A study of the settlements to the north of the vale of Pickering

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Submitted for the degree of Master of Letters of the University of Durham

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Abstract

The north of the Vale of Pickering divides into two obvious regions. In the west, the Vale floor is undulating and there is no clear break at the beginning of the higher land, while in the east the Vale floor is flat and ends abruptly with a marked rise to the dip slope of the Tabular Hills. In cultural landscape, these two also differ. The west has small fields, narrow lanes, well wooded hedgerows and scattered villages and townships of dispersed farms, while the east, has larger and more uniform fields, fewer and lower hedges, more ditches, wider and straighter lanes and "street villages" at the junction of the Vale and the higher land.

Physically the eastern and western divisions differ; the west is the dissected valley of the proto-Rye cut into the Kimmeridge clay floor which was flooded for a short time during and after the Pleistocene glaciation. The east was the estuary of the proto-Rye and Hertford, covered by the ice sheet and a lake for a much longer period of time. Historically, the west was divided into compact townships, was more affected by the establishment of monastic granges and was enclosed earlier. The east was divided into elongated townships, the number of these decreased during the Middle ages; the area was poorly drained until collective schemes were carried out, and most of it was enclosed by Parliamentary enclosure.

The farming figures for the 1801 crop returns, the Tithe Awards, and, from 1867, the ten yearly June 4th Agricultural Returns show the variety and change in the crops grown with changing economic conditions. The real physical divisions into Ryedale, Marishes, Carrs, Ings and backslope of the Tabular Hills do not show clearly when the agriculture is studied on a township basis as a variety of conditions is included within the townships of the east but distinction can be made between the east and west of the Vale.

A STUDY OF THE SETTLEMENTS TO THE NORTH OF THE VALE OF PICKERING

Volume One: Text

by

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Volume Two

Maps and Diagrams

Introduction

The Vale of Pickering, a lowland area below 200 feet O.D., lies to the west of Scarborough and extends some 40 miles from east to west, and about 4 to 8 miles from north to south. The area, when studied on any small scale map is well defined, as its ends are closed in the west by the Howardian Hills, and in the east by the morainic hills of the coast. The North Yorkshire Moors and the Tabular Hills to the north rise to 1,000 feet O.D., while in the south, the scarp slope of the Wolds rises rapidly to 500 feet O.D.

This lowland area does not show such a unity as the small scale map suggests. In fact the use of the name "Vale of Pickering" is comparatively recent in origin. William Marshall who wrote the "Rural Economy of Yorkshire" in 1788 added a note to the 1796 revised edition in which he claims the responsibility for naming it:

> "Nevertheless, this natural unity, which, as a District, is not to be equalled in the Island, for entireness, regularity, and distinctiveness of outline, has heretofore been nameless! The principal part of it lies within the Hundreds or Weapentakes, of Pickering Lithe and Rydall; both of which extend over and include large portions of the Eastern Morelands, - a mountainous barren Country, - while a small part of it (south of the Derwent) lies in the Eastern Division of the County. In the Treatise on Planting, etc. published some years ago, I named it the Vale of the Derwent; but to this there was an objection; as the Derwent and the Rye (a branch of the Derwent) are common to the District; beside, it has been the practice of our ancestors to name similar passages of country, from towns which belong to them; as the Vale of AYLESBURY, the Vale of EVESHAM, the Vale of TAUNTON, etc. And waving

> the privileges of antiquity and royalty, which attach themselves to Pickering; it claims, by its central situation, and the extensiveness of its own parochial rights to the lands of the Vale, the distinction I have here assigned it."

The use of the name "Vale of Pickering" has gained acceptance throughout the country, but locally, itis merely accepted academically. The area is more usually referred to by the local inhabitants as Ryedale, for the western end and Marishes for the eastern, or Ryedale and Vale of Pickering are sometimes used. This is because there is a marked difference between the two ends of the Vale.

A journey along the northern edge of the lowland reveals this. In the east, the land slopes gently from the Moors with in some cases an abrupt break of slope at the junction with the almost level plain. To the west the land slopes down from the Moor gradually, often with no abrupt break, to an undulating lowland.

The whole "cultural landscape" *[1] differs as well as the physical scene. The east has an open aspect, the hedges are trimmed and there is little hedgerow timber. The field boundaries are straight and often enclose long narrow fields. In places dikes and ditches surround the fields. The lanes leading from the main road are straight and there is a grass

*[1] Bryan W.P. Man's Adaptation to Nature (University of London Press 1937) 17

verge on either side of the hard topped surface. The villages lie along the main road at the spring line. The west however has a "bocage" appearance, the fields are smaller and vary in shape though there are many small square enclosures. The lanes are narrower and more winding and have little verge; often the hedges on banks are the limit of the hard surface. The villages look similar to those in the east with a high proportion of limestone houses with pantile roofs, but in the west the regular pattern of spring line villages, at fairly evenly spaced intervals, gives place to a more scattered siting, some among the low hills, others higher on the Tubular Hills and some still on the spring line.

The first section of this work is an attempt to explain the physical evolution of the northern part of the Vale of Pickering and the different human influences that have interacted with the physical environment in this area. In the second section, using statistical and recorded agricultural information, an attempt is made to trace any regional sub-divisions in the farming.

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Chapter One

Physical Setting

The north side of the Vale of Pickering is taken for this work as the junction zone of the Moors with the floor of the Vale and extending southward to the Derwent and the Rye and northward to the edge of the Corallian escarpment. The east has a less complicated appearance with a clearly defined junction of the level valley floor with the slope to the moors rising to 600 or 800 feet O.D.; while in the west the junction is not so clearly marked as the undulations of the lowland appear to continue the lower dip slope and the escarpment rises to about 500 feet O.D. An explanation of the general formation of the whole area is needed before the minor local differences can be explained.

The Vale lies at the junction of the late Jurassic and Cretaceous rocks. This junction has here turned from the roughly southwest-northeast direction that it follows through most of Britain to run in a line from west to east. All the beds are dipping gently southward and eastward at an inclination of two degrees. *1 There is, however, one large anticline which runs from Robin Hood's Bay inland through Glaisdale Moor, and also a synclinal fold in the south where the Vale now lies. A minor anticline runs in an east to west

*1 Versey H.C. On the Structure of Howardian Hills. J. Yorkshire Geol. Soc. 21

direction from Ramdale Scar at Scarborough through Seamer Moor and north of Hutton Bushel and Wykeham Moor to High Dalby Moor. *1

In spite of these anticlinal developments the general dip of the beds is southwards and the more resistant have developed scarp faces to the north. The whole sequence of beds from late Jurassic to late Cretaceous is present complete, except from Allerston eastwards. Since each bed has its own properties and consequent influence on the land surface, it is necessary to consider each in turn. (Figure 2).

The oldest bed, exposed in the area where the valleys have cut down through the general dip, is the Estuarine Series of the late Jurassic. These are sandy and shaly and sometimes have very thin coals of not more than a tenth of an inch which increase the shaliness. Above this variable bed, with its numerous layers each denoting by its lithology the depth of water in which it was laid down, is a narrow bed of Cornbrash, and then the Kellaways which are a bed of resistant sandstone.

The first bed that modifies the surface relief is the Oxford clay which is here a grey shaley rock, some hundred feet thick, known in much of the area as Hackness rock. This softer crumbling layer has weathered into a depression which can be followed along the strike from east to west. This

*1 Fox-Strangeways C.E. "The Geology of the Oolitic and Cretaceous rock of South of Scarborough" Memoir of the Geological Survey (1904) 91.

hollow marks the edge of the area under consideration and the line of villages situated in it have parish boundaries adjoining those of the Vale.

The Oxford clay gives place to Lower Calcareous Grit which varies in its lime content but is a compact resistant bed. Over this are the Passage beds which vary within the area; where there is an exposure at the old quarries in Allerston and on to the Castle headland in Scarborough they are soft and sandy with large rounded boulders embedded in them, while in other parts, particularly where they are left as residuals on the top of the Moor, they are more calcareous. These residuals have developed a more fertile soil, and can be traced easily where farmsteads have been retained on the Forestry Commission lands. To the east of the area, north of Ayton and Hutton Bushel the beds are also more calcareous. Then comes the Lower Limestone which is oolitic in the east, while in the west, it becomes siliceous north of Pockley and Helmsley. North east of Thornton Dale these beds are worked and are sent to Skinningrove Iron works to be used as a flux.

Above these are the Middle Calcareous Grit which are similar to the Lower Calcareous Grit but have a more distinct parting, the lower part being soft sandstone and the upper, impure limestone and calcareous beds. *1 Many of the houses

*1 Fox-Strangeways C.E. "Geology of Oolitic and Liassic Rocks to the North West of Malton" Memoirs of Geological Survey (H.M.S.O 1881) 16

in Pickering are built of this and there is an old quarry from which it was obtained near the castle. Above these is the Upper Limestone, a bed of some fifty feet of limestone, and over this is the Upper Calcareous Grit with its rougher texture. Then comes the Kimmeridge clay, a black clay more than six hundred feet thick, which occurs above the Upper Calcareous Grit to the west of Pickering, and because of faulting, against the Lower Calcareous Grit between Pickering and Brompton.

All these beds, which are the ones "frequently grouped on small scale geological maps as 'oolitic'", *1, have a general dip towards the south. The general description of their characteristics show how the greater part of the series are sandstone and shales. The surface of the dip slope of the Tabular Hills and Moors varies from west to east. In the west the Upper Calcareous Grits and the Lower Limestones cover most of the surface. The intervening beds are narrower and this with the siliceous nature of the Lower Limestone gives a sandstone grit surface broken by narrow bands of shale and limestone. The general dip slope is broken by slight ridges where the more resistant beds are, but in the narrow valleys that cut through the escarpment the resistant beds show as cliffs. For example in the valley of the Dove, north of Keldholme, there are spectacular developments of sheer sandstone cliffs

*1 Wooldridge S.W. Land of Britain Part 51 (North Riding) (London 1945) 359

combined with more gentle grassy slopes growing hawthorne which are the shaley outcrops. In contrast, the eastern dip slope is mainly Lower Calcareous Grit which is a more compact bed and weathers more uniformly and so the dip slope and the valleys are more gentle in aspect. This variation of surface exposure is due to movement after their formation and to weather upon them.

The southerly dip is due not only to the general uplift, but also to the development of the Cleveland anticline and the minor one across Seamer Moor to High Dalby Moor. The lowland of the Vale of Pickering is not only the Kimmeridge clay vale that exists elsewhere in Britain but is a synclinal trough between the Cleveland anticline and the anticline which crosses the chalk, the Market Weighton anticline. On either side of the syncline a tensional collapse took place with faulting on either side. The fault to the north is a continuation of the east to west fault which starts in the Magnesian Limestone, crosses the Vale of York and separates near Coxwold, one fault continuing through Kilburn, Ampleforth and Oswaldkirk and thence beneath the alluvium. *1 The other starts near Rievaulx and then continues east roughly parallel to the other. On the Geological map (Figure 2) this fault seems to be

*1 Versey H.C. On the Structure of Howardian Hills J. Yorkshire Geological Society 21 (1931) 198

discontinuous, for just east of Beadlam Grange where it is joined by a north-south fault it disappears at the Lower Limestone beds. Beyond these it may however, be masked by alluvium and Boulder clay. It reappears on the surface between Pickering and Brompton, bringing the Kimmeridge clay against the Lower Calcareous Grit. On the south side of the Vale a line of broken chalk marks the line of faulting. This is not at the edge of the scarp, but some quarter of a mile south from it, and it continues to the east under the mantle of Boulder clay.

Associated with these main faults which made the Vale of Pickering a more marked feature than the other Kimmeridge clay vales, are other faults. The Tabular Hills in the east are free from faulting suggesting that the tensional strain of the east-west movement was less marked and therefore no compensating movements shattered the Jurassic beds. Starting from the west, there is a north-south fault from Nawton Lodge to near Beadlam Grange where it joins the east-west fault as noted above. There is another north-south fault near Keldholme, while a northwest-southeast one disappears under the alluvium of the river Seven north of Sinnington. A short north-south one occurs to the west of Pickering, and at Roxby a short northeast-southwest one branches from the main east-west fault. From Kingthorpe Dale, a west-northwest to eastsoutheast fault

branches from the main fault between Thornton Dale and Wilton. These subsidiary faults are of academic interest as unlike the main east-west fault they have not affected the drainage, or noticeably altered the scenery. The underground flow of water follows the dip southward and the water comes to the surface at the edge of the Kimmeridge clay. In the east where the fault has brought the Kimmeridge clay against the Lower Calcareous Grits an even greater resevoir of water collects and provides the springs for the line of villages in the east.

The Junction of the exposed back slope *1 and the Vale is not due east to west. From Helmsley to Wombleton is one arcuate curve with another from Wombleton to Pickering, only from Pickering to Brompton where the fault is more marked is the line of junction straight. From here onwards is another embayment.

The surface of these strata was already eroded by river action and subaerial denudation before the Pleistocene period. If Linton's supposition is correct, the chalk cover was previously

*1 Dury G. The British Isles (Heineman 1961) 16

more extensive in this area of Yorkshire as elsewhere. *1 On this assumption, some 1,500 feet of chalk had been eroded away before the coming of the ice sheets. On the presumed chalk cover which dipped gently to the present site of the North Sea, the eastward drainage began. This would make the Esk, Syme, Proto-Derwent and Proto-Hertford consequent streams following the dip of the initial surface.

In this area, Linton's hypothesis is not necessary to explain the drainage. The Proto-Hertford, with its main tributary the Rye, flowed out to the sea following the synclinal trough near Filey. The minor fold which Fox-Strangeways noted passing through Seamer Moor, Wykeham Moor and on to High Dalby Moor provided a syncline to the north of it which was followed by the Proto-Derwent and its main tributary Troutsdale Beck, which appears to flow against the general slope of the strata.

Whatever caused the drainage pattern, it seems certain that the pattern was established before the coming of the ice, and probably by Tertiary times. (Figure 7). Sheppard surmises that an estuary must have occupied much of the eastern Vale if land and sea levels were in the present relationship. *2

*1 Linton D.L. Problems of Scottish Scenery Scottish Geographical Magazine 67(1951) 69
*2 Sheppard J.A. The draining of Marshlands of East Yorkshire (Unpublished Ph.D London 1956) 335

The tributaries to the Rye-Hertford had already dissected the back slope into well marked blocks. The east is dominated by the Moor Cock block from which the streams and the present dry valleys radiate to east, west and south. The headwaters of Thornton beck and Levisham beck are in Levisham Moor. To the west of the spillway of Newtondale which was enlarged later, the block has been dissected by parallel streams flowing south-southeast looking as if the tributary valleys to the general east-west started in the dip of the Glaisdale and Westerdale anticline. This drainage again emphasises the difference between the eastern and western parts of the Vale. The rivers in the west have dissected the land into separate blocks as distinct from the one block of higher elevation which dominates the east. In the Vale itself, the east was an estuary while the westwas a dissected valley with its tributary valleys.

Further modifications to the scenery are the result of glaciation. During the Ice Age, ice approached the area from the north-east and consisted of ice from Scotland which in moving south had been joined by Scandanavian ice moving west and Lake District Ice which moved east along the Tees valley. It was however thinning out as it proceeded southwards along the coast. Charlesworth gives the height at Whitby as 800 feet, 500 feet at Speeton and only 200-270 feet south of Flamborough

Head *1 Ice also approached the Vale in the west, through the Gilling gap, from the glacier in the Vale of York.

According to Kendall, the authority on glaciation in the area, the ice moved inland from the east and reached as far as a line from Wykeham to Sherburn and in the western end as far as Oswaldkirk-Gilling *2 (Figure 3)

Deposits of Boulder clay do occur outside the limits defined in this way. They rarely occur above 350 feet O.D. and at Kirby Misperton and Barugh are only seven feet thick and do not appear to be under the alluvium to any extent.*3 They seem to have erratics from the surrounding beds only. A possible explanation is that they were left by a previous glaciation.

The ice that approached from the sea blocked the normal drainage. *4 The Proto-Derwent was blocked by the moraine on which Thorn Park farm is now built and Lake Hackness formed from the dammed up waters. When the water in the Lake reached over 400 feet O.D., it overflowed southward along its lowest tributary into the ice-blocked Vale of Pickering. Unable to flow out over the ice, it turned, and flowed along its edge

*1 Charlesworth J.K. The Quaternary Era (Arnold 1957) 1192
*2 Kendall P F A System of Glacial Lakes in the Cleveland Hills J. Geological Society 58 (1902) 137-149
*3 Fox-Strangeways The Geology of the Oolitic and Liassic Rocks to N and W of Malton Memoirs of Geological Survey (1884) 27
*4 Kendall P.F. and Wroot H.E. Geology of Yorkshire (Privately 1924) 492

westwards and entered the dammed up water of the Proto-Hertford and the Rye at present day Ruston. As the ice retreated, the mouth of the river came nearer the end of the overflow "Forge Valley" and ended by depositing a delta at the valley end where it entered the water of Lake Pickering over a considerable period. Water held up in the Eskdale lake spilled over through the valley of Newtondale and entered the Lake by a delta on which the present town of Pickering is built. The river had ceased to flow before Lake Pickering dried up as the deltiac material is overlain by warp.

The Vale of Pickering is covered by lacrustine deposits left by the lake, which are calcareous but are sandier in the east. There are however deposits of Boulder clay protruding through the lacrustine deposits in the west, large islands of thin Boulder clay as at Kirby Misperton and Great Barugh and a discontinuous marginal deposit as far east as Wilton with another isolated patch near Ebberston church. On the south side of the Vale there are no comparable despoits of Boulder Clay. Sands and gravels extend on the north side from near the end of the southward valley from Scarborough westward to near Wykeham and there is another projection of gravel southward from Thornton Dale.

Fox-Strangeways thought that these gravel deposits were the result of three distinct epochs but so intermingled and

and continuous that it was difficult to separate them out. *1 Firstly, there were the pre-glacial ones laid down when the Vale may have been an estuary, then the lacrustine beds which were partly glacial and then the fluvial beds left while the lake drained. On the flanks of these are certain "sands and gravels which although wholly unlike each other in their included fragments, were probably formed by the same agent at the same time." To the south of the Vale are sands 30-50 feet thick which run up above their ordinary level "as if they were collected by the wind", while on the north side between Wykeham, Hutton Bushel and Ayton, there is a terrace at 225 feet O.D., a second at 140 feet O.D., and possibly a third lower. These he thought of, as strand lines of the lake held up by the ice.

Charlesworth estimated that the water in Lake Pickering was 225 feet deep at its maximum while the lacrustine clays were laminated and were 90 feet thick and devoid of shells.

There is also the supposition put forward by Carruthers, that the ordinary explanation that boulder clay denotes an advance of the ice while the lacrustine deposits are left in open water during the periods of retreat and that isolated patches are left by ice bergs, is incorrect. *2 He thinks that

*1 Fox-Strangeways The Geology of Oolitic and Cretaceous rocks of S. of Scarborough Memoirs of Geological Survey (1904) 85
*2 Carruthers G.W. The Secret of the Glacial Drifts J Yorkshire Geological Society (27 1947-49) 43-57 130-172

one or two inches of current bedded sands are due to the melting of the base and that the laminated clays are really the deposit of dirt bands in the ice age.

> "These shear clays are not, and never were normal sediments. They are tectonic clays, produced by the shearing and distortion of englacial detritus itself the product of ice movement."

The mounds that were thought of as moraine pushed forward by the ice are really folds in the moraine due to the rucking of the ice.

> "The great flats are not in the ordinary sense water laid. They are due to the former presence of a flat topped infilling of dead ice, a composite sheet abounding in 'banded Dirts'".

The presence of gravel workings at Hutton Bushel and West Ayton and to the south of the Vale of Staxton and Ganton enable a closer look to be taken at the material and the bedding. The former, which are reputed gravels laid by the Derwent when it turned west along the edge of the ice, show typical outwash features.*1 (Figure 5). The most disturbing feature of these gravel is their ridge like appearance in places. They extend east and west of Forge Valley as would be expected if the water was running down the valley and against the ice. These gravels have their greatest extent to the west but there are intermittent gravels to the east and an extension at the mouth of the valley running south from

*1 Sparks B.W. Geomorphology (Longmans 1961) 289 and plate 30b

Scarborough. They are over 200 feet O.D. These gravels block the present dry valley of Yedmandale where from the widening and flattening of the valley end a lake must have formed. Most probably, this was the damming up of the stream that flowed southward there before the ice age. Forge valley itself shows similar flattening of a previous lake floor. Most probably, this was the damming up of the stream that flowed southward there before the spillway through from Hackness formed, as there seems evidence from the depth of the dry valley in Yedmandale to suppose that the stream in Forge Valley had already cut a similar valley, and that possibly river capture was about to take place or had taken place prior to the blocking of the seaward exit of the Proto-Derwent at Thorn Park. The gravels that block up the former course of the Proto-Derwent are marked on the geological map as similar to those deposited in the ridge on the north of the Vale of Pickering and suggest that water sorting at the Thorn Park snout of the ice sheet was considerable. Sawdon beck and Beedale beck also have valleys as deeply incised as Forge valley, and a re diverted by the ridge of gravels. If this ridge of gravels was deposited entirely by the water spilling through Forge Valley, as supposed by Kendall, this is strange, for when one stream enters another turbulence is set up and the load, if any at all is dropped, is then spread evenly, and not with the

greater amount under the more considerable stream. If the streams in Yedmandale, Beedale and Sawdondale had ceased to flow because of the intense cold freezing their springs the lower parts of their valleys would have been filled by the water as it flowed along the edge of the ice from Forge valley. This would have caused a reduction in the rate of flow and a uniform mantle of gravel could be expected not the maintenance of a ridge along the edge of the ice sheet. Even if the lower valley floors had been frozen the gravel would have spread over the ice.

A more probable theory is that these gravels are glacial material. The piedmont ice spread inland from the coast with its usual arcuate toe. There is a well marked front at Reighton, here the terminal moraine which is parallel to the coast at Speeton curves northwest through Reighton to Hunmanby, this is backed by drumlins aligned in a northeast - southwest direction. The surface features then die out, but if the same curve were continued it would cross the Wolds near Ganton (this could be substantiated by the gravels by the Peak Plantation, though these are at a height of 500 to 550 feet O.D.). The curve would then continue through Sherburn and Wykeham and end against the northeast side of the Vale. This would mean that the movement and push of ice would be from southeast to northwest and not only east to west as implied by Kendall with his terminal moraine from Sherburn to Wykeham. The gravels could

then be moraine pushed ahead of the ice snout. There are erratics in them including flint and the top surface has large boulders showing ice shattering. Forge valley, Yedmandale Beedale and Sawdondale may well have been lakes at this time dammed back by the moraine and ice. Water from them combined with some melt water could have seeped through to the west the lowest level resorting the material. This would account for the finer material being in bands. The water may have frozen or ceased to flow before the end of the period when the ice shattering of the upper boulders took place. This would make it similar to Newtondale where the stream was abandonned before the Lake dried up as there is warp over the "digital fan" of the delta. *1 The river Derwent with the extra water from lake Hackness broke through the ridge of gravel when Lake Pickering was at its height and respread the material over the valley floor.

The actual ice of the Ice Age is supposed only to have affected the eastern end of the Vale while the Moors stood out as a nunatak above the ice. Dimbleby has drawn attention to the ice polygons that can be traced in the backslope that had previously been considered as free from the effects of glaciation. *2 About a dozen systems have been located on the plateau of the Lower Calcareous Grit and all are near the

*1 Kendal P.F. A System of Glacier Lakes in the Cleveland Hills J. of Geological Society (58 1912) 471-571

*2 Dimbleby G.W. Pleistocene Ice Wedges in Northeast Yorkshire Journal of Soil Science (3 1952)

steep scarp slope. None of these features exists to the west of Newtondale. However, the investigations on Lockton Low Moor show that the material in the wedges contains boulder clay material which according to Kendall's theory should not be present there at all. This may be explained by the presence of ice in an earlier glaciation but there are erratics from the upper surface which cannot be explained in this way. As Dimbleby states,

> "Clearly much still remains to be discovered about the glaciology of this interesting region."

The boulder clay in the west of the Vale is equally difficult to explain. The ice from the Vale of York should only have extended as far as Oswaldkirk-Gilling. The western deposits might be from an older glaciation as they only contain erratics from local rocks, however they are the red brown colour which is associated with the local desposits of the Wurm glaciation. It is unlikely they can be explained away as head as they are widely scattered and extensive. It would appear that an explanation awaits further research.

After the ice had retreated from the Vale the area was filled with the water of Lake Pickering which increased in size in the immediate post-glacial period. (Figure 4) The western end seems not to have been fully covered but to have

had a number of islands breaking the surface of the lake. These if they were covered and they would have been if the water was the suggested 200 feet deep, were only covered for a comparatively short period as the boulder clay and Kimmeridge clay are not masked by alluvium. The east was a more continuous sheet of water. The rivers in the dales started to flow again, if they had ever ceased to flow. The Derwent cut through the gravels and built up a delta for itself which is about 100 feet O.D.; Yedmandale beck also had sufficient flow to cut a valley in the gravel. Beedale beck was turned westward and joined Sawdon beck which ran round the edge of the gravel. The other streams were able to flow into the lake in their previous courses. Each of them to the east spread a load of gravel and sand round the edge of the lake, but this is missing in the west. The Rye and its tributaries continued to flow eastward but the main stream was diverted southward after its confluence with the diverted Derwent-Hertford, which finds its exit southward through the Kirkham gorge, a spillway cut while the lake was at its highest, probably 225 feet. The amount of water using the spillway was so great that it cut down the course so that the river still continues to drain in that direction.

From the borings of wells and from measurements taken when Star Carr was excavated by Professor Clarke, Sheppard has shown the changes of level in the lake. *1. By 7,500 B.C., the date of the Mesolithic settlement the water was 75 feet O.D. and this decrease in volume may be accounted for by the greater down cutting at Kirkham gorge or to the Boreal climatic conditions with a relatively low rainfall and an increased vegetation which would reduce inflow. By 2,000 B.C. the Lake was confined to a long narrow lake in the east while the west with the exception of Lake Costa was free from water. This small lake continued to exist after the rest of the west had dried out as Costa beck which rises at the Corallian-Kimmeridge fault was free from silt and therefore provided water but no mud to infill the hollow. There is still the remnant of it at Keld Head today.

The area finally dried, and there are many dry valleys (Figure 7) and many streams have longer headward extensions of their valleys. In Yedmandale, the stream disappears in the valley near High Yedmandale farm, while in the east branch of this dry valley is the Kimlin

*1 Sheppard J.A. op. cit. 341-2

Hole, a circular depression below the valley floor which may be a filled in sink hole. Fox-Strangeways in Jurassic Rocks of Yorkshire states that the river Seven sinks above Sinnington and rises below the village, but there is now no evidence for this and the river meanders in a well defined channel.*1 The other dry valleys in the area show no signs of the streams sinking. Reid's theory (1887) that streams cut deep valleys when the ground was frozen and that after the retreat of the ice the water table returned to normal might be satisfactory but the rivers would appear to have done much of their erosion in pre-glacial times.*2.
Fagg's theory of receding scarps on the North Downs cannot apply here as the area is a backslope and the water table does not seem to be held up by the Oxford clay.

*1 Fox-Strangeways Jurassic Rocks of Britain (London 1892)

*2 Sparks B.W.Geomorphology (Longman 1960) 163

Dury accepts climatic change as thecause and this seems the most feasible in this area and this would account for the radial drainage from the larger block of Lower Calcareous Grit in the east. *1 The tributaries and the dry valleys of Thornton Dale beck are all from the east while the valley itself is assymetrical, the river hugging the east of the valley. These seem to owe their origin in part to solifluxion and to the thawing of part of the land with maximum insolation during the periglacial conditions. The sand and gravel marked on the geological map as projecting southward may well be "head" formed by solifluxion. The extensions of the heads of the valleys may also be due to solifluxion, but they have been reafforested or cultivated for so long so as to obliterate the more obvious means of recognition.

The back slope shows considerable uniformity and attempts at superimposed sections do not bring out any marked benches. The generalised contours (Figure 6) do show a flattening at 200 feet O.D. but this may be associated with the glacial lake and not be a wave cut platform. If there is a terrace

*1 Dury G.H. The Face of the Earth (Pelican 1959) 33

it would appear to be at about 350 feet O.D. but it is not well marked and in the region of Wilton the slope is steep and uniform until 500 feet O.D. when there is some flattening. This is disappointing as in the coastal plain there seems to be a 200 foot platform that has been masked by boulder clay and as, at that time the Vale could have been an arm of the sea, it is surprising not to find the evidence. On the south of the Vale there is some evidence to support this 200 foot platform near East Heslerton.

