THE HISTORICAL EVOLUTION OF THE LANDSCAPE
OF
THREE NORTH CAMBRIDGESHIRE VILLAGES
LANDBEACH, COTTENHAM AND WATERBEACH (A.D. 450-1850)

Submitted for the degree of Ph.D., 1972
by J.R. Ravensdale
DECLARATION

I affirm that this thesis is the result of my original work done mainly during the period of registration as an external student except where otherwise indicated.

I would like to express my thanks to Professor Edward Miller for reading and commenting on an early draft of Chapter II; to Mrs. Dorothy Owen and Mrs. C. Hall for help in checking transcripts; and to Mrs. E. Butt for help in tracing maps; but the responsibility throughout remains mine.

I am most grateful to all those (far too numerous to mention here by name) who have helped me with access to documents, but my especial thanks are due to the Master and Fellows of Corpus Christi College Cambridge, and to those who took such a warm, encouraging interest in my work in the Parker Library, Professor Bruce Dickins, Dr. R.I. Page, Mrs. C. Hall, and Mrs. Rolfe; to Mr. and Mrs. A.E.B. Owen, who have shown me constant kindness, and to their staff in the Anderson Room; to Miss H. Peck, Archivist to Cambridge University; and to my old friend the Rev. Brian Dupré, Rector of Landbeach.

Above all, my thanks are due to my supervisor, Professor Alan Everitt, but for whose kindness this work would never have been finished.

J.R. Ravensdale.

Homerton College, Cambridge.
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Notebook: A notebook in the possession of Mrs. Leslie Norman of Cottenham, in which Jacob Sanderson wrote his memories.


P&P: Past and Present.

PRO: The Public Record Office.

RCHM: An Inventory of Historical Monuments in the County of Cambridge Volume One West Cambridgeshire. Royal Commission on Historical Monuments. 1968.


Short Account: A Short Account of the Parish of Waterbeach in the County of Cambridge and the Diocese of Ely, by a Late Vicar. (R. Masters.) Cambridge, 1795.

TCHAS: Transactions of the Cambridgeshire and Huntingdonshire Archaeological Society.

TRHS: Transactions of the Royal Historical Society.


WcD: A vellum-bound book of extracts in the Waterbeach Parish Chest bearing the title 'The Court Rolls of Waterbeach cum Denney'.

WPC: Waterbeach Parish Chest.

INTRODUCTION

The area chosen for this study is on the southern margin of the fen, the fen first described by St. Guthlac's Anglo-Saxon biographer: "There is in Britain a fen of immense size, which begins from the River Granta not far from the city which is named Grantchester. There are immense marshes, now a black pool of water, now foul running streams, and also many islands, and reeds, and hillocks, and thickets, and with manifold windings wide and long it continues to the North Sea."¹ This fen can now only be found imprisoned and artificially maintained as a tiny remnant at Wicken; the rest of the landscape is tamed.

The general process of this change has long been set out in two vivid sketches by Professor H.C. Darby, but the detail and its particular effects on any community remain to be worked out.² Enough was known to suggest that social and economic evolution in this area and its consequences on the landscape were very complex, and many questions remained unanswered. The purpose of this study was to examine an area small enough for thorough investigation of the topography and documents, and wide enough for some effective comparisons.

It soon became clear that the quantity of documents was far too great for the whole area of North Cambridgeshire between the Ouse and the Cam to be included. Landbeach was particularly attractive as a centre because the pattern of the village, the housing and the earthworks, suggested that survivals of older landscapes were here available to an unusual degree in what was still a very small village, and that these could be studied with the aid of a considerable quantity of relevant documents in the Archives of Corpus Christi College, Cambridge, and in the Parish Chest. The College Historian and Rector of Landbeach, Robert Masters, had done sound antiquarian work at the end of the eighteenth century in collecting and copying. Some of this material had been published, written up by a later Rector, W.K. Clay, in 1861. More collection and arrangement had been done by a later Rector, the Rev. Bryan Walker, but the greater part of the medieval documents had remained unread since Matthew Parker, as Master and Rector, worked on them in the reign of Edward VI. His minute scholarly hand has left a trail of useful references in marginal notes and endorsements, and his paginations in red chalk testify to the quantity of detailed topographical work he managed to leave for us on the village as it was in his time.

1 W.K. Clay, A History of the Parish of Landbeach in the County of Cambridge (Cambridge, 1861); hereafter Landbeach.
Landbeach's western neighbour, Cottenham, again posed similar questions in the pattern of its village and the history of its fields. The documentation here too was considerable, but some aspects had been explored by that pioneer of English economic history, Archdeacon William Cunningham, and much detailed work on the administration of the manor of Crowlands in the Middle Ages was incorporated by Miss Page in her major study. From the few specimen rolls published it was clear that there was a great deal of material awaiting exploitation for topographical purposes.

Landbeach's eastern neighbour takes us more deeply into the fen. Waterbeach offers immediately a great contrast in pattern, with discrete settlements of some considerable age, and the main village around a large straggling green. But if the documents are not in quite the same profusion as in the other two villages, they are far more plentiful than in most. As the study was designed to conclude with the landscape after the Parliamentary Enclosures, we were most fortunate in having the views of a small peasant who lived through this process preserved in both Waterbeach and Cottenham. Robert Masters also collected historical materials

1 W. Cunningham, 'Common Rights of Cottenham, Stretham and Lode, Camden 3rd ser. xviii (1910); hereafter Common Rights.
3 J. Denson, A Peasant's Voice to Landowners (Cambridge 1830), and an unpublished notebook of Memoirs of Jacob Sanderson of Cottenham, in the possession of Mrs. Leslie Norman of Cottenham; hereafter Notebook.
for Waterbeach, publishing them privately in 1795.\(^1\) Masters' son-in-law, Burroughes, added to these, and Clay later wrote them up for a fresh publication, but this work was very inferior to his work on Landbeach.\(^2\)

Although good Enclosure Award Maps exist for each of these villages, there are no strip maps available for either Landbeach or Waterbeach. Cottenham however has a remarkably detailed First Draft Map, and there are Terriers of two estates to go with it. In addition there is, in the County Record Office an early nineteenth century strip map for the Pratt Estate.\(^3\)

One aspect of the documentary information has proved particularly fortunate: the best cover for purposes of comparison over the three villages has turned out to be the fourteenth century, which now seems to have been the most critical historical period for our fenmen to come to terms with the fen.

The general point of departure for the study was that previous work had hinted that the peculiarities of the evolution of the Cambridgeshire landscape were due to its being a region of

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1 *A Short Account of the Parish of Waterbeach in the Diocese of Ely by a Late Vicar* (Cambridge, 1795). Only twenty five copies printed: hereafter *Short Account*.


3 CRO 152/P9, 1842; CRO R/61/5/1, Map 1/6, p. 105
transition between the "Midlands System" and the "East Anglian System". In both the management of arable and of sheep, the complexities of Cambridgeshire were felt to be probably due in great part to the hybridisation of agricultural "systems" from either side of the county. The view which stressed instead the peculiarities of the northern fens had been neglected in the discussions of Cambridgeshire. But whatever causes were suggested, there remained something of a paradox in that the evidence of agrarian non-conformity pointed also to its going hand in hand with an archaic orthodoxy which delayed general enclosure until well into the nineteenth century.

Chapter I : THE SETTING

The Sites

The three parishes under examination, Waterbeach, Landbeach and Cottenham, lie in the angle formed by the junction of the Old West River and the Cam. The Old West forms the northern boundary of Cottenham Parish, except where the banking and straightening of the river at Queenholme has left the boundary on the far side of the Washes on the north. The Cam forms much of the eastern boundary of Waterbeach. In the flat lands around the confluence, the rivers made their ways uncertainly before fen drainage: prolonged floods could end with shifted courses, and Stretham Mere and Harrimere once marked old beds as silting took the junction northwards, downstream. On joining the Cam, the Old West dropped silt in the uncertain area of changing courses: "... a bed of gravel and sand, which the river of Ouse, at his meeting with Grant strongly casteth up, and the river of Grant, being the weaker stream feebly resisteth." Here, among the marshes, was an area of inter-common on both sides of the Cam, and from this the final division of parishes left a large portion

1 Queenholme TL 430725.
2 Stretham Mere TL 525730; Harrimere TL 535745.
of Stretham between the rivers, stretching from the south bank of the Old West to Chittering and the Waterbeach boundary.¹ From the end of Roman times, right through the great drainage schemes of the seventeenth century, until the nineteenth century, a large part of these parishes has been fen, subject to winter flooding, and more has been in danger from any extraordinary flood.

The margin between fen and upland has shifted in historical times according to changes in sea-level, climate, and the success or failure, vigour or neglect, of man's attempts at drainage. The twenty foot contour marks off ground that seems to have been safe even from the great floods of the history of the area, and in general the critical height seems to have been about two feet below this, although sometimes flood-waters stand higher towards the Ouse than the Cam, any banks that hold making for relief towards the east. This was apparent again in the last general inundation of 1947.

Relief differentiates the nature of the three villages, and their situation in relation to the twenty foot contour shows this very clearly. In Waterbeach, only the settled area stands above this level. Cottenham is built towards the end of a long spur of greensand and gravel reaching out into the fens. Around it once

lay the arable of its open fields, whose outer boundary ran astonishingly close to the twenty foot contour all the way. Between Cottenham and Rampton on the west there penetrates a long tongue of low ground, Little North Fen and the Holme, once Holmere.

On the eastern side of Cottenham there is a similar but smaller penetration of low ground between the villages along the line of the Beach Ditch. At the end of this, too, was a mere\(^1\) - "Tossolmere", "the mere" or "Histon mere", in the Field Book and Court Rolls, in the region where Landbeach meets Histon near the Cottenham border.\(^2\) Here too were the old moors of Histon, Landbeach and Cottenham, which were never ploughed up on the Cottenham side until after the Parliamentary Enclosure of the nineteenth century.

Landbeach village is settled along the line of the twenty foot contour, again on a spur, but this one is shorter and more broad based. The village is not on the watershed, but low down on the eastern side, where the gault clay gives way to gravel. Both Landbeach and Cottenham are fen edge villages, favoured by dry sites which combine the advantages of connection with the upland, with access to as much fen as possible.

1 This mere was in the region of TL 455650.
2 LPC, Field Book; CCCC, XXXV, 121-125, 170.
The siting of Waterbeach village is different; in the wetter historical periods it was a true fen island, surrounded on all sides by land below the flood line, and cut off from the upland. If one adds the other parts of the parish settled at different times in the middle ages, Denney\(^1\) and Elmeney\(^2\) (as their names imply, also islands) we find medieval Waterbeach parish to have been a small fen archipelago. Its constituent islands were more isolated from each other than were the villages just to the north strung out along the Haddenham-Stretham Ridge. Each of its elevated sites was a low deposit of gravel, just sufficient to give a drier surface than the surrounding fen. Causeways were necessary to join them.

Each of the three islands in Waterbeach provided a site for a monastery. Earthworks still remain even at the short-lived site of Elmeney; more complete earthworks at Waterbeach\(^3\) itself; and at Denney, as well as these, buildings from every period of use. These islands must have in one way been particularly suitable for early monasteries, in that they were then cut off from the world by the black waters of the fen. The eremitical tradition could fulfil itself in isolation in small communities: the hagiographer's description of St. Guthlac's settlement at

\(^1\) Denney TL 493685.
\(^2\) Elmeney TL 503695.
\(^3\) Waterbeach Abbey TL 498649.
Crowland in the demon-tormented fens could well have been written of any of them. The only other monastic site along this fen edge between the Ouse and the Cam was at Swavesey, on a similar cramped fen island, again linked to the village of that time by a causeway only.

But the austerity imposed by such sites suited the zeal of the early reformed monasteries, rather than more sophisticated later Benedictine life, and it is significant that Swavesey later went to the Carthusians, and only the Poor Clares at Denney survived in our villages to the Dissolution. Elmeney is frankly described as an island in the charter of Robert, Chamberlain of the County of Brittany, in making the original grant to Ely. Some of the difficulties of life there, due to its topography, emerge clearly from the later charter of Aubrey Picot arranging for the transfer to Denney:

"Audita Reg(inaldi) monachi et fratrum de Elmenseia frequenti querimonia, quod videlicet in eadem insula ab aquis nimis infestari et in Dei servitio impediri solent... in insula que vocatur Deneia in eminenteri videlicet loco propter aquarum inundationes et in competentiori ad ecclesiam et edifica sua construenda et ad ortos et virgulta facienda, ut ab illa insula propter aquarum ut dictum est, incommoda ad hanc insulam commodiorem mansioinem suam transferant, remanente tamen ad usus illorum predicta insula, videlicet Elmenseia...." 2

2 Liber Eliensis, pp. 387-9, chs. 139 (1133x1169) and 140 (1160x1169).
The reason given for the transfer of the Poor Clares from Waterbeach to Denney in 1339 is similar. The date is one when we might well from other evidence expect the flooding to be near its worst:

"cum mansum Abbatissae et Sororum Minorum de Waterbeche in loco stricto, basso, et corrupto, ac alias pro mora earundem minus sufficienti situetur."¹

The RAF air photo taken in 1952 in time of flood, but not the worst of recent years, shows the earthworks of the Abbey with the waters which filled the Hollow and the Little Hollow lapping against them.²

² RP: CPE/UK/1952 3095.
Chronology of the Water-Table

In this area the physical environment is subject to change, from variations in the water-table, the deposition of silt, and the formation or shrinkage of peat. There is evidence, often fragmentary, indirect, and inconclusive, which suggests three possible periods of a rising water-table in historical times. The removal of the Benedictine cell from Elmeney to Denney because of the rising waters indicates a possible deterioration in the century after the Conquest; fourteenth century documents are full of hints of still more serious and prolonged flooding; and the controversies over drainage schemes in the early years of the seventeenth century may well indicate a third period of major deterioration.

It will be argued later that the deterioration in the fourteenth century and subsequent recovery played a dominant role in the evolution of the medieval open fields of Landbeach. But the source of much recent discussion of the water-table in this period, the "Inquisitiones Nonarum", is singularly unhelpful for our three parishes.¹ Their representatives seem to have used what was virtually a common formula, blaming the

shortfall in income on taxation, royal and ecclesiastical. Yet the neighbouring parish, Impington, reported two hundred acres flooded, and the total area which suffered in this way in the county seems to have been very considerable. Perhaps flooding was by that time too much a normal seasonal expectation in our parishes to have been considered a plausible excuse.

There is further early fourteenth century evidence from surveys of nearby manors. In 1325 Swavesey had floods over five areas of the glebe.¹ In the 1340 Survey of Swavesey three acres are again flooded, and the Prior gets nothing for meadow in Fen Drayton because it is under water. In the 1358 Ely Survey of their manor of Willingham, fifteen acres of mowing meadow appear to be deteriorating because of repeated flooding, and thirty acres of Fenmeadow are then permanently under water.² This was not an entirely new problem there in the fourteenth century, but the situation appeared to be getting worse. The Ely Old Coucher Book in 1251 mentioned an extra four acres that could be mown, and beasts that could be pastured, only in time of drought. The earlier Survey of 1222 mentions thirteen arable acres which could not be ploughed, and which were in meadow and pasture because of too much rain.³ By the thirteenth century

¹ BN Add.Mss.6164, p. 228; quoted by Palmer and Parsons, TCHAS, vol. i (1904).
² PRO E/143/9/2: cf. Chapter 3.
³ BM Cott. Tib. B II 118d.
cultivation would seem to have been pressing against the frontier with the fen. When the evidence is fragmentary and incidental, and its authors expect flooding as part of the order of things, it is difficult to assess the scale of the deterioration, but there cannot be much doubt that the early fourteenth century was a particularly difficult period on the Fen Edge from this cause.

The Court Roll of the Manor of Chamberlains in Landbeach for 1328 is unfortunately damaged towards the foot, but enough remains to suggest that this had been a peculiarly bad year. Instead of the normal phrase for reporting damage due to stopped ditches, "ad nocumentum vicinorum", (with or without minor qualification), much more detail is given. Hugo le Bray's ditch at Claystrate (now Spalding's Lane) had overflowed, making a lake three perches by four. Another of his ditches next the croft of the Prior of Barnwell (Prior's Close) had not been mended, "per quod via regia submersa est ad magnum gravamen transseuntium". If this is indeed Prior's Close, as would appear, the ditch and road still being there in later years, then the trouble was occurring even in that part of the village most likely, because of the relief, to have escaped it. It may well have been due to excess rain and water-logging of the clay rendering the ditches inadequate. In the survey of 1316 a new place-name emerges, "le slo", the slough. It occurs in the

1 CCCC XXXV 121.
2 See Map 4, p. 19. TL 476653.
in the court rolls in 1328 and 1338. The last appearance noted is in 1401-02. Stopped watercourses become one of the main concerns of the fourteenth century court rolls in Landbeach, and this is so for both manors. There are, for example, fifteen reported at the Chamberlain's Michaelmas court of 1327, and fifteen more at Michaelmas 1375. Many intervening courts have still more.¹

Topographical evidence from in and around this area is highly suggestive of a major rise in the water-table sometime in the middle ages, and some of it can be related to fourteenth century documents. William Cole in his notes has preserved a record of a Tithe Dispute of 1315 from the now vanished Oldfield Register.² In this the Holme³ in Cottenham appears as Holmere, and is the termination of the Oakington Brook. In his evidence Dominus Robert uses the phrase, "... mariscum qui vocatur Holm". At this period the Holme had become a marsh, and from the spread of alluvium it would appear probable that this deterioration also caused the lower part of Oakington to be removed uphill; for the alluvium continues in a band on either side of the Oakington Brook, over the deserted ridge and furrow, croft and toft and house platforms, south of Water Lane. The name itself

¹ CCCX XXXV 121 2 Ed. III and 12 Ed. III; 124 3 Hen IV; 121 1 Ed. III and 44 Ed. III.
² BM Add.Mss. 5887, fol. 25 et seq.
³ TL 425670.
Diagram of some features

LANDBEACH
is suggestive, for it was obviously the main village street in the earlier middle ages. The clarity of some of the house platforms, where subdivisions of buildings can be discerned, suggests that they were abandoned without time to rob the materials. Scarcely any more residential building took place on these deserted sites until the twentieth century. Several of the nearby manor houses have moved uphill: Westwick Hall, Crowlands at Cottenham, and Histon manor: this general shift may well be associated with the same rise in the water-table.

The area of Landbeach immediately east and south of the cross-roads is low-lying and especially sensitive to such changes. In the Field Book of 1549 the first selion in Banworth's second furlong, next the first tenement by the cross-roads, is noted as "flud acre". This appears as "le fflodacre" in a court roll of 1362. Matthew Parker's endorsement of the College copy of the Field Book dates it as a gift made by the lords of the village on the 10th of March, 1313. Although there were Atte Flods in the Hundred Rolls the first mention of the tenement itself by name, "le ffloed", occurs in a charter of 1317.

1 See Map 3, p. 17 and Map 28; TL 476652.
In 1404-05 there is reference to a tenement lying "apud le fflood" which has no right of common. There would appear to have been some building here on the lords' waste by this date; apparently the waters had receded somewhat.

There is much less evidence on later changes. In 1518 a jury of old men claimed that the Lode was dug in the past for drainage, "... for at that time were more wetter and moist years than are now at this time." But the Lode was there in 1325 already, and the very name suggests that drainage was not its principal purpose. If it is impossible to refer this wetter period to any specific dates there is at least the survival of a folk memory of climatic improvement.

One might expect some reference to the general deterioration which seems to have been experienced towards the end of the sixteenth century, for which Shakespeare himself has provided much evidence. The nameless Balk of the earlier field books, which is now the Waterbeach Road, appears as "Flood Lane" in the Dukman Book's List of Tenements, but this is probably as late as

1 LPC, Field Book; CCC C XXXV 121, 36 Ed. III, Court Roll; CCC C XXXV 19, Charter; CCC C XXXV 124 6 Hen. IV, Brays Court Roll.
2 See Map 8, p. 40.
3 CCC C XXXV, 167; see also Dukman Book in LPC.
4 Wr. Pk. Ch., fol. 248 d. "Lode" in this area seems always to refer to a canal used for carrying barges.
5 LPC. See Map 3, p. 17.
1727. The great quantity of evidence dealing with drainage from the beginning of the seventeenth century is all from interested or hostile parties in the flurry of promotion of profit-seeking schemes.

In 1604 Richard Atkyns of Outwell surveyed the fens, and blamed any flooding in this area on defective drains, while at the same time he thought the banking and draining of Cottenham better than any other nearby fen town. In the Survey of 1618, Cottenham and Landbeach fens are suffering from water shortage in summer time "... by reason of their banking and draining of them of late time...". By Hayward's Survey of 1635-36 the situation appears to have worsened rapidly. Wherever direct comparison of the area of a fen is possible at two of the survey dates, it is much enlarged in the late one. For instance, Joist Fen in Waterbeach is 1200 acres in 1618 and 2200 in 1635. This could well be due to the failure to keep up normal drainage works during the anticipation of the new schemes being projected by Sir Miles Sandys, the Cromwell family, the Cutts and others. As much was suggested in 1620 when a petition was made that, "the undertakers may now be compelled to perform their part,

1 BM Harleian 5011, cf. CUL EDR A/1/8.
2 BM Add. Mss. 33466.
4 TL 515675.
or else abandon the project, since, in the expectation of it, the drainage has been neglected for years." Atkyns had seen an engine, presumably a windmill in action, draining at Over in 1604. There is the impression that a good deal of successful minor draining and embanking had taken place just before the documentation begins to become plentiful, but that its effects had been very short-lived. Probably provoked by wetter times, as so often in the fens where drainage produces peat shrinkage and so subsidence and worse problems, successful local schemes soon created greater difficulties than ever. From this time on it is the state of the general drainage schemes and the increasing tasks that they had to cope with, which seem to determine the general condition of our area far more than any possible climatic changes.

Darby has shown the eighteenth century to be on the whole a period of deterioration for the South or Waterbeach level. The evidence cited suggests that each change at Denver Sluice, (its building, blowing up, and rebuilding) made matters worse. He quotes Labelye to suggest that improvements, apparently so effective in 1743. (these may be attributed to the Act of 1740?), had been more than lost by 1745. Certainly the position after

1 CSPD 1619-23, vol. cxvi, No. 113.
2 BM Harleian 5011, fol. 41; cf. Draining, p. 114 n.
mid-century seems worse than ever. Darby quotes a traveller in 1763 reporting that in Cottenham in winter the water was constantly above the inhabitants' ankles in their houses. (an odd situation since there is a ten foot fall on the main street from green to church). Cole's famous remark in 1769 when his estate was drowned for the third time in five years, "Not being a water-rat, I left Waterbeach", is shown by Hills to have been occasioned by the blowing of the bank. Hills suggests that a very considerable effort followed the Act of 1740: two mills were swiftly erected and a third followed by at least 1766. The banks, on which the Bedford Level Corporation had spent very heavily in 1726-31, decayed very rapidly as they were used as haling-ways for the increasing barge traffic. The effort could not be sustained, and by 1795 mills were collapsing and banks washing away. The Act of 1797 which raised tolls on those using the banks, seems to have produced a dramatic improvement: five hundred acres of fen in Waterbeach reported by Masters in 1794 were reduced to a hundred by the time of Arthur Young's visit

1 Draining, pp. 124 et seq.; p. 130 and 153 n.
4 37 Geo III, cap. 88.
5 Short Account.
Enclosure was seen as a necessity in order to enable high enough taxes to be paid, so that adequate drainage works could be maintained. So it was a Drainage Act which enclosed Waterbeach and banned turf-cutting because of danger to the banks. A new mill was erected at Dowlode, forming a double lift. But steam-engine drainage was already being canvassed. This was now the only way of turning all the fens from summer grounds only, into reasonably safe arable. Smithy Fen Engine and Chare Fen Engine in Cottenham opened in the same year as Enclosure became effective there, and the fens were ploughed up. Even now very exceptional conditions can overwhelm the whole system as in 1938 and 1947, but such floods are temporary, and the peat is slowly but surely being used up or blown away....

2 Dowlode was in Stretham Parish.
3 See Map 2, p. 11. Now usually "Chear Fen".
The Settlement

Virtually all the villages of Cambridgeshire seem to have been established by the end of the Saxon period. Only one can be shown completely conclusively to be a post-Domesday foundation, Bar Hill, which was planted in the 1960's.

Our three villages appear in the Domesday as Coteham, Bece or Bech, and Utbech. The editor of the Victoria County History for Cambridgeshire was unwilling to positively identify Utbech as Landbeach and Bece or Bech as Waterbeach, although the descent of the manors in later times demands this. The reason for doubt was that Inbeche appears in later Ely documents, where it refers to Landbeach, and Reaney treated it as opposite to Utbech, although these names were separated, in different texts, from different periods. Ekwall interprets the Inbeche of the Ely documents to mean Beche inland as distinct from Waterbeach. This is not the opposite of Utbech, Beach out of the water, but another way of saying the same thing; out of the water and inland can obviously be equivalents. The changes in the water-table caused the replacement of the "out-of-the-water" of the post-Conquest period by the more appropriate "inland" in the improved conditions of the first half of the thirteenth century.

The first Saxon settlers came to an area which had been intensively developed by the Romans for the production of corn, hides and wool. Romano-British farm sites were so numerous that it would have been impossible for the Saxons to find a good spot in which to settle which had not previously been used by the Romans: land once cleared, even if it had reverted to scrub, would have been easier to clear again for the plough, than would dense forest. There is as yet no evidence to suggest that the Roman pattern of occupation along this part of the Fen Edge was other than small, separate family farms: the village proper seems to have come in only with the English. This seems, at the moment, an insuperable barrier to claims for complete continuity in the occupation of village sites here. With the larger social unit came more extensive fields, and a greater distance between centres of population. The rising of the water-table in late-Roman times would further have restricted choice, and enforced the use of only the higher Romano-British farm sites. By the time of Domesday there may well have been a larger population than in late-Roman times, but it was concentrated in far fewer places.¹

The whole question of the dating of the occupation of Cambridgeshire after the Roman period is still not satisfactorily solved. There is some evidence of very early pagan penetration, but none of the place-names are accepted as belonging to this same first phase. Oakington has what appears to be a very early cemetery, and in Waterbeach parish, on the banks of the Car Dyke, Lethbridge found what appeared to be part of a poor but again very early Saxon village. The question is further complicated by the recognition of the probability of some overlap between the Romano-Britons and the Anglo-Saxons in this area, as that for example suggested by the presence of Roman British grave goods in the pagan Saxon cemetery under Girton College.¹ Saxons may have settled here in Roman times. Unless the accepted theory of the place-name specialists is revised, we can at the moment only assume that there were two Saxon occupations of this area, before and after the great rally of the Romanised Britons in the first half of the sixth century. If this is correct, then our villages would date from the years after 550 A.D. for the first primary settlements.

Reaney interprets Cottenham as "Cotta's ham", which would be acceptable for the dating suggested above. There are a number of subsidiary Saxon place-names in the parish. Of these perhaps one of the more interesting is Alboro.² This in the seventeenth

1 VCH Cambs., vol. i, pp. 308-9 and Fig. 3; 313; 316.
2 Reaney, op. cit., pp. 149-152.
century is Awbrose, but in the middle ages Aldeburgh, Alburgh or Alborough. This refers to lands east of the village, arable, pasture and fen. One of the three great medieval fields is Alborowefeld. The "Old Burh" which the Saxons found was presumably a Roman site, more probably the one in the fen near the Landbeach boundary which was formerly called Awbrose, rather than that in Bullock's Haste as suggested by Fox. Reaney gives the derivation of Chear Fen as referring to the bend in the river. Setchell is derived from "Sedgehaw", sedge enclosure. Smithy Fen is the smooth fen, "marsh in smooth low-lying land". Conceivably this could be by contrast with the Car fen or the Frith Fen (overgrown fen), from which it had been improved by mowing. Reaney gives Saxon origins for two more names in this parish, Top Moor from "Taeppa's marsh" and Mitchell Hill from "Micel-leah", "large clearing".

The name Bech or Beche originally applied to both villages, Landbeach as well as Waterbeach, as it still does in the local vernacular. The prefixes Land and Water seem to have been a natural way of distinguishing them but the earliest recorded use is early in the thirteenth century. The accepted meaning of

1 CUL Queens', Crowlands, passim.
2 See Map 13, p. 86.
3 There are no early forms: topographically it would have made better sense as an -eg form: the largest of Cottenham's islands in its flooded fens becomes a hill after drainage: Mitchelley becomes Mitchell Hill. Similarly the name Elmeney now only survives as "Elm Hill", the name of a modern field. The map references for these sites are:- Bullocks Haste, TL 465703; Chear Fen, TL 490715; Setchell, TL 470710; Smithey Fen, TL 455705; Top Moor, TL 482689; Mitchell Hill, TL 477693.
Beche as "shore" is very difficult to reconcile with Landbeach. Ekwall rejects the possibility of Bec, "a brook" as a source on the grounds that the word so used is not found in this area.\(^1\) In fact the Oakington Brook in its earlier stages is known as the Beck Brook. Such a derivation was suggested for the name of the whole town of Beche in a rental of 1459, and the brook in question was identified in this document in the heart of the old village.\(^2\) But the Domesday term, Utbeche for Landbeach, where Waterbeach is simply Beche, again points to a secondary foundation, from the larger village.

The settlement pattern and place-names of this part of North Cambridgeshire encourage the view that the main villages in early times were the centres of arable cultivation, and that subsidiary centres developed out in the waste for the flocks and herds. From these secondary settlements, villages grew. The name Westwick (western dairy-farm) would seem to hint that it was the place where some of the animals from Cottenham were pastured; although it was a hamlet in Oakington parish, its associations with Cottenham were such that the Rector of the latter tried to claim the tithes in the fourteenth and seventeenth centuries;\(^3\) and it was entered in the Nomina Villarum as "Cottenham cum Westwick". The inhabitants

1  E. Ekwall, *loc. cit.*, Reaney, *op. cit.* (p.179) accepts stream or valley.
2  CCCC, XXXV, 150.
3  Vide supra, p. 15, and PRO E134, 18 Car 1, Trin. 4.
of Cottenham had intercommon rights in Westwick, as did the inhabitants of Westwick in Cottenham. Rampton had similar rights in Willingham, as had Over. The name Rampton suggests that it too was a settlement originally for sheep, and the four field system operating there on the eve of enclosure still depended on the manure of its extensive flock. Waterbeach, Thetford, and Stretham all intercommoned in Stretham marsh, "Thetford heyfen"\textsuperscript{1} in the angle between the two rivers, and the intercommoning rights held in reverse in Bech Fen. The area between Cottenham and Landbeach, the old moors, was an intercommon until 1235. The lords of Milton had common rights in Banworth Meadow\textsuperscript{2} in Landbeach right up to Enclosure. In the early phase of settlement the Vast fens must have been like space itself, finite but unbounded. The size of the fens relative to the arable of the islands and peninsulas probably made division often unnecessary, while the difficulty of marking boundaries through land subject to winter flooding helped to maintain a very complex system of inter-commoning. Miss Neilson showed this operating in even greater complexity in the Fenland proper where parish boundaries were often not drawn until the thirteenth century or later.\textsuperscript{3}

\textsuperscript{1} TL 330740.

\textsuperscript{2} TL 487645.

The parishes immediately south of the Old West River all have a share of fen contained in wedge-shaped boundaries. Waterbeach, Cottenham and Willingham all have the butt of the wedge against the river. The fens of Landbeach and Rampton are in the pointed end of wedges thrust in between these bigger neighbours, but they fail to reach right through to the river. There is an artificial straightness about their boundaries here. From their appearance alone one would suspect a deliberate division in which the old established villages managed to assert their prior claim and take the lion's share. The division between Cottenham and Landbeach took place only in 1235.¹

Some of the furlong names in the old open field of Banworth in Landbeach reinforce the suggestion that Landbeach was a subsidiary village for sheep: Lamcot and Hammys occurred side by side, suggesting a shelter for lambs and an enclosed pasture.² Banworth is on a welldrained gravel that was responsible for the excellence of the later Sheepwalks in Landbeach. The settlement would have taken place on what had once been cleared Roman fields, just to the east of the gault clay and its probably denser forest. The conditions of the later Roman period and of the post-Roman deterioration of the water table cannot have left much reliable dry ground suitable for sheep pasture any nearer to the settlement.

¹ Wr. Rk. Ch., 248 d. See Map 5, p. 32.
² LPC Field Book; cf. CCCC XXXV, 170.
at Waterbeach than this. These conditions drove a Romano-Briton to remove his house in Bullock's Haste on to the bank of the Car Dyke, and it is significant that Lethbridge found his Saxon huts on the bank too. Indeed, flood conditions, if they occurred in the early years of the Saxons at Waterbeach, might well have been sufficient in themselves to send the sheep off to the higher gravels of Banworth in Landbeach, in the shelter at the edge of the forest. A flood that lasted might well turn such a temporary refuge into a permanent subsidiary settlement. Space for plough-land would still have been available in early Landbeach when Waterbeach arable was inundated, and open field ploughing seems to have begun there on the higher ground above the village, the future Mill Field.

The development of Denney may well have been due to similar purposes. It was to Chittering, beyond Denney, that the Waterbeach swineherd in Tudor times was still leading the village pigs in their daily search for mast and grazing. Although Denney became a subsidiary centre of population (and as the documentary evidence already cited suggests, it was flood water that drove the monastery there), unlike Westwick, it never acquired its own open fields, and never became a separate parish. There was no great expanse of

2 See Map 17, p. 124 and Chapter II, p. 115 sqq.
gault clay stretching away above it, inviting clearance for strong corn-growing land, as there was at Landbeach. Denney with its Low Grounds was more completely invested by the dark fen waters in wet times than Waterbeach itself. Most of its gault lay towards the river, under the fen.

If the shape of the parishes can be used to find hints about the formation of the settlements, so too can the line of the boundaries. It is often argued that most parishes were defined by the end of the tenth century, tithes making such definition of great importance to the church. Where a parish boundary shows the characteristic irregular zig-zags of the ends of open-field furlongs, then it may be argued that this in itself shows that the plough had arrived there probably well before the Norman Conquest. In our three parishes the only parts of the boundaries which seem to come into this category are the southern boundaries of Landbeach which run out to the east and to the west of the Roman road. By the use of the Enclosure Award Map and the Field Book, one can produce a plausible correspondence of the irregularities in the old boundaries (there was some later simplification of the south-western corner) with the ends of furlongs in Mill Field and Dunstall Field. The curves of some of the short sections seem exactly designed to follow a pair of edges of a selion to the north

1 See Maps 6 and 7.
THE WESTWICK—COTTENHAM BOUNDARY

SOURCE: CUL-TITHE AWARD MAP for WESTWICK

Map 7
of them. In fact the old boundaries seem, for a great part of their length to be derived from the furrows of Landbeach ploughs. The abbutals of Mill Field are against the fields of Milton, Impington and Histon. Those of Dunstall are against Histon Moor, Bechmere and Tossolmere, or simply the Mere.¹ In the absence of any strip map one cannot develop the inference with much confidence that Dunstall field in Landbeach had necessarily reached this boundary at a very early date, and in view of the lateness of the settling of the boundary with Cottenham, there is still less ground for dogmatic assurance. The old boundary line taken alone would have suggested that after the full establishment of Mill Field, the fields of Histon outflanked this during a pause in the expansion of Landbeach in this direction, but were soon checked by the development of Dunstall which outflanked them in their turn.² There is no strip map of Histon to disprove this, but the revelation of the "mere" lying between the fields of Landbeach and Histon in this sector (as is quite clear and certain from the Field Book), makes such an argument from the nature of the boundary line alone quite untenable.

The ending of the open fields of Cottenham against the boundary with Westwick reveals an even more tantalising picture which invites an even more hazardous argument.³ Here the line of

¹ TL 455652 seems to be the approximate centre of the undefined mere.
² See Map 6, p. 35.
³ See Map 7, p. 37.
the boundary, at first glance, follows for most of its length the kind of smooth sinuous pattern associated with clearance up to a forest path. However, the ends of the furlongs as shown by the strip map show that the Cottenham selions did not continuously reach the road, but that along most of it there were left gores and irregular triangles of pasture, indicating clearly that the ploughs of Cottenham here came up against a frontier already defined. This road may well have been of very considerable antiquity at that time. Cole has preserved for us the evidence of a dispute of 1315 from the now lost Crowlands Oldfield Register. In this it emerges quite clearly that some of the Westwick selions (and possibly some from Cottenham) actually crossed the road. The relic of this can still be seen in the deviation of the parish boundary from the road near Holme Meadow.\footnote{BM Add.Mss.5887, fol. 25 sqq. TL 424667; see Map 7, p. 37.} What this case does decisively show is that the ploughs of Cottenham had certainly reached their furthest possible limits in this direction by the early fourteenth century. Here, then, the colonisation begun by the early Saxon settlers was complete by that date. The invasion of the Cottenham side by the Westwick ploughs suggests that the expansion of arable under the population pressure of the previous centuries, may have produced more vigorous results in some of the secondary settlements which had more room in the first flush of expansion, than in the primary villages, which had neared their limits.
Drainage and Watercourses

In 1618, in the middle of troubled times for the fenmen, the Commissioners of Sewers took another view of the state of the drainage. Edmonds reported:

The River of Ouse coming along by the Towns of Bedford, Huntingdon and St. Ives, and so passing down to his outfall at Lynn, is a goodly fair river throughout, but from below Ely downwards runneth with such a current that, as it is absolutely the best sewer of that country, so it is by the occasion of the great fall of waters thereinto, as well from the River of Grant out of Cambridgeshire as from the drains which run out of the Isle of Ely, much overcharged in winter and time of flood to the prejudice of the adjacent parts. For remedy whereof former times have provided some by sewers or slakers, and amongst other the West Water at Earith Bridge below St. Ives, to remove part of the overcharge of water and to ease the river where it is narrow and knare and the country apt to be overflowed, and so to carry it through the Isle of Ely though otherwise to their prejudice...

But as he further reported, the West Water was silted up (in fact it was on its way to extinction) and running back into the Ouse instead of relieving it; the outfalls were clogging, and the whole position was deteriorating fast.\(^1\)

\(^1\) PRO SP 14/99, No.52; quoted in Draining, p. 36.
The initial drainage from the uplands of the villages between the Ouse and the Cam is, for the most part, by short ditches running down the sides of the spurs, to the north-west or the south-east. These empty into the main drainage channels which flow with a slighter gradient, from south-west and south, to the north-east and north, at the bottom of the shallow valleys between the neighbouring parishes. Many of these main drainage channels are parish boundaries, and the aid given by the men of each parish by their ditching has aimed at getting the surface water to the boundary and on to the next parish as fast as possible.

The Cam itself, Beach Lode, Beach Ditch, and formerly the Oakington Brook, performed the double function of boundary and main drain. Part of the Roman Car Dyke, between Waterbeach and Landbeach had the same function, until Lode Ditch took over from it at Goose Hall. The old Cottenham Lode gave a similar outflow through the middle of Cottenham fens which lay remote from any boundary.¹

The Isle of Ely sits obliquely athwart the lines of natural drainage, and so the upland waters from the parishes between the two rivers must pass through the Ouse at Earith or the Cam at Stretham. Now controlled by sluices at either end, the Old West

¹ See Map 8, p. 40.
can flow in either direction. As well as water from Over, Willingham, Cottenham and Waterbeach, it takes the run-off from the southern slopes of the Isle on its northern bank. With its flat profile, the Ouse rises at an alarming rate in time of flood when the waters of the uplands of Bedfordshire pour in faster than the outflow can clear them. If the Old West and the Cam cannot then offer sufficient relief, the Ouse is likely to burst its banks and pour across the northern parts of the parishes which lie south of the Old West. If the banks of the Cam are in good repair at the time they are likely still to be easily holding when those of the Ouse burst. Although Waterbeach Fen has long been below the level of its immediate neighbour the Cam, it has been in far greater danger of flooding from the Ouse. On occasions the waters of the former, after pouring in spate through the Old West, have forced their way up the Cam towards Cambridge.

In this area, where the problems of drainage are so difficult, the maintenance of adequate flow so delicate, throughout historical times men have both improvised and patched empirically, and also projected and attempted ambitious

1 Draining, p. 275, quoting Dugdale's Diary, 1657, mentions the sasse, or sluice.
2 BM Harleian 5011, Richard Atkyns' Survey, 1604.
3 Draining, p. 124, quoting Badeslade.
CHANGING WATERCOURSES

Lockspit Hall

Former Merc

Cottenh &'V Beach Points

Pre-Enclosure course -

The Waits

New (from Oakington Brook)

COTTENHAM

WATERBEACH

LANDBEACH

Lode Ware -

and Downenslade

Cockis Bridge

Shawes Weights

NEW COTTENHAM LODGE

DISTURBED COURSE

EXTINCT WATERCOURSE

Car Dyke

New Cottenham Lode

Old Cottenham Lode

Diversion into Beach Ditch (1846)

Diversions or Cuts of Natural Watercourse ;—

1 100 + A.D.

2 Ante 1058

3 1845

KEY

Scale 1/4

Mile

Map 9
schemes. It is now scarcely possible with certainty to distinguish many of the waterways as natural or artificial. Gordon Fowler identified two portions of extinct watercourse in the area from an examination of the soils and levels. The first was the old course of the Oakington Brook before its waters were led off by the New Cut in Cottenham Lode,\textsuperscript{1} at the Cottenham Enclosure. Its former course took a wide detour through North Fen.

He also noticed a roddon in the north-east corner of Cottenham Parish, which swung round in a quadrant to the east and ended in the peaty soil of a former mere.\textsuperscript{2} From the evidence of the map and from soil marks, this appears to have been the end of the former course of the ditch that runs along the boundary of Cottenham and Histon, the medieval Claidich.\textsuperscript{3} This ditch has now been diverted at right angles to join the Beach Ditch, but its former course appears to have continued straight along the line of modern field boundaries and the line of a field path, to cross the road from Landbeach to Cottenham a few yards to the west of the present Steeplechase Drove. Black soil marks indicate some of its meanders through the low

\textsuperscript{1} TL 445685 see Map 8, p. 40.
\textsuperscript{2} TL 505710 see Maps 8 & 9, pp. 40 and 45.
\textsuperscript{3} TL 450657.
ground alongside this drove northwards towards Long Drove. On the Fen Office Map\(^1\) and the First Draft Enclosure Award Map\(^2\) there is a long thin tongue of wet fen through which this former watercourse flowed. It then seems to have followed the line of the sinuous section of the present Chear Fen Engine Drain, and so on to Gordon Fowler's roddon.

The first interference by man to this natural watercourse appears to have been the cutting of the Car Dyke at the beginning of the second century of our era. This passed through the gravel watershed near Mitchell Hill where this watershed came closest to the old watercourse.\(^3\) The key to the design of the canal was probably the water supply from this natural watercourse to the highest central section of the Car Dyke.

Gordon Fowler showed that the Old West River from the Hermitage Sluice at Earith\(^4\) to Lockspit Hall,\(^5\) was for the most part the old Roman Car Dyke, but from Lockspit Hall to Stretham was the course which the flood waters carved for themselves when the Roman engineering collapsed. The Car Dyke connecting the Rivers Ouse and Cam appears to have been cut to enable the produce of the rich fen edge, grain, hide or wool, to be transported by

1 CRO R59/31/40/1.
2 CRO 152/P9.
3 TL 478688.
4 TL 395747.
5 TL 462713.
inland waterways to the northern garrisons at Lincoln and York. Its value as a drainage channel is extremely doubtful as it led water from the less dangerous Cam to the more dangerous Ouse. In the later years of Roman rule when it was re-constituted by Diocletian or Chlorus, it could conceivably have functioned to some extent as a catch-water drain. But cutting across the natural flow of drainage to the north and east, it would have left an inheritance of trouble for medieval man. The main medieval lodes and ditches of the area restore the natural direction of drainage, but only at the cost of cutting through the Car Dyke.

The very name, Car Dyke, is eloquent as to the condition in which the Saxons found it, one of complete neglect and decay. Car, as in car fen, means overgrown with rushes, reeds, shrubs and small trees. But some of the medieval names which still survive, Waterbeach Tillage, Landbeach Tilling, Rudiche (Rowditch), Eldelode, suggest that lengths of the canal were still operative, between portages that replaced decayed locks. The Fen Office copy of Atkyn's map of 1604 shows a section of the Car Dyke serving as a stretch of the old Cottenham Lode. But Graham Clark's excavations showed that it had ceased to be a continuous canal shortly after 360 A.D. The second cut through the now extinct

1 CRO R59/31/40/1.
watercourse was the Old Cottenham Lode, which may have used a section of the natural stream as it used a section of the Car Dyke. Cottenham Lode was functioning when William the Conqueror besieged the Isle of Ely, for he used it as the assembly point for his invasion fleet before the assault:

"Congregari enim tunc preceperat rex naves usquequaque et cum nautis ad adventum ipsius in Contingelade occurrere, ut collectam illic aggerationem lignorum et lapidum ad Alreithe transferrent." ¹

The editor of the Liber Eliensis gives a comparative footnote from the Gesta Herewardi:

"Et omnes piscatores provinciae cum naviculis ad Cotingelade adesse iussit". The name "Cottenham Lode" as used in Hayward's Survey of 1635-6 clearly does not refer to the present watercourse of that name, but to the part of what is now Chear Lode between Beach Points² and the Old West. In a final concord of 1235 which authorises the digging of the Beach Ditch, this latter is to terminate in the middle of the angle between Beach Lode and Cottenham Lode, i.e. at Beach Points. There are repeated medieval references in the Court Book of Waterbeach to Cottenham Lode as the boundary between Waterbeach and Cottenham. There are frequent presentations of the town of Cottenham for either failing to scour it, or for putting the scourings on the Lady's soil, i.e. upon the Waterbeach bank. In 2 Hen VI the homage testified "that the town

¹ Liber Eliensis, p. 185 & fn.
² TL 495698.
of Cottingham, by reason of their tenure and ancient custom, ought to scour the ditch called Cottingham Lode." They also testified that the scourings had been put on the Lady's soil by leave of the previous Abbess. Further they declared that any beasts crossing the Lode should be impounded. Under 14 Ed IV appears, "That the town of Cottingham ought to make a certain ditch called Cottingham Lode, being within Chitteringe and Cottingham Fen, and have not done it. Therefore the town fined iiij s. iiij d. and appointed to amend it by a day, sub pena xl s." It is thus quite clear that Hayward's usage is the old one, and that the eastern bank of this part of the old Cottingham Lode constituted the parish boundary; the ditch itself was included in Cottingham.

This is still the situation to-day at the only place where these parishes are contiguous, between Beach Points and the Old West River. The difference is that the ditch here is now called Chear Lode, the present Cottingham Lode entering the Old West River much further to the west.

There is little doubt on the other hand that that section of the present Cottingham Lode which comes closest to the village was part of the old watercourse of the same name. Behind the old Rectory, immediately across the road from the Church, is a grove.

1 WPC vellum bound volume entitled, Court Rolls of Waterbeach cum Denney, hereafter referred to as WcD.
of trees called "The Waits". Through this Grove and the Rectory garden runs a sunken path leading to what is now a dry pond. This pond and path were recognised some years ago by Dr. Peter Eden as a turning point and cut for barges. It is common in the fens to find a stone church built on the first firm ground at the end of a Lode. The Waits were the unloading point for large stones still when the Crowlands manor house was being re-built in the mid-fifteenth century, even though the house was some distance away, nearer the centre of the village. The Waits were still the terminus of the Cottenham Lode for the stone-carrying barges. The earliest datable stone work in the fabric of the church is re-used and of Norman workmanship. The Lode cannot have been of Roman origin, since it would make no sense at all in the Roman scheme as it must have cut right across the Car Dyke, the main local artery of that system. It could conceivably be a product of the Dark Ages or the later Saxon and Danish periods, but what evidence there is suggests that it was yet another of the early Norman Lodes cut to import stone, in this case Barnack from Northamptonshire, for church building.

If both ends of this earlier Cottenham Lode can be identified with reasonable precision, the rest of its course is a good deal less clear. Since air photographs have as yet failed to show more

1 TL 454688.
2 CUL Queens', Ad 8, 33-34 Hen VI: "... cariagio magnarum petrarum a lez Weightes..." The whole of this box of rolls does not appear to have been noticed by Miss Page, and would have almost closed her longest gap in the series of Collector's accounts.
than the slightest hints of possible short sections the probability is that its path is involved with earlier or later landmarks. It is quite possible that the ditch running to the east just south of Alboro Close Drove, (along the line of the older Alboro Close Drove of pre-enclosure times) represents a section of it. The more sinuous section of Chear Fen Engine Drain, itself part of the original now extinct stream, would most easily and logically have brought it towards the junction at Beach Points. Part of the Car Dyke itself might well also have been included as the easiest way to cross the watershed without extensive excavation, excavation that would have left visible traces to-day. The 1727 copy of William Hayward's map of the Fens of 1604 shows a section of the Car Dyke apparently so used.¹

The complete extinction of this watercourse would have come with the diversion of its headwaters into the ditch between Histon and Cottenham, and so into the Beach Ditch. From the Draft Map for Cottenham, this would appear to have been the work of the Enclosure Commissioners.

¹ cf. p. 46 above. See Map 9, p. 45. The section is TL 470700-478688.
Both Beach Ditch and Beach Lode are identified in the Final Concord of 1235 mentioned above.¹ This was an agreement between all the lords and freeholders of Cottenham and those of Landbeach to divide the inter-common area between them by a ditch and hedge ("haya"). This area at that time consisted of "marisco et pastura". The lane alongside the Beach Ditch is still called Hay Lane,² and the remnants of the hedge are still there along its southern portion. This dates the creation of the Beach Ditch, but Beach Lode was already there since the ditch was to terminate in the middle of the angle between Cottenham Lode and Beach Lode.³

This Lode continues the first two sections of the Tillage, i.e. the Car Dyke; it gives direct access to the Old West via the old Cottenham Lode; and it forms part of the parish boundary between Waterbeach and Landbeach. It also has a southern extension in Landbeach Parish, running conveniently down the eastern boundary of the village tofts, past old unloading places in front of the Rectory Great Barn, and near the cross-roads, to join and continue Banworth Ditch. A westerly fork, Lode Ware, around the Meadow Croft, ends in what, until very recently, was a large square pond, Down Fens Lade in Tudor times, and more recently, Town Pond.

¹ Wr. Fk. Ch. Fol. 248 d.
² TL 464665-459662.
³ Beach Lode appears to be the Lode referred to in the description of Cottenham Fens in the Hundred Rolls. Rot. Hund. vol. ii, p. 411.
Two sixteenth century documents reveal a tradition of the digging of the Lode, and identify some of the features. The first is from Dr. Nobys' original Laying Out and Ditching of the Frith Fen:

"That the old men, inhabitants of Landbeach, say and depose upon their conscience, that a certain ditch called Lode Ditch, lying between the High Fen and the ground of Denney, stretching from the south-west corner of Denney Closes, by the side of the said High Fen, of Landbeach unto the north-east corner of Frith Fen, was never scoured nor made of duty, nor as no defence lawful for any cattle between ground and ground; but the inhabitants of Landbeach made the ditch at their own liberty and will to drain their common pasture from water falling and draining into Tilling, and so from Tilling to run forth into the Fens in the aforesaid ditch called Lode Ditch; for at that time were more wetter and moist years than are now at this present time." 1

The court roll evidence, however, makes it appear that the Lode did have to be made up of duty. At the Chamberlains manor court in 1359 the Master of the College, Thomas de Eltislee, and three of the principal freeholders are presented for failing to clean "le Loode inter mariscum ville et mariscum ville de Waterbech". 2

But this suggests that the duty did not fall on the villein tenants necessarily: it may only have been the lord and some of the freeholders with rights in it as a waterway who were responsible for its maintenance. This would not prevent the ditch being important to the village from the point of view of drainage as well, although the name Lode itself suggests that the primary purpose of the ditch was to carry barges.

1 CCCXXV 167, Landbeach Tilling was the section of the Car Dyke which passed through Landbeach Fen.
The original copies of the Field Book of 1549 carry a note on the ditches of Landbeach:

"The ditch lying on the north quarter of the Frith Fen is called Landbeach Tilling, the said ditch lying between the Frith Fen and the High Fen, otherwise called the Common Fen.

Item, the ditch lying on the east quarter of Frith Fen reckoning from the Barrs otherwise called prynceall, towards Landbeach till ye come at Lode Ware over Down Fen Slade is called the Lode, and so forth to Madcroft the ditch is called the Lode or the Common Drain, and from thence it goeth to a place sometime called Cockis Bridge, and from thence to Shawes Weights. The said cocks bridge is nigh to the common plot that is at this present in the town's hand. Shawes Weight is as well lying on the backside of Thomas Ward's house betwixt the said house and his little grove." 1

Clay could not believe the tradition that boats had come up the ditch and unloaded on the common, not believing that they could get so high. But although the old pond is largely filled in, the squareness of its northern bank clearly shows the remains of an old Hithe. Thomas Ward's house and little grove place Shaw's Weights at the extreme southern end of Banworth Ditch. It may well have operated only during high spring water, as apparently did the Abbot of Crowland's dock at Cottenham. Lode Ware may have been the summer port, and the only unloading point for heavy draught barges carrying stone. 2 All the building stone to be seen in the village is concentrated between the Church and this point. Thus this may be yet another lode originally dug

1 CCCC XXXV 170, p. 130. See Maps 8 and 9, pp. 40 and 45.
2 ECA pp. 438 and 443.
for building the first stone church in a parish. Most of the other building stone in Landbeach, in the foundations of Beach Farm and the walls of the garden enclosures nearby may have been robbed from the foundations of the Manor House. Some show calcining as if it belonged formerly to a building destroyed by fire. The water gate of the manor, probably the apron in front of the main door of the present Rectory Barn, would have been the handiest unloading place for both Church and manor, but probably could only be reached by the narrowest barges of shallow draught. Thomas de Eltislee was presented for blocking the ditch here, at his own court in 1367. After this the water gate fades from the records, and no manor house seems to be standing here.

