ART. VIII. – *A History of Meathop Woods. Part 2 – The Middle Ages to the Present.*
By DR J. E. SATCHELL.

Settlement in the Middle Ages

THE township of Meathop and Ulpha lies in the parish of Beetham, formerly Biedun, extending either side of the estuary of the River Kent. At the time of the Norman Conquest, Tosti, Earl of Northumberland, held six carucates of land in Biedun. Tosti was dispossessed by the Conquerer who gave the land to Roger of Poictou, Earl of Lancaster, under whom it was held at the time of the Domesday Survey by Ernuin, a priest. The gift marks the limit at that time of Norman control which was not established north of the Kent Estuary until William Rufus sacked Carlisle in 1092. From the tenth to the eleventh century, possibly into the twelfth century, Viking settlers from Ireland and the Isle of Man penetrated the Lake District eastwards from the Cumberland coast and northwards from Morecambe Bay. A clue to their arrival in the Kent estuary was given by Symeon of Durham, writing in the eleventh century, when he spoke of Tilred, Abbot of Heversham, fleeing from piratical raiders at a date which cannot be later than 915.[1]

The first written record of Meathop, in the Chartulary of Cockersand, dating from 1184, shows that at that time Meathop was occupied by Norse settlers or their descendants. It states "Orm son of Thore, and his heirs gave to the hospital of Cockersand his salt pans (salina) in Midhope, where the way enters the wood which comes from Kermel (Cartmel), with common of wood". At some time between 1190 and 1210 the Abbey received a further gift of two acres of land recorded in the Chartulary – "Roger, son of Orm, son of Thore gave to the hospital of St. Mary of Cockersand two acres of land in Mithehop by their saltern, namely where the way which comes from Kirmel enters the wood". Salt pans were used for evaporating sea water to obtain salt, an important commodity in medieval times. Ten of them were still in operation on the neighbouring estate of Over Meathop in 1659 (Marshall pers. comm.). The probable location of Orm's salt pans is identified by the surviving name of "Salt Cote" field (Fig. 1) near a still discernible former roadway crossing the valley west of Meathop Woods and joining the main road to Cartmel.

The spellings of Meathop in the Chartulary of Cockersand are informative. Mithehop, used between 1190 and 1210, incorporates an Old Norse root, *mide*, middle, and an Old English root, *hop*, a piece of enclosed land as, for example, in the midst of the Fens.[2] However, the retention in the earlier spelling Midhope of the Old English root *midd* suggests a piece of land in the middle of the marshes possibly enclosed in pre-Viking times.

Further evidence of the Norse settlement survives in the names[3] of the different parts of Meathop Woods and adjacent fields (Fig. 1). Four lists of place-names for the Low Meathop Estate have been located – in a survey of 1760, a conveyance of 1810, a sale brochure of 1828 which includes a map, and a conveyance of 1829. They incorporate a variety of spellings and local pronunciations and many words of Old Norse or Old English origin which survive in modern use. For example, 'Fell' derives from the Old