As a result of the interaction of all these physical forces, the scenery of the Vale of Pickering today with all its variation and beauty has been produced. In the east, the Tabular Hills rise gradually from the Vale with a well defined junction, the result of the fault bringing the Kimmeridge clay to the surface. The back slope is a solid expanse of farmland giving place to forestry with only small intervening dales with smooth rounded slopes. The Vale floor is flat as a result of its past as an estuary and then for a long period as a lake. The imperceptibility higher Vale land forms the Ings while the damp and boggy land that still persists is the Carrs. In contrast, the west of the area presents a different picture. The junction of the Tabular hills and the Vale is not so clear, Kimmeridge clay makes rounded hills on the

backslope as the Vale. The streams that have cut down into the backslope have produced valleys with a rugged grandeur. The Vale itself is broken up by gentle rounded hills of Kimmeridge and boulder clay so that it is harder to imagine the lake that previously covered the area. Certain similarities in evolution have produced diversity in such a limited area.

This variation between the east and west of the north side of the Vale of Pickering is reflected in the soils. The soils have been considerably modified by farming over the years. Originally soils were the product of the action of climate upon the rocks exposed on the surface but, with continual breaking up, fertilising, liming and draining there has been an improvement in the adaphic conditions and a lessening of the differences between soils. *1

In spite of modifications through agriculture, there is variety of a minor kind in the soils within the area. The Soil Survey has not yet surveyed the area but a sample 4,250 acres was plotted by them on the Tabular Hills to the north of Helmsley. "The main soil series identified followed fairly closely the outcrop of the various beds." *2 On this assumption the Soil Survey recognised four main groups

*1 Dumont R. Types of Rural Economy (Methuen 1957) 3

*2 Agricultural Research Council Soil Survey Research Board Report 1 (H.M.S.O. 1950) 7

all of them related to the parent material. Brown earths were found on the Upper Calcareous Grit and on some of the limestones whereas truncated podzolic soils were commonest on the Lower Calcareous Grit and over hard beds in the limestone. Colluvial soils were of limited extent as the valleys were narrow, while the fourth main group comprised soils developed on the glacial tills.

Since no soil map was available for the area, a number of transects was made following the lanes and roads from the Tabular Hills to the river Rye or Derwent. Soil in each field along both sides of the roads was examined for texture and colour. Erratics were noted and so was any gleying in the spadeful dug. (Figure 8-30).

The soils appeared to be directly connected with the underlying strata and generally there seemed little downslope movement causing mixing at the junction of different strata. The samples could be classified as loams but some had a higher proportion of clay while others more sand and so there were two divisions with several subdivisions.

Division 1. Clay Loams
- Blackish Brown Clay Loam
- Red Brown Clay Loam
- Brown Clay Loam
- Dark Alluvial Clay Loam
- Dark Clay Loam
- Grey Clay Loam

Division 2. Light Loams	Chocolate Brown Sandy Loam Reddish Brown Sandy Loam Reddish Calcareous Loam Brown Sandy Loam Red Brown Sandy Loam Sandy Alluvial Loam

Two soils did not fit into this classification. The grey posdol of the moorland and the peat. The moorland Grey Posdol occurred mainly on the Lower Calcareous Grit. In the profiles examined, a grey leached upper horizon overlay a bright orangy horizon and no iron pan was found. Generally, however, iron pan formation is found on these moorland soils and the Forestry Commission use deep ploughing to break up the pan before the young trees are planted. The tree roots grow before the pan can re-establish itself.

The Peat in the area studied is confined to the extreme eastern part of the Vale, the Carrs. The peat in the Carrs is deep and black. Drainage channels dug in the early nineteenth century have brought some of it into cultivation but most is still damp grassland or woodland. There was no peat in the samples examined on the Tabular Hills, although there are patches among the podsols. Turbary rights are mentioned many times in early documents, for example, in the enclosure award of the High Commons of Snainton, 1775, the herbage was

to go to Sir George and John Cayley but the "rights of digging and carrying away turves or ling from 4,728 acres" were to be granted to named villagers for a specified number of wagon loads "for their own use and not for sale" and cut during the proper seasons.

The sandy lighter loams have developed on the backslope of the Tabular Hills. These Brown Earths are typical of east and south Britain while soils in the rest of Britain are generally classified as podsols. *1 Here the Brown Earths show colour variation and slight textural differences and have been sub-divided for the examination of soil in the Vale.

The Chocolate Brown Loam is a rick dark brown soil, light and friable which has developed on the Upper Calcareous Grit and Lower Limestone. It is the most extensive of soils of the higher cropped land.

Reddish Brown Loam occurs mainly on the Passage Beds and the Upper Limestone but sometimes as at Kirby Moorside it was found on the Upper Calcareous Grit. This soil was very similar to the Chocolate Brown in texture and only had a redder tinge.

*1 Robinson G.W. Soil. Their origin, constitution and classification. (Murby 1949) 465

In some of the instances, it may have been due to the weather conditions on the particular day the observations were made, or it may have been due to the cultivation followed by the farmer. It might have been safer to classify both as brown but there was obviously more iron oxide in the reddish brown. A very high proportion of the Reddish Brown soil was recently ploughed land or land planted with grain. This recent turning of the soil may have encouraged exidisation.

The Reddish Calcareous Loam soil tends to coincide with the Lower Limestone in the east but the Upper Limestone in the west. Frequently, however, the limestones produced only a Chocolate Brown Sandy Loam or a Reddish Brown Sandy Loam. This variation may come as a result of lack of gradient causing some down washing of the soil. The largest extent of the Reddish Calcareous Loam is north of Brompton where the gradient is more gentle.

The Brown Sandy Loam is confined to a narrow strip on the edge of the higher land and seems to have developed on the Middle Calcareous Grit or Lower Calcareous Grit or on part of the glacial gravels. One area of it also occurs among the alluvial land near the river Rye in the middle of the Vale. It is very similar to the preceeding three, except in colour.

The other two sandy loams are found among the fields of the lower land. The Red Brown Sandy Loam has developed entirely

on the glacial and post-glacial gravels. It contains a high proportion of erratics and is more stoney than the other sandy loams.

Sandy Alluvial Loam is a greyish brown and occurs among the damper lower lying Carr land and near the river Rye. Unlike the other soils of the Vale it is much coarser grained and contains more silica.

The clay loams tend to be confined to the land under 150 feet O.D. which has once been under the water of the lake.

The Blackish Brown Clay Loam is a dark sticky soil found only on the Kimmeridge clay outcrops.

The Red Brown Clay Loam has developed on glacial till and erratics occasionally occur. It is a plastic soil containing some sand but with a higher proportion of fine grained material. It is found only in the west of the Vale on the slight hills of boulder clay.

Brown Clay Loam covers most of the lowland of the west of the Vale. It seems to have developed from the alluvium in which a high proportion of boulder clay had been included.

Dark Alluvial Clay Loam is blackish or dark brown in colour but is more crumbly than the clay produced on the Kimmeridge clay which is near it in colour It is found over most of the east of the Vale but in the west it is mainly

found in the valleys.

Dark Clay Loam seems to be a blending of the Blackish Brown Clay Loam with sandier outwash from the backslope. It is therefore confined to isolated patches at the foot of the dip slope in both the east and the west.

The Grey Clay Loam is heavy and damp and is usually found in areas adjoining the deposits of peat in the east of the Vale. It is particularly prone to gleying.

Gleying also occurred in the Blackish Brown Clay Loam and Red Brown Clay Loam and occasionally on the Dark Alluvial Clay Loam. In the latter case, it was where the drainage was particularly poor and Juncus was growing among the grass. In all these soils, gleying was only found under pasture, the ploughing may have disturbed and destroyed the evidence of gleying but more probably the farmers preferred to avoid growing arable crops on known damp land. Thus the extent of the gleying recorded is probably accurate.

The results of the transects have been plotted as a soil map (Figure 31) and this brings out the variation between the east and the west. The Tabular Hills have more uniformity, all the sandy loams are represented in both areas, though near Helmsley the soils change within a shorter distance. On the lowland, however, the difference between east and west is more

marked. The east has a higher proportion of Dark Alluvial Clay Loam as a result of being under water for a longer period while in the west the Brown Clay Loams predominate. The west is broken up by changes of soil on the low hills. The Kimmeridge clay developing Blackish Brown Clay Loam and the boulder clay Red Brown Clay Loams. The only wet and water-logged soils are found in the extreme east.

An explanation of the physical differences on the north side of the Vale of Pickering has been attempted and the apparent unity of this lowland so clearly defined by the 200 foot contour has been challenged. The rolling low hills of the west contrast with the level land of the east of the Vale. Even the backslope of the Tabular Hills shows variation, the west is Upper Calcareous Grit and Lower Limestone while the east is largely Lower Calcareous Grit. It is not surprising that locally Ryedale is a distinct area and the human developments make these differences even more apparent.

Chapter 2

The Distribution and Origin of Settlements

The physical differences between east and west have been accentuated by the influence of man over a long period. Physical conditions led man to develop certain sites but he was not always a completely free agent as others might have acquired the land before or set it aside for certain purposes.

The settlements on the north of the Vale of Pickering can be divided into three groups. Firstly, are those settlements that grew up at the foot of the backslope of the Tabular Hills, at or above the old shore line. Here water is obtainable from springs and shallow wells. The settlements are more frequent in the east than the west as the structure ensures a greater supply of water. The second group are on the low hills and by the rivers in the west, so that Ryedale has a more even scatter of settlements. The third group is the least numerous and these settlements are found high up the backslope. Only one of them remains in the east, Sawdon. The greater frequency in the west is because the Upper Calcareous Grit gave better farming land than the Lower Calcareous Grit of the east. Sawdon is situated on the Passage beds which have produced a large expanse Reddish Calcareous Loam.

Apart from the settlements on the backslope, the majority of them are situated at under 200 feet and mostly at about 100 feet. Beadlam, Kirby Moorside, Nawton and Helmsley, settlements at the foot of the backslope in the west are slightly higher as here the spring line is higher as the main east-west fault is not so marked. (Figure 33).

On the map showing the distribution of settlement (Figure 32) parish boundaries are also shown. These later show a diversity in arrangement. The settlements at the foot of the backslope have long parishes so that a variety of soil and elevation are included. This is similar to the long parishes of the scarp lands of England but is less usual in the North of England. The parishes are larger in the east, where they include the land from the scarp to the river Derwent. In the west the long parishes exist but are on a smaller scale and do not include the whole range of land from the scarp to the river. On the clay lands of Ryedale, the parish areas are more compact and extend in all directions from the settlement. This is because soil and other physical conditions are more nearly similar. The settlements on the mid backslope also have compact parishes where they have remained separate. (Figure 34 and 35)

Two patterns of settlement exist. One is the grouping of scattered farms within a township boundary with no real cluster

or nucleation or old established centre. The second are the nucleated settlements which in this area are of the "street" type mainly, with a street of homesteads with a surrounding back road.

The dispersed settlements are more numerous among the compact townships and parishes of the western lowland, Marishes, Thornton Riseborough, Ryton, Little Habton, North Holme, Muscoates, and Welburn. There are however two mid slope compact parishes, Cawthorne and Kingthorpe with no nucleation and one long parish in the west that could have been associated with the backslope foet, Skiplam which also has only dispersed settlement.

Although the nucleated villages are of the "street" type, they do not all show all the features of farm houses and paddocks surrounded by the back road. Houston suggests that the dispersed settlements were often on clay land so that the farmer was on the spot to work when weather conditions allowed* Here the intermingling cannot be explained satisfactorily on this assumption. The streets in the mid backslope group are all up and down the slope. Carlton is north-south with no evidence of a back road existing, Pockley north-south with the fields and gardens suggesting that earlier there may have been a backway; Appleton le Moors is on a spur above the

* Houston J.M. A Social Geography of Europe (Duckworth 1953)100.

river Seven, so the street is north-northeast- south southwest and there is a perfect back road. Sawdon's street is northwest south east as the slope in the east is slightly southeast.

The streets of the foot of the slope could be expected to be parallel with the scarp foot and on the top of terrace of gravels but this is not always the case. Sinnington is north-south parallel with the river Seven and has no ring road, Wrelton is north-south down the slope and has a back road on the west. Aislaby and Middleton are parallel to the dip slope, the latter having a complete back road. Thornton Dale is in two sections one north south beside the beck, and one east-west parallel with the slope but climbing up the valley side; both sides of the latter have a back road but only the west of the former. Allerston is north-south with a back road on the east, Ebberston is north-south with a bank and a road on the east and a path on the west. Wykeham is north-south with no back road. Hutton Bushel is east-west on the top of the gravel ridge and has no back road. Irton is east-west while Seamer is north-south with a back road on the west. Brompton is probably a north-south street but there is a case for it being a village green type of nucleation.

The nucleated settlements on the lowland in Ryedale either have roads east-west or north-south with no apparent pattern, some are directly up the slight slopes while other have attempted to remain along the slight rises.

Around each of these settlements, the modern field pattern varies from the long curved strip field to the rectangular block and there are many variations. The present pattern of fields and settlements is the result of a number of factors of which the most important seem to be a) the period of original settlement, b) the effect of the Monasteries and the large estates in the area, c) the problem of the lost villages, d) the Inclosure of the land, e) drainage. Each of these topics will be dealt with separately to show the effect that they have had on producing the cultural landscape of today.

The earliest settlement of man in the area was at Star Carr, where on an island site, seasonal Mesolithic occupation of the slightly higher and drier site in the dessicating lake area has been proved. All evidence of early settlement is the result of chance, the ability of an individual to recognise the importance of finds and the diligence of the search. From the collection of objects it is possible to suggest that successive movements of population have come to the area. Scarborough Museum under the present curator Mr J.G. Rutter has displayed the finds chronologically. The Neolithic people avoided the Vale prefering to settle on the dry chalk hills to the south; the tools that have been found may have been lost on journeys across or in hunting expeditions. Early and Middle Bronze age finds so far found are only scattered oddments. The Late

Bronze Age people made settlements on the sandy soils of the southern margin of the Vale. The Iron age is represented by a lake village excavated at Thornton Dale and near Costa Beck, Pickering in 1893. *1

The Romans made a little more impact. They passed through on manoeuvres to dig practice camps at Cawthorne, and Wade's Causeway, a Roman road, goes from Malton through the Vale by Riseborough Hill to Stape and then on across the moor to the coast near Goldsborough. The Romans had a camp at Malton and latter a Signal Station at Scarborough. While this was happening there were villages of Celtic origin farming in the area. Two of these have been excavated; one in a gravel quarry at Spital Corner, Staxton and the other in a gravel quarry at Crossgates, Seamer. This latter site is particularly interesting and occupies a site at about 100 feet O.D. on a mound of glacial gravel which elevates the area above the general level of the Vale. *2 The Romans built a first century fortlet here but this was abandonned after a short occupation. The native Romano-British settlement came before the end of the first century probably immediately after the fortlet was abandonned. There is a paucity of pottery of the second and

*1 Edwards W. Early History of the North Riding (Brown London 1924) 10

*2 Rutter J.G and Duke G. Excavations at Crossgates, Scarborough 1947-56 Scarborough and District Archaeological Society Research Report (Scarborough 1958)

third century but it is not possible to argue that the site was deserted then. There was a coin hoard of Tertricus 1 and 11 (270-273 A.D.) and this may reflect the unrest in the district when Malton was evacuated in about 280 A.D. and reoccupied in 300 A.D. After this, there followed a period of prosperity as additional pottery and household goods have been found. Querns and millstones give evidence of grain growing, and cattle, sheep and pigs were kept. There was iron working in the settlement from the first to the fourth century, perhaps of ore brought from Cleveland. This all suggests that the inhabitants were farming people seeking the drier better drained lands for their homes. The limited number of sites may be due to lack of excavation since these particular sites were only discovered when gravel workings exposed them.

There are a number of linear earthworks on the backslope of the Moors which may have been boundaries but which do not coincide with the present parish ones. They are being worked upon by Rutter and others and seem possibly Iron Age or Anglian but so far no finds to date them have yet been found though a number of sections have been dug. *1

Though representatives of these early periods came and possibly lived in the Vale, they do not seem to have had any

*1 Rutter J.G. A Survey of Linear Earthworks and Associated Enclosures in N.E Yorkshire Trans. Scarborough and District Archeological Society 1960 16 1961. 21

influence on the present day landscape. It seems reasonable to suppose that the Angles laid out the present pattern as the place-name endings "ton" and "ham" probably date from that time of settlement. Only two sites of this period have been excavated. Others may possibly be under the present day houses. At Crossgates, the end of the Romano-British settlement and the change to Anglian cannot be deduced from the archaeological evidence. The Angles built to the west, on the undisturbed ground in the fifth and/or sixth century. At this time the horse was used as meat but the ox was most important with sheep of minor importance. The inhabitants appear to have specialised in grazing rather than arable farming. Excavation has uncovered outside hearths and irregular shaped huts with internal hearths. The site has been dated by its pottery. Two types are found. "1) a smooth ware, usually black or very dark in colour, with fine crystalline grit. 2) A coarse more heavily gritted ware, also black or dark in colour, the grit often including calcite and sometimes consisting of fine gravel. Biotite is frequently present in this fabric" *1 It is this last constituent which is not in Romano-British ware that is useful in dating the site. It is present in the pottery from all the Anglian sites, Staxton, Flixton and Wykeham as well as Crossgates. The cemetery in the lime quarry, a half a mile

*1 Rutter J.G. and Duke G. op.cit. 52

northwest of the Crossgate gravel site, was excavated in 1857 by Lord Londesborough and is Anglian of the seventh century.*1 Its rich finds show that it did not belong to the poor agricultural Angles who had hardly a bead and who lost no brooches and D.M. Wilson who has examined the finds in the British Museum confirms their later date. The richer houses which this cemetery suggests have not been traced. At Wykeham, the Anglian settlement was excavated by W. Moore in 1951-52. Here circular huts with attached stabling and a larger communal meeting hut gives the idea of the type of life of the time with mixed farming with an emphasis on livestock and an equality among the families working the land in the area. These are the only two sites proved and excavated on the north of the Vale of Pickering and they show that a good deal of the land between the clusters of houses on the drier better drained land was used as pasture land.

When the Vikings came it was formerly assumed that they came peacefully and settled on the uninhabited Moors as it is here that their personal names and the endings "by" have survived in place-names. It has now been established from the investigation of the carving on the "crosses", originally burial crosses, later built into the walls of the churches, and

*1 Rutter J.G. and Duke G ibid 65

now in many cases removed during restoration works that the Vikings were much wider spread on the lowland of the Vale of Pickering. *1 The centre of this Norse settlement was Normanby and the others are within a five mile radius of it. This area is the low-land area of Ryedale and the settlements concerned are Middleton, Sinnington, Kirkdale, Kirby Moorside. Here the settlers were Norse Vikings who had come to the area by way of York, which was the Scandanavian capital in the nineth and tenth centuries. The Kingdom of York had strong connections with the Vikings in Ireland. This Normanby area was on the route to the coast for those Vikings returning to their homeland and wishing to avoid the slow journey by water from York down to the Humber and by Spurn. The settlers appear to have been aristocratic and the fifty panels of carving show this by their figures and they also show affinity with Irish Celtic which would not have come from a mixing of Dane with the Angles. The Norse seem to have taken over the settlements and farming as already established and therefore presumably found it unnecessary to change the names, though Normanby may have been given as a nickname by the Angles in the same way referring to Danby, the home of those of Danish descent further north. This makes this western area distinct from the rest of

*1Binns A.L. Tenth Century Carvings from Yorkshire and the Jellinge style (Universiteti Bergen Arbok 1956) 4

the Vale who experienced no similar settlement. This is also in distinction from the greater part of the North Riding and Northumbria who were settled by Danes of the "Great Army" of 876. and is most probably mid tenth century. Smith in the English Place Names of the North Riding does find some evidence in names to substantiate this "In Ryedale there are many names of Norwegian and Irish Norwegian origin, including Laskhill Pasture which contains Old Norwegian skali, Dowthwaite, Appleton le Moors and Colthemanelandes which contain Irish personal names, and Normanby, all north of the river Rye." *1

Many vills were in the hands of people with Scandanavian names by the Domesday Book survey, for example, Earl Morcar held Pickering, Gospatric had Allerston, Ellerburn, Dalby, Kettlethorpe, Aislaby, Wrelton, and Cropton; Torbrand had Thornton, Harome, Sinnington; Ulf had Brompton, Wykeham and Martin. This means that within a hundred years more of the Vale of Pickering was being influenced by the Scandanavians.

Harold Hadrada and Tostig landed at Scarborough and went south to be met and defeated by King Harold at Stamford Bridge and it is possible that they only destroyed Scarborough and part of Falsgrave as they proceeded southwards.

The Normans certainly destroyed much of the property and by the time of the Domesday survey was made, much of the area

*1 Smith A.H. The Place Names of the North Riding of Yorkshire (Cambridge 1928) 24

was waste and depopulated.

> "In Pickering there are to be taxed 37 carcuates of land which 20 ploughs may till. Morcar held this for one manor, with its berewicks Bartune (Barton) Neuuetune (Newton), Blansbi (Blandsby) and Efthorpe (Easthorpe). It is now the King's. There is therein one plough and 20 villanes with fixed ploughs; meadow half a mile long and as much broad. This manor in the time of King Edward was valued at fourscore and eight pounds; now at 20 shillings and fourpence. To this manor belongs the soke of these lands viz Bruntun (Brompton) Odulfesfmares, Edbriztune (Ebberston), Alvef tune (Allerston), Wiltune (Wilton), Farmanefbi (Farmanby), Rozebi (Roxby), Chiluemares, Afchilefmares, Maxudefmares (Marishes), Snechintune (Snainton), Chigogemers, Elreburne (Ellerburn), Torentune (Thornton), Leuccen (Levisham), Middletun (Middleton), and Bartune (Barton). In the whole there are fifty carcuates to be taxed which 27 ploughs may till. There are now only 10 villanes, having two ploughs; the rest is waste; yet four." *1

This is the only soke or larger manor within the area: Brawby, Newton, Nawton and Thornton Riseborough are the only vills given as entirely waste. The destruction was not uniform but the only vill quoted as worth more is Kirby Moorside which was "value in King Edward's time was three shillings now 20 shilling" *2 but the majority had declined in value and population.

It seems probable that the basic pattern of settlement had been established by the Angles and the Vikings and that agreements had been made for what was to become parish

*1 Bawden W. Translation of the Record called Domesday so far as it related to the County of York (Hooten Pagnell 1809) 11

*2 Bawden ibid 119

boundaries by 1086. The Domesday book is recorded for Wapentakes and parishes. These early settlers must have been aware of the regional differences in that the divisions do not attempt to make the Vale a unit. The western or Ryedale section was in the Maneshou wapentac, the name was changed to Ryedale wapentake in the twelfth century. The area includes the parishes which extend from Westerdale Moor on the North Yorks Moors to the Howardian Hills in the south and includes the whole of the western Vale of Pickering (Figure 35). The east of the Vale was in the Dic Wapentac which was renamed Pickering Wapentake in the twelfth century. Here the rivers were taken as boundaries not as unifying features as in the west. The river Seven formed the boundary with Ryedale, the river Derwent the south boundary while to the north the area extended to Wheeldale Moor and to the sea in the east. It seems that the parish boundaries must have been much as they are today though there are more settlements mentioned in Domesday than exist today. This means that the long parishes were normal for those settlements at the foot of the backslope while the compact units of the clay lands had been established.

Chapter 3

The Effect of the Monasteries and the Duchy of Lancaster Estate

Though the boundaries of the townships and parishes were established by the time of the Domesday survey, the actual growth of the settlements and the use of the land, in the period immediately following the Norman redistribution was influenced mainly by the land owners.

The redistribution gave most of the land to the King while other lands went to St. Peter's York (the archbishop), and other large landowners like Berenger de Todeni, William Perci, Hugh son of Baldric etc in the eleventh century.

This made comparatively little difference to the individuals living within the Vale. Some were true slaves and as such had no rights and no property but most were villanes. These changed hands with the estate but they could occupy land at a fixed rent and appropriate the profit but they could not purchase manumission. The third group were freemen, proprietors of heritable estates as farmers or sub-tenants under the great proprietors. The policy for the land was laid down by the land owner. A good deal of the land was still waste and only immediately round the villages was all the land in use. Much of the land on the eastern backslope acquired by the King was forest land.

There had been religious houses in England prior to the Norman invasion but the twelfth century saw a revival in the

ideals of monasticism. The oldest order the Benedictines were followed by Cistercians who were established to reform the Benedictines and then by Carthusians etc. Many landowners felt it their duty to help the church by giving land to monastic orders. Usually it was poor unproductive land that was given. So much property was given to religious houses that in 1279 the Statute of Mortmain forbade the alienation of property to monasteries without licence.

The property owners in the Vale of Pickering had the same generous feelings and gave property. In most areas, the monasteries had all the property within range so that their would not be friction between houses. In the Vale of Pickering however there is a surprising overlap.

The only actual houses established in the area were small. They were Wykeham Abbey for Cistercian nuns; Yedingham Abbey, which was north of the river Derwent unlike the village of the same name, was for Benedictine nuns; and Keldholme Priory for Cistercian nuns. The Knights Templar had a Preceptory at Foulbridge, to the south of Snainton.

There were however, a number of houses holding lands and granges within the area (Figure 36) some even within the same township which was an unusual feature. Most of the gifts were

of unproductive land and away from the main cultivated area of the earlier villages. Only occasionally did a monastic house have the right to strips in the open fields associated with the village and then only because it wanted the right to waste and meadow.

The greatest number of holdings belong to Rievaulx Abbey which had been founded by the Ciscertians on nine carcuates of land in 1131. *1 It was the first Ciscertian house in Yorkshire and the land it was given, by the upper Rye, was desolate and bleak. The monks of the Ciscertian order who specialised in work with their hands and with prayer soon started building and clearing their land to supply food. So inspired were people by the zeal and devotion of the monks that many gave it property so that by 1170 it had acquired most of its holdings but in 1331 Edward 11 granted it special permission to acquire land and rents "in consideration of frequent loses by frays from Scots". *2 Its holdings in the Vale can be divided into three regions. Firstly there were those on the dip slope of the Tabular Hills, for example a grange and lands in Skiplam when Gundreda wife of Neil Daubeny gave her demense in Skiplam in the twelfth century. *3

*1 Mullins F.A. A History of the Work of the Cistercians in Yorkshire 1131-1300 (Washington 1932) 7
*2 Waites B. Monastic Settlement of N.E Yorkshire Yorkshire Archaeological Journal (159 1961) 478
*3 Victoria County History of North Riding of Yorkshire (London 1914) Vol. 1 520

Henry 11 increased the holding by granting free warren in Skiplam and more warren was given to it in Welburn in 1311. Other lands and granges were granted in Nawton, Helmsley, Pickering and Allerston. The second group was on the clay lands of the west where Rook Barugh, Waterholmes and Sunley provided pasture land for working plough teams and for stock from the arable farms of Griff, Newlathes, Stiltons and Welburn. The third group was in the central Vale, in the Marishes. This Marishes area "vastus subtus Pickering" *1 was granted to Rievaulx by the King in 1158. The Marishes were wet marshy land given to flooding but not so waterlogged as the Carrs in the east. After Rievaulx had settled all claims to the waste, the monks began to develop the area by establishing granges. The land in these granges had to be improved by drainage and liming "the rough land of the 12th century often needed decades to make them profitable." *2 Mr Glanville Jones considers granges were enclosed areas — Source? practicing mixed farming. In this case, the enclosures were ringed by ditches which improved the drainage. Friars Dyke is one of these still in use. So profitable did these Marishes Granges become that when in 1301 a subsidy of one-fifteenth was paid, Loftmarsh was valued at an income of 25/0¾, Kekmarsh 38/7¾, Lund 15/6¾, Newhouse 16/0½. *3

Whitby Abbey, a Benedictine monastery had lands in Pickering

*1 Sheppard J.A. Op. cit 372
*2 Mullin F.A. op cit 36
*3 Waites B. op cit 481

Farmanby, Ayton, Wykeham and the church and lands at Hutton Bushel. In 1246 they sold their land in Wykeham and Ruston and allowed others to go to the nunnery at Wykeham.