The major change in watercourses in the early modern period, the construction of the present Cottenham Lode, is less well attested, and much less well documented than the abortive schemes of the same period. As has been shown, Atkyns' identification of the Cottenham Lode in 1604 clearly applies to the old course to join the Beach Ditch, but he also describes Robins Lode as the boundary between Setchell and Michelee. This is the course of the present Cottenham Lode. At some later date the subsidiary lode must have taken over the name as well as the function of its predecessor. It would certainly have offered advantages in being

1 CCC XXXV 121, 41 Ed. III. TL 477655.
shorter with less difficulty of relief to contend with, and so easier for maintenance. At the Parliamentary Enclosure it was straightened and shortened further by the making of the New Cut.¹

The early years of the seventeenth century saw a series of schemes for improving the drainage and navigation of the Ouse and the Old West. Sir Miles Sandys, who had considerable landed interests on both sides of the river in Willingham, Haddenham and Wilburton, was deeply involved both as a landlord and as a Commissioner of Sewers. The construction of Bathing Bank aroused violent controversy between Over and Willingham, since insofar as it protected the latter it increased the pressure higher up on the former.² Sir Miles went to the length of attempting to revive labour rents in order to put pressure on his Willingham tenants, but in the part of the area covered by this study all these attempts seem to have come to nothing in the end. Such improvement as there was seems to have come from the general draining further north and the patching of local works from time to time.

The problem the Drainers had to contend with at the beginning of the seventeenth century is outlined in Atkyns' Survey of 1604.³

1 TL 455690.
3 BM Harleian, 5011, fol. 23 et seq.
In Waterbeach he reported of Midload: "This fen is embanked round about, and no sewer or ditch passeth through it, yet many years it is long drowned by reason that Ouse (over Joist Fen and Chittering) holdeth the water up."

Of Joist Fen:

"The South end ... is used much for turbary. It may easily be defended from Granta but it is commonly drowned by Ouse overflowing Chittering." ... "West of Midload Fen and a part of Joist Fen, there lie certain low grounds by the skirt of Beach Field, between the field and the fen, about 200 acres by estimation, which be often drowned, partly by the downfall for want of a sewer, and partly by water breaking in out of Joist Fen ditches at low places, even when Joist Fen itself is not overflowed, which I think soon done."

If the north fens of Waterbeach were in this bad state, Cottenham fens, which stood between Waterbeach and the source of the trouble, (the Ouse waters) were not much better: "Cottenham Fens be all embanked, and good provision made to convey their water more than any other fen town hereabout hath, yet are these banks in many places defective insomuch as Chear Fen lieth oft and long drowned, and overfloweth into Chittering." He found all the fens between Cottenham and Rampton as far as Aldreth Causeway, "All pitifully drowned with every little water, and standeth long here, by reason of the high land.... in Cottenham and the bank of Chear Fen and other fens, which lie between these fens next Rampton and their

1 TL 513663. See Map 23, p. 233.
Plate I.

BM Add. Ms 33466, fol. 305v. These rough sketches on the back of the record of the Commission of Sewers of 1618 are apparently attempts to illustrate the proposals to straighten the Old West River and to cut a catch-water drain parallel to it. The writing reads:

Haddenham side.
Twentypence Water.
New Drain forty feet from the river and twenty feet wide.
Cottenham side.
outfall." One of the greatest sources of the trouble was a weir at Stretham, and "a gravel\(^1\) laid by Stretham men to cart their fodder out of Willow Fen, where the water runneth not above two feet deep, a great cause of drowning of these fens."

For the next twenty years the solution for this area was looked for from scouring the rivers and removing all impediments, straightening their courses, and adding catchwater drains north and south of the Old West. By a law of Sewers of 1608 Sir Miles Sandys and Sir Richard Cox were given power to perfect all the Commissioners' Works in Cambridgeshire and the Isle of Ely, including "full liberty and authority for the cutting, digging down, pulling up, carrying away and clearly avoiding the great obstacles, annoyances, lets, impediments, encroachments and hindrances into and upon the River of Ouse and Grant."\(^2\)

Proposals scouted in this period involved three possible new cuts: one was simply to straighten the Old West by cutting off the bends north of Setchell Fen. Both better drainage and improved navigation were put forward as justifications:\(^3\)

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1  The term "a gravel" is applied to an underwater path of small stones, often artificial, to create a ford or towpath.
2  BM Add. Ch. 33806.
3  BM Add. Ch. 33107 and Add. Ms. 33466 fol. 26. See Plate I for the sketch plans on the back of the report which appear to have been made during the discussions, p. 59.
"Certain sudden crooks, turnings and windings of the river of Ouse, especially between the fenny grounds of Cottenham and Wilburton, being observed by his Majesty's Commissioners of Sewers in their personal view and survey of the said river ... to be not only very dangerous unto navigators and watermen in times of storms and tempests, but also great and notorious hindrance to the fall and descent of the waters ..."

A new cut at least four feet deep and twenty feet wide was proposed, "... Beginning at the upper corner or crook of the said river, and extending from thence line straight to the lower corner or crook thereof, containing in length about eight furlongs, and at or near a place called Twentypence Water ..."

This scheme was made on 30th May, 1618, at a session of Sewers at Wisbech. Its scope was increased later in the year at a General Session of Sewers at Peterborough on the 20th August:

"The channel of the River of Ouse, between the manor of Cottenham in the County of Cambridge and Wilburton in the Isle of Ely being utterly insufficient to convey the winter waters which necessarily must have their fall by the same towards the sea, and thereby causing the said waters to swell and surround, as well the marshes belonging to the said towns, as the rich and fertile grounds lying near about the same...."

A new Sewer was to be "... tiked out and made at the costs and charges of the owners, farmers inhabitants and commoners of Cottenham ..." It was to begin,
"at the bridge in Audrey Causey being next southwards from the place where the Great Bridge lately stood, and to be carried through the fens and marshes belonging to the said town of Cottenham to fall into the said river of Ouse, Provided always that the said sewer be cut and made in all places throughout the track thereof full forty feet distant from the river of Ouse ..."

This seems to have been an attempt to provide a straight by-pass and catchwater drain along much of the south side of the Old West. The other proposal, which is drawn out in the map in the Book of Sewers in the University Archives, showing "Mare Gores and the New Intended River", was designed for the same purposes along the whole of its length to the north.

These schemes seem to have been initially opposed by the local inhabitants on various grounds: that the old drains were sufficient if the inhabitants of the Isle would clean theirs; that any expense was unnecessary, and that they had never before paid for works in the Isle; the towns south of the Old West were higher than the level in the Isle "where the new Drain is begun, every sudden flood being usually fallen again into the said river before it be come to the place where the new river is begun ..." Waterbeach folk were especially suspicious: "And do therefore desire that such new inventions may be forborne, for fear of danger yet unknown that may happen thereby, than any

1 CUA Sewers, L. 80. See also Plate I.
2 cf. BM Add. Ms. 33466, "Mere Gore being an ancient sewer."
good like to succeed." Further, it was clear that if anyone benefitted, the greatest beneficiary would be Sir Miles himself, the only commissioner with interests south of the Old West. They feared that the scheme was "partially set for private men's good, and not public nor according to equity." ¹

The map in the University Archives, ² although accurate neither in scale nor direction, seems to refer to all the schemes for this area being discussed between 1608 and 1619, including Sir Miles Sandys' proposed New Cut through Bathing Bank in Willingham. It also shows an enclosure of a hundred acres of common for Sir Miles. Under such circumstances even a much milder people than the "Fen Tigers" would have been suspicious and violent. Sir Miles changed his tactics from threats to blandishment, and in 1613 we find him offering to pay any charges levied upon Cottenham for the ditch below the Isle. ³

But the opposition went on. In 1619 at a session of Sewers at Peterborough it was reported, "The commoners cry out not to have their commons taken away." ⁴ In 1622 it was complained against the Drainers, "Their schemes are impracticable; fens were made fens and must ever continue such, and are useful in multiplying fowl and fish, producing turf, etc. ... The people

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¹ cf. Edmond in SP 14/99 no. 52.
² Plate II, p. 62.
³ BM Harleian 5011, 14r.
⁴ CSPD 1619, no. 104.
think the Undertakers will work by witchcraft, no persons of experience supposing their designs possible."

1 In time the King became personally concerned: "The King found that the multitude of the Commissioners preferred their little benefit before the general good, and did but perplex and hinder the work." His taking over the draining for his own good only made matters worse. The local popular champion did better: "It was commonly reported by the commoners in the Ely Fens and the Fens adjoining, that Mr. Cromwell of Ely, had undertaken, they paying him a groat for every cow they had upon the common, to hold the drainers in suit of law for five years, and that in the meantime they should enjoy every part of their common." 2

The power of the University, backing those interested in navigation on the Cam, defeated the drainers of this period (1618-35). In the University Book of Sewers there are complaints that the New Cut at Stretham would drain the Ouse (i.e. the Old West) in summer, taking away its waters and those of the Grant too fast. 3 The Vice-Chancellor is found in 1618-19 putting the claims of navigation against the demand for removing gravels, since they help to keep enough water for the Cam to remain navigable in summer. Barges were supplying sea-coal, wood and

1 CSPD 1622, vol. cxxviii, no. 105.
2 CSPD 1631, vol. clxxvii, no. 76.
3 CSPD 1631-33, vol. cxxx, no. 51; quoted in Draining, p. 56.
4 CUA Sewers, L 80. 1. 1618.
sedge, from Lynn, Ely and the Fens. The Colleges had changed to sea-coal because of the high price and scarcity of charcoal:
"so as most colleges are driven to use sea-coal provision for their meat, as well roast as boiled, which in former times they were not wont." ¹

"If navigation be taken away (which is feared) the university cannot subsist and this point being heard before King James it was made a matter of state, and that no sufficient security could be given on this thing. Whereupon it was ordered that no new cuts or drains should be made upon the rivers of Grant or Ouse without the express consent of the Vice-Chancellor." ²

This seems to have been enough to stop all new drainage in our area, and to concentrate attention further north for a century. Only after the success and decay of the Great Drainage, did new schemes begin to be made for our three parishes in the mid-eighteenth century. The function of the watercourses as drains, had, for the time, given way to the needs of navigation.

¹ CUA Sewers, L 80.3; cf. Wells op. cit., vol. ii, p. 92, 1618.
² CUA Sewers, L 77.77d. Undated, but probably 1618–19.
Communications - Waterways

Water was not only a problem: it was also the great means of communication in the area for most traffic from early medieval times until well into the nineteenth century. In earlier days the Romans had their main supply artery by water in the shape of the Car Dyke, and waterways appear to have been in full operation in early Norman times. Only the coming of the railways killed them.

The great monastic houses of the fens had their own systems of communications by water, and without this, and the access which it provided to markets, the "federated grain factories, producing largely for cash" in the days of medieval high farming would have scarcely been possible on the same scale. It is not without significance that three of the fairs with the greatest international importance were on the main barge-ways of the fens: Sturbridge, St. Ives, and Boston.

The Ely Old Coucher Book shows villein carrying services by water from Willingham to Cambridge, Earith, Aldreth, Somersham, St. Ives, Doddington, Ditton and Ely.\(^2\) In the exceptionally

\(^1\) M. M. Postan, 'The Chronology of Labour Services, TRHS 4th ser. (1937).
\(^2\) CUL EDR. Liber R; RN. Cotton Claudius cxi; Gonville and Caius College, MS, No. 485/489.
detailed entry in the Hundred Rolls for Long Stanton, Henry de Cheney's villeins are carrying the lord's corn for sale at Cambridge and the market town newly planted by the de la Zouches at Swavesey. In 1316 in Landbeach the villeins of Agnes de Bray are required to provide a rowing service for both passengers and freight to Ely, Wisbech, or elsewhere. Transport is required for the lord, lady, their children, servants, their bailiff and their attorney. Corn and other necessities must be fetched or carried.¹

This water-traffic, on some of the feeder canals at least, seems to have been seasonal. In the demesne leases for Oakington and Cottenham by the Abbot of Crowland in 1430, the malt rent has to be delivered on the Feast of the Purification to the Abbot's barges (naviculae = narrow barges of the Fens?) at Cottenham, "tempore competenter dum aqua habundaverit fieri poterit". There is a penalty clause so that if delivery were late "ita quod Cariagium ipsius abbatis per decrementum aquæ perturbatur et aretro fuerit in parte vel in toto ..." then the tenant would have to be responsible for the whole carriage right to Crowland at his own cost.²

¹ CCCC XXXV 146.
² ECA p. 443.
The little information that we have about this traffic in the early middle ages comes from lists of villein duties, but it is probable that professional watermen were also operating: a charter of 1352 mentions an Isabelle le Maryner who had lived up against the great bank in Waterbeach. Perhaps even then there was some equality of opportunity for women among the bargees. ¹

The forinsec tenants in Chesterton from Landbeach and Waterbeach mentioned in the Hundred Rolls of 1278-79 look as if they were taking commercial advantage of the river, their little holdings in Ditton being convenient to their homes by water. A few years earlier, the carrying services to Fen Ditton in the Ely Old Coucher, suggest that the Abbot may have been using his manor there, near the great Sturbridge Fair, as a depot.

Navigational hazards could come from other uses of the rivers. The Commission of Sewers 1616-7 ordered the cleaning of the Old West to its former bottom and the removal of "all wares, damms, driftways, passages, gravells, slamps, slakes, cradgings, hills, houses, encroachments, and all other letts and impediments hindering the fall of the waters within all the aforesaid limits of Ouze."² One of the gravels in question had been put by the men of Stretham to enable them to get to their inter-common grounds south of the river. But if too large an

¹ CCCC XXXV 41.
obstruction would impede navigation, complete clearance might be even worse: Sir Clement Edmonds reported in 1618

"the said river of Ouse from Huntingdon to the High Bridge at Ely was generally foul and overgrown with woods (sic), stopt with weirs, and against Ely (as in other parts) made shallow by gravel and fords (which they call hards) and in reason ought to be removed from the opening of the river and readier passage of the water in time of floods: yet it was generally acknowledged that the removing of these impediments, especially near about Ely, would take away all navigation and passage by boats in summer time, to the great prejudice of the University and Town of Cambridge ..." 1

The fenmen had adjusted their way of life so well to their environment that no change at all could be made without upsetting some cherished arrangements. Atkyns in the same year is reporting complaints from places that lay up-river from Willingham, that the embanking of this parish, especially the construction of Bathing Bank, was depriving them of the relief which they previously had when the flood waters had poured across Willingham lands.

"Between Clayhive and Cambridge there be certain sand beds and shallows in the river, which if they be removed the passage would be the worse, by means the water which is limited by the going or not going of the mill, would, when the mill stands, fall so fast away as there would not be left any store sufficient for navigation; so as the defect is in the want of water from Cambridge; which though these gravels hold up what they can, except the mills go, none but small boats can pass: and sith the water of Cambridge River cannot any way be increased by adding of more, men must fashion their vessels to the water, and not the water to every vessel." 2

For a moment in one short stretch of the Cam, then, navigation was dependent on the drainage to supply the water, and not its rival.¹

The barge traffic drawn by horses wading in the Cam along the Backs was not quite extinguished in the early years of this century. But the effectual death blow had been dealt long before when the railways opened. R.L. Hills, in Machines, Mills and Uncountable Costly Necessities,² has a graph which shows a dramatic rise in the tolls immediately after the Eau Brink Cut was made, and an even more dramatic fall to well below the original levels after the railways were built. Swavesey is an eloquent visual monument to the change: the old docks were cut off, and decayed; the new dock across the railway line became a deserted reed bed. The speed of the railways opened a vast market in London and the Midlands to the perishable produce of the fens. Here barge traffic could not possibly compete. Thus the old commercial arteries of the Fens became little more than drainage channels, often neglected and silted up in their connections to the villages.

¹ The matter quoted in the above paragraphs is taken from S. Wells, op. cit., vol. ii, pp. 92-94.
² p. 63.
Communications - Roadways

If the waterways were a great asset to the fens and to the fen edge, they were never the only means of communication. The old way from Cambridge to the Isle of Ely can still be traced, and where it passes through our area under discussion here, can still, for the most part, be walked by the hardy. Gun's Lane from Histon forms half of the boundary between Cottenham and Westwick. Now narrowed down to a parallel sided bridle-way, and almost impenetrably over-grown, it was once the great medieval Via Regia of North Cambridgeshire. It ran along a drift-way past Cottenham fields, and continued across the road from Westwick to Cottenham along the way now called Cuckoo Drift, to Rampton. Here it is now a green passable bridle way except for the last section into Rampton, where it turns into a nettle grown path, much encroached upon. From Rampton it runs as another greenway, Haven Drove, to Belsar's Hill and Aldreth Causeway, and so, by Aldreth High Bridge, into the Isle. The dating of this track still awaits more expert study: it may well prove to be prehistoric: chance finds suggest an intense concentration of neolithic and Bronze Age settlement along the lower reaches of the Cam, and such a route would link this area to the other trackways on the bluff of Castle Hill above Cambridge. The

1 See Map 10, p. 72.
Junction would be where the only known Iron Age settlement of any size in this area has been discovered.

Belsar's Hill is even more mysterious than the track itself. In form it is a simple round earthwork fort with a single ditch and rampart. Selions, showing a clear, medieval aratral curve run inside its banks, putting its origin back at least to the early medieval period. If it was once a simple Iron Age ring fort, subsequent modification must have closed the entrance. The Iron Age ring fort at Arbury, south of Histon, may well have guarded the other end of the same route. The map in the Book of Sewers in the University Archives associates Belsar's Hill with William the Conqueror¹ as do Atkyns and Dugdale. This would seem to have been the local tradition before antiquaries of the eighteenth century introduced Belisarius by fanciful derivation from the name. The name, Bellassise,² in its old form as it appears in the Hundred Rolls, seems very like a bad joke of Norman French soldiers who suffered duty there. Even if it was in part an older structure, the probabilities are that it was used by the Normans. It is one of the possible identifications for the Conqueror's castle of Alrehethe.

1 Plate II, CUA Sewers, L.80. See p. 62.
2 Reaney, op. cit., p. 174.
The relative importance of this route is shown by the fact that it normally had a bridge in early medieval times when the other navigable river-crossings in the area, except those at Cambridge itself, had only ferries. In fact it had a long causeway and a series of small bridges as well as the High Bridge itself to cross Willingham fens and the Old West River. In 1278-9 the bridge had been broken for some sixteen years and a substitute ferry was running:

"Dicunt quod calcetus et pons ALDERHETHE est regalia via et fuit fracta et dissoluta jam per sexdecim annos elapsos et debet reperari per Episcopum Eliensem et per tenentes suos et ibidem passagia per battellum fuit et homo transiens cum equo dedit pro passagia suo (sic) obolum et homo sine equo quarterium", etc.

They said that the causeway and bridge were then repaired anew by the Bishop. ¹

The other river crossings, Twentypence, Stretham Ferry, and Clayhithe,² were without bridges. One might have expected Stretham Ferry to have had some importance as the river crossing of the old Roman road from Cambridge to Ely, but much of this road north of the village of Landbeach was probably under water in medieval times as it was in the eighteenth century. The Cam was the preferred highway.

² Twentypence, TL 480711; Stretham Ferry, TL 502722; Clayhithe, TL 503643. See Map 11, p.76.
Communication between the villages was of lesser importance than communication to and between the fields and the houses and yards at the centres of the villages. The inter-village roads seem to have been best when intercommon rights necessitated regular passage. This affected the routes between Oakington, Cottenham and Westwick, and Cottenham and Rampton. The former had a timber bridge, and the other a causeway as well as a bridge.\footnote{Westwick Bridge, TL 419652; Rampton Bridge, TL 433679.}

The centralisation of the Crowland Cambridgeshire courts at Oakington, and the administrative economy represented, for example, by the employment of the Vicar of Oakington as buyer of building materials for both Cottenham and Oakington at the Cambridge fairs, made the Westwick connection of especial importance. The repair of the bridge there figures prominently in the Crowland accounts for Oakington.\footnote{CUL Queens', Cd 26a, Cd 63.}

Where the surveys for enclosure make it clear, gravelled surfaced roads appear in this area to have been confined to the village centres and to those ways which led from them to the middle of the fields only. From then on there appears little to distinguish most of the main roads out of the villages from the web of green ways, balks, doles or droves so characteristic of open field agriculture. The main road from Landbeach to Waterbeach appears simply in the Field Books as an unnamed "balke".
Waterbeach, owing to its fenny nature, was again different in needing special communication causeways between its various parts. There was a short causeway from the village to Clayhithe, the Dele causeway, and two longer ones to Denney and Elmeney are still in use as main roads, and at the end of the longer, the farm is still called Causeway End. In the vernacular the causeway's name is "stunrud", the stone road.

Few schemes of road improvement before enclosure in the area are documented. An exception is the Cambridge Ely Turnpike Act of 1763. By this time carriages had become the sign of pretension to gentility, and the river journey from Cambridge to Ely seemed rather unfitting to the dignity of the Bishop and his fellows. The route chosen took the "right-hand" way from Milton through Landbeach, ignoring the village centre and the southern part of the Roman road, until it took up the line of the latter at Goose Hall. Before it crossed the Landbeach-Waterbeach Road, it followed an old field path through Banworth Meadow in Landbeach. This had never been a right of way, and the Field Books jealously record it as "semita ex permissione". Thus the route was longer than it would have been through the centre of Landbeach. It brought undesirable traffic and possible thieves to the least guarded extremes of Landbeach commons. To both insult and injury were added demands on the parishioners to maintain the road by parish labour.

1 3 GEO. III cap. 36; cf. 5 GEO. III cap. 79. The preamble to the second Act shows that flooding was still rendering the road impassable.
When Masters' legal battle against parish labour appeared to have been successful, another Act was passed, into which a clause was inserted without the knowledge of the interested party in Landbeach, and the parishioners found themselves faced with a doubled demand for parish labour as well as tolls when they were going about their traditional ways in the fen.¹

At the enclosure of Landbeach the Commissioners intended to improve the Roman road from the Impington-Milton highway into a carriage road, but this was never carried out. In 1854 Worts' Trustees, as lords of the manor of Brays, called a public meeting and floated an appeal to carry out such improvement by voluntary contributions from interested parties. Only the Rector of Landbeach, John Tinkler joined them, contributing £60. The Trustees gave something over £500, and the road was improved only from Cockfen Lane end to the farm houses. The rest of the road, the Mereway, still remains an overgrown green track, passable when not too wet.

The Parliamentary enclosures of the three parishes were occasions for considerable straightening and improvement of internal parish roads.² Difficulties were greatest in Cottenham

¹ LPC Collectanea.
² Landbeach, 47 Geo. III, sess. 2, cap. 55, 1807.
Waterbeach, 53 Geo. III, cap. 107, 1813.
Cottenham, 5 Vic. sess. 2, cap. 3, 1842.
The Awards are dated 1813, 1818, and 1847 respectively.
fens where the extent of the ground to be divided up meant that considerable stretches of new permanent road had to be made on peaty foundations. Jacob Sanderson remembered the difficulties:

"For the first few years the roads were in a bad state. In the second spring we were set with only a plough in the cart with two horses; could not turn round; slid the plough to Top Moor; had to draw the cart backwards to the Poplar Tree; from that to the Engine Drain. Put 1300 loads of gravel besides bushes and straw! 1

Enclosure and the metalling of the roads meant a concentration on fewer and better. Much of the Roman road in Landbeach, and the old Cambridge Way from Waterbeach to Milton, were ploughed up, while the improved Turnpike carried the traffic of both of them.

1 Notebook. Top Moor, TL 482685."
Communications - The Railway

The Great Eastern Railway line, which opened in 1845, put Waterbeach directly in touch with the London market.¹ When Clay wrote in 1859 he recorded that a hundred gallons of milk went daily to London. But the smaller market gardens relied much more on the local market at Cambridge. Local carriers collected (and still do) garden produce, no matter how small the quantities, left out for them by the producer, and in due course returned the payment. This scheme, simplicity itself for the grower, has enabled small-scale garden production to continue as a practical commercial proposition through all the farming depressions since Clay's time.

The fruit growers of the three parishes found a local market of increasing importance to them after 1870, when the Chivers family began to make jam in a barn in Histon. The growth of the firm meant there was always a market of last resort, but it was not the place to expect high prices as small growers competed with professional buyers in fixing the prices of very perishable goods. The railway connections to London and the Midland industrial areas offered a more profitable opportunity, and

¹ VCH Cambs., vol. ii, p. 132.
around 1900 a scheme was afoot to connect Cottenham to the railway at Oakington by a single-track light railway. If carried out this would have made a great difference to the appearance of the village, as the track was planned to run right down the main street, negotiating corners by crossing over the full width of the road and back. The motor-car soon made this scheme unnecessary; demanded metalling which drove the mud from the village streets; and brought the intrusive dormitory estates from Cambridge, which are slowly engulfing the old villages.
In his thesis on *The Open Fields of Cambridgeshire*, M.R. Postgate made a survey of the fields on the eve of Parliamentary Enclosure, and showed a very complex picture which seemed to bear little relation to traditional views on the pattern of Midland open-field farming.¹ For the county as a whole it appeared that the final result was the outcome of two opposite movements, the creation of new fields by assarting, and the absorption of such fields into a regular cropping system. In earlier years assarts and fields multiplied, but as the plough neared the boundaries of potential arable fewer fresh ones could be created, but assimilation still continued. On the whole the earliest documents suggested that two and three field systems, like those of the Midlands, were common, but later evidence suggested a proliferation of fields, which were in turn somewhat reduced in early modern times. But there were numerous paradoxes which cast doubt on the neat simplicity of the explanation offered. For instance, the Ely Old Coucher Book for Willingham suggested what appeared to be an orthodox three-field system in 1251, while Fen Ditton apparently had something much more informal with sixteen fields listed.²

² BM Ms. Cotton Claudius CXI; Gonville and Caius College, Ms. No. 485/489; CUL EDR Liber R. The copy in the BM is the best.
Yet on the eve of Enclosure a three-field system was operating at Fen Ditton and what Postgate interpreted as six fields at Willingham.

Postgate based his thesis mainly on the lists of names of fields which he gathered from a vast amount of material, especially terriers. Its validity depended very much on the meaning or implied meaning of the terms used in the documents. The Berrycroft in Willingham was counted as a field because it appeared in a terrier as "Every year land", but crofts attached to manor houses or peasant houses, and cropped on completely separate individual lines, have always been accepted as running alongside open-field systems.¹

Recent local research has increasingly exposed a further difficulty: terriers, particularly terriers contained in indentures, frequently contain far more field names than are recognised by contemporary eyewitness descriptions of the local farming practice.² With this in mind, it seemed worth while to examine all the written and visual evidence for a small area, relating the names to the detailed topography and the development

¹ e.g. CCCG XXXV 121 mentions "three stretches of croftland". Berry or Bury is common in this area for crofts by manor houses or for the old sites of former manor houses. (cf. CUL Queens', Ad 26, 25 Henry, Abbot, duas buttas t're arabil' in croft'.)

² Perhaps nowhere more clearly than in Dr. H.M. Spufford's essay on Longstanton for the Nichols Essay Competition at Leicester University. I am most grateful to Dr. Spufford for lending this work to me.
of the systems of cultivation. For the three parishes chosen, Postgate found on the eve of enclosure, five fields at Cottenham, four (formerly five) at Landbeach, and eight at Waterbeach. This seemed to offer a good opportunity for testing his hypothesis.

Part of Postgate's argument depended on the assumption that when an improved assart was brought into the common cropping scheme of the arable, a field name would be lost. But as long ago as 1897 Maitland had shown that this was not necessarily so: when discussing the Cambridge East Fields he showed that the four fields, each with its own distinctive name, cropped as three, those on the extreme north and south running together as one.  

Field names need to be examined both in their relation to the local topography and to the cropping system before we can discover the pattern of arable farming.

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The Open Fields of Waterbeach

For the arable farming of the open fields in Waterbeach, Postgate's method now appears to have suggested complications which were absent in practice. The three-shift system which Maitland found in the four Cambridge East Fields seems, on closer examination, to have been very like that which operated in Waterbeach from the early thirteenth century right up to the Parliamentary Enclosure of the nineteenth: three shifts only, in spite of more numerous field names.

Field names for this parish have been examined from medieval charters, from extracts from the now vanished court rolls of Denney and Waterbeach, from the series of Glebe Terriers and terriers of Glebe lands, from the papers in the tithe dispute in the late eighteenth century between Masters and Standley, and from the Award Map and Schedule of the Parliamentary Enclosure in 1813. When carefully examined all this evidence is congruent with the observation of Vancouver; "The common husbandry of two crops and a fallow prevails in this parish...".

1 Charters in Liber Eliensis as detailed below; extracts of court rolls, WPC, WcD, supplemented from Cole Mss, 5837; Glebe Terriers in WPC and CUL, EDR H1/5 & 6; Masters vs. Standley in CUL EDR A 14 and WPC; Enclosure Award and Map CRO Q/RD 28 and Q/RDc 31; C. Vancouver, A General View of Agriculture in the County of Cambridgeshire (1794), p. 129.
In his list of open fields for Waterbeach, 1638-1813, Postgate gives: (1) Bannolds Towne, (2) Denney Bannoll, (3) Haverstock Towne, (4) Denney Haverstock, (5) Winfold Town, (6) Hill, (7) Fannes Close, (8) Hall. These names are apparently taken from the glebe terrier of 1638, where they are used as sectional headings, but the other sectional heading, Cambridge Way Furlong, which Postgate omits, seems to have equal status in the original with the other field names. This is also true of the terrier of 1661 which has the same names, in the same order. The version of 1704 lists only six fields: (1) Denney Field, (2) Haverstock Field, (3) Winfold, (4) Bannold Field, (5) Mill Field, (6) Hill Field. The next is undated, but internal evidence suggests that it comes from about 1715. It reverts to the seventeenth century list, but changes the seventh to Cambridge Way Field Furlong, thus confirming that this was intended as a field name. Masters' terrier of 1765 uses six field names as sub-divisions of the arable: (1) Bannold Town Field, (2) Haverstock Field, (3) Winfold Field, (4) Mill or Hill Field, (5) Denney Bannold, (6) Cambridge Way Field. In case this should suggest a mid-eighteenth century simplification of the field system, it should be compared with a terrier in Matthew Parker's Field Book for Landbeach. Near the end of the book is "A Rental of the copy called Cheryntons in Waterbeach for the arable land only," dated 1580. This sets out

1 LPC, Field Book.
the lands in four fields only: (1) Hylle filde, (2) Have stack filde, (3) Winfold fylde, (4) Bannold filde. The equivalence shown by Masters between Hillfield and Millfield is confirmed by the topography and local vernacular: the only hill ever mentioned by the older inhabitants of the parish in the area where the open fields once lay is Mill Hill, and it takes the eye of a native of the fens to detect the slight rise in the ground so named.¹

A glance at the map² shows that Denney is in the north of the parish, in fact beyond the north end of the arable, and Waterbeach town in the south. Thus "Denney" as an epithet bears the meaning "north" when applied to arable, and "town" or "home" means "south". The local usage thus has a means of adding precision to location of pieces of land, particularly within Bannold and Winfold fields: in the rest of the arable, which does not stretch so simply north and south, but rather curls around the west and south of the town, such finer definition seems more effectively given by changing the name instead of the epithet. The naming of sub-divisions was intended to help exact location of pieces of land, not to represent a cropping system.

¹ TL 492653.

² See Map 14, p. 88, "Waterbeach: Open Fields".
The earlier medieval evidence, consisting of charters from the twelfth and thirteenth centuries, has something of the simplicity of Vancouver's statement quoted above. In 1176 or earlier Robert Chamberlain gave to the Benedictine cell at Denney certain lands "in villa de Beche... ix acras, in unoquoque campo iij". Aubrey Picot's gift carries a similar phrase, "scilicet duas in unoquoque campê". In 1207, when the Templars had taken over the abbey from the Benedictines, a grant to them was recorded as nine acres in Wulfholes, two acres and a half in Rudichefeld, and two acres and a half in Baneholefeld. If Rudichefeld means Row Ditch Field (i.e. the Old Tillage or Car Dyke) the outlines of the three fields as identifiable later, were already established. Winfold on the west and Bannold on the east ran north from Waterbeach village towards Denney. The third field ran south and east from Winfold common, past the mill and its hill, along the back of the peasant crofts that lined the road, across the old Cambridge Way, to the site of Waterbeach Abbey (Hall Field or Close), and so to the Great Hollow. Any of these features could have given a name to the field or part of it: at some time or other each one did so.

The bulk of the medieval evidence, consisting of extracts from the court rolls of Waterbeach cum Denney, offers a great profusion of field names. These extracts are copies in a much later secretary hand, and since Cole seems to have had access to another fuller version, may well be copied from another copy rather than the lost originals. Some of the variations in spelling, which shade off into separate names, may thus be the result of multiple transcription. But even after due allowance for this, there is still considerable variety.

### TABLE I

FIELD NAMES IN THE COURT BOOK OF WATERBEACH CUM DENNEY

<table>
<thead>
<tr>
<th>Ed</th>
<th>Field Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>III Hawfield</td>
</tr>
<tr>
<td>21</td>
<td>III Hillfield</td>
</tr>
<tr>
<td>22</td>
<td>III Crosse Field and Baneholes</td>
</tr>
<tr>
<td></td>
<td>&quot; Crosse Field</td>
</tr>
<tr>
<td>27</td>
<td>III Croft (?) Field</td>
</tr>
<tr>
<td>28</td>
<td>III arable mentioned in le Holough</td>
</tr>
<tr>
<td>31</td>
<td>III (Cole) field of Banehale, Wolfhale Field, Halough Field</td>
</tr>
<tr>
<td>36</td>
<td>III le Melnefurlong, Letlewayfurlong, Overshuttefurlong</td>
</tr>
<tr>
<td>46</td>
<td>III Crosfield (x3), Croftfield (x2)</td>
</tr>
<tr>
<td>48</td>
<td>III 1 acre in inlond</td>
</tr>
<tr>
<td>49</td>
<td>III Wolfollfield</td>
</tr>
<tr>
<td>5</td>
<td>V Wynfollfield</td>
</tr>
<tr>
<td>8</td>
<td>V Banall, Hillfield, Hallfield</td>
</tr>
<tr>
<td>9</td>
<td>V Hillfield</td>
</tr>
<tr>
<td>4</td>
<td>VI Bannallfield</td>
</tr>
<tr>
<td>5</td>
<td>VI Cambridge Field, Hillfield</td>
</tr>
<tr>
<td>7</td>
<td>VI Joyn Field, Croft Field</td>
</tr>
<tr>
<td>9</td>
<td>VI Croftfield, Waterbeach Field</td>
</tr>
</tbody>
</table>

1 WPC, WeD.

2 BM, Add. Ms. 5837.
11 Hen VI Bannallfield, Hillfield, Fourthfield, Croftfield abutting on Hall Close

14 Hen VI Croftfield
18 Hen VI Croftfield, Bannallfield
6 Hen VIII Bannallfield
7 Hen VIII Wolfhaven
13 Hen VIII Wynfield
15 Hen VIII Bannallfield
16 Hen VIII Hallfeldstoke
18 Hen VIII Croftfield, Bannallfield

"mention of a messuage with land in three fields of Waterbeach
" Bannallfield, ... in the field near Halfwaystoke
" Halfwaystoke Field, Bannall Field, Wynfold Field, Cambridge Field

"Bannallfield
" Wynfole Field
" Halfewaystoke

In this period "near Cambridge Way" appears frequently instead of a field name.

38 Hen VIII Cambridge Field (x2)
1 Mary Bannallfield
10 Eliz Cambridge Field, Bannallfield
13 Eliz Wynfold Field
14 Eliz Haleswysake, Cambridgeway
6 Jas I 12 entries: Hillfield (x3), Haverstock (x5),
Bannallfield (x7), Wynfold (x4), Cambridgefield (1)
10 Jas I Winfold (x2), Cambridge Way (x3), Bannold (x2),
Haverstock (x1)
11 Jas I Cambridgeway (x2), Mill (x1), Haverstock (x3),
Wynfold (x2), Bannall (x4)
13 Jas I Hill, Wynfold, Haverstock
6 Chas I Bannall, Haverstock, Wynfold.

(Note: (x2) means two entries this year; etc.)
(Cole) means in Cole Mss but not WcD).

As far as these field names can be identified they reveal a marked difference in usage from those of the terriers. The earlier Baneholes and Wulfholes appear clearly in their transition to the
Bannold and Winfold of the last days of the open fields, but even at the end of the court book the designation of areas within these fields (Denney and Town), which we found in the terriers, is absent. But the old third field of the charter, Rudichsfeld, is absent except under the names of some of its constituent parts or alternative names. Some of these names disappear, like Croftfield which vanishes in the reign of Henry VIII, and may well have been replaced by the alternative "Cambridge Way Field", since this way ran between the crofts and the Hall Close on which Croft field in part abutted. The great rival to Cambridge Way as a field name, Haverstock, also makes its appearance about the same time, in the form, Hallfeldstoke. The Halough Field mentioned under 31 Ed III would again appear as an alternative since the Great Hollow forms the southern boundary of this third arable field. In the dispute between Masters and Standley, Middle Field was given as an alternative to Havistock, but both survive as useful place-names into the Enclosure Award, when they seem to have helped the Commissioners to give precise locations without the use of furlong names. In fact the Commissioners omit the general name, Havistock, in favour of the names of the appropriate sub-divisions, Middle, Mill, Cambridge Way and Hall Fields.¹ These areas were extensively sub-divided for the allotment, but

¹ See Map 14, p. 88.
Winfold Field went entirely to the lord of the manor and its sub-divisions were not used, although both Denney Bannolds and Home Bannolds appear in the Schedule.

Further evidence on the open fields of Waterbeach comes to light in the tithe action brought by Robert Masters against Standley, lord of the manor of Waterbeach cum Denney, from 1765 on. Robert Masters had the instincts and habits of a scholar, as his history of the college, his brief description of the parish of Waterbeach, and his collectanea in Landbeach Parish chest prove. He was also cantankerous and litigious. One of the results of this not uncommon combination is a very useful collection of historical material which he prepared for this tithe action.

In appraising the value of the lordship crops for tithe purposes, he gives us a four year cropping sequence:

<table>
<thead>
<tr>
<th>Year</th>
<th>Bannold</th>
<th>Denney West</th>
<th>Denney East</th>
<th>Low Grounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1760</td>
<td>W</td>
<td>B</td>
<td>W</td>
<td>0</td>
</tr>
<tr>
<td>1761</td>
<td>B &amp; P</td>
<td>WM &amp; P</td>
<td>B &amp; P</td>
<td>0</td>
</tr>
<tr>
<td>1762</td>
<td>-</td>
<td>W</td>
<td>B &amp; Bns</td>
<td>0</td>
</tr>
<tr>
<td>1763</td>
<td>W</td>
<td>B &amp; P</td>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

(W = wheat, B = barley, P = peas, 0 = oats, Bns = beans, M = mixed corn.)

1 R. Masters, *The History of the College of Corpus Christi and the Blessed Virgin Mary, commonly called Bene't, in the University of Cambridge* (1753); Short Account; LPC Collectanea, a manuscript book containing an impressive collection of transcripts and some original documents relating to the history of Landbeach.

2 WPC, copy in Masters' hand of a letter from Mr. Jas. Day to Mr. Philip Burton, Attorney at Law.
Here at least is a core of an open three field system, cropping on lines that might, with its fallows bare, have seemed ultra-orthodox and old-fashioned in the fourteenth century. The Low Grounds, sown with oats every year varied from 17 to 31 acres in this period. The higher and more reliable demesne arable (for Waterbeach) amounted to:—

<table>
<thead>
<tr>
<th>Field</th>
<th>A</th>
<th>R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bannold</td>
<td>81</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Denney West</td>
<td>64</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Denney East</td>
<td>98</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Total Lordship arable</td>
<td>243</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Although the evidence of the Glebe Terriers and court rolls might make us reluctant to believe in any systematic rotation of open-fields in Waterbeach, the Petitioners' Proofs submitted by Masters against Standley leave us in no doubt. They also highlight the uselessness of counting open fields by counting names. Brigham's evidence was clear:

"... that in the said parish there are three common fields and that it has been generally usual to sow two of these fields with corn and grain, and for the other to lie fallow alternately." 1

1 CUL, EDR, A 14/1; WPC, Masters vs. Standley bundle.
His father had farmed the lands of Denney Abbey, and Brigham
gave the names of the fields as Winfold, Havistock or Middle, and
Bannall. It appears certain from the acreages that he quoted
that his 'Winfold was Masters' Denney West, and his Havistock
or Middle was Denney East.

In his deposition, Wiles mentioned "three common fields of
Waterbeach, called Bannall Field, Havistock Field, and Winfold
Field." But later on when he described Peck's Farm, he said that
it was "about seven score acres of land lying dispersedly in the
three common fields of Waterbeach, called Cambridge Field, Hall
Field and Mill Field." His description of the cropping fully
corroborated Brigham's. Remington gave the same names to the
fields as Brigham. Peck did likewise when he began his evidence,
but in the course of it he spoke of Bannall, Havistock and Middle.
All their evidence was in agreement as to a three-field system:
it was only at variance in the use of alternative proper names.
The witnesses, when making their first considered statements
invariably used the names of the great fields of the three shifts,
Bannal, Winfold, and Havistock or Middle, but two of them slipped
into using lesser names when led by lawyers. This should be a
very cautionary example when so many of the documents from which
we draw our knowledge of the open fields, come from lawyers.

William Hall, a Commissioner of the Waterbeach Level as well as
a farmer, refined the description of the cropping, as first year wheat, second year barley, and the third year fallow. Peck gave the size and composition of his own farm, about 172 acres arable, 41 pasture, and 93 meadow.

The evidence in this case, not great in quantity, has produced seven of Postgate's field names, but it has also shown conclusively that these seven names did not mean that there was not a recognisable three-shift system operating in the parish, and it is interesting to see that Hall, a local substantial farmer, thought of its cropping in the simple terms of wheat, followed by barley, followed by fallow, when Masters' Tithe Appraisal showed more variation in practice.

The open fields of Waterbeach formed an arable core to the cultivation of the villagœ land. From the late twelfth century right up to the Parliamentary Enclosure in the early nineteenth century this was worked on a three shift system, and those concerned with its working thought of its arrangement as lying in three fields. Two of these field names remained constant, merely suffering normal corruption with age, while the third underwent several changes. The constancy of the system over so long a period is surprising in face the risks of flooding: in
1770 Cole wrote, "This is the third time within six years that my estate has been drowned, and now worse than ever."¹

The open fields contained all the regular arable. Outside this there were areas of special risk where attempts could be made to snatch a quick spring-sown crop if the ebbing away of the winter waters of the fen seemed hopeful. But these areas, Denney Low Grounds, severals in the Hollow, and later the Drainers' Grounds,² could never be incorporated into the regular field system of the permanent arable.³

The proliferation of field names in Waterbeach can hardly have been due to assarting in the way Postgate's thesis would have suggested: furlong names would have a much stronger claim to this, and many of the field names appear far too late for such an explanation to be plausible. The simplification of the field names which Postgate thought would come about after the imposition of a cropping scheme did not happen in Waterbeach even after an

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² Short Account, p. 2, mentions the Drainers' Grounds as illustrating this point: "... from time to time let out as Severals by the Corporation to such as are disposed to become adventurers in that way; for the undertaking is rather hazardous, they being liable to be drowned by breaches of banks from inmoderate rains, in wet years ... The severals are sometimes ploughed, and bear very plentiful crops of Oats, Colesseed and Flax."

³ For a fuller discussion of these lands see Chapter IV below.
unconscionable time. But two problems still seem to call for further attention: the differences in treatment so often accorded to Havistock Field compared with the other two; and the differences in the usage of field names between different classes of document.

Bannold and Winfold, even in their earliest form Baneholes and Wulfholes, seem so much a pair that they may well represent an earlier two field system, but if the difference in the treatment of the third field originated in this way (and there is nothing in the earliest evidence, the charters, to suggest that it did) such a simple historical explanation can hardly account for its persistence. The reasons are more probably topographical. We can scarcely claim that its systematic cultivation was more liable to disturbance from flooding, even though its southern reaches must frequently have been under threat from the waters that inundated the Great Hollow: Bannold was even more vulnerable. Topographically Havistock was the most varied field, containing much of the highest as well as much of the lowest arable in the parish. This may well have made it especially attractive. It had further virtues in that, compared with the others, it could be reached by very short journeys from many access points in the west of the village where the greater number of peasant crofts seem to have been concentrated.
A disproportionate number of the court roll entries which give rise to field names refer to tiny fragments of land in this field, not often balanced by equal amounts in the other fields. Still more signs of the activity of the peasant land market relate to scraps of land in various conditions in the Hollow. The bulk of the Waterbeach peasantry seem always to have had only very tiny arable interests which can only have been supplementary to their main sources of income. For them a scrap of land in Havistock would have been far easier to work than one in Denney Bannolds or Denney Winfold, and would have been in every way more desirable. The multiple names seem to correspond to something like miniature natural regions from the point of view of this type of peasant.

The different systems of nomenclature in the different classes of document seem to be a simple reflection of the purposes of those who drew them up. In the Glebe Terriers the parson wanted to establish a precise claim to scattered pieces of land, hence the breaking down of the field names into smaller areas for more accurate location. The operation of the peasant land market discussed above would often call for even more detailed definition, and so account for the even greater number of names in the court rolls. The charters were concerned with early attempts to endow a monastic house with a viable estate and so emphasize the equal
distribution of the land between the three main fields. For tithe the parson was concerned with the crops of all the fields, and so the documents bring out the collective system of common-field agriculture very clearly. We can almost see Masters sitting in his Landbeach study and viewing the fields of Waterbeach in his imagination, producing his own system of description, Denney West for Winfold, Denney East for Havistock, and Bannold. This is hardly a good piece of topography, but it served his purpose, the assessment of all the crops on the Denney Abbey estate in the open fields.

The use of field names in the different classes of document, taken together and in context, have much to tell of the way in which the system operated, but the indiscriminate listing of names is confusing at best and at worst misleading.
The Open Fields of Cottenham

Cottenham is the only one of our three villages for which we have strip maps. The Map of the Pratt Estate in Cottenham has recently come into the County Record Office, and there also is an excellent first draft of the Enclosure Award Map. This indicates every strip, as distinct from selion, at both ends and middle, and, except for one small area, gives each a reference number. Surprisingly few strips consist of more than one selion, and so this definition is extremely detailed. Fields are clearly named, and their boundaries distinguished in red, but unfortunately the furlongs bear no names, and many are sub-divided by ditches, similar to boundary ditches. Copies of Alexander Watford's Terrier survive for at least two farms, one the largest in the village. This gives the reference numbers to each strip and so enables most of the furlongs to be identified by name on the map.

At the time of the Enclosure Cottenham's 1576 acres of arable lay divided into five open fields, Church Field, Dunstal Field, Farm Field, Further Field, and Two Mill Field. In the Middle

2 See Westrope's Year Book - Cottenham, 1913; the other belongs to Mr. M. Haird of Cottenham, to whom I am indebted for the loan of this and other documents.
3 Act of 1842, 5 Vict. sess. 2, cap. 3, and Award 28th October, 1847.
Ages there had been only three, Aldeburghfeld, Foxholes, and Lowfeld or Loumilnefeld. These are recognisable under various spellings in the Crowland court rolls until after the Abbot gave up demesne cultivation in 1436. 1 The transition from three to five fields proves exceedingly difficult to date. Various documents, taken together where some of them alone would be misleading, enable us to trace the five fields back to the reign of Edward VI.

1. The Pratt Map shows: Church Field, Dunstall Field, Farm Field, Foxall or Farther Field, and Two Mill Field.
2. Glebe Terrier 1780 mentions: Two Mill Field, Church Field, Dunstall Field, Fern Hill, and Foxall Field.
5. Rectory Terrier, 1630: Fearne Field, Two Mill or Bannill Field, Church Hill, Church Field, Dunstall Field. (The Lots are listed with the arable here.)
6. Award in Chancery, 1596: Dunstal Field, Foxall Field, Ferne Field, Church Field, Farm Field.

1 ECA, pp. 240-43, and 442 sqq.: ECA 336 has three examples of half-acre holdings lying in three places each.
Without careful topographical identification of the names listed it is again very difficult to see a five-field system running through the whole of the period covered by the documents cited. The confusion between Further Field, "ferne" in Middle English, and its neighbour Farm Field, has been too much even for the Ordnance Survey, which amalgamates them still in its latest edition as "Further or Farm Field". Church Field appears in all the documents: the fourth and fifth lists, more concerned with full listing of property than with cultivation, detail separately Church Hill, that part of the field detached to the west by the northward encroachment of the village on to a series of furlongs. Only the Crowlands Admission omits Dunstall, but it gives a Mill Field as well as Loumilne: there was another mill in Dunstall as well as the two in the field usually described as Two Mill. The Rectory Terrier of 1630 gives Bannill as the equivalent of Two Mill, the name of a furlong serving as an alternative field name as it does in the Glebe Terrier of 1638.

1 CRO R61/5/1; 2, CRO Cot C 35, 1; 3, CRO Cot C 31/7; 4, CRO Cot 6 35.1; 5, CRO Cot C 35.2; 6, Common Rights, 7, CRO LL/198.
The omissions of Further or Foxall field from the Terriers of 1630 and 1638 seem to be accounted for by the note in the Glebe Terrier of 1780 that there is no Glebe in Foxals Field. The Lyles Lane Field mentioned among the Chantry lands in 1549 appears quite clearly from abuttals to lie in the northern part of Two Mill Field. The omission of any mention of Two Mill Field from the 1596 Agreement is simply because that document was concerned only with closes, and the only close in that field, Pelhams Close, lay between the field proper and the village, and needed no field-name to identify it.

The absence of glebe from Further field suggests that this, as its name implies, the remotest from the village, was assarted last, after the glebe was complete. But this south-western expansion of the arable had reached the parish boundary before 1315. In a tithe dispute in that year between the Vicar of Oakington and the Rector of Cottenham, witnesses not only asserted that butts existed on both sides of the way dividing Westwick from Cottenham, but that certain selions from Cottenham, as well as some from Westwick, crossed the road. This strongly suggests that the change from three to five fields must have been the result of re-arrangement rather than fresh assarting: Cottenham

1 BM Add. Mss. 5887, f. 25 sqq.: Cole's transcripts from the now missing Oldfield Register of Crowland.
ploughs were already up against the fen and the parish boundary.
The only possible place for expansion would have been on the
eastern fringes of Dunstall in the marginal lands where the now
extinct watercourse had been diverted. Here the Terrier of
Chantry lands of 1549 mentioned Hemp Lands both inside and outside
the field boundary. But the cutting of the watercourses, by
disturbing natural drainage, may have made defensive operations
necessary here in order to hold the frontier with the fen, and
keep what was traditionally arable. There certainly was considerable
drainage activity here in the late thirteenth century, with no
apparent expansion of the fields as a result.¹ This could have
been the beginning of the general deterioration of the water-level,
and if so, the mid-sixteenth century may well have been a suitable
time for the re-conquest of ploughland lost to the fen, but if so,
it cannot have been on a large scale given the topography of the
area.

It is possible to identify the general lay-out of the
Cottenham fields in the middle ages, and so to see the nature
of the subsequent re-organisation. Foxholes is identifiable by

¹ CUL Queens' Cd 5, 1282-3 (or 1283-4 in Aston's dating),
mentions a hundred perches of new ditches at "le Estlondes",
and Cd 3, 1285-6, accounts for making of ditches towards the
"more". For the stability of the demesne area see Page
op. cit.
Foxholes or Godfrey's Close,\(^1\) and the survival of its name on the
Pratt Map, as embracing the south-eastern sector between the Histon
road and Westwick Way. It cannot in medieval times have included
the south-western sector across the Westwick Way as this clearly
belonged to Loumilne Field. Loumilne was the mill in Westwick
hamlet in the parish of Cakington, and the Cottenham field named
after it must have reached the Westwick boundary.\(^2\)

The three medieval fields would have been divided from each
other by Westwick Way and the Histon road; Loumilne on the West,
Foxholes to its east, and Aldeburgh Field to the north of Foxholes
and the village. To form five fields from this, Aldeburgh Field
divided into Church Field and Dunstall Field, along the line of
its central way; Farm Field was created from the northern part
of Foxholes; the remainder of this, now called Further Field,
gained the southern part of Loumilne Field; and the northern
part of the latter became Two Mill Field.

The difficulties in reconciling the variations in the
documents with the same field system between 1549 and Enclosure
seem to spring from two main sources, the custom of using the
name of a part, a furlong, for the whole field when a preciser

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\(^1\) Or Foxholes Close, TL 430653.
\(^2\) CUL Queens' Dd 1: William Pepys, senior, testified in court:
"molendinum de Loumilne ... quod molendinum, ut dicitur, est
infra limites parochiales de Hokyton." cf. BM Add. Mss 5887,
loc. cit.
location is wanted, and the survival of the traditional names in popular usage even when field boundaries have changed.

The name Foxholes, whose survival from the medieval system to its successor makes the dating of the change so difficult, lasted so well probably because of its descriptive powers: its southern boundary is still the most likely place in the area on a quiet evening for the sound of a fox's bark.

There are hints in the field names of some of the nearby villages of two field systems which developed into three. In nearby Oakington, Osmoorfield (or the Moorfield) suggests addition to the earlier pattern before the documentary evidence begins. In Waterbeach the three fields are clearly established in the twelfth century charters, but Bannold and Winfold look very much like a pair, and the other, which may have been the third field, never settled down to a universally accepted name. In Cottenham we can only conjecture from the topography and the pattern of the village as it expanded over open-field furlongs: a scheme of a north field and a south field is very plausible, but there is no proof of this.