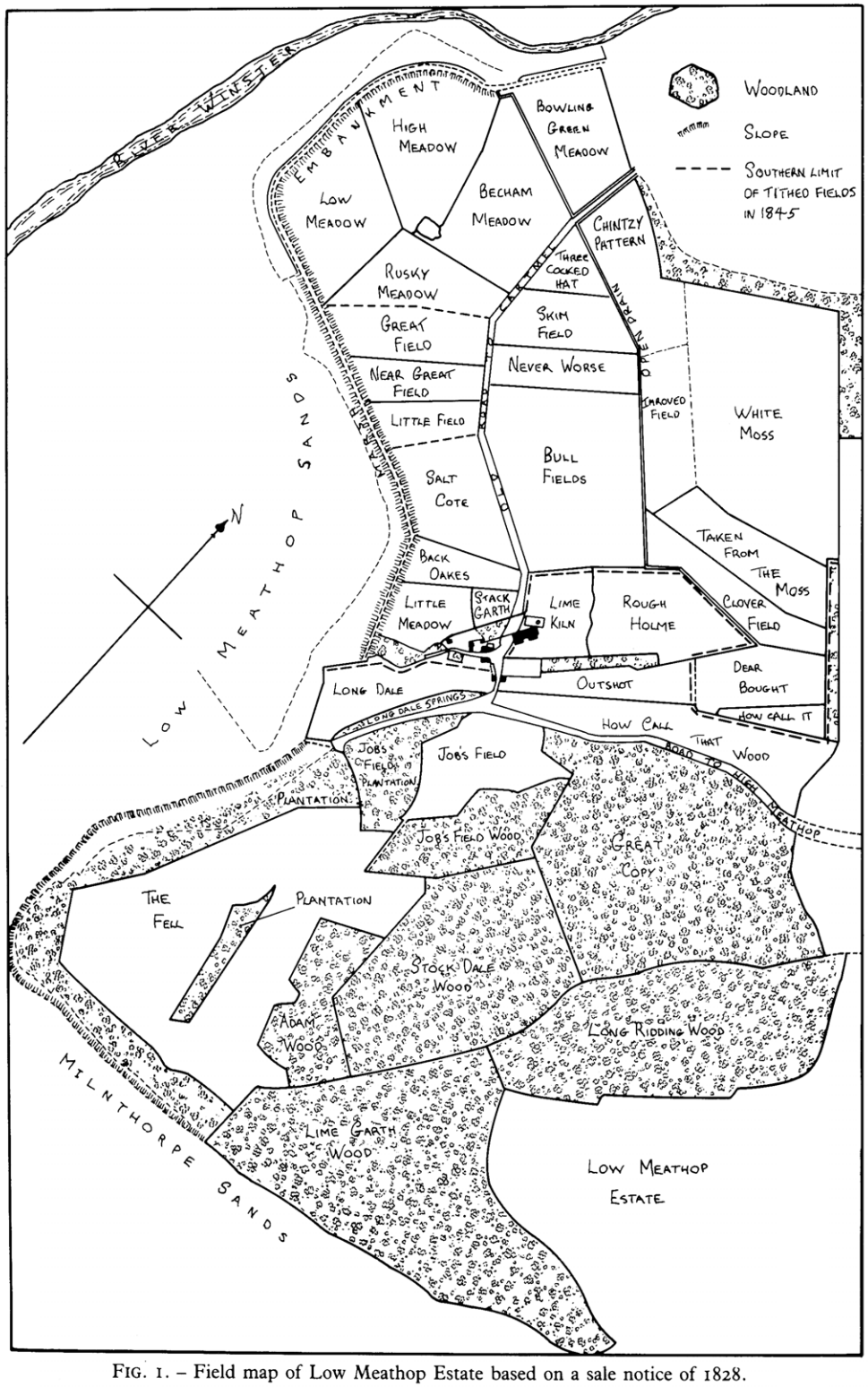

FIG. 1. – Field map of Low Meathop Estate based on a sale notice of 1828.

Norse *fjall* – a hill, but could have been applied at any time from the Viking invasions of the tenth century to its first appearance in the estate records in 1711.

A field called Rye Field in 1860 is called Rufforn in 1810 and Rough Holme in 1828. *Holme* is Old Norse for a water meadow and *ruh* Old English for rough, but vernacular pronunciation has left the etymology inextricably mixed. *Garth*, as in Stack Garth and Lime Garth, is Old Norse for an enclosure and Beetham, earlier Becham, a field beside the sea embankment, probably takes its name from the Old Norse *bect* – an embankment. Elements of Old English, the language of the Anglo-Saxons up to the early twelfth century, survive in Long Dale, Salt Cote and Long Ridding, respectively *dal* – a share of the common land, *cot* – a hut, and *rydding* – a clearing. In Outshot, *shot* – a share of the common land, is dialect Modern English (from about 1500) and provides local evidence of the medieval field system.

With due allowance for the survival of Norse and Old English words into modern times, the place-names of Meathop, taken in conjunction with the documentary evidence, suggest a settlement well established by the twelfth century and possibly some centuries earlier.

The estate of Low Meathop was, according to Farrer,[4] part of the manor of Meathop and Ulpha, an early feoffment by one of the lords of Beetham in the twelfth century. Some idea of the limits of the enclosed land in the estate may be had from the 1845 tithe map of the township of Meathop and Ulpha (Kendal Record Office). All the fields then tithable (Fig. 1) were on the west side of the estate and include the peat moss and five fields known to have been reclaimed from former moss land in 1774-5. The other tithable fields could all have been similarly recent enclosures and the absence of tithe numeration from the remainder of the 1845 map undoubtedly results from events following the Dissolution of the Monasteries when the rectory of Beetham with all its lands, rents and tithes was seized from St. Mary's Abbey, York. In 1612, James I granted the property with all the tithes of corn, grain, hay, flax, hemp, wool and lambs and all the small tithes to Sir Francis Duckett of Grayrigg for "long and faithful service". From Sir Francis they passed via his son James, and James's widow Elizabeth, to Elizabeth's second husband, Mr Thomas Hilton and so to his son Mr George Hilton* who died in 1724 or 1725. In 1615 Sir Francis sold to four yeomen of Witherslack all the tithes of corn, grain and hay growing on tenements[5] and, in 1724, Mr George Hilton sold the wool and lamb tithes of various lands in Witherslack, Meathop and Ulpha, to a group of twenty-nine local landholders.[4] Although no record of the sale of Low Meathop tithes has come to light, there can be little doubt that they were similarly sold by the Ducketts or the Hiltons. The untithed land on the map of 1845 seems therefore to indicate the limits of the enclosed land prior to the Dissolution, probably little different from the land effectively used in the original manor estate.

