A PRELIMINARY HISTORY OF THE CLYDE VALLEY WOODLANDS



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BY PHILIP SANSUM, MAIRI STEWART AND FIONA WATSON



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by

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Summary

Today the Clyde Valley woodlands are regarded as one of the best areas of riverine and gorge woodland in Britain and as such are designated under EU and UK legislation as a Special Area of Conservation (SAC). Their biodiversity importance led to their inclusion in an EU LIFE-funded ecological restoration project.

Since these woods have a long history, this represents the next phase in a continuing story of longterm woodland development. Ideally, information on past woodland development as mediated by historical human impact and management is required to inform current and future management decisions (see Peterken 2000). This woodland history report was commissioned as part of the Core Forest Sites LIFE project through Forest Research to assess the impact of current management and its effect on the tree regeneration and aims to provide such a context (see Thompson 2005). It details the findings of a preliminary investigation of the woodland history of three of these SAC woodland sites. The research focussed on these sites but also provides an outline of woodland history relevant to the whole of the Clyde valley.

MAIN FINDINGS

- Published sources suggest woodland management extends back to the middle ages. By the 18th century, the semi-natural woodlands of the area were generally managed as coppice with standards. There is scope for a more detailed analysis, using primary sources, to give deeper insights into the antiquity, historical continuity and nature of historical woodland use at the site level.
- There were numerous candidate uses for the produce of these coppices. The explicit detail of wood supply to local industries requires further investigation. An assumption of local supply of deciduous pit-props to coal mines in the Nethan Valley, for example, cannot be corroborated from published sources.
- Map evidence suggests that the process of historical fragmentation of wooded habitats was particularly significant in the 19th century when industrial development in the surrounding countryside was rapid. However, there was already a legacy of diversity of land-use and habitat type within the riverine woods of the 18th century. The fine grained spatial association of managed woods with small orchards and alluvial grasslands is likely to be an ancient feature of some of the SAC sites, together with associated linking habitats. The development of designed landscapes in close proximity to the woods has also been a prominent factor in the evolution of the current spatial patterning of the woodland resource.
- These woods have been subject to evolving processes, both ecological and human-induced. In considering their future, their past history offers a range of management choices, including coppicing, grazing and planting although these options may not always be acceptable in relation to their current value as bastions of ecological diversity.

Further study could shed more light on the special features of individual woods as well as on distinctive aspects of the history of the Clyde Valley woods in general. There is scope for an in-depth investigation using archive material, which, in conjunction with ecological assessment, could yield information of considerable interest to the continuing management of the woods.



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Introduction

The Clyde Valley woodlands are regarded as a surviving remnant of ancient woodland and are assumed to be relatively undisturbed due to the typically steep topography and relative inaccessibility which constrain agriculture and timber extraction. Their ecological value, which is fully described in the accompanying Forest Research report (Thompson, 2005), is well understood, yet little is known about how they have been used and managed in the past and the effects this may have had on their current character.

Although the survival of these ancient woodland remnants is likely to be related in part to topography, the long-standing and intensive nature of human activity in the Clyde valley means that they have certainly been subject to human intervention. From medieval times, when written records begin to proliferate, there are references to orchards and forests, within which a range of activities, including hunting but also farming, took place. Many of the woods in the area were known to be under coppice management by the 18th century and indeed some may have been coppiced in some form for many centuries before that. Equally, the surrounding towns and villages were at the centre of industrial developments, particularly extractive and allied industries, as well as the textile industry, in the 19th and 20th centuries.

This report details the findings of a preliminary investigation into the woodland history of three sites within the Clyde Valley SAC: the Lower and Upper Nethan Gorge; and Jock's Gill Wood SSSIs (Figure 1). An historical overview of developments that affected Lanarkshire woodland is followed by a description of historical information, which relates specifically to the sites or their immediate environs. A brief discussion is also given of the role of woodland history in management planning and more specifically how the history so far uncovered might inform the planning process.