The Augustinian Canons from Guisborough held land at Sinnington. The Gilbertines from Malton Priory had holdings at Ebberston, Snainton, Thornton, Farmanby, Kingthorpe, Lockton, Newton, Sawdon, Kirby Misperton, Sinnington, Aislaby and Edstone. None of these lands was more than twelve miles from the Priory.

Bridlington Priory had a meadow at Brompton and further pasture land near Bowforth which was a grange of Rievaulx, on the clay lands, and the monks of Bridlington were accused of trespassing on the adjoining pastures and overstocking their land. *1 From the Cartulary of Bridlington Priory, there are details of the rights to the meadow in Brompton which shows that the holdings werenot always a completely untrammelled gift.

"Releases and Quitclaim by Gilbert de Aton, Kt., kinsman and heir of Dom. William de Vescy, to the Canons, of all that meadow in the territory of Brompton in the Vale of Pickering which his ancestors gave and confirmed to them, which meadow contains thirty acres, by the reasonable metes and bounds by which they held in time of his ancestory, with free entry and egress, and liberty for the Canons to repair and renew the metes and bounds where necessary; reserving to himself, his heirs, and tenants of Brompton, common pasture after the hay is carried, as has been the custom. Moreover he grants to the Canons to take wood and make a bridge across the Derwent whereso ever they will in the same meadow, for carrying their hay therefrom." (1328) *2

*1 Rievaulx Chartulary Surtees Society (38) 83

*2 Lancaster W.T. Chartulary of Bridlington Priory (Leeds 1912) 267

Some of the holdings were rented out to tenant farmers. The monastic houses were considered better landlords than the laity if the outcry at the time of the Pilgrim of Grace is to be believed. Many of the granges and lands were worked by the lay brothers under direct supervision of the monks. The Cistertians became the paramount monastic power in the Three Ridings of Yorkshire *1 so more information is preserved of their farming and trading. The monks in a Cistercian house had to spend part of each day in manual work and as the monastery had contact with a much greater number of people than the normal landowner they disseminated knowledge of new crops, seeds and methods which generally raised the standard of farming. So preoccuppied with worldly trade did they become that at the time of the dissolution there were comparatively few monks surrounded by fine furnishings and worldly goods in each house. *2

The Cistertians particularly, were noted for their sheep and wool production. This is because this was their trade commodity and their production and salemanship equalled if not surpassed their competitors. In 1198, the Ciscertians were forced to give their wool production for the year as their contribution to the ransome of Richard 1, it was valued at £8,500. *3

*1 Fletcher J.S. The Cistertians in Yorkshire (Macmillan 1919) 139
*2 Fletcher ibid 313
*3 Mullins op cit 52

Reivaulx and the other houses in Yorkshire exported through the port of Boston. The value of their fleeces was greater because of their interest in selective breeding.

> "Apparently the monks found already existing in Yorkshire two indigenous varieties of sheep - one a small mountain breed, very hardy and suited to feeding on rough mountain and moorland herbage. This became the progenitor of the Black-faced (so-called) Scotch sheep of today, yielded a coarse wool, such as would be used today for carpets. The other, a bigger creature of more delicate habit has, under improved farming, developed into the famous Wensleydale sheep of today; it yielded a fine long wool and was the basis of the historic wool export trade." *1

Also the monks took more care in packing and preparing the fleece for export. *2 The sheep were also used for milk and the cheese eaten in the monasteries was made from it.

Most of the wool was for export, but some was sold locally. The other producers found competition with the monks considerable and so they often had to be the suppliers of local needs. In 1164 the weavers of York paid the King £10 for a weaving monopoly although Malton, Kirby Moorside, Pickering, Thirsk, Beverley and Scarborough were allowed to continue weaving. Because of the success of the wool trade high export duties were imposed, in 1275 it was 6/8 on a sack of wool or on 300 woolflefs and 13/4 on a last (200 hides of leather). *3

*1 Wroot H.E. Yorkshire Abbeys and the Wool Trade Thoresby Society (33 1930- 5
*2 Donkin R.A. Cistercian Sheep Farming and Wool Sales in 13th Century Agricultural History Review (4 1958) 4
*3 Mullins F.A op cit 52

In 1286 it rose to 40/- a sack but was reduced again to 20/- There were further attempts to restrict exports to encourage more weaving in England but the trade was so lucrative that it continued in spite of these financial difficulties. All the houses that had lands in the Vale of Pickering participated in this trade. *1 The 1315 Wool directory in Florence shows this (Appendix 1.)

The farm land of the granges were not only engaged in this lucrative trade "it did not become the chief, much less the all absorbing industry on monastic estates." *2 By diligent cultivation, the monks grew wheat, rye, barley, oats, beans etc, as well as, raising good livestock. This is substantiated by the inventory of property taken at the dissolution of Rievaulx "936 bushels of wheat,96 bushels of rye, 1072 bushels of oats, 392 loads of hay. These figures apparently represent the crop of that year, because it is noted that the granary contains wheat, oats, barley and malt to the extent of 1024 bushels, evidently the balance from the previous year." *3

These monastic lands influenced the settlement. Those areas in which the most highly developed granges were have remained as areas of dispersed farms because the land went straight from being held by the monastery to being granted to an

*1 Wroot H.E. op cit 9
*2 Mullins F.A. op cit 7
*3 Mullins F.A. ibid 67

individual owner. Some of these farms have continued to use the name grange e.g. Newstead Grange in the Marishes and Skiplam Grange. Care has to be taken to check the monastic origin as it is sometimes just an individual farmer's choice of name. Many of the lands and granges on the backslope were worked from houses in the villages and therefore had not this effect on the settlement pattern. The presence of the successful farming carried on by the monks most probably improved the farming in the locality and may have helped the villagers and lords of the manor to dig ditches. The numerous monastic holdings in the Marishes is partly responsible for the early draining of the land. This was also true around Wykeham, some of whose fields had such good ditches and dikes that they did not need draining under the Yedingham and Muston water board scheme.

While the monasteries were clearing and developing waste land and laying the foundation of a dispersed farm pattern in the lowla nd west, the east was part of the Duchy of Lancaster, the Honour and Forest of Pickering. The lands of Pickering which had been the largest soke in the area recorded in Domesday were taken by the King William from Earl Morcar. These lands stretched twenty miles from the river Seven to the coast north of Scarborough and sixteen miles from the hills above Eskdale south to the river Derwent. This area included many manors and

forest land on the backslope was limited to the land between 400 and 750 feet O.D., above this height was moorland and on the lowland was meadow and boggy Carr land. *1 The area was administered by the crown as normal manors and the forest land was free chase; that is treated as the ordinary private woodland of the day. In 1267, Henry 111 made his son Edmund Crouchbank Earl of Lancaster, and gave him the charter and lands in all parts of Britain taken from the rebellious barons, Simon de Montfort and the earl of Ferrers. He was given also the lands held by his father in Pickering. In 1285 Edmund received by a grant in fee the right to turn the woodland into forest.

> "Besides the confirmation, Edmund received by a grant in fee in the same year 1285 an important privilege, rarely given, in being allowed to have his own justices to hold pleas according to the assize of the forest in the forest of Pickering and those in Lancashire which Henry 111 had given him. From the time that Edmund had these forests, it was intended that they should be held as free chases, and not as forests, so that the forest laws would not operate in them to their full extent. But after the grant of the privilege in 1285 they were subject to the whole body of the forest laws, like the royal forests." *2

This meant that in the east of the Vale the restrictions on poaching and cutting timber were more stringent and that there were local Duchy courts to deal with offenders. A Coucher Book or Great Record book was kept of the forest offences and charter

*1 Waites B. Wool Production on a Medeival Yorkshire Estate International Wool Secretariat Magazine 1960 15

*2 Somerville R. The Duchy of Lancaster Vol 1 1265-1603 (London 1953) 14

grants. Those extant are for 1313, 1314, 1322, 1325-27, 1377-8 and 1438. There were a heirarchy of local and regional officials, stewards and receivers and then over all the estates north of the Trent an auditor and a chief steward. The whole estate was raised to a Duchy in Edward 111/s time. *1

The demense lands were let, for money, by 1313 when the first record exists but the forest itself was centrally administered and the sheep pastures were worked by the Duchy itself until 1434 when the flocks were dispersed. The flocks were pastured on the high moors in summer, and in the cold weather the flocks were moved to folds at Pickering and the winter fodder of hay had been cut from the Marishes and Ings land, and dried ling from the moor was mixed with this. There was a stockmaster who was responsible for buying sheep, selling wool and supervising the pasture, and under him four shepherds to care for between a thousand and one thousand five hundred sheep. The sheep were milked and the cheese produced was sold in Pickering market. The sheep produced wool of high quality as care was taken in breeding and stock was purchased from as far away as Ripon, Barnard Castle and Rothwell near Pontefract. The large scale production and the uniform preparation for market meant that the market price for the wool was higher than wool produced near by e.g. a sack of 364 pounds fetched 120/- while on the coast the same quantity only fetched 66/8 and in the Vale of York 100/- in the late thirteenth and

*1 Somerville R. ibid 9

early fourteenth centuries. *1 Wool was important here until the flocks were dispersed in 1434 which is later than on the other Duchy estates.

The presence of this very large estate in the eastern area of the Vale restricted agricultural improvement and land drainage. The valley pasture was the Duchy prerogotive and the grazing on the high moor was restricted to certain periods when pigs, horses and cattle as well as sheep were put out to graze. Anyone using the moor at the wrong time or putting too much stock on it was fined. Private reclamation of moorland was impossible, though some was enclosed as demense by the early fourteenth century, this was mainly the more fertile Passage beds. The vast estate did provide some defence from the attack of the Scots who were greatly feared. "They (the Scots) spared Lancaster's lands in these various incursions." *2

The need for security and protection played a considerable part in encouraging the nucleation of settlements and discouraging the building of farmsteads away from the general group. The villages are "street" villages which may have developed in Anglian times as the Stassendorf are the more usual village

*1 Waites B. op cit 15

*2 Somerville R. op cit 25

types in the forest lands of Europe. *1 The settlements did not change their design when castles were built beside them. (Figure 37). The castles are all attached to the villages at the foot of the backslope where they controlled the main east-west route and in many cases the north-south route as well. They were erected to impress the local inhabitants as well as for defence against the Scots and local gentry. Some, such as the one at Brompton, may not have been more than the earth motte and bailey; while Wilton Hall was built with a rectangular moat and John de Heslerton had a licence to crenellate it in 1335. * 2 Some may have been little more than the strong stone built house built by the lord of the manor.

The presence of these castles did not make the area immune from attack. The area was pillaged and to a certain extent ravaged in 1136, 1138 (the battle of the Standard when King David was defeated between Rievaulx and Byland), 1149, 1296, 1298 and for the thirty following years, 1315, 1319 and 1322. *3 One of the most devastating attacks was in 1323 when Robert Bruce took three local men Nicholas Haldane, John Mannesses and William Hastings as hostages until the negotiated ransome was paid. The agreement was that the communities that made up the Vale of

*1 Houston J.M. A Social Geography of Europe (Duckworth London 1953) 105
*2Victoria County History of the North Riding Vol 2 438
*3 Mullins F.A. op cit 53

Pickering should pay 300 marks for immunity from further raids and for the return of the hostages. The money was to be delivered at Berewick but there is no evidence that it was ever paid. In fact, one local man wrote enquiring of the hostages in 1325. *1

The period immediately following the Norman conquest, sees the division between the east and west developing more strongly. The east being part of the Duchy of Lancaster and subject to Forest Laws while the west continued as individual manors with a considerable impetus given to farming by the granges and monastic lands. The dispersed settlement of the clay originates in this period. The whole area was subjected to periodic raids from the Scots though the east as part of the Duchy land seems to have been more secure.

*1 Rimington F.C. The Deserted Village of Osgodby in Parish of Seamer Transactions of Scarborough & District Archaeological Society (41961) 10

Chapter Four

The Disappearance of some Villages

Another historical fact that has changed the settlement has been the problem of what Beresford calls the "lost villages". This has meant that many settlements that did exist at the time of Domesday survey and later are now missing or only showing as bumps and hummocks in the permanent pasture land. Beresford estimates that "In the North Riding, one village in every 11 has disappeared which provided foot soldiers in 1316" *1 (Figure 38).

There is, however, one township which now exists with only scattered farms, that was not mentioned in the Domesday survey. Skiplam does not appear in documents until the twelfth century when land was granted to Rievaulx Abbey there. *2 The area may have been a recognised named area prior to this and have been ommitted from the Domesday list as it was completely waste or it may have become a recognised entity later as patches of the moor were taken into cultivation by individual farmers. The parish boundary encloses a long shaped area on the backslope but there is no centre of settlement.

The more common change is for villages existing and mentioned in Domesday to have disappeared. Many of the "lost villages" on

*1 Beresford M.W. Lost Villages of Yorkshire Journal of Yorkshire Archaeological Society (38 1951-54) 289

*2 Victoria County History of the North Riding Vol 1 520

the north side of the Vale of Pickering which have disappeared are in the east and account, in part, for the large parish units. Preston was mentioned as late as 1301 as linked with Hutton Bushel. This settlement has now disappeared. Maxwell has shown that Preston lay between Hutton Bushel and West Ayton but could find no trace on the ground. *1 I am indebted to Mr Stapleton for the helpful suggestion that the street of Hutton Bushel continued into Preston and that the eastern part of the village street is built on what used to be called Preston. This seems logical, the street is longer to the east of the church and the fields on the backslope to the east of Hutton Bushel are still called Preston fields. This would also mean that the village was on a well drained gravel ridge.

Marton to the west of Hutton Bushel has also disappeared. The Domesday list reads

> "Atune (Ayton), Neuuetun (Newton), Preftetune (Preston), Hetune (Hutton), Martune (Marton), Wicka (Wykeham), Roftune (Ruston)." *2

Maxwell says that the entries were always in sequence on the ground so Marton would be between Hutton and Wykeham. *3 The Newton mentioned may be West Ayton which grew up to the west of

*1 Beresford M.W. ibid 293

*2 Bawden W. A Translation of the Record called Domesday so far as it relates to the County of York (Hooten Pagnell 1809) 10

*3 Maxwell I.S. The Geographical Identification of Domesday Vills I B G Transactions (1950) 104

the Derwent as distinct from East Ayton to the east with its church dating from the eleventh century. The name of the series of fields to the east of Preston fields is Newton. In a field to the north and west of Hutton Bushel is a field called Martin Garth in which there are marks, hummocks, which are possibly the foundation of houses that have now disappeared. Marton would have been situated at the point where Beedale beck is diverted by the gravel ridge. The presence of these settlements would mean that within a mile from east to west there were three, therefore it can be concluded that they were not very large. The parish area of Hutton Bushel is long and narrow and presumably includes the site and land of Preston. West Ayton another long and narrow parish, includes Newton, and Wykeham now has the older site of Marton within its boundary. There is a possibility that the missing settlements never had a parish or township boundary of their own but were merely hamlets within the main boundary. Ruston associated with Wykeham is like this. Sawdon is now included with Brompton but this did not occur until the boundaries were re-arranged at the end of the nineteenth century.

The village of Ebberston may have been moved as the church is at some considerable distance west of the village in another small valley to that in which the street village lies. The

village may have been moved when Ebberston Hall was built in Kirkdale and the landscape gardener made the elaborate water garden. The village at the point where Netherby Dale joins the Vale may have been an older settlement and only augmented when the cottages were moved. Beresford puts forward no explanation. On Maxwell's sequence of names in Domesday it could be Odul-fefmares

> "To this manor belong the soke of these lands, viz. Brunton (Brompton) Odulfefmares, Edbriztune (Ebberston) Alueftune (Allerston)---."*1

The difficulty of this is that Odulfefmares must be a low lying marishes settlement.

Two other settlements in the eastern area have disappeared and this accounts for the very large area within the boundary of the parish of Thornton Dale. These are Roxby and Farmanby. Roxby is now marked on the ordnance survey maps as remains of a castle one mile to the west of the settlement of Thornton. This fortified manor house or castle was there as late as the fifteenth century but has now disappeared. Beresford thinks the earthworks adjoining this may be of the hamlet. The boundaries of this township could have been compact and not extended up the backslope, that is, similar to those of Wilton. Farmanby is more difficult

*1 Bawden op cit 11

it was still used as a name associated with Ellerburn in the Census until 1901. Beresford thinks that St. Hilda's church, Ellerburn may really be the church of Farmanby. It seems to me however, that the north to south section of Thornton Dale may be the site of the original vill of Farmanby. The fields associated with this were enclosed before 1683 and were presumably enclosed by agreement as they follow the original strip pattern. If this was Farmanby it would account for the difference in date between the enclosure of the east and the west of the village. The existence of the compact Roxby to the west and the long parish enclosing Farmanby and Ellerburn would reduce the present parish of Thornton Dale and make it comparable in size with the others in the eastern Vale. There is a complication to this, the enclosure map of Pickering in 1789 marks Farmanby to the east of Howl Dale Wood on the immediate east of Pickering. This may be because Farmanby prior to its disappearance had included the land of Roxby.

The other settlements that have changed have not disappeared entirely but have been greatly reduced both in population and in the number of houses.

Kingthorpe now has two farms, though Beresford has evidence of many references in the past there is nothing to show why or when the area was depopulated. *1 Cawthorne is in a similar

*1 Beresford op cit 293

state; the township boundary is still used and there are only two farms. However, Mr R.A. Hayes found evidence of more houses of mediaeval date when he excavated at East Farm.

Thornton Riseborough was in Domesday

> "Tonitun Gamel had four carcuates to be taxed. Land to two ploughs ten shillings". *1

There were still seven families to be taxed in 1301. There are now only three scattered farms I am indebted to Mr Hayes for unpublished information of his excavations at Riseborough Hill in 1945 when he found evidence of mediaeval occupation.

North Holme has two farms now but seven households were taxed on 1301. Beresford thinks the 1517 eviction of twenty people reported to Wolsey's commission as South Holme really was North Holme as South Holme still has more houses.

Little Edstone which in Domesday is recorded in the manor of Micheftun (Great Edstone) is described as "Torbrant had three carcuates to be taxed Land to two ploughs, Berenger now has it and it is waste". This settlement never seemed to recover as in 1428 it is recorded as a scattered hamlet with fewer than ten inhabitants. *2 At the 1951 cencus, Little Edstone only had 11 inhabitants.

Ryton, a 1086 township is still made up only of scattered

*1 Bawden op. cit 10

*2 Beresford op. cit. 298

farms though the manor has had a continuous owner to the present day. This is one of the townships with monastic granges which have continued as isolated farms.

These records of lost villages (Appendix 2) show how to the east whole settlements have disappeared including the land associated with them and have presumably been incorporated in the present parish boundaries. In the west, the boundaries of the townships have remained though the number of farmsteads in them has declined. In none of these cases can any real reason be given for their decline and depopulation.

For two hundred years after 1050, there was a rapid expansion all over Europe, new lands were cleared, marsh, moorland and forest were reclaimed and trade improved.*1 The north side of the Vale of Pickering shared in this expansion. The monastic granges bought more land into cultivation and though it is unrecorded presumably as the population grew so more of the moorland was cleared and planted. There followed a general decline and recession. Postan writes

> "The two closing centuries of the Middle Ages, the fourteenth and fifteenth, and more especially the second half of the former and the first half of the latter were a period of arrested development." *2

This decline can be accounted for by the frequent wars and by

*1 Darby H.C. The Clearing of the Woodland in Europe Man's Role in Changing the Face of the Earth (Chicago 1956) 198

*2 Postan M.M & Rich EE The Cambridge Economic History of Europe (Cambridge 1952) 191

pestilence which "visited Europe in 1348-49 and at least twice again in the second half of the century." *1 This reduction in population led to readjustments in farming and the poorer marginal land reverted. There was a general fall in the production of all farm commodities, including wool, which is sometimes suggested as the alternative form of agriculture practiced in those areas depopulated by the Black Death.

The disappearance of the settlements on the north side of the Vale of Pickering was part of the general decline of population; no case, at the moment, can be made out for some of the sites being more marginal and deserted while others remained in use.

*1 Postan ibid 194

Chapter Five

The Effect of Enclosure on the Scenery

The greatest visible change in the cultural landscape in recant times has resulted from the enclosure of the land. This did not take place as a single phase but stretched over a very protracted period. For example, the earliest known enclosure was Riseborough in 1204.*1 In 1334, the Prioress of Rosedale had made enclosure twenty years before in Clot Park and had made a new enclosure in Brownthwaite and Pesewra in Rosedale all parcels of the township of Cropton. *2 The last enclosure in the area was at Beadlam in 1819. The earliest of the enclosures divided out most of the lands in each village. In this area, difference in date and type of enclosure has resulted in the small hedged fields of central Ryedale and the large units of the eastern Vale.

There were several ways in which enclosure took place. Slater has ennumerated five; Firstly there could be common agreement among all the collective owners to divide out and enclose the land. *3 A private surveyor would be employed and there had to be agreement. Secondly there was the purchase by one owner of all the conflicting rights, this would give him the power to fence his own land as he liked. Thirdly, was the means

*1 Loughborough B. Some Geographical Aspects of the Enclosure of the Vale of Pickering in 18th and 19th centuries (Hull unpublished thesis 1960) 18
*2 Victoria County History of the North Riding Vol 2 453
*3 Slater g. The English Peasantry and the Enclosure of Common Fields (Constable 1907) 6

offered by the Tudor monarchs of a special licence granting the right of enclosure to a specific landowner. Fourthly, enclosure could take place by act of parliament which was a lengthy and expensive proceedure. After the General Enclosure Acts of 1830 and 1836 if two thirds of the proprietors and owners of rights in the arable common fields agreed, commissioners could be appointed to re-allocate the land. The resulting award was to be placed in the parish church but no permission had to be obtained from parliament. After the General Enclosure Act of 1845 and its amending acts enclosure commissioners undertook the surveying and allocation of the land without reporting to parliament. The fifth means of enclosure was by the use of force and fraud.

The early piecemeal enclosures are difficult to trace and in many cases can only be deduced by references to Glebe terriers, a number of which are preserved at St Anthony's Hall, York for the Diocese of York; and by references in other documents, like the 1649 act for the Sale of the Honors, Manors, Lands heretofore belonging to the late King, Queen and Prince, for which a survey was made of the Duchy of Lancaster, Pickering estates in July 1651, and by references to the Diocesan Visitation records. All these documents merely give evidence of the time by which enclosure had taken place, not necessarily where or how much land was involved.

In many instances, it was only part of the land that was involved at first. When only part of the arable fields were enclosed it was usually either the land close to the village that was enclosed first or the land at the outer margin of the fields. On the pasture and meadow land enclosures often started as sheepfolds, bull and dove closes, mill-garths and the tofts and crofts of tenants and cottagers which were of necessity enclosed and then changed their function to being private farms or arable land.

Enclosure is taken as the end of co-aration in the neighbourhood but in all cases it is not clear this system ever existed. It is possible to try and trace what was the practice on the north side of the Vale of Pickering. Slater, basing his work on Meitzen, explains the type of co-aration by the type of settler. *1 Northumbrian was an infield manured and an outfield sown one year and left fallow until fertility was restored. The Saxon system was of one field combined with fishing. The Mercian system was to have three fields, with one field fallow each year. He places Lincolnshire and the East Riding of Yorkshire into this latter category except that some village only had two fields, that is a system of alternate crop and fallow. Gray thinks

*1 Slater G. The Enclosure of Common Fields Considered Geographically. Geographical Journal (1907) 35-56

there is little connection between the settlers and the form of agriculture over much of England as between the two and three field township there was no essential differences in principle. *1 The two field manor occurs most often in the upland region which extended from the Cotswolds to the Channel. *2 In the East Riding and the North Riding of Yorkshire Gray found evidence for the existence of two and three field systems.

From the Glebe terriers, the inventory of all parish property, it is possible to name the fields in some villages and find out how many there were. Nowadays vicars have a printed form to fill in and some still omit to do so, in the past the vicars started on a clean sheet of vellum and the presentation varies and probably many were never returned. The earliest preserved and extant is dated 1613. Some are not helpful merely stating income and house as the 1685 one for Brompton; "A vicarage house, a stable and a garden all not containing a quarter of an acre of ground and £16 per annum stipend paid by Sir Wm. Cayley Bart. and Arthur Cayley of Hackness Esq (Viz) £11-£12 by Sir Wm Cayley and £4-8 by the aforesaid Arthur Cayley Jun."

Other incumbents had part of their income as a share in the co-aration of the village. For example at Ebberston in the east of the Vale, for which a useful terrier of 1698 has survived.

*1 Gray H.L. English Field Systems (Cambridge Harvard 1915) 409
*2 Gray H.L. ibid 29

Ebberston July 6th 1698

A Terrear of ye Vicarage

> The Vicarage house and Garth bounded on ye North with King's Strat on ye south with an orchard and a house of one xp Crown and on ye East with a little close of Matthew Dodsworth. There are also belonging to ye Vicarage six lands in the place called Goad Grane, defs one land in ye East ffield. And also two oxgates in the Foobridge to goe in ye Grounds yt pays Eefs to Ebberston from Mayday to all Saints day or ye first of November together with Common right in ye Moors and Six Cows pasturage in the Cowpastures with all small tythes which are all be known of wittness our hands the above written."

These terriers are really only helpful if the fields are named. It is likely that a vicar would have been given lands or oxgangs in each of the fields so he could share fully in the farming. He may have let his holding but it may have been in either the two or three fields. The terrier quoted above would suggest that Ebberston had partial open fields as East field seems to have been one, and Goade Gane another unless this was part of an "ancient enclosure". Oxgangs and lands were both used for strips locally Beresford estimates that they were one third to one half an acre and were approximately twenty five feet wide. Beresford has made a more complete study of these terriers and the relevant material is summarised in appendix (3). *1

Considering the terrier information for the townships from west to east. Helmsley, not

*1 Beresford M.W. Glebe Terriers and Open Fields in Yorkshire Journal of the Yorkshire Archaeological Society (37 1948-51) 325

specifically dated, but from the seventeenth century refers to open fields. The names given are 1. Low, 2. Cliff, 3. Carlton East and 4. Carlton West. It is unlikely that a four field system was practiced and it is most probable that there were two fields for Helmsley and two for the settlement of Carlton which was within the parish. For Kirby Moorside there was a terrier of the seventeenth century and one for 1716. There were two open fields High Field and West Field. Ellerburn in 1716 had open fields, Upper Kirkdale and Lower Kirkdale. Thornton Dale from the terrier dated 1685 had three open fields on the east side of the beck, Bottom, Middle and East fields. The western side of the parish had 84 oxgangs of enclosed land. This is the part that was probably Farmanby. The terrier of 1685 for Hutton Bushel refers to two open fields, Middle and East. All the other terriers for the area refer to land that was already enclosed and in closes. *1

Great Edstone was in closes before the terrier for 1663 and in this it states that it was in closes from 1605. Salton has an undated terrier which is placed in the seventeenth century refering to closes. Middleton in 1716 was in closes. Wykeham was in closes according to a seventeenth century terrier.

Sometimes the enclosure award refers to the former open fields, this was the case in the award of 1769 for East Ayton. Here two

*1 Beresford M.W. ibid 325

fields are refered to East and Low. It would seem from the few named fields that exist that both two and three field co-aration were practiced but that two fields were more usual in the settlements at the foot of the backslope. Where it is possible to trace the names on the ground it would appear that the arable land was above 100 feet O.D. to be better drained and that the lower land was used as meadow land.