The Woodlands

The existence of woodland in approximately the present position of Meathop Woods in the late twelfth century is established in the deeds of gift of Orm and his son Roger

* Mr George Hilton is noted less for his contribution to the history of Meathop Woods than for his private diary. "on Sunday says He, I vowed to abstain from three Things during the Course of the ensuing Week ('Twas Lent) viz. The Use of Women, eating flesh, and drinking Wine; but alas the Frailty of good Resultions! I broke them all, laid with a Girl at the Sandside, eat the wing of a Fowl, and got drunk at Milnthrop".[3]

by the phrase "where the way which comes from Cartmel enters the wood". The present woodlands on the Low Meathop estate comprise nine lots: Long Dale Spring, How-call-that-Wood (How-do-you-call-it, How-call-ye-it, and other variants), Job's Field Wood, Great Coppice, Stockdale Coppice, Limegarth Wood, Long Ridding, Adam Wood and a narrow strip of mainly planted woodland around the southern perimeter of the Fell. Which of these woods may have existed in medieval times can be deduced from estate records of the seventeenth to nineteenth centuries.

In 1670, the Free Grammar School of Kirkham in the Fylde area of Lancashire received a legacy under the will of a former pupil, the Reverend James Barker. Under the terms of this will, the Reverend Barker's executors were to purchase lands and tenements not exceeding £500 in price, the income from which was to be devoted to augmenting the salary of the master of the school, providing an exhibition for a poor scholar to attend university, paying for apprenticeships for poor children of the town, and providing an annual dinner for ten trustees. His executors accordingly set up the Barker Trust and, in 1673, purchased for £500 the estate of Nether Meathop. The trustees let the estate on approximately seven year leases, journeying to Westmorland from time to time on visits of inspection. Their records, abstracted by Shaw,[6] provide the first comprehensive list of the names of the fields and woods in the estate in a survey of 1760.

The 1760 survey refers to 'Longdale, . . . part wood', identifiable as a small strip of woodland south of the entrance to the woods of the old road from Cartmel. In 1810 it was called Longdale Wood but in 1828 'Longdale Spring . . . plantation' suggesting replanted old coppice wood, at one time possibly a strip of the common fields. How-do-you-call-it, north of the entrance to the woods from Cartmel, may well have been part of the woods referred to by Orm.

The continuation of the old road from Cartmel crosses Job's Field and passes east of Job's Field Wood. The 1760 survey describes as woodland 'Half of Job's Field' so this area is secondary woodland on an old field site probably cleared or occupied by an unrecorded Job. Long Ridding Wood, from the meaning of *ridding*, must also be secondary woodland on a former clearing. There is no evidence of clearance or planting in the Great Coppice, in earlier records called Great Copy or simply "the Coppy". It appears to have been a relic of the native woodland. It was cleared for commercial forestry in the late 1960s and early 1970s.

Stockdale Coppice first appears in the records in 1803, deriving its name from a Mr James Stockdale, one of the architects of the enclosure (1796-1809) of Cartmel fells and parish. He was a noted estate improver who assisted in the management of Meathop Woods in the late eighteenth century. In the 1760 inventory, Stockdale Coppice was classed as woodland but called simply "part of Meathop Fell". In 1773 it was called "the new Coppy part of the Fell", the Trustees' report stating that "The young spontaneous birch plants on the new woodlands on the fell are flourishing . . . Ordered the tenant to buy and plant 1,000 . . .". In 1781 they report that the wood in "the new enclosure on the Fell" was "short and shroggy . . . There were many large vacancies without a plant. . . . We therefore applied to Mr Stockdale to procure us 10,000 young birch plants to fill up the vacancies". In 1803 the visitors recommended "that juniper in Stockdale Coppy be rid up and the vacancies planted with birch, etc.", – conclusive evidence of the open character of the wood at that time. There were still gaps in 1806

when 1,500 larches and 400 Scotch firs (Scots pine) were planted. Adam Wood, in which a few larches still persist, is first mentioned in 1828 and was presumably planted by the James Adam who purchased the estate in 1810.

Limegarth Wood is the same acreage now as in 1760. There are no records of planting and it appears to be the last surviving relic of the primaeval woodland.

Woodland Common Rights

Common rights are the residue of rights to use common lands curtailed by the appropriation of the common lands by lords of manors. The appropriation was going on at the time of Domesday but had been largely completed by the early thirteenth century.[7] The manor of Meathop was certainly established by this time and a number of rights granted to individuals are recorded from this period.

Orm's gift of his salt pans to Cockersand Abbey was accompanied by "Common of wood". What rights this conferred is unknown but there can be little doubt that they would have included the general rights of earlier times to take wood for fuel and building. Probably both were necessary to the operation of the salt pans; wood for use with peat as fuel to boil the brine and timber for a salthouse for storage. The right to graze animals in the woods, particularly the horses used by the saltworkers, was most likely also included in the common rights. The gift by Orm of "Common of wood" can thus be envisaged, not merely as an additional gracious gesture, but as a valuable asset and an integral part of the gift of the salt pans. The existence of salt roads, noted in the Pennines by Raistrick,[8] illustrates the importance of the industry in medieval times and its concentration around the Kent Estuary is indicated by the place-names of Salt Cote Field cited above, Salt Cote Wood on the eastern slopes of Meathop Fell, and Saltcotes on the opposite side of the estuary near Arnside. The impact of this vigorous industry on the nearby woodlands must have been considerable.