Tithe returns of the late seventeenth century, since the glebe was leased, appear to give the total arable under crop in each year. The sequence for 1691-95 enables field sizes to be calculated:

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1 Westrope's Year Book-Cottenham, 1911, p. 11. The general figures from Watford's Survey for the Enclosure Commissioners, and for the Ivatt Estate are given in the same publication for 1913, p. 27.
The imbalance, whereby the largest field is nearly twice the size of the smallest is still apparent in the holdings of one of the largest farmers on the eve of Enclosure, Mr. Thomas Ivatt. His field land was as follows:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Church Field</td>
<td>11</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Dunstal</td>
<td>12</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>Farm</td>
<td>18</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Further</td>
<td>17</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Two Mill</td>
<td>10</td>
<td>1</td>
<td>26</td>
</tr>
</tbody>
</table>

The total acreage suggested by the tithe figures, 1607 2/4, is near the total given by the Enclosure Commissioners almost two and a half centuries later, 1576 and 11 perches. The difference could in fact be due to rounding in the calculations from the Tithe figures: a comparison between the old enclosures which the Commissioners found on the eve of enclosure and those of the award of 1596 shows them to be identical.

This remarkable stability in the fields after the change to five makes the dating of that change the more important. Postgate recognised that the five fields were there in the Terrier of Chantry lands in 1549, although he omitted to mention the problem.
of the inclusion of the sixth, Lyle's Lane Field. By this time references to field names in the court rolls are few, but both the Rectory and Crowland Rolls mention some of the old names in the reign of Henry VIII. ¹ Unfortunately Foxholes continued to be used under the new system and therefore cannot help us, but "Campum voc' holborofilind" occurs in the Crowland series under 4 Henry VIII, "lowmyll feld" under 8 Henry VIII in the Rectory Rolls, and "loughmylfeld" under 12 Henry VIII. The change must have taken place between 1521 and 1549. It seems to have been the only major change in the field system of Cottenham during the seven centuries for which we have documentary evidence of how its open fields were managed.

¹ Rectory Rolls, CR0, R50/9/3; Crowlands Rolls from 1509 to 1727 with gaps, in the Francis Papers; new acquisition and unindexed at time of search.
The Open Fields of Landbeach

For Landbeach there are no contemporary open field maps except an extremely rough pencil sketch by Masters, found in a bundle labelled "Miscellaneous Papers" in the Archives of Corpus Christi College, Cambridge.¹ The Schedule on the Enclosure Award Map, however, enables us to work out the general location of the previous fields, and there is a most helpful attempt at this made by the Rev. Bryan Walker before the tradition of the open fields was dead among the villagers.² But Landbeach more than makes up for the paucity of maps with a profusion of descriptions of its open fields. Three early Field Books, beginning with that of Simon Greene in 1477, lead up to Matthew Parker's Book of 1549; two parts of an Elizabethan Field Book survive; and there is yet another complete version for 1722 in the Dukman Book.³

¹ CCCC XXXV not assigned further catalogue number at time of writing.
² CRO Q/RDz7, pp. 26-83, 1813, Award; Q/RDc18, Award Map. Rev. Bryan Walker's Landbeach - Collectanea II, is now in the Parker Library, Corpus Christi College, Cambridge.
³ CCCC XXXV 163,164,170,173,174,175,177; 173 is clearly part of the same survey as 175 and belongs to the time of Copcott's Mastership, 1587-90. The "List of tenements new built on the Lord's waste" on the back of 173 applies only to the two names below, and not to those inside, which are holders of strips. Postgate (op. cit. p. 101) appears to have counted the latter as houses and so produced the absurd total of 179 new built in Landbeach!
When the open fields of Landbeach came to an end with the Parliamentary Enclosure of 1813, four fields were listed, Millfield, Dunstal, Scachbow and Banworth. These are the same four fields as those of the Dukman Book for 1722. In a mid-seventeenth century legal opinion on the Sheepwalks, the first article reads: "There are four several open fields of arable land in Landbeach, which in their several seasons according to the custom of the Town are commonlyable for sheep and other cattle."¹ Here then, superficially, seems to be a four field system. If we go back to Matthew Parker's Field Book of 1549 there is a fifth also, Meadowfield. Some of the early Charters seem to be describing parts of a three-field system in the twelfth and thirteenth centuries.² Thus the main field names in the documents seem, at first glance, to suggest that Landbeach affords a simple example of the working out of the process described by Postgate. A closer examination of all the evidence suggests something at once more complex, and yet closer to the essence of older ideas on the subject.

In the Archives of Corpus Christi College, Cambridge, there are over a hundred and twenty charters relating to Landbeach, and a number of these have detailed references to fields and furlongs. There are also the very detailed extent of the lands of Agnes de Bray in 1316 and that of Alice Bere in 1356. Further there is a

¹ CCCXV 176; cf. LPC Master's Collectanea, p. 28.
² e.g. CCCXV Nos. 2 and 4.
considerable amount of information about the fields in the fourteenth century in the Court Rolls of the manors of Chamberlains and Brays, and Reeve's Account Rolls for three years for Chamberlains.

Table II brings together the field names in the charters and extents during the period of the development of the fields. It is not possible to date the origin of a field by its first mention in a charter, but the sequence of appearances may give an echo of the process by which Landbeach acquired its fully grown field system. The first suggestion made by the table is that Banworth may well be a late-comer as open-field arable. If the hypothesis that Landbeach was first settled from Waterbeach as a subsidiary out-station for sheep is correct, Banworth, whose name means "Bean enclosure", may be where the shepherds first began to supplement their pastoral activities by raising beans. The element "worth", the mention of "le Benelond" in 1229 and of a "gardinum de Banworth" in 1354, indicate something different from open-field cultivation, and a possible survival of such alongside a developing system of open arable fields. Field names containing "bean" elements are so common in Cambridgeshire that the whole question is worthy of special study.
### TABLE II

**THE NAMES OF OPEN FIELDS AS THEY APPEAR IN CHARTERS AND EXTENTS OF LANDBEACH**

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12th Cent.</td>
<td>Acrefeld (includes Bremliacre) Tunstalfe</td>
</tr>
<tr>
<td>4</td>
<td>1229</td>
<td>Scachbowfeld, Scaceboyfeld; Tonstalfe</td>
</tr>
<tr>
<td>Extent 1316</td>
<td>Skachmowefeld (once only; Skachbowefeld many times), Stratefeld; Tunstalfe; Banewurthfeld.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>1317</td>
<td>&quot;in campo vocato Banwrth, iacent' iuxta le fflod.&quot;</td>
</tr>
<tr>
<td>26</td>
<td>1327</td>
<td>Scachbowfeld; Stratefeld; Tunstalfe.</td>
</tr>
<tr>
<td>27</td>
<td>1328</td>
<td>&quot;in campo qui dicitur Blakelond.&quot;</td>
</tr>
<tr>
<td>28</td>
<td>1328</td>
<td>Scachbowfeld; le Milnef</td>
</tr>
<tr>
<td>33</td>
<td>1331</td>
<td>&quot;in campo vocato le blakelondforlong.&quot;</td>
</tr>
<tr>
<td>34</td>
<td>1333</td>
<td>Stratefeld; Scachbowfeld.</td>
</tr>
<tr>
<td>43</td>
<td>1354</td>
<td>Banworth (as abbutment only), &quot;gardini de Banworth&quot;; Tonstalfe.</td>
</tr>
<tr>
<td>Extent 1356</td>
<td>le Stratefeld; Dunstalfe; Skacchebowfeld.</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>1384</td>
<td>(French) Stratefeld; Dunstalfe; Scachebowfeld.</td>
</tr>
<tr>
<td>93</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>94</td>
<td>1384</td>
<td>Banneworthfeld; Stratefeld; Dunstalfe; Scachebowfeld.</td>
</tr>
</tbody>
</table>
The name Acrefield is the only field to include 'acre' as an element in its furlong names. The first field to appear in the charters appears to be deliberately named to differentiate it as arable ridge and furrow from the area of primitive bean growing. Its gault, as distinct from Banworth's gravel, its higher elevation, and its closeness to the settled area, would have made it the natural first choice for beginning cereal cultivation. So it would represent the development of colonisation beyond the lighter soils worked by the Roman-Britons; and on the gault, it may have represented the first clearance of dense hardwood forest.

When Acrefield becomes Stratefield the furlong called Bremliacre is still there as Brembelaker, but it soon disappears. The brambles that would have been a memorable feature if they bedevilled a new assart would in time disappear too with cultivation. With the development of a multiple field system the name Acrefield would have become confusing; all the open field arable would deserve the title. By this time the first field had presumably developed across the Roman road, and this naturally became its main access way. Access ways are a very common source of field names, and so Acrefield became Stratefield. After the windmill was built it would be the natural landmark to give an
alternative designation to the field.\textsuperscript{1} The Roman road also runs through Scachbow, even though it is not well placed to become the main access to the field. Thus in time, the alternative name won and lasted as Millfield, although Stratefield lingered in the charters until the late fourteenth century.

The other field-names in this period may well be pre-assarting names, taken over and used to identify the new fields. "Tunstal" is read by Reaney as "farm-steading". If so it would have applied to some small subsidiary settlement of forest or marshland grazing in the intercommon towards Cottenham. The Stodfold in the meadow, which leaves its name in the Field Books, may have been similar, but taking advantage of different natural conditions for another special purpose. Dunstall gives its name to its neighbour when the new fields are created in Cottenham in the mid-Tudor period.\textsuperscript{2} For Scachbow \textit{English Place-Name Elements} enables us to offer a satisfactory meaning, "the curving frontier of field against the fen."\textsuperscript{3} Skachmowe" of 1316 is tantalising, but is probably a slip on the part of the scribe, since it seems never to be repeated in the many instances of this name, either in this document or elsewhere.

\begin{enumerate}
\item CCCV XXXV 145, Extent of the Lands of Agnes de Bray shows the mill there already in 1316.
\item Reaney, \textit{op. cit.}, p. 151.
\item \textit{English Place-Name Elements} (ed. Smith, A.H.), pt. ii (1956), p. 99, Scsaga, scaga, O.E., "a small wood, a copse, a strip of undergrowth or wood... OE sceaga is equated with Latin mariscum, 'marsh'... Like NFris Skage 'the edge of cultivated land'. \textit{Ibid.}, pt. i, p. 40 'boga, OE a bow, an arch, something bent'.
\end{enumerate}
### TABLE III

**CCC XXXV 145, Michaelmas 1316, Extent of the Lands of Agnes de Bray.**

<table>
<thead>
<tr>
<th>SCACHBOW</th>
<th>A</th>
<th>R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>le Dole</td>
<td>16</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>le Dole per le Grenewey</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Thwershloodole</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Skachbowefurlond</td>
<td>1</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Skachebowehavedyn</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ult. le Renneles</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>per le Grenewey</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Morefurlongs (?)</td>
<td>11</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Goosebrichdole</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>eodem camp</td>
<td>7</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>&quot; &quot;</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Colyversdole</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>le Cleydole</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>le Pambyle</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>abb. super le Pambyle</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Bradelondes</td>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DUNSTALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 pieces</td>
</tr>
<tr>
<td>Reynbowe Furlonde</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STRATEFELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>abb. s. altam stratam</td>
</tr>
<tr>
<td>s. Thwershlond Blakelond and mormetefurlongs</td>
</tr>
<tr>
<td>Dufhowsfurlong and Thryttiacrisfulond</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BANWORTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>in Banworth field</td>
</tr>
<tr>
<td>Banewurthfurlong</td>
</tr>
</tbody>
</table>

Underlining indicates "et est (sunt) communia(e) nisi seminata(e)".

<table>
<thead>
<tr>
<th>A</th>
<th>R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summa acrarum terr' arabil' quolibet anno</td>
<td>186</td>
<td>3</td>
</tr>
<tr>
<td>Summa acrarum pastur' nisi quando seminatur</td>
<td>63</td>
<td>0</td>
</tr>
</tbody>
</table>
The general impression left by the appearances of the names in the charters is that, once the development of arable cultivation began, it rapidly produced a three field system by the twelfth century, and that this in turn grew more complex from early in the fourteenth century.

Beyond Dunstall lay the moor; beyond Banworth, the meadow; and beyond Scachbow, the fens. The middle of Dunstall was crossed by the twenty foot contour; part was above and part below. Through the lower part ran the Rennels Brooks. Heavy clays made the soil subject to water-logging. Mill Field was well above the twenty foot contour, and almost entirely above the twenty-five. It stood up above the tofts and houses of the village. Part of Scachbow, next to the village, in a triangle based upon Cockfen Lane, stood proud of the level subject to the severest floods, but the far greater part lay below. Banworth lay beneath, but most of it only just beneath, the twenty foot level. A good deal of this field, particularly that in the south adjacent to the Tofts, is so near the height of the road, which here runs almost exactly at twenty feet, that it was above the critical level for this period.¹

¹ cf. Jurgen Klasen, Vergleichende Landschaftskunde Der Englischen Marschen (Cologne, 1967), p. 331: "microrelief is proving everywhere (i.e. everywhere in the marshlands) to be the decisive factor as regards the natural landscape."
The tenement named "le Floed" lay in a slight hollow below the cross-roads where the spot-height reads 19. In the southern half of Banworth is a site prolific of late-Roman sherds, and any Roman farm of that period would have been sited above the line of the disastrous floods of the third century, according to the conclusions of J. I'a. Bromwich. This topography helps us to understand the Extent of the lands of Agnes de Bray, made in 1316, the great famine year.¹

If we total the acreage shown (Bray's demesne arable) in each of the fields we arrive at the following:

<table>
<thead>
<tr>
<th>Field</th>
<th>A</th>
<th>R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scachbow</td>
<td>78</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Dunstall</td>
<td>62</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Stratefeld</td>
<td>69</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Banworth</td>
<td>32</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

This accords well with the idea of an earlier three field system to which Banworth has been added, when Scachbow met the fen or the fen encroached on Scachbow. The total that can be sown in any year, is this total acreage less Dunstall. If we range the fields in order of their proportion "communia nisi seminata" we get (1) Banworth (2) Scachbow (3) Dunstall (4) Stratefeld. This is precisely the order we get if we range the fields in order of

¹ See Table III.
their proportion below the line reckoned safe from even the severest floods. In a period of notoriously deteriorating weather and rising water-table, when we find that the land "communia nisi seminata" is valued at nothing although the rest is 9d. per acre, there can be little doubt that the cause is flooding. Apparently about a quarter of the arable is unlikely to be sown even in due season. The general nature of the comment suggests that this is more than a matter of one year only, but the uncertainty of it suggests that the land may or may not be sown sometimes. If it ever is common, then this would be when the flood subsides too late for even a spring sowing. In other words about a quarter of the arable has become subject to severe winter flooding. This means that it has almost reverted, temporarily or permanently, to the condition of fen.

The Great Ouse River Board has marked up some maps of the area with contours at one foot intervals outside the built-up areas. These enable us to refine the analysis a little further. The sketch map\(^1\) which shows the three fields and the sixteen foot contour indicates that, if the water rose to this height, Scachbow's expansion would be checked and the field would begin to be invaded by the fen. The map of the four fields and the seventeen foot contour\(^2\) shows that if the water then continued

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1 Map 17, p. 124.
2 Map 18, p. 125.
to rise a lake would be formed well into Scachbow.¹

What we appear to have is a series of three peaks in the changing water table: the first may have caused the development of arable to begin in Landbeach with Acrefield; the second to have checked the development of Scachbow and Dunstall, and to have caused assarting in Banworth, the meadow and moor to compensate; and the third peak would have produced a situation like that shown in the Extent of 1316. This seems to have been the worst flooding ever in this area of which we have documentary evidence, a conclusion that fits in with experience on the Continent.² In an area particularly prone to flooding this Great Flood of 1316 must have been peculiarly catastrophic.

The frontier between fen and ploughland was at the end of Scachbow, and Scachbow was certain to lose first if the fen advanced. The most obvious place to recoup such a loss of arable would be that part of Banworth which lay highest, conveniently behind the houses and tofts, with a soil that drained more quickly than any other in the parish. If Banworth was turned into open field arable to replace losses in Scachbow, it would be natural for them together to do the duty hitherto done by Scachbow alone.

¹ This lake may well be the unidentified feature in this area, "le Pambyle", which is several times mentioned in this period as lying towards Cottenham from Landbeach.

² Bautier, R-H., The Economic Development of Medieval Europe (1971), pp. 188-189, "The bad harvest of 1314 was followed by two years with so much rain that catastrophic floods occurred more or less everywhere."
From the acreages given in the 1316 Extent we can only arrive at the total "summa acrarum terr' arabil' quolibet anno" of 186 acres 3 roods, by adding up the maximum possible for all the fields but Dunstall. If this total is meant to be the maximum that can be cropped in any year, then it must mean that Banworth could not stand fallow alone, for if it did the total would be twenty-four acres more. Banworth seems to have been altogether insufficient as a course in itself even when it all could be cultivated: it was not even fully able to make up for losses in a bad flood, for it could then only provide twenty acres while Scachbow alone would lose thirty-four. From this time on right up to the Parliamentary Enclosure, every scrap of evidence that sheds light on their cropping shows Banworth and Scachbow running together as one shift. They are usually counted together and totalled together in the Survey of 1722 in the Dukman Book. They appear at first glance to be separate in 1345-6, when Banworth is fallow and there are some peas in Scachbow, but these amount to less than nineteen acres and it has become the practice by this time to sow some peas in the fallow. In their next fallow in 1348-9 both are under beans, peas and vetches. In the only other Reeve's Account Roll which we have for Landbeach, (Thomas Brotherton's of 1352-3) they form the "winter field" and are under wheat and maslin together. The court rolls are illuminating at this point: at
the St. Denis Chamberlains' court of 1346 a tenant has surrendered a ten acre holding to reduce its size. The lord is then to choose an acre and a half of the better land "in tribus campis" and the said Robert then to choose one acre and a half of land "in dictis tribus campis de meliore via, in quolibet campo d'i acre..." In spite of the fact that the system was then at its most complicated, crops being sown in six fields (Milnefeld, Fortemade, Sckachbowe, Tunstallfeld, Madefeld and Morefeld), those concerned thought of this as not merely in three seasons but in three fields.¹

What is clearly happening in 1345-6 is that the Millfield is the winter field sown with wheat, Dunstall, the spring field sown with dredge and a little oats, part of the fallow, Scachbow, is sown with peas. But this is being supplemented by ploughing in the meadows and moor; seventeen and a half acres of maslin are sown in Fortemad (the meadow area where Milton, Landbeach and Waterbeach meet, Hardmede in later documents). This allows the pure barley, ten and a half acres to be sown in Millfield. It is not clear whether this barley was winter sown, but in 1352-3 there were four and a half acres under barley and dredge "in skacchbough de seisona yemale." If Fortemade, the dry meadow, could be used to supplement the winter field, the moor and other damper meadow could be spring sown for oats and dredge.

¹ CCCC XXXV 182 for the Account Rolls of Richard Pelle for 1348-9; CCCC XXXV 181 for his roll for 1345-6 and Thomas Brotherton's roll for 1352-6; CCCC XXXV 121, 20 FdIII, St. Denis, for Court Roll 1346.
Unfortunately the acreages are not divided from Dunstall, so that we cannot be sure of the scale. In some past years trespass cases have shown that supplementary incursions by the plough have been taking place, at least on a small scale into the meadow and moor.¹

But 1346 is the first time in our records that these intakes have been dignified as Meadowfield and Morefield. They do not appear in 1352-3 when Dunstall is fallowing: they were cropped with it 1346, and so appear to be joined in its shift. The only supplementary cropping in the later year is four and a half acres of peas somewhere undefined in the fallow ("in warect").

So was born the Meadowfield of the field books, and also the Scachbow in Morefield and More under Dunstall of 1549. Meadowfield can be listed simply as a field, but Morefield is part in Scachbow Field and part in Dunstall Field. Thus, superficially the whole system of field nomenclature appears to have been reduced to chaos: in fact the names have evolved to cover the extremely sensible practical measures, that have been taken to preserve the old system and shore it up under the appalling conditions of the early fourteenth century. Like shoring round a building, the new appearance is untidy but the structure may be saved.

¹ CCCG XXXV 121 12 EdIII, St. Edmund, King, 1338, "in blad' d'm' apud le made ...": similarly trespass cases can show Scachbow running with Banworth, e.g. CCCG XXXV 121 6Ed III, St. Michael, shows dredge in both.
If the bringing of new areas under the plough in the fourteenth century was an emergency measure in response to the deterioration of the climate and water-table, we might expect them to revert to their old conditions in better times. This in fact happened, although dating the change is not easy.

The Account Roll of 1352-53 showed that there was very little supplementary sowing, only four and a half acres in the fallow. It also showed that the plough had passed over once more to the counter-attack on the encroaching fen: an acre and a rood were sown with oats "in skacchebough de terra frisca hoc anno de novo cult".

More under Dunstall and Scachbow in Morefield of the 1549 Field Book are absent from the fifteenth century field books, but in the Dukman Book appear in part again as arable under the names More Furlong and Morleys Furlong. Their arrangement in 1549 bears witness to their origins as intakes from the lords' waste: they are divided in blocks, five selions to the Armiger (the Manor of Brays), and six to the College, rotating in order, interrupted only by the occasional two or three selions of the most substantial freeholder, T. Lane, who held the only "mansio" in the village, or by a ditch. These are the only parts of the field for which the...

1 LPC Field Book; CCCC XXXV 163 and 164; LPC Dukman.
acreage is not given. One is not convinced that at that time they were not down to grass, and the same suspicion attaches to Meadowfield.

Meadowfield was no longer arable by the mid-seventeenth century. In addition to the opinion of Serjeant Bernard mentioned above, there is a Survey of Real Property in 1665 in the Fen Book,¹ in which the total area of the "laies" proves to be that of Meadowfield. There is a note in Clifford's writing in the Parish Copy of the 1549 Field Book (on what was originally the outside), referring to Banworth Lees. They are divided between the two farmers of the two manors and the inhabitants. The acreage amounts to 179, and if one adds to this the six and a half acres glebe land in Meadowfield in the terrier of Cliffords, we arrive at the total of 185½ acres. This is much too great to be part of Banworth Field, which is only 117 acres altogether, but Meadowfield is given as 185 acres 3 roods. There can be little doubt that this field, created out of Banworth Meadow, is back again to grass. There is one earlier hint of this: in the College Archives in the bundle, "Miscellaneous Papers", are two terriers dated 1558 (or possibly 1554), neither of which has any land in Meadowfield, although there is separate meadow.²

1 LPC Fen Book.
2 CCCC XXXV 172; cf. CCCC Lease Book which has a series of leases the manor including Scachbow Leys and Moorleys, beginning with the lease to John Gotobed on December 29th, 1553 of "certain void leys".
takes us back so close to Parker's time that it seems possible that Meadowfield was already back to grass in the Field Book. Parker was concerned to establish exact property rights over every piece of land, and this meant looking back. The ridge and furrow in the field would still make the essential property boundaries perfectly clear in a more permanent and economical form than the normal method of annual marking out, and so be the logical way of recording the Meadowfield. (Houseplots taken out of the arable centuries before are still measured as selions in the 1549 Field Book.) Cropping details from this period would be invaluable, but unfortunately do not seem to exist.

Any changes from grass to arable and back again that we can trace seem to be due to the flooding of the early fourteenth century, and the slow recovery from this. In any case the changes seem to be confined to the original meadow and moor, outside the open fields of the period when the flood struck except insofar as flooded land could be used as temporary pasture. The nearest thing to convertible husbandry are the later changes of Scachbow Leys and Moreleys back to arable, but this was only marginal to the system as a whole, nor have we any evidence to suggest that the change was repeated, let alone frequent or regular.
Conclusions on the Field Systems

The evolution of the open fields of each of our villages took its own course, and in none did it conform to the pattern suggested by Postgate.

In Waterbeach the system of cultivation seems to have been based on three great open fields at least from the mid-twelfth century up to enclosure in the nineteenth century. Contrary appearances of complexity and confusion arise from the changing name of one field (a common enough phenomenon), and the use of names of lesser units; not from changes in farming practice. This use of names seems to have arisen in part directly from topography and partly from the preponderance of small arable holdings among the peasantry. This again was largely due to the peculiar topography of Waterbeach. As far as Waterbeach is concerned, the facts that Postgate was trying to explain are a documentary illusion.

In Cottenham the increase in the number of common fields from three to five was not due to assarting, which had been completed centuries before, but to re-arrangement for more intensive exploitation of the arable. This was made possible by the abundant supply of farmyard manure, a by-product of the
scale and topographical peculiarities of Cottenham Fens. The date of the increase in the number of fields, not before the beginning of the sixteenth century, is too late to fit into Postgate's scheme.

In Landbeach the increase in the number of fields in the early fourteenth (and possibly late thirteenth) century was due to assarting, but not as part of a steady expansion of ploughland towards the parish boundary. Most of it was an emergency operation in face of the rise of the water table at that period. But this never disturbed the rotation, which the villagers thought of as in three open fields.

The detailed investigation of the fields of these three villages in no case produces a result that conforms to Postgate's hypothesis. Close examination of the documents suggests that the picture which he found may be in very large part due to the varying usage of proper names for field land in the classes of documents which he consulted. We can never be quite sure what field-names represent until we can relate them to documents concerned with the actual cropping.
Furlong and Selion

The Enclosure of Cottenham was so late, the Award not being made until 1847, that living memory still reached back to the open fields when interest began to increase again in the system. In 1905 Jacob Sanderson jotted down his memoirs, which took him back to his boyhood days when he had worked on the open fields after harvest, minding his uncle's pigs. A few years later, in 1911 and 1913, Westrope's Year Book, recalled the fast-vanishing signs of the days before Enclosure in the words of one who still remembered them functioning.

"In all cases it may be stated, the different 'furlongs' lay in such directions that one end of them was higher than the other. This excellent arrangement was for drainage purposes. This was most important and was most effective, as the 'lands' were narrow. A 'furlong' was mostly about ten chains in length, though sometimes less, giving as near as possible average plots of half an acre each. These holdings were never ploughed flat, as is the custom at the present time, but had from time immemorial been 'ridged' much more often than they were 'cast'" 2

This suggests an unusual pattern for the open fields of Cottenham, and this indeed is what strikes one most in studying a strip map of the village: by comparison with one of the strip maps for, say the neighbouring Rampton, Cottenham's furlongs seem unusually

1 Notebook. I am grateful to Mrs. Norman for permission to read and quote from this notebook.
2 op. cit. 1913, p. 19.
3 e.g. CUL MS Plans, 177 (R), 1754.
long; they run for by far the greater part parallel north-east and south-west, and the 'grain' of the lands is at right angles to the main Westwick road. The road runs along the spine of a very low watershed between such natural drainage lines as there are in this flat ground. Even to-day in a flood on frozen ground, a gale can move water over the top of the ridge. So the plough's furrow took the rainwater as fast as possible away from the ridge, the deep water-furrows between the lands brought it to the gripes alongside the furlongs, which took it to the common drains, and hopefully towards the fens and the Old West River. Natural surface drainage was so slight that every possible advantage had to be taken of it.

The best surviving selions of the old pattern in this area are on the heavy clay land near the fen edge, close to Belsar's Hill in Willingham. There they are still carrying out their original function on the most difficult ground. The local name for them is "winding lands" from the aratral curve, and it is reckoned nowadays that it takes a good man to plough them. When two adjacent selions have been ploughed there is naturally a double, or open, furrow between them. This is then deepened by ploughing it outwards again, and in wet places a further mole furrow may be put down the centre to deepen it once more.

1 I am grateful to Mr. Dennis Jeeps of Willingham for this information. Belsar's Hill is at TL 423703.
Such furrows would form excellent boundary marks that would not be easy to move, and if moved would be impossible to conceal. These were probably the "amplas culturas" referred to in the twelfth century charter for the division of lost lands in Dry Drayton. In the Ordinances in the Cottenham Rectory Manor Court Rolls of 17 Elizabeth it lays down:

"Each to plow a water furrow by his lands in the fields before St. Thomas the Apostle, and these to be of the fashion of the lord's work."  

Such entries tend to be more frequent in the Landbeach court rolls; and in Waterbeach, orders to scour or make all manner of ditches and banks in field, fen and town are an obsession.

Water furrows or ditches between neighbour and neighbour were under constant observation by an interested party, and not likely to suffer much from encroachment without being noticed and reported to the court. Common ditches and baulks were a different matter. In the second Fen Reeves' Book of Ordinances in Cottenham for the early nineteenth century, some of the Orders still have a faintly biblical ring about them:

1 ECA 162: Wr. Pk. Ch., fol. 242 (18).
2 CRO C 1-9.
3 Part of the collection of Mr. M. Haird of Cottenham. I am most grateful to Mr. Haird for the generous way in which he has made documents available to me.
"42. It is ordered that if any person or persons shall plow or dig up any of the common baulks in any of the fields to engross it to themselves shall for every such offense pay 3s. 4d. and plow or cast the same back again, and no baulks, grass furrows or furlong ends to be mown or fed till harvest..."

Informers were to be paid to enforce this in medieval fashion.

"45. (1807) It is ordered that the headlands in all the fields shall be set out by the officers and order-makers and stulped at the expense of the town, and them that are too big to be reduced to their proper standard and those that are too little to be made as big as they ought to be."

References to encroachments in this area are not so common as the frequent cases of trespass; and references to boundary markers of any kind very rare. The word "mere" also meant a boundary, and mere-stones were boundary markers. One of the local names for the Roman road is still the Mereway, and this is a very old usage. The baulk existed as a field path, and where it lay it certainly marked a furlong boundary. When it was longer it was usually called a dole, as it was the custom to include the grass of the paths and the unsown water-furrows in the precious herbage of the village. A meadow path could, when untrodden, in the appropriate season apparently be allotted as a dole in the meadow.

1 Stulped, staked, and dowelled are local equivalents for marked boundaries; cf. Common Rights, p. 207, Article XIX, "...that Smithy Fen shall continue and remain for ever dowelled and staked according as it now lieth... the stake or landmark for the parcels of the said fen..."

2 CUL Queens, Fd6, 5 Hen VIII, "...quoddam communia mara vocata a Common Balk..." cf. Common Rights, p. 237 refers to cattle after harvest on "Baulks, forrends or furrows in this Town's Fields".
The name seems to imply this, although no direct evidence of this practice seems to be forthcoming for the three villages here discussed. Evelyn White found much evidence in Rampton of the letting of such grassland as a regular source of income to the township. But the above order, the charter referred to earlier for the division of lands in Dry Drayton, and other references all seem to imply that sometimes other markers were used than balks and furrows. Among the Landbeach peasants' complaints against Kirby in 1549, they say: "He blindeth in their bounds the meres and the doles by his covetous dealing." In Landbeach again we find the Rector, only a few years before Enclosure, searching to find his lost lands, and providing painted oak posts with anchor pieces, to mark all the glebe lest it be lost again. He marked each field in its fallow year. Common lands were much more vulnerable to encroachment except where the lord of one of the manors was interested in preserving them: where he was interested in making the encroachment himself there might be little protection. Kirby managed to include in a yard of his,

2 CCCG XXXV 194.
3 LPC Tithe Book; where a landlord gave up cultivation and became a rentier there was always the possibility of losing lands, cf. ECA, p. 282, Cottenham in 1529, "... nullus exitus pro eo quod ignoratur ubi iacet..."
a lane and a row of willows whose loppage had provided the
township of Landbeach with a small annual income. This is still
identifiable on the ground. Perhaps the most impertinent peasant
encroachment was recorded in Cottenham in 1342:

"Jurati presentant quod Willielmus Warde obstruxit
quoddam fossatum in Cotenham quod fuit divisa inter
Henry Arneburgh et Willielmus le Wode et plantavit
salices in medio fundo eiusdem fossati appropriandum
totum fossatum sibi ipso ubi est divisa inter feodum
domi Episcopi Eliensis et feodum domini Abbatis." 2

But such instances were not altogether uncommon:

"Jurati presentant quod idem Willielmus (Cosya) fecit
domino purpresturam appropriando sibi solum domini
iuxta manerium videlicet in longitudine. viij. perticas
et in latitudine. iij. pedes. Ideo ipse in misericordia.
Et preceptum est Juratis quod ipse in presencia dicti
Willielmi si interesse voluerit metas ibidem ponant
prout iure fuerit etc. et dictam purpresturam omnino
adnichilent etc." 3

But in our villages there is very little sign of permanent
encroachment of any kind, and little of either consolidation of
strips or of enclosing arable to turn it down to grass. Enclosures
of this kind, apart from the very early expansion of the villages
on to open field furlongs, tended to be on a relatively small
scale to provide home paddocks for the lords and substantial
freeholders in order to exploit the fens more fully. Cottenham

1  CCCC XXXV 194.
2  CUL Queens' Ad 36.
3  ECA, p. 358.
had a few small enclosures on the boundaries of the open fields, but these dated back to the sixteenth century at least. A feature on the strip maps of some of the nearby villages are "Pieces", whole furlongs consolidated and enclosed down to grass. These are prominent in Rampton, a village with only one lord, but no less so in Dry Drayton which had two. Landbeach and Waterbeach have one such enclosure each, in the former the Thirty Acre Piece of the College on the margin of Scachbow and the fen, and in the latter the part of the village on the east of the High Street, which has left its name in Pieces Terrace, and must once have been a very convenient adjunct to a farmhouse in the village centre.

But there were no major losses from the medieval arable right up to the Parliamentary Enclosures, and both the strip maps for Cottenham and the field books for Landbeach show little consolidation.

Matthew Parker's Field Book of 1549 gives the complete details of fields, furlongs, strips and selions, with ownership and past and present occupation, and acreage by strips. It includes also the built-up area of the village as the first selion in each of the three fields that adjoin the houses and crofts. Deducting the latter we arrive at the following figures for the arable:
The local name for a pair of selions side by side and ploughed as one is a "broad" or a "broadel selion"; none are mentioned here, but in "More under Dunstall in Dunstall Field" (which we saw was late assarted land and contained some of the few blocks of demesne selions) there are two notes: "ij ac go through" and "they go through". This would appear to mean a double selion arranged end to end. In Stretham Glebe Terriers the name "a throughout" is given to such, and the more familiar side by side double selions are called a "twilstitch".¹ The record of "More under Dunstall" bears a note: "omnes seliones istius querentule solent dividii inter tenentes". This is where the plough has finally reached into the old moor against the parish boundary. Their appearance in blocks is quite different from the rest of the furlongs. Even the nearby "Histon Barrow" in Dunstall field, although it is, uniquely, entirely owned by the College as lord of the Chamberlains Manor, has its ten selions in seven different

¹ CUL EDR H/1/5, Glebe Terriers, Stretham.
hands and formerly in eight. In the Seventh furlong (quarentela) in the Meadow Field, selions are measured in "Buttes", three such making an acre according to a note inserted by Masters into the Dukman Book.

Selions proper vary in recorded size from a rod to an acre, but a substantial majority are of the standard half acre that we found in Cottenham. As is clear from the list above, there is no significant difference in selion size with difference in soils. What difference there may have been was probably in the height of the ridges. Local tradition has it that the worse the drainage, the higher was the ridge. The local name for such ridges as are left to-day is High-backs, but purists say this should properly be kept for the steepest, all of which seem to be on stiff clay.

Of the furlongs proper in the arable fields the variation in size is very great. All fields except the Meadow have a furlong containing less than four acres, and the largest, the seventh in Millfield, at 82 acres is well over twice the average of about 36½ acres. In one area a whole group call attention to themselves by their tiny size. The set in Dunstall Field, labelled one to five "in Renels" (or "in Ropes"), begin with the largest under seven acres, and decrease to the smallest which is less than two.
These would appear to have been fitted in between the two branches of the stream before the junction. This must have been difficult ground.

All the furlongs were numbered within their respective fields. Not all appear to have had names. Sometimes the name appears in each of two fields for adjacent furlongs, e.g. Redland in Dunstall becomes more often Blackland as time goes by, although its neighbour in Müll Field is always Blackland. Perhaps its soil improved with long cultivation and dropped its old "assarting" name, "Ridland". There is a Lamcothyll in Meadowfield as well as Banworth.

Sometimes the names are sources for the field history in themselves; in Chapter I Lamecothyll and Hammys were suggestive for the Dark ages: the rest of Meadowfield names are more obvious, but are confirmatory, nevertheless: Twenty Swathes, Redemedowe, Ravensmedowe, Wellfurlong, Langlond. Short Furlong, Fenn Furlong and Butts in Banworth are a little more closely identifiable on the map because of the names. Some of the names are plainly informative about the fieldways as well as the position of the furlong, like Dovehouse dole; some intriguing, like Norman's Furlong which becomes Norman's Furlong later. This adds the first faint addition to the suggestion that there may have been an isolated farm or hamlet in the Dark Age moor, re-absorbed
as the ploughland grew, leaving only its name in Dunstall. Near where the furlong Perecourt once was, wild pear still flourishes in the boundary hedge.
Crisis, Change and Stability in the Open Fields

The early fourteenth century seems to have been the great testing time for our villages. Even Cottenham with its arable above the twenty foot contour did not escape the flooding. In 1314 four tenants were in mercy, on account of a water course in the fields; in 1322 twelve acres of demesne in the fields were flooded in June; in 1328 the court of Landbeach Chamberlains found a new formula for repeating floods; and by 1337 there seems to have been some reversion since four butts which had been cropped in the recent past were now mowing meadow. But then, as now, floods from the fens may have repaid any loss by enriching the soil: there is little sign of falling fertility. Miss Page's tables show little if any sign of falling yields. I have come across only one reference to worn out land, and that had been over-cropped for hay, not corn, in Landbeach moor.

But the trials of the farmers in this period were far from confined to flooding. Second only to the land they relied on the tractive power of the plough teams. On the Crowland manors the team seems to have consisted of two horses and four oxen.

1 ECA, pp. 343, 241; CUL Queens', Ad 26, 14 Abbot Henry, St. Gregory.
2 CCCX XXXV 145, 1316.
3 ECA, p. 239, "custus carucarum", 1322-3 (Aston dates this 1321-22): "...ferrura ii affrorum et iij Iumentorum..." ECA, p. 444, the 1430 lease of the manor of Cottenham has "iij bobis et iij equis in qualibet caruca..."
Crowland's cattle breeding centre for Cambridgeshire was Cottenham, and normally if an Oakington team were short another would be transferred from Cottenham or bought on the open market. But in the return for milk for 1321-2 the Oakington roll has, "and no more because the cow was busy in the plough," and the Cottenham roll, "and no more due to plough-work". This conjures up the picture of a peasant community on the verge of complete collapse. This was the year of the June flood mentioned above, and in Oakington an additional reason for the low return on milk was the wetness of the season. Hay had to be spread and dried in the courtyard. At the sowing of peas, paid villein labour had to be called in while the "famuli" worked on the carts and on throwing water over the ploughs. Over half the pig herd was lost in what looks like swine fever. The pay of the "famuli" was short because of the dearth of corn this year.¹

But the instability of the weather in these years faced the communities with something worse than simple deterioration. The Ministers' accounts for Denney for 1325-6 show that all the oats were lost from drought, and the hay scarcely grew at all in some meadows. The next year not only had problems from drought and heat again: westerly gales stripped the thatch from large areas of the roofs of the church and farm-buildings, and the little

¹ ECA, pp. 238-246.
enclosure walls of mud, as well as their thatch, lost the top two feet.\(^1\) It was in face of such disasters as this that the changes in rotation, and improvisations to maintain production were made.

The court and account rolls show the management responding with increased attention to detail: work such as sowing and lifting the hemp in the garden, and making ditches to save the leeks, formerly included in gross totals is now itemised. What appeared to Miss Page writing almost forty years ago, as the wildest confusion\(^2\) in the arable rotation, seems now to have been sound farming practice in face of the greatest difficulties. It is a remarkable tribute to the manorial administration that so much survived through the famines and pestilences of the century. The improvements in managerial techniques which had begun on the large estates in the thirteenth century, appear to have been exploited to the full in the early fourteenth century, not only by Crowland Abbey, but in Waterbeach and in both the Landbeach manors as well.

1 PRO Ministers' Accounts, SC/6/766/12 and 13.
2 ECA, p. 119.
### TABLE IV

Crops sown in certain years in the fourteenth century

#### Denney, 1325-6

<table>
<thead>
<tr>
<th>Crop</th>
<th>ARP</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>110 0 00</td>
<td>super le mellefeld</td>
</tr>
<tr>
<td>Maslin</td>
<td>16 0 00</td>
<td>&quot;</td>
</tr>
<tr>
<td>Peas</td>
<td>15 0 00</td>
<td>in uno Heth</td>
</tr>
<tr>
<td>Barley</td>
<td>3 0 00</td>
<td>seysona quadr'</td>
</tr>
<tr>
<td>Dredge</td>
<td>60 0 00</td>
<td>&quot;</td>
</tr>
<tr>
<td>Oats</td>
<td>81 0 00</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>285 0 00</td>
<td></td>
</tr>
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</table>

#### Cottenham, 1321-2

<table>
<thead>
<tr>
<th>Crop</th>
<th>ARP</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>23 3\frac{1}{2} 0</td>
<td>in Aldeburghfeld</td>
</tr>
<tr>
<td>Maslin</td>
<td>44 3 0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Beans and Peas</td>
<td>13 0 0</td>
<td>Lowefeld</td>
</tr>
<tr>
<td>Dredge</td>
<td>40 2 0</td>
<td>(probably Lowefeld from quantity; so in ECA)</td>
</tr>
<tr>
<td>Oats</td>
<td>40 0 0</td>
<td>Aldeburghfeld</td>
</tr>
<tr>
<td>Barley</td>
<td>9 0 0</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>171 0 20</td>
<td></td>
</tr>
</tbody>
</table>

#### Landbeach Chamberlains, 1352-3

<table>
<thead>
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<th>Crop</th>
<th>ARP</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>33 0 0</td>
<td>Banworth and Scachbow</td>
</tr>
<tr>
<td>Maslin</td>
<td>29 0 0</td>
<td>&quot;</td>
</tr>
<tr>
<td>Peas</td>
<td>10 0 0</td>
<td>5\frac{1}{2} in Melnfeld and 4\frac{1}{2} in Warect'</td>
</tr>
<tr>
<td>Barley and Dredge</td>
<td>41 3 0</td>
<td>37\frac{1}{2} in Melnfeld and 4\frac{1}{2} in Scachbow winter</td>
</tr>
<tr>
<td>Oats</td>
<td>17 3 0</td>
<td>16\frac{1}{2} in Melnfeld and 1\frac{1}{2} Scachbow in &quot;ter' frisc' cult' de novo&quot;</td>
</tr>
<tr>
<td></td>
<td>131 2 0</td>
<td></td>
</tr>
</tbody>
</table>

(Continued)
TABLE IV (Continued)

cf Landbeach Chamberlains, 1348-9

<table>
<thead>
<tr>
<th>Qrs.</th>
<th>Bz.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>7</td>
<td>in le Milnfeld</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>Scachbow and Banworth</td>
</tr>
<tr>
<td>25</td>
<td>5</td>
<td>Dunstall</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>Milne</td>
</tr>
<tr>
<td>77</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Sources: PRO Ministers Accounts, SC6/766/13
EGA, pp. 240-242
CCCXXXV 182
CCCXXXV 181

Hemp and flax are included in small amounts in the Stock for Landbeach, and from the Cottenham "opera" account we learn that hemp was grown in the garden.

In the cropping recorded in these tables, Denney, then in royal hands, seems to be the most conservative. But the kind of changes which can be traced later and further in neighbouring Oakington are already under way. The area under spring crops is increasing, and these are occupying part of the winter field.

In Landbeach some of the barley
appears to be winter sown. Legumes are sown in part of the
fallow in Cottenham and Landbeach, and in the waste in
Waterbeach. Mixed grains are replacing much of the pure seed.
But substantial amounts of wheat are still sown; its progressive
replacement by the high yielding barley, even in the form of
dredge, scarcely seems to have begun at this stage; and oats,
especially when included in dredge, have not yet lost an
important place. In the later Middle Ages oats seemed to have
been grown mostly on cold lands, and wet soils on the fen edge
would have been particularly suitable. Oats were sown on the
part of Scachbow which had been newly ploughed again after being
re-taken from the fen. Oats were to be the normal crop from the
Adventurers' Lands when the water subsided in time for any crop
at all. They were to be the chief first crop later still when
the fen was first broken up after enclosure. They would have
been the last cereal crop that could be sown with any hope of
harvest in a season delayed by late flood. It is significant
that where we have comparative accounts for the Crowland manors
in Cottenham and Oakington, the decline in the importance of oats
proceeds much faster in Oakington, away from the fen edge.  

1 Cf. G. Duby, Rural Economy and Country Life in the Medieval
that bare fallows had disappeared in Flanders by 1328.

Again slight differences in topography may account for some of the differences between cropping changes on different manors. Denney account rolls for 1324-5 show sixty five acres "de dominicis in War' et aliis seysonis dismissis hoc anno diversis hominibus pro veschis fabis et pisis seminandis ut patet per parcellis", and in the following year fifty four acres were let in the same way. Some of this area may well have been the same Denney Low Grounds which were being sown year after year with oats in the late eighteenth century. The peasants here were taking the risk, and the lord the residual fertility.

In trying to see how rigidity came to replace the adaptability and flexibility of this system in the fourteenth century, perhaps the key change is the return of bare fallows.

Bare fallowing with double ploughing seems to have been regarded as essential for conditioning the soil for a winter crop. In 1356 the Chamberlains Bailiff in Landbeach was presented by the homage for failing to double plough three acres of fallow, with the result that they could not be sown by wheat, but since pure wheat sowings had decreased, this would not preclude spring crops in at least part of the fallows. For Oakington Miss Page dated the return of bare fallows, except for the occasional
cleaning crop, to 1391. The reason for this assertion is not clear since the rolls show sequences of years with bare fallows in the 1360's, the 1370's and the 1380's; they also show sequences with legumes in the fallows in the early fifteenth century. In the leases of the demesnes in Cottenham and Oakington in 1430 fallows are specified, of which part is to be double ploughed, part composted with carted dung, and part dunged by the sheep-fold. The practice of bare fallowing seems to have lasted on to Parliamentary enclosure. The tithe appraisals for Cottenham show bare fallows throughout the five year period recorded, 1691-1695.2

A note in the Dukman Book in the Landbeach Parish chest has the same implication, "... in all the said fields, which put it into three parts, two corned and one close..."3 This is dated 1727, and Burroughes seems to have been able to mark the Glebe in bare fallow fields on the eve of enclosure there. Master's tithe appraisals for Waterbeach in the late eighteenth century are likewise unmistakable,4 as is the rest of the evidence cited above from the Masters vs. Standley Case. In his "General View" Vancouver states directly:

1  ECA, pp. 438-448.
2  Westrope's Year Book for Cottenham, 1911.
3  Loc. cit., p. 54.
4  WPC, Tithe bundle.
"The rotation of the crops is first fallow, with sheep-folding; second year, wheat; the wheat stubble winter-fallowed and highly manured for the third year's crop of barley; fourth year peas and beans; fifth year, barley; produce

- 28 bushels of Wheat
- 30 ditto Barley
- 20 ditto Peas and Beans

No turnips, clover, tares, or other green crops are cultivated, though it is evident from the soil that they might be brought to a very great perfection." 1

This did not last in quite as rigid a form for the few years of life left to the old system. In 1905, Jacob Sanderson, who had worked as a lad on the old open fields before the Enclosure, gave full details of the rotation in its last days:

"One course was Dead Fallow.
Second course was Wheat.
Third course was Barley.
Fourth course was Beans.
Fifth course was a cross crop of roots, turnips, potatoes or corn: if turnips were wanted they could be grown on the bean field. Sheep were allowed to be folded on the dead fallows any time in the summer (that is, the owner's sheep).

All the manure was put on the wheat stubble for barley and carried out before the harvest on the waste places in the field near the town, ready to be put on after the harvest. The wheat to be sown before the Feast (Shrove Tuesday); the beans before Candlemas Day, February; the barley as late as May when the threshing was done. The cow dung carted and carried out after the 13th May when the Commons were stocked." 2

2 Notebook.
The period of flexibility and experiment in our open fields seems to have been the time when the lords showed most interest and initiative in direct cultivation. With the removal of population pressure, peasant power grew as lordly interest waned. The peasantry seem to have been able to make necessary minor changes quickly to keep the system going, but to have been able to avoid any major radical alteration.

Parallel to the loss of managerial interest from lords over much of the arable, was the increasing interest in stock on the part of those particularly eager to make money. If much of the battle of the first half of the century for subsistence against the often unfavourable odds had been won, the numbers interested in and able to accumulate wealth had increased. For many, arable could have only provided a relatively stable base from which to operate in more lucrative pastures. Unfortunately, we do not have the sources to examine such possibilities closely in the three villages under discussion, and a fully satisfactory answer could only come from the kind of detail that was never written down about the farming operations of the peasants.

The disappearance of the fallows, and their re-appearance later, raises a problem of some interest in view of the recent controversy about the "Common Field" system. Before the fallows
were eroded and disappeared, they were undoubtedly common, as the Inquisitiones Post Mortem of the time usually specify. There is even the hint in the 1316 Extent of Agnes de Bray that any arable that could not be sown became ipso facto common while in an unsown state. There is plenty of evidence from the later period to show the fallows again subject to common. As Mrs. Thirsk¹ so rightly emphasised, in this later period it seems to be the right of common on fallows that provides the biggest barrier to change. In Landbeach it was the lord of Milton's right to common merely on the mown lands of the old Meadowfield that held back the final enclosure.² Yet much difficulties were clearly not insuperable in the fourteenth century. As with our maps, so with other documents, one can read back far too much from the end of the open fields into the medieval period.


¹ LPC, Collectanea, Masters' Correspondence.
COTTENHAM TOWN
on the eve of ENCLOSURE.

Source CRO Q/RDc31
circa 1845

Map 19
Chapter III: VILLAGE PATTERNS

Cottenham

The first impression of the pattern of Cottenham village that one gets to-day on passing through, is of its unusual length. Ignoring recent ribbon development outside the area of the old village, its length from Green End to Church End is well over a mile. There are houses from the first half of the seventeenth century, if not perhaps earlier, on the side of the Green, and others of similar age to be noticed intermittently all the way along the High Street to the church. Here then, at first glance is an example of the geographer's street village, running from church to green, and only marred from perfect simplicity of pattern by the dog-leg formed by two right-angled bends in the middle. The farmhouses stand at the road-side, and their long yards stretch out behind them like generous crofts and tofts. One seems to have a medieval pattern almost perfectly preserved. If however one goes off the High Street down Denmark Street (the old Chequers Lane) there are other houses of similar age, showing that development in this area, away from the single street, had taken place well before Parliamentary Enclosure.  

1 See Map 19, p. 158.
On any map of the village which shows the property boundaries, the shape of the plots clearly differentiates the village into three main sections. This appears most dramatically in Alexander Halford's map made at the time of the Enclosure. The centre of the village is a large rectangle around which the High Street is diverted on its dog-leg. Here the plots are irregular, inclined towards short rectangles, but fitted together on no consistent pattern, and divided by sinuous lanes. North and south of this, for the most part, on both sides of the High Street, the properties run back from the road in long strips. Some of the boundary lines, if projected across the street, flow smoothly on to those on the opposite side. If one also looks at the boundaries at the back of these properties it becomes clear that these were once open field furlongs.

To the north the High Street runs almost straight to the Church. To the south it almost bisects the furlong, until the Histon road forks left and the Hampton and Oakington road swings right, leaving the Green as a triangle in the fork. The outline of the central rectangle, and the property boundaries in the area of strips, fit nearly into the general pattern of the open fields of the village, with its axes approximately north-east south-west.

1 CRO 124/P42: cf Maps 19+20.
and north-west south-east. The line of the High Street from
the village centre to the church appears to be imposed slightly
diagonally on this, as does the Histon Road from the apex of the
Green.

It has been argued elsewhere that the sites of the churches
in these three villages were chosen as the first convenient spot
of firm ground above the peat soil and the reach of the flood
waters, and that the heavy stone was transported to them by barge
along the Lodes. This might well involve a change of site from
that of a previous wooden church, and the legend that sometimes
enshrines the memory of the change of site has survived in
Cottenham. It was intended, so the legend runs, that the church
should be built on Church Hill, much nearer to the village centre
and adjacent to the closes of the principal manor, Crowlands.
However, although the good inhabitants placed the stones there
during the day, each night the Devil moved them to the new site,
and in the end in exhaustion they accepted the Devil's choice.
Jacob Sanderson in his memoirs has a slightly different version
in which not the Devil, but the Aborigines were responsible.¹
This has an echo of the Celtic-speaking demons who tormented
St. Guthlac, the founder of Crowland in another part of the Fens.

¹ Notebook.
If there really were a change in the site of the church when it was first built in stone as the legend implies, then the fragments of re-used stone with Norman tooling and decoration in the walls suggest that this was not later than Norman times. We know too that a Cottenham Lode was available in the early Norman period for the Conqueror to use in his assault on Ely.¹

The major change of village pattern which resulted in the northwards extension through the open fields to the new church probably began in the Norman period. The central rectangular area would seem to have been the late Saxon village.

The southern extension is not so easy to date: it may well have been from the same period as that in the north: the site of the Manor house of Burdlaries or Harlestons on the village green can not have been settled before this extension. But the triangular green could possibly date from the grant of a Fair to the Rector in 1265.² The other triangle where Denmark Road sweeps off to the right looks suspiciously like another earlier green, and the former site of the blacksmith's shop at its apex strengthens this probability, the village green being the common site of the village smithy in these parts.

¹ Liber Eliensis, p. 182.
² W. Farrer, Feudal Cambridgeshire (Cambridge, 1920), p. 34.
Plate IV. Stukeley's Sketch of Crowland Manor, Cottenham.