The way in which the common fields was divided up can be surmised from the ridge and furrow marks like those that remain visible around Ebberston and Wilton. Some idea of the number in each township can be gained from a 1649 "Valuation of tithes of these several Townes being parcel of Pickering Parsonage" *1

Ebberston and Snainton	112	oxgangs
Allerston	80	"
Wilton	55	"
Farmanby	51	"
Kingthorpe	24	"
Newton	32	"

By the time that some of the terriers were written, many of the townships on the lowlands of Ryedale were already enclosed. Where no enclosure award exists it can be assumed that the land

*1 Crossley E.W. The Rectory of Pickering, a chapter in its history Journal of Yorkshire Archaeological Society (35 1940-3 404

was enclosed early. (Appendix 4) It might be supposed that this early enclosure of Ryedale was because the whole area had been monastic granges and therefore never practiced co-aration. It can be proved that this was not so as Tithe award maps exist for many of the areas of early enclosure. Land that belonged to one of the great monasteries and was exempt from tithes at the time of the dissolution of the monasteries was exempt from tithes. *1 This leads one to suppose that the enclosure took place in the early years of the seventeenth century, Beresford comments that the illegal enclosures of the early sixteenth century are better known and documented than those agreed a century later. *2 North Holme enclosure was one of these sixteenth century enclosure and was reported to the Wolsey commission. The only enclosure of an even earlier date is that of Thornton Riseborough which was woodland when it was enclosed in 1204. *3

Where the land was mainly pasture there was less resistance to enclosure as the land within the hedge could be kept free from livestock and tilled, thus increasing work, food production and local prosperity. *4 Partial enclosure often preceeded full enclosure by many years. "Ancient enclosures" appear on the maps for parliamentary enclosure. The land involved in these "ancient enclosures was the lower damp pasture lands and the tofts and crofts of villagers. The early land enclosures of the west

*1 Prince H.C. The Tithe Surveys of the Mid Nineteenth Century Agricultural History Review (7 1959)
*2 Beresford M.W. and St Joseph J.K. Mediaeval England. An Aerial Survey (Cambridge 1958) 121
*3 Victoria County History of the North Riding Vol 1 542
*4 Slater G. The Enclosure of the Common Fields Considered Geographically Geographical Journal (1907) 53

have small fields fenced as compact units. This may be because most of the land was meadow and pasture that was being enclosed. The early enclosure around the backslope foot settlements was mainly the fencing round of arable strips or oxgangs. Middleton was enclosed in the seventeenth century by agreement and to save the expense of a full survey the boundaries were taken as the boundaries of several oxgangs and show the reversed "S" of the ploughed strips. *1 Marshall states that when Middleton was enclosed half the land was assigned to owners of houses and half to owners of land in proportion to the amount of land tax that was paid. This was the mode of division general in the Vale. *2

Marshall writing in 1788, considered there were three main methods of enclosure that applied to the Vale of Pickering. *3 Firstly by exchange and this particularly applied to the north west of the Vale, secondly enclosure by private commission and thirdly by act of parliament. The exchange of land was the most satisfactory as it did not entail finance and suggested amicable agreement among the land owners. The paths could remain as roads with only a little expense of widening.

Chancery decrees were made to enclose Farmanby where 84 oxgangs were divided up in 1678 partly following the pattern

*1 Beresford and St Joseph op cit 121-122
*2 Marshall op cit 96
*3 Marshall ibid 132

of the earlier oxgangs. In Hutton Bushell 485 acres was enclosed by a Chancery decree in 1699, and in the same year Blandsby Park part of the Duchy lands outside Pickering were enclosed.

From 1750, Parliamentary acts enclose the land. These acts laid down that main roads muct be 60 feet wide and minor ones 40 feet, ditches were to be cut and quick set hedges were to be planted and protected by post and rail fences for seven years. On the Corallian backslope, walls were allowed which should be four feet high, 22 inches at the base and 16 inches at the top. On the Moorland, stone boundary marks were allowed as "moorland sheep do not wander over much more than a mile of land in a life time." *1

The Snainton enclosure of 1768 (Figure 39 and 40) has no map. Allocations were made to those with common right houses and frontsteads, who held tithes or who held oxgang land in the open fields, beast gates in the pasture or who had claim in the meadows. *2 The High Commons were not laid out; the herbage was granted to Sir George and John Cayley but "Rights of digging and carrying away turves or ling from 4,728 acres" were given to listed individuals for their ownuse, not for sale, and

*1 Loughborough op. cit 56

*2 Snainton Story unpublished work produced by Snainton & District Branch of W.E.A. 1961

for the collection in the "proper season". The actual number of waggon loads was ennumerated. A communal stone pit was granted. This enclosure was typical of many for which no map has been preserved.

In the case of the enclosing of Pickering, much has been written of the unusual aspects of the act by which the Moor was enclosed in 1785, when the owners of common right cottages were given more than those with 100 acres or more while the Duchy of Lancaster was given a twentieth of the township and a fifteenth of the remaining part though previously the Duchy had jurisdiction over the woodland and Blandsby park which was already enclosed. *1 Marshall writes of the conditions immediately prior to enclosure when the area was divided in two parts by the "brook" (Pickering Beck). *2 On each side were three open fields one under wheat, one beans and one fallow. Each field was 22 oxgangs and the six fields made up 2,376 acres. The common fields and meadows "contracting by amicable exchange" were wholly enclosed. The Dean of York, the leasee of the tithes, was anxious for the enclosure of 3,700 acres of cultivable soil, valued at 3/- to 50/- an acres rent and the quantity of 2,376 acres of common arable or oxgang land. The distribution of the land was made to the owners of common right houses or their site; these numbered 260.

*1 Slater G. The English Peasantry and Enclosure of Common Fields (Constable 1907) 128

*2 Marshall op. cit. 48

Two stone pits were granted to the townspeople for building. The maps are reproduced (Figure 41).

Those of the divisions of the Moorland shows the ingenuity of the surveyers in trying to divide the land fairly and give access. To achieve this there are fan patterns, L shaped fields and road angle patterns. All these are typical of the types of lay out tried by the commissioners. The map for the southern part of the town shows the extent of the ancient enclosures. Both of the maps reveal how the holdings were not granted in continuous units and only by mutual exchange were holdings consolidated. The other enclosures for which there are maps extant show similar features to those for Pickering.

Loughborough comments

> "although the commissioners were concerned with the smallest reasonable economic unit, such as cottage rights, they frequently allotted a large block of land in respect of larger shares in the former open fields and commons but paid little attention to its future organisation, as opposed to its improved value." *1

During the time, in each village, between the act and the finalising of the award there was a decline in agriculture, everyone concerned suffered from a feeling of insecurity. An immediate improvement too could not come as the cost of the

*1 Loughborough op. cit. 125

initial fencing and the paying of the surveyors took capital. Then, gradually, the new owners subdivided their fields still further. The small fields were particularly necessary for pasture as they ensured more economic use of the grass which would otherwise be trampled and damaged before it was eaten.

The whole of the British Isles was not affected by parliamentary enclosure and the Vale of Pickering is placed by Slater in his "champion zone". *1 However, the area is on the eastern fringe and marginal and this is shown by the early private arrangement enclosure and most of the rest is complete by the 1801 act which was passed to facilitate enclosure by making it cheaper. By 1845 when the enclosure could be by commissioners only, none remained to be enclosed.

The earliest enclosures were on the lowland and particularly in Ryedale and the parliamentary enclosures mainly affected the villages on the edge of the Vale. After enclosure, dispersed farms developed away from the townships of the edge of the back-slope but still linked with them. The oldest of these farms are furthest away from the settlements e.g. Cock Moor Hall at Snainton, High Yedmandale at West Ayton. Many farmers continued to live within the settlement and it is only after 1835 that there were a number of farm houses built away from the villages but near to the roads.

*1 Slater G. op. cit. 93

Chapter Six

The Effect of Drainage on the Area

The main subdivisions of the North side of the Vale of Pickering had been reflected in the settlement pattern by the fourteenth century. Ryedale had irregularly spaced hamlets and villages on the slight elevations or scattered farmsteads. Both surrounded by common, arable, meadow and pasture land. In the Marishes, the monastic granges had drained and brought into cultivation the Dark Alluvial Clay loam. The settlements at the foot of the backslope cultivated the land adjoining the village but left the better drained Vale land, the Ings, for meadow land while the waterlogged Carrs were used for summer pasture only. Land drainage has always been significant in the Vale and has been responsible for shaping the cultural landscape. At first, these drainage attempts were individual efforts and no attempt was made to organise the drainage on a regional basis.

A commission of Sewers was appointed for the North Riding in 1615 and one for Pickering Lythe in 1637. There are no records of the first functioning while the second met once over some minor matter. *1 While these commissions were achieving so little in the way of drainage, the new owners of the monastic

*1 Sheppard J.A. The Draining of the Marshlands of East Yorkshire (unpublished London Ph.D. 1956) 376

granges were continuing the drainage of the Marishes and establishing some new farms. The Carrs continued in the seventeenth century to be used for pasture in May, June and July when the Ings were closed so that the hay crop could grow.

The draining of the area was considerably handicapped by the river Derwent itself. The river had very little gradient in this section of its course and meandered slowly over the plain. The water table was near the surface and in times of heavy rain coincided with the surface. The river, where it flowed through the Kirkham Gorge, had a steep gradient. In 1701 Mr Palmer of Malton obtained an act to make the river navigable but before he had done any work on the project he sold out to Mr Wentworth of Wentworth Woodhouse who spent £4,000 on making the river navigable to Malton by building five locks and a tow path on the west bank. *1 By this means grain went downstream and coal up making Malton the main market centre for the Vale of Pickering. The improving of navigation did not remove the two water mills, Old Malton and New Malton which had been regarded as a problem since they were first built in the Middle Ages. For instance, in 1370, Malton Abbey received complaints that by raising the dam the Derwent had risen ten feet.

*1 Sheppard J.A. ibid 383

The mills of Old and New Malton continued to be used mainly for milling or shelling oats after the dissolution of the monasteries. The result the mill dams was that the level of water was raised and much of the land of the Vale had to remain as grass as it was too damp to plough. Tuke, when writing in 1799, estimated that two thirds of the Marishes was grass. *1

Marshall, in 1788, found there was a difference between the east and the west Marishes.

> "The east Marishes (and some other smaller portions of the Vale) still remain a disgrace to the country: lying chiefly in a state of fenn provincially 'Carr' over run with sedges and other palustrian plants, which afford, during a few months in summer a kind of ordinary pasture to young stock." *2

The west, however, had ditches and open furrows which "left it as free from superfluous moisture, as if it were elevated a mile above the Derwent."

The drainage schemes which had improved the west more than the east Marishes were carried out by individual landowners and were greatly helped by the better runoff through the river Rye. For example, the Earl of Salisbury had 300 acres of marshland of Brawby Moor between the river Seven and the river Rye drained. *3 The work was done by raising an embankment

*1 Tuke J. General View of the Agriculture of the North Riding of Yorkshire (1799) 14
*2 Marshall W. op. cit 225
*3 Marshall W. ibid 230

seven feet high and "wide enough on top for cattle to walk upon, sloped sufficiently to prevent it shooting or being trodden down by cattle." This bank was reinforcing and reviving a previous bank. Before the drainage the land was let as gates for a hundred young stock at £50 per annum, after draining it was let at 8/- an acre or £120 per annum. In 1770, a similar scheme drained the marshes on the site of Lake Costa.

Other piecemeal drainage schemes were associated with the enclosure awards. These were particularly important in the area of the east most affected by parliamentary enclosure, which was also the wettest area. An example of the provisions included is well illustrated from Hutton Bushel. At Hutton Bushel there were 304 acres of old enclosure, 485 acres enclosed by Chancery decree of 1699, 527 acres by the Enclosure Act of 1751. The two acts of 1790 and 1792 lead to the award of 1797 when 619 acres of the open arable field, 160 acres of Ings and 1,497 acres of commons and waste were enclosed. *1 The arable fields were split up by making the former drifts between Newton, Preston, Hutton and West field proper forty feet roads and putting fences between them. On the lower land more precise information was given of the drain size (Appendix 5) and the instruction that the drains were to be protected by hedges, and until these grew by post and rail fences. The owners

*1 Loughborough B. op.cit. 89

were required to scour the drains which ran along two sides of their holdings. At Wilton in 1774, similar provisions were made. The ditches round the higher fields which were partly on boulder and Kimmeridge clay had to be four feet deep and one wide at the bottom while on the Carrs, they were six feet deep and three feet wide at the bottom.

These schemes however, had only local significance as the ultimate outfall of the water through the Derwent was still held back by the mill dams at Malton. The Ryedale farmers had fewer problems; by banking their streams the land remained usable, even at times of excessive rainfall. However, even they would have welcomed a speedier outfall. In the Carrs area to the east of the Vale a better outfall was essential as even with the drains and ditches the land was sodden in winter.

This necessity for a better outfall gave rise to schemes for more general drainage in the east. In 1773, Isaac Milbourne surveyed the low ground and drew a map of the existing water courses and in the same year Thomas Tofield presented his report based on this survey. *1 There were 10,754 acres of low ground needing draining of which 9,358 acres were east of a line from Snainton via Foulbridge to Heslerton and 1,396 acres to the west. The fall on the river was 27 feet 7½ inches in 20¾

*1 Sheppard J.A. op.cit. 389

miles. To improve matters he planned a new cut from Ayton to Foulbridge and one for the Hertford from Folkton to East Heslerton and thence to Foulbridge at a cost of £7076.10.0. but the scheme was never adopted.

The next scheme of improvement was inaugurated by a Mr Denison, who, having bought a large estate in the Vale in 1790 applied to be a Commissioner of the Derwent Navigation Company as he wanted navigation extended to Scarborough as permitted by the 1701 Act. *1 In 1793, a scheme was proposed to construct a canal from Scarborough to Kirby Moorside along the northern edge of the Vale to join the Derwent a mile above Malton. The supporters split, as one faction wanted the canal further south to facilitate drainage. Again nothing came of the scheme.

Finally, a report was published in Newcastle in 1800 on "The Draining of the Low Grounds in the Vales of Derwent and Hertford in the North and East Riding of York". This survey was made by William Chapman accompanied by Mr Milbourne who had drawn the map used in 1773. The land that their employers wanted drained fell into three categories;

a). the lowland from half a mile to nearly two miles wide.
b). the narrow strip through which the river meanders and
c). the land above this which was flooded occasionally.

The lowland and meander belt were covered with water at every

*1 Sheppard J.A. ibid 392

moderate flood while the third area was flooded with runoff water only occasionally. The level of the water was usually six feet below the surface at Ayton bridge but in flood the rapid runoff from the Moor could raise the level by ten feet. By establishing the presence of "moor earth" in the deposits at Ayton Bridge, the surveyor substantiated that it was rapid runoff from the Moor which caused the rise in water level. The fall on the river in the Vale was only eighteen inches a mile.

The scheme really had two parts. The first was to utilise the valley which went to the sea from south of Hackness. In this valley, the watershed was only one mile from the Derwent and only eighteen inches above the river when in flood. The plan was to build a dam at Cockrah and to divert some of the water into a canal which would join the beck at Scalby and enter the sea at Scalby Mills. The canal would be known as the Sea Cut. The river Derwent, in the Vale would be straightened by cutting off some of the meanders so that the length of the river would be reduced and consequently the rate of flow would increase and the water table fall.

The proposed alteration was:-

	Old Course		New Course	
	Miles	Furlongs	Miles	Furlongs
S.E angle of Derwent to its proposed junction with the Hertford		7½		4
To Yedingham Bridge	9		6	3
Total involved	9	7½	6	7

From the junction with the Hertford, the water from the drains would not enter into the river direct but to "mother drains" which would be separated from the river by a foreland and embankment of about 18 yards which should never be cultivated. Part of Wykeham, near the river was of slightly higher elevation and was not included in this scheme.

The local landowners were canvassed for support and had to be assured that any scheme to canalise the Derwent for navigation was not being spoilt. Finally an Act was passed in 1800 and the work went ahead.

Though the drainage in the east was improved by the reduction of the length of the course the outflow at Malton was still blocked by the mill dams and the Rye was still restricted by the one arch bridge at Kirby Misperton. *1

The Muston and Yedingham Drainage Board which was set up to administer the drainage scheme allowed by the act of 1800 appealed to Fitzwilliam to make the river navigable as far as Yedingham. They hoped that this would not only provide cheaper transport but mean an alteration in the mill dams at Malton.

A surveyor, Mr Eastburn, was commissioned to report on the prospects of making the Derwent navigable to Yedingham, the

*1 Tuke J. op.cit 13

Rye to Nunnington and Thornton beck to Thornton Dale. The land owners along the Rye, who had already raised embankments, did not welcome the scheme and it was found that the cost was prohibitive. The answer seemed to be a new canal to the south but this could not be built under the terms of the 1701 act. A compromise was reached and locks were constructed round the mills at Malton so that small boats carrying from 18 to 20 cauldrons of coal could use the upper section of the Derwent. *1

The building of these locks did not improve the runoff and the Sea Cut which took the diverted head water was not wearing well. Burniston beck and Scalby beck into which the canal water drained had been rejuvenated and in only a half a mile there was a fall of 33 feet. The increased water caused additional rapid erosion with high upkeep costs. The situation was so bad that some landowners suggested returning the water to the Derwent. Mr Chapman, the Muston and Yedingham Drainage Board engineer who had first planned the scheme, reinforced the bed, near the mouth of Scalby Beck with wooden racks to prevent too rapid wearing away. The final reinforcing with stone and cement facing, and the building of a series of weirs protected with wooden racks which allow the water to pass over

*1 Sheppard J.A. op.cit 398

spectacular falls, but prevented the erosion eating back beyond the road bridge on the coast road to Burniston, was not carried out until 1891.

The mills at Malton continued to function, though in 1819 and 1825 Fitzwilliam who owned most of the property in Malton and was the chief shareholder in the Derwent Navigation Company was asked for permission to erect a steam mill in the town. As the two water mills were the monopoly of the Fitzwilliam estate the use of steam was forbidden. *1

In July 1845, the York-Scarborough railway line through Malton was opened. The route was surveyed in 1840 but the bill was not presented to parliament until 1842. The route followed was to the south of the river Derwent on the slightly higher Carr land and then across the river Hertford and north to the north-south valley into Scarborough. Arguments held up the building, particularly Scarborough Corporation's fear that accidents would occur as the line ran parallel to the road. The fifty miles of line, including the branch to Pickering was built in a year from the acceptance of the tender of £261,00. The building of this line meant that drainage schemes could be considered without reference to transport as the railway was more efficient than the slower

*1 Sheppard J.A. ibid 403

~~water~~ transport. Boats continued to use the river Derwent until 1856 when Fitzwilliam sold his interests in the navigation company to the railway company.

In 1845, the Rye and Derwent Drainage Act was passed. This gave the landowners in Ryedale and the Marishes the right to raise £30,000 to remove the mill dams, compensate the mill owners, and deepen the river above the dams. The mills were converted to steam power, and, in 1848, the dams were finally removed and the runoff from the ditches and dikes was made more satisfactory. The improvements carried out on the Rye are more difficult to trace.

An Act was passed in 1930, which formed the Rye and Derwent Drainage Board and gave the Muston and Yedingham Drainage Board the right to have Valuation officers to charge the payments per acre. This levy is on all land south of the Scarborough to Pickering road and rouses some resentment as some of the land is naturally well drained while some to the north of the road gains from the drainage schemes and yet is free of the acreage levy.

In 1948, the whole of the drainage was placed under the Yorkshire Ouse River Board under the River Boards Act, but the Muston and Yedingham Drainage Board still sees to the

maintenance of the drainage in the extreme east.

The Vale is now drained though some of the areas of peaty soil in the east are still too wet to plough and grow only poor pasture infested with Juncus while the west is completely drained.

Chapter Seven

Farming in the Early Nineteenth Century

The first section has tried to account for differences in the landscape of the Vale of Pickering arising from its physical and historical evolution. In this section, an attempt is made to see if differences have persisted in farming practice and production in the several parts of the Vale.

Early information on farming is difficult to find and when it is discovered it is related to one particular place, at one particular time. For example the information on sheep farming is in no way complete for the mediaeval period, the period of its greatest prosperity. The type of equipment and the size of the farms can sometimes be found from wills and probate records as has been done by Harwood Long, but here again the areal distribution and the time for which the information is obtained are not always comparable. *1

It is possible to consider the distribution of crops that used to have significance and are no longer grown; for example hemp was grown from the Middle Ages until the early nineteenth century. Hemp was a noted crop in the Vale of Pickering which was able to supply Scarborough and Whitby with the raw material for sail and rope making. Whitby was so noted for the

*1 Harwood Long W. Regional Farming in 17th century Yorkshire Agricultural History Review (8 1960) 103

quality of its sail making and rope that ships built in Hull in the sixteenth, seventeenth and eighteenth century were sent from Hull to Whitby to be fitted out.

Hemp, Cannabis sativa, was apparently the variety grown for its fibres which came from the stem of the plant after pollination had taken place. *1 It was a difficult crop to grow as it required considerable hand labour, to weed and then the harvesting came at two periods, the male plant was pulled up as soon as it had flowered while the female was left until the seeds were ripe, The stems had then to be retted and finally the fibres obtained. The male fibre pulled before maturity was often thought to have the finer fibre while that that matured fully had greater strength. Locally the brown holland which was the workers normal attire was also made from the softer fibres. Norden and Taylor, in the seventeenth century, had advocated planting 60,000 acres of drained Fenland with hemp, presumably because in other areas such as the Vale of Pickering it was already successfully grown. The best known and most frequently quoted reference to its early growth in the area is from the Ecclesiastic Visitations of Parishes. In the visitation to Allerston in 1602 "Isabal Rea was presented for washing and dressing hemp on a Sabbath Day at

*1 Sowerby J.E. English Botany (Hardwicke, London) 1868 Vol 8 132

Allerston". *1 There are also references to hemp yards of which there were five at Ellerburn in 1650. *2

There is also evidence that some flax was also grown. The growth of both these crops appears to have been confined to low lying "ancient enclosure," particularly in the east of the Vale. The most westerly direct reference is to the disused bleaching fields on the Common land near Pickering which Marshall states were more fertile and prolific in grass then the fields around. *3 These may have been used for wool but more probably for the local woven flax and hemp, for the poorer people wore clothes made of these. As it was a traditional clothing material it seems unlikely that there was not some grown in the west but no written records have come to my notice.

The production of hemp was quite significant; "For a few years previous to 1787, about 2,600 bolts or pieces of sail cloth were annually made at Scarborough; since that time, the quantity has not exceeded 2,000. During the years 1790, 1791 and 1792 the quantity manufactures into cordage was from 130 to 140 tons annually." *4

*1 Fallow T.M. Some Elizabethan Visitationsto the Churches belonging to Peculiar of the Dean of York. Journal of Yorkshire Archaeological Society (18 1905) 340
*2 Victoria County History of the North Riding. Vol 2 438
*3 Marshall W. op.cit Vol 2 134
*4 Tuke J. op.cit 311

The production of the crop ceased with the import of cheaper hemp and flax from the Baltic countries after the Battle of Copenhagen and the death of Emperor Paul of Russia when trade agreements were made to cement the alliance that was then made. *1 It is presumed that production practically ceased at the time as Marshall had reported earlier in 1788 that the crop was even then declining. *2

It will be seen that though the study of these records is interesting in itself it does not show whether there were significant regional differences in farming production and practice. For this actual figures with a fairly wide areal distribution are needed.

The first and earliest source of detailed information is the 1801 Acreage Returns. These were the first statics of acreages under various crops and were returned by the local incumbents at the request of Lord Pelham, Secretary of State for Home Affairs, so that an estimate of the country's food supply could be made. *3 There was no compulsion to return these documents and though there is a fair distribution of returns from both Ryedale and the eastern end of the Vale the

*1 Churley P.A. Yorkshire Crop Returns of 1801 York. Bulletin of Economic and Social Research (5 & 6 1953-4) 183
*2 Marshall W. op.cit. Vol 2 68
*3 Henderson H.C.K. Agriculture in England and Wales in 1801 Geographical Journal (118 1952) 338

records are in no way complete. The incumbents had difficulty in obtaining the information as farmers were suspicious that it was connected with increasing their tithe payments or increasing their rents, and so in many cases the returns were filled in by estimation. As the request was not made until the harvest was partly gathered, there were some inaccuracies. However, the relative proportions of each crop are likely to be correct if not the actual figures. The actual forms returned are available at the Public Records office and on some of them the incumbents have added helpful comments. In the case of the Vale of Pickering, these actual statistics are even more valuable as they can be used with information on farming supplied by William Marshall, who wrote the "Rural Economy of Yorkshire" in 1788 and concentrated particularly on the North Riding. He was born at the village of Sinnington and thoughhe travelled widely, he returned to Pickering and wrote this volume in his retirement. Allowance must, therefore, be made in his work for his prejudices and his local interests. A second supplementary source of material is "A General View of the Agriculture of the North Riding of Yorkshire" written in 1799 by John Tuke for the Board of Agriculture. He was a citizen of York, and took a more dispassionate and accurate view of the situation though he too, was trying to suggest measures that would bring improvements in the income of the farming community.

The total arable land recorded by the incumbents has been plotted against the total acreage of the settlement in the present day. The total was not given by the incumbents who were not asked about moorland, waste or even pasture. The plotting of the proportion of arable land (Figure 42) brings out the differences between Ryedale and the eastern or Marishes end of the Vale. This is because the draining schemes in the east had not yet been started with the straightening of the river Derwent. Tuke describes the eastern area;

> "The soil of the Marishes is chiefly clay, with some sandy loam, gravel and peat; the whole very low and very wet, in consequence of the river Derwent being very crooked, much choked, insufficient for the floods, and damned up as above mentioned by the Mills at Malton, in consequence of which about 3,500 acres in the North Riding, and 7,000 acres in the East Riding, which if properly drained would be valuable, are greatly injured, or rendered totally useless." *1

This is reflected in the proportion of arable land, only Seamer and Irton in the east had slightly over 25% arable, the rest had slightly less. In the Ryedale end, the proportions were from a third to approximately three quarters. Salton had the highest proportion 73%, possibly as the area included a low hill of Boulder clay which rises above the level floor of the Vale to over 100 feet O.D. as well as better drained alluvial

*1 Tuke J. op.cit. 14

sections which were so damp they would have had to be left as permanent pasture or meadow land, while Helmsley, though it includes higher and drier land, includes considerable moorland and woodland.

To consider the cropping pattern, the figures for the crops have been plotted against the total arable acreage, so that the proportion under each will be fairly reliable. (Figure 43)

In all the parishes, the main grain crop was oats. Oats are not a demanding crop and are now normally grown on agriculturally poorer lands. These are the highlands and the lowlands which are too wet and too cold and the growing season too short to maintain wheat or barley. There is no reason to suppose that the climate of the Vale was so damp and inclement as to preclude the growth of wheat, which in many parishes was the second certainly the third grain crop. The Tees valley, to the north of Cleveland, was at the same time noted for its emphasis on wheat, showing that it could not have been the shortened growing season that was the difficulty. Tuke was able to record that Ryedale was "remarkable for the quality and quantity of oats." *1 One reason for the widespread growth of oats may have been the exceptionally high yields reputedly grown, 8 quarters per acre, though

*1 Tuke J. ibid 120

normally 6 quarters were accounted good. Secondly, oats may have been confined to the more acid soils which were not properly limed to give a crop like wheat. Another reason seems to be given by Marshall, namely, that oats were grown for six or seven years in succession on all the newly ploughed grassland in the west of the Vale, because wheat produced too much straw on this soil. *1 Twelve years later Tuke was still writing that

> "for four, five, six or seven years successively (oats) may be met with in the almost inexhaustible fields of Ryedale, which are peculiarly adapted to the growth of oats." *2

The long succession of crops, presumably showing little deterioration, gave a completely different rotation from that adopted in other areas. However, the harvesting and the marketing of the oats seems to have been the main and economic reason. The oats ripened earlier than other grains when a period of fine weather usually enabled the grain to be threshed out of doors and then sold to factors in Malton or direct to the West Riding. This early harvest meant that the grain travelled before the roads became difficult or impassable with mud. Tuke

*1 Marshall W. op.cit. Vol 2 20

*2 Tuke J. op.cit 108

wrote "No part of England produces worse roads." *1 Oats brought in a lower price than wheat but were more certain of a market and possibly a little more than the ordinary price was paid as this would be the time when the stored wheat flour would be becoming scarce and the oats were used for "Bread in the West Riding." *2 The prices paid in this area were much lower than those quoted by J.W. Rickman for the price of wheat at Windsor market in 1801-£7.4.6., and in 1800-£7.2.10½ per quarter; *3 lower also than the annual average price of £5.19.6 quoted by Lord Ernle. *4 The Rev. Caylay, curate of Wykeham, added notes to his return of 1801 and quotes wheat as being "not less than from £3.4.0. to £4.4.0 and oats £1.3.0 to £1.6.0 a quarter or 1/- a stone." Though oats were the main crop in two parishes, Harome and Wykeham there was a greater acreage under turnips. The percentages were lower in the east, Seamer and Irton had 27%, though this increased westward so that at Snainton it was up to 42.5% and at Thornton Dale 44.8%, but the Western end had a still higher proportion, apart from Harome where the percentage was 31.3%

Wheat was the second grain in all the villages except East Ayton where it was only 21% of the total arable compared

*1 Tuke J. ibid 298

*2 Marshall W. op.cit Vol 2 20

*3 Thomas D.A, The Acreage Return of 1801 for the Welsh Borderland I.B.G. Transactions (1959) 169

*4 Lord Ernle English Farming Past & Present (Heineman 1961) 489

with barley 25.1%. In most of the area it ranged from 20-30% Brompton had the lowest percentage only 14.1% and Helmsley 16.5%. No real differentiation can be seen in the wheat figures. Wheat needs a rich and fairly heavy soil and will not grow well with more than 40 inches of rain.