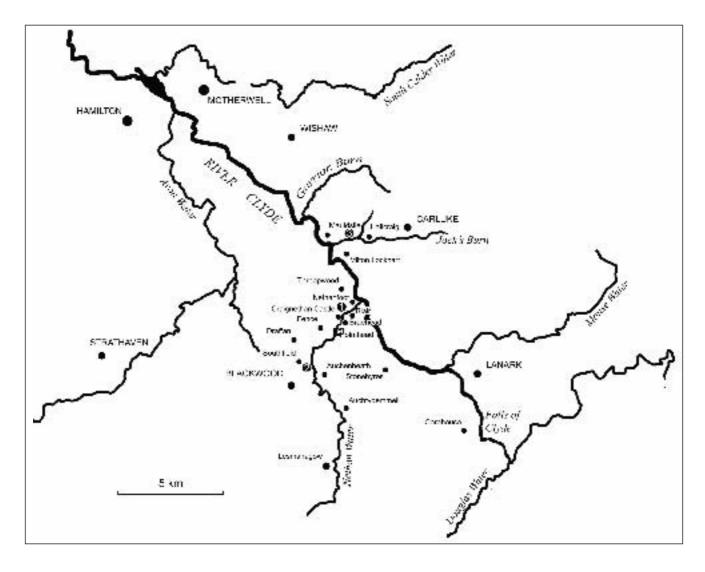
The study could not aim to be exhaustive, but provides an appraisal of what information is readily available and could be examined within the limits of the contract timescale. It also highlights where further investigation might uncover details which have not been ascertained in the present study.

Methodology

The aim of this project was to determine, in as much detail as possible, the past management and utilisation of woodland at Lower and Upper Nethan Gorge and Jock's Gill, in order to inform future woodland management planning. This was mainly achieved by means of a literature review (e.g. statistical accounts, improver and traveller literature), which helped place the woods' history in a wider context, including the specific social and economic history of Clydesdale. In addition, a sequence of historical maps was examined, to establish evidence of past extent, character and condition of the woods. Time precluded a full search of the public archives in Edinburgh, i.e. the National Archives of Scotland (NAS) and National Library of Scotland (NLS), for estate papers relating to relevant landowners and lands; however the catalogues were checked to establish the range of documents available to future documentary research on this subject area.



Figure 1: Location of study sites in the Clyde valley showing principal towns and other placenames mentioned in the text. 1: Lower Nethan Gorge. 2: Upper Nethan Gorge. 3: Jock's Gill Wood.





Results

General historical overview

It has been estimated that woodland covered two percent of the county of Lanarkshire at the beginning of the 19th century, and that 25% or more of this had been planted since 1785 (Naismith 1813). The figure may actually have been double this (Robertson 1812), but even so semi-natural woodland was clearly limited in extent.

Most of it was confined to the steep valley sides and gorges of the Clyde and its tributaries, a distribution that would have enhanced the impression of a countryside "bare and treeless", in the words of one late 17th century native of Lanark (Turner Simpson & Stevenson 1981). Nevertheless, others disagreed with this characterisation. Visiting the vale of the Clyde in 1832, William Cobbett commented on the beauty of the woods and orchards and the fine growth of the trees and wrote:

"Dr Johnson said that there were no trees in Scotland, or at least something pretty nearly amounting to that....I shall sweep away all this bundle of lies..." (Green 1984, 80).

John Stoddart (1801) had been similarly impressed with the glen of the Mouse Water "wholly shrouded by dark coppices, and ancient pines". Many of these semi-natural woods survived into the 20th century (East 1937, Stamp 1946) and to the present day in spite of intense development in the surrounding countryside.

Potentially the woods of the Clyde Valley Woodlands SAC have a very long history of utilisation and management extending back to the middle ages and probably beyond. For example, reformed monastic houses, some of which held lands in Clydesdale, brought in continental practices in the management and exploitation of natural resources, including trees, from the late-eleventh century (Stewart & Watson). The monasteries were also keen on fruit production, devoting some of their land to the cultivation of orchards.

Three hunting reserves or forests are known to have existed in this area: Mauldslie, a royal hunting forest from at least 1214; Carluke, known to be in existence from 1304: and Lesmahagow, a hunting reserve granted to Kelso Abbey around 1235 (Gilbert 1979). It is important to note that the word 'forest' did not originally mean only an area of woodland, but rather a hunting reserve. Although principally intended to provide shelter and food for deer and game, other uses were made of these hunting reserves by local people. Land within the forest could also be under cultivation and used as livestock pasture. They might include formal parkland such as the Royal Park of Mauldslie, the vestiges of which may still exist around Mauldslie Castle.