(pmelian Ms. Top. eccles. d. 6.)
The part of the village not so far discussed is the area across the High Street to the west and north of the central rectangle. Here was the demesne homestead of Crowlands Manor in medieval times, and by the time of Katherine Pepys in the eighteenth century, and possibly originally, the demesne homesteads of at least two other manors. Lordship Lane, Lordship House, and Pelhams Croft Close formed a consolidated block. Around the Crowlands site there is a convergence of some of the boundaries towards a square elevation in a moat. Beyond this, across the joint ditch was once a much larger rectangular moat.¹ This presumably held medieval warehouses and other out-buildings. The square site is presumed to have held the Hall, although since it is now an orchard and planted with daffodils, no remains can be looked for. Leading up from this towards the High Street, until the recent levelling by bulldozer, was a raised roadway between two shallow ditches. A small lode runs from the northern corner of the larger moat to the Cut, and so, via the Waits to what was once Cottenham Lode. This moat was where the Abbot of Crowland's small barges could take aboard the produce of his manors of Cottenham, Oakington and Dry Drayton, for shipping off through the fens to the Abbey. Cottenham was the malting centre

¹ There is a good Stukeley drawing of this house and moated site on 28th August, 1731, in Bodleian. MS. Top. eccles, d.6, and another of what appears to be the Lordship House in the same year in MS. Top. gen. d.14 fol. 30v. See plates III and IV, pp. 164, 165.
for the three: was the medieval malting in the large rectangular moat, and did the Oakington bailiff bring his barley down the now extinct roadway? When the demesnes of Cottenham and Oakington were leased in 1430 and the rents delivered in malt, no longer did the Oakington farmer need to bring his sacks down the road through the Cottenham farmer's yards. Broad Lane seems obviously designed for loading from the north side of the moat, and it was malt, not barley for malting, that now came to Cottenham.

In the Collectors' accounts for the Cambridgeshire Crowlands manors for 1454-56 there are details of extensive rebuilding of the manor farm buildings at Cottenham; in the first year, Hall, Granary, Kitchen and Bakehouse, and in the second, Kilnhouse, Great Barn and Shephouse. This suggests a complete adaptation of the site to the needs of the lay farmer. It may also be the shifting of the farmstead and house from the moated sites up towards the village street. The present Crowland House, which under its stucco and slates is reported to have gothic windows hidden, and which well deserves detailed investigation whenever a major renovation takes place, stands back from the building line of the other houses on the High Street. It quite possibly

1  ECA, p. 438.
2  CUL Queens', Cd. 39 and Cd. 83.
Plate V. The Cottenham Fire of 1850. (Illustrated London News.)
The most devastating of the many fires in this village.
contains some of the structure of the new hall referred to in
the Account Roll, and very probably indeed marks its site. All
the other old houses stand near or upon the line of the sidewalk
and appear to have long done so. The 1596 Agreement, Article
XXXVII, regulated "any Pales, Walls, Hedges, or other fences
standing before their houses towards the Street", "so that they
which shall be hereafter made shall not stand further into the
Street than without the compass of the outmost part of the eaves'
drop of the house."¹

The village suffered a large number of fires in the nineteenth
century, the worst of which was in 1850. An engraving in the
Illustrated London News² of the time shows a great tract of the
High Street as a series of exposed chimneys surrounded by smoking
debris. The extent of the re-building necessary in Cottenham at
this time gives a unity of style to the numerous yellow brick
houses and shops all re-built in a short space. But what is
more remarkable is that this was when Enclosure had just made it
possible to build away from the village centre, out on the farmlands.
This did not happen. The tradition of the nucleated village was
still at full strength, and several much older chimneys emerge from
the tops of yellow early Victorian villas, the houses having been
re-built around what little was left by the fire. Such older

¹ Common Rights, p. 221, Article XXXVII.
² Plate V, p. 168
houses as remain may often date from the re-building after the earlier great fire of 1676.¹

The Hards in some of the commons appear to have offered possible sites for squatters' houses in the Tudor period, but the agreement of 1596 put an end to that. Article XIV forbade the erection on the Commons of any "Houses, Hovels, Sheds or other like buildings" except for one little cottage or shed for the keeper of the Fen, and ordered all those then standing to be pulled down.² On the eve of enclosure the pattern of the village was very much as it had evolved in the Middle Ages, with little in the way of general alteration in lay-out having come since. The medieval pattern itself was, as we have seen, a compound, but this must reflect both periods of change and periods of stability. From the high middle ages stability seems the dominant note in the pattern of this village even more than it was in the pattern of its fields.

After enclosure it was expected that the village would disperse over the old open fields and commons. The Rector was so sure of this that he claimed that land should be set aside to pay for the erection of new churches and chapels that would be needed to serve

¹ L'Estrange, R., A Sad Relation of a General Fire at Cottenham Four Miles Distant from Cambridge, 1676.
² Ibid., p. 204, Article XIV.
the groups of people who would move to new homes remote from the old religious buildings. He failed to win his point, but the village failed to spread. It was not until after the first World War that much development took place outside the old envelope. Some ribbon building came along the Histon Road, Rampton Road and Lambs' Lane, but there was plenty of land for growth by infilling. After the Second World War most of the new estates have been built on the periphery of the old. Enclosure made surprisingly little difference to the village pattern for well over a century: the fields remained empty of buildings except for the three corn mills; the pumping mills on the far edges of the fens came down but were replaced by engine houses. The few farmsteads along Twintypence Road and the other droves, and "Gravel Diggers" which eventually turned into a farmhouse, scarcely break the emptiness of the fens even after the new intensity of cultivation that followed the ploughing up.

Perhaps the greatest change of the Enclosure at the village centre was the addition of the strips of field land south-east of Lambs' Lane to yards of houses on the southern part of the High Street. Some of these houses have quite a moderate frontage, but back gardens stretching back right to Lambs' Lane, containing over four acres, a parody of medieval croft and toft.
LANDBEACH

THE ANCIENT VILLAGE LAYOUT

(Diagramatic)

MAP 21

Arrows show direction of expansion.

Scale: 0.0001 miles

Post-Conquest, a.d. 1200

source: CCCC XXXV 150
Landbeach

A trip to Landbeach before the recent rash of new building, would have revealed a great contrast with Cottenham and a great similarity also.¹ The contrast is in the relative size: for Cambridgeshire Cottenham is exceptionally large; Landbeach exceptionally small. The similarity is in the immediate impression of the old village patterns: Landbeach again appears to have been a simple street village in the past. All the houses of any age appear to stand close to the Village High Street, or to the edge of the old Green at the north end, and this itself appears to the eye to have been little more than a widening of the road. The first farmhouse on the right-hand side of the road as one comes in from Milton, "The Limes", is certainly in part much older than Enclosure, but is quite close to the parish boundary; and the last old house in the north at Green End is a modified house of the seventeenth century. The cottages opposite the Cottenham turn, and the very recent ribbon development towards Milton, have done little to extend the length of the village. There has been relatively more post-Enclosure development in Landbeach, particularly along the Waterbeach Road and the turnpike road from Milton towards Stretham. This is so far away from the village centre that complaints of the inhabitants seem justified in that this development apparently

¹ See Map 29, end pocket.
belongs more to Waterbeach and Milton than to Landbeach. The fragment of Landbeach parish left on the east of the turnpike was of little use at all except for building, and this the road itself encouraged. Although Landbeach village proper is unable to support a Public House any more, the "Slap Up" across the Turnpike Road but just within the parish bounds, flourishes on trade from Waterbeach and the through traffic. The isolation of the Rectory Farm makes the old open fields seem more open than ever, and the cluster of three small County Council farmhouses along the Roman road does little to mitigate this. The houses along the Waterbeach Road, and along Spaldings Lane are practically all of this century, and Matthew Parker's Close is a creation of the last two years. In spite of this, the first impression of Landbeach, and two or three years ago this was even more true, is of a pre-industrial village scarcely touched by the modern world; again a simple street village.

But whereas the Cottenham plan came to look like a street village as the result of two early medieval developments from a centre of another kind, in Landbeach a similar effect was produced by the opposite kind of change, reduction rather more than growth, the change in Landbeach apparently starting when that at Cottenham was complete. This in no way is the paradox that it at first

1 TL 488651.
2 TL 465654.
3 Medieval Claystrate, TL 476653.
sight appears; medieval demographers would encourage us to expect
growth mainly before the fourteenth century and decay for some time
after. That change in opposite directions should end up with a
similar result is perhaps even less surprising: the most natural
result of free development seems to be ribbon development along a
main road. In Landbeach the ribbon development of the period of
expansion was exaggerated by the later reduction of the earlier
pattern in the period of shrinkage. There is nothing specifically
medieval in such a pattern.

But visual evidence in the form of earthworks, and a profusion
of documents read in combination with them, serve to show that this
was by no means a primitive pattern in Landbeach, but in fact a
product of the fifteenth century and of the Tudor period. The
series of Field Books of Landbeach begun in 1477 by Simon Greene¹
afford an excellent basis for the reconstruction of the pattern of
housing because each tenement was recorded in order along with the
open field strips.² In the late nineteenth century, the Rev. Bryan
Walker, Rector from 1871 to 1887, used Parker's Field Book of 1549
and the Terrier of 1727 in the Dukman Book to attempt to work out
the old village pattern by relating the entries to those in the
Enclosure Award of 1813. The result of this work is in his
Collectanea II in the Parker Library at Corpus Christi College.

1 Master of Corpus Christi College, Cambridge.
2 LPC, Field Book; and CCCX XXXV 162, 163, 164, 170, 172, 173,
175, 177.
This evidence was inadequate: Walker had to leave the reconstruction in incomplete note form, and for the greater part of the village, very conjectural, and often wrongly identified. But the other evidence especially the Rental of 1459 allows much more of the picture to be completed with a great deal more certainty.¹

In the modern village one has great difficulty in deciding where the centre is. The old Green, up until the parliamentary Enclosure of 1813, was to the north.² Just below this was the Church and Rectory, the site of the chief manor house (Chamberlains), and here also, for a hundred years from 1528 had stood the Guildhall. Further south still was the cross-roads with the village cross,³ and the site of Brays Manor on the west, the ancient dock on the east. Beyond this more than half the village tofts and crofts were laid out simply on either side of the street. Perhaps the question of where the village centre was, is the wrong one, and we should ask instead where was the original nucleus from which the village that we can see to-day developed. The middle section of the north-south street to-day is duplicated where Spalding's Lane runs parallel to the High Street to enclose the

¹ CCC XXXV, 150.
² See Map 28, p. 383.
³ CCC XXXV 194, and 199. (The Guildhall was built in 1528 and was still standing in 1631 when it is mentioned incidentally in a lease.) This appears on the O.S. maps as "Site of Market Cross", but no record of a grant of market rights can be found.
long tongue of green pasture and a garden. But the old village streets were far more complex than this. On the First Edition O.S. in both 6 and 25 inch versions, a Common Way runs up by the Common, parallel to the commercial ditch. In the only map that we have of the village before Enclosure, a very rough pencil sketch map by Robert Masters, this appears to be the way par excellence, to the Fens, and it is across this road that the Bars are placed. In the central rectangle of pasture, where the Village Hall has long taken over the site of the Blacksmith's Shop, the whole enclosure can be seen to be bisected by a sunken way, running from Cockfen Lane to the Glebe in the north. This we may perhaps refer to as Brays' Church Path, for it is described as such for the lord, all his servants, reeve and ministers "ex antiquo usitate", in the Brays Court Roll for 9 Hen V. Yet another way ran north and south to the west of Spalding's Lane (Claystrate at this time). This was the way, still just visible as a slight dip in the cultivated field, called the common path "que vadit a Martyns usque Fenne ende." If to this one adds the old Roman road, there were no less than six parallel public ways running north and south in this middle part of the village. How far north any of them went is more doubtful. The 1459 Rental

1 Ordnance Survey, First Edition Cambridgeshire sheets, XXXVSE and XLNE, surveyed in 1887.
2 CCCC XXXV 185, Miscellaneous Documents.
3 CCCC XXXV 124.
4 CCCC XXXV 150.
refers to our High Street consistently as "Church Way From the South", or its Latin equivalent, and the same document shows that the northern boundary of the Green was the "aque cursus antiquus" which divided Chamberlains demesne from Maydecrofts. This is the large banked moat which appears to have crossed the line of the present High Street at the "Hill" and joined the section of ditch which now stands in apparently purposeless isolation in the field up towards the Roman Road. The way on which Scachbow Cottage now stands is the middle section of the ditch filled in. This "Moreditch" would appear to have, in ancient times, marked off the village from the fens and probably its bank was protection against their flood-waters.

There were anciently far more east-west ways in this part of the village too.¹ There is clearly visible a sunken way, parallel to Cockfen Lane from the Roman road to Brays manor site, a little north of the present southern boundary of Cockfens and Martyns Closes. It is in exactly the right position to fit the dimensions for these Closes written in Parker's own hand on the paper now in the end of the Fen Book.² This way may well have passed on to join the path north of Wort's Farmhouse, which now continues to the High Street. The Rectory Lane and the path between Chamberlains demesnes and the cemetery, on the east, converged towards the church. Two lanes on the west, Theobaud's Stile,

¹ See Map 21, p. 172.
² LPC, Fen Book, end paper.
starting just above the junction of the present High Street and Spalding's Lane, and a highway parallel but further south, run out to the way from Martyns unto the fens, and on to the Roman Road. Across the central area between the two main roads, forming the southern boundary of the Glebe, ran Lurteburgh Lane, which would have connected the highway just mentioned with the path called Gibb's Stile, the south boundary of the Rectory.

There is a certain grid-like quality about this pattern of the northern part of the village, even though few lines are straight and few corners rectilinear. On the reconstructed map of the fifteenth century village, the north-east quadrant forms a solid block of Chamberlains demesne enclosure, with the church and rectory.¹ West of this another rectangle, slightly smaller, was made up entirely of Chamberlain bondage tenements, until Osberns became vacant. Brays bondage tenements lie to the south in a similar, if not quite so neat, block. Most of these appear to be untenanted by the time of the first Field Book, 1477. The eleven of these which ran down either side of the present Spalding's lane, were only interrupted by one close. There were six tenements somewhere in this part of the village, and Bryan Walker, working from his limited evidence, guessed them to be on either side of Cockfen's Lane. The boundary ditches and house platforms of two

¹ See Map 28, p. 383.
of this block of six are in fact still clearly visible on either side of Brays Church Path in the great central grass field of the village and the six are listed in pairs on either side of the path in Brays Court Rolls. Notes in the Field Books help further to show their positions, the tenement of Brays held by Henry Herne in 1477 was held by John Herne in 1549, being next to the Rector's garden. Also adjacent is "Denys" (1477) or "Deynes" (1549). This garden is described with some geometrical elaboration in the 1459 rental, and is still glebe land. It forms a triangular tongue of land stuck out towards the north opposite the Rectory and cemetery, in the vivid phraseology of the rental. The first Chamberlain tenement in this group is "Bech" or Beares, which is noted as being opposite the tenement in which Edwards lives. This appears in due course as Copt Hall, across the High Street, south of the Rectory. The next Chamberlain's tenement, "Osborn's Iuxta Communem", would have been opposite the village land, the "little piece called Tree at the Cross", which appears to have been the corner of low land south of the playground of the old school. There was probably more common land at one time before the close definition at the Enclosure of the roads all around the village cross; in the field

1 CCC 124 as above.
2 Map 28, S22. 3 Map 28, S23. 4 Map 28, S24.
5 Map 28, S25. 6 Map 28, B5. 7 Map 28, B5.
8 Map 28, S26. 9 Map 28, B7.
under discussion the southern part, where the Village Hall now stands, and where the village smithy once stood, was probably once common. There has almost certainly been encroachment by the lords of Brays around the corner immediately to the south of this, and across the High Street such encroachment has left documentary evidence from very early in the fourteenth century and again in the sixteenth century. These relatively small slips of land, when they all lay open together, would have formed a moderate green around the cross, continuous with the main great common which stretched out behind Copt Hall, the Rectory, and the Chamberlain manor right to the Bars in the north-east. The cross-roads, which appears such a natural village centre to-day, would have appeared less so then but for the stone cross, since the road to Waterbeach was then only a "balke", (a field path) and its more important branch was the now almost invisible way over the common to the fens.

The tenements south of Cockfens Lane on the west of High Street were mostly held by charter; a few were simply described as free; bondage tenements were very few indeed. Across the road more tenements down as far as Rose Close appear to have

1 CCCC XXXV 19, with Parker's endorsement on CCCC XXXV 54; CCCC XXXV 194.
2 Map 28, B18.
been bondage (four out of five), but land south of this was again commonly held by charter.\(^1\)

Also off Cockfen Lane was sited the Manor of Brays.\(^2\) Its square moat with a slightly elevated centre was much smaller than the great moated complex of Chamberlains. Neither did it have any close to compare with Chamberlains Maydecrofts in the fifteenth and early sixteenth centuries; it only acquired the leases of the two large closes to the west, Martyns and Cockfens, in Kirby's time in the sixteenth century and some of the land near the Cross later still. In 1459 there were two cottages in Cockfens, held from the College by Roger Lane, against the Roman road at "Saunderes Towns Ende".\(^3\) This place-name is frequent in the charters and early rolls. It shows clearly that the earlier village was of a different pattern from that of the seventeenth century. The rate list of 1639 set out the houses as being on the east side and the west side of a northern part called Green End, and a southern part called Lane End, the perfectly simple street village.\(^4\) The third "end" had gone. The name Cockfens itself, at first sight rather puzzling since it refers to one of the least fenny parts

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1 It is not quite clear what is implied by the phrase, "tenet per cartam" in the Field Book. It is presumably land which has become freehold by enfranchisement. This tenure is commonly most frequent for tenements made from old open field land, but not quite exclusively so.

2 Map 28, M25.

3 Map 28, M28.

4 LPC Second Register, p. 138.
of the village, helps by defining what part of the east-west road was considered village street in the high middle ages. Cockfens Close had been held by William Fen before the Lanes, and before them by Roger Sandre who received his charter of enfranchisement in 1377. The bridge where the road to the east crossed Banworth ditch was called Cockes Bridge. It looks, then, as if the street got its name because it ran from Sanders' Towns End, or "Fennes Close" when the Fen family lived there, to the bridge in the hands of Cockes. The Attefen family of the Hundred Rolls must have moved here, possibly in the great fourteenth century floods. The whole northern part of the village at this stage appears to have been a roughly gridded rectangle with bank and ditch on the north and east. The house plots south of the cross-roads may be a secondary growth on to this earlier pattern, and one wonders whether the site of the manor of Brays was not an accretion on to the early Saxon village.

Here the tenures as shown by the documents help to reinforce the topographical descriptions in them, and together with the visual evidence they suggest that this may well be the case.

There are, broadly speaking, two shapes of peasant tenement which survive well in the modern map of the village: there is a long type with a very narrow frontage, and a broad type, more inclined to square, but on occasion having a wider frontage than

1 See Map 21.
its depth. The long type looks very much from the shape as if it could be derived from open-field selions. These were situated on the whole on the west side of the village. In the south-west quadrant of the present village many of the property boundaries clearly show the reversed-S aratral curve even to-day. Yards behind some of the houses show up clearly in air photographs as ridge and furrow. Such ridge and furrow can also be seen, although not all running parallel in a single furlong, in some of the plots on either side of the most southerly properties on the High Street. But there is none at all of this visual evidence of ridge and furrow in the block of long and narrow Chamberlain bondage tenements in the north-west.

The field books give the measurements of many of the tenements in selions as well as in acres. But these are not given for any on the east side of the village from Rose Close northwards, nor are they given for any north of Cockfens Lane on the west except for Pantlions Close, and a small close of two selions once held by Martyns, near his old home. However, south of Cockfens on the west all of the tenements are listed in selions except the Manor of Brays, two college tenements nearby, and one close. The close is called "Haveden de Meadow", meaning a headland used as access way, and this is clearly the equivalent of reckoning in selions.
The two College closes are the nuclei of Cockfens and Martyns, and Martyns has four selions of the College listed next to it, while Cockfens has fourteen selions of the College adjacent. The four selions of Martyns show up well to-day in the grass. By 1549 all these appear as leased to Kirby; the fourteen selions are included with Cockfens, while the four of Martyns are still listed separately. These eighteen selions would appear to be part of the enclosures for which Kirby was blamed by the peasants in 1549.¹

The areas of croftlands recognised as enclosure from open field by listing as selions in the field books, and confirmed by earthworks, would appear to lie entirely on the west or south of the village. In the south-west quadrant only the Manor of Brays and the two nuclei of Cockfens and Martyns would seem to have any claim not to be encroachments on to old arable. In the south-east quadrant all the tenements from Rose Close northwards appear never to have been open-field land. This suggests that at some stage the village expanded from the original rectangular grid in the north, partly on the west, but much more to the south. Since Banworth tenements after Rose Close were enclosures from open field, they cannot have been made until after Banworth was so developed. This would also suggest that down to Rose Close such

¹ CCCC XXXV 194.
tenements had been created for the expanding village before Banworth was taken in to the open field system, and this we suggested in the discussion on the fields as having happened early in the fourteenth century. Expansion of the housing area never quite reached the parish boundary with Milton: on the east the last four selions never appear to have been built on; on the west at least six more tenements could have been made by incorporating "haveden de meadow" and the selions behind it into the house-plots. The greater part of the expansion must have taken place by about 1300, and the process appears to have halted not long after. The Black Death may well have stopped it.

The date of the decaying of various tenements after the Black Death is very hard to come by, and much has to be inferred from the Rental of 1459. This is unique among the medieval documents dealing with Landbeach for the quantity and careful quality of the topographical detail given. Another of the great administrators and Masters of Corpus Christi was responsible for it being made and preserved, John Botright.\(^1\) He was near enough in time for the roll to reflect some of the work of Billingford,\(^2\) and to link on to some of the documents for which Simon Greene\(^3\) was the initiator, and so in turn to Matthew Parker.\(^4\) What we have appears to be a copy of 1461, in part brought up to date. It was kept in a bag in the manor

1 Master of CCCC 1443-1475.
2 Master of CCCC 1398-1432.
3 Master of CCCC 1477-1487.
4 Master of CCCC 1544-1553.
at Landbeach for the use of the Collector, and the rentals form a good series in consequence from this time on. The administrators of the College not only preserved a great deal of evidence for us of now vanished topographical detail, but they also had a direct formative influence on the landscape of the village. This influence was particularly strong because of the close association of the Rectory and living with the Fellows and Masters of the College, so that there was a constant influence approaching that of an active resident lord. And the existence of the Manor of Brays meant that there was constant need for vigilance as to the College's interests. In his *Collectanea*, Robert Masters referred to the rental as "an old bagged roll; very curious", and passed on. For once we cannot afford to follow him.

The Rental is only concerned with Chamberlain lands from which rent is due, and so it only sheds light on Brays tenements by means of abbuttals. Field land is given without detailed identification, but every tenement is identified north, south, east and west. The system of classification, which attempted both to give an orderly account east and then west of the High Street, and to group the demesne leases and separate the Glebe at the same time, broke down, but not disastrously so. Abuttals make it possible to replace displaced tenements correctly. The whole of the eastern side, including the Brays holdings, is completely identifiable. The
only parts of the village for which information is missing are
where contiguous Brays holdings meant that there was nothing to
record in a Chamberlains Rental.

The village green of Landbeach on the eve of Enclosure was
a long rectangle, through which the road towards Stretham passed,
at the north end of the village. Surrounded by well spaced out
houses and cottages, mainly of the seventeenth and eighteenth
centuries, it is still a most important visual feature of the
village. On the eastern fringe are still some of the Charity
cottages built on the lords' waste. On the west, it is divided
up into long front gardens except where the County Council has
violated the building line for a new farmhouse. But it was not
a primitive feature of the village: its genesis is recorded in
the rental of 1459:

"Item pro quodam antiquo bondagio cum crofta, [quod]
olim vocatur Willielmi Osbernys, modo vacuum viretum
dicti collegii et in manibus collegii iacente iuxta
dominium Chambreleyns modo in tenura collegii ex
parte orientali, et communem aque cursum ex parte
occidentali, cuius caput australre abbuttat super
illam viam regiam que vadit ex transverso inter
bondagium communiter vocatum Denys modo dominium
Willielmi Keterych et predictum viretum modo in
dominio collegii. Et caput borialre abbuttat super
aque cursum antiquum qui discurrebat inter dominium
Chamberleyns et Maydecrofte alias tenementum Thome
Bradfelds perquisitum ad collegium."
The detail of its creation is given more fully in an earlier passage:

"... viretum collegii quod olim fuit Willielmi Osberns avi patrui Johanis Sweyn qui Johannes colebat totum viretum predictum pluribus vicibus teste Magistro Adam et Domino Thoma parochiali presbytero ibidem." 1

This implies that some years before 1439, the Osberns holding fell into the hands of the lord of the manor and had no permanent taker as a tenement, although the land going with it seems to have been leased out. This holding was then let and cultivated for several years. The further details of exactly how, and under what terms it became the Green are not given, nor do we know how this relates to the whittling away of the common land around the Cross. The "Little Piece called Tree at the Cross" in Parker's Field Book is only a relic. Kirby's property nearest the Cross was called "Green Croft", and the bends in the roads as they approach are suggestive of the boundaries of a former common area around the intersection. The tenement called the "Flood" was enclosed at the south-west very early in the fourteenth century. All the hints suggest an earlier more conventional village green around the cross, as an outlying arm of the common. The creation of the college Green in the north probably speeded its extinction.2

1 The above paragraphs are based on the Rental of 1459, CCCC XXXV 150. John Swayn, senr., died in 1439.

2 Sowde, in CCCC XXXV 194, refers to the College Green as "Loo Grene", implying another, higher green about the time when Kirby was making his encroachments around the cross roads.
When one looks at the Green in Landbeach to-day, and remembers that it was formerly Osberns' bondage tenement, the size seems far too large. Cockfens and Martyns are similarly incredible until one remembers the southern extension and the addition of the blocks of arable to these closes in the sixteenth century. The 1459 Rental helps to correct this impression for Osberns also. In the north it stopped where the ancient ditch once crossed the road below the "Hill", and in the south was William Sweyn's garden and land of the Manor of Bray's. Nevertheless it must have been one of the largest of the peasant homesteads in the village, and the fact that it went out of habitation and then out of cultivation suggests that land cannot have been in very short supply.

The rental also gives us a picture of the manorial complex at the north end of the village, a picture that again belongs very much to its time. It is no longer a house for a man of some importance: the Hall has gone and its site is used as a yard. Instead it is primarily a house for sheep. The ten scattered acres of arable compare weakly with the pastures of Maydecroft and Bradfelds to the north against the fen. Inside the moat on the east, but bounded on the west by the unbanked ditch, lay the ridge and furrow of the arable created by special permission of the lords, but since abandoned. Five hundred years later it still
lies there quite visible. Instead of a lord or even a farmer's house there was a "schepen" and "insethous" for the shepherd, and a "schepecote" for the Rector who had the demesne farm. But the greater part of the home demesne block was one great sheep pound. From then on the Rectory seems to have been the "Great House" as far as Chamberlain's Manor was concerned.

If the evidence of the fifteenth and sixteenth centuries shows change in the direction of the falling down of peasant houses, there is also some evidence of resistance to this process by the manor courts in the earlier part of the period. It is after the drop in population in the fourteenth century that the court rolls and account rolls become increasingly filled with orders to repair and maintain houses. Often these are very specific as to whether the repairs needed are in thack, timber, or groundcilling.

1 It appears that further selions adjacent to this were added, and probably the whole group were cultivated for a short time. None of these appear in the field books, and the most probable period for this second period of ploughing here would be the Napoleonic Wars. University of Cambridge, Committee for Aerial Photography, AZY5, 10/11/69, 135/477656. This photograph shows clearly the difference between the original six and the rest.

2 The same is true of the Cambridgeshire Crowland properties. Miss Page's Table (ECA, p. 3) is misleading. There is whole drawer of Collectors' Accounts for the Cambridgeshire manors in the fifteenth and sixteenth centuries and an excellent Reeve's account for Oakington in the early fourteenth century, which appear to have been unknown to her. Williams' handlist wildly misdates these, but they cover Miss Page's largest gap in her Table and contain considerable detail on the maintenance of buildings in the period when the Abbot had become a rentier.
The effects of the great Black Death are immediately visible in Landbeach, and housing problems are becoming serious from the lord's point of view within months. In a Chamberlains Court Roll for 1350 we find an inquisition given until the next court to seek out and report to the lord the names of those who have robbed building materials from divers tenements now in the lord's hands. They also report that damage is being done in the hay and corn because of failure to repair ruinous walls and fences. If the lord chose to cut his losses and become a rentier, as he did permanently on the Crowland Manor of Cottenham in 1430, then the maintenance of property was left as his chief managerial interest at a time when conditions were making it particularly difficult in face of falling population. He might instead give up the struggle and concentrate on sheep farming with its low labour costs and use abandoned holdings as home pastures, which gave facilities for extra care and better shelter. This would make for greater efficiency in the running of large-scale flocks on the extensive pastures of the fen edge. He might try to combine both policies as he clearly did in Cottenham Crowlands and Landbeach Chamberlains after 1430 by stock and land lease. Brays demesne was also leased at practically the same time.¹

¹ CCC XXXV 121 and 124.
But even then his troubles would be far from over: land hungry peasants who found it easy to engross holdings, could not easily be forced to maintain unwanted houses. Gentlemen graziers might be worse.

In Landbeach there is much evidence of both engrossing of tenements and of empty house plots in the 1459 rental, and more in the Field Books. In the southern part of the village alone the incidental references to Brays lands show empty crofts for Richards, Hache, Leffe, John Fen and William Trewe. The Prior of Barnwell's tenement has become a close leased to the farm of Chamberlains. In 1461 John Lane is given Hache's cottage rent free for the first year in order to get it repaired. The Crowland Account Rolls of this period are full of instances of the lord bearing the cost of dilapidations in this and similar ways.

In 1433 Henry Attelane was listed as one of the gentlemen of Cambridgeshire.¹ In 1459 he or his son had "terrace at mansio" east of the High Street, very near the parish boundary with Milton. This must represent the high-water mark of the expansion of the housing area. By 1477 the family had moved with the mansio (the only one in the village) across the road and up to the heart of things, next to the Brays home demesne, very near the site of the

¹ Landbeach, p. 31.
present Worts Farm House. But centripetal forces did not have free rein: a resident lord of the manor might have his own ends to pursue in conflict with them. Such a man was Richard Kirby, lord of the Manor of Brays, active in the reigns of Henry VIII and Edward VI. Resident and vigorous, fitting well the stereotype of the ruthless, acquisitive gentleman grazier that the moralists of the time raged against, he more than anyone else was responsible for building up the Brays series of grass closes which ran across the middle of the village, out of common land, peasant tenements, and open field. It is the increase of such closes in the village, chiefly from tenements that have lost their houses, that makes most of the differences between Parker's Field Book, and that of 1727 in the Dukman Book.

The process had begun by 1549 in that most of Kirby's tenements were empty, and the peasants reported that he had let fourteen or more fall down recently. But by 1727 the process is accepted and has been rounded off by further exchanges, combinations and extensions. What had been the heart of the old built up area now presented quite a different picture. After the eight College tenements, still lying as they had in the earliest records, comes:

1 The Lanes would appear to be successors to the Knights who were the principal freeholders in the Hundred Rolls. The move was from B21 to M7 on Map 28, p. 383.
"Two closes of pasture
One close of pasture next the Cock Fen Lane
At the west end of the said closes a pightell
Next to a pightell of the aforesaid first
   closes lyeth a Tree Close
   Thos. Sparrow  Thos. Christmas
A tenement Coll.  Thos. Sparrow
   Thos. Christmas
A tenement Coll. with a croft
   Mr. Alington  Hutch Willson
Two closes called pightels next the
   lane on the east head and south side
   which lane leads into the field
A croft called the Nut-Tree yard or
   Moal-Yard of the College farmer
A tenement with a croft Mr. Barkers
   lying between the aforesaid street
   and aforesaid lane Mr. Day
One close called Raye's next the lane
   leading from the street into the field
   against the Cross
The Manor House of Brayes  Mr. Barkers
   Sir John Barker,  
gent.
A close called Dovehouse Close and three
   more closes called Cockfens next to the
   lane on the north part, and on the west
   part and south side Mill Field, and also
   the Nutree Yard and a close called Green
   Croft next the common street are
   Mr. Barker's now Days. All these
   pastures lay for 16 acres

Further south Prior's Close, Townend Close, Rose Close and
other empty tenements had continued the process begun by the
Lanes' moving their mansion next to Brays.¹

¹ LPC Dukman Book, 'A Note of all the Tenements'. 
But 1727 was again in a period of increasing population, and part of the decay of houses in the main part of the village was the acceptance of the results of the earlier decrease. Fresh expansion had now been taking place. The Manor of Brays was divided between three substantial tenant farmers. Some of the peasant families had become yeomen, even on occasion calling themselves gentlemen. A handsome brick house had been built on one of the ancient bondage tenements before the Civil War and was now in the hands of the Annis family. The expansion that this new society needed, houses for the poor, could be economically provided at the cost of little land: houses for the poor need not have the statutory four acres of land attached, and there are six orders for poor folk to occupy such cottages in the College Archives. The corresponding order and exemption from the terms of the Act is in the Quarter Sessions Minutes for 1666. But some at least of these cottages had been built some time before. Scribbled on the back of what is clearly part of the "Survey of Beach" made in Copcot's time (in the 1590's) is a "list of tenements new builded on the lord's waste", two in number. Several of the tenants mentioned in 1666 are already there in the rate list of 1639.

1 CCCC XXXV 201; the Minute Books of Quarter Sessions are in CRO although they bear CUL Ad. Mss. references on their spines.

2 CCCC XXXV 175; this is clearly part of the same Survey as 173.
This list presents us with a startling change in the north-east quarter of the village. North of the Manor, on the eastern side of the Green are no less than eight of these cottages; another cottage is next to the Parsonage Barn, which suggests that there may have been some development in depth; south of Copthall are seven more cottages before crossing the Waterbeach Road, and three more follow. Of these the only survivors are those at each end. The southern one, now part of a general store, is clearly originally a three roomed house with attic chambers above. In the eighteenth century it was divided into two and an extra chimney and door (both since removed) added. Later it was further divided into three, and later still reunited and given the addition of a brick shop. The cottage at the north end appears originally to have been the same type, but has been reduced at one end.

Since we find names such as Richard Foote and Thomas Wayman among the tenants in 1639, it looks as if older people who can only be poor through retirement found such land-free cottages a boon in old age. If the end cottages are a fair sample, they would not often in the seventeenth century have reduced their standard of housing much by moving into one of these cottages.

1 Type 'J' of the Royal Commission on Historical Monuments. See An Inventory of Historical Monuments in the County of Cambridge, vol. 1, West Cambridgeshire (1968), pp. xlvi-xlvii, hereafter referred to as RCHM. B9 on Map 28, p. 383.
Across the Green the first of the old copyhold cottages was clearly originally of the same type, if a little larger, and the next appears to be of the related type "K". The quality of the site as well as of the house itself reflects the narrowness of the social divisions within the village at this time. One of the most substantial peasants can retire alongside the village herdman.

This was soon to change. Two of the charity cottages built by Robert Masters in the second half of the eighteenth century still survive, the Clerk's House and the Widow's or Schoolmaster's. These are two-roomed cottages with no chambers, no hall entrance, and originally with only one hearth. The schoolmaster's house used one room for the school and one, with a chimney, for the master's house.

There are sixty-two houses in the list of 1639. Such figures as we have suggest this number increased to 66 in 1664, but that it was falling in the eighteenth century, to 55 in 1727, and 49 in 1781. The big expansion in the number of houses came after the Enclosure. Some of the new small brick houses in the

1 The larger symmetrical house of this group; four cells in line with a central axial chimney and central entrance opposite the chimney.

2 1664 Hearth Tax; 1727 Dukman Book, and Speculum in CUL EDR B8/1; 1781 Masters' Collectanea in LPC.
south-west quadrant were built then around small courtyards, several being fitted in to the frontage of one old peasant tenement. Recent demolition has shown that only the external walls were brick. Internally they were of clay bat. But a good deal of the very large total of 116 inhabited houses given by Census enumerator in 1851 seem to have come from subdivision of old houses into two or three, as well as to the development along the Ely Road, away from the village proper. Thus there was no need for the multiplication of buildings in the village centre. The village kept its appearance of venerable age, alongside the ghosts of old bondage tenements in the evening shadows on the grass.
Waterbeach

Waterbeach village is even to-day dominated by its Green. Cut up by the remains of criss-crossing routes, it epitomises the incoherence of the whole village plan, and a stranger has the greatest difficulty in taking his bearings. This confused pattern is not new; but was already present in the generation after Parliamentary Enclosure. Clay wrote:

"That pleasant feature of village scenery, the green, on which the booths for the May feast are erected, and where the customary smithy stands, once well deserved to be called a green. On the contrary, of late years, it has been so worn in almost every direction by traffic, that it has hardly the least title to its original name." 1

For Cambridgeshire, Waterbeach Green, is on an ample scale, although certainly not the largest. But the pattern gives strong hints of encroachment, and not all of it recent. A comparison between the first edition of the O.S. 25" map and a modern revision indicates the extent to which such encroachment has taken place in the last hundred years. On the earlier map, the largest section of the green was not the present large triangle which remains intact, but the degraded rectangle to the south-east of it. This had already been invaded by the Gas Works, and earlier still by a Public House. The west side of the green has apparently been

1 Waterbeach, p. 31. See Map 22, p. 200.
encroached upon to a much greater extent still, and at a much earlier date. Seventeenth century houses still stand up against the present sidewalk on that side. Yet the road coming in from the crossing over the Old Tillage has obviously been diverted just past the Almshouses, and its former line can be traced by staggered intersections at the rear property boundaries to the High Street where this latter bears faintly right at the old Denney House.¹ A similar but much smaller encroachment appears to have taken place at the opposite end. On the north-east side, the boundary before encroachment lined up smoothly with the rear property boundary which runs towards the north. Neither is the southern boundary free from suspicion of encroachment. Originally Waterbeach Green must have been large enough to make a very considerable economic contribution to the life of the peasant community. Denson makes such claims for what was left on the eve of Enclosure, and even stronger ones for it as a social centre.²

The evolution of the village centre here, in spite of the ragged, untidy appearance of the pattern on the ground, is the story of the functional development of the intersection of main routes, inside a varying economic setting. In studying the field names, there were some grounds for suggesting an early two-field

1 I owe the understanding of staggered intersections to Dr. Peter Eden, but the application to Waterbeach is my own.

2 A Peasant's Voice, p. 16.
phase, certainly not later than the twelfth century. At this stage the most important way in the parish would have been from the centre to the two fields, the ancestors of Baneholsfeld to the east and Wulfholesfeld to the west, stretching out to the north of the village. These, together with the future Winfold Common, could be served from a way running north from Denney End. This road would also continue to the higher, and drier, pastures of Denney, and the fens of Chittering.

Thus the main economic axis of the village is represented by the old line of the High Street traced above. Air photographs show that the old Cambridge Way, after following this straight line, exactly on the present road from the almshouses to the crossing of the Car Dyke, continued quite straight for some distance into the fields, and then followed a slightly sinuous line on to Milton and Cambridge. Cambridge Way would have served a more immediate purpose also in giving access, and central access at that, to the third field, which as often as not took its name from the road, Cambridge Way Field.

The two more violent bends in this road, which to-day inconveniently follow the one at the crossing, derive from an old field path. The first section of the path ran along the bank of the Car Dyke, and continued as two feeder tracks to the two windmills; the second linked up with the field paths of Landbeach
parish. This part of the present main road was relatively minor until the construction of the Milton-Elly Turnpike in the 1760's.

The encroachment, and the bending of the roads through the village centre, suggest a powerful pull which caused development to move to the south-east. As Denney Abbey developed, particularly with the coming of the Templars, and as its economic importance in the parish grew, the northwards pull would also have grown stronger, and this may account for the ribbon development out from the Green to Denney End. The road that passes to the east of the triangular green after forking from the High Street, continued as straight as it could over the rest of the Green to the Church, which it passed at the west end, on straight into Waterbeach Abbey. A path still carries on without veering to what may well have been the watergate of the Abbey. From there it runs through the middle of a long field between the boundaries of the old Hall Field and the Hollow to the Car Dyke. Early medieval names for the Car Dyke, Rowditch and Eldelode, suggest that it was still of some navigational use in Norman times, when Waterbeach Abbey was built.

So far the forces described account for the northern triangle of the village centre, but there were still other pulls towards the south-east, the Cam with its ferries and fisheries, and perhaps even more important, its docks and wharfs. To-day,
Station Road still seems to connect the village to the Railway Station only as an afterthought, and this is exactly what it is. The purpose of this street was to connect with the dock, which is now filled in and forms the yard opposite "The Star" public house, by an earlier vicarage. The still open lode to this from the Banks Farm was the only one kept open as a navigable channel (Fourth Public Drain and Public Wharf) at the Parliamentary Enclosure. The original purpose was perhaps, not only as Clay suggested, to bring stone for the building of the church, but also for building the Abbey. It would appear probable that the Norman period, as at Cottenham, saw one of the most striking developments of the pattern of the village, for both Abbey and stone church seem to take their origins then.

The tongue of ground between the High Street and Fen Lane appears mostly to have been taken out of field land early on, and as old enclosures on the Award Map the plots still bear the characteristic shape of open field strips except at the southern end on the Green. This is also true of the area further east, the square south of Pieces Lane, "an ancient lane" in the Award. In this part of Cambridgeshire, furlongs taken out of the field and put down to grass, are called "Pieces". It is not possible to assign a date to such enclosures, but two of the Charity

1 Waterbeach Enclosure Award, 1818, in CRO, Q/R Dz 8, pp. 389-475.
2 CRO Q/RDc 31.
entries in the Court Book may well refer to them. In 1573 Robert Banckes agreed to a rent charge to the Vicar and the Towne, in return for lands surrendered to him. He was to allow a footpath and common of pasture over "Thurlebanes". Later he bought out their common of pasture over the "Pieces".

But a good deal of other development in the village appears to be medieval.\(^1\) Croft and toft boundaries appear to survive in part across the street from the old abbey site, adjacent to the dock. Further north, out towards Fen End, there is the suspiciously medieval name of "Back Lane". Fortunately we do not have to rely on this name alone: previously it also bore the name of Rotten Row. This name occurs from 7 Elizabeth on, and is the one used in the Award. It does not appear in the medieval entries: instead we find "le Newerowe" or "Newerowe" from 36 Edward III on. The house-plots as they survive appear to be without crofts, and are unusually cramped for medieval sites in this part of the country. The documents have ways of referring to them which suggest the same poverty:

36 Ed III "...to John Belte of one Chamber in le Newerowe with a Backside adjoining..."

36 Ed III "...Matilda Pannell one Chamber in Newerowe..."

2 Hen VI Admission of Symon Brunne "ad unam placeam in Newerowe..." 2

1 WCD 15 Eliz. I; cf. Waterbeach, p. 72.
2 WCD under regnal years.
This was the medieval way from the village to the fens. In the period of generally falling population, that of Willingham seems to have gone on increasing rapidly, and this has been explained as due to the possibility of an easy life which its fens afforded to run-away villeins and other doubtful characters. Waterbeach has been cursed with the same reputation. Layer says of it:

"...a Fenn town of large Extent ... having large and spacious commons and marish grounds as most of the fen towns have, which is the cause that a multitude of poor and mean people do resort and inhabit there, to live an easy and idle life, by Fishing, Fowling and Feeding of Cattle." ¹

Denson told a similar story of the real opportunity that conditions in the common lands of Waterbeach still offered a poor man just before Enclosure, but from the poor man's point of view. What we may have witnessed in the references to Newerowe and Rotten Rowe is the building of a medieval slum for fenmen. It is not likely to have been the consequence of the closure of Waterbeach Abbey, for the house only moved to Denney.

There are thus several strong economic forces influencing the development of the pattern of Waterbeach village centre. The very straight street alignment which would have been a natural result of its open-field agriculture seems to have been submerged by what may

¹ BM Add. Mss. 5823, fol. 22.
well all be later elements in the village economy. The Church, the Abbey, the Lode and the Dock are certainly much later than the foundation of the village, as far as we can investigate them. The crucial question, on which the evidence is so far silent, is whether there was a wooden church before the stone one, and if so, where it was sited. The ferries and the waterway can have had little influence on village development until the causeways and the lode were constructed. Any previous traffic which used the Eldelode, the Car Dyke, would have only reinforced the linear tendency since it crossed the old axial road. Fisheries and exploitation of the fen could have taken place better from small scattered settlements before the construction of the causeways, and the special development of the village for what looks like ease of access to the fen, appears to have come in the fourteenth century. One might plausibly put forward the hypothesis that what we can see in Waterbeach is a street village, which later developments have turned into a green village; in fact, the opposite direction of development from its neighbours. This would be going further than the evidence justifies. It is indeed the direction of development, but we are not justified in assuming quite so simple a point of departure, although this is far from impossible.
Some of the south Cambridgeshire villages which result from forest clearance show signs of having been compounded from what began as scattered smaller settlements. There obviously were subsidiary settlements in Waterbeach but the axe does little to dry the fen, and on very small fen islands such settlements must have remained temporary and tiny. But such there were in favoured spots. A charter of 1352 in Corpus Christi archives shows at least part of one:

"... totum messuagium meum ... in villa de Waterbeche prout iacet in longitudine et latitudine iuxta magnam ripam inter tenementum quondam Benedicti Pittocks ex una parte et tenementum quondam Isabelle le maryner ex parte alia..."

With this went all manner of common rights in the fen, but no field land. Most important of all, three paths went with the holding in order to reach it. This is almost certainly where Banks Farm, otherwise Banks Cottage, formerly stood. Appropriately enough for Isabelle, it is now the Clubhouse of Cam Sailing Club.

Clayhithe Ferry also seems to have had someone living there in medieval times. In the Court Book we find under 49 Ed III:

"Lawrence King takes to farm a certain parcel of land at Clayeth, together with an house thereupon lately built, and heretofore devised to John Albyn." In Elrington's Lease, 1539,

1  CCC XXXV 41.
2  TL 502644.
there was a house at Cleyhith called the Feyry-house, with two osier holts, etc.¹ The fishery belonging to Denney at Mere Were in Stretham also had a ferry, with a cottage and osier holt.² But osier holts do not normally seem to have had houses. At the end of a Terrier of 1704 in the parish chest comes a note:

"N.B. There never was a house in Jesus Holt, in Common Plat, or in Townsend Close, or in the Town Holt, or in Kettles Holt." The island of Elmeney, abandoned by the Benedictines early on, would serve as a possible base for fenland farming in drier times, as it had for the Romans. As a close of Denney it would not have needed to wait for Parliamentary enclosure, and Reaney notes that it was named by Cole in 1740 already as Causeway End Farm.³

But the greatest of the subsidiary settlements in the parish was Denney Abbey. Originally a separate manor, it never had a separate field system, its arable lying intermingled with that of Waterbeach. Surrounded by closes, it had a much larger, if much lower area outside the open fields around it than had Waterbeach. In an almost square moated enclosure, it was connected to Waterbeach by a causeway which then ran along its south-eastern side and carried on straight to Elmeney. A little over a hundred yards

¹ Bodleian MS Gough Cambs. 69.
² Waterbeach, p. 124; cf. WPC, Masters vs Standley Bundle.
To Thomas Selater Bacon Esq.

Fellow of the Royal Society,
Owner of this Priory,
This Prospect is gratefully Inscrib'd by,
"Ye Offices Humbly Serv't".

Sam'l & Nath'l Buck.
THESE Priory was founded Anno 1160 for Benedictine Monks (subordinate to the Abbey of Ely) by Robert (Chamberl.) of Cona-Duke of Brittain and Richmond; who afterwards became a Monk Himself. In the 25 E. III. Anno 1343 Maria de Sancto Paulo Countess of Pembroke, converted this House into a Nunnery of the Order of S. Clare; and dedicated it to S. James & S. Leonard. She also annexed the Advowson of the Abbey of Minorefis at Waterbeach, and by Licenses from K. E. III. translated the Nuns to this House.

An: Tab. 270 & 34 Dog. 216 & 14 Speed.

S. & N. Buck delin & Sculp. 1774.
Masters' Engraving of Denney Abbey.
(Short Account, frontispiece)

This view of the Abbey in 1795 shows that the Dorter had survived in use as part of the farmhouse. This had fallen into ruin before the remains were taken into public guardianship. Otherwise the view of this face is scarcely changed, except for the replacement of mullioned windows by sashes, and the removal of the southern shaft for use as gate-posts.

View looking west.

Plate VII.
to the south, and butting squarely on to the causeway, is another set of earthworks. Many explanations have been offered, but the site must probably await investigation until the airfield closes.

The successive phases of its life, a Benedictine cell under Ely, a Templar infirmary, a house of Poor Clares, and after the Reformation a farmhouse, are all well preserved in the buildings still being exposed and restored by the Ministry of Works. The Nuns' fourteenth century refectory, which had been altered into a barn, lost its wall-paintings after the Ministry removed the roof to forestall collapse. Much further investigation remains to be done. One oddity in plan so far not yet explained, is that although the cloisters were moved after the nuns came, both monks and nuns had cloisters on the north. English Benedictine houses, founded as late as this seem normally to have had their cloisters on the more climatically suitable south side. There seems little reason for this, although north-side cloisters appear to have been built also at Swavesey, the nearest small religious house on this side of the Old West river. One possible explanation is that as a hospital under the Templars, the south side was required for an infirmary from which the permanent invalids could watch the Mass from their beds. One of the most interesting features of the plan so far discovered, is that the re-building under the Countess of Pembroke seems to have been
designed to provide a suitable residence for the Countess as well as the nuns. Never a large house, it seems to have struggled after the Countess’s death. Exposed to flood and isolation, tempest regularly threatened it. For instance, in 1325-6, during its period in royal hands before going to the Poor Clares, the solar, garderobe, granary, oxstall, great stable, kitchen and other buildings, all seem to have lost much of their thatch in a westerly gale, as did all the walls.¹ It was in some ways a more suitable site for the Templars than for the Poor Clares in its dangerous isolation. In 1350 John de Lexham, clerk, and divers other malefactors and disturbers of the king’s peace broke in by force and tried to seize and abduct certain nuns.²

The later story of the house under the Poor Clares is one of poverty and dilapidation, and has been told often enough elsewhere. As a farmhouse, it was of a much more convenient size than many old religious houses. Masters prints a good engraving of it as frontispiece to his Short Account. Much more of the Tudor work is showing in this than is now visible.³

By contrast, Waterbeach Abbey has only earthworks to show to-day, and after one brief emergency dig, most of the plan is

¹ PRO SC 6 766/12, Ministers’ Accounts.
² PRO C 47 50/7/160.
still concealed from us. In 1765 the evidence in the Masters vs. Standley case showed that many villagers were completely ignorant of its existence, so well had stone robbing been done long before. But some of its farm buildings were then still standing in the Hall Yard, and the main site had become the Pound Close.¹ Just enough earthworks remained at the old island of Elmeney to convince us that the Benedictines actually attempted to live there in their first attempt at founding a cell in the parish, but these have now been cleared, and the remains can only be found as soil marks, crop marks and sherds, with medieval and Roman intermixed.

¹ WPC, Masters vs. Standley Bundle.
The Nucleated Villages and Their Buildings

Neither Cottenham nor Waterbeach had a religious house in its bounds, nor did their topography tempt settlers away from the village centre until recent times. We have seen that squatters were stopped from building in the fens in Cottenham by the Agreement of 1596. The earliest record that we have of detached settlement in Landbeach is from the eighteenth century, when Goose Hall was built where the new Turnpike joined the Roman Road. It was a place where the flocks of geese being driven south to market could graze and stay overnight. As such it was not wanted near other houses.  

The features common to all three are often symbols of the life of a nucleated village. The greens of all three have been discussed, and in all three the smithy seems to have stood on the green, or former green. Clay has been cited as witness for this in Waterbeach. In Landbeach the smithy, which was pulled down before the First World War, stood on the corner opposite the site of the village cross, that is, on what had been the green until it was eventually lost after the new one had been formed at the north end. Cottenham had its smithy approximately where the War Memorial now stands, upon the fragment remaining of what

1 LPC, Correspondence in Tithe Book: the Rector feared an establishment for geese might be set up next to his garden.
looks like a former triangular green that appears to have been encroached upon at least as far back as the seventeenth century, to judge from the houses. All had at least one pound, and these figure regularly in all the medieval court rolls. One in Landbeach is still standing, a small overgrown brick enclosure against the street at the north-west corner of the churchyard. Each village once had its Camping Close near the church. These village recreation grounds are generally thought to have medieval origins, but the references all seem to come from post-medieval sources.¹

The patterns and development of these villages have, at least superficially, a strong resemblance to patterns found elsewhere. For example, the plan of Olney in Buckinghamshire shows two kinds of property boundaries very like the two which are found in Cottenham.² The chief difference is that in Olney the expansion on to old open field land took place on one side only instead of to both north and south. In Olney the development was from "organic" village into "planned" market town. As was suggested earlier, part of the development in Cottenham may have been due to the granting of a market in the thirteenth century, or it may have been simply due to the expansion of population and the consequent need for more homesteads.

¹ e.g. Waterbeach, p. 51; in Landbeach Mickleburgh's lease to Rivers Taylor, 1727.

The development of the south-western sector of Landbeach village was very similar except that the road formed the eastern boundary of the furlong, and so the croft and toft developed to the full depth of a selion's length, as in Olney rather than Cottenham where the new road bisected the furlong.

There seems to be a remarkable similarity in the development of two of our villages in their expansion, and many of the planned towns. No grant of a market can be traced in Landbeach, but the Ordnance Survey marks the site of the Market Cross near the cross-roads where there was formerly a large area of common land, and the presence of such a cross is confirmed by the Field books of the fifteenth, sixteenth and eighteenth centuries. A guildhall stood in Landbeach for a century from 1528.

These hints of quasi-urbanisation appear to offer a tentative explanation of Professor Beresford's problem about this county:
"Only Cambridgeshire seems to have possessed the secret of managing without plantations."1 If Landbeach had a market it was

1 M. Beresford, op. cit., p. 283. In fact Cambridgeshire did not quite manage this. There is convincing evidence in Swavesey to suggest that it was re-developed and moved towards the priory as a planned market town by the de la Zouches in the mid-thirteenth century. Earthworks show the streets and tofts of an earlier village on a different axis to the present one, centred much nearer to the Huntingdon Road. Remains and place-names suggest that the castle probably linked with the ditches and ramparts which enclosed the new town and dock area into a single system. The parochial aisle was added to the Saxon-styled priory church in mid-thirteenth century, judging from the early English arcades with water-holding mouldings inserted into the earlier chancel wall. In the Hundred Rolls of 1278-9 the de la Zouches had burgage tenants there, and the entry for Longstanton shows by its villein carrying services that Swavesey and Cambridge were the two markets for the sale of lord's corn.
probably unlicensed. It had no burgage tenements, but it did have a number of tenements where the field book says, "tenet per cartam". This implies an artificially created free tenement as distinct from both bond and ancient freehold. Nearby Rampton, a small village like Landbeach, as well as its market grant, had a castle commanding an important road junction, but it, too had no burgage tenements, and does not seem to have risen to town status either in scale or as a lawful borough. We seem to have a steady gradation in North Cambridgeshire from borough, to market town, to village. The landscape patterns seem to suggest common elements, with the effective differences mainly in scale. The expanding village produced similar patterns of property boundaries to those of the planned towns. Organic expansion which spilled over on to old open field land must always have required decision and regulation which elsewhere is called planned. The one shades in to the other: the distinction cannot be clear-cut.