According to Marshall, winter wheat was grown, apart from a little April sown wheat introduced from the Whitby area. *1 He accounts for the decline of rye in favour of wheat, as a result of the introduction of liming the land. Wheat was a much more satisfactory bread grain and the Napoleonic war had meant a shortage of food generally and a rise in market prices. Marshall suggests that a good deal of the wheat was sent to Whitby, presumably to be made into ships biscuits for victualling ships for the Navy. The wheat was cut by women with sickles, there were usually three women and one man making a "sett" and they could cut an acre a day. *2 The threshing of wheat was done indoors in the barn where the upper storey was thirteen feet high to allow the flails to be used. The winnowing was done by a "Machine Fan" which cost £5.5.0. and had been introduced about 1753 and was in common use from 1773 or 1778 onwards. *3 This indoor threshing suggests that then,

*1 Marshall W. op.cit Vol 2 6

*2 Marshall W, ibid Vol 1 407

*3 Marshall W. ibid Vol 1 270

as now, the grain was not dry enough to lead in from the fields until the winter had set in.

The third grain was barley, the percentage in the whole Vale was low but there was a slightly higher percentage in the east of it. Seamer and Irton had 22% and in East Ayton the amount was 25.1% only .1% less than oats which were the first ranking crop. In the lowland Ryedale parishes, Sinnington had only 2.8%, Salton 4.6% and Kirby Misperton with Barughs Ambo Habton and Ryton had 2.4%. Barley according to D.W. Thomas in "Acreage Returns of 1801 for the Welsh Border" was "outstanding for its ability to mature in a short growing season, and its sensivitity to mineral deficiencies and soil acidity and its intolerance of heavy clay soils." *1 Strangely, the parishes with the highest proportion have considerable areas of wet and peaty soils but the barley must have been grown on the drier lighter soils, the Reddish Brown sandy loams of the Calcareous Grit backslope. Most of the barley was used for Brewing or mixed in with the other bread grains to make an inferior, cheaper bread. Around 1680, the barley had been malted on the farms before being sold, and bracken from the commons, used for the fires, was cut on a fixed day so that no one should take more

*1 Thomas D.W. op.cit 174

than their share. *1 By 1801 public malt houses existed and the barley was sold directly to the malsters. The deciding factor in growing the crop seems to have been economic and those villages near Scarborough grew most while there was a small rise in quantity near the towns of Helmsley with 5.3% and Kirby Moorside 10.1% presumably formaking beer for the urban population.

Farming in the area must have been improved as rye and maslim were only grown in negligible quantities. East Ayton, Wykeham and Snainton grew none. The highest acreage was in Helmsley where it occupied 5.3% of the arable land and was only .2% less than the acreage under barley. This would be the crop that grew on land that was too poor for any more demanding and profitable crop. It would have occupied the intake land and the more marshy acid land that was not used as summer pasture.

The other crop for which an appreciable acreage was recorded was turnips and rape. In all the parishes, this crop figures in the first three ranking crops (Figures 45,46,47) except in Seamer and Irton though there was 19% land occupied with it; East Ayton where 20% of the arable land grew it and Thornton Dale with the smallest acreage had 8.2% of the arable

*1 Marshall W. op.cit. Vol 2 17

area under turnips and rape. The highest proportions were grown in Harome, 42.9%, and Wykeham, 30%, where it was the first ranking crop. At this time, the growth of turnips implied "improved farmers". The assumption was that turnips could be planted instead of having a period of fallow in the rotation. Unfortunately Lord Pelham's advisors had rape linked with turnips in the acreage records and so the figures cannot be taken on face value as suggesting that this was an agriculturally progressive region. One of the clergy, the Vicar of Hutton Bushel with West Ayton had crossed out rape so the whole 240 acres or 21% of the total arable land was under turnips. Marshall says that turnips were introduced in the area in about 1768. *1 Tuke writing in 1799 says

> "The act of parliament of 13th George III for the encouraging of a better cultivation of turnip husbandry in open fields, is little known or attended to; but recourse has in some instances been had to it in Ryedale where turnips having been sold, were eaten off by sheep folded on the ground with nets or hurdles, and great advantage has been continually found to arise from the practice." *2

However, much under this heading must have been rape for seed and oil - Brassica rapus or colefeed. This was planted in July

*1 Marshall W. ibid Vol 2 27

*2 Tuke J. op.cit. 109

or August and not weeded in its early growth but in October it was thinned and the thinnings were used to fill in patches. *1 Eleven months to a year after planting came the harvest. At this time a rape cloth, twenty square yards of hessian weighing half a ton was hired for the day and the seeds were threshed out upon it. The seed was sent to the oil mill at Kirby Moorside or Malton to express the oil. The mill at Kirby Moorside appears to have opened between 1788 and 1799 as Marshall only refers to one mill at Malton. These mills and the growing of rape for oil were affected by the increase in Greenland whaling from Whitby which reached a peak in 1820. The area was noted for its seed but the rape would also have been used as winter fodder.

All the parishes grew some fields of potatoes but in most the area was very small. Wykeham had the largest proportion, 9.8% of total arable under this crop. Marshall had noted that potatoes were cultivated in fields with a plough but that the sett were cut into larger pieces than in other parts of England *2 Grigg writing of the crop returns for South Lincolnshire states that in 1801,the potato was not yet of much importance in England and was being grown for fodder. *3 It was the period

*1 Marshall W. op.cit. Vol 2 29

*2 Marshall W. ibid Vol 2 29

*3 Grigg D.B. The 1801 Crop Returns for South Lincolnshire East Midland Geographer (1961) 47

of war from 1793-1805 when the price of wheat rose and there was a series of bad harvests that caused wheat to rise in price. As a substitute food, the potato began to be used in place of wheat bread. "The labourers diet changed to potatoes, bread and tea from bread, little potatoes and beer." *1 It would appear from the low acreage that potatoes grown were eaten within the parishes themselves or fed as fodder so there was little surplus. Cottage gardens seem to have been very small throughout the Vale so that little supplementary growing of potatoes could have gone on.

Peas were grown in all parishes, except Harome where there was a large turnip acreage and the additional use of peas as fodder was not needed. East Ayton had 5% of the total arable under peas but the others had less than 2% so that little differentiation between the areas comes from this. It would appear to have been due entirely to the personal whim of the farmer. Marshall notes that "pulses, peas and beans were mixed and grown as blendings where formerly lentils grew". *2 They would have helped to replace the nitrogenous matter in the soil and would have been eaten by humans and livestock. Beans

*1 Salaman R.N. The history and social Influence of the Potato (Cambridge 1949) 522

*2 Marshall W. op.cit. Vol 20

are shown as having an even smaller acreage. Both these crops are an alternative to hay and the meadow land was considerable and quite productive. Farmers in the area, frequently salted their poorer hay, just as they sometimes still do, to make it palatable and to cure and preserve it. *1 However, in 1789 a Salt Tax was imposed which according to Tuke made salt costing 3 for 3½d a bushel to produces cost 14/-, which meant that farmers could no longer afford to use it. Nevertheless the acreage under beans and peas does not seem to be high because of this.

When the maps of the first, second and third ranking crops are considered there seems to be very little difference between the east and west. In all cases it is a variation on the combination of oats, wheat, turnips or rape and barley. Closer examination of the actual figures (Appendix 6) does show that the eastern end had a more even distribution among the grain crops while in the west, barley was much lower in acreage than the other two grain crops. In fact, at Helmsley, the rye was almost as great as the barley. The west showed a wider spread of crops, Harome had one missing that was peas.

Crop combination regions have been worked out from these figures based on the formula suggested by J.C. Weaver.

*1 Tuke J. op.cit. 177

> "The recognition of primary crop combinations and the delineation of their geographical patterns may have basic significance in at least three major particulars. First, a knowledge of the character and extent of the crop combinations is essential to an adequate understanding of the geography of the individual crops that hold variable positions in them. Second, the crop combination region is in itself an integrative reality that demands definition and distributional analysis. Third, such a region is a construction essential that must be available if one wishes to build the still more complex structure of valid agricultural regions." *1

These regions are based on the percentage of the total farmland occupied by individual crops so that their relative importance becomes more apparent. (Appendix 7).

The crop regions (Figure 44) bring out the variation between east and west of the north side of the Vale of Pickering very clearly. In Ryedale, three crop farming was dominant while in the east, a four crop was the more usual. Thornton Dale between the two ends had only a two crop domination.

Figures for a whole parish do not differentiate between the variations of soil and elevation; they are bound to be a generalised picture for the parish as a whole nevertheless the difference in farming between east and west is apparent. More is known about farming at that time through the writings of Tuke and Marshall and these bring out the differences. Throughout the area farming was mixed. Approximately two thirds of the land was used as grass for stock raising and grazing.

*1 Weaver J.C. Crop-combination Regions in the Middle West Geographical Review (44 1954) 176

Cattle and sheep were important and there were numerous fairs for the sale of these, as well as for the sale of linen and woollen cloth at Helmsley, Kirby Moorside, Pickering, Seamer and Malton. *1 Butter was packed in firkins and the best went to London while the poorer was sent to the West Riding. *2

The production and value of the farms however, differed on a regional division. Tuke reports that farms in Ryedale were £200 per annum value while several were worth £800 but the majority were small being worth a little above or below £100. In the Marishes, however, they were from £50 to £150 per annum and a few as high as £200. *3 The farms were comparable in size and the higher value in the west reflects the higher proportion of arable land. Labourers wages too reflected this difference. On the north side of Ryedale the wages were ninepence to a shilling in winter and one shilling and fourpence in summer. *4 In the Marishes, the pay was eight pence a day in winter and one shilling to one shilling and sixpence in summer without meat. Women were paid sixpence in winter and eight pence in summer but at the harvest when additional women were employed the pay was a shilling to two shillings and sixpence according to their skill and the nature of the emergency

*1 Tuke J. op.cit. 310
*2 Marshall op.cit Vol 2 196
*3 Tuke J. op.cit. 47
*4 Tuke J. ibid 286

Throughout the Vale, the working hours were from daylight to dusk but with the women starting at eight o'clock instead of dawn.

These first statistics are representative of the period before the main drainage schemes had been carried out and therefore show a pattern still directly related to natural physical conditions. The 1801 crop returns show that differences existed between the east and west of the Vale in the proportion of land under arable crops and the actual quantities grown.

Chapter Eight

Farming at the time of Tithe Commutation Act

After 1801 there is a considerable period before any further assessment of the differences can be made. Partial information of land proportions in the 1840s can be obtained from the Tithe Award surveys which were made as a result of the Tithe Commutation Act of 1836. For some years prior to this date, there had been agitation for some adjustment as farming was restricted and held back by the tithes.

When tithes first started, they were a ten per cent of income, paid voluntarily to the church. They became a statutory obligation, with failure to pay punishable by excommunication following King Edmund's synod at London in 944. At Andover in 970, King Edgar and his Witenagemot issued an ordinance which "regulated the times when they were to be paid and makes their payment a legal liability, enforced by a pecuniary penalty and a power of distraint." *1

These tithes were of three kinds; predial tithes payable on the fruits of the earth, corn, hay, wood, fruit etc.; mixed or agristment tithes payable on animal products such as colts, lambs, calves, wood, milk, honey and eggs, and personal tithes payable on a man's labour, generally levied on profits of milling and fishing. *2

*1 Lord Ernle English Farming Past and Present (Heineman 1961) 336

*2 Prince H.C. The Tithe Surveys of the Mid Nineteenth Century Agricultural History Review (? 1959) 14

William the Conqueror accepted the right of the church to these tithes. The tithe system had been established at a time when there were not local parish churches and so it was not a clear arrangement whereby the people who paid the tithe saw the recipients' needs. In some cases, they were payable to bishops, in others, to monastic orders and even when there was a church with a graveyard only one third of the ten per cent had to be paid to the Vicar, the rest were rectorial dues.

With the Reformation, the tithes were not extinguished, in fact matters became more confused as tithes payable to monasteries were vested in the Crown and later sold to laymen as profitable investments. These were the "lay rectors" or "impropriators" and they sold and dealt in their tithes as in other investments.

By the nineteenth century, the situation was confused. Under the parliamentary Enclosure Awards, some tithes had been redeemed by the conversion of the tithe to a proportion of the land. Sometimes a "modus" or private agreement was made converting the tithe to an annual fixed sum instead of the exact tenth of the produce. Any improvements of the land or increase in productivity increased the amount paid in tithes. Where the tithe remained in kind farmers were very restricted, especially if the tithe owner lived at a distance as the farmer was not free to harvest at the appropriate time.

> "Notice had to be given to the tithe owner to set out the tithe. Farmers risked a lawsuit, if they carried their crops before the process was completed. Consequently, in catchy seasons the rain often outstripped the slow progress of the tithing-man, and the crops were ruined." *1

Criticism of the Tithe system were even greater than before during the depression in farming that followed the Napoleonic Wars when the price of wheat sank to very low average prices e.g. £2.6.2 per quarter in 1834 and £1.19.4 in 1835. *2 Reports of the Board of Agriculture from 1793 to 1815 had shown that comparatively few tithes were still collected in kind but the agitation against tithes was so considerable that the Act of 1836 commuted all tithes in kind and substituted a fluctuating payment or corn rent. To assess this a complete survey had to be made as the tithe was to be assessed on land use. Under this scheme, arable land regularly ploughed and cropped was valued at about one fifth of the value of the yearly rent, permanent grass at one eighth of the value of the rent. Meadow land was however, more highly valued. Land exempt from tithes were naturally barren lands, improved heath or wastes for seven years after improvement, forest lands, glebe lands in the hands of the parson, lands which had belonged to the great monasteries that had paid no tithe at the time of the dissolution and lands on which a modus was paid.

*1 Lord Ernle op.cit. 342

*2 Lord Ernle ibid 489

Since the Ordnance Survey maps, on a large scale, were not available for the whole country at the time of the Tithe Survey, private surveyors were employed for each village. Most of the surveys in this area were made in 1847. Three copies were made, one was lodged with the Diocesan Registry, one in London with the Tithe Redemption Board and one with the incumbent. The incumbent's copy has in many cases been lost, as several thought they were their own property and took them with them when they left the living, while others entrusted them to the churchwardens who mislaid them. Only at Nawton and at Seamer is there a map preserved in the parish; but all the others are available at York, in the Diocesan Registry. The maps are hand drawn on the scale of 3 or 6 chains to an inch which makes them rather cumbersome and each is accompanied by a handwritten book listing the owner, occupier, names of the fields and whether the land was arable, grass including meadow in some cases, wood and moor.

Unfortunately, there is not a complete coverage of all the townships on the north side of the Vale of Pickering as those not liable to tithes were not surveyed. The most nearly complete cover is in Ryedale where Barughs Ambo, Great and Little Habton, Ryton, Kirby Misperton & Thornton Riseborough are wholly recorded. These are villages that were enclosed early and no arrangement was made to rid the land of tithes. The others with

full coverage are Appleton le Moors enclosed by agreement in 1768, Pickering enclosed in 1790 and Allerston in 1810, because in none of these were the tithes commuted into land at the time. A number of townships are not covered at all, Irton, East Ayton, West Ayton, Hutton Bushel, Brompton, Wilton, Middleton, Aislaby, Normanby, Salton, Sinnington and Great Edstone. These are all areas where the tithes were commuted at the enclosure. Sinnington is referred to by Marshall as a place where one tenth of the Commons was allocated to the tithe holder and afterwards the commissioners were empowered to set out a parcel of Commons for half the tithes of the old enclosed lands of the township belonging to the common right houses. *1 The others all have similar arrangements within their awards.

A number, however, are partially recorded. In many cases, as in Skiplam and Marishes, this was because part of the land was directly under the control of a monastic house. In others, as at North Holme and Thornton Dale a modus had been arranged on some of the land. Fortunately, in many of these partial surveys, the figures for the total acreage of arable, grass and waste are given though only the fields actually paying tithes have been mapped.

The figures from the tithe awards have been plotted (Figure 48) to see if there is any significance in the

*1 Loughborough B. op.cit. 87

distribution. In the east, there are only four parishes represented. Of these Seamer had an arable acreage of 59% and 33% grass; Wykeham had 25% arable to 13% grass and over 55% waste or common; Ebberston had over 8,000 acres of moor or 92.2% with only 3.2% arable and 4.4% grass: Allerston had 18.3% arable and 12.2% grass. Seamer which has very little elevated land within its boundary has the highest proportion under cultivation. This parish had benefitted from the improved drainage initiated by the Muston and Yedingham Water Board in 1800. In 1810, the enclosure award for Seamer and Irton had insisted that minor drains were provided and clauses had been inserted to make sure they were properly maintained; the only land that remained unenclosed were the worst drained peats like Star Carr and these were the remaining 8%. The drained land was capable of maintaining nearly twice as much arable as grass. The other three have a very much higher proportion of waste mainly moor. Allerston was enclosed by an award of 1818 but much of the Ings and Carrs had probably been enclosed before 1700. Only 6,354 acres of the 10,000 were enclosed in 1810; comprising East, Middle and West Field, the Common and the Moors. The Moors were granted to George Osbaldeston the lord of the manor but it was merely establishing a title to the land. This moor accounts for the low proportions of arable

and the damp nature of the low land for the amount of grass in relation to this. The other land is divided into 2.7% woodland, 52.3% Moor and 14.4% warren. Although the surveyors for tithe awards list 55% of Wykeham as waste or common, the land was not common, an enclosure award had been made in 1787 but the moor was so poor that though most of it had been awarded to Richard Langley the Lord of the manor neither he, or his heirs, found it worth while to fence the land. In 1814 it was stated "ye moor not worth enclosing value 1/- an acre". *1 Of the remaining land the normal twice as much arable to grass was recorded. Ebberston figures showed an even greater deviation from the normal farming practice than Allerston as in this parish there was more grass than arable.

In Ryedale, there is a much fuller coverage, and the figures showed an almost complete absence of waste or Moor. Kirby Misperton with 64.4% arable and 32.7% grassland, North Holme 65.6% arable to 26% grass and Little Habton 61.4% arable to 34.8% grass had approximately twice as much arable as grassland. The other Ryedale townships had an even greater preponderance of arable to grass, Brawby 75% arable and 25% grass, Barughs Ambo 66.6% arable 21% grass, Great Habton 74.4% arable

*1 Loughborough B. op.cit. 87

and 26% grass, Ryton 71% arable and 27.8% grass. This high proportion of arable to grass reflects the better drainage of the Brown Clay Loams and the economic situation in farming when arable crops brought in more return than livestock.

Along the fringe of the Vale in the west, the only parish with sufficient information is Helmsley. Here the land was 25% arable and 50% grass, 10% woodland and only 14% waste or moor. This rather unusually high proportion of grass is because much of the higher land in the parish had been cleared of moor and turned to pasture by the villagers in Carlton and Helmsley. The other parishes with records are those of the higher back-slope settlements. Appleton le Moors had 70% arable to 11.9% grass, though Cropton which adjoined it had 21% arable 26% grass, Pockley 40% arable and 40% grass while the scattered settlement of Skiplam had 21% arable and 26% grass, 11.8% woodland and 39.9% moor. These figures show considerable diversity, the higher proportion of arable within the parish of Appleton le Moors may be because part of it lies on the Kimmeridge clay which produced the Blackish Brown Clay Loam, while the others had more of the Chocolate Brown Sandy Loam.

These figures and the map constructed from them shows no clear pattern. Ryedale has some similarity but with these parishes Appleton le Moors and Seamer could be included.

The land use for the individual parishes has been plotted from the tithe award information and those for Appleton le Moors on the backslope of the Tabular Hills (Figure 50) and for parts of Ryedale, Great and Little Habton (Figure 51) and part of Kirby Misperton and Ryton (Figure 49) have been included. These maps show little difference that can be related to the cultural landscape. Near every farm were fields of grass which would have prevented mud and blown soils being carried into the houses. Numerous owners of houses and cottages had one pasture field for grazing their cart, carriage or riding horse in the same way as householders now have a garage. In the moorland area of Pickering (Figure 52) that was enclosed in 1789 most was still unreclaimed moor though the fences had been constructed and some had been subdivided and cultivated round new farm buildings. The lowland to the south shows fields like Open Ings were still divided into strips and cultivated by different individuals. The farmers had fields scattered throughout the area.

There were fewer parishes recorded in the east and instead of a map of one of these a plan drawn for the sale of part of the Wykeham estate in 1838 has been included (Figure 53). This map shows much more detailed information. The leases of each field are given with fuller information of the land use and crops. The map of land use is reproduced by the side of

the one showing leassees. Pasture and meadow occupied less than half of the farming land and was in the highest proportion on the lowland south of the village, particularly on the peaty soils. The better drained backslope had a preponderance of wheat though seeds, turnips and oats also occured. On the lowland by the river Derwent, and around Swan Hill farm barley, wheat and oats were grown with seeds, rape and potatoes.

The individual tenants had more consolidated holdings to the north of the road while those to the south were more scattered. Some of the tenants of land in the north also had land in the lowland. Only John Hall and E. Otterburn had consolidated holdings near the river and this may have been because the land was not let and taken into use until after the drainage scheme of the Muston and Yedingham Water Board became effective.

The number of farms in all the parishes giving the information has been listed (Appendix 8) The majority of the farms were under 200 acres. There were two farms over 600 acres in Pickering and 4 of 300-400 in Pickering and one of that size in Allerston all these had moorland and woodland included in the holdings. Muscoates has the largest farms with all farmland, two had between 300-400 acres. Some of the parishes had a number of holdings of under 5 acres, Appleton

le Moors 19, Kirby Misperton 3, Barughs Ambo 6, Pickering 175, Allerston 24. Some of these were the pasture fields for horses but many were "pieces" or parts of larger fields on which potatoes were grown.

Though the actual statistical material available brings out some variation between Ryedale and the east it is not as marked as it was in 1801. Milburn writing of farming in the North Riding in 1849 places the whole of this area in the region he designated "the mixed district". "We have now the difficulty of describing the farming of a variety of soils, altitudes, and situations, scattered over the moorlands of the oolitic series, and the valleys traversing them, some, in a degree greater or lesser, covered with diluvium of a mixed character, and each division and subdivision being modified so as to present no great distinctive outline". *1 He does however, give what he considers the rotation

> "The vale of the Derwent from its source, the vales of the Rye and the Esk are more or less of a peaty character, and grow hardly any grain but oats, while the high elevation of the eastern moorlands leaves their valleys of the same character. The general course pursued is 1. turnips; 2. oats; 3,4. seeds (kept two years in pasture); 5. oats." *2

The turnips were eaten on the land by sheep and the seeds were

*1 Milburn M.M On the Farming of the North Riding of Yorkshire Journal of the Royal Agricultural Society (19 1849) 517
*2 Milburn M.M ibid 518

eaten by the ewes after their lambs had been taken from them. In the only parish for which the crops are known, Hutton Bushel more wheat and barley were grown than oats.

The land in the east was still damp

> "The whole of the valley of the Rye and Derwent is about to be drained by removing the mill dams at Malton, and thus obtaining fall; and this pass being lowered it is hardly conceivable what results in improved value of the land in these valleys may be attained." *1

With the improvement of the outfall there began a fresh era of draining particularly in the east, as pipe drains were laid.

> "Two-inch pipes which very recently in this Riding cost 25/- a 1,000, can now be supplied for 15/-. Drains are made 3 to 4 feet in depth and 18 to 36 feet apart, according to the nature of the soil, and at an average expense altogether of from £3 to £4 per acre. The Government loan is repayable in 22 annual instalments of 6½%, which repays both principal and interest." *2

By the next time statistics are available more of the area had been pipe drained and the farmers were trying to ensure a higher return to recover their repayments.

*1 Milburn M.M. ibid 521

*2 Caird J. English Agriculture in 1850-51 (Longman 1852) 328

Chapter Nine

Farming in the Second Half of the Nineteenth Century.

The first reliable and full statistical information on farming was not collected until 1866. The need for this exact information had been realised for a long period. G.R. Porter, Head of the Statistical Department of the Board of Trade read a paper at the annual meeting of the British Association in 1838 showing how the prices of agricultural products fluctuated because the public was ignorant of the quantity produced. *1 Though the need for the figures was realised, the problem was the method of collection. The clergy had been responsible for the first attempt in 1801 and this had resulted in an incomplete coverage and a good deal of estimation by men who were not experts. In 1854, a Select Committee was set up by the House of Lords to look into the best way of collecting the agricultural statistics. The matter was taken a stage further when in 1861, the magistrates were asked if they thought the constabulary could collect the information. The magistrates felt this was too much to ask the police to do with their other duties. The outbreak of rinderpest or cattle plague in 1865 compelled the government to take action and on 20th February 1866 The Cattle Diseases Prevention Act was passed

*1 Coppock J.T. The Statistical Assessment of British Agriculture Agricultural History Review (4 1956) 6

making the slaughter of infected animals compulsory. I7,875 were slaughtered in the first week and for several weeks 10,000 or so were killed. It is considered by Lord Ernle that this slaughter nearly wiped out Foot and Mouth disease which had been prevalent since 1839 and plueropneumonia which had been widespread since 1840, as many of the animals were already infected with these diseases before contracting rinderpest. *1 The slaughter of so many animals led to speculation as to exactly how many cattle remained.

The urgency of the problem was apparent to those members of parliament who were not especially interested in farming as well as those that were, and the Board of Inland Revenue was deputed to ask every owner of five acres or more to send in a return. If anyone declined, a local assessor was to make an estimate. The livestock were to be returned for 5th March and the acreage for 7th May. These dates were found to be too early for the North of England as planting was sometimes delayed by the weather, so in 1867 the date for the return of both sets of figures was changed to 25th June but this coincided with the hay harvest in some areas and it was brought forward to the 4th June in 1877. It has remained on the 4th June ever since. The size of the farms returning information has varied and this causes some discrepancy when examining the returns. In 1869 the

*1 Lord Ernle op.cit. 375

minimum size requiring a return was reduced to a quarter of an acre and in 1892, the minimum was fixed at one acre.

Under the Agricultural Returns Act of 1925, the filling in of the forms became compulsory. The last act in 1947 agreed that the forms were secret and that after 1949 the information would not be divulged on a parish or township basis.

Maps and graphs for this thesis have been drawn using the figures for the townships at ten yearly intervals from 1867 until the present day, to see if there are differences in distribution of crops and livestock within the northern area of the Vale of Pickering. Land use proportions of arable, grassland and waste have been plotted and then the proportions of the main crops, wheat, barley, oats and turnips, have been plotted against the total arable land to bring out any regional changes of emphasis. Seeds and clover used for hay and grazing have been included in the grassland totals and no distinctions have been made on the maps between grass used for hay and that for grazing. Distributions of sheep and cattle have been plotted on the basis of the number maintained by 100 acres of the total farmland. This is justified by the folding of sheep on turnips and the use of barley and oats in cattle feed. The use of the Moor by sheep has been ignored as only in the dip slope townships does this occur and in most, since Enclosure, it is of minor importance. The High Moors further north are really the area where this practice is widespread.