Utilisation of the Clyde valley woods would have been intimately connected with local agricultural and building needs as well as with the trades of the nearby burghs of Hamilton and Lanark whose buildings were constructed in timber in the middle ages (Murray 1932); Lanark was razed by fire in 1244 (Cowan 1867). Even though Scottish towns were increasingly built in stone from the 16th century onwards, roofing continued to use significant amounts of timber and was usually topped by straw and turf thatch at least until the end of the 18th century (OSAS, Lanark). Indeed, fire ravaged Hamilton for 8 days in 1744, a testimony to the highly flammable nature even of 18th century buildings (NSAS).

Historically, Lanarkshire was in the heartland of 'good practice' in woodland management, which Smout et al. (2004) have identified by analysing deeds of sale across the country. There is certainly evidence for some



sophistication in the use of woods by the 17th century as demonstrated by the proportion of deeds with reference to 'good management practice' as high as 75% in the Clyde and Solway districts between 1600 and 1649.

From the 19th century onwards, contemporary accounts, such as agricultural and forestry reports, provide progressively more information about the nature of the Clyde valley woods and how they were managed. According to Naismith (1813), by the beginning of the 19th century, the riverside woods of Lanarkshire, which consisted of oak, ash, birch, elm, alder, holly, gean, or wild cherry, willow and hazel, were managed as coppice-with-standards on a cycle of 25 to 26, or more frequently 30 years, with 20 to 25 standards per acre. Larger woods were divided into lots or *hags* of three to seven acres, one of which was cut each year on a continuous rotation.

The historical harvesting interval for Scottish coppice woods generally ranged from 19 to 30 years but there was a tendency for this to become normalised at 20 to 25 years from the mid 18th century, particularly where tanbark was being harvested for commercial use (Lindsay 1975 a, Smout & Watson 1997, Stewart 2000, Sansum 2004). The species diversity of these Clyde valley woods seems to suggest a more mixed coppice than the oak-dominated coppice woods of Perthshire and Argyll at this time, where tanbark and charcoal were the principal products.

Naismith (1813, 139) also reports that the nascent industrial development of the district was creating a large demand for "small trees, for supports in the mines". The traditional system of management of the deciduous woods may have been exploited to supply the

19th century coal masters with pit props; birch and alder were certainly used for this purpose in early Scottish mines (Smout et al. 2004). However, plantations of pine and larch had been growing in number since the 18th century and thinnings and early felling of these coniferous stands may well have been the more usual way of producing pit props (Naismith 1813, NSAS).

It is also possible that the industries of 19th century Lanarkshire created demand for a variety of uses. This demand may have been enough to engender sufficient value of the coppice woods to ensure their continuance, if not expansion, at least for a while (cf. Lindsay 1975 b). For example, there were numerous requirements in the mining industry for hardwood of all sizes from wands and rods to make colliers' creels and tool handles to oak cribbing for mine shafts and the wooden rails used in the era of pony haulage (Duckham 1970, Smout et al. 2004).

In addition, it is possible that the cotton mills of New Lanark, established in the 1790s, utilised local woods to supply the various components of these textile factories, particularly bobbins, which were commonly made from birch. Smout et al. (2004) suggest that the thread mills at Paisley found a use for Scottish wood either turned locally or imported from the north of Scotland, though the cotton mills of the west of Scotland eventually bought their bobbins and shuttles from Lancashire. Nonetheless, the first, or Old Statistical Account for Lanark states that there were 10 turners employed in the mills of New Lanark in 1794 (OSAS), which suggests that some manufacture of bobbins was taking place there and it is possible that the timber used came from local birchwoods.

¹ Good management practice is here defined by mention of enclosure or of felling regulations (Smout et al., p163)



As late as 1876, woodland owners were being encouraged to make more use of coppice trees other than oak, with the suggestion that "in almost every district of Scotland", there was a strong demand for birch to make gunpowder, clogs and bobbins, with the thinnings going to gardeners in the cities. Likewise for alder there was "always a ready sale". Gilchrist, the author of this drive for greater utilisation of coppice, recalled how in 1859:

"We cleared a crop of natural coppice from the banks of the Nethen and one of its tributaries in the county of Lanark; this crop consisted for the most part of alder and birch, and was sold for the manufacture of gunpowder at 18s. per ton peeled. They had grown about 25 years, and the estimated yield per acre was about £16." (quoted from Smout et al. 2004, 268).