The formal development of towns in Cambridgeshire may well have lagged because of the excellence of its communications by water, and its deep involvement with the international fairs at the very time most favourable to town development elsewhere. The enormous international demand for agricultural produce in the
thirteenth century may have siphoned off bulk transactions and left local trading so relatively slight that little was required in the way of formal arrangements and privileged status to conduct it.

With the exception of Waterbeach when there was a resident lord of the manor at Denney Abbey or Denney Abbey House in the seventeenth and eighteenth centuries, and of Cottenham during the time of Katherine Pepys, these villages seem to have been free of domination by the big house, and the parsonage has been more important than the manor. In their day, the rectories of Cottenham and Landbeach seem to have been among the finest houses in their villages, but the same does not appear to have been the case in eighteenth century Waterbeach. Cole agreed with Masters to accept what was supposed to be a better house when he took up residence there as Vicar. From his account it appears to have been what was probably the most common type of peasant house in this area:

"You observe I have a parlour, Hall and Kitchen: there is also a little brew house, which is correspondent to the rest of the House, which will have, when they are dry, 3 or 4 places to sleep in, with 2 good garretts." ¹

There have been at least two new vicarages built in Waterbeach since then, the changes reflecting the rise and decline in social status of the clergy.

The Rectories of Landbeach and Cottenham are early and late examples of the great rural re-building in this area. Behind a nineteenth century classical stone porch and an eighteenth century symmetrical brick facade, that in Landbeach is mainly the work of William Sowde, Rector 1528-44, and Master of Corpus Christi. He rebuilt the house as a chambered hall with two unequal cross-wings. The beam over the great fireplace in the hall bore his initials until it was destroyed in 1863. The chimney, of narrow brick with crow-stepping, is set on to the external wall. The main timbers of the hall ceiling carry double ogee mouldings. All this is quite consistent with Sowde's dates. In a note of Sowde's, copied by Clifford into the parish Field Book, he complains that he will never get back from the house the value of what he has spent upon it. The cellar is of fourteenth century date with stone ribs and brick panels in the vaulting. The roof of its vault is above ground level, and projects outside the house awkwardly to a line which may well represent the outer wall of a former aisled hall, reduced by Sowde to the line of its arcades as a north wing of the new house. A drawing by Masters in the Collectanea of the house as he came to it, shows a covered way formed by continuing the roof of this wing down to single storied height. This enables the main front door to be in the same wall as the end of the
Plate VIII. Landbeach Rectory, Masters' Plans for Alterations. 1756 Above as found. Centre as projected. Below completed. (LPC Collectanea).
Plate IX. Landbach Rectory; Masters's Plans of the alterations.
(LPC Collectanea).
Parlour, the west wall of this wing. The passage behind the door was thus continuous with the former Screens passage. This passage-way again would suggest the lines of an earlier aisled hall.¹

The north wing as rebuilt by Sowde consisted of Buttery, Pantry and Parlour with chambers above. The quality of the stonework, substantial archways leading to each of the rooms, show that this wing had unusual importance. With one parlour in this wing and a second in the south, the plan is rather abnormal. The leases of the rectory, both before and after the rebuilding, help to show the reason for this. The sixteenth century rectory at Landbeach had a treble purpose. Since the Rector was likely to be also the Master, or at least a senior Fellow of Corpus Christi College, it had to be a substantial farmhouse for the person who would take the farm of the Rectory lands. It had also to provide accommodation for a resident curate. Finally it had to provide suitable rooms for a cleric of some importance when he came to stay for the three principal Christian Festivals, and perhaps more. Thus the hybrid form represented the addition of what was mainly a clergy wing on to what was a farmhouse of pseudo-hall and cross-wing type.

¹ Landbeach, p. 89 sqq. discusses Rectory House. LPC Collectanea contains more information, and Masters' drawings of the house as he found and left it, with alternative schemes. LPC Tithe Book has later accounts, particularly of the garden. Plates VIII and IX are facsimiles of Masters' drawings.
The rebuilding of the rectory so early, in the van of the fashion for change, meant that it was old-fashioned as soon as similar houses had followed suit with even more modern ideas. By the late eighteenth century it was not adequate aesthetically for Robert Masters. His changes were designed primarily to give symmetry to the west front, even to the extent of a false sash window to balance. The brick facade, even before Tinkler's porch was added, gave a classical air to what was still in spirit a building in the medieval tradition.

The old rectory at Cottenham was not modernised until 1696-8.\footnote{For Cottenham Rectory: BM Ad. Mss. 584?, p. 83, Bishop Patrick's licence to Thomas Jekyll, Rector, to re-build 1696, and the cancellation on completion of the work in 1698. CRO Cot. C 35, Cottenham Glebe Terriers for 1638 and 1645; copies in CUL EDR.} Even then part only of the medieval great hall was pulled down in order to add another wing to balance that already there. The result, with its most attractive brick, is a delightful house, well able to measure up to the standards of the eighteenth century.

A full commentary on the housing of the area would alone require more space than the whole of this study, but it is possible to make a few general comments. In spite of the fires, especially the "incendiary fires" of the nineteenth century, which were very frequent in both Cottenham and Waterbeach, all three villages show an impressive number of houses still surviving of the types
identified by the Royal Commission on Historical Monuments as peasant building of the first half of the seventeenth century.\(^1\) The probate inventories, which are on the whole unusually good and very specific as to rooms, unfortunately only begin after the Restoration, but give an even stronger impression of large-scale rebuilding up to the newer standards. There is no doubt at all that in the second half of the seventeenth century, as far as the evidence of the inventories go, that the outstanding house socially in the area is Denney Abbey. Perhaps its most splendid phase was as a gentleman's farmhouse and country home.\(^2\)

The peasant tradition of building continued long after new methods and new styles had been introduced. The first brick house that can be discovered in Landbeach, the present Beach Farm, seems long to have been one of the only two. Its plan and style would date it to the period before the Civil War, but it is still referred to in the Fen Book in 1665 as "John Annis's brick house." Modern requirements appear to have found the peasant housing of the eighteenth century on the whole less

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1 Notebook lists a whole series of mid-century fires. See also A Sad Relation of a Dreadful Fire at Cottenham, Four Miles Distant from Cambridge, R. L'Estrange (1676). The Great Fire of Cottenham appears to have happened ten years after that of London.

2 CUA in year bundle for 1666, the inventory of Richard Kettle, 1686, the inventory of Joseph Kettle.
satisfactory than that of the seventeenth. Consequently there are less of these still standing, if indeed there ever were many. Denson gives a very clear account of cheap housing being provided by the peasants for themselves by clay bat construction as late as 1821. In so far as these survive still, the thatched roofs have nearly all been replaced by slate or tile. Far more of the thatched roofs have survived on the earlier peasant houses, although a number of these, too, have changed to tile. But worst of all, corrugated iron came in as an emergency covering for dilapidated thatch when skilled thatchers could not be found, and once in place, if often remained. Traditional methods and materials achieved an effect which planners would imitate if they could, but for all their powers are impotent to create.

1 A Peasant's Voice, pp. 28-9.
In the Fens, vegetation, like drainage, was very much the resultant of human effort and human neglect on the natural environment. Unfortunately the medieval documents give us no very precise idea as to the amount and kind of the tree cover in any part of the area, but hints and fragments only. Examination of vegetable remains and pollen analysis have shown that the old car fen developed a cover of buckthorns, guelder rose, sallow and dwarf willow in the mixed sedge, just as at Wicken to-day, and that it also contained in abundance alders which have been mysteriously reluctant to re-establish themselves at Wicken. Alders appear from time to time in the documents for our area: early in the fifteenth century there is a grant in Landbeach of a cottage with three acres of land and an alder ground. By this time timber was precious. With further neglect of the fen, birch, oak and ash colonise. On the fen islands the larger trees would find life easier. Elmeney is interpreted by Reaney as "Elm Island". The Minister's Accounts of 37 Hen VIII mention at Denney:
"...the great Grovette on the Backside of the Orchard there and the little Grovette behind the Kiln house there with all large Oakes, Ashes and Elms or Witch Elms upon the premises or any part thereof growing and being beyond the growth of twenty years." 1

Nearly all the references to trees in the court rolls are concerned with conservation, presentation for cutting trees down without licence being quite common from the fourteenth century. 2 This may of course reflect an improvement in building standards rather than a change in vegetation. Very early in the court book of Waterbeach cum Denney (22 Ed III) a close of two acres of marsh is granted "Excepting all trees thereon growing or which should grow, saving the lop of the said trees for hedgbots." Much later, 7 Eliz., there is a ban on the sale of wood out of Chittering. In 1610, one of the charges against John Yaxley, Steward of the Manor of Waterbeach cum Denney, then in Royal hands again, was misappropriation and felling of timber:

"Mr. Yaxley hath already and without licence caused all the wood as well timber as other with green upon one copyhold close of his within the said Manor to be felled down and that he hath bargained with those that bought it of him, to root it all up, whereof some part is digged up already, and the rest they make account shall be." 3

1 cf. CUL EDR, A 14/1. WPC, Masters vs. Standley. One is tempted to read Denney as "Oak Island" in contrast to Elmeney.

2 e.g. CCC XXXV 121, 2 Ed III, felling and selling five trees out of a bondage tenements; felling and carrying off, "duos ffraxinos duos salices at duos prunarios." CCC XXV 126, 22 Hen VI, felling of two trees called "Wyches"; such entries are numerous in all the series of court rolls for this area.

3 PRO SP 14/57/43.
Most of the recorded plantings of trees, except in recent times, are of willows on the banks by the rivers and ditches. Their main purpose was to hold the peaty soil together more securely against the strain of floodwaters. The loppings could provide incidental income and were subject to tithe. In 1430 Master Adam's lease laid it down that he should wall, defend and surround the garden of the manor at his own expense with the lops and underwood of the willows and other trees growing in the same garden. In 1549 Richard Kirby was accused of appropriating a row of willows in Landbeach, set and planted by the town to defray expenses from the profits of lopping. Henry Clifford concerned with the tithe of lopping has left a note in the Parish Field Book of Landbeach:

"Item; at my riding into Waterbeach with Dowse I found willows planted on the great Eye Bank in number xiiij these are young and small trees. 1587.

Item; on the Stone Rude bank there were some great and other smaller in number xxvij.

Item; on the little Eye bank there were finde great willows estimated xix score in number.

Scripsi 1587 Novembris 14
Henry Clifford." 2

While there are many scattered references to the illegal felling of trees, a few to plantings on banks and around manorial

1 CCCC XXXV 110.
2 CCCC XXXV 194. LPC Field Book.
enclosures, and a few identifications of the kind of tree, there is little direct documentary evidence of forest clearance. A charter from mid-twelfth century refers to "unam bovatum terre in terratoris de Landbec Illam scilicet que appelatur terra de busco." This might well refer to forest clearance: it might instead be an attempt to translate "Frith Fen".

Field archaeology points strongly to a phase of forest clearance in making the first three open fields. Romano-British finds, which appear in profusion on the gravels of Landbeach and the fens of the area, are very scarce indeed on the gault. Thus the soils where we would expect the heaviest vegetation to be, appear to have been left alone in the Roman period, and the work of tackling them passed to successors. One has the impression that the first settlers chose sites where a Roman farm had left an area where quick, easy breaking in of the land was possible, and from this, later generations slowly moved out into the less tractable but rewarding clays of the forest. The charters of Landbeach suggest that a good deal of this was still fairly recent in the twelfth century in that village. The only other hint we have near this area comes from Dry Drayton. Here there is a twelfth century record of the division of lands in field and

1 e.g. Common Rights, p. 206-7, the lords and tenants in Cottenham "may plant and set any kind of Wood or Willows, Oziers, Sallows, or other Wood upon that part or parts of the banks or ditches to him or them limited," and may take from it.

2 CCCC XXXV 12.
meadow which had long been out of cultivation. It is difficult to see in this other than an early halt to assarting and abandonment of assarted lands, but not of reversion to forest. One would very much like to know whether this was due to demographic change, or to the disturbances of the Conquest, and whether nearby villages suffered a similar cycle.

There must be some time lag between the creation of the fields and their appearance in charters, especially when the number of these is few for the period. The extensive development of the ploughland of Landbeach as shown in Domesday would indicate very vigorous forest clearance there before the late eleventh century. Probably the conjunction of population pressure that called for assarting, and the floods that would have struck Waterbeach arable long before they drove the monks from Elmeney to Denney, produced an intensity of colonisation in Landbeach of which we have no direct record.

1 ECA, p. 162.
2 cf. VCH Cambs., ii p. 53.
The Grasslands

The making of the landscape in the grasslands of these villages was a continuous process through most of the Middle Ages. With the rise of the water table in the late Roman period almost all of what were to be the medieval grasslands would have begun to revert to car fen.¹ The areas of future grass least affected would have been Winfold Common in Waterbeach, Banworth Meadow in Landbeach, and Bullocks' Haste and the Cow Pastures in Cottenham.² But none of these was immune to flooding, and in none of them were there Roman farms which lasted right to the end.

If we take the popular definition of the Fens, and divide them into the two normal classes, the peat fen, and the silt fen near the sea, then we are dealing with only the former in this area, and are excluding not merely the pastures just mentioned, but also areas like Frith Fen in Landbeach which were clearly fen to the fenmen of the past. There is a description of the fens by an anonymous "Fenman" in the Book of Sewers in the Cambridge University Archives. This is part of an argument for drainage, written, according to the internal evidence, some time after 1619:

² Map 13, p. 86.
"The Fennes are lowe groundes drowned and overflowne with the abundance of waters falling from the Hilles towards the Staye and they be of three sortes & well above xxtie miles square.

1. as are nearest to the Hilles & in the best parte, soonest drowned, and soonest drayned, & the best soyle receyving, refreshing, & as it were manured by the overfloweing Water from the Hilles & higher meadowes.

2. The second are meare Fennes whose soil is commonly mare & being further from the head Rivers do yield Turfe & Haffes which swimmeth. 1

3. I may alsoe accompte for the third kinde marishes next to the sea for they are the lowest but by the floweing of the Sea & the Silte left uppon them they are now heightened and Sandye, of these some are imbanked and some not imbanked.

There are marishes next the Sea and Marish Fennes, and in the Fennes of each kinde imbancked and not imbancked, & those which be saved from drowning with banckes doe make the other fennes (not imbancked) both to be the deeper groundes, and longer to remain soe then otherways they would bee." 2

The pastures listed above, and other areas like the Holme Meadow in Cottenham, or the nearby Great Mare in Long Stanton, would have been united to the fen in the wettest periods in the Middle Ages, but in spite of their names they were never inundated long enough to form substantial peat soil. How much peat was formed in much marginal fen areas as these, or the old moors of Histon, Landbeach and Cottenham, we do not know. They were "soonest drained", but in this area the natural geology had not given them "the best soil".

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1 Haffes or hassocks are small tufted mounds of grass or reed which flourish on the surface of a bog and make it so treacherous.

2 CUA Sewers, L. 80. I am grateful to the University Archivist and to Mrs. C. Hall for permission to use the latter's transcript.
It was not possible to use only land immune to flooding for permanent pasture. Even the arable might be submerged in part; it might even in part revert to fen for a time, and become, for agricultural purposes, an area of hazard. But the normal risks of agriculture under medieval conditions were always present in far greater measure than to-day. Changes in the water table could mean that the only hope of recovery lay in immediate greater expense in draining and banking at the very time when the income from which these costs should be borne was reduced:

"And because in times past many wet years happened together and the inhabitants being then very poor, for that in those times their benefit and advantage out of the fens was very small and some years nothing at all, by reason of the great abundance of the moisture that then happened, for in one moist summer and a hard winter following they lost more by death and drowning of the cattle than they gained by the fens in three years. The said inhabitants for their more ease and mitigation of charges (which they were evil able to endure) and because that every poor person that had part in the fens was not able presently at every beck and rage of water to disburse money towards the repair of the banks bridges ditches and drains, which at that time were most chargeable to maintain and notwithstanding must of necessity be done...." 2

If the arable was relatively rarely affected, except in Waterbeach, the fenland frontier ebbed and flowed, the areas of the different kinds of use of the fen changed, and progress and

1 ECA, p. 241 for flooded arable; CCCG XXXV 145 for reversion — see Chapter 2 above; ECA, p. 372 shows a fair selection of risks — see Chapter 2.

improvement could not be hoped for as a steady forward march,
But cumulative change in the land use there was, from the days
when the car fen offered little but hunting, fowling and fishing,
to clearing and mowing, first for coarse fen vegetation, then for
the lushest hay and richest summer pasture, to ploughland for oats
and then for wheat, and then more and more for intensive market
gardening. At every change some profited, but some were displaced,
losing their livelihoods.

When Hayward made his great Survey of the Fens in 1635, he
estimated the extent of the fens in this area as:

<table>
<thead>
<tr>
<th>Location</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottenham</td>
<td>2296½</td>
</tr>
<tr>
<td>Cottenham and Rampton</td>
<td>550</td>
</tr>
<tr>
<td>Waterbeach</td>
<td>227½</td>
</tr>
<tr>
<td></td>
<td>6220</td>
</tr>
</tbody>
</table>

Atkyns, in 1604, had noted of Landbeach:

"They have little fen ground but between the town
and Deney be good Sheepcourses, only by Charefenn side
they have a long sponge of marsh ground, on the face
thereof it is somewhat marish, but underneath gravel." 1

Hayward's Survey, then, is likely to have underestimated the
extent of the fens in this area, and he has certainly excluded our
Fenman's Class 1. Both these surveys were made at one of the
wetter periods.

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1 Samuel Wells, The History of the Drainage of the Great Level
of the Fens, Called the Bedford Level (London, 1830), vol. ii,
p. 177, for Hayward's Survey; BM Harleian 5011 for Atkyns;
cf. CUL EDR A/1/8.
At the enclosure of Cottenham in the 1840's, apart from old enclosures, (i.e. the village crofts and little more than the Pastures taken out of the commons in the sixteenth century) and the Adventurers' lands, the grasslands are classified in two groups:

1. **Mow Fens:**
   - Smithy Fen: 1,169 A 0 R 30 P
   - The Lotts: 271 A 1 R 20 P
   - The Holme (Meadow): 125 A 1 R 2 P, total 1,565 A 3 R 12 P

2. **Feeding Commons:**
   - Setchell from bridge to drain: 276 A 3 R 28 P
   - Setchell further side of drain: 202 A 0 R 24 P
   - Chare Fen and Mitchell Hill: 899 A 2 R 8 P
   - Green End Cow Pasture: 466 A 2 R 2 P
   - Church End Cow Pasture: 266 A 1 R 37 P
   - Bullocks Harste: 90 A 0 R 17 P
   - Great North Fen: 453 A 2 R 35 P
   - Little North Fen: 266 A 0 R 32 P
   - Ditto (Mr. Linton's Sheepwalk): 56 A 2 R 14 P
   - Rampton Bank: 3 A 3 R 26 P, total 2,982 A 0 R 23 P

At 1,576 acres, and 11 poles, the Open Fields of Cottenham were scarcely larger than the Mow Fens, and very much smaller than the Feeding Commons. The Old Enclosures, and this includes the very extensive tofts attached to most of the houses and the empty closes used as home paddocks, added up to 913 acres, 2 roods, and 33 poles, thus making a grand total of 7,037 acres, 2 roods, and 23 poles. Thus grass was then dominant in the landscape and
agriculture of Cottenham. Most of this area represented centuries
of reclamation or improvement of fen, and on the eve of the
Parliamentary enclosure most of it was still used jointly by the
holders of the 169 common rights.¹

With the Hundred Rolls we get some topographical detail; the
bounds of Cottenham Fens are given:

"...mariscum de COTEHAM incipit ad CLAYBREGE & extendit
usque ad magnum pontem de HALDERHETH & de dicto ponte per magnam
ripam usque ad CHAR' & de le CHAR' extendit usque ad TYLLINGE."²

The great bridge at Halderheth is clearly Aldreth High Bridge,
which is reported as having collapsed sixteen years before. The
great bank from there would take us along the Old West on the
south side to Chear Fen (le CHAR'). The TYLLINGE, the Old Tillage
or Landbeach Tilling, is the Car Dyke. This entry shows that the
great stretch of the fens of Cottenham was the most impressive
topographical feature of the area in the thirteenth century:
their extent was the same on the eve of enclosure, but by then
centuries of feeding would have smoothed the turf of the Hards
and reduced their coarse grasses, while centuries of turf-digging
would have turned Chear Fen, the Delphs, to a lake or bog.

¹ Cottenham Award, CRO Q/RDc66.
² Rot. Hund. ii p. 410. These bounds appear to be, TL 433678-
438722-497718-477680.
The wet fen, if left to itself, soon develops a thick cover. To the grasses and peat, reeds, sedges and flags, it adds shrubs and trees in car fen. This "primeval" fen is improved by drainage and mowing, or where it is dry enough in summer, simply by mowing and feeding. Once the scrubby growth of bushes and small trees is cleared, control of the intervals between mowing determines which crop develops at the expense of the others, reeds, sedge, flags, or grass. The reverse process also happens: if water prevents the mowing, the vegetation moves back again towards car. A passage in the Survey of Willingham in 1356 illustrates this:

"And there are there 15 acres of mowing meadow which are worth 15s., price per acre 12d., and no more because the said meadow lies under water, and for the greater part is mixed with flags. And there are there 30 acres of 'Fennmadwe' which are nothing worth by the year, in that they always lie under water and no profit can be got from them." 2

Place names enable us to see a little of the later stages of "improvement" at work in the medieval fens. In all three parishes a Frith Fen is mentioned more than once in the earlier Court and Account rolls. In Cottenham it appears in one of our earliest

1 See above p. 228.
2 PRO E/143/9/2.
rolls, and before disappearing, becomes more frequent in the first half of the fourteenth century:

"iij rodas in le ffrithfen in primo cast."  
"una acra in le frithfen iacens in le threrodcast."  

These two entries would seem to identify it with Smithyfen, or part of it. Reaney quotes Atkyns' Survey, "The Isles of Norney and Thorney have certain low grounds called Fryths on the skirts of the highland belonging to them ... on which they gather winter fodder", and says that this common fenland term must mean brushwood or undergrowth. Only in Landbeach among our three villages, does a fen so named survive into the modern period. Since the Frith Fen in Cottenham was being mown in the thirteenth century the process was fairly recent, and the mentions in the fourteenth century, mean that the battle against the rising water-table was not wholly lost. The alternative name Smithe or Smithy, meaning smooth, in obvious contrast to Frith, represents success in clearance. One enclosure in Denney Low grounds appears as Charles Frith (Ceorl's Frith?), which becomes romanticised into

1 CUL Queens', Cd 5, 1282-3 (Page) or 1281-2 (Aston).
2 Ibid, Dd 1, 1346 and Ad 26, 1348.
3 See Map 26, p. 183.
6 See Map 24, p. 244.
Chalice Fruit. Similarly Reaney interprets "Mitchell Hill" as deriving from "micel-leah", meaning "large clearing", again recalling the development from the untouched fen.¹

The division between Mow Fens and Feeding Commons in Cottenham was not a simple by-product of the improvement of the fens and drainage. For the mow fens, winter flooding is a decided asset, giving much heavier hay and a lusher aftermath. The richness of the summer pastures was probably Cottenham's most precious natural resource up until the middle of the nineteenth century. But the North Fens could be wet, too, and Setchell as wet as any; Chear Fen probably the worst of all. Jacob Sanderson, who remembered the land before enclosure, said that Chear Fen had been used for digging turf for fuel and that the greater part of it had become a bog.² He remembered the first man to cross it on a horse. Setchell was a wild-fowling area where the fenmen moved about in boats. It would seem that as the dominance of cattle increased in the village, and as the older fenland occupations were squeezed out with the improvement of the car fen, those fens still too wet for regular mowing, became feeding commons. What had long

¹ But see above for a different possible meaning for this name.
² This Fen appears on the seventeenth century maps as a main feature of the parish: e.g. Bedford Level Collection in CRO, R.59,31,40.1., 'A Generall Plotte and Discrission of the Fennes... compassed by Mr. Wm. Hayward, Anno 1604 ... An exact copy from the original, by Mr. Payler Smyth, Anno Dom. 1727.' In the series of printed maps issued by Hondius and J. Blaeu in that century it appears as a heart-shaped area called 'The Delphs'. See VCH Hunts, vol. iii, 1936, pp. 291 et seq, 'Maps of the Fenland'.
been one of their subsidiary functions became their only one. It took steam drainage, which came in 1846, to make them more than summer lands except in favoured parts. Here the local topography helped them to take their new role; each fen had parts that were above the reach of normal winter floods, islands of refuge, enabling cattle to be risked for pasture there. These islets in the fens were part of the "hards", whereas those areas which were "summer grounds" only, were called "low fens" in the local terminology. Thus Smithy Fen contained both low fen and hards.

Any theoretical scheme of the development of assarting and improvement of the fen, then, has to take into account minute variations in local topography. On the edge of the fens two or three feet difference in altitude can make all the difference in the type of fen and its use. So too can the micro-geology; both Setchell and Chear fens are on gravel. The relief, geology, and distance from the village in Cottenham of different parts of the fen, enabled the Ordermakers and Fen Reeves to develop highly specialised sub-divisions as they produced orders to solve immediate practical problems that arose from time to time.
WATERBEACH
OLD ENCLOSURES DENNEY END

KEY
1 High Elmere
2 Middle Elmere and Low Elmere
3 Chalils Fruit
4 Pump Close and House Close
5 Denney’s Grounds
6 14 Acres and Stone Hills
7 Ox Pits | 8 Mill Ground
9 The Hall
10 Cold Harbour and Stack Close
11 Bailey’s Close
12 Little High Meadow and 12 Acres
13 Great Bannold’s
14 Low Grounds
15 The Haven | 16 For Fen
17 Great High Meadow
18 College Close
19 Little Hasteens Close
20 The Grove | 21 Mason’s Close
22 Levitt’s Close | 23 Little Bannold’s
24 Fall’s Close | 25 Little Cobb’s Close
26 Great Hasteens Close
27 New Close | 28 Great Cobb’s Close
29 Hills and Holes Close
30 Prior’s Close | 31 Rye Closes
32 Sheep Lay Close
33 Winfole Close
34 Drainers’ Grounds

[Map of Waterbeach Old Enclosures Denney End with key features labeled and a scale bar at the bottom]
In that part of Waterbeach known as the Hollow, an area still sensitive to changes in the water-table, the various uses for land on the fen edge existed side by side, and almost certainly competed. Arable never finally won, and would probably never have had a place there had not the shortage of reliably dry ground in Waterbeach forced the people to be prepared to gamble on floods as other farmers gamble on weather. It was never possible to classify the Hollow in the way Cottenham lands were all classified as Mow Fens or Feeding Grounds.

In the Court Book of Waterbeach cum Denney, from 1332 to 1354 there are nine entries relating to the Hollow which specify the kind of land. Of these one is meadow, one mare, and the rest marsh (Latin mariscum, meaning fen). There was also one reference to "land" ("terre"): this may well have been arable. In 1354 an inquest was held to decide that an acre of arable in the Hollow was not parcel of the fen. In the same year were mentioned two arable plots there, each of 3 acres 1½ roods, and both were counted in the demesne. Mentions of meadow, fen and land come frequently in subsequent years, with meadow the most frequent. In 1371 there was a change; we find an entry relating to Rushfen del Holough. In the next year we find both Lugfen and Rushfenne in

1 See Map 25, p. 245.
2 cf. PRO Requests 2, 21/17 "... also the gate of twenty of his own proper bullocks in Cottenham Fens from May Day to Michaelmas if the said fens should be dry so long."
the Hollow. In 1414 we find Rusholough and Lugholough. These names occur with great frequency from then on. In this reign the only variation is several mentions of Ferne, or Fur, or Further, Hollow. In 1547 there is an Osier Holt in the Little Hollow. In 1609 an additional name begins to crop up, Reed Hollow, and there are also references to Fodderfennes in Hollow. Here most possible uses for land existed side by side, and the holdings seem to have been mostly very small plots, in severalty as demesne land, reclaimed from the lord's waste.

In discussing Frith Fen in Landbeach Reaney quotes from the 1621 Book of Sewers, D, to illustrate the different uses of fen:

"Fen grounds ... of several natures. That is to say some mowing grounds some feeding grounds some used for digging the necessary firing for the Inhabitants there as flags hassocks and turves and a great part whereon there growth reed and sedge." 1

All such uses and more were made of the common fens in our villages until the final enclosure, and the fens were so extensive that it was from them that both lord and peasant frequently found a surplus for sale, either of the produce, or of the use of a limited area.

1 Reaney, op. cit. p. 179.
Fishing and Fowling

Fowling and fishing were probably of greater importance early on, although fowling retained some of its possibilities right up to the nineteenth century. Fishing figures prominently in the Domesday entries for the area: the two manors in Waterbeach respectively provided 450 eels, and 1000 eels and 12d from the tribute of fish. This was from very small manors, with 3 villain and 13 bordars, and 8 bordars and 6 cottars respectively. The second manor was only worth 20s. altogether. In Cottenham the Crowland manor provided 500 eels and 12d. from the tribute of fish, and Roger's manor 150 eels. In Landbeach no produce from fishing is mentioned. The relative importance of wet fen is clearly reflected by these figures. Waterbeach was the only true fen island of the three.

Unlike Domesday, the Hundred Rolls account for fishing, not in numbers of eels and values of fish, but in numbers of fisheries and their rentable values. The Abbot of Crowland had one in Cottenham worth 40s. Robert de Lisle, who like the Abbot kept five hides of meadow, pasture and fen in demesne, had one worth 36s. The fishery of the manor of Burdeleys was worth only 4s., as was that of Pelhams. Some Waterbeach fisheries were named.
The Templars held Mareware for 1 mark, and Garentre,\(^1\) worth 18s. Dyonisia de Munchensey (Waterbeach proper as distinct from Denney) had a 40s. fishery. In Landbeach there is no mention of fishery or fen.

There is an inquiry into the Crowland fisheries in Cottenham in the Court Roll for 1391 printed by Miss Page.\(^2\) The Abbot had half of two meres called Fyltyngmere and Lokmondmere, except that the Burdeleys tenants had each of them for nine nights: he also had half of a certain fishery called Brodelode and Newlode.\(^3\) The above were worked by Robert Cadman who was ordered to show on what terms. This uncertainty might be due to the custom of normally letting fisheries in Cottenham on very long-term leases. He also had half a fish weir on the high bank a furlong west of Charcote, and called of old, Almyngeweresen. This had been swept away by a great flood, and so brought in no rent to the lord. Order was therefore given to re-build it by the next court. At the next court seven men, including one from Histon were presented for fishing in Cottenham commons where they had no common. There must have been a common right of fishing outside the several fisheries. Four years later an ordinance was made forbidding

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1 Garentre (later corrupted to Garden Tree) was on the boundary of Midload, on the site of the later toll-house and lock; TL 508658. For the Domesday I have used the text in VCH Cambs., vol. i, p. 359, et sqq.; for the Hundred Rolls, the Record Commission's vol. ii, pp. 453-6, and 409-11.

2 ECA, p. 416.

3 These fisheries cannot be located with precision, but their general location is discussed below.
non-commoners to fish without a licence. If this was enforced it would have detracted from the ability of the fens to support poor and landless men. These were comparatively lawless times, and the measure represents one of the last efforts to re-assert detailed seigneurial control in Cottenham. At the St. James court in 1413 there were twenty presentments for illegal fishing.

In January 1326 the lord's several fishery was let for 21s. until Michaelmas. This was in a time of vacancy, the next lease of a fishery, again to two men, was for three years, and 200 "pikerellos" of twelve inches long were taken as entry fine. In 1339 William Pepys and two others were distrained for failing to give their hundred "pikerellos" in the second year of a lease they had taken up eight years previously.\(^1\) In the very earliest account roll (probably of 1257-8 according to Aston) 200 pike were sent to London for the use of the lord. Fish were on occasions sent from Cottenham to re-stock the ponds at Crowland.\(^2\)

Waterbeach, much closer to the river bank, and with much of the parish a maze of meres and little waterways where the Cam of those days meandered, had much more important fisheries.

Elrington's lease in the sixteenth century helps to identify some

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1. \(^{1}\) ECA, p. 379.
2. \(^{2}\) CUL Queens' Ad. 29, and Cd. 15.
of the sites. The site of Marewere mentioned in the Hundred Rolls was in Stretham parish, as was another, "Foordde Were." These were presumably on the Cam where it ran through the inter-common area north of Waterbeach, possibly Stretham Mere itself. The same document identifies "Bechwere" with Clayhithe. The other fishery at Garentre in the Hundred Rolls, is still shown on Jonas Moore's map of 1706, although in its later corrupt form Garden Tree. It was at the junction of Joist Fen and Midload, where the old Toll House later stood. The Court Rolls in 28 Ed III mention a fishery with Welode and Blakffen Lake. Three years later they mention fisheries at "Newlode, Foullode, Blackfen Lake and Half of Little, that is to say from Stonrout unto the Hyes." In 1427-28 there is a mention of fisheries of "Horningsea Were unto Bechwere," and from "Bechwere unto Garentre Were." This would mean that the convenient stretch of the Cam near the village was engrossed in two demesne fisheries.

In spite of the complete absence of fisheries from Landbeach in the Hundred Rolls fishing occurs in the records of the fourteenth century, perhaps not surprisingly in view of the rise in the water table. The Extent of Agnes de Bray of 1316, mentions a common

1 WPC Various Documents; cf. EE 12/3/31 Hen VIII, and Bodleian Ms. Gough Camb., 69.
2 Bedford Level Collection in CRO, R 59.31.40.13, and Q/RDC. 66.
3 WPC WcD.
fishery worth 2s. At the 1370 Leet of John, Duke of Lancaster, John de Queye and Robert Aubri were presented "quod piscaverunt in communi piscaro cum Draggis contra consuetudinem ville, et sic fecerunt magnum destructionem". In 1362 there were fifteen presentments for breaking the lord's soil with fish-traps. In 1407 John Abell from Waterbeach was caught fishing at Fens End in Landbeach with unlicensed nets. (One of the Orders for Waterbeach cum Denney, bans fishing with unlawful nets in 1580-81.) The fishermen do not seem to have respected the bounds and regulations of others: if John de Queye looks like a foreigner from across the river, Roger Sandre junior of Landbeach was one of twenty caught illegally fishing in Cottenham in 1328. But fishing could give rise to obstructions both to navigation and to the free passage of the waters. Fishers not only dug ditches and erected weirs, but also deliberately created artificial shallows. Among the orders made at a Crowlands court for Cottenham in 1550 was:

"That no fisher put in any mud or sand in mere, dyke or high lake."^1

This theme is continued in the Orders of 1639:

"It is ordered that no person using fishing shall neither lay nor set any engine or net within the fen side of the banks to take any fish nor within ten poles of any Lakes end or in or upon any gull or Breach that shall or may happen upon any man's banks Common place or stopping, in or about the bounds of Cottenham, except they first hire them of the Town Officers..."
But in the final versions of these Orders, in the last two Fen Books, which cover the period from the late eighteenth century to Enclosure, there is no mention of either fishing or fowling.¹

Fishers were not the only culprits, but they were the most common; fowlers could be even more destructive. Like other common rights, fowling was customarily limited to supplementing the sustenance of the commoner's household, but it could easily, either through poverty or the expansion of market demand, be developed into a profession. In this area at least the man who exploited a common right without limit tended to be the most unpopular local figure, and the one whom the local courts fought most strongly to restrain. Fowling before the days of firearms was by its very nature a hidden and almost silent occupation.

Little trace has been left in our medieval records of what would seem to have been a traditional fenland way of life. One Fowler emerges briefly when his neat is impounded by Kirby in 1549:

"... the said poor man being a very poor man living off catching of fowls."²

To pastoralists the fowler might seem like Cain to Abel. An entry in the Crowlands Court Roll for 1514 reads:

¹ Common Rights, p. 232; Fen Books in the possession of Mr. M. Haird of Cottenham.
² CCCX XXXV 194, 'Injuries done by Mayster Richard Kyrbie by pounding of the inhabitants cattle at Landbeach.'
"that Thomas Rogers broke the banks or shores of the river, by which the water came into the common marsh lying there and submerged it so that the lord's tenants lost their use of the marsh, to the damage of those tenants, and further they say that the same Thomas placed in the said marsh a certain engine or instrument for catching fowls. And lest his engine should be destroyed he would not permit the tenants' animals to be depastured there, but drove them away from thence, to the damage of the said tenants." 1

This appears very much like the description of the building of a duck decoy. 2 The lawlessness of the lonely fowler has a long history in the fens. The wildness of the fowler's ways was remembered by Jacob Sanderson,

"There were a great many water fowls in the Fens. Before the enclosure many people made their livings by shooting them in their gunning boats in the nights. There was a dispute between William Munsey of Cottenham and a Wilburton man about some fowls. Munsey, by accident was shot dead. No stranger was allowed to shoot in the Fens, but the townspeople." 3

This echoes the words of an Order in the Waterbeach Court Book in 1580-81: "That no stranger hunt or fowl within the manor without licence." In the Cottenham Agreement of 1596 Hinde is given "Liberty to Hawk, Hunt and Fowl, not excluding the inhabitants from fowling there." 4

1 CUL Queens', Fd 6.
2 For the best description of a duck decoy see Draining, p. 160.
3 Notebook.
4 Common Rights, p. 205.
The fowls get some mention in the rolls. At the Waterbeach Leet of 1522 one of the orders was that none take any fowl, viz. cranes, butters (bitterns), bustards, and heronshaws within the commons, and sell the same out of the Lordship unless he first offer them to the lord of the manor to buy.¹

Bitterns were already nearly extinct in the fens in Albert Pell's time in the middle of the nineteenth century. The descriptions of the fenmen that he saw fowling, in his autobiography, are the elegy of a lost world.² What centuries of hunting by the wily fenman with his ingenious nets, snares and decoys could not wipe out, and what for the most part survived the popularity of fowling with ever-improving firearms and the massacres of the deadly cumbersome punt-guns, the bird life of the fens, dwindled and almost disappeared after steam drainage, enclosure, and the ploughing of the land.

¹ WPC WcD, 14 Hen VIII; cf. Waterbeach, p. 14; for Ordinance see under 23 Eliz in the same Court Book.
Turf

If water was the great menace to the medieval peasant in this area in his cultivation of the land, it must also have been a great danger to his personal comfort. Fortunately the fens provided him with the quickest remedy for a soaking - a plentiful supply of firing. Wood for firing must have become less and less available as the fens were improved (as in Cottenham, for instance, Frithfen became Smithefen). But there is an order against the sale of underwood in Chittering in the court book of Waterbeach as late as 6 Henry VIII.

The mainstay of the peasant hearth, however, was turf. Denson claimed that this was so in Waterbeach until enclosure:

"But a few years ago we could dig our own firing, now the common is enclosed, and we were forgotten in the division of the spoil."¹

Miss Page quotes an agreement of 1344² between the lords of Cottenham regulating the cutting of turf in the marsh of Cottenham. Free tenants were to have enough for "husbote" according to the

1 Denson, op. cit., p. 19.

2 ECA pp. 25-26, and 164-5. The date given by Miss Page is 1345, but it seems quite clearly 1344. Turf has its place in the early rolls, e.g. CUL Queens', Cd 15 (1271-2) where it is sent from Oakington to Cottenham, and Ed 2 (1281) accounts for the expenses of bringing it up from the fen.
size of their holding, holders of a full servile land were to have enough for a stack 21 turves high, 4 broad, and 36 feet long. The reductions in scale for the lesser tenants are interesting, not being fully proportionate. For half a servile land 30 feet were allowed, for a quarter, 24 feet, for a croftman 15 feet, and a cottager 10 feet. The restriction does not seem to have much immediate effect: in 1348 forty-three villeins including Thomas and John Pepys were presented for over-digging and for selling the produce illegally out of the manor. Regulations in Waterbeach were very similar in that every commoner could dig sufficient in Joist Fen for his own household, but he had to stack them in the fen, and carry them home before selling any. None without licence were to be sold outside the manor. Presentations for breach of these regulations were very frequent. In Landbeach most of the early remaining court rolls include presentments for breach of customs of turbary. In 1327 there is a case of over-digging to the number of 6000 and another of 1000. In 1332 John Tebaud and Robert attefen were presented for choosing their place to dig in the marsh before the lord had chosen, "contrary to the lord's liberty." As well as stealing the lord's corn, John Frerer, the lord's reeve two years before, had misused his turves:

"Item dicunt quod idem tenuit in pisterino domini unam feminam extraneam ad expensis domini per quod tempus ignorant. Item dicunt quod idem Johanis misit unam careccettam turbarum domini p.c. vid. ad domum Johanis de Waldeseef apud Westwyk ubi Milsent, concubina sua, Manebat."
After the Black Death the presentations were maintained: in 1359 14 men were presented for digging 1000 turves each in the marsh where they had no common, and 15 others for varying amounts. There were 21 cases in 1366, and the turf was forfeited in addition to the fines. The same number were presented in the following year. The three cases recorded in 1379 were for 1000, 6000, and again 6000 excess turves.  

Very large amounts of turf and other firing appear in the Minister's Accounts for Denney: in 1325-26 15,000 turves and 1,500 faggots were accounted for as sold. In the next year another 45,000 were made to add to the 10,000 remaining. In addition 1,500 faggots were made of the lops of willows and the crop of alders, and no less than 20,000 bundles.

Digging had to be closely controlled. The right of digging was strictly confined to commoners, and raiders from outside the village must have been easily detected. In a Cottenham court of 1454-5 William Fenne of Landbeach, and others from Impington, Long Stanton and Rampton were presented for going with their carts into the Turffen and breaking the lord's soil. Even where the amount dug brought in profit to the lord (at Denney it was the

1 CUL Queens' Ad 26 for Cottenham in 1349; the Landbeach information is in CCCC XXXV 121 and 122 under regnal years; for Denney, see PRO SC 6 766/13.

2 CUL Queens' Dd 7.
ancient custom for commoners to pay the Abbess 1½d. for every 10 feet. it was necessary to struggle against over-digging.

Waterbeach court rolls have regular presentments especially for selling outside the manor without licence. There must have been a very ready market, and the quantities dug could easily have become a serious danger to banks and causeways. Many orders in the same court tried to control the export. In 1426-27 it was forbidden to sell common of turbary without licence. In the first year of Elizabeth it was ordained:

"That none of the Inhabitants of the Manor shall give or sell any turves out of the same manor or marsh thereunto belonging after this said order under the pain of 3s. for every thousand turves; provided that it is lawful for any inhabitant of the same Manor yearly at his pleasure to give or sell one thousand of turves upon notice first given to the bailiff of the Manor aforesaid."

Next year the penalty was raised to 10s. Twenty-two years later digging was causing much concern. Diggers were ordered not to dig up any cartway, and to cut out their bars in the turfpit. The limit for sale was defined as a load in a year. In the following year this was again made 1000, and the total right for a common re-affirmed as 10,000. Turf cutting continued to be a valued right until it was banned by the Enclosure Act of 1813, because of the danger to drainage. Even after this in spite of the ban it was the standard fuel on many cottage hearths.

\footnote{WPC WcD, and 53 Geo. III, cap. 59.}
Fen Crops

Turf-cutting was not the only important extractive industry of the fens: they supplied all the main building materials except the best heavy timber, and iron nails, hinges and fastenings. Even some of the large timber could be provided from groves such as those at Denney, but the Crowland accounts show timber repeatedly imported from Cambridge for major building works and for the bridge at Westwick. Oakington was able to supply a little. Sturbridge Fair, Midsummer Fair and Barnwell are mentioned as sources in the fifteenth century. In 1442 the Vicar of Oakington was employed to ride over as need arose to buy timber at the Fair, and was paid 6d. for his pains. Lighter timber, "virgae", was also bought in Cambridge at the same time, but this usually seems to have been available locally. Various kinds of thatching materials and earths were the bulk needs for medieval building, and these the fens produced in super-abundance. In 1325-6 the Minister's Accounts for Denney mention 1500 bundles of reeds sold for 15s., and this is still far the best material for the body of thatching. An enormous amount of lower quality thatch was provided by the rough hay of the fens, probably containing reed and other coarse plants in its mixture. It was

1 Map 11, p. 75, TL 419651.
2 CUL Queens' Cd 39; Cd 26a; Cd 61; Cd 38; Cd 74; Cd 66;
often bought and sold by the acre, as it stood. The quantities used suggest that it did not last long. In 1441-2 "Fenne thak" was bought at Cottenham for Oakington, but in 1455-6, when bought for rebuilding the hall and other buildings of the manor at Cottenham, it is called "fodyr". In the latter case it was in addition to 3,100 bundles of reeds. But even fenthack could be relatively expensive. In 1325-6 Denney spent 140 works in cutting, gathering and bundling herbage in Tappingmoor and making two stacks there, and another 40 for carrying these into the barnyard there for the thatching of various buildings and walls. The high labour cost was blamed on the lack of water; this may mean that the nearer grass was not long enough. Certainly, in the next year after gales had damaged the roofs 300 bundles of reed were used for repairs. This had been available in the previous year. 800 bundles of it, but was not used for the less important buildings, and with the 1,000 bundles cut in the next year, 1,500 were ready for sale. In the next account 400 bundles of reed and 20,000 bundles of sedge were supplied for the Queen's use to Thomas de Eggesfield. While the manor was in the Queen's hands a good deal of running down of stock took place, but essential repairs seem to have been kept up. Waterbeach fens could both meet needs, and provide substantial exports.  

1 Top Moor, see Map 29, end pocket, TL 480686.
2 PRO SC 6.766/12; CUL Queens' Cd 80, Cd 39.
for making the frame for daub in the wattle and daub walls, wattling reeds. The cutting and carrying of reeds in the Frith Fen in Cottenham in connection with local building works is recorded in the Crowland rolls for 1267-68 and in Smithy Fen in 1455-6. Each of the villages could supply its own ordinary reed, but the wattling reed used by the Crowland manors seems normally to have come from Willingham. Laths are not mentioned as being purchased until the days of tile when presumably a better quality was needed, and these then were bought in Cambridge where the tiles came from. The ashes and willows on the banks of the manorial closes and the ditches through the fens would have provided splints for the rest of the wattle.

Sedge was a normal fen crop: Setchell Fen derives its name from this, "Sedge-Haw" being the early form. It is therefore surprising to find sedge being imported to Cottenham from Milton and Swaffham in 1455-6. Perhaps the demand for the general re-building was too great because eight cart-loads of reed were later brought from Cambridge, and much more was bought from the Cottenham peasantry, like John Pepys. Some straw was used: in this year "halme", stubble, is mentioned, but this was very small in quantity. In the year 9-10 Henry VII, straw was recorded in

1 ECA p. 219; CUL Queens' Ad 3, and Cd 39; cf. Cd 61, Cd 80, Cd 74, Cd 66 and Cd 83.
use for thatching peasants' buildings. The main material mentioned in connection with ridging is clay, which again was dug in the fen or elsewhere in the manor. Clay ridging on thatch still survives in the Camargue. But all the accounts make clear that the sedge was used in thatching. It was much more durable for ridging than clay.

All the walling, both of buildings and around the yards was of clay, except for the few paling fences mentioned rarely. There must have been a heavy demand for clay for building purposes throughout the Middle Ages, and it is surprising that more clay-pits are not visible. Probably most of these turned into the ponds in house yards, that are such a feature on the old maps of the fen edge villages. There was another heavy demand for clay for marling and claying land. In 1327 William Cosyn was fined for carrying away the lord's marl in Cottenham. In Landbeach in 1332 Robert Jordan dug the common in "Le Mor" and marled his land with it "minus iuste quia non hebet communia". The final phrase suggests that this was normal practice for commoners. George Aikin in the nineteenth century attributed the improvement of the fens to claying and marling almost as much as to steam drainage. There was a very plentiful supply of both gault and Kimmeridge clay in the area, but if the presentments in

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1 Ibid. Cd 39; Ed 26.
the court rolls are a reliable guide, the peasantry seemed much to prefer digging their clay from the highway than from the fens, no doubt to avoid the labour of transport. There are many cases of this in each of the main sets of medieval rolls.¹

The area is again very well endowed with sand and gravel, and it would appear that convenience of transport, the nearness of a good main road, decided which site was to be dug. In Waterbeach the major old pits were near the way to Landbeach and the Cambridge Way. In Landbeach they were, and are, north of the Green where the main road first moved out of the village on to the gravel.² The subsidiary pits out in these parishes were dug for road maintenance after the Turnpike was made from Milton to Ely in the eighteenth century, or much later still, particularly after the Second World War, for export to various building sites in the county. During its construction, Waterbeach Airfield took its share. In Cottenham the common pits were out in the Fen beyond the Cow Pasture,³ near the junction of the way from the village and the way to the north-western fens. But the natural inclination to take as easy a way as possible with heavy cartage, gave rise to trouble for the Fen Reeves and Ordermakers:

¹ EGA p. 358; CCCC XXXV 121; G. Aikin, 'The Culture of the Cambridgeshire Fens', Transactions of the Royal Society of Arts, vol. 52 (1838-9); CUL Queens'; CCCC XXXV 121-124; WPC WcD.

² To the north of the old Town Pond. See Map 29, end pocket.

³ TL 475679 and TL 462668.
"37. It is ordered that if any man break any ground in between closes any nearer the way that goes from the Bars than is already digged shall pay one shilling per load, and the stuff forfeited to the use of the Town so often as he is found to offend."

"38. It is ordered that if any man digs or causes to be dug any earth, slate or sand in the Calve Pasture between the foot road and the Pastures, likewise any nearer the road on the other side thereof, shall pay five shillings per load and the stuff forfeited to the use of the town so often as he is found therein to offend, and the informer, by giving true intelligence of the same shall receive two shillings and sixpence reward to be paid by one of the Officers."

The five shillings and two and sixpence were amendments from two shillings and one shilling which were apparently insufficient. Four similar orders follow this, all directing the places for digging, forbidding digging on waste ground, and ordering pits to be filled in as far as the earth would go. But many of the scars of old workings are still visible to-day.

The mention of slate strikes an odd note: the local soft, brittle sandstone which often splits into rough sheets is probably meant. There is not much of it, and it barely merits the title "stone". Before the general use of brick, stone good enough for the plinths of timber-framed buildings was difficult to get.

When the manorhouse of Crowland at Cottenham was built in

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1 Cottenham Fen Reeves' Books, in the possession of Mr. M. Haird.
mid-fifteenth century, stones had to be gathered from the fields, from old foundations and from an old well. Large stones had to be imported by barge. ¹

One of the lesser, but most lucrative, of the fen products connected with the supply of building materials was osiers. Waterbeach, with its long river frontage close to the village, and with long tongues of low land reaching into the Hollow and Little Hollow, was exceptionally well endowed.² The Gough Manuscript Rental lists no less than fourteen osier holts. A Glebe Terrier of Bishop Wren's time mentions three leys of Osier Holts there. There is only one medieval mention of an osier holt in Cottenham so far discovered, and none in Landbeach. But in 1727 Robert Taylor noted in the Dukman Book: "There is a small parcel of Holt Roods not set down".³

Willow could be used in timber frame and thatch construction for many of the minor duties, although ash hazel or riven oak would be preferred. Wickerwork chairs begin to appear in the local inventories after the Civil War. But its greatest uses were probably in woven hurdles, in the construction of bird traps and

¹ CUL Queens' Cd 39. Restoration work on Nos. 21 and 23 High Street, Landbeach, has exposed earlier medieval plinths of rough blocks of clunch which seem to have been more effective than one would have expected from this material.
² See Map 25, p. 245.
³ Bodleian, Alington Rental, 1542, 17819, fol. 5 (Gough, Cambs. 69); CUL EDR A 14/1; LPC Dukman Book. Cf. BM Add. Ch. 7060 for osier holts in Cottenham.
decoys, fish-traps and weirs, and above all in the baskets of all kinds used by the peasantry in farming and at home. A considerable wicker industry flourished on the Fen Edge until very recent times, and there is an excellent photographic record of its last days in Cottenham and Willingham, where not only all the processes of construction, from the peeling of the wands by children, are shown, but also demonstrations of the variety and strengths of special purpose baskets, have been preserved. The industry received a slight extension to its life when the use of wicker trays as filters was adopted by the local jam factory. But traces of basket-making are now no more than a vestigial remnant. There is still one osier holt remaining in Cottenham at the moment of writing, alongside the Beach Ditch.

When the demand was steady, and that was at any historical period before recent years, osier holts were probably the most profitable use of land in this area. It is difficult to estimate their extent. Individual holts could be very tiny and do not seem to have come into direct cultivation with the demesnes, but to have most often been in the hands of those with the smallest agricultural interests in the village. In addition, they tend to be isolated, beyond the frontiers of other kinds of cultivation, low down on the flood plain close by the river, or on the marginal land where
the fen was almost continuously waterlogged. They seem to have been pockets of car fen, subject only to the lightest control so as to select willows as their main growth. The medieval Hollow in Waterbeach was a natural site, as some profit could certainly be taken there from osiers when all other uses became an almost hopeless gamble in the wettest years of the early fourteenth century. Pollard willows still line the banks of the Cam below Waterbeach, and show tenacity of life in this habitat, putting new shoots and leaves when the trunks, all but the bark, are rotted away. But alongside, the Jesus Holt, at the end of the Car Dyke, the Magpie Holt, and Long Holt, are now no more than awkward shaped pasture fields, trapped between the railway bank and the river, becoming lakes in time of flood.¹

Another industrial crop of the fens has left only a trace in odd hedgerows and banks where chemical weed-killers have not destroyed the few escaped plants: teasels, essential to medieval cloth finishing. Very fine specimens can be found in season on the banks of the Oakington Brook where it forms the Cottenham boundary. These were not a cultivated crop, but could be found in the common when laid out for hay. The only mention of them that I have discovered is a trespass case recorded in the Crowland rolls for Cottenham in 1349. Robert Spuer complains that after he

¹ See Map 25, p. 245.
had mown teasels on his common, William Goldyng entered with a cart and carried them off. However, the jury cleared William of taking any but his own. As a casual bonus from the hay ground, teasels would not be likely to leave much trace in the records, and their importance cannot be assessed, but they are another example of the bounty of the fens. The frequent references to mowing thistles could refer to teasels.

