boundary ditches were excavated. In one test station a length of ditch, of massive pro portions, was found to have had great quantities of late Bronze Age/early Iron Age domestic refuse back-filled into it. Still waterlogged, half of a composite circular object (oak-dowelled ash planks, possibly a wheel), an oak plank, posts, and much roundwood were recovered from this remarkable feature.

Flint Cross — Heydon Grange TL418425

In November and December 1991, an area of approximately 85 ha., southeast of Flint Cross, was field-walked. Although the area is noteworthy for its fine listed seventeenth-century barn (Heydon Grange) and the Bran Dyke, field-walking produced no finds associated with either. Six early Neolithic flint scatters (probably settlement-related) were, however, discovered in the north of the area.

Godmanchester — The Parks TL246708

In June 1991, an archaeological evaluation was undertaken at 'The Parks' in advance of the redevelopment of an area of rough ground within which earthwork remains, associated with a nearby scheduled medieval manor (SAM 107), are located. Two major phases of land use were revealed: Roman quarry ditches and medieval fish tanks; the latter were probably associated with the manor.

Kirtling — Kirtling Towers TL687575

A series of works was carried out at the scheduled ancient monument of Kirtling Towers, Kirtling in the autumn of 1991. During a watching brief for a service trench, which followed the present line of the western drive, a number of foundations was observed. Most probably relate to the Tudor walled gardens, though one (behind the present house) may be the entrance stairs of Lord North's house (demolished in the eighteenth century).

Several trial trenches were also dug in advance of the lowering of the inner southeastern edge of the moat. The evidence suggests that the revetment bank of the present moat is of Tudor date. It seals a buried soil which overlies Saxo-Norman deposits. A third trench, to the southeast of the present house, demonstrated that the present three-sided moat was originally four-sided, and again was constructed in the Tudor period or just before.

Linton TL575465

A site of potential archaeological importance, proposed for housing development, was assessed by both trial pits and geophysical survey in August 1991. Some 100 m. to the southeast is the site of a Romano-British walled inhumation cemetery (SMR: 06198) and, in an adjacent field, a villa. Most of the development area was heavily covered by woods; no pre-modern finds or features were recovered.

Madingley — Madingley Hall TL392604

In August 1991, an evaluation was conducted in the grounds of the Hall to mitigate the impact of construction works involving an extension to the northwestern wing and, to the south, an access road. The investigations of the wing extension revealed a substantial late nineteenth-/early twentieth-century landscape bank of upcast natural. No evidence was found of earlier activity.

A trench which was excavated along the line of the access road revealed archaeological remains largely relating to the nearby medieval village of Madingley and to the later landscaped grounds southeast of the Hall. Two Saxo-Norman ditches were also excavated. The concentration of features within the evaluation trench warranted full excavation of the road area; this took place in January 1992. This excavation highlighted the extensive tree-planted landscape of the Hall-related period (sixteenth century plus) and, therefore, the dramatic change of land use from the earlier village-related croft and toft agriculture. One further (possible) Saxo-Norman feature was excavated which, together with the ditches investigated during the evaluation, substantiates the Saxo-Norman origins of Madingley.

Peterborough — The Fengate Depot Site TL212895

In September 1992, a field evaluation was undertaken across a 1.5 ha. site south of Pryor's Storey's Bar sub-site and southwest of the Cat's Water Iron Age settlement. Sealed by alluvium, a c.0.20 m.–0.40 m. thick buried soil survives on the site and, locally, occupation spreads and feature-associated upcast banks. A small ring-ditch (18 m. diameter), probably surrounding a later Neolithic/early Bronze barrow, was investigated in the northwestern quarter of the area. Around this deflected the double-ditches of the rectilinear Bronze Age field system that extends throughout this and adjacent fields. While sharing the general alignment and of similar character as that previously excavated to the northeast, here the Bronze Age system differs inasmuch as it is truly co-axial in layout and its double-ditches defined large (c.70 sq.m.) sub-square 'lots'. Two contemporary round buildings were discovered and, in a quarter of one of the field blocks, the original ditch system had been modified so as to enclose an embanked settlement compound. Extensive evidence of Iron Age settlement was found along the southern fen-edge margin of the site and traces of Romano-British occupation along its western side. An Iron Age field system, in part maintained through Roman times, was found to extend across the site, probably the fields associated with the Cat's Water hamlet.

St Ives — Meadow Lane TL329706

Two fields east of St Ives were assessed in December 1991 in advance of gravel quarrying. In the northern field of the application area, trial trenches encountered a Romano-British agricultural landscape (trackways and field boundary ditches). Many of the features were partially waterlogged and are almost certainly associated with the Romano-British settlement, now destroyed, which lay some 100 m. to the west. The southern field produced no archaeological features.

West Wratting

The area between West Wratting and Weston Colville (approximately 110 ha.) was field-walked and the earthworks next to Hall Farm, Weston Colville were trial-trenched during August and September 1991. The area of earthworks revealed no structural remains, but only stock enclosures of tofts and a headland. Under the headland, however, possible Bronze Age features were discovered (TL614529).

Three further sites of significance were discovered through field-walking: a Roman farmstead ranging in date from the first to third centuries AD; a Saxon site up on higher ground, possibly a farmstead or cemetery; and two medieval windmill mounds.

Weston Colville — Moat House TL621533

A trial trench was dug in September 1991, in advance of the construction of an extension to an eighteenth-century house within a fourteenth(?)-century moat in Weston Colville. A series of ditches was discovered: two representing earlier field boundaries and a third, which was possibly a drainage channel associated with the moat. These features were truncated and overlain by a cobbled surface associated with the present house.

Nene Valley Research Committee

Haddon, Roman Bath House and Early Saxon Occupation TL140932

Steve Upex

Foundations of a Roman bath house dating to the third century were uncovered. Large quantities of early Saxon pottery and other artefacts were found both in the upper layers and also adjacent to the hypocaust.

Peterborough Museum

Longthorpe, Holywell Fish Ponds TL16899098

Ian Meadows

Trial trenches revealed traces of a medieval water management system as an earthern dam, and of seventeenth-century garden walls. These walls related to the formalisation of the area into a garden associated with Thorpe Hall.

Peterborough, Bishops Road Gardens TL194984

Ian Meadows

A trench on the south side of the Cathedral precincts revealed a series of medieval and post-medieval roads outside the precinct wall. In the lower levels remains of a re-cut ditch were found, which had possibly formed part of the Saxon burghal defences.

Tempus Reparatum

Buckden TL203666

Mike Coxah, for Redland Quarries

Assessment trenches located occupation evidence dating from late Iron Age to early Roman times, including the drainage gully of a circular hut and a well.

Mepal TL425840

Jonathan Hunn, for Redland Quarries

Assessment trenches located early prehistoric ditches and one (previously unrecognised) ring-ditch.

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