Rights of grazing in the woods are referred to in two known documents of the thirteenth century. In 1256, Roger de Lancastre acknowledged that 30 acres of wood in Wytherslack were the right of Henry de Midhop (Orm's grandson) "saving to Roger common of pasture".[4] In 1290, the right of the monks of Furness to use the old road to Cartmel through the Meathop woods was confirmed by Roger de Mythop, Henry's son, with "liberty of free passage with wains, carts, etc., with all manner of goods through his lands in co. Westmorland" and "licence of pasturing and passing the night there when need may arise". The "Common of wood" in Orm's gift may have likewise included the right to graze animals. Roger's son-in-law, Thomas de Pickering, in 1304 was granted "free warren in the demesne lands in Killington and Midehope", i.e. the exclusive right of hunting. Red deer, roe deer and wild boar were protected by right of warren as were pheasants, partridges, woodcock and plover, reckoned as "fowls of the warren".[9]

The common rights of the manor tenantry as distinct from those of the individuals noted above can be deduced from the terms of tenant leases surviving from the records of the Barker Trustees. Details of the first lease are not recorded; the second in 1684 is recorded in a minute book: "Andrew Muggell had his lease for seven years, one year at £20, and the other six years at £25 per annum, with liberty to cut coal wood and others, crab and holly excepted, and to sell a hundred of their cartloads of turf, oaks and ashes reserved to the feoffees (i.e. the Trustees), with liberty to cut and carry them away.

House boote and plough boote to be allowed him at the discretion of the feoffees. . . . He is to graft yearly six fruit trees, and sufficiently to repair the houses, hedges and ditches". He was thus allowed to sell peat from White Moss, to make charcoal and to have such timber for building and implements (house boote and plough boote) as the trustees thought fit. The agricultural management of the estate was apparently not worth mentioning.

The next lease to Thomas Barrow in January 1690 makes an important change in reserving the right to make charcoal to the Trustees.

"In consideration of a yearly rack rent of £26 10s. 0d. he is to enjoy the messuage of Nether Mythop with its appurtenances (listed and including 'commons') not delving any in the enclosed ground, excepting all trees and shrubs or underwood to his landlord's (use) with free liberty . . . To sell and cut down, cord, coal and cut or dig up earth to cover the same, burned into charcoal . . . and dispose of it at their pleasure, ... he shall not sell or give away any oaks, ashes or underwood . . . he shall preserve the wood from spoil or hurt of cattle, and all other harm or destruction, and shall not plough up any of the ancient meadow grounds' ".

The significance of the distinction between underwoods and holly, crab, oaks and ashes is not obvious from these leases but derived from the common right of "greenhew" and the manorial rights to "woods of warrant" of preceding centuries. The respective rights of the landlord and tenants are recited[10] year after year in the same terms by the manor court jury of the neighbouring parish of Witherslack: "We find all the woods of warrant due to the Lord of the said Manor provided always that the Tenants shall have sufficient for building and repairing of their houses and other necessaries and the under woods due to the Tenants according to Antient Custom.

We find the said Tenants in Greenhew accordinge to Antient Custom".

The meaning of these terms in the Barony of Kendal is explained by Isaac Gilpin in a treatise written about 1650-60[11] "Woods of warrant are ash, oak, holly, crabtree and (in) some places birch and whitethorne . . . the Tennant cannot cut down any of these woods upon his own Tenement . . . without warrant or lycence from the Lord or delivery of the Lord's Bailyffe or other officer". Underwoods were "commonly hazels, willows, alders, thorns and the like". Greenhew was "the Liberty of cutting such underwoods as grow within their own tenements and alsoe the lopping or cropping of such woods of Warrant as grow in the Tennants Ground". Lopped branches, particularly of ash and holly, were a valuable supplement to winter feed for stock. The inclusion of crabtree as a wood of warrant is unexplained but may be connected with the use of applewood for cogging mill wheels as mills were generally the property of the Lord of the Manor. A deed of 1725 from the Furness area[9] refers to the sale to a house carpenter of a tenement "late occupied . . . at a yearly rent of 6d., Greenhew rent 2½d., and one boonhen". Greenhew must have had considerable value at that time to command a rent almost half that of a cottage.

Andrew Muggell's lease allowed him to cut coal wood but not trees of warrant. That this was essentially a distinction between coppice and standards rather than between trees of different species is indicated by an exchange quoted by Jones[10] from the neighbouring parish of Witherslack. A tenant put to the agent of the Lord of the Manor the question: "Suppose I plant an acre of ground with acorns, have I not a right to cut

it down when it is fit for coaling?". The reply was "Surely, if you cut it in underwood or shrubbery".

Pannage and Pasture

Pannage, the right to feed swine or other animals in the forest, is not recorded from Meathop but a thirteenth century deed of gift (Kendal Record Office) of land in Preston Richard six miles north-east of Meathop, states that the land was free of pannage. At the dissolution of Furness Abbey in 1537, the Commissioners record a revenue from the woods of the Furness Fells, west of Meathop, from "Greenehewe, Bastyng, Bleckyng, byndyng makyng of Sadeltrees Cartwheles Cuppes Disshes and many other thyngs wrought by Cowpers and Turners with makyng of coles and pannage of Hogges according as hath always ben accustumed to be made in the said woodes". . . "Pannage of Hogges" refers to the custom of wintering the yearling sheep (hoggs) in the woods so that they could browse on the young shoots as well as eat what grass there was.[12] Feeding pigs in woodland at Lowick, also in the Furness area, is referred to in a deed of 1256 in which Alan de Steynton, a lord of the manor, agreed that his tenants should pay to Alan de Turs "for the pigs which they might agist (turn out to feed) in Lowyk woods every tenth pig or the tenth penny of the value thereof".[9] Though no record exists, almost certainly the native herbivores and scavengers of Meathop woods similarly had to compete with sheep and pigs in medieval times.