Apart from the disastrous outbreak of cattle disease in 1865, the figures for 1867 were really representative of a period of prosperity and stability for English farming. War was being fought in America and in Europe but England enjoyed peace. Foodstuffs were being imported but the wars had diminished the quantities and all imported grain was subjected to a tax of one shilling a quarter imposed since the actual taking effect of the 1846 Corn Law Repeal Act in 1849. Lord Ernle writing of this period state "Crops reached limits which production has never since exceeded, and probably, so far as anything certain can be predicted of the unknown never will exceed." *1 He was of course writing in 1912. The farmers in the Vale were progressive in their farming, for example Milburn writing of the farming in 1849 says that "Rape-dust, bone and guano" were being used as fertiliser *2 although the first cargo of Peruvian guano was only imported in 1835. *3

The maps for 1867, reflect this prosperous period of farming in an area where the farmers were progressive. The map of land use proportions shows variability. (Figure 54) The heartland of Ryedale, Ryton, Kirby Misperton, Barugh and Brawby showed a very small proportion of land unused by farming. With

*1 Ernle ibid 375

*2 Milburn M.M op.cit. 500

*3 Ernle op.cit. 369

this group were also included Harome, a lowland Ryedale township but detached by the longer shaped townships of Wombleton and Welburn which extend on to the backslope; Beadlam, Kirby Moorside, Sinnington and Aislaby the townships around settlements at the foot of the dip slope in the west. Larger quantities of waste land existed in Muscoates and Salton which are townships in the west of Ryedale by the river, and in Marishes which covers most of the Marishes area. In these townships, the greater amount of land unused by farming was in many cases lack of completely adequate drainage and to woodland which was not recorded in the returns. The townships containing part of the backslope and the lowland showed a fairly uniform proportion of non-productive land varying from less than a quarter in Irton and a little over a quarter in Snainton to nearly two thirds in Thornton Dale.

The actual distribution of land between arable and grass remained roughly equal though the total amount varied. Kingthorpe was an exception with 44.8% arable and 27% grassland, as was Cawthorne another settlement higher up the dip slope where 25.8% arable and only 12.5% grass. Kirby Misperton in Ryedale had 61% arable and 35.9% grass and Brompton a township stretching from the moor to lowland 30.5% arable and 16.9% grassland. These townships were scattered through all the

regions but there was generally an even distribution between grass and arable or an emphasis on arable.

In the proportions under various crops, wheat, oats and turnips were grown universally with a proportion under "other crops" (Figure 55) Under this heading there was similarity, all except Thornton Riseborough grew some potatoes but the quantity was small. Peas were fairly widespread but were not grown in Normanby, Thornton Riseborough and Kirby Misperton while the largest quantities were grown in the townships on the edge of the Vale. Rye was still being grown in very small quantities in the eastern townships and in the western and in Helmsley and Pockley and in the lowland area of Marishes. Kohl Rabi was fairly widely grown but was missing from Thornton Riseborough, Sinnington, Kirby Misperton, Ryton, Little Habton, Muscoates - all Ryedale townships. These additional crops bring out the individuality of Ryedale more plainly than the other four subdivisions.

Wheat occupied a quarter or less of the total arable acreage in the majority of townships but was grown in higher proportions in Kirby Moorside, Edstone and the western Vale generally. Barley was the least grown grain in all except the Marishes where it occupied 29.8% of the land and Allerston where it occupied 22.9% of the arable acreage. There was slightly more grown in the east. Oats were grown throughout

with a higher proportion in the west; Helmsley 32.5%, Beadlam 37.4%, Pockley 33%, and Great Edstone 34.9% of the arable acreage. In the east, East Ayton too had 33.4% of the arable under oats so the division is not quite clear cut. Turnips were classified with swedes and were fairly evenly distributed. The lowest amounts were grown in Ryedale, Normanby 12.4%, Brawby 15.7%, Salton 11.4%, Great Edstone 13.7%, Kirby Misperton 6.2% and Little Habton 15.2%. All the other townships in the northern part of the Vale had 20% or more of the arable land under turnips and swedes.

These figures show that Ryedale farmers had some slight variation from the rest of the area but the other townships were generally similar. Crop combination regions have been plotted with the crops in order of importance. (Figure 78) Pockley, Beadlam, Nawton, Edstone, Salton and Normanby had a three crop emphasis while the rest had four. Generally the east had turnips as first ranking crop except in East Ayton with its oats and Brompton with wheat. Most of the west had wheat as their first ranking crop. This could have been because of the better drainage in the west. Wheat was certainly a more lucrative crop to grow as it fetched 49.11 per quarter in 1866 and was to fetch 64.5 a quarter in 1867, the highest since 1856. (Appendix 9) Farmers when planting

could only have surmised that the price would be high, but the demand was great as the industries in the West Riding were thriving.

The map of cattle per 100 acres shows considerable diversity. (Figure 74) The eastern end of the Vale had comparatively few cattle with the exception of Sinainton. The number here was high because of the large number of calves and heifers though the figures for two year olds were also higher than in the rest of the east. It would seem that farmers in the township had been unaffected by the rinderpest and were rearing large numbers possibly to sell as replacements to less fortunate areas. Apart from this exception, there were generally more cattle in the west than in the east of the northern Vale.

The pattern for sheep distribution was clearer and more defined. (Figure 76) A high proportion of sheep was kept throughout the area but the east showed a higher proportion with the exception of Ebberston but, even here, there were 98 per 100 acres. The lowest numbers were found in Ryedale, Little Habton being an exception and here mostly they were one year olds. The high numbers of sheep coincide with the higher proportions of turnips. Little Habton was an exception with only 15.2% of the arable land there under turnips; the large number of sheep were presumably pastured on the dike land by the Rye.

There was some variation between the Ryedale townships and the east and the west of the Vale in 1867. Ryedale was already a richer and more productive area able to be fully developed by its farmers.

In 1874, a period of depression, which lasted until 1884 had begun for British farming. *1 The France-German War of 1870 had made it easier for British industrialists to increase their sales at the expense of French and German manufacturers. The Suez Canal had opened in 1869 and had increased the demand for ships at British ship yards, while the development of railways overseas had also contributed to boosting manufacturing. This had meant that the workers in the towns could afford to spend more and this had increased the demand and maintained the price of home produced foods. In consequence of greater production and profits, the rents of farms had been increased by land lords and the market price of farms had increased. The end of the period of prosperity came in 1874 with a depression coming to all industries, coal and iron, and cotton in particular. So great was the recession that in 1878 the Glasgow, Caledonian and West of England banks failed. As a result of the depression, the demand for home produced foodstuffs slumped, although overhead production costs had risen, prices fell.

*1 Lord Ernle ibid 378

The figures for 1877, are therefore representative of this period of depression which was not only caused by economic circumstances but in the case of farming by three years - 1874, 1875 and 1876 - of bad weather when harvests were poor, disease was greater in cattle, and rot was prevalent in sheep.

(Figure 56) The map of land use proportions for 1877 showed how this depression had resulted in a decline in both arable and grassland in Ryedale and in the west of the Vale generally, while in the east the picture was more variable. East Ayton, Hutton Bushel, Wykeham, Brompton, Ebberston and Wilton had all increased the acreage farmed while West Ayton, Snainton and Thornton Dale had decreased. Since 1869, holdings of from a quarter acre had been included in the returns and this may account for some of the increase but not the whole. As there had been a succession of poor seasons the low lying land may have been waterlogged in spite of the drainage schemes and some additional land may have been brought into cultivation on the dip slope to try and maintain production and to employ workers when the other land was too wet. The amount of arable to grassland remained approximately similar with slightly more more arable than grass. The exception was Ryedale where besides land reverting to waste, arable land had been changed over to grass so that there was more grass than arable, Sinnington 43.6%

grass and only 35.6% arable, Brawby 46.8% grass and 33.2% arable, North Holme 59% grass and 36.5% arable, Normanby 45.7% grass 38.7% arable and in Marton 46.5% grass and 36.9% arable. The other Ryedale townships had almost equal amounts of arable to grass except in Ryton where there was still more arable, 53% arable 34% grass. This marked a change of emphasis in Ryedale with more grass than arable. In the east, arable was still more important than grass; Kingthorpe had twice as much arable as grass, 51.6% arable and 24.9% grass and in Thornton Dale the proportion of the farmland occupied by grass had fallen to 9% from 15.9% in 1867 while the arable remained similar at 19%. The other eastern townships had slightly more arable than grass.

The proportions under different crops show a slightly higher proportion under the main crops but the proportion under "other crops" was still more significant in dividing the area up agriculturally. (Figure 57) In 1867, cabbage and kohl rabi had been returned together and were grown in all but Ryedale, but in 1877, when they were each returned separately, kohl rabi was not grown at all and cabbage was returned only as ¾ acre at Cropton and ¼ acre at Brawby. Rape was included in the returns for 1877 and was grown in all townships except Little Habton and Brawby in Ryedale. The largest acreages were in the east of the Vale, East Ayton 83 acres, Wykeham 166 acres, Brompton 133 acres, Snainton 42½ acres, Ebberston 77½

acres. Peas were more widely grown and showed some pattern, occasional townships scattered throughout the Vale had none, Great Habton, Aislaby, Cawthorne, Kingthorpe, Beadlam, Marton, Sinnington, Thornton Riseborough, while the highest acreage were in the east of the Vale, East Ayton 48¼ acres, Pickering 36½ acres, Ebberston 35½ acres, Wykeham 33½ acres, Hutton Bushel 32½ acres, Wilton 28¾ acres, Brompton 28¼ acres, Snainton 23½ acres, Thornton Dale 23 acres. This distribution was not however quite clear since in the west, Kirby Moorside had 40¾ acres and Salton 33 acres. Potatoes were again grown everywhere but the acreages had remained similar to those of 1867 or decreased slightly. The main crops bring out even less the subdivisions within the area. Wheat was grown everywhere but the proportion had decreased over the Vale as a whole with a few exceptions. In Kingthorpe, the proportion of the arable under wheat had increased from 22.1% in 1867 to 29.1% in 1877, and in Kirby Misperton it had increased from 25.9% to 32%. Barley had increased most in the west of the Vale and nowhere had it shown a decline. Oats remained fairly constant. The acreage under turnips and swedes showed only slight variation from the figures for 1867 and the figures showed that less grew in Ryedale.

The crop combination regions have again been plotted with the crops givenin order of importance (Figure 78). More of the

west now had an emphasis on three crops, but there were combinations bringing in all four of the crops. Helmsley, Pockley, Beadlam have wheat omitted but the rest of the three crops regions in the west have turnips and swedes omitted. In the east, turnips had been displaced from their predominance, only remaining first crop in Allerston, Ebberston, Snainton and Hutton Bushel; in the others wheat or barley had taken their place.

Cattle per 100 acres (Figure 74) showed a considerable increase in all townships except Snainton where the figure had dropped to 14 per 100 acres. The highest numbers were in Wilton, Wrelton, Sinnington and Brawby. This general increase was an attempt to change to grazing farming which showed less fluctuation than the grain prices. "Till 1885 the prices of fat cattle had been well maintained." *1

Sheep showed a more confused overall picture. (Figure 76) The east of the Vale had declined in numbers with Thornton Dale showing the most marked decline from 118 per 100 acres in 1867 to 69 per 100 acres in 1877. The west too showed a general decline. There were, however, exceptions such as Sinnington where the number had risen to 127 per 100 acres from 97. This makes subdivisions on this basis impossible. The decrease was due as much to the falling prices of wool as the demand by the manufacturers decreased, as to any disease because of the inclement weather.

*1 Lord Ernle. ibid 381.

So, in 1877 Ryedale could be defined as having some differentiation from the rest of the Vale in its arable farming and in the change of emphasis there to grass.

After 1877, the depression in farming was brought to the notice of the country as a whole by the Duke of Richmond's Commission which met between 1879-1882 to bring out its report. They found that there was acute distress but that it was due first to the bad weather and secondly to foreign competition, and that it was worse in corn areas. The commission felt that the profits on the staple products would remain at a low level. They suggested two ways of alleviating the situation, there should be a remission of rents and a change to increased pasturage of cattle and sheep. This is what the Ryedale farmers who had formerly been more dependant on grain than the more mixed farming areas of the Vale had begun to do by 1877 when pasturage exceeded arable. However meat was being imported. Live sheep and cows had been imported from European countries but the journeys had caused such deterioration in the stock that the better British beasts still held their price but in 1882, the first refrigerated ships brought cargoes of frozen meat. 181,00 cwts were imported in 1882 of which much was tinned or boiled, but the frozen carcases increased in number from then onwards. Cheese imports rose by one third and butter

doubled and so did wool by 1900. The figures for 1887 therefore come at a time when there was some alleviation of the distress of the 1870s but while competition was growing in animal products which had previously remained unchallenged by imports. Cheap grain, however, could be fed to stock and could therefore, lower the price of meat production which partly compensated for foreign competition.

The map of the land use proportions for 1887 (Figure 58) is more difficult to analyse as the figures were grouped under larger territorial units covering several townships. Even allowing for this, the land in use in Helmsley which in the return included Pockley and Harome had increased but that in the Kirkdale area which included Beadlam, Nawton, Wombleton and Welburn, in Kirby Moorside and in the combined area of Middleton, Aislaby and Wrelton all showed a decline. In the east, Brompton now separated from Sawdon, and Hutton Bushel showed a decrease in the amount of farm land. The others in the east showed an increase, Wilton, Thornton Dale and Marishes particularly, and in the townships bordering the river Rye there was also an increase. In generalised terms, the decreases in the acreage cultivated were mainly in the west in the townships bordering the Moors while the lower lying land showed an increase in the amount brought into cultivation.

The proportion under grassland and arable (Figure 58) was roughly equal. Only in Marishes with 39.1% arable and 35.9% grass, in Ryton with 51.8% arable and 43.2% grass, in Great and Little Habton with 55% arable to 42.6% grass and in East Ayton 45% arable and 35.9% grass was there a higher proportion of arable land to grassland. In the grassland figures, the amount of uncut pasture far exceeded that used for hay and comparatively little was seeded pasture. The farmers were changing to the most economical form of grass land.

The proportion under various crops for 1887 (Figure 59) showed that the proportion of the acreage occupied by the variety of "other crops" had increased slightly over the north side of the Vale as a whole. Rape was still widely grown, with the highest acreages in the eastern townships but its actual acreage had dropped slightly, for example Wykeham now had 89 acres compared with 166 in 1877, Brompton 93 acres compared with 133 acres Snainton 32 acres compared with 42½ acres and Ebberston 41½ acres compared with 77½ acres in 1877. This is a fall of nearly half in some townships but in East Ayton there was an increase to 92 acres in 1887 compared with 83 acres in 1877. This shows a change in the feeding policy of the livestock but the replacement is not the same in each township. Peas were now grown throughout the Vale and may have partially

displaced the rape. Salton and Brawby now had an acreage of 103 acres or 9.6% of the cultivated arable land, in 1877 these two townships grew 33 and 3½ acres respectively, Great and Little Edstone had 79½ acres or 7.8% compared with 25 acres in 1877, moderate and increased acreages were grown in the east. Potatoes were again grown throughout the area; in some townships like Hutton Bushel, the acreage had remained constant at 32½ acres, while some like Marishes with 27¼ acres compared with 9 acres in 1877 had increased but others like Brompton showed a decline from 33¼ acres in 1877 to only 21¼ acres in 1887. The areas with variation were scattered and no overall pattern could be deduced. The "other crops" show less regional differences than those for the previous two decades.

The proportion under wheat had dropped throughout the Vale. This was not surprising as the average market price of wheat had dropped to 31/- a quarter in 1886 and few farmers would want to increase or maintain their acreage at that price. Barley had slightly increased in acreage. The best would still find a market as malting barley for the brewers and the rest could be mixed in bread or fed to stock. Oats were the grain that had increased most throughout the Vale. It was a hardier crop to withstand the inclement summers and was a nutritious fodder crop. Turnips and swedes had also increased in proportion to the other crops throughout the area. The depression had increased the similarity of farming in all the townships.

The crop combination regions for 1887 (Figure 78) show only the Helmsley area, Allerston and Seamer with a three crop region, the rest had four. The range of crops had widened to try and find some crop which would be profitable. Nowhere was wheat the first ranking crop. Oats were first in most townships of both east and west, while barley was predominant in Ryton, Allerston and Marishes and turnips were first in Wilton, Ebberston, Snainton and East Ayton. The Ryedale area could still be defined in that its crop regions had oats asthe foremost crop with turnips and swedes as the lowest acreage.

Cattle per 100 acres (Figure 74) were more evenly spread, only Brompton had less than 12 per 100 acres and none had more than 24. Though a certain number of cows were recorded in each township the majority were store cattle. This follows the trend over the country as a whole towards meat production. The map of sheep distribution (Figure 76) showed an area of low distribution in Ryedale, Welburn, Cropton and Cawthorne. However, Salton and Brawby which are in Ryedale had some of the highest figures. The east of the Vale had more sheep than the west and Allerston and West Ayton had the most.

In 1887, the maps and figures show very little regional variation or marked subdivisions, but it is still possible to make a case for separating Ryedale from the rest.

A Minister of Agriculture was appointed in 1889 with an Agricultural Department but he was power-less to take any real action as British exported manufactured goods were paid for by

cheap imported foods. The workers in industry needed cheap foods as their wages were low to keep production costs down so that manufactured goods could compete in a world market. Farmers had been helped to some extent by the transfer of the Tithe rent from the occupiers to the owners of the land by the Tithe Rent Charge Recovery Act of 1891. There were two cold summers, 1891 and 1892, a drought in 1893 and an unpropitious harvest in 1894 with a fall in the prices of corn, cattle, sheep, wool, butter, milk and this produced a second crisis. *1 In this second period of depression the weather had had less effect then in the first. In 1893, a Royal Commission was appointed to enquire into the depression in agriculture. Since the previous report made by the Richmond Commission, the value of production had fallen by one half while production costs had increased. The nadir of the depression came in 1894-5 when the price of wheat per imperial quarter fell to 22/10 and 23/1, the lowest figures recorded for 150 years *2 (Appendix 9).

The maps for 1897 showed the effects of this depression in the Vale. Unfortunately the figures were again given for combined townships and the lower limit of land holding to be liable to make a return had been raised to an acre. The land use proportions map (Figure 60) does not show a marked decrease in farmland except in Hutton Bushel where the proportion had

*1 Ernle ibid 383

*2 Ernle ibid 385

dropped to 46.5% from 54.3 in 1887, Brawby and Salton where it had decreased to 88% from 98.5%, Great and Little Habton 83.7% from 97.6% but the amount had increased in Ryton to 98.1% from 95% in 1887 and Marishes 99.9% from 75%.

The proportion of grass to arable was approximately the same, with arable being greater than grassland in East Ayton 39% arable to 36.9% grassland, Great and Little Habton 42.6% arable to 39.1% grassland, Marishes 51.2% arable to 48.7% grassland, Ryton 54.2% arable to 43.9% grassland all of which were similar to the pattern in 1887, but more townships now had more arable to grass, Brompton 34.3% arable to 26.8% grassland, Seamer 42.4% arable to 37.2% grassland, and Snainton 34.1% arable to 33.6% grassland.

The map of the proportions of arable land under different crops (Figure 61) showed a fair proportion under "other crops". Rape was again the one crop grown in all townships in approximately the same proportions as in 1887. Peas were grown in smaller quantities over the whole Vale with slightly higher quantities in the western townships. Peas were not grown in East Ayton and Ryton. Potato acreages remained fairly constant, vetches and tares had increased in acreage. Mangolds were grown in small quantities fairly widely and the same applied to beans. Kohl rabi was grown again in very small quantities, 4 acres at Seamer and Irton, 2 acres at East Ayton and 2¼ acres at Appleton le Moors.

Wheat acreages had decreased still further and many townships now had less than 10% of the arable acreage under it, for example, in Brompton the proportion had fallen to 9%, in Allerston to 7.9% and in Kirby Moorside to 7.8%. The Ryedale area still had 20% of each township under wheat. Barley had increased slightly in acreage over the whole Vale. The oats acreage remained similar in quantity and distribution to that of 1887. Only the acreage under wheat distinguished Ryedale from the rest of the north side of the Vale of Pickering. Turnip acreage was considerable but did vary slightly, either up or down on the figures for 1887. The majority of townships showed a decline but this was small, for example, Allerston the proportion under turnips declined from 29.6% in 1887 to 27.9% 1897, and Brompton decreased from 25.6% to 23.2%. However, there were some rises, in Ryton the proportion had risen from 18.9% to 24.1%, in Kirby Moorside from 21.7% to 22.1% in Kirkdale from 22.3% to 24.2%, in Hutton Bushel from 24% to 26.1%, in Helmsley from 22% to 26.3% and in Great and Little Habton from 17.8% to 19.9%. These increases in turnips lessened still further differences between Ryedale and the rest of the northside.

The crop combination regions (Figure 78) showed a change to a three crop dominant system except in Ryedale where a four crop remained the normal practice. In the three crop regions wheat was in too small a quantity to be significant and only

appears in Marishes where it was the third crop. Barley and oats were both first ranking crops. In the east of the Vale barley is more often the first ranking crop but in Ebberston, and West Ayton it is replaced by oats. Oats were the first ranking crop in Kingthorpe, Newton, Cawthorne, Helmsley, Appleton le Moors, Kirby Moorside, Gillamoor, Fadmoor and Pockley all of which are middle backslope settlements or are in the west with a high proportion of moorland within their boundaries. Oats were also pre-eminent in the Ryedale townships of Salton, Brawby, Normanby and Thornton Riseborough.

Cattle per 100 acres (Figure 74) remained the same over much of the Vale and slightly increased in Ryedale but declined in the central area - Pickering, Cawthorne, Cropton, Appleton le Moors and Allerston. Dairy cows were slightly up in number while the store cattle had fallen in number. The certain profit from producing beef was being challenged by the increased imports from the Argentine.

Sheep per 100 acres (Figure 76) had increased in parts of Ryedale, this coincided with the increased turnips in some Ryedale townships. The number of sheep had decreased in Pickering and in Newton and Cropton where the higher altitude made farming more marginal. The east stands out as a region with more sheep and becomes obvious as a region in this respect.

The subdivisions in the north side of the Vale were more indistinct as economic difficulties forced farmers to plant and farm to meet the conditions existing in the country.

Chapter Ten

Farming in the First Half of the Twentieth Century

The beginning of the twentieth century did not herald a new era for farming in England, nor did it mark a return to the prosperity of earlier days, before the two depressions of the 1870s and of 1894-5. Farming, however, had adjusted itself to the lower return for grain and the competition from overseas in most commodities. The improvement came with changes in techniques; the use of more machines, like the cutter and binder and the spring tined cultivator to reduce the cost of cultivation and the amount of labour required. At the same time, improved strains of seeds and new and more efficient breeds of animals were being developed. In parts of Britain, there was a movement of farmers from one part to another, for example, dairy farmers of the west went into the south and the Midlands; Scots moved into Essex and Hertfordshire and to a lesser degree Kent and Surrey, bringing with them their knowledge of milk production. *1

The north side of the Vale of Pickering did not witness any change in population. A small number was moving from the villages, where a general increase had taken place from 1801, (Figure 80) until the peak year in many villages of 1881. This

*1 Lord Ernle ibid 385

meant that most of the movement came after the first depression when conditions did not pick up quickly. In some townships, there was an earlier or later peak; Seamer 1861, East Ayton 1861, Hutton Bushel 1851, Thornton Dale 1831 and 1851, Wilton 1841, Allerston 1851, Marishes 1861, Newton 1891, Harome 1851, Pockley 1851, Nawton 1871 and Hutton le Hole 1871. There was some decline in all the townships in 1891, 1901 and 1911, but there was no mass movement away from the area.

The Agricultural Return figures for 1907 were representative of a period of more stability and presumably more efficiency. The figures were again for grouped townships so that individual changes were not so obvious. The land use proportions map (Figure 62) showed some changes from that of 1897. Helmsley and the townships associated with it showed a decline in agricultural land, Nawton, Beadlam, Wombleton, Welburn, Welburn, and Bransdale East and West showed an even greater decline from 89% in 1889 to 44.5% in 1907. Kirby Moorside, Fadmoor, Gillamoor had declined from 44% to 40.6% in Aislaby, Middleton and Wrelton, the amount fell from 91% to 81.4%. All these are western townships on the edge of the Moor and farming was surviving by withdrawing from the marginal land which reverted to moorland. In Ryedale, some of the township groupings had been changed making comparison difficult, mostly the farmland to waste proportion remained the same but even here there was some decrease, in Salton and Brawby the farmland decline from 88% to 86%. In the east of the Vale there was little change.

The proportion of arable to grass showed little variation from the 1897 proportions, except that grass surpassed arable in more townships. The exceptions were fewer but were the same as in 1897, Brompton33.6% arable to 30.7% grass, Great and Little Habton 41.9% arable to 40.7%, Ryton 50.8% arable to 47.3% grass and Seamer and Irton 42.5% arable to 41.2% grass. Grass had increased at the expense of arable and even in those townships where arable was still more important the gap was narrowing.

In the proportions under main crops (Figure 63), a fair percentage was under "other crops" except in Pickering. These again show interesting variations. Sugar beet was grown for the first time; ¾ acre in Lastingham and Appleton le Moors, ½ acre in Kirby Misperton, 8½ acres in Thornton Dale, 6 acres in Sinnington, 1¾ acres in Seamer and Irton and 1 acre in Ryton. The crop would have been grown as fodder as there was no modern processing factory until one was established under Dutch control at Cantley in Norfolk in 1912. *1 Sir John Bennet Lawes at Rothampstead had in 1897 experimented in improving imported French sugar beet seed. Rape was still grown in all townships but was down in acreage in some cases as at Brompton where only 34 acres were grown, exactly half the total grown in 1897. Potatoes were again grown in every township but were

*1 Trow Smith R. English Husbandry From Earliest Times to Present Day (Faber 1951) 194

down in quantity. Kohl rabi which was hardly grown in 1897 now occurred particularly in the east of the Vale, Allerston 8 acres, Brompton 10 acres, East and West Ayton, Wykeham, Hutton Bushel 67½ acres, Seamer and Irton 10 acres. Mangolds which were hardly grown before were reaching two figure quantities. Peas were still widely grown in smaller amounts with rather more in Ryedale.

Wheat had increased throughout the Vale but larger quantities were being grown in Ryedale. In Kirby Misperton, wheat occupied 29.4% of the arable land; in Great and Little Habton 20.4% was wheat, and in Ryton 19.6% was wheat. In Brawby and Salton the proportion under wheat had declined from 19.7% of the arable in 1897 to 16.6% in 1907; this is the only decline in the Ryedale area. The figures for barley had remained more or less constant. Where there was a decrease, it could be accounted for by the increase in wheat in that particular township. These changes were small, for example, Ryton in 1897 had 14.8% of wheat and 32.8% of barley, in 1907 wheat 19.6% and barley 30.4%; Wilton in 1897 had 9.4% of the arable acreage under wheat and 31.8% under barley while in 1907 there was 11.9% wheat and 29.2% barley. Similar examples could be taken from all parts of the northern Vale. Oats were still important and

occupied about 20-25% of the arable land in all the townships except Marishes where the figure was 13.4% an increase of 2% on the 1897. Turnip and swede distribution remained similar with less grown in Ryedale. The crops again show a differentiation in Ryedale, where more wheat and less turnips grew, and Marishes was distinct with its large area of barley and turnips and almost equal area of wheat and oats.

The map of crop combination regions (Figure 77) showed a return to a four crop region in the extreme east of the Vale and in the central part, Marishes, Pickering and Thornton Dale. Three crops, variations on barley, oats and turnips remained more usual for the townships with their settlements at the foot of the backslope in the west and in Allerston, Ebberston and Snainton. Barley was most frequently the first ranking crop, the exeptions were Kirby Misperton where wheat took first place, Cropton with turnips and Appleton le Moors and Lastingham, Barughs Ambo with Normanby and Thornton Riseborough, Kirby Moorside with Fadmoor, Gillamoor and West and Low Farndale and Newton all have oats as the first ranking crop.

Cattle per 100 acres (Figure 74) had declined in the east but increased in the central part of the Vale. There was more differentiation in the cattle statistics and cows in milk and heifers in calf were separated. There was an increase in dairy cows but other cattle still outnumbered them by nearly twice as many.

Sheep per 100 acres (Figure 76) were fewer in Ryedale and Pickering but had increased in the west in Nawton, Wombleton, Welburn and Beadlam. They appear to have declined in West Ayton but this was probably because of the adding together of the figures for so many townships.

In 1907, some case can still be made for the separation of Ryedale and possibly Marishes as separate subdivisions of the Vale.

Before the time of the next figures, war had broken out in 1914 which changed the whole economic situation. At first, shipping continued to bring imported foodstuffs while in Britain milk continued to be produced and the normal proportion of wheat and fresh mutton and beef. In the second year of the war, the submarines were destroying a large quantity of allied shipping and the Government took steps to improve the home food supply. A committee was set up under Lord Milner and its report advocated increasing wheat acreage, by promising farmers a guaranteed price for four years and the establishing of district committees to give advice to farmers. *1 The government decided to take no action. The situation became worse and in 1916 a new coalition government took office but could not alter the outlook in the farms for the following year.