If osiers were a crop of the frontier between waste marsh and fen proper, hemp could be a crop of the fen's frontier with ploughland. It is a very exacting crop which draws heavily on the reserves of fertility in the soil. On the Crowland demesnes at Cottenham it appears, like flax, as a garden crop. The labour in fermenting and preparing it after harvest would discourage large scale production: drying would create excessive demand for fuel. But from the Terrier of Chantry Lands of 1549 in Cottenham it would seem that there were hemp-lands at the edge of the cultivated area towards Histon. Hemplands are mentioned in "The Laying Out of the Fens" in the late seventeenth century in the Landbeach Fen Book, again on the margin of the fen. In the 1596 Agreement Christ's College were to have one acre adjoining their close in Ferne Field and Hempland. This would place the hemp

1 CUL Queens' Dd 4.
lands down on the Histon boundary, alongside the watercourse which was several times diverted lower down, and may well have been troublesome in these higher reaches in consequence.¹

But if the abundance of the fens showed themselves in the variety of the sources of profit that they offered, they showed it even more in the richness of their grass. Tawney never ceased to emphasize that the Achilles' heel of the open field system was the shortage of grass. Only over-expansion could make this remotely true of the fen and fen edge. In a reasonable winter there was some grass available on the hards, the drier pastures between the flooded fens and the arable, our anonymous Fenman's first class of fen.² If cleared of stock when other feed became available, then soon there would be food again for the young stock and their mothers, hence the names Calves' Pasture and Cow Pasture in Cottenham. Mitchell, Setchel and Smithy Fen in Cottenham, all had their own small hards, within their boundaries, and so could extend their profitable seasons. Bullocks' Haste provided a similar hard reaching out from the Town's End.³ The delicate and almost invisible undulations of the fen just above and below the line of winter flooding maximised its value as pasture. Mow fens, after they had produced their hay, would, given

¹ LPC, Common Rights, p. 200.
² See pp. 234-5 above.
³ For fen names see Map 13, p. 86.
proper rest from great cattle, soon be covered again with a particularly lush growth from the damp warm ground. This was Cottenham's richest endowment.

A few cheese-presses in village outhouses, the slatted windows of the cheese-chambers in the old upper rooms, and faded memories of some of the old families are all that remains of Cottenham's most famous industry. A Cottenham claim (which seems apocryphal, since the same story from Leicestershire is better documented) is that one of their daughters moved to Stilton, and selling cheese from Cottenham on the main roadside, invented Stilton Cheese. But the village was once famous in its own right. Vancouver wrote of it:

"The cheese so famous through England, by the name of this parish, is made here and in the neighbouring villages; the superiority of which, is not to be ascribed to any particular mode in the management of the dairies, but solely to the nature of the herbage on the commons."

Albert Pell described its qualities:

"In summer this fen or common was covered with the finest milch cows, and produced a cheese similar to but richer than Stilton, and in autumn a speciality, "Single Cottenham", with the flavour and consistency of Camembert."

It is possible to glimpse the beginnings of this in the earliest Account Rolls of Crowlands. The demesne herds were specialised so as to concentrate their Cambridgeshire breeding at Cottenham. This

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is reflected in the dairy items, cheese, butter and, more fitfully, milk. For example, in 1280-81, the bailiff accounted for seven score cheeses from the dairy, produced at the rate of one a day from the seventh of May to Michaelmas. The cows did not go back immediately at the festival, and 12 more cheeses were made. Four were allowed for in the loss of weight in the press. 72 were sold for 15/8d. Oakington was supplied with 30, presumably for the diets when custom demanded that the lord supply bread and cheese with a day's work, and for use at the lord's table in the manor there. Dry Drayton, which had its work needs but did not have to entertain the retinues who went to Oakington for the courts, received only six. Thirty-two were used in the household at Cottenham. Four were used for the homage when carrying turf and hay from the commons. Others were used by the old Abbot, the Prior, and by the new Abbot when he came from London on his way to Crowland. In 1288-89 twelve stones of butter were made there, and of these four were sent to Oakington and the rest sold. Sheep would need some of that sent to Oakington for ointment. In 1296-7 three stones are expressly used for the sheep. In 1301-2 there was some sale of milk, but this did not amount to much, only 12 3/4d worth. The total dairy sales at Cottenham seem normally to have been a by-product of the cattle-breeding, and not a main purpose of the herd.\footnote{CUL Queens' Cd 5, Cd 13, Cd 11; Probate Inventories in CUA in year bundles. For the animal husbandry on Cottenham Crowlands see M. Wretts-Smith, 'The Organisation of Farming at Crowland Abbey, 1267-1331', The Journal of Economic and Business History, iv (1931-2), Harvard U.P., and F.M. Page, 'Hidentes Hoylande', Economic History, Supplement to Economic Journal (1929).}
But the natural advantages of Cottenham meant that in the long run the dairy industry grew both among the peasantry and the lords of the manor. When the market conditions became suitable the village became more and more specialised. As Cunningham pointed out, the 1596 agreement was concerned with cattle where the previous one had been concerned with sheep. When inventories for the villagers become available after the Civil War, cheeses and cheese-presses are remarkably prominent in them, and not only in yeoman houses. The inventory of Walter Mayle, Butcher, taken 20-7-1671, mentions both a cheese-press and a parcel of cheeses. The ejected Rector, John Manby, who had returned, had two cheese-presses. William Denson, Thatcher, had one and a parcel of cheeses worth £2. John Taylor, junior, yeoman, had one. Stephen Sanderson, butcher had one, and fifty cheeses. John Rosse, labourer had one. In these years it is the absence of a cheese-press from any Cottenham inventory that calls for a special explanation, rather than its presence.

The parliamentary Enclosure of the nineteenth century began to take away the basis of cheese making in Cottenham, its great feeding commons and mow commons. But a sizeable herd survived for another generation. The decisive blow fell on it with the Cattle Plague. Jacob Sanderson lived through both Enclosure and Cattle Plague, and was himself a farmer's son who in course of time took
on his father's land. He remembered the hardships in old age:

"In 1865 and 1866 the Cattle Plague visited Cottenham by cattle brought from St. Ives Market. 600 head of cattle died and were slaughtered. Whole farmyards were emptied. Farmers never recovered from its effects. We took the cows down Top More. Never lost one, by the blessing of God, for which Father was very thankful. It was something heartrending to hear the Dead Cart night and day lumbering through the Town to the playground for two years. Never had so many cows in Cottenham since." ¹

So faded the industry whose method of work was recorded by Vancouver in his General Survey. No cheese is made now, and the detailed recipe is lost.

The neighbour parishes also shared in the production of "Cottenham" cheese; in fact it is in his description of Waterbeach that Vancouver places his account of its manufacture. John Denson claimed that it was by use of common rights to establish his own dairy that his father was able to rise from the position of day-labourer. But Masters, in his Short Account makes nothing of cheese, although he says that about 300 milch cows were usually kept in Waterbeach to supply butter to the Cambridge market, where the price was usually good. The Drift² of 1798 numbered 337 horses, 888 cattle and 18 calves, and 1934 sheep. Dairy was not the dominant interest in this village as it was in Cottenham, Vancouver mentions the fattening of Yorkshire and Irish steers on Waterbeach Fens.

¹ Notebook.
² See Glossary, Appendix C. The written list made at the Drift is referred to here.
The greater part of them lay beyond the open fields from the village. Here the area which might have corresponded to Cottenham's Hards was arable. And in Masters' time the Cam brought Waterbeach in quick easy reach of Cambridge. Subtle differences of topography between these three fen-edge neighbours had much to do with their differences in animal husbandry.¹

The Probate Inventories for the three villages between 1660 and 1710 include 202 which give details of livestock, 114 for Cottenham, 54 for Waterbeach, and 34 for Landbeach. The ratios of cows and sheep to horses illustrate how closely the animal husbandry varied with the topography:

<table>
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<tr>
<th></th>
<th>Horses</th>
<th>Cows</th>
<th>Sheep</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottenham</td>
<td>604</td>
<td>1198</td>
<td>2267</td>
<td>1:2+1:3³</td>
</tr>
<tr>
<td>Landbeach</td>
<td>153</td>
<td>322</td>
<td>1224</td>
<td>1:2+1:8</td>
</tr>
<tr>
<td>Waterbeach</td>
<td>320</td>
<td>756</td>
<td>1787</td>
<td>1:2+1:5³</td>
</tr>
</tbody>
</table>

Cottenham is biased towards the husbandry of horses and cattle, Landbeach overwhelmingly towards sheep, and Waterbeach in between. The inclusion of larger farmers and gentlemen in the Waterbeach inventories and their complete absence from those from Cottenham make the average sizes of flocks and herds none too reliable, but the ratios are not without significance.²

¹ Vancouver, op. cit., p. 129; A Peasant's Voice, pp. iii and iv; Masters, loc. cit.; the Drift is in WPC, Masters vs. Standley Papers.
² CUA, in year bundles for whole county, but with alphabetical lists.
If the sample of flocks and herds revealed by our inventories were reliably representative, the median sizes of flocks and herds might enable easy comparisons with other farming areas at the time, such as those of Lincolnshire. But their value is diminished by the fact that the distributions fail to follow a simple pattern.

MEDIAN SIZES OF FLOCKS AND HERDS IN PROBATE INVENTORIES 1660-1710

<table>
<thead>
<tr>
<th></th>
<th>Cattle</th>
<th>Horses</th>
<th>Sheep</th>
<th>Number of Inventories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottenham</td>
<td>12</td>
<td>8</td>
<td>34</td>
<td>114</td>
</tr>
<tr>
<td>Landbeach</td>
<td>16</td>
<td>5</td>
<td>9</td>
<td>34</td>
</tr>
<tr>
<td>Waterbeach</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td>54</td>
</tr>
</tbody>
</table>

The medians do not reveal that in Cottenham the keeping of cattle was almost universal among the peasantry: out of one hundred and fourteen farm inventories only six show no cattle, while forty one show no sheep. The group with herds of from five to fifteen amounts to eighty one. The largest herd in the Cottenham inventories is thirty, but this may well be due to the fact that in this village we seem to have no inventories for the largest households such as the Lordship. But the picture of the bulk of the

1 These medians for cattle and horses are very close to those found in the Lincolnshire Fenland at a similar period. See Joan Thirsk, *Fenland Farming in the Sixteenth Century*, Department of English Local History, University of Leicester, Occasional Papers, iii, 1953, p. 139, which gives medians for the 1690's of 14 for cattle, 7 for horses and 62 for sheep. The Cambridgeshire fen edge had failed to keep up with the growth of the sheep flocks of the much more suitable Lincolnshire fens in the second half of the seventeenth century. Our inventories seem to reflect the turning away of interest from sheep to cattle which was shown by the sixteenth century agreements in Cottenham.
peasantry in Cottenham keeping anything from one or two cows to a modest milch herd is clear and in contrast to the other two villages. In Landbeach no herd appears in the range from five to nine, while in Waterbeach, although there are thirty three inventories showing herds of from three to twelve, there are also herds of forty, seventy and ninety three.

Without horses the activities of a peasant must have been severely limited on the fen edge. In Landbeach we have only four farm inventories without horses, as against eleven without cattle and eleven without sheep. In Waterbeach eight have no horses, eight no cattle, but nineteen no sheep. In Cottenham the cow pastures were so handy to the village that many small peasants seem to have been able to manage without horses, twenty one as against only six without cattle.

But sheep grazing seems to have been common among small holdings as well as larger: Cottenham had twenty inventories with flocks numbering from three to twelve, but another twenty one with flocks of over thirty five. But the largest flock to appear in Cottenham was one of two hundred whereas Waterbeach had one of four hundred and sixty six, and Landbeach one of over five hundred. Again this difference from Cottenham may be due to the freakish sample of the inventories.
Our picture of the stock in these parishes must be deficient in that beasts of agistment should not have been included as property of the dead man, but from their obsessive presence in the regulations they must have been of major importance in the economy of many peasant families.

It is by chance that the period over which the inventories have been taken produces totals of beasts that appear to be of about the same order of size as the numbers counted in a single year. Our most complete count, the Waterbeach drift of 1793, albeit much later, has a fair correspondence with the numbers in the inventories, 906 cattle, 337 horses and 1934 sheep, compared with inventory totals of 756, 320 and 1787. Yet the numbers of inventories are much smaller than the households of the contemporary 1664 Hearth Tax, for Cottenham 114 against 215, for Waterbeach 54 against 107, and for Landbeach 34 against 66. Probably there are too many excluded at both extremes, from wealth in another diocese, or from poverty too severe to allow the ownership of beasts. It is also possible that a number of the inventories which have no farm section merely ignore this part of the property.

The numbers of inventories without animals in this period are for Cottenham nineteen, Landbeach five, and Waterbeach eight. These were mostly poor widows', labourers', and poverty-stricken
landless craftsmen's. But even here there is a difference between the villages: in Cottenham some quite substantial yeomen do not have lists of beasts given, but merely a total value for the farm. One of the Landbeach inventories without beasts is for a parson who was also a senior fellow of Corpus Christi, and probably his main inventory was made elsewhere. We can hardly feel confident that we have a good cross-section in these inventories while there are such differences among such relatively small numbers.

But there is no denying the presence in each village of a substantial group of modest peasantry, with balanced agricultural interests that nonetheless took advantage of the special endowments of the topography of their own village, and among this group were craftsmen, publicans and shopkeepers most of whom operated from the basis of a peasant holding. On the fen edge the pastoral side of the village economies seems to have been the area in which both peasantry and gentry could most easily seek to take profit from the market.

The mares and foals which, in the later middle ages, seemed to fill Landbeach fens whenever they were emptied of sheep by the murrain, indicate the adaptability of this side of the peasant economy. The opportunities of the rich grass on the fen edge
enabled peasant, lord or farmer to exploit market conditions
while operating from a relatively unchanging base in the arable.¹

¹ See page 310.
Fen Management

Probably the best description of Cottenham Fens is that given in a seventeenth century Book of Sewers which describes some of the effects of early drainage schemes:

"We say that in Cottenham there are divers grounds, some half several and some common, both which upon extraordinary floods are sometimes overflown and upon the fall of the river do forthwith drain again as the upland meadows do; but unless the said floods do happen to overflow them in the summer season (which is very seldom) we do find that the said grounds receive more benefit than hurt thereby and are thereby much bettered and enriched: for those grounds which lie lowest, and are oftenest and longest overflown in the winter season are the most fertile grounds, and yield the best yearly value; the snap or forecrop of the said half severals being some of them worth twenty shillings the acre yearly, and some eighteen, some sixteen, some fourteen, and the worst of them all seldom sold for less than twelve shillings the acre, unless it be some dry year when they are not overflown, for then the white fodder decayeth, and the grounds turn much to a small kind of hamer segge which the cattle like not so well, the stuff being much worse. Neither is there scarce half that burden thereof which useth to be in moister years when the grounds are overflown. The commons or feeding grounds are so good or rather better than the severals are, and would yield as good a yearly value if they were used alike; but by reason of their banking and draining of them of late time, they are grown to a smaller kind of grass than formerly they were, so that where in former time they were wont to mow in their common feeding grounds three or four hundred loads of common fodder in a year (which greatly relieved the poorer sort of people among them) (and had notwithstanding plenty of meat for their cattle) there is now scarce anything to be mown and such small store of meat for their cattle in dry years, that they are forced sometime to seek pasture for them in other places; and have been driven to set barn doors overthwart the river to staunch the water, to help water into their ditches for their cattle, the want whereof hath been the cause of so much death of cattle among them, as hath been from time to time observed, whereas in moister years when the
cattle have plenty of grass and water they stand sound, and there is nothing so much casualty among them ..." 1

If, then, the fens were no worse for being fens but might perhaps be better, as long as they were commons their use had to be controlled, and their use and the controls implied would gradually change their nature. 2 When uncontrolled, their use led to strife and disputes that could only be solved by agreement to regulations. The Wrest Park Chartulary contains a copy of an agreement dealing with Cottenham fens unnoticed by Miss Page, strikingly similar to the agreement which she prints on turf-cutting. 3

1 BM Ad. Mss. 33466 fol. 184, anno 1618.
2 For a modern scientific discussion of the richness of fens see L. Hoffman, 'Saving Europe's Wetlands', New Scientist, vol. xlv1, No. 697 (16th April, 1970), p. 120: "Often these benefits will be greater than those expected after reclamation."
3 Spalding Gentlemen's Society, Wr. Pk. Ch., f. 249 d.
The dating of this document is very important, since, if we have agreements made under these circumstances in three years following each other, we might believe that we have evidence here of a village court.

Miss Page gives the date as 1345, but in the text the year is 18 Edward III, 1344, and the day, the first Thursday after the Octave of Easter, i.e. 15th April in 1344. The Wrest Park agreement gives the date as the 15th of April in 18 Edward III, but gives an Anno Domini date of 1343. Since the same people the lords and all the tenants of Cottenham appear in both in the same place, Cottenham Church, probably both date from the same time, 1344. Another copy of the Agreement quoted in Page, which has now come into the Cambridge Record Office in the Francis Papers, is dated 1344 also. What appears to have been taking place is a fairly comprehensive review of the use of the fens, this second agreement dealing with the division of the mow fen, Smithy Fen, and with agistment and trespass in the others.
Source: CRO 124/P43
In this it was agreed that Smithy Fen should lie in fence from the feast of the Purification until after cutting and carrying. The laying out of the fen was to be done by the bailiffs of Crowland and de Lisle, although de Burdeleys Bailiff alone might carry his own measuring rod of 16½ feet to check that he and all the free tenants received their proper share. The fen was to be parted into furlongs 40 perches in length. In each of these de Lisle was to have the First Cast, the Abbot the Second Cast, and the rest of the inhabitants their proportion in turn.

Agistment pennies for the fens, viz. North Fen, Seghawfen, Charfen, Tappingmore, and Grekenhilfen were to be collected in a box in the presence of the bailiffs of Crowland, de Lisle, and Burdeleys. The de Lisle Bailiff was to be responsible for the custody but under the supervision of the others. For each 9d. (i.e. 10d. less tithe penny) of agistment money de Lisle was to take 4d., the Abbot 4d. and de Burdeleys Id. The lords of the "new Fees" were to have nothing. Traces of this survive right down to the Parliamentary Enclosure, which ended the division of Smithy Fen into Furlongs and Casts. The agreement of 1596

1 See Map 13. These names appear to refer to: Great and Great North Fens, Setchel, Chear Fen, Top Moor, and the last mentioned to the area which later became the Undertakers and the Lots.

2 There were six manors in Cottenham, the three referred to as new were those created by the Bishop of Ely as Knight's fees.
A Map of the Holme, in Tottenham
Surveyed in the Year 1809
by Thomas Harre.
seems to mark the change from annual to permanent division of the mowing ground in Smithy Fen:

Article XIX "That Smithy Fen shall continue and remain for ever dowelled and staked according as it now lieth."¹

Landbeach had a similar method for laying out of the Frith Fen. The Parish Fen book gives this in a number of seventeenth century versions. The first reads as follows:

"The laying out of the grass in Fryth fens of Landbeach as it is used in the first year of our Sovereign Lord King Charles by the Grace of God beginning at the end of a foot path on the west near the southwest corner and proceeding in meting (measuring) as the same path lieth toward the low gate or southeast corner using the pole of xiij foot in length throughout as hath formerly been used."

At the end it reads:

"Be it known that the next year this order of laying out of the grasses of this Fryth Fen must alter so that you must begin with the acre of the College called Bere's Acre and from that laying the six acres of College Demesne the parson's part and all the Freeholders' while you pass Rook's di acre And then begin with John Gunnil's Copy in the Green And so forth in order backwards leaving and ending with Giles Annis and Jackson in the end at low gate. The remnant that is left of the meadow is appointed for the Church Lot."

¹ Common Rights, p. 207.
A regular entry in the parish accounts in the early seventeenth century is payment to two men for "carrying a rope in Frith Fen", probably part of the process of marking the divisions as measured.¹

The laying out of the mow fens for hay was only the most obvious form of control necessary for their use. Arrangements had to be made to safeguard the grass in time of growth. The hay ground obviously had to be fenced off in spring until after mowing and carrying, as with Smithy Fen in the above agreement.² The time of opening such land for feed would depend on whether one or two crops were to be taken. This in turn would normally be dictated by the topography and the relative dampness of the different meadows, and also the state of the particular fens, whether they were in good heart or no.

The 1639 Orders suggest that an opportunity was being taken to give Smithy Fen a rest from the regular annual mowing: it was to be several from all beasts only from St. Thomas (21/22) to 25th March. No cattle were to be driven over it. This was not

¹ LPC; these accounts are in the back of the first Register. In Over the size of the rod for fen measurement was reduced to thirteen feet in order to increase the leavings, which could then be let in order to save a rate for drainage. See CRO transcript, 65/T1. "Fen Measure", in Landbeach at least, meant that each fen acre contained two acres, but in the old Meadowfield the selion was kept as a measure.

² With the extensive ditches, little fencing in fact needed to be done apart from placing gates (Barrs) across the roads at the fens' ends.
keeping it for hay, but merely giving the new year's crop of grass a start safe from the treading feet at the moist, cold time of the year. The Undertakers' land,¹ which had been separated out of the commons but was not yet taken over by the Corporation, was set aside for hay: it was several from all manner of cattle from the 1st of March until the 10th July, and the meeting for dividing it up was to take place on 10th June. Quite clearly Undertakers was being used as Mow Fen alongside the Lotts.² If parts of the commons were to be taken out of use at certain times the question of alternatives and priorities was raised. Top priority, especially in Cottenham in its great cheese-making days, had to be given to the Milch herd, and the lowest to cattle of agistment. It is significant that the new names for parts of the old medieval Aldborough Meadow, Cowpasture, Calves Pasture, and Bullocks Harst (or Haste), appear with the 1596 Agreement. (In fact we may well have the opposite situation in Cottenham at this time from that which we found in Waterbeach: the lords' and gentry's interests in sheep conflicting with the peasants' interest in cattle, and here, predominantly milch cattle.) The old name, in its corrupt form, Awbrose, still continued to be used for the area as a whole,

¹ See Map 13, p. 86. TL 493705.
² Common Rights, pp. 235-9. An interesting name for part of the leavings in medieval Cottenham and Landbeach was "Knaveslees", which may well be the Tudor "Youngmensfen". This was probably hay ground for those without property sufficient for a common right. CCCC XXXV 121, 44 Ed III, and PRO SC4, P&M 3/17. cf. Map. No. 11.
but it was no longer meadow. The Hards, normally winter as well as summer ground on account of the few extra feet of altitude above the Low Grounds, were now even more valuable as pasture for the milking herds as they were adjacent to the village. An expanding market for what had previously been not much more than a by-product of cattle breeding, cheese, and the effects of better drainage, had produced a major change in the use of the common grasslands.

The natural water-meadows in the shape of the Low Fens, could not only supply the hay, but also especially lush pasture in late summer when the grass of the permanent pastures grew thin; further, they could make an alternative and adequate, if more distant, feeding for the animals excluded from the areas devoted to the milch herd. The other alternative feed to the pastures and Lammas lands of fens was the fallow and stubble of the open fields, and the ways and unsown double furrows which produced grass of a sort. The grazing could only be controlled as a whole, especially as any "sudden or extraordinary flood" would call for immediate rearrangement of the uses of those commons which had escaped.

There was another factor which brought the control set up for the Common fens to extend over the arable: sheep, which could be damaging if allowed to undercrop in competition with great cattle,
were particularly valued for their manure on the ploughlands, and the gentle stirring of their hooves was beneficial to the soil where heavier beasts tended to compact it. Thus the ordering of the field paths and grass furrows, the control of entry into the fallows and so of gleaning, the maintenance of the proper size of baulks, ways and headlands, all came under the aegis of the Ordermakers, who, in turn, appointed the Field Reeves as well as the Fen Reeves. Their power extended over all common rights, and so they became, amongst other things, the sole effective highway authority within the parish, with their own powers to order common labour for maintenance and development. Theirs also was the guardianship of the fens from drowning, as far as it lay in their power. So, too, they took responsibility for banks and ditches, including the waterfurrows and gripes of the arable. The Town Boats were in their care in the early nineteenth century, and they took full responsibility, including financial, for the maintenance and running of the drainage windmills at Chear Fen and Undertakers. Their finances were transferred to the Commissioners after the passing of the Enclosure Act in 1842. By this time they had exercised most of the civil economic functions normally performed by the Parish elsewhere, e.g. regulating the digging for turf and minerals and the restitution of the surface, paying for the destruction of sparrows and moles, planting osiers, fetching Town
wood, viewing the bulls, looking after gates and bars on the ways, providing the Fieldkeepers with powder and shot, and even paying for playing the engine.

But this did not distract them from their primary duties concerned with the agriculture of the village. They not only looked to the allocation of the commons between alternative uses, and allotted the time and place for each kind of stock, they also saw to the maintenance and improvement of the quality of the ground and of the common flocks and herds. The provision of the right number and quality of bulls was at their direction. The powers and duties of the Herdsmen and Shepherds were laid down by the Ordermakers. Their regulations against diseased beasts on the commons protected the health of the cattle. They prevented the plundering of the store of wealth in the land by overstocking with beasts of agistment or by digging for sale outside Cottenham.

They carried on the work of the medieval manorial courts of watching the encroachment of neighbour on neighbour in the open fields, and the foreigner from outside the village in the commons. The most suspicious of all foreigners to be found in the fens had for long been the butcher. Miss Page quotes a presentment of 1419 which refers to an agreement laying down the conditions under which
a butcher might enter the fens in Cottenham. Bans on their presence in the Waterbeach Fens can be found in the Court Book for 1 Hen VI, and repeated down to 19 Elizabeth. In the Orders of 1639 even native Cottenham cattle dealers and butchers lose their freedom of the Fens. The Herdsmen and Shepherds are set on watch against colouring of foreign beasts. A register of brands and the right of the Fen Reeves to take drifts of all the beasts on the commons was a check both against over stocking and colouring. At Waterbeach the compulsory use of a Town brand as well as the owner's was a double-check.¹

The power and range of activity of the commoners' organisation in Cottenham through the seventeenth, eighteenth, and the first half of the nineteenth centuries, a power which dominated the economic life of the village, and exercised a conservative control over agricultural development and so over the landscape, was a reflection of the abundance of grass. It was a result of the profusion of natural water meadow in the fen; and even more of the topography of the fens, which combined these with adequate permanent pastures on the Hards near the village, where milking was convenient, or near enough for home milking when necessary.

¹ Haird Collection, Fen Reeves' Book II; ECA, p. 165; WPG WoD loc. cit.; Common Rights.
The skill and flexibility with which the Cottenham Ordermakers responded to the vagaries of water-level and climate, is revealed in the surviving Order Books with their successive amendments to the traditional arrangements. But the system was effective in keeping these traditional arrangements working, not in changing to a new order of things. The peasant society had adjusted and tailored its way of life to the varied and flexible topography. As peasant power when it had grown, de facto, over the fields exercised a strong conservative force, so over the fens, peasant power both de iure and de facto, anchored the economic life of the parishes to a mode and landscape from the past, a past where the peasant's expectations had been slowly formed over the generations. The separation out of domainial rights into several closes and sheepwalks in these villages gave freer reign to the conservatism of the peasantry. Apart from the allotments to the Bedford Level Corporation in Waterbeach and Cottenham fens, each parish had only one major enclosure in its fenland before the great Parliamentary Enclosure of the nineteenth century, that creating the lord's several or the sheepwalks.
Sheep

If the suggestion that Landbeach may have begun as a settlement for raising sheep is correct, its subsequent history suggests that, under medieval conditions, it was a particularly good choice. Atkyns in 1604 singled out the quality of Landbeach pasture for sheep:

"They have little fen ground, but between the towne and Denney be good Sheepcourses."

This is on the better drained gravel soil of the village, and there is a fine flock going there at the time of writing. Vancouver does not suggest a number for Landbeach sheep, but the list of every man's sheepgate in the Dukman Book gives a permitted total for the year 1728 of 3,984. For Waterbeach Vancouver gives 1,000, Masters around 2,000, and the actual number recorded in the drift book for 1793 is 1,934. For Cottenham Vancouver gives 2,500, but says that three quarters were lost by rot in the previous season. Under the wetter conditions of the Middle Ages, disease must have been a continual and serious hazard. Landbeach must have been favoured compared to its neighbours in that, relative to Cottenham, it had so much more gravel soil in easy reach of the village, and that its gravels were, on the whole, slightly, but significantly, higher than those of either Cottenham or Waterbeach.  

1 Vancouver, C., A General View of Agriculture in the County of Cambridge, General View, 126-131, Masters, Short Account, p. 2; Dukman Book in LPC.
Miss Page and Miss Wretts-Smith have shown us the picture of the sheep-ranching pursued by the Abbot of Crowland, and the part played in this by the Crowland Manor of Cottenham. Losses due to "Murrain", an all-embracing term for animal disease, seem to have been such that there was no profit for years. In 1302-3, for instance, in the Cottenham accounts are 72 "multones", of which 25 died before shearing, and 12 "oves", of which 3 died before shearing. This was not much above the average. The variations in the numbers recorded for this domainial flock only become intelligible in the light of the central organisation of the Crowland demesne farms, and the comprehensive section of the central account rolls, "Bidentes Hoylandie". Information about other demesne flocks in the area is hard to come by, and even more difficult to understand and interpret. Unfortunately in the Crowland documents far less information survives for Cottenham than for Oakington, but for forty odd years Cottenham appears to have played its part in a system organised on the basis of specialisation within the whole group of demesne manors. Cottenham, because it was the only one of the three Cambridgeshire manors with water communication to Crowland, became the collecting and dispatch centre for their wool as well as other agricultural products. In 1298 132 sheep were received at Cottenham.

The end of large-scale sheep farming by Crowland came in 1322. Then only a few appeared in the Dairy accounts at Crowland;
none at all in the Cambridgeshire manors. There is no sign at all of these ever having counted sheep in their dairies.¹

If topography made Cottenham the loading point for water transport from the other two manors to Crowland, it also made Oakington the convenient centre for shearing. In the late fourteenth century there was some revival of Crowland’s demesne flocks, and in 1392 the Cottenham sheep were sent to Oakington for shearing. In the following year the Oakington demesnes were stocked with sheep from Cottenham. But the scale and specialisation were less than in the earlier period. Then, from the beginning in 1297 or 1298, wethers had been kept at Cottenham and ewes at Oakington. When the male lambs born at Oakington became yearlings they were transferred to Cottenham.

When, in May 1430, the Abbot of Crowland finally abandoned direct demesne farming in Oakington and Cottenham, both demesnes were leased on a stock and land basis to local villeins.² On each of the manors was a flock of 200 sheep. The tenant had to find for them a shepherd, as well in winter as in summer, wages for the shepherd, and sufficient ointment. Of the sheep farming in the unspecialised days after the lease of the demesne, the Crowland Rolls are naturally silent, except for incidental mentions in trespass cases. Of numbers and the detailed running of the flocks, no record remains.

¹ F.M. Page and M. Wretts-Smith, op. cit.
² ECA, p. 444.
Clay gathered together, mainly from Masters' History of Corpus Christi, and from his "Collectanea" in the Parish Chest, a few fragments on the Chamberlains demesne sheep in Landbeach. The first mention of sheep is in the charter of 1336 by which Henry Chamberlain granted his brother John the right to fold 120 sheep for life. The lands in this charter look suspiciously like the beginnings of a collection of holdings including the manor site (or part of it in the earliest years, when the house was probably still standing), the Madecroft,¹ pound for sheep, shippen and shepherd's house. It seems to have been held by Sir William Castleacre in the 1380's, possibly as part of the lease of the whole manor. He leased it to Thomas Bradfield in 1391, and Bradfield's name remained for years as the designation of these lands. Both these gentlemen appear as active sheep farmers in the court rolls of both Landbeach and Cottenham. In 1410 this holding was conveyed from Bradfield to Richard Billingford, Master of the College. After this it was frequently let to the parson. Master Adam held it for years. When the Master of the College was also Rector he frequently let it with or without the rectory. It seems to have been an attractive small farm for gentlemen graziers, compounded out of fragments of the demesne, never formally a unit, but with an astonishingly long life.²

¹ Or Meadowcroft; see Map 28, Bl, p. 383 TL 477657.
² CCCC XXXV 36; CCCC XXXV 101; CCCC XXXV 106.
According to Clay and Masters, the College, after its purchase of the manor, at first leased the demesne, but by the end of the fourteenth century had stocked it and was running it by a bailiff. Sometime after the middle of the fifteenth century, Elizabeth, Dowager Duchess of Norfolk, and her sister, Eleanor, widow of Sir Thomas Boteler who died in 1466, endowed the College by giving money for the purchase of sheep for the manorial stock, the profits from which were to be divided between the Master and Fellows. This arrangement was still working during the Mastership of Cosyn who died in 1516.

In 1498 we read that Thomas Cosyn and William Rackliffe (then lord of Brays) "hath ordained for the common weal of the tenants of Landbeach, that whosoever suffereth recklessly his flock of sheep to do any great hurt or harm in the meadow or in the field on their neighbour's grass or corn, for each flock the owner of the same flock shall pay to the reparation of the church at Landbeach afore rehearsed xij d."

In his History of the College, Masters says that the sheep were wiped out by the rot when William Sowde was Rector, 1528-44, but that it was re-stocked by Matthew Parker. The gap would not have been long.¹

¹ R. Masters, The History of the College of Corpus Christi and the Blessed Virgin Mary, commonly called Bene't, in the University of Cambridge (1753), p. 36; cf. Landbeach.
When Mrs. Parker sub-let (for almost three times her total rent) part of the lease she had from her husband's half-brother, who had it from Matthew, she kept back most of the grass and the thack of half an hundred sheep. The farmer who eventually got it took also Moor Leys with the thack of another 100 sheep.¹

When, in 1580, Queen Elizabeth leased the demesnes of Waterbeach cum Denney, she reserved to the Crown:

"The yearly herbage and pasture of the aforesaid two hundred acres of land for the flock of sheep of Sir Robertus Chester, Knight ... when the same two hundred acres shall be unsown or be with stubble after harvest as the custom hath been used at any time before for the flock of sheep of Denny Abbey..."

This had previously been included in the lease of the manor for sixty years to Sir Robert, in 5 & 6 Philip and Mary. So much for the iniquity of separating sheep-gate from house.²

The need to fit the grazing of close cropping sheep into a system that did not starve their larger competitors, meant movement of flocks. This must have been exaggerated by the variable, and often unpredictable, water-table of the fens. In the accounts of Richard Pelle, the Reeve for Chamberlains Manor in Landbeach, for Michaelmas 1348 to Michaelmas 1349, no sheep are


2 WPC Bundle labelled, 'Various Documents'.
listed. But in the accounts for the following ten weeks are seven yearlings. For Michaelmas 1345 to St. James, 1346, no sheep appear in the stock, but 161 fleeces have been sold, and fells and pells total 157. In Thomas Brotherton's accounts for the year ended Michaelmas, 1352, no sheep figure, but in those of Henry Wymyn for 1356 sheep of all kinds amount to 147. The full story might be more complicated than the obvious simple explanation: a "Bestial" of 1375, at Epiphany shows 251 sheep, of which 30 have been sold and two have died. There are signs that the flock had been increased during the year, purchases including 27 from the Rector of Landbeach, but of the other stock the pregnant and the young seem mostly to have been sent to Grantchester. One cannot be sure whether this was normal practice at this time, or whether the fen was unusually wet. One cannot be sure whether it was shortage of feed or shortage of shelter which caused this movement. Nor can we be sure how far it was simply due to the economic interests of the de Eltisley family, for the Master of the College and his nephew were about to exchange the livings of Landbeach and Grantchester. We have insufficient information to distinguish between agistment, genuine purchase and the re-shuffling of family property at this point: but it is clear that the movement of animals to and from the demesnes is a considerable feature of the Chamberlain manor. Clearly the full potential of the fen as feeding

1 CCCG XXXV 146, 181, 182.
ground could not be exploited by fixed numbers of beasts. These
numbers would vary seasonally, since a good part of the fen would
be unfit most winters, but the unpredictable variations of the
water-table must have frequently provoked sudden competition for
feeding that had been reduced in an unforeseen way.

The taking in beasts of agistment was a continual source of
trouble in all three villages. When it provoked an outcry, sheep
would be the most unpopular of any foreign animals, because they
would so effectively undergraze any great cattle unfortunate enough
to be sharing with them. When agistment was banned there was
always a good chance of a peasant "colouring" foreign beasts by
including them with his own flock. There is a complaint of illegal
agistment of sheep in one of the earliest Chamberlain court rolls:

"John Schayl ponit se in misericordia quia agistavit
bidentes in pastura ville sine licencia."¹

This was also one of the graver complaints made against Richard
Kirby in 1549:

"9. Item, he keepeth in sheep of foreigners to the number
of 1200, far above his rate, to the utter undoing of the poor men."²

¹ CCCC XXXV 121 6 Ed III.
² CCCC XXXV 194.
In Cottenham in 1525 William Whyston "cepit oves ab extraneis ad pasturam infra istud dominium contra ordinacionem inde facturam". He was in exactly the same trouble two years later.¹

Orders made at the court of the Manor of Waterbeach cum Denney illustrate the importance and difficulty of this problem in the Tudor period. There are major changes in each of the three years, 24, 25 and 26th Elizabeth:

24th E. "That none shall keep sheep to halves, nor put away his sheep commons."

25th E. "That it shall be lawful for them to keep sheep as they did before the last court and to take to halves so as they exceed not the numbers rated them by their tenures, so they have wool and lambs."

26th E. "Whereas there is controversy between the Farmers of the Joyst Fen, and the tenants, touching the taking in of winter joist by the farmers, and for putting in of sheep into the same fen in summer by the tenants, Ordered that the Farmers shall not put any cattle in before May Day yearly. That all Joist Cattle be avoided on the Common Drift Day except 100, and they not to remain above a week." ²

Taking in sheep to halves, which meant taking half the lambs and wool, was very attractive to the poor man with pasture rights but no capital. Commercial farming in Tudor Waterbeach produced the same strains of competition between rich and poor as elsewhere in the period, but at Waterbeach apparently it reflected the rivalry between sheep of the peasants and great cattle of the gentry or

¹ CRO Francis Papers, Court Rolls of Crowlands.
² WPC WcD.
yeomen for grass. This was not usual; on the whole it was rich sheep graziers who drew the wrath of the peasantry. Sir William Hinde of Madingley spread his large flocks through many Cambridgeshire villages as well as the City:

"Item, we find that Mr. Hynde unlawfully doth bring into Cambridge field a flock of sheep to the number of vi or vii Cth, to the undoing of the farmers and great hindrance of all the inhabitants of Cambridge.

"Item, we find that Mr. Hynde after the corn be inned and harvest done bringeth in his cattle in great number and eateth up the common to like hindrance." 1

Mr. Hinde could operate on a scale that included the purchase of whole manors in Cottenham and elsewhere to provide room for his sheep. Lesser men had to pick up what they could: in 1539 a Cottenham Rectory tenant, Ralf Barrow, and Robert Powell were both presented for bringing in sheep belonging to John Letchworth, 100 and 60 respectively. If the manor court made it difficult for foreign sheep to be taken in, it might be possible to cease to be a foreigner by acquiring a tenement and so "naturalising" the sheep: a presentation in Waterbeach during the first year of Henry VIII runs:

"That John Bell, tenant of one messuage and chargeth the Common with sheep, keeping 500 sheep. And that from henceforth he do not surcharge it."

But he seems to have remained and prospered. Eleven years' later there is another order:

"Alderman John Bell of Cambridge to move his sheep out of the commons of this town." His tenement was merely an osier holt down at Clayhithe. An order of the following year seems to have been aimed directly at him:

"That no Foreigner shall purchase any customary tenement within the manor of Waterbeach and Denny unless he brings his family hither to inhabit." This was followed a few years later by:

"That none take any cattle to agist by colour of his own right."

An order of 1495, also couched in very general terms, seems to have been even more of a dead letter:

"That neither the Lady Abbess nor any other tenant from henceforth receive any sheep but their own."

Shortly after the Dissolution the habit grew up whereby lists of Ordinances were drawn up by the court. These appear for the most part to be versions of what had been promulgated piecemeal from time to time as the need arose, and were then undergoing something like codification. One such in the 19th year of Elizabeth deals with agistment, and may in fact from the very name of the fen (Joyst short for agist) have been a revival of ancient custom:

"That no foreigner keep any cattle in any part of the Town Common but in Jestffen unless they couch and lie, keep house in the town and pay scot and lot."
In the following year was added a separate single order which, reinforcing this, must have provided a scheme in which there was some hope of control of agistment:

"That no tenant let his sheepgate or take in any sheep except to halves."¹ This again may in part have been a revival of ancient custom.

The size of medieval peasant flocks has been a subject of controversy, and is very difficult to determine.² All the evidence for this in the three villages under discussion is indirect and fragmentary. At best we get indications only. Presentations for failure to put sheep in the lord's fold, and for trespass, provide most of the hints in the court rolls for Landbeach. In the course of the fourteenth century, presentations for trespass become an obsession to the point where they dwarf all the other business of the court put together. Numbers and kinds of animals involved are usually given, but not always, and there is nothing at all to tell us whether the cases represent the whole of a particular peasant's

¹ The information used in the above paragraphs is taken from the Court Book of Waterbeach cum Denney in the Parish Chest under the regnal years indicated. WcD.

flock. Nor do they tell whether these are the largest, or average, or smaller flocks. But the Landbeach cases give a strong impression of very considerable sheep husbandry by the peasants, and on the whole this seems to increase until later in the century. But the apparent trend may possibly be in part due to a falling off in respect for law and order, and the attempt of the courts to tighten up the enforcement of agricultural discipline in reply, or simply to collect fines.

The Court Rolls unfortunately start too late for us to be able to trace the early stages of growth in peasant flocks. At the very beginning there are signs of considerable activity. In 1328 John Haldeyn placed himself in mercy for trespasses with 300 sheep in the lord's pasture; John Sexyne for 200 in the Frith Fen; Henry Sandre for 100 in the lord's peas; William Williams for trespasses on three occasions with 20 sheep and four mares; John Judde had been pasturing his sheep in the lord's several in the moor; and Thomas Gunne had put his sheep in the lord's field in winter, and not sent them to the fold. Others are recorded but no numbers given.

In 1332, as well as the case of agistment of sheep by John Schayl mentioned above, Simon le Herne was recorded for failing as pledge to produce William Castleacre for trespasses with his

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1 The subsequent information on trespass and non-fold cases is found in CCCC XXXV 121-126, Court Rolls of the Manors of Chamberlains and Brays, under regnal years and Saints' days.
sheep in the pastures of this town. Now William Castleacre of Great Gransden was a knight with interests in Cottenham as well as Waterbeach. Here we already have a hint of the gentleman grazier whose activities extend over a wider area than a single manor, a figure that becomes more familiar in Tudor times, but already present before the Black Death. Professor Miller's injunction to look for rising gentry before the sixteenth century could well take us back at least this far, and take us among the sheep.

The absence of domanial sheep from the stock list at the end of Richard Pelle's earlier term as reeve in 1342, does not represent a general abandonment of sheep rearing in the manor such as might have been caused by murrain, for there are several cases of non-fold. A peak is reached in 1347 with 27 such cases. The evidence for the Black Death years shows the existence of numbers of moderate sized peasant flocks (although these are probably only part flocks). Among 29 cases of trespass in the lord's corn and in the Frith Fen, John Ric(h)ard had 20 sheep in the corn and 60 in the fen. This alone suggests that the figures are not very likely to represent the peasant's whole flock. In the same group of offences Thomas Ric(h)ard had 50, Avicia Martyn 30, John Osebern 20, and John Ward 60. Cases of non-fold in 1349 show John Fenland
with 26 sheep, Henry Sandre with 60, and John Ric(h)ard with 60. These villeins Osseberns, Sexines, Attefens, Martins, were all present in the Hundred Rolls. Roger Sandre was enfranchised in 1377. A Roger Sandre of Landbeach appeared in Cottenham in 1408, and his son was caught illegally fishing there in 1413. But John and Thomas Sandre were recorded as having fled in 1380. Roger was still involved in Landbeach at that date, for order was made to re-possess an acre and a half of demesne which he had occupied without licence. All lands listed in 1459 as having been his were listed as demesne lands. They included two holdings of nine acres each, and a halfland, an old croftland, normally five acres. This would have made him one of the most substantial peasants in the village, representing a living for three villein families. It is not clear whether villein prosperity in Landbeach ended in enfranchisement and removal, or whether villeinage so frustrated prosperity, that it ended in flight. The great villein family of Cottenham, the Pepys, seems to have frequently found ways to make money, and numbered fleeing members among them. Miss Page recorded only four clear cases of simple enfranchisement of villeins, apart from licences to take Holy Orders, and one of these was for John Tankred of Cottenham. It is perhaps significant that a close called Tancred's is listed year by year in the Collector's Accounts of the late fifteenth and early sixteenth centuries. But the
enfranchisement was in 1389, and there were Thankrets fleeing in 1403, and more in 1409. A prosperous villein denied enfranchisement might well flee, and if no tenant could be found the land itself would become freed. It is not possible to discover which of the two processes produced these big empty tofts in the villages. Fleeing villeins were not necessarily impoverished. For instance, when the goods of Alan, son of Henry Wylmyn, who had gone to live at Dry Drayton, were seized in Landbeach in 1366, he had 44 sheep, 12 lambs, and 30 fleeces, as well as 2 cows and 2 geese. Sheep, in this area at least, for peasant and for knight, could be a means to prosperity.

Office-holding might also help somewhat, but independence of mind more. Henry Sandre, who was fined in 1349 for having 60 sheep out of the lord's fold, as bailiff in 1356 was discovered to have sold the use of the lord's fold to compost four acres. John Osebern whose twenty sheep had trespassed in the Frithfen in the earlier year seems to have prospered for he admitted a trespass in the lord's corn by five hundred of his sheep in the latter year. Not only peasant flocks were involved in offences. Hugo le Bray, lord of the other manor in Landbeach, was accused, on the strength of his holding a bondage tenement of Chamberlains, of failing to send 30 sheep to the lord's (Chamberlains') fold.
In 1363 Robert the shepherd of Waterbeach was presented for trespass with 180 sheep. But the bulk of the cases were concerned with villagers. In 1369 some 358 sheep were involved in seven cases of trespass.

But there are periods when the trespassing sheep suddenly disappear from the court rolls, and the fens seem to come alive with mares and foals; after a few years the sheep re-appear, at first a few, then building up quickly. For instance, in 1372, after the enormous numbers of sheep in trespass cases of 1369, there were none at all, but instead forty two cases of horses, mostly mares, sometimes with foals, involving a hundred and five animals. There seem to have been two similar periods in the early fifteenth century. Unfortunately we do not have accounts to tell us whether murrain was at work. Sheep farming seems to have been not much more certain than arable on the medieval fen edge.

Not only do the court rolls suggest that a number at least of the peasants were prosperous in the late fourteenth century; they also suggest that the spirit of the times filtered through to them in Landbeach in the period of the Peasants' Revolt. In the St. Bartholomew court, 1380, 118 cases of trespass were recorded. Thomas Michel was accused by John Bernard of stealing
six ewes from his close. He was also accused of making a practice of turning his swine out into the lord's corn at night. Two years later he was answering for trespasses with 60 and with 40 sheep, and in 1395 for a case with a flock of 100. In 1380 also, the Vicar of Waterbeach was presented for trespassing in Landbeach with all his sheep in the lord's oats. A new formula was used from this year. Instead of "fecit transgressum" we find in trespass cases, "qui captus fuit cum ... in ...". In these years appeared the two cases of housebreaking in the rolls, one by Thomas, chaplain, servant of the parson. Peasants began to be reported as rebellious against the bailiff. In 1383 Roger Sandre, John Martyn, John Inteherne, John Sweyn and Roger Wylmyn rebelled against the order of the reeve at the turning out of the lord's sheep. At the following court in the same year, the same six, together with John Symme and John Fen, were accused of being rebellious again in refusing to do their carrying services to the lord's brew-house in Cambridge. If this "independence" is the fruit of apparent moderate prosperity and hope of more, there is not much doubt that the sheep played its part in creating it. Such flocks as were numbered in the 108 cases of trespass in 1395, amount to a total of 1,900; many other flocks were mentioned with no figure given.
With such numbers there was likely to be a problem of over-stocking. The first known attempt in this area to remedy this by stinting, regulation of the numbers of animals that could be stocked, came from Cottenham in 1285. At the Assizes in Huntingdon that year, a case claiming over-stocking by the other lords and tenants was brought by one of the Crowland freehold tenants in each of Oakington, Cottenham, and Dry Drayton. In Cottenham it was alleged that Walter de Pelham, who had 24 acres of land in demesne and villeinage constituting a manor, kept 60 head of stock and 400 sheep there, and that each of the six others named had a great number of animals and flocks in the pasture over and above the number which they ought to have according to the size of their tenements. The complainant, Symon le Waleis, a lord in his own right as well as tenant of the Abbot, said that by reason of the thinness of the pasture of the said village the pasture there would hardly suffice each hide of land an allowance of six oxen, two horses (this would constitute the local plough team), six cows, four score sheep, and fifteen geese. Order was given that the commons should be so measured.¹ There are limitations too, in the first mentions of sheep in Landbeach. When in 1336 Henry Chamberlain granted to his brother John the right of folding 120 sheep on his land for life, he made the proviso that John should keep only one fold and no ram, and that if John broke this

¹ PRO Jl 1/186.
agreement, Henry should have the right to destroy the fold and take away the overplus. In Waterbeach the commonest form of restriction on the amount of stock is written into one of the earliest court rolls:

1335: "It is agreed by the homage that no freeholder within the said manor ought to have common for more cattle than he can keep in the winter."

This was repeated in 1432-33 with a reference to this roll. A much clearer regulation was introduced in the second year of Elizabeth's reign: "None keep above one sheep for every sixpence rent and that no cottager of the town or village shall keep above ten sheep in number."  

This particular regulation survived a long time. In the "Articles of Agreement for the Use of the Commons" of 1683, it appears as part of the arrangements for control of the commons. This was to be by regulated stint, supervised by two Fen Reeves elected by a meeting of commoners:

"Item that for each and every common every owner or occupier shall or may feed fifteen milch cows or dry neat cattle and ten sheep, and the owner of every half commonable house proportionably. And if he or they shall not think fit to keep so many cows then he or they may keep ten cows and five mares or geldings, but not to exceed the number of five mares or horse beasts, and to abate a cow for every colt after it is a year old.

1 CCCC XXXV 36.
2 WPC WcD.
"Item that three weanling calves of the first year shall or may be kept in the place and stead of one cow, and two yearling neat cattle in lieu of one cow, and so proportionably for every cow."

The fens, wastes and commons were to be spared from Lady Day to May Day from being depastured by any cattle, sheep only excepted. ¹

The Act for the Draining of the Waterbeach Level in 1740 reduced each of the 119 1/2 common rights to fifteen head of great cattle with eight sheep. The Act of 1790 reduced this from fifteen to twelve head of great cattle. ²

Landbeach tried to solve its share of the mounting problems of sheep in the mid-sixteenth century by stint. In 1548:

First it is ordained that no tenant or inhabitant of the aforesaid town shall keep upon the commons there above the number of three sheep for an acre under pain to forfeit unto the lord xx d.

Item, it is ordained that no tenant shall take in to feed upon the commons of this town the sheep of any stranger above two sheep for an acre and to take of the lord's farm three for every acre upon pain to forfeit xl d. ³

This regulation was the product of crisis, when the troubles in Norfolk had their miniature counterpart in Landbeach. The Leet was held on the second of November, 1548. Had its terms been accepted and observed by Richard Kirby, the lord of the manor of Brays, the disturbances which resulted in the next year from his over-stocking could scarcely have taken place.

¹ CRO Transcript No. 12.
² Waterbeach, p. 19.
Whether sheep-farming was on good or bad times, the seigneurial monopoly of folding must have been irksome to the peasantry. Miss Page tells of the kindness of the Abbot of Crowland in the hard years around 1322 when he relaxed the right at Dry Drayton, allowing the homage to fold half their sheep on their own lands for twelve successive years.¹

But more often the right seems to have tested the lord's powers of control over the peasantry. Eleven years after the sale of part of the lord's right of folding by Henry Sandre, bailiff, in 1356,² another bailiff was presented for letting it at farm. In the previous year the lord's shepherd had failed to place it for one week. In 1401 Roger Sandre, John Fen and William Sweyn raised an unlicensed fold instead of putting their sheep in the lord's. When the manor of Brays was let to farm the lord seems to have been unable to enforce his right. Thomas Letes, his farmer was presented regularly from 1408 to 1415 for illegally sub-letting it. Five years later the Court Rolls record an Ordinance that the lord's farmers (there were now three) must fold on lord's demesne lands only. Even when his direct interest in cultivation had gone the lord remained jealous of his right to the tathe of the sheep for the demesnes. When the Abbot of Crowland

¹ EGA, p. 50.
² See above, CCCC XXXV 121.
let the manors of Oakington and Cottenham in 1430 it was an important duty of each tenant to maintain a flock of two hundred sheep. A Crowlands Ordinance for Dry Drayton of 1523 asserts the farmer's duty to receive and look after the peasant sheep in the fold, and the peasants' duty to help him feed them in times of drought.¹

This complex ordinance illustrates how closely interwoven were the problems of agistment, stint, foldage, and sheepwalk on the commons. There seems to have been less trouble in the villages once the lords had acquired several for their share of the fens. This happened first in Waterbeach. In 1438, according to an extract of Cole's from the Court Rolls of Waterbeach cum Denney, (an extract that does not appear in the version in the Parish Chest) the Abbess had enclosed common land.