Every tenant of the Abbot had had liberty to take timber for his dwelling, wood for his fire and to graze his cattle and sheep in the woods. In the middle of the seventeenth century charcoal became valuable because of the demand from iron-smelting furnaces and this was doubtless the reason for the change in the Low Meathop lease of 1690 reserving the rights of charcoal-making to the Trustees and excluding the tenant from grazing rights in the woods. As these rights had apparently been customary from time immemorial and were important for winter keep, the tenantry evidently got what grazing they could from the woods illicitly. A report of an inspection of the estate by some of the Trustees in 1773 records that they "found the woodlands trespassed on by the tenant's sheep as well as those from High Meathop". They dismissed the tenant and in a new lease of February 1774, not only excluded the tenant "from all herbage in the woods at any time" but precluded him from keeping sheep on the estate. Nevertheless, after a further inspection six months later they "found some trespass (in the woods) from High Meathop as well as by (the) tenant's horses". In 1777, they found a new plantation in Job's Field pastured in common with the field. The Trustees reported that the tenant promised "never to offend again on that point but we fear he forgot that promise before we got to Lancaster". In 1781 they reported meeting many persons who had been to view some of the woodlands offered for sale who "all remonstrated greatly against the trespassing by sheep in their early growth". On another visit, in 1808, they found twelve sheep in the woods, and, in Lime Garth, "the ash eaten quite close and the oaks all cropped". The Trustees' agent expressed surprise that the tenant should run the risk of paying £5 a head penalty "for the trespass of a few sorry animals scarcely worth 10/– apiece". In an anonymous letter the tenant was said not only to pasture his own sheep in the woods but to take in other peoples' for wintering. Grazing in the woods, though

specifically precluded by the leases for more than a century and subject to increasingly severe penalties was apparently regarded by the tenantry as normal practice.

Quarrying

The name Limegarth strongly suggests lime burning or limestone quarrying. *Garth*, as noted earlier, is Old Norse for enclosure and lime is the mineral, not the tree which formerly would have been called Linden. Common quarries and common rights to take stone are found in many parishes in Westmorland and Cumberland and a hint of former common quarrying rights is conveyed by the phrase in Thomas Barrow's lease of 1690 "not delving any in the enclosed ground". The specific prohibition of "delving", absent from Andrew Muggell's lease of 1684, implies its former practice but its extent or form before the eighteenth century are unknown.

In 1773, the visiting Trustees reported that "owing to getting limestones contrary to bargain", the wall below Limegarth towards the sands had fallen in. Two years later, with another tenant, they reported "Found a great quantity of limestone had been got on the fells in the Limegarth much to prejudice of the fence wall and contrary to the express conditions in his lease". The description fits the site of a presently disused quarry at the extreme south-east end of the wood. Apparently it had the advantage of being the nearest point on the fell from which flatts on the River Kent could be loaded. In the 1770s the trade in limestone with "Liverpool and other places" was considerable. A trustee's report of 12 October, 1777 records that 175 flatts had been loaded with limestone since the previous 15 December, bringing the tenant a profit exceeding a year's rent of the estate. The location of the quarrying along the seaward cliffs suggests that the impact on the woods would have been relatively slight.

Lime burning is first referred to in the Meathop Estate book in connection with John Redhead's lease of 1774. This states "The Trustees are to furnish John Redhead with not less than 30 tons of coal to be delivered at Meathop, in order to burn lime for the sole purpose of mixing the same with earth for manuring the estate". The estate plan accompanying the sale brochure of 1829 shows a "Lime Kiln Field", absent from the 1760 survey, adjacent to the farmstead. From various notes of visiting trustees, it seems that coal was unloaded from the flatts on to the Fell, to be carried to the limekiln as required. Limestone was similarly carried to the limekiln, presumably from the nearest convenient exposures at the south-west end of the Fell, the kiln being fairly centrally placed amongst the fields and recovered moss land on which the burnt lime was principally used. A report of 1806 refers to lime being burned for sale but from the location of the kiln near the farmstead, this activity, like quarrying, can have had relatively little impact on the woodlands.

Charcoal

Bloomery slag found in many woodlands of the Lake District and Furness area provides evidence of a primitive iron-smelting industry dating from the Middle Ages and probably earlier. So destructive to the woodlands was the demand for charcoal for smelting that, in 1565, Queen Elizabeth I made an edict suppressing three recently erected smithies in the parish of Hawkshead. The inhabitants were allowed to make

charcoal and smelt iron for their own use, "using the shreadings, tops, lops, crops and underwood, but not timber". The second lease of Low Meathop shows that charcoal was made in the woods in 1684 and could have been made for such home use or for sale to nearby bloomeries for some centuries earlier.