*1 Ernle ibid 402

There was a shortage of labour as so many farmworkers had joined the army, lime kilns were closed, fertilisers were short, there was a break down of much steam machinery as the technicians were not there to repair it and new equipment could not be produced as the factories were turned over to munitions. Added to this the spring of 1917 was severe so the figures for 1917 reflect not an increase to help the war effort but farmers working under difficulties. The first Cultivation of Lands Order vesting power in the County Executive Committees was signed on 19th January 1917. These powers were great; where grassland could be more profitably used as arable, the committee could order it to be ploughed and planted. There was no appeal against the decision and a fine or imprisonment was to follow if the order was not complied with. In June 1917, the quotas under various crops for the next year were to be allocated. The figure for 4th June 1917 predate this change to government planning and still represent the individual farmers' initiative and reaction to the limitations of the physical environment and the difficult economic conditions.

The land use proportions (Figure 64) were again given on a township basis. The townships in the east with the exception of Seamer and Irton showed considerable waste, woodland and moor; between a quarter and two thirds. In the west, only Helmsley, Pockley, Skiplam and Cropton have a high proportion of land uncultivated. Though the Ryedale townships had most

farming land, Wilton, Aislaby, Middleton and Wrelton, settlements at the foot of the backslope had more than 90% of their land used for farming.

The proportion under grass varied. In general terms, grassland exceeded arable, sometimes by only one or two per cent but in some of Ryedale grassland exceeded the arable by twice as much. For example, Muscoates had 35.7% arable to 60.5% of grassland; Little Edstone had 33.9% of its farmland as arable and 67.6% grassland; Normanby had 32.9% of arable to 62.7% grass; Sinnington had 30% arable to 69% grass. Ryton was an exception to the general pattern in Ryedale, with 46.3% of its area under arable to 44.3% under grass. In the east of the Vale, proportions were more nearly equal and in some cases arable exceeded grassland. Allerston had 17.5% arable with only 16.7% of grassland; Brompton had 22.1% arable to 21% grassland; Snainton had 34.1% arable to 33.5% grassland; East Ayton 40.9% arable to 39.6% grassland; Kingthorpe had 40.8% arable to 37.9% grassland. It appeared that those townships with a lower proportion of farmland emphasised arable crops while those townships where the bulk of the township was farmed were finding it necessary to put more down to grass. As usual permament pasture exceeded the clover and sainfoin by at least three times, hay was made in larger quantities from the permanent grass than the ley grass.

In the proportions of the arable under the main crops (Figure 65), the amount under "other crops" had declined in the east but remained similar in the Ryedale area. Helmsley, Pockley, Appleton le Moors, Cropton and Cawthorne all townships in the west with land on the dip slope showed similarity with the east. There was still a wide variety in "other crops". Rape was still grown in all townships but in very reduced quantities. The largest quantities were grown in the east as before, Pickering 69½ acres, Allerston 37½ acres, Ebberston 53½ acres, East Ayton 10¼ acres, West Ayton 65½ acres and Seamer 59¼ acres. The rest of the Vale, Ryedale, and the west had much smaller acreages, with the exception of Harome where 36½ acres were grown. Mangolds were grown in the largest quantities in East Ayton 124 acres or 12% of the arable land, Marishes 27¼ acres, Allerston 22¼ acres, Brompton 17½ acres and Pickering 31¾ acres. All these are eastern townships and have drained lowland comparatively free from stones. Kohl rabi was now only grown in Kirby Misperton 2 acres, Snainton 2 acres, Seamer 2 acres and Salton 3 acres, the other fodder crops had gradually replaced them. Peas had a very reduced acreage from 1907 and in 1917 were not grown in Ryedale and the west. The potato acreages were low, lower than in 1897 or 1907. The highest acreages were in the towns, Pickering 53¾ acres, Helmsley 34 acres and Kirby Moorside 15¼ acres. Considering the size of the

populations, in 1911, Pickering 3,674, Helmsley 1,393 and Kirby Moorside 1,657, these acreages under potatoes were low. This may have been because of the bad weather in the spring or because there was a shortage of labour which made this crop unpopular. Rye was still grown in some of the western backslope townships. Vetches and tares continued to be grown throughout the area. No sugar beet was grown at all.

Wheat was the least grown of the four main crops, the largest percentages were in Ryedale. The autumn and spring sown had been separatedin the statistics. There was only a little spring wheat sown, this was widely distributed for example, Appleton le Moors 6½ acres, Beadlam 5½ acres. Marishes 10½ acres and Seamer 8 acres. Of the Ryedale townships, where the largest proportion of arable land was under wheat Kirby Misperton with 28% and Barugh with 25.4% had most. Barley was grown in larger quantities than wheat throughout the north side of the Vale. The largest quantity was grown in Kingthorpe 40.6% and the lowest in Salton 20.9%. Oats were also important and tended to be grown in largest quantities in the townships with land on the backslope. There were exceptions, Salton, a Ryedale township, had 29.4% Turnips and swedes show a regional subdivision; in the Ryedale townships they continued to be less important than the other three crops, Normanby had the exceptionally low figure of 5.8%, Barugh 9.5% but most were nearer 20%.

The crop combination regions (Figure 78) show the west as depending on four crops with the exception of the middle backslope townships of Appleton le Moors, Cropton, Cawthorne and the dip foot settlements with land on the backslope, Helmsley, Skiplam, Middleton, Wrelton and Aislaby. Barugh in the heartland of Ryedale also had a dependence on three crops; but unlike the others with barley, oats and turnips, its three were wheat, barley and oats. The east mainly concentrated on three crops, oats, barley and turnips but Seamer and Wykeham grew enough wheat for their to be a dependence on four. Oats and barley were the two chief crops but no clear distribution division can be made, oats tended to be first ranking crop in the townships on the backslope with barley more on the lower land but there were many exceptions. Barugh and Kirby Misperton had wheat as their first ranking crop.

Cattle per 100 acres (Figure 74) showed an overall general rise, except in Kingthorpe, where there were less than 12 per 100 acres. The large numbers were in Ryedale, North Holme 24 per 100 acres, Brawby 24 per 100 acres and Thornton Riseborough 26 per 100 acres. Store cattle still exceeded dairy cows but there were large numbers of these.

Sheep per 100 acres (Figure 76) also showed an increase, the lowest numbers were now in only some townships in Ryedale. The townships of the backslope all had more and many had over 110 per 100 acres.

This was the first year for which the number and size of farms was given. (Appendix 10). There were comparatively few large farms over 300 acres and most of these were in the backslope townships, there were exceptions, in 1917 Normanby had one, Salton one and Sinnington one. In most townships, half the farms recorded were under 50 acres, the exceptions were in the backslope area.

The adaptation to conditions in 1917 had made the farmers turn to more stock and pasture acreage had risen; the growth of fodder crops, however, had not increased to such an extent as might have been expected. The statistics for 1917 did bring out an east-west division and a Ryedale-dipslope difference.

The First World War ended in 1918, and with it all attempts at planning. At first farmers found a sellers' market. The Seeds Act on 1920 imposed upon all vendors of seeds an obligation to declare the germination capacity and purity of their seeds. *1 This helped farmers by reducing some of the weed problem. The post war boom ended in 1921 and prices slumped to 42/2 for an imperial quarter of wheat in 1923. This figure was arrived at by Ernle as the 1921 Corn Sales Act made the hundred weight the standard measure by which all corn was to be sold, and abolished the legal status

*1 Ernle ibid 417

of the quarter. *1 To help farmers, the Agricultural Rates Act of 1923 provided relief from local rates, in that rates were to be levied on only a quarter of the value of the agricultural land and buildings. The Labour government of 1924 restored the Agricultural Wages Board, though the County Committees, made up of representatives of employers and workers in equal numbers, two nominees of the Ministry and an independent chairman were to fix minimum wages and refer their recommendation to the Board for ratification. This did not bring stability as there was no insurance against unemployment for agricultural workers. Workers in some parts of the country left the land, but this was not apparent in the population figures for the area studied as the decade 1921-31 showed a slight rise.

There was some demand by servicemen to be resettled on the land. The Smallholdings Act of 1908 gave the County Councils a duty to provide small holdings to rent or buy. *2 Under this original scheme two sites had been purchased by the North Riding County Council in the area. One between Brawby and Salton in Ryedale, had been purchased in 1912 and divided into three. The other purchased in the same year was 141.746 acres in East Ayton and divided into seven holdings. The 1919 Land Settlement (Facilities) Act gave further powers to the local

*1 Ernle ibid 418

*2 Rowell C.W. County Council Smallholdings 1908-1958 Agriculture (H.M.S.O. 1960) 109

authorities and under it in 1921 land was bought in Allerston which was divided after improvement in 1926 into twelve equipped holdings. This reflects that in this area there was not the despondency over the future of agriculture that there appears to have been in other parts of Britain, though the figures for 1927 represent the economic uncertainty and instability of the time.

The land use proportions (Figure 66) were again given under individual townships. A new classification for rough grazing had been introduced. Some this was recorded in all but the following townships, in Ryedale - Great Edstone, Great and Little Habton, Harome, Marton, Muscoates, North Home, Thornton Riseborough and Ryton; and in the middle backslope townships - Cawthorne and Kingthorpe and in the east in Wilton. Farmland decreased in the east generally, for example, in Seamer from 88.1% in 1917 to 80.3% in 1927. The exceptions in the east were Kingthorpe and West Ayton where the moorland and waste had declined and Ebberston where 12.5% rough grazing was now added to the farmland. On the backslope in the west, the amount of farmland had increased by the addition of the rough grazing. In Marishes, Ryton and Barugh the farmland increased but in Ryedale generally there was a decrease.

Grassland generally exceeded arable in all areas but there were a few exceptions, Brompton 37.1% arable, only 25.1% grass and 4.7% rough grazing; Kingthorpe had 43.4% arable to only 37.1% grass. The figures for temporary grass and clover increased in relation to the permanent grass though both were still mown for hay and the permanent grass was mown in far greater quantity. Cawthorne was an exception to this as the total of sown grass was 208 acres and the permanent grass only 135½ acres. The rough grazing, in some townships represented common right grazing. This was the case in Allerston 2,390 acres, Appleton le Moors 7,000 acres, Cropton 616 acres and Wombleton 37 acres.

In the proportions under the main crops (Figure 66), there was a general rise in the amount classified as "other crops", and the amount was uniform over the whole area. Rape was still grown widely in similar or slightly smaller amounts than in 1917. Some townships had none - Great Edstone, Great and Little Habton, Middleton, Newton and Welburn. Most was still grown in the east of the Vale. Mangolds were not so universally grown in 1927 and were generally in smaller proportions. There were exceptions, in Thornton Dale the acreage had risen to 60 acres and in Pockley to 30¾ acres but mostly the acreages were lower. Peas were differentiated into those harvested as corn and those picked green and used as fodder.

Very few were grown and these were mainly harvested as corn. Beams were divided similarly and they showed a remarkable rise, for example 56½ acres were grown in Pickering, 45 acres in Allerston, 44 acres in Kirby Misperton and 36 acres in Ryton. All of the beans were cut as corn; and in the few other townships which grew them the acreages were lower. Small amounts of potatoes were generally grown in all townships. Sugar beet for which a subsidy was paid as a result of the 1925 Beet Sugar Subsidy Act was being grown in Pickering where there was 8 acres, in Marishes with 42½ acres, in Wilton 21 acres, in Allerston 34 acres, in Ebberston 26 acres, in Snainton 80 acres, in Brompton 17 acres, in Hutton Bushel 19 acres, in West Ayton 17 acres and in East Ayton 16 acres. *1 All these are in the east of the Vale where there are Dark Alluvial Clay loams fairly free from stones.

Wheat was grown in smaller quantities than the other cereals in most townships. It remained more important in Ryedale than elsewhere, as here the Red Brown Clay Loams were ideally suited to it. The largest amounts were grown in Normanby and North Holme where it occupied 23% of the arable land while in the rest of Ryedale it occupied about 20%. Barley remained in about the same proportions or slightly lower than it had been ten years previously in 1917. The same applied to the proportions under oats; they were similar or a little lower. Turnips and swedes

*1 Trow Smith op.cit. 182

were grown in greater quantities in the east and in those townships with land on the backslope in the west. The smallest proportion of land under turnips and swedes was in Ryedale, for example only 6.2% of the arable land at Great Edstone and 10.1% at Kirby Misperton were occupied by them.

The crop combination regions (Figure 79), still had four main crops in Ryedale and three in Helmsley, Skiplam, Hutton le Hole, Appleton le Moors, Cropton and Cawthorne, the townships on the backslope. Great Edstone, in Ryedale was an exception having a three crop dominance. In the east, the backslope pattern of three crops is not so clear as more townships have a four crop system. Barley and oats were intermixed as first ranking crop, and only in Normanby, Salton and North Holme was wheat the first crop.

Cattle per 100 acres (Figure 75) showed a general rise, with the east of the north side of the Vale having slightly fewer than the rest. The areas with more than 24 per 100 acres had now increased to Barugh, Muscoates, North Holme and Welburn. All townships had considerable quantities of dairy and beef cattle. Beef cattle out numbered dairy cows in most of the eastern townships and in a number in Ryedale.

In sheep per 100 acres (Figure 77) there was a decline particularly in Ryedale, where the proportion under turnips and swedes had decreased. The east continued to have more while the highest number was found on the backslope in the west.

In 1927, in spite of the difficulties experienced by farmers it is still possible to subdivide the area agriculturally. The farmers seeking to make a profit against considerable difficulties were exploiting the potentialities of their physical environment. Ryedale was concentrating on grain growing and cattle, while the backslope settlements in the west concentrated on barley, oats and turnips and sheep though there were some cattle kept. In the east, the variation was greater according to the amount of Ings and Carr land in relation to the backslope. Marishes was similar to Ryedale but there were far more beef cattle kept.

The farmers continued to struggle against the demand of the townspeople for cheap food. There was some alleviation by the 1928 Act removing rates from the agricultural land and allowing the farmhouse to be assessed for rates as a private dwelling. The Agricultural Credits Act of 1928 made it easier for farmers to borrow money for mortgages and improvements. *1 These two measures only alleviated the situation slightly. The Agricultural Marketing Act of 1931, extended by the act of 1933 revolutionised farming by prescribing grades and designation for agricultural produce. These schemes were first for hops, milk, potatoes and pigs and gave the farmers the power of combination against the buyers. The National Farmers' Union organised the producers, and being a group of farmers themselves, the schemes were acceptable. The policy was to set up Marketing Boards;

*1 Ernle op.cit. 418-422

two thirds of all the registered producers had to agree and between them represent at least two thirds of the production before action could be taken. When agreement was reached on marketing policy only the registered producers might sell the product. The 1933 Act strengthened this policy by giving the Board of Trade power to regulate imports of those commoditites which were under the control of a marketing board. These boards controlled the quantity produced, advertised and made certain there was a market at a fair price. All this legislation helped to give security but it also caused farmers to change to those commodities like milk for which the Marketing Board guaranteed a sale.

The 1937 land use proportions (Figure 68) showed the effect of the marketing boards upon farming in the Vale. The amount of land being farmed remained similar to that in 1927, but there was a decline in the higher dip slope townships of Hutton le Hole, Cropton and Kingthorpe and in West Ayton. Marginal land was being withdrawn from cultivation. Some was reverting to Moor but in West Ayton and Kingthorpe it was being changed to forest.

There was a general decrease in the difference between arable to grassland. In 1927 only Brompton and Kingthorpe had more arable than grassland, now the list was different -

Harome 46.1% arable and 44.6% grass, Little Habton 64.6% arable to 17.1% grass and 16.5% rough grazing, and Ryton 53.3% arable to 40.9% grassland 4.3% rough grazing. These were all Ryedale townships and in Ryedale as a whole the grass acreage had decreased slightly from that in 1927 but in the east and the backslope townships the grass had increased. Permanent pasture far exceeded planted clover and similar leys. Rough grazing was widespread in Ryedale as well as in the backslope townships where the proportion was greater. The common land was still 2,390 acres in Allerston, 7,000 acres in Appleton le Moors and 616 acres in Cropton but the common in Wombleton had disappeared.

The main crops (Figure 69) had altered; the amount under "other crops" had increased particularly in Ryedale with the exception of Normanby, Thornton Riseborough, Sinnington and Cawthorne. Sugar beet was important in Marishes where 108¼ acres were grown. There were 22 acres in Pickering, 19 acres in Ryton and 11 acres in Welburn; otherwise the crop was confined to the east of the Vale, Seamer 35 acres, Irton 6 acres, West Ayton 14 acres, Brompton 3 acres, Snainton 25 acres, Ebberston 41¾ acres, Allerston 17½ acres, Wilton 23 acres and Thornton le Dale 31 acres. Rape was still widely grown and important as an additional fodder crop. Cabbage and Kale had increased in importance, Kirby Moorside had 29 acres, Brompton 20½ acres,

Spaunton 14½ acres, Wykeham 29 acres, West Ayton 34 acres and Seamer 16¼ acres! The other townships had less but still a fair quantity. Potatoes were grown in much the same proportions as in 1927. Beans for fodder were more important than peas. A little more kohl rabi was grown and mangolds were generally grown. None of these minor crops except, possibly the sugar beet bring out regional subdivisions within the northern part of the Vale of Pickering.

Wheat had increased in acreage throughout the area with the largest amounts in Ryedale, for example, 33.5% in Great Habton, 30.3% in Kirby Misperton, 45.2% in Ryton and 34.3% in Normanby and 8.3% in North Holme. Barley had decreased everywhere and more particularly in Ryedale where the proportion had fallen, in some cases as low as 2.7% in Marton, 3.3% in Normanby and 8.3% in North Holme. The largest quantities were grown in Marishes, where it occupied 31.6% of the arable land, and in the other eastern townships where it occupied approximately 20% of the arable land. Oats had declined but in some townships the reverse had happened, Newton had 30.7%, Cawthorne 33.5% and Beadlam 30.6%. All these are western backslope townships, and it would seem the crop increased in favour in those townships with lands at higher altitudes. Turnips and swedes were recorded separately but to enable comparison to be made the quantities have been added together. Turnips were grown in

greater quantity than swedes. The acreage in the west showed an increase on that in 1927 but the east showed a slight decrease. This evened out the distribution over the whole area.

In the crop combination regions (Figure 79), the majority of the townships now had four main crops. Helmsley, for the first time in seven decades had changed to a dependence on four crops. Only Newton and Cawthorne, two middle of the backslope townships still had three main crops, oats, turnips and barley, Barughs Ambo had a three main crops, wheat, oats and turnips and Normanby oats and wheat to break up the pattern in Ryedale. Wheat was the first ranking crop in Ryedale and the extreme east, turnips and swedes were first crop in Skiplam, Spaunton and Kingthorpe. Oats and barley shared the remaining townships with no clear pattern emerging.

Cattle per 100 acres (Figure 75) showed a division between east and west. More townships in Ryedale had more than 24 per 100 acres. Dairy cattle now outnumbered beef cattle in more than half the townships. The Marketing Board, and the regular monthly payment had changed the type of cattle farming. Many of the fodder crops were now grown to supplement the feed for the dairy cows.

Sheep per 100 acres (Figure 77) showed a rise; the only decline was in Wrelton and Seamer. Numbers in Ryton and Great and Little Habton, were unexpectedly high and the proportion under turnips and swedes had risen to over 18% to provide fodder.

The land utilisation survey for Great Britain was made at this time and when Wooldridge wrote the report for the North Riding, he used the figures from the 4th June return 1937 for Salton as representative of the farming in the Vale. He records the difference between the Corallian and the Vale itself and is not too happy in not differentiating between the east and west.

> "The Vale of Pickering differs markedly from the Corallian zones, showing more grass and bare fallow, hardly more than half the root acreage, and a smaller cereal acreage with less barley and far more wheat. *1 The only question at issue is how far the conditions represented by our Salton area may be regarded as typical of the eastern end of the Vale. As noted above the form of the parishes here precludes the use of the sample method. Further if there be any warrant for dividing the Vale into Eastern and Western sections a considerable area of the East Riding country is involved. Cursory examination of the Eastern area is sufficient to show that dairying becomes relatively important in the hinterland of Scarborough, but it is not easy to draw the landward boundary of the area so affected. The question of such subdivision must be regarded as sub judice; we propose to treat the Vale of Pickering (within the North Riding) as a single land-use region."

It seems that the farming policy in 1937, with its emphasis on dairy cattle, had to a certain extent made delimiting of areas more difficult but it was still possible to separate east from west and Ryedale from the backslope of the Tabular Hills.

The outbreak of the Second World War in 1939, and the more immediate planning control under the County War Agricultural

*1 Wooldridge S.W. Land of Britain Part 57 Yorkshire (North Riding) (London 1945) 406

Committees resulted all over the country in a ploughing up of grassland, reduction in livestock, and a doubling of the production of wheat, barley and potatoes. Since the War, the County Advisory service has assisted farmers to make the most of the potentialities of their land and the 1947 Agricultural Act enabled subsidies to be paid for improving pasture by ploughing it up and reseeding it, and also on certain commodities. The subsidies are fixed each year and the farmers tend to adjust each year to greater efficiency in the most profitable form of agriculture. Costing out, that is analysing the man hours, machinery, fertiliser and seed cost and balancing these against the return for the crop, estimating the yield and the market value must be done before cropping plans for the next year can be drawn up. (Appendix 11) Cropping plans on efficiently organised farms are determined on this costing out and not on strict rotation.

The figures of land use proportions for 1947 (Figure 70) reflect this greater efficiency by showing a general rise in the amount of land in use. The physical limitations cause the east and the north west with its Tabular Hill backslope to remain similar in quantity to that of 1937, and to have a lower proportion than the Ryedale townships. There had, been however, a little increase for example in Appleton le Moors the total farmland had increased from 67% in 1937 to 74% in 1947, in Pockley from 39.9% in 1937 to 42% in 1947 and in Kingthorpe from 73.7% in 1937 to 74.6% in 1947.

There was a great change in the distribution of arable and grassland. Arable had increased everywhere and in most cases was greater than that under grass. Now it was the exception to have more grassland than arable and the following townships in Ryedale; Thornton Riseborough with 37.7% arable and 62.1% grass, Barughs Ambo with 45.6% arable and 49.1% grass, Marton with 31% arable and 43.1% grass and Little Habton with 39.5% arable, and 45.5% grass and 6% rough grazing had more grassland. Newton on the middle backslope had 24.4% arable and 29.3% while of the townships at the foot of the backslope with land stretching both north and south the following had a higher proportion of grass - Pickering and 27.2% arable and 30.4% grass and 7.8% rough grazing, Middleton 33.4% arable, 35.6% grass and 3.6% rough grazing, Sinnington 39.1% arable and 44% grass and Irton 39.1% arable and 44% grass. In all these townships, the greater amount of grass could be accounted for by the unsuitability of the soil which would not have brought in a sufficiently high yield when under arable crops, for example, the damper peaty parts of Irton, the exposed Chocolate Brown Sandy Loams of the dip slope and the particularly damp areas of Brown Clay Loam in Ryedale. Permanent grass still far exceeded temporary leys. The farmers were not able to take full advantage of the ploughing subsidy as much of the ground was so heavy, and even with the improved drainage, damp. When the returns were made in 1947, the quantity still flooded was recorded, nearly all the townships with lowland record some for example, Marishes 24 acres, Great Habton 18 acres, Muscoates 22 acres and Seamer 16¼ acres.

The main crops (Figure 71) showed an increase in the proportion recorded under "other crops" and a much greater diversity of subsidiary crops were grown. Potatoes, because of the war time demand, had increased in acreage. In Seamer, they occupied 12.6% of the arable land, in the Marishes 5.8%, Cawthorne 9% and in every township the acreage had increased considerably so that potatoes became a most important "other crop". Mixed corn had a wide spread and a considerable distribution, for example 90 acres in Kirby Misperton, 52 acres in Marishes and 28 acres in Irton. This mixed corn was used as supplementary fodder. Rape occupied land in the east of the Vale and on the western backslope; Kirby Moorside 19 acres, Pockley 5 acres and Skiplam 23 acres. The rape would have been eaten off by folded sheep. Sugar beet occupied 9% of the arable land in the Marishes, 9% in Great Habton, 4.2% in Allerston and 4.2% in Ryton, and a considerable acreage was grown in all townships with alluvial soils. Cabbage for cattle were widely grown. Vetches and tares, mustard, beans, peas and mangolds were all grown. Flax was grown in the Vale again, 26 acres in Seamer, 7 acres in Welburn, 3 acres in Salton, 1½ acres in Middleton and 2½ acres in Sinnington. It was spring sown and used as linseed grain for fodder.

Wheat acreage had again declined and there was little difference between areas, though a case could be argued for there being less in Ryedale than elsewhere. Barley had increased everywhere and showed a uniform distribution. Oats had declined but

occupied a slightly higher proportion of the arable land in the backslope townships. Turnips and swedes occupied a much smaller amount of land particularly in Ryedale, where for example in Great Habton there was only 5.4% of the arable land under the crop and in Barugh 6.7%. The reason for this decrease was the greater use of a variety of other fodder crops.

The crop combination regions (Figure 79) showed four crops again as the more usual, the exceptions were Appleton le Moors and Newton, two of the middle of the backslope townships where the crops were barley, oats and turnips. The first ranking crop was barley, only Cropton and Kingthorpe with oats as their first ranking crop diverge from this.

Cattle per 100 acre (Figure 75) showed a very substantial rise; though the east and the western dip slope had fewer than 24 per 100 acres. In Ryedale, the figures were in the thirties. Dairy cows had increased still further in importance but store cattle were still kept in all the townships.

Sheep per 100 acres (Figure 77) showed a general decline over the Vale due to the improving of pastures making it possible for cattle to get a living and because of the ploughing up of grassland to produce more arable land on which fodder could be grown. Possibly the biggest considerabion was the steady income that the milk cheque brings.

Even with the more careful and guided farming of 1947 which was much more the result of applied economics, some differences can be found between the different parts of the north side of

the Vale of Pickering. These differences may not be so marked as in other decades but the physical background is still imposing limitations.

Chapter Eleven

Conclusion

The first section showed how by considering the structure of the north of the Vale of Pickering and its subsequent evolution a number of subdivisions could be made. (Figure 85)

Firstly, in the west end or Ryedale, the relief is varied and lake silt is much thinner, probably only 50 feet at the most. Here the low hills are of Kimmeridge and boulder clay and produce a Red Brown or Brown Clay Loam with more stones and a coarser texture than the alluvium. It was liable to flood but the banking of the Rye and its tributaries have prevented much of this.

Secondly, the Marishes, an area with a level surface 68-75 feet O.D. with a much greater depth of fine lake and alluvial deposits which give a Dark Alluvial Clay Loam. The area is free from floods while the drains and dikes are kept open and only when exceptional rainfall and runoff fill the river Derwent is there danger of flooding.

Thirdly, there is, in the extreme east near the river the low lying Carrs. There is an even greater extent of this type of land to the south east of the area considered. In the Carrs, boulder clay underlies later lacrustine and peaty deposits. The soil is Grey Clay Loam and Peaty soil. Floods used to be heavy and frequent and do still occur. The whole area was more waterlogged and some fields still have Juncus growing in them or have been turned into scrub woodland.

Fourthly, between 75-100 feet O.D. in the east end are the Ings. These are areas of better drained alluvium that rarely floods and where Blackish Brown Clay Loams occur as well as the Dark Alluvial Clay Loams.

Fifthly, the backslope of the Tabular Hills which rises up gradually from 100-700 feet O.D. with a fairly uniform slope. On the Upper Jurassic rocks sandy loams of mixed colours and properties occur.

Historically, the growth of the townships was affected by this division. The Ryedale area developed as compact units, while the backslope area and the east developed as more elongated units. Other historical events led to the disappearance of townships in the east, making the units of land within the townships larger, while in the Marishes and Ryedale monastic granges established a dispersed farm pattern within some townships.