"The ministers of the Lady have enclosed the Hye Meadowe and the Marish called the Frithfenne with Ditches and Hedges as the Several of the Lady to the Exclusion of the Commons of Waterbeche who claim them to be common from St. Michael to Candlemas and desire that they may be opened that they may have their common there. To which it was answered them openly in full court, that it is clearly found by sufficient evidence viz., before the foundation of the Abbey of a certain Exchange made between the Master and Brothers, Knights of the Order of St. John, Templars in England, Lords of the manor of Denney, of the one part, and Mary Lady Munchensey, Lady of the manor of Waterbeche, of the other part, in which evidence, publicly shewn and clearly read is contained, That by an Exchange and Covenant between the parties aforesaid made, That the said Templars, Lords of

¹ CCCC XXXV 124; ECA, p. 444; CUL Queens' Dd 2.
the manor of Denney may enclose the said meadow and marish, as their own several by the year; absque hoc that any commoner of the Towne aforesaid at any time of the year ought to common there, as in the said Evidence is more fully contained. And so it appeared to the Chief Pledge and all commoners that they had unjustly and maliciously put in the said presentment. Therefore with general consent they humbly entreated the Steward to disannul the presentment and to expel it utterly from the Books." 1

We cannot date the creation of the Landbeach Sheepwalks, which absorbed the greater part of the fen, so precisely. The first indisputable reference is in Serjeant Bernard's opinion of the mid-seventeenth century:

"In this waste ground there hath been time out of mind four several sheepwalks, distinguished and certainly known from one another. The College hath one, Sir John Barker two, and the College copyhold tenants in that town had a fourth.

The bounds of those sheepwalks are so certainly known that the sheep that are in one of the walks never have used to come into either of the other, but when or how their waste ground was thus divided into several sheepwalks; there is no mention, neither is it certainly known to which manor any part of this waste ground, where these sheepwalks are, do belong." 2

At the end of the Parish copy of the Field Book of 1549 there is a note of Clifford's of the customs of the Parson at his entry there in 1565:

"In primis, the parson is to have the course of ix score sheep in the College flock, paying to the shepherd ij d. for every sheep."

1 BM Ad. Mss. 5837, fol. 148d.
2 CCCC XXXV 176; cf. Masters' Collectanea in LPG.
This is of course not a complete proof of the physical division of the ground having taken place to correspond to the division of the flocks, but at the very least this half of the process of separation of sheep grazing has happened. The Parson's ration remains the same in Masters' time on the College sheepwalk. ¹

There are a number of other inconclusive early references to what may be the Sheepwalks. In 1622 the tenants certified that the late William Tidlie and his predecessor William Lane had always kept their sheep from their ground on the "College Sheepcourse." A Court Roll Order of 1578 dealing with the ditching of Frith Fen refers to a "pastura ovium" in a place where we can locate the Town Sheepwalk on the eve of Parliamentary Enclosure. The Lease Books of Corpus Christi College contain several references from 1563 to 1667 to rights for sheep in Landbeach, but the wording seems deliberately vague, conveying customary rights of which there is precise local knowledge, and leaving them undefined in the written leases. In 1563 Robert Morgate conveyed to William Norgate "liberties of sheepwalks and foldings." In 1609 this became, "their moor ground or soil called the College Sheepwalk and the whole liberty of Sheepwalk and fold course." There can be little doubt that the sheepwalks as permanently separate enclosures from the fen were in existence by this time, but they may well date from the previous century.

¹ LPC Field Book, and CCCC XXXV 178, Pemberton-Masters Correspondence.
There is a confusing difficulty with the local terminology. In Landbeach and Cottenham sheepwalks were permanently separate pieces taken out of the fen. The term seems to have been used in Waterbeach as the entitlement to a fixed number of sheep in one of the three flocks, Denney, Town, or the Parson's. This is also an alternative use for it in eighteenth century Landbeach, but in Waterbeach there seem never to have been permanently separate areas as particular sheepwalks.  

The word "foldcourse" creates even more difficulties because of its association with a highly specialised East Anglian system. In criticising Allison's account of the Norfolk foldcourse, Simpson suggested that the arrangements in Cottenham under the Agreement of 1596 represented a similar system, and that the foldcourse represented a survival of the lord's monopoly of foldage.  

As Cunningham suspected, there was an earlier stage at Cottenham. In the reign of Philip and Mary, after enclosure and fence-breaking, agreement was made in the Court of the Star Chamber for Sir Francis Hinde, as lord of the manors of Crowlands and Lyles, to maintain two several sheepwalks in Longhill, Marehill, and

1 CCCC XXXV 139, 135, and College Lease Books.
Tylling. In exchange all the other customary sheep pastures were to be devoted exclusively to the inhabitants, and Hinde was to confine his to the specified enclosures. But so far from being a development of the seigneurial monopoly of folding, the agreement of the tenants effectively bought out this right; the sheep masters and the fold reeves were to order the same folds as before for the composting of the lands as they should think meet and convenient. The record makes it clear that this was an innovation.¹

Cunningham gives the subsequent history of this agreement being disputed and renewed up to its final confirmation by a Decree in Chancery in 1597. The agreement then seems to have lasted until Parliamentary Enclosure.²

Cunningham also printed the Orders of 1639 in the same Camden Miscellany. It is possible to trace something of the history of these orders right up to Parliamentary Enclosure. The two last Fen Reeves' Books survive in private hands. They are large ledger books in which all the Orders currently in force are carefully entered, and cancellations, amendments and new Orders added from time to time, usually with the dates noted marginally. The end papers have been used for rough work, mostly voting records of changes, sometimes with the names recorded, "For" and "Against".

¹ PRO SC 4 P&M 3/17.
² Common Rights, pp. 177-179.
The Receipts and Expenditures reveal not only a lively social side, so that Ordermakers' Days were like an additional Feast, but they also show how extensive were the powers of these officials.

The Agreement of 1596-7, as Cunningham pointed out, seemed to have been rather more concerned with great cattle than sheep. It was to solve problems of the commoning of great cattle also, that Landbeach completed a similar pattern of fen management. In this case regulated stint and its control were the immediate issues. Proposals for an agreement, in the hope of securing a Chancery Decree were drawn up in 1735. The College, its farmer, the Rector and two tenant farmers stood together to block it. But in 1738, after the College Farmer had shown signs of changing sides, Chancery granted the Decree.¹

Five Ordermakers were to be elected each year at an Annual meeting of commoners. Cattle were stinted to eleven head per common, those below two years of age only counting as half. Joysting was to be allowed to make up the numbers.

One hears curiously little of the Ordermakers in later years at Landbeach and Waterbeach. The 1748 Orders are headed "Mannor of Waterbeach with Denny", and are made "At a Court Leet General Court Baron and Customary Court", by the jury impanelled there.

¹ LPC, Collectanea, quoted in Landbeach.
In 1779, since the Act of 1740 was being flouted in that persons with no common right were putting beasts into the commons, a general meeting of the commoners was held at the Rose and Crown. In future it was decided that all beasts must have a town brand as well as that of their owners. The brand, and a register were to be kept by Edward Mason, Innkeeper, who was also to have the paid duty of going daily into the fen to inspect the herd. The order is signed by Robert Masters, Vicar, and ends, characteristically, with an agreement to charge a flat rate agistment tithe, whatever the charge made by the commoner.¹

Thus each of the three villages solved the problems arising from the conflict of interest among those raising sheep by a solution which embraced something far wider, the whole common rights. Each evolved a similar machinery, but each had its own variations. No doubt each influenced the others by example. There would probably be more justification in talking of a "Fen Edge System" than there is for some of the other systems that litter the pages of agrarian history. Some of their problems and solutions have similarities derived from their topographical similarities like the possession of fens; some from wider economic currents, such as the shift of the centre of stress from sheep in the mid-sixteenth

¹ WPC Tithe Bundle.
century, to cattle later. A good deal of the variation in the machinery was a function of their small but important topographical differences, as in Landbeach's more elaborate sheepwalks. Some was indirect, through the influence of topography on social structure. But whatever the formal arrangements, it could never be simply the system or conditions that determined the issue in a village where Robert Masters was Vicar, or Matthew Parker Rector.

For the last century or more of the open fields in each of these villages there was a stability, in the general working of their commons and fens. Perhaps, as suggested in other connections, this was due to the shift of power from the lords to the peasantry on the land. Article XXV of the 1596 Agreement may have held much of the answer: "No laws to be made in any of the lord's courts."

This certainly created a powerful and effective all-purpose authority.¹ Perhaps the last word on the commons should go to the shrewd observer, a lord of a manor across the Old West River from our parishes, Albert Pell:

The right to graze the ways with cows was confined to a limited number of persons, the commoners. Horses, goats, geese, sheep, were not commonable animals. The sheep were in three limited flocks, the first belonging to the manor, the second to the rectory, while the third was an independent one, the rights of which could be bought and sold. These three rights of grazing were called sheep-walks. The sheep in each had its shepherd, who stalked ahead of his flock, the dog bringing up the rear and every now and again rushing in, police fashion, at any ewe that ventured to snatch a bite from the corn that grew on the ends of the "lands", which, unprotected,
bordered the green "ways" between the cropping. The commoners' cows, about twenty-two in number, were "flitted" or tethered with rope and shackle out of reach of the corn. After harvest on a given day the commoners' cattle and pigs roved all over the stubbles to pick up the "shack". They also stocked an inter-parochial waste or common at all seasons of the year, and it was the commoners, not the lord of the manor, who resented and resisted the intrusion of the "public" claiming or attempting to turn stock on to this land. Sometimes the trespass was summarily stopped by ham-stringing the unprivileged animals. The vulgar idea of the general public having rights of any kind on the waste or commonable land was never for a moment admitted. 1

The Middle Ages

The villages of the fen-edge seem in many ways well endowed for sustaining peasant communities. In each the arable base was well matched by ample pastures and hay for winter feed. By its return in manure, this abundance of fodder gave field systems of the Midlands type a much better chance than average to work well. The richness revealed by the lush landscape provided the peasant economy with a sound foundation of self-sufficiency. Over and above this, the products of the fen offered easy sustenance for those with little property; for those more fortunate it provided supplementary diet and a cushion against famine; in its variety lay opportunities for taking advantages of wider markets. From the earliest times of which we have detailed records the waterways opened up such markets\(^1\) and made this a favoured area until the railways brought still wider markets with wider competition.

With these natural blessings came also the danger of both gradual and sudden risings of the waters. But this, if seasonal only or not too prolonged, like the flooding of the Nile, was rarely an unmitigated hardship. And so the farming, like the

\(^1\) Rot. Hund. vol. ii, Long Stanton, and CCCG XXXV 145.
landscape, was well mixed and balanced. To the core of a typical Midland village, with its nucleus of timber-framed and thatched houses and barns, grouped in their tofts, almost surrounded by ample open-fields, were added pastures for all seasons and extensive natural water-meadows. On the fringes were areas that mesolithic man, the hunter, fisher and fowler, had found a paradise. In this setting it is not surprising that change was slow and that the system continued essentially intact so late.

But its maintenance depended on keeping a balance between competing interests, and delicate adjustment of the economy to the topography of each village. The social structure of the three villages, as it appears in our first reliable comparative records, the Domesday Survey,¹ shows a remarkable reflection of the variations in the landscape. In Cottenham over half of the recorded tenantry are villeins (probably half-virgaters or virgaters), while only 41% are cottars and bordars. In contrast, at Waterbeach,² 94% are cottars and bordars and not much over 5% villeins. Landbeach came between the two extremes with about a quarter of its tenantry villeins, and 72% cottars and bordars. One could almost express the variation in social structure between the three villages at this point as a simple mathematical function of the proportions of cultivable land above and below the 20ft. contour.

¹ VCH Cambs., vol. i, pp. 360 et sqq.
² Beche as distinct from Utbeche (Landbeach).
From the Hundred Rolls one can make a similar comparison on the basis of land held. If we take holdings of less than five acres as smallholdings, it appears that in Cottenham 32% of the tenantry are smallholders, compared with 45% in Landbeach, and 91% in Waterbeach.¹

Such a pattern is not simply a product of height above the critical flood level, important though this is. The closeness of the Cam and its flood-plain to the houses of Waterbeach compared to the much greater distance of the Old West from the houses of Cottenham, would have affected the chances of making a living with little land. Joist Fen and Chittering lay beyond the fields in Waterbeach, whereas Cottenham had relatively extensive Hards in the fens at no great distance from its homesteads. The resulting specialisation in free ranging beef and horses at Waterbeach, and in dairying at Cottenham would again have helped to differentiate their social structures in later times.

¹ cf. B.F. Harvey, 'The Population Trend in England Between 1300 and 1348', TRHS, 5th ser., vol. xvi (1966), p. 29: "The size of the peasant holding was determined by several factors, but perhaps it is most aptly considered as a function of the prevailing economy: small-holdings were dominant where abundant woodland or waste emancipated the peasant from a dependence on his arable land which could not have been other than cruel."
In the Middle Ages the difference in the nature of the rivers was much greater than to-day. The Old West seems to have been well embanked on the south side from very early times, but the meanders and creeks and pools of the Cam seem to have been unconfined until much later, in mid-eighteenth century. In the Domesday Waterbeach is rated at 1,450 eels against Cottenham's 650. In the Fen Reeves' Book Cottenham has a Town Boat in the nineteenth century, but only Waterbeach had a boat builder.

But even Waterbeach with its capacity to sustain families on minute holdings could not increase its population indefinitely, especially at a time when much more of its land surface must have been regularly disappearing under the black waters in the early fourteenth century.

The Extent of Agnes de Bray's Lands in 1316, 37 years after the Hundred Rolls, makes it possible for us to examine this period, so critical for population and landscape, a little more closely on the smaller of the two Landbeach Manors. The comparison of two lists of landholders, compiled at different dates and for different

2 Mr. Mervyn Haird's Collection.
purposes, calls for cautious conclusions only. The Extent contains detail which was important for its purposes at the moment when it was taken, but similar items may not have affected the more general survey: tenements waiting to be let out at the next court might well have appeared with their old holder's name in 1278-9. Roger de Burdeleys, who was a lord of a manor in Cottenham, was listed in 1316 as holding thirty acres in Oakington of the manor of Brays: he is clearly not a resident head of a family in Landbeach. The two Thomas Juddes in the Extent possibly were the same man, but may not have been in view of the medieval economy in Christian names. In the Extent, Tebaud's cottage is in the lord's hands but has been let, for one year, to one of the villeins. Three of the freeholders are entered with their holdings, but with marginal notes to the effect that these are in the lord's hand. This could mean, in itself, recent high mortality. Five tenants of Brays at each period seem also to be landholders in the other manor.

<table>
<thead>
<tr>
<th>Year</th>
<th>Free</th>
<th>Villed</th>
<th>Other lesser</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1278-9</td>
<td>6</td>
<td>9</td>
<td>5 + 8(-1)</td>
<td>27 or 28</td>
</tr>
<tr>
<td>1316</td>
<td>11-1</td>
<td>12</td>
<td>4(-1) + 3 -3?</td>
<td>27 or 32</td>
</tr>
</tbody>
</table>

1 But cf. CCCC XXXV 124, 9 Hen. V, where out of seven tenants mentioned two are John Judde, one being distinguished as senior.
In spite of the uncertainties, the comparison suggests that population in the Brays Manor was at least maintained, and had quite possibly continued to increase until very nearly 1316. But this is not more than a probability, even if it fits the expected pattern.

Comparison of the same two documents, however, suggests much more convincingly marked social changes. The increase in the number of freeholders is quite remarkable, even if they are still mostly holders of fragments. Their names in 1316 hint strongly at immigration: Robert le Taylour de Over, John Frost de Waterbeach, Thomas Preist de Cottenham, Richard de Asshwelle, and Robert de Brandon. Only the last has a name corresponding to one in the Hundred Rolls, where we meet Richard Brandon. If the others really represent new residents (two could still live in their named villages), then a dwindling population may be being replaced by an influx of new men.

In 1278-9 the freehold land was just over 25 acres, but had risen to almost 50 by 1316 (omitting Roger de Burdeleys). Assised rent (less 20s. from Roger) had increased surprisingly little, from 18s. 6d to 20s. 10½d. If we take the marginal notes which seem to be the rent actually collected, then it would have fallen below half the theoretical total of 1278-9, a fall per acre to less than 25%. 
The most startling change is the villeinage: in the Hundred Rolls nine held five acres each, and five $2\frac{1}{2}$ acres each, but in 1316 there were twelve with a uniform 10 acres each. The total area of their arable has rather more than doubled. At such an early date this is unlikely to be due to a confusion of customary and measured acres: the total freehold acreage seems to have increased in step with the total bond land. Unfortunately the royal survey gives no precise figure from which the demesne might be calculated.

What information we have suggests a very rapid invasion of meadow and moor by the plough. The information on the demesne in 1316 (discussed earlier in connection with the growth of the fields) suggests that a good deal of the expansion may be compensation for old arable now subject to flooding, but the assarting of new land for the tenants would appear to be greater than that alone. Once started it may well be proceeding under its own impetus.

New freeholders, with or without other holdings, appear to be taking advantage of this to acquire fresh smallholdings. Among them is the brother of the lord of the Manor of Chamberlains, John. His interest in his brother's manor appeared to have been mainly

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1 As well as new assart the 1316 totals would include flooded land being then used as common pasture and the effective arable holdings might not have changed much.
for raising sheep. In 1316 he has acquired an additional messuage
with eight acres from Brays, and is taking over a croft as well.
It could be that the land which is designated "pastura communia
nisi seminata" is for him the main attraction. The investigation
of medieval sheep-rearing made earlier, showed that at this date
it was more likely to be gentlemen that were doing well rather
than the more modest peasant flocks.

The changes of names between the two documents may have some
significance. The Hundred Rolls gives occupational names among
both freeholders and crofters, but not in the villeinage. These
are Bercator, Seman, Faber (three different men are called Faber),
Piscator and Cocus. None of these are listed in 1316. The Taylour
that appears in this year is "de Over". This is one of the most
common trade names in later documents of Landbeach, frequently as
an alias. If the 1316 list means that craft-names are being
dropped as their owners become accepted, then most of these
craftsmen must be recent arrivals in the late thirteenth century.
Their absence from among the villeinage is not surprising in view
of the heavy burden of labour services and other feudal restraints.
Their tiny holdings are suggestive of the poverty of the local
craftsmen relative to the peasantry, and there is a similar picture
centuries later when probate inventories can be found for these
villages,\(^1\) except where the craftsman is also a peasant.

\(^1\) CUA in year bundles for the whole county.
The names derived from places within the village, Atteflod, Attefen, de la Lane, in le Herne, are those that survive long in various forms in the Landbeach records. They are all villeins. The freedom of the other villagers may have been two-edged.

In trying to fit this fragment into a wider picture of the development of the whole area under study, it is necessary to consider population growth relative to the number of families that could be supported under the open-field agricultural technique.

Landbeach, in spite of being the latest of the three villages to be settled (if we have earlier interpreted the evidence aright) was nearer to its practical limits of cultivation by Domesday than either of the others, although Waterbeach does not seem far behind. There is no inconsistency here. The ratios of potential to present ploughs in the Domesday, as long as we do not attempt to turn them into absolute figures of arable area, suggest that this was the view of the men on the spot in 1086-7: Landbeach ploughs had reached a proper limit; those of Waterbeach nearly so; and Cottenham had rather more space left.

<table>
<thead>
<tr>
<th>TABLE</th>
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<tbody>
<tr>
<td>DOMESDAY PLOUGHS</td>
</tr>
<tr>
<td>Potential Ploughs</td>
</tr>
<tr>
<td>Landbeach</td>
</tr>
<tr>
<td>Cottenham</td>
</tr>
<tr>
<td>Waterbeach</td>
</tr>
</tbody>
</table>
Not all the parish boundaries were defined at Domesday, and a comparison of Hidage figures, and areas at the time of Parliamentary Enclosure sheds little more light:

<table>
<thead>
<tr>
<th>Hidage</th>
<th>Acreage at Enclosure</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Landbeach</td>
<td>11</td>
</tr>
<tr>
<td>Cottenham</td>
<td>26+</td>
</tr>
<tr>
<td>Waterbeach</td>
<td>6</td>
</tr>
</tbody>
</table>

It would be quite consistent with the examination of the social structure of the three villages at Domesday to suggest that already at that date a far higher proportion of the population of Waterbeach was deriving more of its income from other sources than the cultivation of arable, than in the other two villages. So extreme in fact was the smallholding character of the villagers, that there would be much to explain away if we made any other assumption than that the Waterbeach ploughs were already operating in that marginal zone where the fen ebbed and flowed. The rise of the water-table might well have already begun. This would immediately alter the relative potential development in the villages. While the two villages had been closely connected before the Norman Conquest, it would seem highly likely that any encroachment of the fen on Waterbeach arable would be reflected in additional
pressure for assarting in Landbeach. Thus the process by which the arable cultivation of Acrefield in Landbeach first began, according to our reasoning, must, from what we know of the fen, have continued to operate from time to time over a long period, while any general deterioration was going on. It would be difficult to justify the relative penetrations of the Landbeach and Waterbeach ploughs below the twenty-foot contour without this sort of pressure. Thus the vagaries of the fen in conjunction with the force of the medieval population explosion, multiplied the demand for arable on the old sheep-lands of Landbeach. Its earlier phases we can only arrive at by inference: when we can see a little of its operation near the end of the thirteenth century, expansion is almost over and the invasion of the black waters is turning assarting into a more desperate struggle for survival.

It would be difficult for us to believe that in 1278-9, with the agricultural techniques then available, population was not pressing on its limits in this area.

<table>
<thead>
<tr>
<th>TABLE</th>
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<tbody>
<tr>
<td>LANDHOLDERS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Domesday</th>
<th>Hundred Rolls 1278-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landbeach</td>
<td>32</td>
<td>58</td>
</tr>
<tr>
<td>Cottenham</td>
<td>63*</td>
<td>128</td>
</tr>
<tr>
<td>Waterbeach</td>
<td>47</td>
<td>95(?)</td>
</tr>
</tbody>
</table>

Note: * 3 serfs mentioned in Cottenham. Hundred Rolls for Waterbeach defective, but total Landholders probably correct.
The ease with which lords in this area among others, were able to fill vacant holdings during the Black Death have suggested that behind the land-holders counted in the Hundred Rolls there was probably a great reserve of men waiting to step into dead men's shoes. If this is so, then the rate of increase between Domesday and the later survey may be still greater than the figures suggest. The density which medieval population seems to have attained at its peak here is even more astonishing if we look forward. If we estimate the population in 1278-9 by the use of a conventional multiplier for family size, 4.5, and ignore the hidden reserve of the time, we get a much larger figure than the 235 found for Landbeach in the 1811 Census. For Waterbeach we would only need a multiplier of 4.8 to surpass the corresponding figure for that village. Only Cottenham of the three was able to sustain substantially more people at the beginning of the nineteenth century than in the late thirteenth century; and population may well have continued to increase for another generation until after 1300.

It was upon this hard-pressed society that the disasters of the fourteenth century struck, and the Malthusian checks of famine and pestilence, easing the pressures on the land, produced new strains.

Dr. Palmer provided a collection of figures with suggested multipliers from which a history of population in Cambridgeshire might be constructed.\(^1\) Unfortunately, examination of his figures for our three villages shows them to be unreliable. For Domesday, confusion between the manors of Waterbeach and Landbeach has resulted in totals of landholders which are quite wrong. From the Subsidy Rolls for 1327 he gives the number of tax-payers as 128 in Cottenham. A count of the printed lists\(^2\) gives a total of 132 for Cottenham. The discrepancy may have been partly due to Palmer's deducting the numbers of lords of the manors, as he sometimes does for Domesday. For the Poll Tax of 1377, the figures for Cottenham are missing. For comparison between the two series Palmer suggests a multiplier of six for 1327, and four thirds for 1377, but since in no less than twenty nine towns and villages in Cambridgeshire this produces a higher population figure in 1377 than in 1327, it is very doubtful if we can with confidence compare the two series or use them for estimates of population.

For the Bishop's return of households of 1563 Palmer gives 121 for Cottenham, 36 for Landbeach and 45 for Waterbeach. The figures for Landbeach and Waterbeach seem far too low, and

\(^1\) W.M. Palmer and H.N. Saunders, *Documents relating to Cambridgeshire Villages* (Cambridge), 1926.

Dr. Margaret Spufford counted the Waterbeach figure as 70. There appear to have been at least ten more inhabited homesteads in Landbeach than this in the Field Book of 1549. For the 1664 Hearth Tax Palmer's figures again seem to be in error. He gives 167, 66 and 79 for Cottenham, Landbeach and Waterbeach respectively where Dr. Spufford has 216, 66 and 107 for houses, or 230, 67 and 106 for householders.

The Compton Census of 1676 contains no return for Waterbeach. Its figures for Cottenham, 560 and 14 non-conformists, and for Landbeach, 126 and 1 non-conformist, divided by C.T. Smith's divisor of 2.8 give probable numbers of households of 205 and 45 in the respective villages. For figures as small as that for Landbeach, reliance on a general divisor may be unwise; the resultant in any case seems low compared with other sources in the same period, although not impossible. But the Cambridgeshire historian who has studied these returns for the whole county, Dr. Spufford, cast grave doubts on their usefulness; "it is a difficult or impossible source on which to base estimates of total population."

2 e.g. LPC, 1639, 'A rate for the Clerk's Wages' gives 58.
Even when corrected, Palmer's figures give us very little reliably comparable material from which to discern population trends in the three villages between the Hundred Rolls and the Hearth Tax. Even the Returns of 1524 and 1525 show too wide a variation in the differences between the two years: the probably margin of error is greater than any plausible change.

NUMBERS OF HOUSEHOLDS OR TAX-PAYERS

<table>
<thead>
<tr>
<th>Source</th>
<th>DD 1278-9</th>
<th>HR 1327</th>
<th>LS 1377</th>
<th>PT 1524</th>
<th>LS 1525</th>
<th>BR 1563</th>
<th>HT 1664</th>
<th>C 1676</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landbeach</td>
<td>32</td>
<td>58</td>
<td>28</td>
<td>114</td>
<td>25</td>
<td>27</td>
<td>36</td>
<td>66</td>
</tr>
<tr>
<td>Cottenham</td>
<td>63*</td>
<td>128</td>
<td>132</td>
<td>-</td>
<td>82</td>
<td>103</td>
<td>121</td>
<td>216</td>
</tr>
<tr>
<td>Waterbeach</td>
<td>47</td>
<td>95(?)</td>
<td>59</td>
<td>207</td>
<td>31</td>
<td>55</td>
<td>70</td>
<td>107</td>
</tr>
</tbody>
</table>

Notes: * three serfs included in the Cottenham Domesday.
(?) The entry for Waterbeach in the Hundred Rolls is damaged, but the totals are probably complete.

DD = Domesday; HR = Hundred Rolls of 1278-9; LS = Lay Subsidy; PT = Poll Tax; BR = Bishop's Returns; HT = Hearth Tax; C = Compton Census.

What the whole table seems to show is how much greater was Cottenham's potential for supporting increasing population than that of the other two villages. One may not feel confident enough in the 1327 figures to argue that this was already happening then, but in the sixteenth and seventeenth centuries, when Cottenham changed to the more intensive five field system, when general
economic trends probably favoured its special suitability for cattle, and when its commoners had attained more complete control than in the other two villages, the higher rate of increase which the figures suggest is at least plausible. Cottenham was to show a similar capacity to support an increasing population in the nineteenth century after enclosure even when people were drifting away fast from its neighbours.¹

But for the period of low population in the later Middle Ages, although the Tax Returns give little help, there are incidental hints in the local sources, which give us glimpses of some of the changes from time to time.

It is particularly unfortunate that our records do not help us to see the effects of the Great Famine on the population in the second decade of the fourteenth century. The marginal notes of lands in the lord's hand in the Bray extent discussed above are for small freeholders, and suggest that mortality was then striking, but nowhere do we get information to estimate its severity and general incidence.

¹ VCH Cambs., vol. ii, pp. 136-140.
For the great Black Death of 1348-49 we are much better served. Miss Page's study\(^1\) of its effects on the Cambridgeshire Manors of Crowland is well known, but most commentators fail to note that these are minimum figures. Miss Page emphasises that her very proper zeal to eliminate any possibility of double counting must make the totals an under-statement. Even so for the Cottenham manor she counts 33 deaths where there were no more than 58 holdings. The other evidence we have for this area is congruent with this pattern.

One of the few Reeve's account rolls\(^2\) which survive for the Chamberlain's manor is Richard Pelle's for 1348-49. Heriots from villein deaths are noted from John Fenlond, Thomas Richards, William Saundre, John Saundre, Richard Pelle, Henry Gardiner, John Gardiner, William le Melner and John le Melner. In addition, the Rector has died and left a legacy to the manor. Judging by the dates of the deaths on the nearby Crowland manors, these nine deaths should cover the worst part of the outbreak but by no means all of it. The names suggest that when it struck one member of a family others were likely to succumb. There is no information at all except for this group of landholders. We do not know how the women and children stood up to it.\(^3\)

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1. ECA, pp. 120-125.
2. CCCC XXXV, 182.
Yet it was not universally fatal. Richard Pelle the Reeve (we do not know the relationship to the Richard Pelle who died) had been sick and excused duty in the early summer. In December he was removed from office, recovered but incapable of performing his duties adequately. Yet the loss of nine men in what was only part of the epidemic represents a very high mortality: in the Hundred Rolls for this manor there were only thirty customers, nine of them crofters who may not have been heriotable. On the other Landbeach manor the number of customers had already decreased between the Hundred Rolls and the Extent of 1316.¹

Our evidence on the incidence of the Second Pestilence of 1361 is less helpful, but the Court Book of Waterbeach-cum-Denney,² which only extracts records of deaths incidentally when special tenurial issues are involved, has recorded no less than fifteen deaths in three courts of this period. The Second Pestilence may well have struck more severely than the First. Certainly deeper changes seem to come more rapidly in its wake. If it were not as severe in itself, it struck a weakened, if reconstructed, society, and made full restoration of the old ways impossible. There is never quite the same orderliness in village affairs again.

¹ CCCC XXXV 182, the Account of Richard Pelle.
² WPC WcD.
The symbols of this are the empty spaces in the village pattern as new closes break the housing area, uncultivated plots from time to time in the open fields, and the ceaseless struggle of the lord's officers against dilapidations and waste. By the end of the century, if the Court Roll evidence is to be believed, this is reflected in the disorderly behaviour of the peasants, which looms so much larger in our records.

As on the nearby Crowland manors, there is much supplementary evidence in the Landbeach records for depopulation after the Black Death. Shortly after,¹ in 1350, the lord is calling for the names of all those who have appropriated and taken away doors (hostias) shutters (fenestras²) and other timber from divers tenements in the lord's hand. Ruinous walls and fences of empty tenements were allowing beasts to stray into both hay and corn. There were fourteen cases of default in the autumn works in 1349, and in the previous year Henry Sandre, John Sandre, John Fenlond, John Everard, and William Sandre had sent insufficient men for hay-making. In 1349 and 1350, grants were made in forms designed to meet the special needs of the moment: the "tenacreslond" of bondage surrendered by Richard Pelle was granted for life only to John Martyn. Further grants were made conditional on repair of tenements,

¹ CCCG XXXV, l21.
or for small cash rents plus a few desperately needed harvest-works. There appears to have been some months delay in seizing some of the empty tenements, but in 1350 the lord, who had six in hand, was leasing out small parcels, and cultivating arable in hand up to the equivalent of almost a quarter of his demesne arable. Leases at will seem to have been easily revocable. In 1342 in Cottenham, for instance, six leases to villeins amounting in all to about thirty acres of arable with pasture, were cancelled and the land seized "because the Abbot has been deceived". The deception might have been in the rent which was very low, 18d. for 4 acres of arable and 1\frac{1}{2} rods of pasture. In 1380 on the Chamberlains manor, three tiny pieces of demesne were seized because they had been occupied without licence by three of the chief villeins.

The Second Pestilence may have encouraged the leasing of the entire demesne at Landbeach Chamberlains. In 1362 Agnes Knyth is referred to as farmer of the said manor this year past, but how much she had in farm we do not know. The Court Roll of 1365 preserves a lease of the entire demesne, 206 acres, in parcels ranging from five to thirty acres, to 16 villeins. We do not know when the demesne was resumed. The rent of 18d. per acre was so high that it not likely that it could have been maintained. Four years later the Manor was purchased for the College.

1 CCCC XXXV, Court Rolls 121; Account Rolls (Reeve's) 181 and 182.
2 CUL Queens' Ad. 36.
3 CCCC XXXV 146.4. Still higher rents were being paid by the villeins with holdings of over 20 acres in 1352.
According to Masters, the College let it at farm for some years, but then stocked it and resumed the lands. But the College was certainly letting it again in 1429. There are three consecutive twelve year leases recorded in the rolls from that year on. In the first, all its lands were let to a syndicate of villeins. These eight villeins had the option of paying eightpence an acre if they would hold it for twelve years, or eightpence halfpenny for nine years. Clearly it was not a landlord's market. Twelve years later all the lands were let at farm to the Rector, Master Adam, to divide among the tenants. This time the rent was ninepence per acre. In the third lease, the rent is the same, but the lessees are three peasant partners.

Master Adam Clerk appears to have held the Rectory from 1429 to 1462. Not a Master of the College, nor yet a Fellow, he appears to have been resident in the village and able to develop his personal economic interests there as few of his successors could. With the Rectory, he held from the College a cluster of properties in and around the old manor house site: an orchard, the pasture called Madecroft, Berys Acre, ten acres of meneland, the Hall Yard and Sheepcote, garden and rickyards, the great barn

1 R. Masters, History of the College of Corpus Christi and the Blessed Virgin Mary commonly called Bene't, in the University of Cambridge (1753).
2 Masters, op. cit. Appendix p. 21, and CCCC XXXV, 110, 150.
and Prior's Close. In 1441 he took twenty two and half acres in Milton and Landbeach from John Hood of Waterbeach. In the Waterbeach Court Book he appears both as landholder and trespasser. He is rather more than a yeoman-parson; almost a resident gentleman. He was combining the agricultural interests of the Rectory with lands held by a long line of gentlemen graziers before him, John Chamberlain, Sir William Castleacre, and Sir Thomas Bradfield. This holding appears to be taken over later by a resident chaplain or curate, Dominus John Sweyn after Master Adam's time, and after a succession of holders who included the lady of the Manor of Brays. Under Cosyn as Rector and Master, it came back to the Rectory. It was on part of this that Matthew Parker exploited the difference between the old rent and the new to make provision for his wife.

Not only gentlemen and near-gentlemen could take advantage of demesne land coming on to the market. At least six of the Chamberlain villeins in 1352 had expanded their holdings to over twenty acres. Office could certainly help here in placing the interested party at the position where he could get a start on his rivals. In 1411 John Martyh appeared as the lord's "serviens",

1 CCCC XXXV, 113.
2 CCCC XXXV, 36.
3 CCCC XXXV, 101.
4 CCCC XXXV, 101.
5 CCCC XXXV, 146.4.
presenting trespassers. In 1422 he was in turn presented for taking illicit fruits of office for the past ten years: non-payment of rent (eightpence per acre on four acres demesne arable); holding without title or licence a toft and a rod of meadow, late Agnes Miller's; over-digging turves; and allowing his son, Roger, to live at Chesterton without licence. In the next year he was ordered to wage six-handed justice on a claim, of William Emmes' that John still owed William 6/8d. for wages from the time when John was bailiff. But he failed to appear, or to pay the £3 fine which was imposed for the other offences. Two years later he had still failed to produce his son, and the penalty for this was raised to six marks.

On the Brays manor in 1401-2\(^1\) we learn that the demesnes had been let to John Bolle of Dullingham, and John Herrys of Cambridge, for the past seven years. In 1408 Thomas Letys had a demesne lease substantial enough to include foldage rights, which he obstinately misused on lands other than the demesne, letting the right to others, as well as using it on his own land. When this offence was again being raised in 1414, it appeared that he might be only one of half a dozen farmers of the demesne.
In 1420 an ordinance forbade this misuse of foldage by any farmer of the lord's lands. We do not know the date of the resumption of the Brays demesnes. The Keteryche's and the Kirby's were resident lords of Brays. Elizabeth Keteryche and both the Kirby's held Chamberlain lands as well as their own. By the time of Richard Kirby, he had not only taken back the demesnes, but was engrossing copyhold and freehold land to himself.¹

When Crowland demesnes were leased in 1430 in both Oakington and Cottenham, the entire demesne was given to a bondman of the Abbot's in each village, on a stock and land lease for a malt rent. Neither appeared ever to have been resumed by the Abbey again. At the Dissolution William Pepys was both bailiff and lessee at Cottenham, with a lease dated 1509, a fine start for an old villein family in a life in higher society.

The Early Modern Period:
Gentlemen, Engrossers and Commoners

As in the Middle Ages, so in the early modern period, gentlemen came and went in these villages, but the community of peasants lasted on. If the villages of Cambridgeshire, both fen and upland, had any general characteristics which could account for the longevity of their open fields, it was probably the extent of their commons. Bloch quotes Estif de la Bretonne as saying, "The little parish of Saci, since it has commons, governs itself like a large family."¹ The Commoners' Meetings and Officers gave the communities a strength that was long ago noted by Cunningham, who saw in Cottenham a school of self-government which he thought was to be numbered among the ancestors of American democracy.²

Landlord initiative seems to have navigated these villages through the crises of the fourteenth century, but in the economic and social strains and stresses of the Tudor period the Commoners seem to have been more firmly at the helm: landlords and gentlemen were then the unsuccessful disturbers of the old ways.

² Common Rights, Introduction.
Cottenham offered the richest prizes in this area for acquisitive gentlemen. The first serious inroads seem to have been attempted as early as 1488. Thomas Thursby of Norfolk, gentleman and encloser in Castleacre and Holt in his own county, was, according to Leadam, cited by the Enclosure Commission of 1517 for enclosing a hundred acres in Cottenham from 1488. The citation reads as follows:\(^2\)

"Et quod Thomas Thursby de comitatu Norfolciense armiger unum messuagium in Cottenham in decasum et ruinosam permisit cum lx acre terre arabilis xl acre prati ad firmam dimitti solebant anno quarto nuper Regis henrici vijmi."

This appears not to refer to actual enclosure, in spite of Leadam's assertion that it does, but to what seems to have been a still worse social crime in the eyes of contemporary moralists, destruction of a dwelling for the sake of the sheepgate and land. Thursby was High Sheriff of Cambridgeshire and Huntingdonshire in 1513.

The scale of Thursby's operations in Cottenham seems to have been similar to that of intrusive medieval gentlemen in this area: with Sir Francis Hinde of Madingley we meet something much more considerable. He began by engrossing manors, acquiring the lordships of Crowlands and Lyles and a moiety of Sames in Cottenham.

1 I.S. Leadam, 'The Inquisition of 1517', TRHS NS VI-VIII, 1892-4.

2 BM Lansdowne MS 1, fol. 186: Leadam op. cit. viii, p. 303 has a misprint of xl for lx which would have only made 80 acres.
In 1560 he was claiming five thousand acres of "fen and marish grounds", including two several sheepwalks in Longhill, Marehill, and Tilling. He claimed also that Thomas Brigham, "a very lewd, perverse and wrangling fellow", and John Pepys, had led rioters at midnight and laid open his closes. It is not clear when these closes were first made, nor their history before the Agreement of 1596, which is printed by Cunningham. But in spite of Agreements in 1560 and 1580, some of them were laid open again by the time of the third Agreement, only to be restored again as enclosures for the lord. As such they lasted into the nineteenth century. All the closes detailed in 1596 are identifiable, and are the only ones in Cottenham on its draft Enclosure map.

Their later history is not without irony: among those challenging the Agreement was Katherine Pepys. In 1614 Sir Edward Hinde sold his interests in Cottenham to Thomas Hobson, the famous carrier of Cambridge. Marriage to his son, and a second widowhood, brought them to Katherine. It was in her time that Cottenham came closest to dominance by the big house. Both Lordship House and Katherine Pepys' school have only been demolished in living memory, and the Pepys Arms lie buried to cover an old well. Since her

2 CRO 152/F9, 1842.
3 Plate III, p. 164.
time the substantial peasant and yeoman families have eluded any squirearchical control.¹

The creation of lords' severals in the fens of our villages, was an alternative to the enclosure of arable for pasture in much of the rest of the Midlands, but in getting his wishes, the squire withdrew from the commons and strengthened the peasant independence by leaving the villagers to set up their own machinery for the control of what was left in the way of common pasture. Before this, the multiplicity of manors was some check on the acquisitiveness of the lords. In the example just cited in Cottenham, engrossment of manors was possibly a necessary preliminary. In nearby Rampton, where manor and vill had been co-incident, many "pieces", furlongs of arable taken out of the rotation and put down to grass are prominent in the hands of the lord in the eighteenth century field-maps. The early enclosure out of the fens in Waterbeach might well have been impossible but for the amalgamation of the two manors of Denney and Waterbeach.

In the three villages of our study, the forces of resistance prevented the enclosure of arable before the nineteenth century except in a very few small parcels near the village centres.

¹ CPC, Rectory, Miscellaneous Register. The efforts of Frere, a nineteenth century parson, to establish a proper social déférance came to grief, too. His letters to his bishop in his trials with the Nonconformists shows that the peasants had found a justification for their social independence in their own chapels.
In Landbeach, Kirby, lord of the Manor of Brays, was in 1549 accused of carrying out a policy similar to the one Thursby had tried in Cottenham, but on a larger scale:

"He and his predecessors have letten all his tenements fall down to the number of fourteen, which were standing within the mind of man, and some of very late days decayed."¹

He appears to have been forming home paddocks by taking toft and croft from his tenants, and enclosing small pieces of nearby common and arable, as a basis for the management of flocks large enough to overstock the commons. It was the opposition of Matthew Parker, Rector and Master of Corpus Christi College, lord of the Manor of Chamberlains, that stopped Kirby from going further, and breaking the pattern of the fields as he had destroyed the old pattern of his own manor. Parker's predecessor, William Sowde, had been negotiating exchanges that would have given Kirby much of what he wanted.

Under some of Kirby's successors, probably beginning with Sir John Barker in the mid-seventeenth century, and certainly under William Worts and his Trustees, it became usual to let the Manor of Brays divided into three farms.

¹ CCCC XXXV 194.
Waterbeach seems to have been more completely engrossed by a few big farmers. Masters wrote in 1795:

"The Farmers of Denny, Waterbeach and Rectory, (the property of Henry Pointer Standly, Esq:) occupy nearly two thirds of the Parish, there are not many other capital Farmers resident there. Causeway End Farm, those of Messrs Wiles, Hall, Huckings and Watson are the principal: the rest of the lands are divided into small parcels and let to such as have a stock of milch cows." 1

It was against such inequalities, as being economically wasteful and socially iniquitous, that Denson preached. 2

One can see something of the growth of economic inequalities and the opening of a social gulf in Waterbeach from the probate inventories. That of Richard Kettle of Denney Abbey in 1666 3 shows little money, little stock, and little household comfort, valued at £58 4s. 4d. in all. In Joseph Kettle's, also of Denney Abbey, in 1686, the whole of the remaining building of the abbey had been taken over and converted into a very large farmhouse. The old parlour of the Countess of Pembroke was made into a Gallery, and there were eleven rooms altogether. His purely personal effects were worth £100, and his total assets at Denney came to £1223 15s. 0d. In addition he had the lease of a farm in Cambridge, and his property there was worth a further £817 13s. 4d.

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1 Short Account, p. 2.
2 Denson, op. cit.
3 CUA in year bundles but with MS index.
The inventory for John Robson suggests possibly even more elegance, with yellow, red, blue and green chambers, in what would seem to have been Denney House in the centre of the village. Robson's assets were valued at £1445 8s. 10d.

Waterbeach-cum-Denney remained in Royal hands after the Dissolution of the Monasteries until Charles I sold the reversion in 1614. There were opportunities for both Steward and Farmer. In 1610 three of the copyholders were examined as to the activities of John Yaxley who combined the position of Steward with that of Farmer. His friend Haslop held the title of "Bailye", but was a man of straw: accounts were paid to Robert Spicer, Yaxley's son-in-law, and the money was sometimes a long while in reaching its proper destination. Yaxley had sold copyhold timber, seized the Town Land, taken its profits for a year, and released it upon composition. Further he had taken thirty pounds of the Churchwardens from the Town Stock. He had returned ten pounds, half the entry fine, to Edward Banks to bribe Banks not to join with the other tenants who were demanding their rights on Lammas grounds, copyhold closes held by Yaxley from which he was excluding the commoners. Yaxley later became Alderman of Cambridge. He built the Charity cottages later known as Robson's in 1626. It was through Yaxley's daughter and the Spicers that the property eventually came to the Robsons.

1 PRO. Parliamentary Surveys, E 317 No. 2.
2 PRO. SP 14/57/43.
The engrossment indicated by this diagram had begun before 1549 with the activities of Richard Kirby, lord of the Manor of Brays. The total acreage in 1665 and 1727 is almost a fifth less than that of 1549 by the removal of Meadowfield from the arable. Since this field was distributed disproportionately in favour of the larger farms, the engrossers would appear to have been more active than the diagram suggests.
LANDBEACH.

Baptisms and burials; nine-year running totals.
If outsiders came and went over the generations, and stewards who took no profit seem to struck no roots in the villages, families that rose from among the peasantry seemed to remain rather longer after the Tudor period. In Parker’s tabular terrier all the old Chamberlains holdings are traceable for seventy years or more, freehold as well as copyhold. The core of the community at this time appears to have been a group of ten peasants holding twenty acres or more each. Most of this was copyhold. John Gotobed had gathered three freehold farms as well, and was farmer both of the manor and rectory in addition. His son Henry once is called "Gent" in the Parish Registers. After two generations the Gotobeds disappeared from the village. By 1665 the Annis family had replaced them, not only economically as the most substantial farmers on the Chamberlain’s manor, but also socially as Churchwardens. By 1727 they too had gone, replaced by the Taylors, who emerged at the Parliamentary Enclosure as the largest owner-occupiers in the village. The fine farmhouse, "John Annis's brick house" of 1665, although probably built some thirty years before that date, was owned by Uriah Taylor in 1813. It remained almost the solitary splendid brick farmhouse of the village for a century and a half.

1 CCC CXXXV, 174.
3 LPC Dukman Book; CRO Q/RDc18, Award Map with Schedule.
4 The former Black Bull Public House received a brick skin over its timber frame probably about 1700.
and then was soon to be degraded and divided for another century, 
superseded socially by the early Victorian farmhouses of the later, 
yellow, Cambridgeshire brick.

The dominance of the village landscape by this fine farmhouse 
in the seventeenth and eighteenth centuries reflected the social 
change in the village, the rise of the moderate farmer, and the 
beginning of the end of the peasant community. By the time of the  
Enclosure Award of 1813 no less than 29 out of the 47 landowners 
have less than five acres each. But this change had been well on 
the way by 1727. In that year the Speculum recorded 55 households, 
but in the Dukman book there were only 41 holdings of land, and 
these were in the hands of 23 people, plus the lord of Milton. 
Thirteen of these held less than twenty acres each; in fact this 
group held only a fraction over seventeen acres between them. The 
base of family arable self-sufficiency of the older village had gone.
Population in the Modern Period

These changes in social and economic structure appear to be associated with, and perhaps caused by changes in population. For Landbeach, at least, we can call on better local sources than those supplied by Palmer and discussed above. There are two kinds of these which can help us to estimate the part played by population pressure in changing the old village: Counts of Households, Families or Houses, and the entries of Baptisms, Burials and marriages in the Parish Registers. The first type of evidence shows a surprising stability in the village from Middle Tudor times, growth being very slow until the nineteenth century:

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1549</td>
<td>46(?)</td>
</tr>
<tr>
<td>1639</td>
<td>62(-?)</td>
</tr>
<tr>
<td>1664</td>
<td>66</td>
</tr>
<tr>
<td>1727</td>
<td>55</td>
</tr>
<tr>
<td>1781</td>
<td>49</td>
</tr>
<tr>
<td>1798</td>
<td>55</td>
</tr>
<tr>
<td>1811</td>
<td>61</td>
</tr>
<tr>
<td>1851</td>
<td>116</td>
</tr>
</tbody>
</table>

The figure for 1549 may be too low, since it is possible that some of the tenements that appear to be empty in the field book are inhabited. Four of the occupants of houses in 1639 held two each, and 58 (surprisingly the number of landholders for the village in the Hundred Rolls) may well be the proper number. The eighteenth

1 Sources: 1549 Field Book; 1639 "A rate of Houses for the Clerk's Wages; 1664 Hearth Tax; 1727 Speculum in CUL EDR B8/1; 1781 Table in Collectanea, LPC, Masters; 1798 List in Register LPC; 1811 and 1851, Census.
century figures are all of families, and although the family size may have been slightly higher at the end of the period, there can hardly have been any massive increase in population until the second decade of the nineteenth century at least.

The Parish Registers\(^1\) tell another side of the story. The excess of Baptisms over Burials was at times very considerable: in 1590-1609 35%, in 1690-1709 41%, and in 1800-1809 49%. In the fifty years after the Civil War it was the burials which on the whole exceeded Baptisms. But in periods when natural increases took place on this scale there must have clearly been considerable emigration from the village in order to produce such slight changes in the number of families and the population of the village.

The Registers suggest periods of population pressure due to natural increase, from about 1563 to 1625, 1632-1654, 1691 to 1707, 1767 to 1779. After a brief interval of high mortality the figures turn up again, and by the end of the century take on a pattern of more rapid increase which the Census returns reflect thereafter. This buoyancy of the fertility rates seems to have found some relief from the 1850's in Landbeach and Waterbeach in the drift from the countryside, and in Cottenham from the intensive exploitation of the Fens after enclosure and ploughing up.\(^2\)

1 LPC: these start from 1538 and are one of the most complete sets in the County.
It seems impossible to get any more detailed picture of emigration out of the villages until the family reconstitution now in process for Landbeach is complete. But we can see something of the opposite flow of immigration at the end of our period from the 1851 Census, in the Enumerators' Returns:

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total inhabited &quot;houses&quot;:</td>
<td>116</td>
</tr>
<tr>
<td>Man and wife both born in Landbeach:</td>
<td>18</td>
</tr>
<tr>
<td>Man only</td>
<td>36 (of which 4 widowers)</td>
</tr>
<tr>
<td>Woman only</td>
<td>10 (no widows)</td>
</tr>
<tr>
<td>Neither</td>
<td>52</td>
</tr>
</tbody>
</table>

By this time only about a third of the married people of Landbeach had been born there: nine of the men and eleven of the women came from beyond the county boundaries. The old way of life of the peasant families seemed to have gone.

About the same time as this Census was taken the family tradition in the Sanderson family in Cottenham was breaking. Until his Grandfather died Jacob "had to work as a common labourer, thrashing in the barn from Michaelmas to May Day for half a crown a week." Before enclosure he had helped himself out by keeping his Uncle Few's pigs after harvest, and was always paid for this. At the age of fifteen he was sent out to do the ploughing, unaided and untrained. His father expected much of Jacob's work to be unpaid, as he would inherit the land. At Harvest, he says,
"My place was with the men, work as they work, fare as they fare, except pay, which I had none, but food." When he asked for sixpence a week pocket money he was instead given a hen. From this he managed to make a profit of twenty-five shillings which he banked, but after he had drawn only five shillings, the bank failed and he lost all the rest. In the end he had to walk out of home before forcing his father to allow him proper wages in order to get married.¹ Jacob's father had expected him to wait before seeking his independence or marrying until he had inherited. Such a tradition must have helped to keep the population in check in peasant families.

¹ Notebook.
Occupational and Social Differentiation

There was a touch of variety in the villages shown in the Hundred Rolls, when craft-names suggested subsidiary occupations. The Probate Inventories for the late seventeenth century show a considerable development of this insofar as they give any direct or indirect indication of status and occupation in Cottenham: such information is not so rich in Waterbeach, and less so in the smallest village, Landbeach. But it is comparatively rare in any of the inventories to find a craftsman, publican or shopkeeper who does not have a holding in the field as well.

Kelly's Directory for 1869\textsuperscript{1} gives a much more comprehensive list of trades. The publicans, who are the most common occupation other than agriculture, are as common as were medieval ale-wives, and the dwindling of their numbers (to the point of extinction in Landbeach village) is a very recent story.

It is very difficult to gauge how much of this occupational variation was reflected in the landscape. In the Grant of Chantries\textsuperscript{2} for Cottenham we get a momentary glimpse of some differences in the village street scene:

\begin{itemize}
\item \textsuperscript{1} E.K. Kelly, The Post Office Directory of Cambridge, Norfolk and Suffolk, 1889.
\item \textsuperscript{2} BM Add. Ch. 7060, m.2.
\end{itemize}
"Necnon omnia illa octo messuagia tenementa et cotagia nostra et omnia domos edificia shopas cellaria solaria curtilagia ortos pomeria et gardina nostra." But since most village shopkeepers and craftsmen were also peasants, with peasant houses, their shops and workshops would only have provided small variations in the common theme of the street.

From the late middle ages on, the materials of the buildings in these villages were predominantly timber-frames with lath and plaster and thatch, until the nineteenth century, and in spite a variety of styles, there must have been a very homogeneous and unified street-scene until after the Parliamentary Enclosures. It is not easy to envisage what variation the shops added. The oldest clearly recognisable old shop in the three villages is at number 21 High Street, Landbeach. Here there was originally an open hall house, end on to the road. A little shop, half a bay square, was added at some time as a cross-wing running alongside the road. The shop, too, has had a ceiling inserted, not later than the early eighteenth century. There was no internal communication between house and shop. Although the whole wall along the street was subsequently given a brick skin, the shape and pattern of the let-down shutter and counter have been preserved.
Agricultural, industrial and commercial buildings at this time would have merely provided variations on the same visual scene as the houses, much as ancilliary occupations embellished, but did not remove, the peasant way of life.