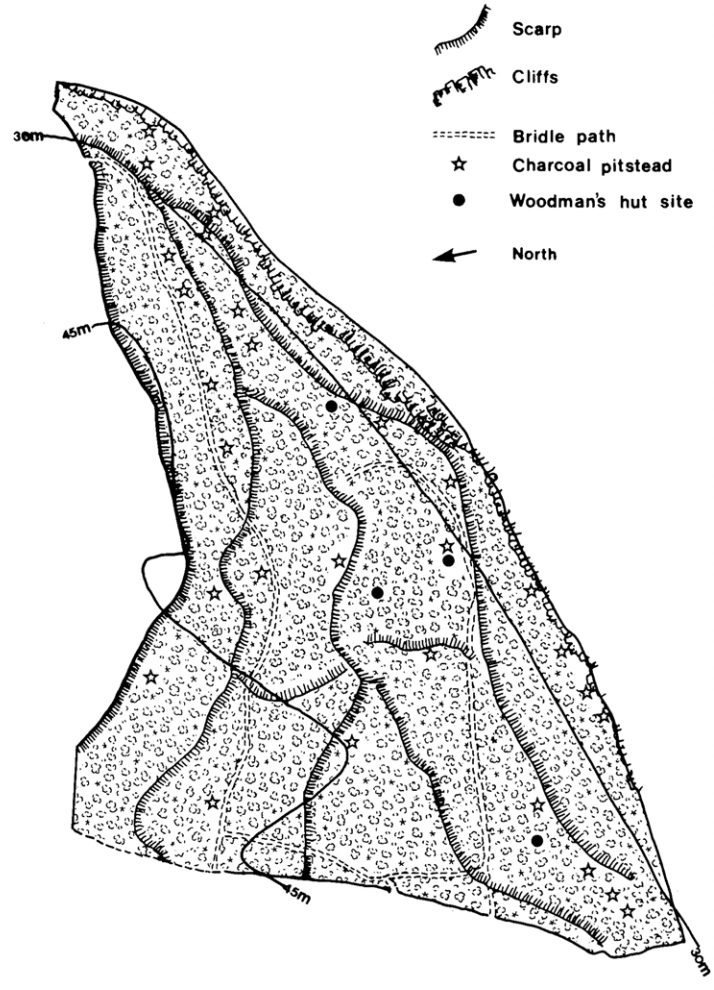

FIG. 2. – Distribution of charcoal pitsteads in Limegarth Wood.

By the mid-eighteenth century, charcoal was in such demand that, according to a hand bill of 1748 (Kendal Record Office), the Iron Masters had formed a combination to standardize the measure of charcoal and fix its price, and four of the biggest woodland property owners, "Gentlemen of the County", had planned a secret agreement to form a charcoal monopoly. In 1781, an agreement between the owners of the Newland, Backbarrow and Low Wood furnaces divided up the produce of the local charcoal woods between them (Barrow Public Library). The charcoal produced in High and Low Meathop, with that from the neighbouring district between Furness and Kendal was to be shared equally by the Low Wood company and the Backbarrow and Pennybridge

company. This was in competition with the Halton Company of Lancaster, owners of Leighton Furnace near Arnside, the nearest furnace to Meathop.

Fell[13] quotes a letter of 1780 from James Barrow, a wood agent of Meathop, to the owners of Backbarrow Iron Works attempting to persuade them to support him in outbidding the Leighton Furnace Co. for Limegarth Wood. He writes "Low Meathop Woods are going to be sold and without great encouragement they are safe to go to Leighton as usual, but will hold them good play if you back me stoutly". He valued the wood for the Trustees at £205 10s. 0d. In fact it sold for £299 to the Halton Company. The wood was again sold for charcoal in 1808 for the sum of £443, for 29 acres and 14 years growth, an annual value of approximately 22 shillings per acre. In 1810 when the Low Meathop Estate was sold, the 48 acres of grazing on the Fell and 89 acres of woodland were both valued at between 14 and 15 shillings per acre, compared with approximately 23 shillings per acre for the 110 acres of enclosed fields. After 1810 the Trustees' records cease but a manuscript notebook (Lancashire Record Office) of a wood agent, probably another member of the Barrow family, records purchases and sales of local woods from 1834 to 1892. Limegarth Wood was sold "after 14 years growth" for £400 in 1834 when it contained as "spires" (standards) 1,192 oaks, 461 ash, 20 birch and possibly in an adjoining acre of plantation, 20 poplars. It was sold again in 1849, 1863, 1876 and 1892. The coppice rotation was thus approximately 14 years. Entries appear for all the other woods on Low Meathop estate with about the same interval between fellings, the 13-15 years common in the region generally.

Besides iron smelting, charcoal was used for gunpowder, manufactured at Low Wood and at Sedgwick, both about six miles from Meathop. The best charcoal for gunpowder was from "savins" – juniper, but when, in 1803, the visiting Trustees recommended that "the juniper in Stockdale Coppy be rid up, and the vacancies planted with birch, etc." they were apparently concerned not with charcoal, but with clearing out the junipers surviving from the recent past when the site was rough grazing. No evidence has come to light of Meathop charcoal being used for gunpowder.