The farming over the period of the last 150 years has shown diversity because of the economic circumstances of the times. The graphs of land use proportions (Figure 72) show this with the varying amount of farmland and the variation in the amount of arable to grass as the emphasis of the farming changed. The graphs of the main crops (Figure 73) show even more clearly the variation in crops as the prices fluctuated. In spite of these variations, the southern Ryedale townships remained as a distinct group while for the rest of the area the subdivisions were blurred. This was mainly because the figures considered have

been on a township basis which meant that in the east, the backslope, the Ings and the Carrs were all included together. To see if the differences really had validity, a detailed study of individual farm units was required. The land use maps for 1961 of the township of Hutton Bushel and Normanby are included (Figure 80) and show how in the present day the variety is maintained. Normanby is centrally situated on the undulating land of Ryedale but the distribution of grass and arable bears no relationship to minor differences of slope and altitude. Grassland exceeds arable, and among the arable, barley predominates Only small amounts of turnips and mangolds are grown for fodder. In Hutton Bushel, the upper backslope is forestry land while the lower backslope is mainly arable with grain particularly barley predominating. The Ings land is again mainly arable while the Carr land is mixed with equal quantities of grass and arable and with woodland on the dampest peaty soil.

Changes are still taking place on the north side of the Vale of Pickering which may alter or modify the utilisation of the land. In 1949 the National Parks and Access to the Countryside Act was passed and under this the North Yorkshire Moors National Park was established. This includes part of the north of the area considered in this thesis (Figure 83). This area has therefore been set aside to enable all the people of the country to enjoy the open air and the countryside. At the moment, the restrictions on life in the area are very slight.

All the ordinary activities by which people earn their living continue and there is no question of limiting the agricultural output or the work of the Forestry Commission but "defacement is prevented unless there are overriding reasons to the contrary". *1 This has meant that stone buildings with pantile roofs are required to fit into the existing pattern of housing. Plans for any development have to be submitted to the National Parks committee as well as to the Ministry of Town and Country Planning. Rights of way are still restricted to the recognised and accepted footpaths. The number of visitors to the area has increased through the increased publicity given to the Park.

The other change in the townships in the east is the growth of forest on the Forestry Commission land, as the trees are now reaching sizeable proportions. The Wykeham and Dalby forests come within the area under consideration. The Calcareous Grit soils have been planted but small farms remain on the Passage beds, in clearings in the forest. Often these are rented as small holdings to forestry workers. The planting started in the 1930s and has gone on steadily ever since. This is a dry area with only 31 inches of rain and so the plantations are still in a stage of experiment. Scots Pine, Japenese larch, Western hemlock and Corsican pine have been planted with varying success. Even after twenty years the success or not of a species cannot

*1 National Parks and Access to the Countryside (H.M.S.O. 1950) 11

be claimed as 500 acres of Corsican pine are now dying off. The nursery supplying the trees is in Allerston. An attempt was made to grow the seedlings on farmland but it was found that better results were obtained from the seedlings which germinate on the moor at Allerston. The trees are transplanted at one year into another part of the nursery and then after another year are planted out in this area, as one plus one. The planting is 1,700 to an acre but thinning reduces the number 150-250 an acre. Brashing, thinning the branches, takes place after 15-20 years with the first thinning. The effect of this woodland has been to reduce flooding in the Carrs. Where the iron pan existed on the higher moors the surface shed water rapidly after rain as it ran down swiftly to the headwaters of the Derwent making it rise rapidly, now the rain sinks into the land because of the tree roots and so runoff is gradual and continues into the drier periods of summer. This natural regulation is helping to make the Muston and Yedingham Water Board scheme, with the Sea Cut, work in full effectiveness and makes the Carrs drier.

At the moment, in the north of the Vale of Pickering it is still possible to find agriculture varying in the several areas each with its own slightly different cultural landscape, but the differences are becoming gradually less. The a rea, however, is predominantly one of small farms. (Appendix 10) Only the exceptional farm is over 300 acres and more than half

are under a 100 acres and many farmers with only 20 acres are getting a full time living from their land. These small units of farming, with their limited capital, are likely to maintain the regional subdivisions for some time to come as they are of neccessity closely linked with the natural potentialities of their soil. The Ministry of Agriculture advisors are helping these farmers to plant wisely and make a profit with the facilities at their disposal. A good deal of attention is paid to helping with costing out (Appendix 11) Some farmers are more adventurous, one by the Derwent in West Ayton has turned some fields over to cabbage and cauliflowers and in 1960 another farmer cleared part of the rough moor waste on Seamer Moor for potatoes. On the whole the farmers in the area are content to make a reasonable income. They send their stock to market at Seamer, Malton, Pickering and Kirby Moorside, pigs are sent to the bacon factory in Malton and the sugar beet to Poppleton. Only 20% sell their grain directly while the other 80% sell through an agent in Leeds and accept whatever price he offers. This contentment is likely to enable local differences in farming practice and cultural landscape to be studied for a while longer.

APPENDIX ONE

Extract from the 1315 Wool Directory in Florence (Wroot H. E.)

English Name	Italian Name	Order	Best Quality	Middle	Locks	Unsorted Fleeces	Annual Stock Sacks
Rievaulx	Rivalse	Cistercian	17½	10½	9		60
Old Malton	Maltona	Gilbertine	17	11	6		45
Guisborough	Chisiborno	Augustinian Canons				12½	20
Keldholme	Childomo	Cistercian Nuns				12	12
Rosedale	Rosedella	Augustinian				10½	10
Wykeham	Vichamo	Cistercian Nuns				11	4
Little Maries Yedingham	Endichamo presso di Maltona	Benedictine Nuns				11	

Statute of 31 Edward the Third (1367) a sack of wool consisted of 26 stones of 14 lbs. each - equivalent to 364 lbs. of wool

Wroot, H. E. Yorkshire Abbeys and the Wool Trade Thoresby Society (33 1930) 9

Appendix 2

List of Deserted Mediaeval Villages on the North of the Vale of Pickering

Information supplied by the Deserted Mediaeval Village Research Group

Revised List 1960

Village	1" Map	National Grid Reference
Bowforth	92	SE/689837
Cawthorne	92	TA/773891
Ebberston	93	SE/892833
Edstone Little	92	SE/710850?
Etersthorpe	93	TA/101820
Griff	92	SE/587839
Holme North	92	SE/c. 705807
Hoverton	92	SE/c. 675860
Howe	92	SE/806753
Kingthorpe	92	SE/c.835858
Marton	93	SE/897840
Preston	93	SE/c.975847
Rical	92	SE/674806
Rock Barugh	92	SE/721822
Roxby by Thornton Dale	92	SE/826828
Thornton Riseborough	92	SE/747826

Appendix 3

References to Field names in the Early Glebe Terriers

Village	Date of earliest Terrier	Type of field	Field Names
Ebberston	1698	O.F.	1. East
Edstone	1663	Closes	
Ellerburn	1716	O.F.	1. Upper Kirkdale 2. Lower Kirkdale
Gillamoor	1685	O.F.	1. North High, 2. West, 3. Mill, 4. Woodgate
Helmsley	16-	O.F.	1. Low 2. Cliff 3. Carlton East 4. Carlton West
Hutton Bushell	1685	O.F.	1. Middle 2. West
Kirby Misperton	16- 1716	O.F. O.F.	1. Hungerhill 2. Kinnercliff
Kirby Moorside	16- 1716	O.F. O.F.	1. High 2. West
Middleton	1716	Closes	
Salton	16-	Closes	
Seamer	16-	O.F.?	
Thornton	1685	O.F.	a) East side of beck 1. Bottom 2. Middle 3. East b) West side of beck 84 oxgangs enclosed.
Wykeham	16-	Closes	

Information from Beresford M.W. Glebe Terriers and Open Field in Yorkshire Journal of Yorkshire Archaeological Society (37) 325

Appendix 4

Enclosure Material

Township	Act	Award	Area	Plan	Source	Reference
Aislaby						
Allerston	1809	1818	635	R.D.N.	R.D.N.	30 original
Appleton le Moors	Agree:	1768				
Barughs Ambo						
Beadlam	1817	1819	673	R.D.N.	R.D.N.	16 original
Brawby						
Brompton	1768	1775		-	R.D.N.	BE/1/1
Cawthorne						
Cropton	1765	1770			R.D.N.	AT/1/1
East Ayton	1768	1769			R.D.N.	CA/153/56
Ebberston	1768	1775	3822		R.D.N.	/63/3
Ellerburn	1795	1796				
Farmanby	Chancery decree	1678				
Great Edstone	1786	1788			R.D.N.	CA/56/20
Great Habton						
Harome	1806	1816			R.D.N.	1 original
Helmsley	1806	1816			"	"
Hutton Bushel	Chancery decree	1699	485			
	1751	1751	527		R.D.N.	CA/158/56
	1790					
	1792	1797	2277		R.D.N.	CS/5/4/
Hutton le Hole						
Irton		1810	479	R.D.N.	R.D.N.	DA/208/77
Kingthorpe						
Kirby Misperton						
Kirby Moorside	1788	1793			R.D.N.	8 original
Kirkdale		1816	877			
Little Edstone						
Little Habton						
Marishes						
Marton	1786	1788	1066		R.D.N.	CA/56/20
Middleton						
Muscoates						
Nawton						
Newton		1789		R.D.N.	R.D.N.	9 original
Normanby						
North Holme						
Pickering	Agreement	1730-4	2376			
		1789	3700	R.D.N.	R.D.N.	9 original
Pockley						
Ryton						
Salton						
Sawdon	1768	1775			R.D.N.	BE/1/1
Seamer		1810	395	R.D.N.	R.D.N.	DA/208/77
Sinnington	1786	1788			R.D.N.	CA/56/20

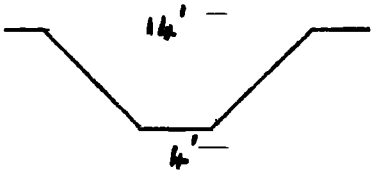
Skiplam				
Snainton	1768	1775	4052	R.D.N. BE/1/1
Thornton Dale	1780	1781		R.D.N. CS/39/7
	1795	1796		R.D.N. DL/45/7
Thornton Riseborough				
Welburn				
West Ayton	1792	1797	147	R.D.N. CA/153/56
Wilton	1773	1774	871	R.D.N. AX/224/63
Wombleton	1806	1816		R.D.N. 1 original
Wykeham and Ruston	1785	1787	4215	R.D.N. CA/11/2 DL/45/2

R.D.N. Registry of Deeds, Northallerton

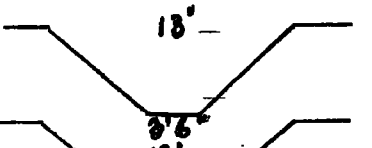
Appendix 5

Land Drainage in the Hutton Bushel Award

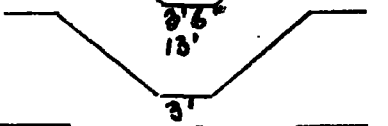
Low Carr Drain
Carr Hill Drain
West Ayton Carr Drain
Hutton Bushel Pitts Drain
Ramble Hill Drain



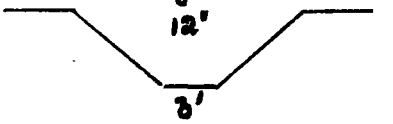
Black Dyke Drain
Long Causeway Drain



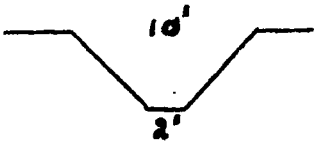
Sampson Syke Drain



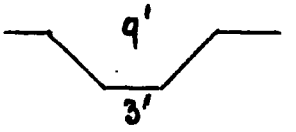
Clough Drain



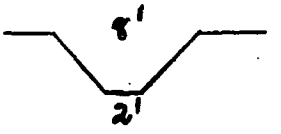
Oxfold Drain
Pits Drain



West Ayton Carr Drain
Martin Ings, Preston Ings,
and Stains Drain



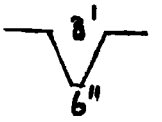
Outgang Drain



Heads Drain

Drains on the Moors and in the woods

Field boundary drains,



Loughborough B. Some Geographical Aspects of the Enclosure of the Vale of Pickering in the 18th & 19th centuries (1960) 89

1801 Crop Returns

Appendix 6	Total Area in Acres	Wheat	Barley	Oats	Potatoes	Peas	Beans	Turnips	Rye and Mastim	Total Arable	% total under arable
Seamer and Irton	5150	325½ 23%	309 22%	375 27%	48 3%	29 2%	3	268 19%	43 2%	1400	27.3%
East Ayton	2610	141 21%	158 25.1%	162 25.2%	16 2.5%	33 5%		130 20%		640	24.5%
Hutton Buscel with West Ayton	5670	254 22%	182 16%	366 32%	73 6%	11	6	Turnips 240 21.2%	3	1125	18%
Wykeham	6480	75 17.5%	67 15.6%	105 25%	42 9.8%	7 1.1%		132 30%		428	6.6%
Brompton	10180	201½ 14.1%	200 14%	571 37%	64½ 4.6%	21 1.4%	11 .6%	362½ 25.2%	3½ .2%	1435	13.9%
Snainton	4837	224 23.4%	75 7.8%	406 42.5%	43 4.5%	8 .8%	6 .6%	192 21%		954	19.5%
Thornton Dale	9689	370 30.4%	124 10.1%	546 44.8%	26 2.1%	20	21	106 8.2%	12	1219	13%
Sinnington	1960	366 29.3%	37½ 2.8%	581 46.6%	19¾ 1.6%	15½ 1.2%	50½ 4%	161¼ 12.9%	13 1%	1245	63.5%
Kirby Misperton including Barughs, Habton and Ryton	7120	792 31.4%	63 2.4%	1184 46.8%	35 1.4%	48 1.9%	79 3.1%	290 11.5%	27 1%	2518	35%
Salton	1720	269 20.3%	63 4.6%	763½ 56.5%	11¼ .8%	18 1.3%	38 2.8%	185½ 13.7%	2 .1%	1260	73%
Kirby Moorside	3909	477 24.2%	200 10.1%	986 50%	73 3.7%	16 .8%	10 .5%	371 18.8%	28 1.3%	1965	50.2%
Harome	2362	151 18.5%	35 4.2%	277 31.3%	8 .9%		10 1.2%	316 34.2%	27 2%	818	34.2%
Helmsley	8824	536 16.5%	174 5.3%	1413 43.7%	128 3%	50 1.4%	20	742 22%	167 5.3%	3232	37%

APPENDIX 7

Method of working out Crop-Combination Regions

Based on J. C. Weaver

Figures for Seamer and Irton in 1801

	Mono-culture	2 crops		3 crops			4 crops				5 crops				
% of crop	0	0	W	0	W	B	0	W	B	T	0	W	B	T	P
land occupied	27	27	23	27	23	22	27	23	22	19	27	23	22	19	3
% theoretical	100	50	50	$33\frac{1}{3}$	$33\frac{1}{3}$	$33\frac{1}{3}$	25	25	25	25	20	20	20	20	20
base curve difference	73	23	27	$6\frac{1}{3}$	$10\frac{1}{3}$	$11\frac{1}{3}$	2	2	3	6	7	3	2	1	17
difference squared	5329	529	629	$36\frac{1}{9}$	$100\frac{1}{9}$	$121\frac{1}{9}$	4	4	9	36	49	9	4	1	289
sum of squared differences	5329	1158		$257\frac{1}{3}$			53				346				
sum divided by number of crops	5329	579		$85\frac{7}{9}$			$13\frac{1}{4}$				$69\frac{1}{5}$				

The lowest number is taken as the crop-combination region

O = Oats B = Barley P = Potatoes

W = Wheat T = Turnips and Rape

Appendix 8

SIZE OF FARMS FROM TITHE AWARD SURVEY

	Over 600	300-400	250-300	200-250	150-200	100-150	50-100	25-50	15-25	10-15	5-10	Under 5	Total
Appleton le Moors					3	1	3	9	4	3	12	19	54
Ryton	2				2	1	8	10	3		1		23
Muscoates	2				2					1			5
Great Habton				2		2	3	2			1		10
Kirby Misperton				2	2	6	2		1	2	2	3	20
Little Habton					1	1	1			1	1	1	6
Barughs Ambo					1	2	8	6	6	1		6	30
Pickering	2	4	5	2	10	11	27	32	36	45	84	175	433
Allerston		1	3		4	7	6	8	3	4	9	24	69
Ebberston			1		1	2	3						7
Hutton Bushel		1	1	1	2	4	5	1	1	2	5	23	53.

Annual average price of British wheat per Imperial quarter in England and Wales (Lord Ernle)

Years	Average Price	Years	Average Price	Years	Average Price
1800	113.10	1846	54.8	1892	30.3
1801	119.6	1847	69.9	1893	26.4
1802	69.10	1848	50.6	1894	22.10
1803	58.10	1849	44.3	1895	23.1
1804	62.3	1850	40.3	1896	26.2
1805	89.9	1851	38.6	1897	30.2
1806	79.1	1852	40.9	1898	34.0
1807	75.4	1853	53.3	1899	25.8
1808	81.4	1854	72.5	1900	26.11
1809	97.4	1855	74.8	1901	26.9
1810	106.5	1856	69.2	1902	28.1
1811	95.3	1857	56.4	1903	26.9
1812	126.6	1858	44.2	1904	28.4
1813	109.9	1859	43.9	1905	29.8
1814	74.4	1860	53.3	1906	28.3
1815	65.7	1861	55.4	1907	30.7
1816	78.6	1862	55.5	1908	32.0
1817	96.11	1863	44.9	1909	36.11
1818	86.3	1864	40.2	1910	31.8
1819	74.6	1865	41.10	1911	31.8
1820	67.10	1866	49.11	1912	34.9
1821	56.1	1867	64.5	1913	31.8
1822	44.7	1868	63.9	1914	34.11
1823	53.4	1869	48.2	1915	52.10
1824	63.11	1870	46.11	1916	58.5
1825	68.6	1871	56.8	1917	75.9
1826	58.8	1872	57.0	1918	72.10
1827	58.6	1873	58.8	1919	72.11
1828	60.5	1874	55.9	1920	80.10
1829	66.3	1875	45.2	1921	71.6
1830	64.3	1876	46.2	1922	47.10
1831	66.4	1877	56.9	1923	42.2
1832	58.8	1878	46.5	1924	49.3
1833	52.11	1879	43.10	1925	52.2
1834	46.2	1880	44.4	1926	53.3
1835	39.4	1881	45.4	1927	49.3
1836	48.6	1882	45.1	1928	42.10
1837	55.10	1883	41.7	1929	42.2
1838	64.7	1884	35.8	1930	34.3
1839	70.8	1885	32.10	1931	24.8
1840	66.4	1886	31.10	1932	25.4
1841	64.4	1887	32.6	1933	22.10
1842	57.3	1888	31.10	1934	20.9
1843	50.1	1889	29.9	1935	22.2
1844	51.3	1890	31.11		
1845	50.10	1891	37.0		

Appendix 10

SIZE AND NUMBER OF HOLDINGS

From the 4th June Agricultural Returns

	Date	1-5	5-20	20-50	50-100	100-150	150-300	Over 300	Total
Aislaby	1917	1	1		3	3	1		9
	1927	1	1		4	2	1		9
	1937	2	1		5	1	1		10
	1947	1			4	2	1		8
Allerston	1917	3	5	5	5	3	10	1	32
	1927	3	3	7	7	1	10	1	32
	1937	3	3	10	4	3	9	1	33
	1947	3	6	9	7	1	12		38
Appleton le Moors	1917	6	9	8	2	3	1		27
	1927	2	9	9	2	2	1		25
	1937	5	6	4	4	3	1		23
	1947	5	3	5	5	1	3		22
Barughs Ambo	1917	4	4	6	7	4	1		26
	1927	3	5	5	7	3	1		24
	1937	2	4	4	3	9	3	1	22
	1947	4	2	4	9	3	1		23
Beadlam	1917	6	2		2	4	2		16
	1927	3	3		1	5	2		14
	1937	3	1		1	5	2		12
	1947	2	1	5	3	2	1		14
Brawby	1917	3	1	6	4	2	1		17
	1927	2	1	5	4	2	1		15
	1937	2	1	5	4		2		14
	1947	2	1	5	3	2	1		14
Brompton includes Sawdon	1917	5	13	2	2	4	4	1	31
	1927		8	3	2	7	3	1	24
	1937	2	7	6	4	11	5	1	36
	1947	4	6	10	4	11	4	2	41
Cawthorne	1917		1				2		3
	1927		1				2		3
	1937		1				2		3
	1947		2				2		4
Cropton	1917	8	12	6	7	7	1		41
	1927	4	11	10	8	4	1		38
	1937	4	14	7	10	4	1		38
	1947	6	14	6	10	3	2		41

	Date	1-5	5-20	20-50	50-100	100-150	150-300	Over 300	Total
East	1917	12	9	3	3	1	4	2	34
Ayton	1927	7	7	3	3	1	6	1	28
	1937	3	9	4	4		5	1	26
	1947	7	5	2	4	1	5	1	25
Ebberston	1917	9	9	7	11	3	7	2	48
	1927	1	8	7	10	5	5	2	39
	1937		4	3	3	3	3		
	1947	6	11	6	7	5	6	1	42
Great	1917	3	2	3	2	4	2		16
Edstone	1927	2	3	1	3	3	3		15
	1937	2	2	1	3	3	2		13
	1947	3	1		3	4	2		13
Great and	1917	4	1	1	5	1	4		16
Little	1927	1	2	1	5	2	3		14
Habton	1937	2	2	1	7	2	2		16
	1947	1	2	1	5	2	4		15
Harome	1917	12	10	1	2	6	5		36
	1927	10	10	2	2	6	5		35
	1937	8	6	1	3	6	5		29
	1947	1	7	1	3	6	5		22
Helmsley	1917	32	18	13	7	4	9	1	84
	1927	21	9	13	4	3	10	1	61
	1937	14	11	10	5	4	10		54
	1947	11	14	5	4	6	10		50
Hutton	1917	12	13	2		5	3	1	36
Bushel	1927	7	13	2	1	4	3		30
	1937	4	7	2	3	2	3	1	22
	1947	5	3						8
Hutton le	1917	6	13	5	2	1	1		28
Hole	1927	6	7	4	2	1	1		21
	1937	7	8	3	3	1	1		23
	1947	4	7		3	3			17
Irton	1917	2	6	2	2		3		15
	1927	1	2	4	4	1	1		13
	1937	1	2	4	4	1	2		14
	1947	2	6		6	1	2		17

	Date	1-5	5-20	20-50	50-100	100-150	150-300	Over 300	Total
Kingthorpe	1917	1			1	2			4
	1927				1	2			3
	1937			1		1	2		4
	1947			1	1	1	1	1	5
Kirby Misperton	1917	8	1		2	5	4		20
	1927	4		1	4	5	4		18
	1937	2		1	4	5	4		16
	1947	6	2	1	6	3	4		22
Kirby Moorside	1917	29	23	13	7	3	9		84
	1927	18	13	8	8	5	8		60
	1937	18	10	14	4	5	8		59
	1947	20	13	10	4	5	7	1	60
Little Edstone	1917	1	2		1		1		5
	1927				1	1			2
	1937				1	1			2
	1947				1	1			2
Marishes	1917	1	1	1	7	11	5		26
	1927	1	1	1	5	10	4	1	23
	1937	1	1	1	3	10	6	1	33
	1947	1	2	2	3	10	8		26
Marton	1917	2	7	3	2	1			15
	1927	1	5	2	2	2			12
	1937	2	5	2	2	2			13
	1947	4	4	1	2	2			13
Middleton	1917	5	8	5	1	5	2		26
	1927	2	7	6		5		1	22
	1937	2	3	7		4	2		18
	1947	2	7	4	1	4	2		20
Muscoates	1917		1				4	1	6
	1927		1				4	1	6
	1937		1			1	4		6
	1947		1			1	4		6
Nawton	1917	9	8	7	2	1	2	2	36
	1927	2	6	5	2		3		18
	1937	2	5	5		1	3		16
	1947	2	7	1	2		2		14

	Date	1-5	5-20	20-50	50-100	100-150	150-300	Over 300	Total
Newton on Rawcliffe	1917	9	10	8	6	2	1		36
	1927	6	7	6	7	2	1		29
	1937	6	7	6	5	2	1		28
	1947	6	11	4	5	3	1		33
Normanby	1917	6	1		5		4	1	17
	1927	4	1		4		3	1	13
	1937	2	2		4		4	1	13
	1947	4			5	1	2		12
North Holme	1917				1	1			2
	1927				1	1			2
	1937			1			2		3
	1947						1	1	2
Pickering	1917	34	70	44	22	17	7	5	199
	1927	19	47	39	29	18	10	3	165
	1937	22	48	37	31	12	13	2	165
	1947	26	36	46	27	15	9	5	164
Pockley	1917	6	6		5	4	4		25
	1927	4	4	2	3	5	3		21
	1937	4	5	1	4	5	2		21
	1947	2	4	2	3	4	3		18
Ryton	1917	2		6	4	4	6		22
	1927	1		6	4	3	5	1	21
	1937	1		5	4	4	5	1	20
	1947	2		5	4	4	5	1	19
Salton	1917			1	2	5	2	1	11
	1927			1	3	4	2	1	11
	1937		2		2	6	2	1	13
Sawdon	1917	2	2	3	3	3	4		17
	1927		3	3	2	2	3		13
	included with Brompton after this date								
Seamer	1917	10	15	9	6	2	10	1	53
	1927		11	5	5	7	6	1	35
	1937								35
	1947	4	13	6	5	3	11		42

	Date	1-5	5-20	20-50	50-100	100-150	150-300	Over 300	Total
Sinnington	1917	3	3	1	4	1	6	1	19
	1927	2	4	3	3	3	5	1	21
	1937	2	4	2	2	3	6	1	20
	1947	4	3	1	2	3	8	1	22
Skiplam	1917		1	1			3	2	7
	1927		1		1		3	2	7
	1937		1		1		3	2	7
	1947			1	1		1	3	6
Snainton	1917	15	13	11	13	4	6		62
	1927	5	14	13	6	7	8		53
	1937	5	6	7	7	9	6		40
	1947	7	11	8	7	8	6		47
Spaunton	1917	5	1	4	3	2	2		17
	1927	3	1	4	2	3	2		15
	1937	1	1	4	2	2	2		12
	1947	1		1		1	1	3	8
Thornton Dale	1917	17	23	10	7	16	11		84
	1927	18	13	7	10	11	13	1	73
	1937	14	18	5	8	11	8	3	67
	1947	9	13	7	10	4	9	2	62
Thornton Riseborough	1917		1	1	1	1	2		6
	1927			1	1		3		5
	1937			1			2	1	4
	1947			1		1	2		4
Welburn	1917	1	3	2	2	1	5		14
	1927		3	3	4	1	1		12
	1937		1	2	4		5		12
	1947		1	2	4		5		12
West Ayton	1917	2	1	4	1		2	3	13
	1927	1		5	1		2	3	12
	1937		2	1	1	1	3	2	10
	1947	2	1	2		1	2	3	11
Wilton	1917	4	4	2	1	1	3	2	17
	1927	4	3		2		4	2	15
	1937	2	1	2	4		4	1	14
	1947	1	1	3	5		5		16

	Date	1-5	5-20	20-50	50-100	100-150	150-300	Over 300	Total
Wombledon	1917	3	11	3	6		2		25
	1927		7	4	5	1	2		19
	1937	1	6	4	5		3		19
	1947	1	4	4	4	1	1		15
Wrelton	1917	4	6	3	5	4			22
	1927	3	7	2	3	6	1		22
	1937	3	3	4	3	6			19
	1947	2	3	5	3	4	1		18
Wykeham	1917	6	15	8	4	3	2	4	42
	1927	8	8	5	4	3	4	2	34
	1937	4	5	3	1	6	8	3	30
	1947	7	11	4	3	1	6	3	35

Appendix 11

Crops Cash

Output and Gross Profit (quoted from the Ministry of Agriculture Official Pickering 1961)

	Yield per acre	X Price per unit	PER ACRE		
			Gross Output £	Variable costs £	Gross profit £
Wheat	25 cwts	28/-	40+	11	29
	30 "	"	47+	12	35
Barley	25 "	28/-	40+	10	30
	30 "	27/-	45+	11	34
Oats	20 "	26/-	31+	9	22
	25 "	25/-	36+	10	26
Potatoes	7 tons	£14	98	50	48
	9 "	"	126	53	73
Sugar Beet	10 tons	£6.7	63	36	27
	13 "	"	83	40	43

X Including deficiency and acreage payments.
\+ Including value of straw (£5).

Appendix 12

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