Brick, from the first, was associated with social differentiation. In the fifteenth century it was used for manorial buildings, including farm-buildings. Little of this remains: the cellar in Landbeach Rectory, and perhaps some of the walls now hidden by stucco in Crowland House in Cottenham. Masters used it to give a fashionable facade to the Rectory at Landbeach, but used the traditional materials rather meanly for his charity cottages. The rather older bricks in the Rectory Wall, appear to have been brought by water from Ely by Mickleburgh, Rector from 1727 to 1756. He began the process which continued right up to Tinkler's time (Rector 1843 to 1871), and converted the Rectory from what had been primarily a farmhouse, into a fine country gentleman's residence. As Robert Masters had moved the main entrance from the yard to the street side, and made a great entrance hall, degrading the hall, which sufficed Matthew Parker, to a kitchen, so his son-in-law, Burroughes, in 1799 converted the parsonage cowyard into a pleasure garden. He planted Cedars

1 e.g. CUL Queens' Cd. 66, 2000 "de waltyle".
of Libanus, Pyracanthus, Red Cedars, Arbutus, Arbor Vitae, Striped Holly, Portugal Laurels, Junipers and Swedish Junipers, Lauristinus, Yew Trees, Poplars and other shrubs for decoration. Peaches and nectarines were planted in the same year, walks were altered and a new lawn laid.¹ Tinkler added a bay window and a Renaissance stone porch. The new farmhouses after enclosure echoed the new pretensions in their names, The Limes, The Willows, The Acacias. Thus, later in time, Landbeach began to catch up with its larger more affluent neighbours in social display. Formal gardens and pleasure-grounds, like those in the Stukeley drawings of Cottenham earlier in the eighteenth century,² set off new features, or whole new houses, built in larger style, of better materials (and altogether more expensive), for the village upper classes.

As lands were engrossed in the seventeenth and eighteenth centuries, some tofts and crofts ceased to be small farmyards. But the fens, and the common rights enabled small men like John Denson's father to build up farms of their own through dairying. The suitability of the area for horticulture provided an alternative for others, and many crofts became orchards or commercial vegetable gardens. Hemp, flax, onions, leeks and herbs appear in the early

¹ LPC Tithe Book.
² See Plates III and IV, pp. 164 & 165.
records of Chamberlain's manor as well as in Crowlands. Orchards and fruit-growing seem well-established on the medieval demesnes. Cunningham concluded from seventeenth century tithe schedules that it had attained some importance. Parker in 1553\(^1\) specifically included tithes on pigs, wool, fruit, wood, hay, corn, hemp, flax, in addition to the previous garden tithes on leeks, honey and wax. But it is from Waterbeach towards the end of the eighteenth century that we first get clear evidence of substantial market-gardening. In Masters' Tithe Estimate for 1772,\(^2\) we find 68 owners or occupiers holding 33 orchards, 48 gardens, 28 closes and 18 holts. His Short Account of the parish in 1795 confirms a flourishing horticulture long before the coming of the railways:

"The soil likewise is peculiarly adapted to Gardening, insomuch that there are no better Asparagus, Cauliflowers, Cabbages, Beans and Peas, than it produces; and many persons diligently cultivating and carrying them to the Cambridge Market acquire a comfortable maintenance thereby."\(^3\)

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1. LPC Field Book, note on tithes.
2. WPC, Various Papers relating to Tithe.
3. Short Account, p. 2. cf. Willingham:- the obituary of Mrs. Ann Gleave, born, 1793, in the Cambridge Independent Press, 26/7/1890, tells how her father, at the beginning of the century "took fruit, butter, etc. to London every week during the fruit season in a four horse waggon. At that time conveyances going to Cambridge had to ford running brooks on their way, and one horse can now do on those roads what it would have taken four horses to do at that time ... Men and women would tramp to Cambridge on market days bearing as much as five dozen of butter on their shoulders."
When Parliamentary Enclosure came, the crofts and tofts, which had been converted to horticulture as the core of a smallholding, still provided a visual bridge between the new brick and slate farmhouses in their ornamental grounds, and the tiny brick and slate terraces or courtyards of the new labourers' cottages. The coming of the railways, which finally established the victory of the new materials and styles, paradoxically, in opening wider markets for the horticultural and dairying smallholder, helped conserve their houses by enabling the owners to carry on successfully. The revolutionary factor which altered the appearance of the village centres was fire-raising. ¹ Social discontents, in which Enclosure played a part, broke out in arson, devastating to timber-frame and thatch. One of the worst such fires in Cottenham in 1850 accounts for the homogeneity of the village street scene there: many of the houses in the High Street had to be re-built at this time.

¹ See above, Chapter III, p. 132; Notebook; Illustrated London News, 13th April, 1850, pp. 247 and 248; Waterbeach, p. 23.
The New Landscape

The new landscape of the fields after enclosure, when field and fen became one, must, at first, have been more bare than the old. The trees along the drifts and ways that were ploughed up, would have soon gone. In this area ditches often did the task of quicksets elsewhere. Soon small market gardens pushed out into the arable along all the main roads, and began to variegate the scene. But in the twentieth century, with the coming of the bulldozer, men are again laying field to field, and grubbing hedges and trees to make larger units. Even old Roman farm sites, like Bullocks Haste in Cottenham, which have resisted the plough with their unevenness until now, are beginning to go down. Blossom time still lights the orchards and commercial flower gardens in a blaze the old village never knew, but only to emphasise the mathematically simple shapes of the new fields like a magnificent suburban garden. A few corners of the old landscape survive because of their awkwardness: the unkempt trees and undergrowth at the junction of the Rennells Books would be uneconomic to tame. The hedge of 1235 along Beach Ditch has been cut, burned and tidied, but in what is left, wild pear still flourishes near the old Payretre Furlong of the Field Books. Along Alboro's Close Drove, on another Roman site, coming to the Car Dyke, if the weather
is right one is startled by the change in the landscape. Here is a fragment of the improved fen of the eighteenth century. There is no wild fen nearer than Wicken. The remaining osier holt near the Landbeach Cottenham boundary has a new untidiness, being scarcely wanted as the old crafts die. But on the banks of the Cam in Waterbeach the willows still grow splendidly with thinning and control, but where pollarded too closely revenge themselves by growing gnarled and twisted. The watercourses are becoming sharper and straighter with mechanical cleaning, but only on their banks in the remoter parts of the fen do many wild flowers survive.

In the village centres the cost of maintaining old buildings, and the profit to be taken from their sites has begun a new devastation in the late 1960's. The harsh materials and ungainly proportions of the latest building fashions, squatting awkwardly among the survivors of the past, leave them decaying and discouraged. In Landbeach alone of the three are there enough of the old houses scattered along the street to convince us that it is still a village and not a suburb. But even there, this may not last much longer.
There is good cause in the deterioration of the landscape for nostalgia like Denson's. But his idyllic view of the vanished peasant community was already turning into the Victorian ideal of Self Help. On the other hand Jacob Sanderson recollected the trials of Enclosure in the tranquility of old age, half a century later, without sentimentality:

"Now a great change came over Cottenham, the Enclosure. Old times were to pass away and all things to become new. No more stocking of the Commons on Old May Day, nor Dye Feast, or Officers chosen, nor Auditermakers Days. Nearly all the old landmarks were removed and a fresh order of things substituted in their place. Three old watermills taken down, Undertaker, Chare Fen and Setchell, and two steam engines in their place, Smithe Fen and Chare Fen. New drains were dug or made, and fresh roads made through the Fens and Fields, everyone knowing his own allotment. There is not one now in all the Town but what has changed hands since then, both in the Town Fields and on the Fen. In my time one generation passeth away and another cometh." 1

When the excitement of paring and burning and breaking up the fen was over, the cultivator either stood to gain handsomely from the newly tapped riches of the peaty soil, or, if things went wrong, to lose all in his new vulnerability to the market. Even the Ivatt family, the most substantial of the farmers at Enclosure, saw their fortunes fade by the end of the century. For the small peasant the threat was immediate:

1 Notebook.
"Recollect the second year after Enclosure being a very dry summer; no rain from March till Midsummer Fair Day, 24th June; the first year after the land being broke up after being skirted and burned. The oats did not come up till a week after the rain; never came to perfection. Cut them in November; icicles as we reaped them. Stack them in the Fen; stock would not eat them. They heat in the stack; carried them about the land for manure.

"My Father had twelve acres; never sold a bushel. One of the most trying years he had to struggle on through life."
Although we have a picture of the pattern and fortunes of the Roman settlement of this area, based on field archaeology, the Dark Ages are still very dark. We know virtually nothing of how Roman rule ended here, and less of how the intense late-Roman settlement by small farms was superseded by many fewer nucleated Saxon villages. The problem of what happened between the early pagan penetration (revealed by the spade in cemeteries, and in the few poor huts on the bank of the Waterbeach Car Dyke) and the formation of the villages centuries later (according to the opinions of the place-name experts) is still unsolved. Nor do we know when and how the small fields and farm boundaries of the Roman-British farms, as revealed by the air photographs of the fens, were replaced by the ridge and furrow of the open-field arable. Yet the little that we know for this area in these lost centuries probably makes it favoured compared with much of the rest of the country.

When the documents become plentiful enough for us to feel some confidence in the conclusions that they suggest, we meet with three mature villages each enjoying the advantages of the fen as well as arable, and even more, the benefits of the association of
these two sources of wealth. Colonisation of the area seems to have been completed early, and there are hints that Landbeach, after a later start as a separate community, had rapidly overtaken its neighbours. The arable basis of their economies, seen from the point of view of the peasantry, was moderate in Cottenham, modest in Landbeach, and subordinate to fen exploitation in Waterbeach. The Domesday figures suggest that the period of colonisation by the plough was almost complete, but the Hundred Rolls in turn suggest that in the intervening two centuries the lands of each village had become capable of supporting twice as many families. The overspill of the housing area on to old open field, so clear in both Cottenham and Landbeach, appears to have taken place during this period.

This expansion of population may be paralleled in many parts of the Midlands. But here, unlike most Midland villages, the ultimate limit of ploughland was only in part the parish boundary; the seasonal rise and fall of the black waters of the fen would halt the plough short of the rich frontier area which in summer produced abundance of lush feed and winter keep.

In this frontier zone the differences between the three villages were most sharply reflected in the landscape. Here Cottenham, relatively rich in ploughland, seems to have kept its
ploughs clear, not only of this frontier zone, but also clear of
the further zone of hards, land subject not to normal winter
flooding but vulnerable to the sudden and extraordinary floods
of the fen edge. Only a few insignificant hemplands seem ever
to have passed these bounds. But in Landbeach in the fourteenth
century it was into such an intermediate zone of hards that the
ploughs were forced to operate desperately in face of the worst
flooding recorded in her history. In Waterbeach with its fields
so much lower, and with river and fen in some places so close to
the homesteads, the margins of the fields and margins of the fens
must often both have taken their appearance from hastily sown
risk crops in the spring.

But if the fen held a constant menace in its waters, the
abundance of its fish and fowls afforded great resources for
survival. These might have been reduced and eroded by mowing
and feeding which improved the primitive fen, had not the water
imposed a limit. Thus a balance between the different uses of
the fen, built up in the middle ages, was maintained. The
landscape evolved, in no small measure, as a result of the
interplay between changes in population and changes in the
water-table.
But the population suggested by the Hundred Rolls must have been a strain for the agricultural technique of the time to support. It was this over-stretched economy that was struck by the worst famine and pestilence of European history. The crisis was common to most of Europe, but as well as common disasters, the fen edge communities had to contend with more—the most catastrophic flooding of their local history. Struck at their most vulnerable point, their peculiar trials must have been especially severe.

If arable was reverting to fen in Landbeach in the first half of the fourteenth century, the lower-lying Waterbeach must have fared worse, and in all three parishes much of the improved fen would have deteriorated towards car. But the reversion seems to have been only temporary, as the compensatory assarting into pastureland in Landbeach seems to have been mostly temporary.

The old balance between field and fen came back, but without the strain of excess population to feed: the advances in cropping methods were no longer necessary. But improved weather conditions brought no simple restoration: as the lords, under the new circumstances were tempted to become rentiers, so the peasant community gained more de facto control over the actual use of the land.
The late medieval and early modern period saw more specialisation of regions in each village's fens. Greater market opportunities allowed the peasant to exploit the local natural advantages while still keeping up his general agricultural activities and remaining a peasant. Paradoxically this extra profitable use of the fen seems to have strengthened the conservatism of the arable farming.

The clashes of the Tudor period between the peasantry on the one hand, and commercially minded lords and gentlemen on the other, led to a separation out of the lords' interests into their own severals. For the rest, the commoners were more firmly in the saddle than ever. Market forces which favoured the exploitation of Cottenham's fens by the development of its milch herd and cheese-making helped indirectly in the more intensive exploitation of its arable by the five-field system. But the commoners were able to take control of this by the agreement of 1596, and after exacting this price, were able to direct the common agriculture with no major change for two centuries.

The efforts of enclosing landlords, in the long run, left little that was different behind them; a few small grass paddocks and empty house-plots near the village centres, and a few fences
and bars in the remoter parts of the fen. But the old ways of common field, pasture and fen were more firmly entrenched.

The Great Drainage schemes of the seventeenth century affected the local landscape less than local piece-meal works. The enclosures for their profit (the Adventurers' Grounds and the Drainers' Grounds) were out on the peripheries of Cottenham and Waterbeach. The fens were soon as wet again as ever. Nature played her cat and mouse game with the Drainers to restore the balance, each success in draining being followed by peat shrinkage and a falling soil level.

The human side of the balance between man and his environment responded, too. Our best sources for local population history, the parish registers and counts of families or houses in Landbeach, show a surprising long-term stability.

The second half of the eighteenth century brought signs of the revolutions of that age even to the fen edge. The Cam became intensely busy as a commercial canal. The Milton-Ely Turnpike cut across old boundaries, altered the relative importance of ancient field ways, and left the medieval via regia into the fens to become a muddy overgrown track. When the age of steam followed,
effective drainage tamed the fen as the railway came to draw off its wealth. The market, which had been an auxiliary to the peasant way of life became master. The old, functionally planned peasant family houses were sub-divided and subdivided again, as containers for the population, which now grew again in an uncontrolled fashion. The designation "pauper" became frequent in the burial register. By the time when enclosure and steam drainage reduced field and fen to one commodity, land, whose use was controlled by the market prices, the old community was already fast breaking up. The passing of the common fields may not have directly destroyed the common social ways of the older village life, but such customary ways did not long outlive the change.

War-time propaganda and interest in technical improvement, in the struggle for survival against Napoleon, met with little serious resistance. The peasant ideal lingered on in Denson as in Cobbett, but the capacity of the community to contain its own growth, by adjusting its ways to its environment, had gone. Arson seems to have been a more common reaction among those less literate than Denson. What is astonishing is the relative success with which adjustments had been made for so long. Much of the
Conservatism of the old order was born of confidence in the ability of the local constitutional machinery to respond to the fickleness of the fenland waters as well as the weather.

In the end the old way of life had to go, as the division of labour became wider and wider geographically. When Parliamentary Enclosure came late to this area, it found the old arable remarkably intact and little changed. The balanced landscape which had evolved to sustain local peasant communities, was replaced by one designed on the drawing-board for more efficient economic exploitation. More of this landscape blows away each March in the dust-storms.¹ Men changed with the fields, and men too, were freed from ancient custom.

APPENDIX A

The tenements of Landbeach as located by the Field Book of 1549, with reference numbers displayed on Map 28, p. 383.

I have used standardised abbreviations as follows:-

Ten    for tenementum.
Cot    " cotagium.
Coll   " collegii, i.e. the Manor of Chamberlains held by CCCC.
Ar    " armigeri, i.e. Richard Kirby, lord of the manor of Brays.
ol    " olim.
u   " nuper.
s    " selion.
a    " acre(s).
cont    " containing, continens, or similar appropriate form.
t.p.c.    " tenet per cartam.

Arabic numerals are substituted for Roman throughout.

Banworth:

B1. Pastura coll vocata maydecroft.
B2. Pastura coll vocata hallyerd cum shepecote.
B3. Cymiterium.
B4. Rectoria.

----------communis semita vocata gibbes stile.
B5. Ten ar vocatum Copthall.
B7. Ten ar bellys.

"parva pecia communis vocata the arbor at ye crosse. villagii"
B8. Ten Ric'i Fote t.p.c.
B10. Ten ar.

balke-------------------------
B14. Ten ar vocatum flaxmans.
B15. Cot coll olim clerk, j. cresthals wife, Jo. barcocks thrlowe.
B16. Cot sive ten ol,abbatisse de denney.
B18. Cot ar cum clauso vocato Rose.
(The area south of Rose Close, B19-B21 and the adjoining closes on Map 28, has been made up of amalgamations from the following:-)

1 s coll el T. Coye and 1 s coll ol Emmys (these were originally part of the third furlong of Banworth);
Ten Rogeri ward cum grove cont 1 s, t.p.c. et sectam;
Ten J. Lane cum grove, Thirlowe, 1 s tenta de collegio p.c. et reditum 2s. 4d.;
Cot coll in tenura Thirlowe. clausum sive toftum, cressals croft;
Cot coll coris in tenura J. Gotobed. clausum sive toftum corys croft; (These two holdings are noted "cum 3 s croftland, 3 a").
Ten R. Fote (J. Gotobed) cum 1 s croftland 3 rods (from coll by charter and 2s. 1d. rent);
balke---------------------
4 s Rich'i Fote.

finis camni de Beche.

Millfield:

M2. Mansio 2 s.
M3. Ten 1 s bruers. (M2 and M3 together made 3 a) Th. Lane, t.p.c. de collegio.
M4. Ten 1 s cont 1 a ol pantlions, Ed. Lane t.p.c.
M5. Ten 1 s cont 3 rods, Ed Lane t.p.c.
M6. Ten 3 s cont 1 a di, T. Lane t.p.c. quorum 1 s est haveden.
M8. Ten 1 s cont 3 rods, R. Fote t.p.c. hatche.
M11. Ten Rectoris 1 s cont 1 a R. Ward t.p.c.
M12. Ten R. Ward t.p.c. (M11 and M12 are bracketed with the note "de reg").
M13. Cot ar 1 s cont 1 a Byrds.
M15. 3 s cont 2 a prior de barneswell.
M16. Ten coll 1 s cont 3 rods R. garard.
M17. Cot ar 2 s 1 a di 1 rod Fennys edwards.
M19. Cot ar 2 s 1 a di Testis.
M20. Cot coll 2 s 1 a di Annotts (ad hoc cotagium pertinet di acra in frythfen).

Balke---------------------
M21. Cot ar 2 s 1 a colvils.
M1 to N21 inclusive are noted marginally as closes.
M22. Ten 2 s cont 1 a 1 rod h. Lane t.p.c. R. Lane.
M23. clausum liberum watts. R. Lane.
Balke-------------------------haveden de medowe.
M24. 1 s cont 3 rods iacens sowth et north sub clauso predicto.
M25. Manerium armigeri.
M27. 4 s coll cont 1 a cockfen.
M29. 14 s coll cont 4 a et di.
M25 to M29 are listed at the end of the third furlong in Millfield, Dovehouse Dole.

Scachbow.

S1. Ten coll cum crofto 1 a di H. Lane. R. Gylmyn.
S3. Ten coll cum crofto 1 a T. Page. R. Pepes.
S5. Ten coll cum crofto 1 a h. herne. h. herne.
S8. Ten coll cum crofto 1 a h. Edwards. Edwards

S9. and S10. are both Ten ar, together cum crofto vocata Silver Fryers.

S11. Ten libera Thome Lane.
S14. Ten ar colvils.

Balk--------------------

S15. Ten coll 3 s cont 1 a Pantlions.
S17. Unum clausum collegii martyns ex alia parte vie versus cockfennys.
S18. Ten ar whytby iuxta brodlane.
S20. Ten ar Thatchers.
S21. Ten ar peytre.
S22. Ten ar J. Herne tenens.
S23. Gardinum Rectoris.
S24. Ten ar Deynes.
APPENDIX B
THE LANGUAGE AND USAGE OF FIELD SYSTEMS

In discussing historical field systems we strive to discover and express technical generalities, but almost invariably our documents derive from, and are specific to, particular sets of fields. Most of the agricultural technique behind the documents was either customary and taken for granted, or expressed orally and rarely set down. Yet in following the changing agricultural patterns of a small area it is clear that there were accepted notions of the proper way to go about the job of raising food there, and that these notions belonged in part to each particular village, and in part to a wider cultural tradition, and subject to wider economic pressures. Much of what we can learn of system in any locality is inference from marginal references, or imported assumptions from elsewhere in place and time. When, in later periods, technique becomes self-conscious and vulnerable to criticism, such importation of foreign ideas may well have been done for us by the critics. Descriptions usually come from outsiders whose views are based on their own presuppositions. The interplay between the purely local and the more general creates most serious difficulties in matters of terminology.

If we treat the problem like the completion of a jig-saw puzzle we find ourselves working with broken fragments of pieces culled from a variety of different pictures, or a variety of versions from the hands of different artists even where the object originally depicted was the same. The result might well be expected to be ill-fitting, incomplete and with pieces left over.
The different purposes of different kinds of documents find expression in a single language, but this may only conceal a very local dialect of usage, as stability in a locality forms habits which narrow and particularise terms, while elsewhere change expands their possible meanings. The context of words may not make the local connotations of a term clear: the context of purpose may sometimes help rather more. A term may carry a whole cluster of connotations, but in a particular place may be used for one only. The word "Field" itself is one of the most variable in usage in the villages studied. Its purpose may be simply to denote that the land in question was arable, and nothing more. It may mean an area within a continuous boundary or it may not, Church Field in Cottenham, for instance, having Church Hill as a detached portion - an accident of local history. It may or may not mean a cropping shift: clearly Morefield in Landbeach is in two shifts. It may coincide with a cropping season as well as a shift and so be used as substitute for it, as "in seysona de milnefeld". Conversely it may be identified by crop rather than by proper name: "in le peasfeld" or "le barlifeld". When once embodied in a proper name the name may outlast the conditions that made it appropriate as with Meadowfield in Landbeach, which could still be so called after it had ceased to be ploughed.

A more common source of confusion is the way in which proper names may change, or worse, the way in which new and old alternative names and nicknames may co-exist side by side. Acrefeld, Stratfield and Millfield are not three old fields of Landbeach but one. Mikelfield in Oakington was the occasional name for the Millfield, but only when flooding of its partners had left it disproportionately large in the rotation. As with other place-names, even in early
documents field-names may tell us more of the history of the land than of contemporary farming practice. The frequency with which early place-names may change is a snare that may trap the unwary reader of a series of historical documents into double and treble counting.

The purposes of the documents relating to the fields in the three villages which I have here studied may be grouped roughly into Land Title or Transfer, Valuation, and Regulation. The documents dealing with transfer or title are charters, court roll entries, rentals, indentures and leases. Any of these may include a terrier. Their main purpose in describing land is to identify a holding, and in many cases local knowledge is so certain that extent, kind and place may be omitted from the written record. On the other hand these descriptive elements may for particular reasons be much elaborated. Sometimes, but not very often, where care is being taken to produce a balanced holding with arable in each shift, identification is by quantity in each of the fields, with the implication that these are identical with shifts. This is most likely to happen where a new holding is being carved out. Where an old holding is being passed on intact the old holder's name may be sufficient identification. When precision is needed, the details of the lesser units matter more than the greater: the size of each selion, its abuttals, and its furlong may make mention of its field redundant. In such cases the word "field" is sometimes added to the name of the furlong, merely to re-affirm that the land is arable, but incidentally introducing a new "field-name" as a result, with scope for misinterpretation.
The written word in the early documents is almost invariably derived from oral information given by illiterate informants, and fitted by a scribe into a more or less standard pattern. The Reeve's Account Roll for Landbeach Chamberlains in the year of the great Black Death illustrates how far this could go in emergency: the roll appears to have been made out beforehand in neat black writing, leaving spaces for the amounts. These have been hastily filled in and unnecessary items crossed out in a looser hand in ink that faded brown. But nevertheless one is left with the impression in documents of the fourteenth century, that those who composed them were more familiar with the agricultural operations of the villagers than were the Tudor and later lawyers. The decline of direct demesne cultivation, the disappearance of labour services, and the narrowing of the work of courts to exclude managerial functions, leave us much more dependent on conveyancing lawyers who are not worried by a mixture of old names and new or loosely used terms, as long as title is secured. In using technical terms for conveying rights they tend to use wide-ranging terms to include all possible details that may be in future asserted (e.g. "with all rights of sheepgate and foldcourse thereto belonging"), like the plumber who always leaves a job for next time.

Sources whose primary purpose was regulation, and which give continual side-lights on the working arrangements of village agriculture, are Ordinances. In time these may become embodied in custom and their origin lost: conversely, many ordinances appear simply to be affirmations of long-practised custom now in danger of violation. The chief source of our knowledge of early custom and ordinances is the record in the court-roll, usually of the breach of custom. By-laws are frequently cited, but in our villages there
is no mention of any moot as their originator and guardian. The manor courts, or ad hoc assemblies like that in Cottenham church at Easter 1344, seem to be their progenitors until we come to the Commoners' meetings of early modern times. But even when partial codification seems to be attempted from time to time, we are given nothing like a complete summary of all the regulations; only those dealing with areas particularly prone to dispute, especially boundaries, physical and legal.

The detailed practice of cultivation emerges most clearly from documents intended for purposes of valuation and accounting. A proportion of the medieval extents and surveys, including those contained in Inquisitiones Post Mortem of the early fourteenth century, like a proportion of the Probate Inventories of the early modern period, show something of the fields under crop and fallow at particular moments. Tithe disputes may show the same with more complete coverage, and even give this detail for a sequence of years. Names and topography may have little significance until related to cropping, and our best source of information about medieval cropping is the manorial reeve (or the royal servant doing the equivalent service on a manor in royal hands). The accounting system of charge and discharge may not be a good guide to profit and loss, but it can be an excellent guide as to how the demesne has been worked. But the normal reeve's account roll is only a summary of the information he has furnished. The return of grain may often, but not invariably even in a good set of rolls like those of Crowland, give a good idea of how the fields have been worked.
Two original full sowing schedules for Oakington were discovered stitched in with the account rolls for 1362-3 and 1364-5. Their form helps to explain some of the unusual features of the Extent of the Lands of Agnes de Bray of 1316 in Landbeach. Sowings are recorded, beginning with wheat and moving on in order through the other grains. The fields are distinguished in their turn. Land sown is recorded in selions and acres, and grouped in "pieces". This term seems to be some sort of work unit, mostly of six selions but occasionally much larger. A piece seems not to have been a block of selions, but a group which could be reached by one access way, and they are designated much more frequently by the names of access ways than by furlongs. Here then is a very general word appropriated in a special kind of document for a narrow technical meaning. In neighbouring Waterbeach and other nearby parishes the same word can be found with the different technical meaning of an enclosed furlong. In East Anglia proper it often has yet another quite different connotation.

The use of the term "piece" in the sowing schedules is significant. Selions were visible man-made topographical features derived from one kind of work unit, a day's ploughing. But sowing required a larger unit of a group of selions that could all be reached on a day's trip into the field, or the possibility of covering the full amount due for a day would be lost. And so there existed another invisible classification of the demesne arable, known perfectly to the reeve, but which has come down to us only through the accident of the survival of what was intended as a rough preliminary to the preparation of the summarised return.
The description of fields in the Extent of the Lands of Agnes de Bray in 1316 shares some of the peculiarities of these sowing schedules in that those parts of the fields that are described in detail (and these appear to be the areas in danger from flood) are much more commonly described by access ways than by furlongs, and many of the dole-names appear to be unique to this document. Where a field was partially flooded, dry islets could be ploughed only if they had access for a plough. Many that had not, might be in that year, or part of it, suitable for pasture only. Thus both a special kind of agricultural work, and the peculiar needs caused by rising water-table, produced documentary forms and technical terms differing from the normal in their dependence on access ways, the description reflecting the practical necessity.

Figurative use of language as well as technical, can create further snares. In Cottenham the similarity of appearance in the lay-out of meadow strips to the lay-out of the open fields led to the use of the terms "furlong" and "headland" in parts of the former. But far more often than not the peculiarities in local names and usage, which suggest something different from the common pattern of the Midlands, can be explained from the detailed local history, and usually behind this is the topography, the fluctuating topography of the fen edge. Historical changes brought different and active significance to features formerly neutral. But the villagers seem to have remained wedded in thought to the old ideas of what was proper, never to have noticed the difficulties that they have left us to face in understanding their meanings, and to have been in no hurry at all to accept the better ways offered them by outside experts.
APPENDIX C

GLOSSARY OF SOME TERMS IN LOCAL USAGE

ABBUTTAL: an indication of the position of a strip in the field by identification of the land at its end.

AGISTMENT: the taking in and pasturing of beasts of another owner.

ASSARTING: breaking in new land with the plough.

BALK OR BAULK: a field path. In this area major field paths are called "doles" or "drifts", usually between furlongs.

BLACK WATERS: the flood waters standing in the fens as distinct from the white waters brought down by the upland rivers.

BROAD or BROADEL: two selions lying side by side in the same tenure and ploughed as one.

BUTT(S): small selions fitted in between a normal furlong and a boundary. In Landbeach three butts made an acre whereas the average selion was a little over half an acre.

CLOSE: a piece of land separated by a fence or ditch which excluded common rights. Also called a "several". Under grass it could be termed a "croft".

CROFT: an enclosed piece of ground, sometimes attached to a toft.

DEMESNE: land of the home farm of a manor: alternatively used of a whole manor not in the hands of a subsidiary holder.

DOLE: a field path, usually a larger one, which can, by figurative use of the language, be used as the name of a furlong adjacent to the path. The name suggests that it was allotted when the grass was shared out annually for hay, but no survival of such a custom has been found in our three villages.

DOWELL: Stake to mark a division in field or meadow, or, as a verb, to divide by placing such stakes. cf. "stulp".

DREDGE: the mixed corn of the spring sowing, oats and barley.

DRIFT: a way for driving beasts (among other uses). The driving of beasts on the common to an enclosure to count them and discover strays and other foreign beasts: the written list produced from such a drift.

ENCROACHMENT: taking in land not in one's holding by ploughing too far or moving the boundary.

ENGROSSMENT: the amalgamation of holdings of land formerly separate.
TOWN or TOWNSHIP: the built-up area of a village, or alternatively the inhabitants. A vill as opposed to manor.

EXTENT: a written description of a manor or other estate.

FIELD: before Parliamentary Enclosure, arable land. In these three parishes an area normally enclosed by a single boundary. The exception, Church Field at Cottenham which had a detached portion on Church Hill, had originally conformed to this definition before the expansion of the housing area had divided it. It can also be used for a cropping shift, or if the user so wishes it may be used for areas which do not coincide with the cropping shift; rarely it overlaps two shifts.


FOREND: similar to a headland in that ploughs working on the adjacent furlong can turn on it, but which remains unsown.

FURLONG: a bundle of parallel selions, so forming a unit within a field. The alternative word, "wong", occurs in this area, but only very rarely and as part of a place-name.

GORE: an odd triangular shaped piece of ploughland, usually in a corner against a boundary.

GRAVEL: a path of small stones in a river bed to form a ford or a tow-path.

GRIPE: a small ditch or large water-furrow.

GROUNDCLING: the ground-plates of a building.

HALING-WAY: a tow-path.

HARD: part of a fen which is not subject to any but severe floods, or, in a river bed, the same meaning as gravel.

HAVEDEY or HAVEDEN: an access-way to a field or meadow.

HEADLAND: where the ploughs working on the adjacent furlong turn; normally the first selion of a furlong and, unlike a forend, usually cropped.

HEDGEbote: the right to lop sufficient timber for fencing.

HIDE: a fiscal unit of land, normally 120 acres, although there is early evidence which suggests 100 acre hide in Cottenham, 100 acre hide in Landbeach, and again a hide of 110 acres in Landbeach.
HITHE: an unloading place for barges on a canal or river.

HOLT (osier): a small enclosure for growing willows for wicker-work.

INTERCOMMUNING: where two or more parishes have the right to pasture their beasts in the same area.

INQUISITION: the legal method of determining fact by questions to a sworn jury.

LAMMAS LAND: Land open to common as pasture from Lammas, 1st August, otherwise the Gules of August.

LEY: pasture, and frequently in this area used for permanent pasture; sometimes arable laid down to pasture, but most commonly pasture that had been temporarily ploughed and then laid down again.

LODE: a ditch navigable to the narrow barges of the fenland.

MARE, MERE and MORE: wet ground of three degrees of wetness. The wettest is mere, a stagnant pool; mare is marsh, and more is rough pasture, usually wet, = Moor.

MASLIN or MESSELINE: the winter-sown mixed corn, wheat and rye.

MERE: (2) a boundary, as in mere-stone or mereway.

MOLE FURROW: a narrow deep furrow for drainage purposes.

PIECE: several meanings in this area:
1. an enclosure of a furlong from the open fields.
2. the selions forming a unit of work in sowing.
3. the normal vague use as "a piece of land".

PIGHTEL: an odd piece of land. In Landbeach the selions which had been converted into crofts centuries before are called pightels in the Enclosure Award.

QUARENTELA or QUARENTINA: the Latin for "furlong" in the medieval and sixteenth century documents.

RENTAL: a list of rents owed, often giving topographical details of some of the properties.

RODDON: a raised silty bed of a vanished watercourse, left above the level of the surrounding land by the double process of silting and peat shrinkage.

SELION: the normal small unit of ploughland. In this area usually averaging just over half an acre. Also known locally as a 'high-back', "ridge" or a "stetch". In the Norman French charters "une rige de terre".
SEVERAL; HALF-SEVERAL: enclosed land in private hands from which common-rights are excluded. Called half-several where the above only applies for half the year as in meadow.

SEWER: a drainage ditch or river that needs scouring from time to time.

SLUICE or SASSE: a door across a river for stopping or releasing the flow. Usually combined with a primitive lock in earlier times. The sasse was a simple flash-lock. The small sluice in a drainage ditch was usually called a staunch.

SOWING SCHEDULE: the detailed account of the work of sowing, giving place, kind and amount of all the seed sown on the demesne by the reeve. The summary of this is entered in the Reeve's Account under the return of grain, "unde in semine ..." The originals are very rare.

STETCH or STITCH: alternative for selion, but not very common in this area.

STRIP: a unit of ploughland in one tenure, within a continuous boundary. Usually one or more selions, rarely a fraction. The term is not used by contemporaries in this area.

STULP: noun or verb; stake or boundary marker, or as a verb to place these in position.

SUMMER GROUNDS: fen, flooded in winter, but dry enough for pasture in summer.

TENACRESLAND: the standard bondage holding in medieval Landbeach.

TENEMENT: a house and the land with it.

TERRIER: the written description of the lands of a tenure, also called a SURVEY.

THACK: thatching, thatching material, or rough grass feed.

TOFT: the enclosure in which a house stands.

TURBARY: turf-cutting; the customary area for cutting turf; or the right to cut it.

WASTE: open land not ploughed, enclosed nor kept for meadow, but usually of great economic importance. Legally the lords' property (at least from the Statute of Merton) but usually employed for common grazing unless "approved" (enclosed in part) by the lord, who was then, in law, bound to leave sufficient for the villagers.
SELECT BIBLIOGRAPHY

MANUSCRIPT SOURCES:

A. National Collections:

1. The Public Record Office:

Inquisitiones Post Mortem:

C 133/25 8 Ed. I, Christiana de Furnival and William de Eylesford.

C 133/26 10 Ed. I, Peter de Sabandia.
C 133/74 24 Ed. I, Maud Brom.
C 134/58 11 Ed. II, Robert de Bron.
C 134/103 20 Ed. II, Michael de Cheney.
C 135/49 10 Ed. III, Simon de Brune.
C 135/50 11 Ed. III, John Fraunceys.
C 135/51 11 Ed. III, Roger de Huntingdon.
C 135/66 16 Ed. III, Robert de Lisle.
C 135/82 20 Ed. III, Alan la Zouch.
C 135/84 21 Ed. III, John de Burdeleys.
C 135/131 29 Ed. III, John de Lisle.
C 135/149 34 Ed. III, John Pollard.
C 135/156 35 Ed. III, Elizabeth Burdeleys.
C 135/203 42 Ed. III, Hugo la Zouch.

Ministers' Accounts: General series:

S06/766/12, 13, and 14. Keeper of Denney 18-20 Ed. II and 1 Ed. III.

Star Chamber Proceedings:

St. Ch. 2/27/49, Forcible entry at Cottenham and assault at Waterbeach.

St. Ch. 3/6/17, Kirby's Complaint, 1549.
St. Ch. 2/24/250, Reply to above. (Filed under Hen. VIII but clearly belonging to 1549.)
St. Ch. 3/156/22, William Roffe vs. William and John Hasell.
St. Ch. 4/3/17, Sir Francis Hinde; enclosure in Cottenham Fen.
Court of Requests:
Req. 2/21/17, Pasture in Cottenham Fen.
Req. 2/112/49, House in Cottenham.
Req. 2/29/45, Disputed will in Waterbeach.
Req. 2/55/3, Case of idiocy in Waterbeach.
Req. 2/153/44, Robert Hasell, Town Clerk of Milton.

Early Chancery Proceedings:
Cl/1333/31, Betts vs. Kirby.
Cl/1356/17, Hall vs. Kirby.
Cl/1356/18, Kirby's Reply to Hall.
Cl/1356/19, Kirby's Reply to Betts.

Chancery Proceedings:
C3/88/17, Hall vs. Kirby.
C3/105/67, Award of Arbitrators vs. Kirby.
C3/106/9, Fresh Arbitration, Kirby "very aged, sick and impotent."
C3/107/46, Kirby vs. Hall.
C3/413/96, Waterbeach Rectory and Parcel of Manor.
C3/466/49, Waterbeach, Copyhold of Denney.

Exchequer, Special Commissions and Depositions:

Commissions:
E178/488, 44 Eliz. Survey of the Manor of Cottenham.

Depositions:
E134, 1655-56, Hil. 20. Manors of Over, Willingham and Waterbeach and marsh or fen lands heretofore common but now enclosed. Agistment, etc. Survey.
E134, 16 Chas. II, Mich 22. Re levying of £180 on the goods of Dr. Manby, parson of Cottenham.
State Papers:

SP 14/57/43, 1610, Depositions in the Enquiry into the Conduct of John Yaxley, Steward at Waterbeach.
SP 14/99/52, 1618, View of Sewers.
SP 14/18/102, 1620, Petition of Towns bordering the Ouse.
SP 16/230, 1632, Resistance to Drainers.

Parliamentary Surveys:

E 317 No. 2, Denney.

2. The British Museum:

Ms. Harleian 5011, Documents relating to the Fens.
Ms. Lansdowne 1, Inquest of Enclosures in Cambridgeshire in 1517.
Add. Ms. 33466, Book of Sewers.
Add. Ch. 33105, 33107, 33111, 33112, 33086, Charters concerned with Fen Drainage.
Add. Ch. 7060, Grant of Chantry Lands in Cottenham.
Cole Mss., Add. Ms. 5802, 5807, 5808, 5809, 5823, 5837, 5838, 5847, and 5849; Collections and Topographical Information.
Map Room, Surveyors' Preliminary Drawings for the Ordnance Survey, 1811.

B. The Universities of Oxford and Cambridge:

1. The Bodleian Library, Oxford.

Ms. Top. eccles, d. 6, Thurketils Manor at Cottenham; Stukeley drawing of 28/8/1731.
Ms. Top. gen. d. 14, f. 30 v., Cottenham 19 May 1731; Stukeley drawing.
Ms. Rawlinson B. 319 (11658, f. 118), Extracts from the Court Rolls of the Manor of Landbeach from 27 Hen. III to 1598.
Ms. Gough Cambs. 69 (17819 ff. 5, 1, and 87), The Alington Rental of 1542, and Documents concerning High and Low Elmham in 1553, and 1663.
2. The University Library, Cambridge:

The Crowland Abbey Documents in the Muniments of Queens' College are now lodged in the University Library. Miss F.M. Page gives a detailed description of these in her *Estates of Crowland Abbey* (Cambridge, 1934), p. 3. In addition there is a drawer unnoticed by her, which contains Collectors' Accounts that cover most of the largest gap in her series, and a very detailed Reeve's Account for Oakington.

The Ely Diocesan Registry (now also in the University Library):

Liber R., another copy of the Ely Old Coucher Book.
A/6, a volume of Transcripts.
A/8, documents relating to Drainage.
H/1, Glebe Terriers.

The Local Collection of the University Library:

Cottenham: Add. 6032, 6033, 6034, Enclosure Act, Minutes, Accounts and Claims.
  Doc. 630, Enclosure Papers.
  Doc. 1097, Manorial Documents, 1557.
  Doc. 479 and 471, Compotus 1516-18, and 1527-8.
  Doc. 1382, Sale of Lands, 1605.

Landbeach: Doc. 642, Enclosure Papers.
  Doc. 1577, Claim to Manor, 1637.
  Maps ff. 53(1). 94. 22-3, Enclosure Award Map photostat.

Waterbeach: Doc. 1605-23, Manor Rolls (Copies) 1665-1830.
  Views aa 53.91.4/52, N.E. View of Denney Abbey.
  S. B. & N. Buck, 1730.
  Ms. Plans 16/a, Plan of Waterbeach Fen 18--.
  Ms. Plans 318, Plan of Waterbeach Level.
  Maps 53.82.4, Map of Denney Lodge Farm, 1829.

Baker Mss.: Documents relating to Cambridgeshire.

3. Cambridge University Archives:

Probate Inventories from the Episcopal Consistory Court of Ely and the Archdeaconry Court of Ely, from 1660, in year bundles for the whole county. Ms. index; printed index in preparation.

Books of Sewers: L77-L81.
C. Cambridge Colleges:

1. Corpus Christi College Cambridge:

The College Archives, Drawer XXXV:

Nos. 1-120, Charters beginning in mid-twelfth century.

121-124, Court Rolls, Estreats and Memoranda. These include material from the Manor of Brays as well as the Manor of Chamberlains, and run from 1327 to 1679 with gaps.

145, Extent of the Lands of Agnes de Bray, 1316.

146, a. The Lands of Alice Bere, 1356.
    b. Custumal of Walter Chamberlain.
    c. Bestial.
    d. Farm Roll of Thomas Chamberlain, Knight.

148, List of Customary Tenants, fourteenth century.

147, 149, 150-160, Rentals, fifteenth century.


163, Field Book, fifteenth century (Simon Green's of 1477?)

164, Field Book.

165, Rental, 1496.

166, Demesne Survey, fifteenth century.

170, Field Book, 1549; in Matthew Parker's hand with his marginal notes.

171, Rental, 1558.

172, Collection of Papers relating tenants' holdings.

173, Part of Survey, endorsed with list of tenements new-built on the lord's waste.

174, Matthew Parker's Tabular Terrier, signed and dated, 1549.

175, Survey, temp. D. Copcott (1587-90).

176, Statement of the Four Sheepwalks, and counsel's opinion on them.

177, Terrier, n.d., fifteenth century?

179, Terrier of Arable and Pasture in Lordship Farm, 1786.

180, Miscellaneous Documents for Claims under the Enclosure Act.

181, Bailiffs' Accounts, 19, 20 and 30 Ed. III.

182 and 183, Reeves' Accounts, 21-23 Ed. III, and 10 Rich. II.

184, Receipts of Farm Rents, 33 Hen. VI.

185, Memorandum of expenses and payments at Beche, 7 Ed. IV.

187 and 188, Bailiffs' Accounts, 9-13, 16-18 and 22-23 Ed. IV, and 1 & 2 Hen. VII.

189-191, Bailiffs' Accounts, Richard III to Henry VIII.

192, Transcripts of early title deeds.

194, Papers in the Kirby Case.

195, Lease to John Gotobed of Moorleys, 4 Eliz.

196, Lease of Rose Close, 1588.
197. File of Copies of Court Rolls, 1616-1710.
198. Counterpart Lease of Cottage.
199. Copy of Lease of houses, outbuildings and lands, 1631.
201. Orders of Petty Sessions for the admission of eight poor people to cottages in Landbeach, 1666.
205. Papers of the case, College versus Kypps.

D. Cambridgeshire County Record Office:

R59/31/40/1, An Exact Copy of a Plan of the Fens as it was taken Anno 1604 by William Hayward, Carefully copied from the Original by Mr. Taylor Smyth, Anno. Dom. 1727.

Cottenham:

Ll/198, Terrier of Chantry Lands, 1549-50.
R/59/14/9, 10, & 11, Crowlands Minute Book 1826-28, with Terriers and Quit Rental.
R 60/2/1, Common, n.d..
R 51/2/22, Pasture, 1797, 1803.
306Tl,2,3,5, nine lands arable adjoining Cottenham-Westwick Holme Brook, 1630.
152/P9, Draft Enclosure Map, 1842.
124/P42, Pre-1842 Map of Parish.
124/P43, Pre-1842 Map of Smithy Fen.
Cot C 1-9, R 50/9, Rectory Manor Rolls, 1428-1510.
Cot C 16.a., Extracts 1559-1617.
Cot C 17, Rentals, 1560-69.
Cot C 35.1.2, Terrier of Parsonage, 1638.
Cot C 35.3, Closes in Smithy Fen, 1671.
Cot C 39.1, Stint etc. of Common, 1596.
R 61/5/1, Map of Pratt Estate in Cottenham, 1802.
Cot 28.3, Cottage.
Cot 0/27/29, Six acres to the poor.
R 60/22/5, Freehold Property in North Fen. 1713.
Q/RD66, Original Enclosure Award and Map, 1847.
The Francis Papers (uncatalogued), containing:
Court Rolls for the Manor of Sames, 1554-8, 1580-1624, and 1627-36.
Court Rolls for the manors of Sames, Lyles and Crowlands held jointly 1638-41.
Court Rolls, Sames, 1643-1668 and 1717-1727.
Court Rolls, Crowlands, 1509-27 with gaps.
Court Rolls, Lyles, 1601-1695 with gaps.
Minute Book of Crowlands, Lyles and Sames, 1625-42.
Contemporary copy of Agreement on Turf-cutting, 1344.
Agreement of 1596 (copy dated 1615).
Surrenders and Admissions.

Landbeach:
R51/17/54, Churchwardens' Accounts, Vestry, Commoners' Meetings, 1741-1805.
R51/17/65.a,b, and c, Lawsuits in Chancery, 1717-70.
R55/31/3/27, Lands, 1570.
R55/31/5/5d, Lands, 1620-21.
R56/5/81, Rectory, 1797.
P24/28/1, Pontage Accounts, 1712-31.
Q/Rdz7, pp. 26-83, Q/Rdc18, Original Enclosure Award and Map.

Waterbeach:
G54/13, Fen Lands, 1668.
L75/46, Charter to Denney Abbey, 1415.
R55/26/3, Parsonage with Appurtenances.
R55/31/2/2, Lands, etc., 1548.
Q/RD28, Enclosure Award (pp. 389-470), 1818.
Q/RDc31, Original Award Map.

E. Parish Chests:

Cottenham:
Deposited in the County Record Office except for:-
Registers.
Book of general information from the eighteenth and nineteenth centuries, kept in the Rectory.

Waterbeach:

Rich collection of which the following proved especially useful:
Court Rolls of Waterbeach cum Denney; this is in fact a book of extracts covering the period 1347-1631 in two series with gaps.
Bundle of Papers relating to Tithe.
Bundle of Papers relating to the Action between Masters and Standley.
Charity documents.
Leases and Terriers of the Parsonage.
Landbeach:
1. Collectanea de Landbeach, compiled by Robert Masters.
2. Field Book, 1549.
3. Landbeach Fen.
5. Tithe Book.
7. Churchwardens' Book, 1806-79, with Church Rates from 1866.
10. Registers from 1538, and remarkably complete. The second and fifth registers contain much other material besides registration.

F. Private Collections:

Mr. Francis Garrett of Cambridge; a collection of documents and copies relating to the history of Cottenham.

Mrs. Leslie Norman of Cottenham; the Notebook of Jacob Sanderson in which he wrote his memories in 1905. These stretched back before the Parliamentary Enclosure of 1847.

A scholar's Collectanea of Cottenham, in part by a correspondent of Rev. William Cole the antiquary.

Mr. Mervyn Haird of Cottenham; a collection of Cottenham Parish documents which includes:

The Last Two Fen Reeves' Books.
Terriers of Charity Lands in adjacent Parishes.
Minute Book of Meetings of Town Officers in mid-nineteenth century.
Pre-Enclosure Map of the Holme.

Mr. Haird is also Custodian of the Smith Memorial Collection of photographs of old Cottenham.

G. The Library of the Gentlemen's Society, Spalding, Lincolnshire:
The Wrest Park Chartulary.
PRINTED SOURCES: Place of Publication London unless otherwise specified.


Bendlowes, W. Les Reports de G.B., des divers pleadings et cases en le Court del Common-banc, &c. 1689.


Denson, J. A Peasant's Voice to Landowners. Cambridge, 1830.

Dugdale, Sir W. A History of Imbanking and Draining of Divers Pens and Marshes Both in Foreign Parts and in this Kingdom. 1662.


Goodwin, C.W. The Anglo-Saxon Life of St. Guthlac. 1848.


L'Estrange, R. A Sad Relation of a General Fire at Cottenham, Four Miles Distant from Cambridge. 1676.


Masters, R. The History of the College of Corpus Christi and the Blessed Virgin Mary, Commonly Called Bene't, in the University of Cambridge. Cambridge, 1753.
Masters, R. A Short Account of the Parish of Waterbeach in the County of Cambridge and the Diocese of Ely, by a Late Vicar. Cambridge, 1795.


Rotuli Hundredorum. Records Commission. 1812 and 1818.


Stukeley, W. Itinerarium Curiosum. 1776.

Vancouver, C. A General View of Agriculture in the County of Cambridgeshire. 1794.

SECONDARY WORKS:

Allison, K.J. 'Flock Management in the Sixteenth and Seventeenth Centuries'. EconHR. 2nd ser., xi. 1958.

Allison, K.J. 'The Sheep-Corn Husbandry of Norfolk in the Sixteenth and Seventeenth Centuries'. AgrHR, v. 1957.


Beckwith, I. 'The Re-Modelling of a Common Field System'. AgHR, xv. 1957.


Beresford, M.W. 'Commissioners of Enclosures'. EconHR., xvi. 1946.

Beresford, M.W. 'Ridge and Furrow in the Open Fields'. EconHR., 2nd ser., i. 1948.

Beresford, M.W. 'The Poll Tax and Census of Sheep, 1549'. AgrHR., i. 1953.


Bishop, T.A.M. 'Assarting and the Growth of the Open Fields'. EconHR., vi. 1935.


Bowen, H.C. Ancient Fields. British Association for the Advancement of Science. 1962.


Cam, H.M. Liberties and Communities. Cambridge, 1944.

Cam, H.M. The Hundred and the Hundred Rolls. Cambridge, 1930.


Dodwell, B. 'Holdings and Inheritance in Medieval East Anglia'. EconHR, 2nd ser. xx. 1967.


Evelyn-White, Rev. C.H. 'A Book of Church Accounts relating to certain "Balks" in the Common Fields of Rampton, Cambs.' TCHAS, i. 1904.

Fowler, G. 'Fenland Waterways Past and Present'. Pt. i. PCAS xxxiii. 1933. Pt. ii. PCAS xxxiv. 1934.


Godwin, H. 'Post-Glacial Changes of Relative Land and Sea-levels in the English Fenland'. Philosophical Transactions of the Royal Society, 1940.


Gray, H.L. English Field Systems. 1915.

Green, C. 'East Anglian Coast-line Levels since Roman Times'. Antiquity, xxxiii. 1961.


Hills, R.L. 'Drainage by Windmill in the Waterbeach Level'. PCAS, lvi-lvii. 1963-64.

Hills, R.L. Machines, Mills and Uncountable Costly Necessities.


Homans, G.C. 'Partible Inheritance of Villagers' Holdings'. EconHR, viii. 1938.


Hoskins, W.G. The Midland Peasant. 1957.


Hoskins, W.G. 'Harvest Fluctuations and English Economic History, 1480-1619'. AgHR, xii. 1964.


Kerridge, E. 'Ridge and Furrow in Agrarian History'. EconHR, 2nd ser., iv. 1951.


Leadam, I.S. 'The Inquisition of 1517'. TRHS, new ser., vi-viii. 1892-1894.


Lysons, D. and S. Magna Britannia. 1808.
Maitland, F.W. *Domesday Book and Beyond*. Cambridge, 1897.


Masters, R. *The History of the College of Corpus Christi and the Blessed Virgin Mary, commonly called Bene't in the University of Cambridge*. 1753.


Muskett, J.J. and Evelyn-White, the Rev. C.H. *Lay Subsidy Rolls for the Year 1327*.


Pocock, B.A. 'The First Fields in an Oxfordshire Parish'. *AgHR*, xvi. 1968.


Postan, M.H. 'The Fifteenth Century'. *EconHR*, ix. 1939.


Postan, M.M. *The Famulus: the Estate Labourer in the Twelfth and Thirteenth Centuries*. Supplement no. 2 to EconHR.


Royal Commission on Historical Monuments. *An Inventory of Historical Monuments in the County of Cambridge, Volume One, West Cambridgeshire*. 1968.


Spufford, Margaret. 'Longstanton'. Unpublished essay. 1959. Cambridgeshire County Record Office.

Spufford, Margaret. 'The Dissenting Churches in Cambridgeshire From 1660 to 1700'. PCAS. lxi. 1968.


Tawney, R.H. The Agrarian Problem in the Sixteenth Century. 1912.


Thirsk, Joan. English Peasant Farming. 1957.


Thirsk, Joan. Fenland Farming in the Sixteenth Century. Department of English Local History, University of Leicester, Occasional Papers, iii. 1953.


Titow, J.Z. 'Some Differences Between Manors and Their Effects on the Condition of the Peasant in the Thirteenth Century'. AgrHR, x. 1962.