The impact on the woodland of operating the coppice system involves not only the removal of the production but the effects of charcoal burners and bark peelers practising their trades and living with their families in the woods. The disturbance arising from charcoal burning can be assessed from the description of the process in Thomas Barrow's lease of 1690, and a detailed account by Norris.[14]

In preparing for a "burn", the itinerant colliers and their families first cleared an area big enough for their hut and usually three pitsteads, each about 5-10 yards diameter, where the wood would be coaled. The site may already have existed from former times and only have needed restoring. The hut, characteristically wigwam-shaped, was constructed of poles lashed together at the top and thatched with overlapping sods, often with a fireplace and chimney built of stone. The pitsteads had to be cleared, built up level with soil and checked for rabbit holes or mole runs. Wind screens, eight-foot-high hurdles interwoven with bracken, had to be constructed and props prepared for holding them upright. The roadway to the pitsteads had to be cleared and water stored in barrels ready to hand.

Between November and April the wood was felled, except for the oak from which the bark could be peeled only when the sap was rising. The thicker stems selected for charcoal were "corded", that is cut obliquely into lengths of three feet called shanklings.

The rest was cut into coalwood of roughly two-foot lengths. A thin pole was erected in the centre of the pitstead, and the shanklings stacked round it. Coalwood was then laid round this to form the outer third of the stack. The centre pole was now cut off and replaced by a thick three-foot length of wood called the motty-peg (from Middle English mote – a mound). Around this a second tier of coalwood was stacked and, above that, a further tier, increasingly flat to a final height of about five feet. The stack was now covered with green grass followed by a thin layer of carefully sieved subsoil called "sammel" and finally sealed with an airtight capping of sods. It was now ready for firing. The motty-peg was pulled out, a shovelful of burning charcoal was poured into the hole and more charcoal rammed down on top of it to be eventually sealed with more sods.

During the next three days and nights as the wood charred and the stack sank, or gases blew holes in the cover, breaks had to be sealed with fresh grass, sammel and sods to prevent the whole stack catching fire. Careful use of the wind screens and judicious opening of small vents ensured even coaling through the whole stack. When the stack had burned down to the bottom, the unburned brands were pulled out and the bottom of the stack sealed to complete the combustion. The upper sods and underlying sammel were now removed. Water was "sayed" (say – a bucket in Scandinavian languages) on the live coals and the opening resealed. As the steam from the water condensed, it formed a partial vacuum gradually extinguishing the fire. After twenty-four hours, when the heap was cool, the cover was carefully removed and the hard dry sticks of charcoal were gathered into sacks.

Felling and coaling a sizeable wood took a considerable time. In 1781, the Coppy and How-do-you-call-it, together about 32 acres, were sold in November, the purchaser having until July 1st 1782 to complete the felling and until February 1783 to coal, clear and carry the produce off the premises. At Meathop, the Trustees were at pains to keep the disturbance to the woods to a minimum. A contract of sale of wood in 1806 specifically allows the purchaser "to get sods for the cover of the pits on the unenclosed part of the Fell or in Lime Garth" but the carters' horses were not to go into the woods unmuzzled and, where gaps were broken through the walls to make roads for carting the wood, gates were to be hung temporarily and the gaps finally walled up again.

Other Woodland Produce

In the contract of 1806, the "winter wood" i.e. everything except oak and any standards excluded from the sale, was to be cut by April 10th and cleared by the following 10th November, allowing the coppice shoots of the intervening spring to sprout. The date for felling the summer wood, i.e. the oak, is not specified but the purchaser was "to have liberty to lodge the bark raised from the fall in some part of the outbuildings till the 5th day of July", allowing him time to peel the bark in May or June when the sap was rising. The importance of oak bark in the woodland economy is illustrated by Thomas Barker's valuation of Lime Garth wood in 1789.

	£	s.	d.
110 doz. sacks of Charcoal at 23/– per doz.	126	10	0
130 quarters Long Cut Bark at 10d. per qt.	65	0	0
Hoop sticks	7	10	0
Coard Wood	6	10	0
	205	10	0

The value of the bark, a third of the estimated value of the woodland produce in 1789, had increased substantially by the beginning of the nineteenth century. In the *Gentlemans Magazine*, an article on the coppice woods of Furness states "As early as November they begin to cut down the woods, leaving only such sapling oaks as are likely to have a sufficient flow of sap to enable the workmen to peel off the bark, which is now carefully done to the twigs being now (1803) of double the value it was 12 or 14 years ago."

Hoop sticks, thin poles of oak and hazel, were used for barrels, casks and kegs especially in the nearby gunpowder mills. They were not only used for local cooperage but exported from Lakeland in large quantities to Manchester and Liverpool as poles, particularly for making the large casks used in the coal export and sugar import trade with the West Indies. "Coard wood" in 1789 was probably firewood, but at later dates the term is also applied to wood for bobbin making.

The Meathop wood-agent's notebook records that in 1815-17 he cut and himself marketed Town Head Wood near Finsthwaite, some six miles from Meathop. His estimates of the value of the produce in the following inventory provide an insight into the marketable production of coppice woodland in the Meathop area in the early nineteenth century.

	£	s.	d.
Bark	656	5	2½
Charcoal	212	8	11
Hoops	128	17	4
Oak hoops	26	12	0
Mast hoops	13	0	6
Sap spokes	57	7	0
Birch and alder poles	48	[illegible]	5
Ash poles	12	18	10
Smarts	24	12	0
Rods	20	9	6
Prop wood	15	18	1
Swill wood	11	3	5
Powder wood	5	2	0
Seal wood	2	5	4
Scythe poles and brush sticks	1	17	11
	1,222	8	5½
Less labour	312	14	3

The list gives an indication of the diverse industries – tanning, smelting, mining, quarrying, agriculture and shipping – which used woodland produce, and the woodland crafts, some of them partly carried out in the woods themselves. Swills are the local general purpose baskets used, for example, for carrying animal feed and, in specialized forms, for coal and iron ore. The agent evidently sold direct to the craftsmen some swill wood and the rods for forming the swill frames, but he also sold, already prepared as "smarts", the split oak laths from which the swills were woven. Seal wood was sallow or willow, used for making swill frames.

The stone fireplaces of four huts, thirty-two charcoal pitsteads, broken pottery and old tools, found in Lime Garth during soil sampling and excavating tree roots, survive

as evidence of the occupation of the Meathop Woods by the itinerant woodmen and their families.

Recent History

In the nineteenth and early twentieth centuries, foreign imports, the modernization of the tanning industry and the replacement of charcoal by coke resulted in a decline in the value of coppice woodland, well illustrated by the prices obtained at Meathop. The Barker Trustees' reports and the wood-merchant's note-book previously referred to, record the following sales of woodland from Low Meathop and a neighbouring estate:

1808	Limegarth	£443
1834	Limegarth	£400
1849	Limegarth+Stock Dub	£260
1863	Limegarth+Stock Dub	£216
1876	Limegarth+Stock Dub+Halecat	£214
1892	Limegarth+Stock Dub+Halecat +Boundary Woods+Adams Wood +Long Dale	£123

Brydson, referring to coppice woodland in Furness in 1907, writes "In consequence of . . . fall in value of coppice woods, it is difficult for owners to know what to do with the woods. . . . in most cases nowadays it is stipulated in the contract of sale of a coppice wood that a certain number of 'spires' or standards, are to be left standing when the wood is cut. This will ultimately cause the coppice to die away . . .".

No twentieth century records of timber sales from Meathop Woods have been located and their management history prior to 1963 is uncertain. Local farmers recall timber extraction during both world wars and the last cutting of the coppice in 1939.

In the inter-war years, the main use of the woods was for shooting. The late Mr Arthur Feetham, from 1926-1942 gamekeeper for the Townley family, owners of the High Meathop estate, estimated a normal day's bag from the woods and the Fell was 50 pheasants and 200 rabbits. Two thousand pheasants were reared annually for the High Meathop woodlands. Pheasant rearing ended with the second world war and rabbits have been few since the myxomatosis of the mid-1950s.

In 1963 Meathop Fell Woods were declared a "Site of Special Scientific Interest" under the National Parks and Access to the Countryside Act of 1949. In 1965, Job's Field Wood, Stockdale Wood, Adam Wood and Limegarth Wood were leased by the Nature Conservancy for research and a stock-proof fence was erected in 1966. It was extended in 1974 – the latest barrier against the centuries-old onslaughts of the indefatigable sheep of High Meathop.

Summary

Numerous artefacts from the locality show that Meathop Woods were probably hunted in prehistoric times. Early settlements have been found within a few miles distant. Place names suggest settlement by Vikings in the tenth or eleventh century and documentary evidence shows that Meathop Woods existed in the twelfth century. Early common

rights under the manorial system would have included taking timber for building, implements and fencing; the right to graze sheep and cattle and possibly to keep pigs in the woods; to cut down the understorey and to lop branches off the trees. At least two fields on the Fell, Job's Field and Long Ridding were probably cleared in medieval times and eventually most of the Meathop woodlands except the Great Coppice and Limegarth were cleared, by analogy with the neighbouring Furness district, probably by the fifteenth century. By the mid-seventeenth century parts of the old fields, including half of Job's Field, and possibly Long Ridding and Long Dale Spring had been replanted or allowed to regenerate naturally. In the late eighteenth and early nineteenth century, Stockdale coppice, part of Job's Field and Adam Wood were planted, mainly with birch, to meet the increasing demand for charcoal for iron-smelting. A small number of larches and pines were introduced to the new plantations in the early 1900s and a few larches still persist.

From the seventeenth century and possibly earlier, the woods were intensively exploited on a coppice rotation of approximately fourteen years, yielding charcoal, bark for tanning, barrel hoops and many minor products. They suffered the disturbance not only of the removal of the wood but of all the activity attendant on turning it into charcoal and other marketable produce, and occupation by the woodmen and their families. The woods have been grazed, at least sporadically, throughout their history.

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