By the last quarter of the 19th century, the demand for home-grown coppice wood, despite the optimism of Gilchrist, began to decline, in the face of foreign competition and new industrially produced substitutes. Although coppice management is known to have continued into the 20th century, it was small-scale in comparison to activities in the heyday of coppice management in the 18th and early 19th centuries. Interestingly, it was noted in the Old Statistical Account that there was a tannery in Hamilton and a tanner was also employed in Lanark in the 1790s (OSAS). By the 1830s, tanning was said to be in decline in Hamilton and there was no longer a tanner employed in Lanark (NSAS), a trend that was mirrored in other parts of Scotland (Smout et al. 2004).

In the 20th century, old coppices were, judging by Anderson's (1967) analysis of the Scottish pitwood market, very likely to have been called upon to produce pit props, particularly in wartime. In the 1930s, the Lanarkshire coalfield is reported to have consumed 33 million lineal feet of props per annum (National Home Grown Timber Council 1937) and by 1960 95% of the Scottish mining industry's timber demands were met with home-grown timber (Anderson 1967, Thomson 1960). It is quite possible (although not substantiated) that the last major harvest of these woods was during or just after the Second World War. Certainly, it is known that the Coal Board felled large parts of the broadleaved woods of Lochtayside in Perthshire for pit props in the late 1940s (Stewart 2000).

Historical information pertaining to the study sites

Lower and Upper Nethan

The Nethan River is a tributary of the Clyde, which bisects the parish of Lesmahagow. The earliest written clues to the landscape history of this locality come from the 12th century, when the lands of Lesmahagow were granted by royal charter to Kelso Abbey (Irving 1864, Wilson 1936, Cowan 1967). The Benedictine monks who came to live here would have been skilled farmers and woodworkers. Although site specific evidence for woodland use and management in the middle ages is extremely scarce, the fact that this area was under church control during this period suggests a strong likelihood that these woods have been deliberately managed since at least the late 11th century. It is known that the lands of Lesmahagow were given the status of 'free forest' in 1235 by Alexander II – this meant (amongst other things) that cutting wood



without permission was punishable by the very severe fine of ten pounds (Clelland 1990).

In Scotland, although the concept of hunting reserves was well-established, there seems to have been an acceptance of the need to accommodate other uses. Regulation was thus intended to permit entry into the forests for, among other things, fuel, building materials and grazing while ensuring that the well-being of the trees, deer and game was not jeopardised (Stewart & Watson 2005).

The lands at Corehouse, a farm overlooking the Falls of Clyde, some 6 km east of the Nethan, were granted to a tenant around 1200 by the Abbot of Kelso along with the right to use wood freely for building and fuel but not to sell it to a third party and not to plough the land upon which it grew. Admittedly restrictions on ploughing were later relaxed (Innes 1846). It has been suggested by Tait (1885) that the tending of the orchards characteristic of the steep slopes of the Clyde valley and its tributaries also dates to the time of the monks' tenure. Veteran fruit trees at the abbeys of Jedburgh and Kelso were said to be of the same varieties as the apples and pears commonly found in 19th century Clyde valley orchards.

By the time of the first map evidence in the 1590s, the Hamilton family had become landholders of much of the land in the parish, including most of the farms adjacent to the Nethan (Greenshields 1864). Timothy Pont's manuscript map (c.1596; Pont 34: Glasgow and the County of Lanark: available at http://www.nls.uk/pont) emphasises the many placenames of the district rather than landscape features (see figures 2 and 3). Hence, it is especially notable that the principal woodland mapped in the area is that along the Nethan in the vicinity of Craignethan Castle but also on the east of the river as far south as Auchtygemmel (NS818422). It was clearly a remarkable wood.

Pont also made extensive notes, and these are most likely the source of a description of Lanarkshire published in Descriptions of the Sheriffdoms of Lanark and Renfrew, compiled about MDCCX by William Hamilton of Wishaw (Hamilton 1831, 131). This account lists the principal woods in Lanarkshire and includes "the woods of Lesmahagow". Stonebyres (NS841439), which was one of the more extensive woods in the parish of Lesmahagow in the late 18th century (OSAS), was listed separately. It is therefore a fair assumption that "the woods of Lesmahagow" referred to in this account are the woods clothing the banks of the parish's rivers and burns, the principal being the Nethan.

Judging from the maps produced as a result of the Military Survey of Scotland between 1747 and 1755, commonly known as the 'Roy maps' (available at http://www.scran.ac.uk), the banks of the Nethan did form a considerable tract of woodland (see figure 4). Notwithstanding inaccuracy and distortions in the Roy map, the 18th century Nethan woods were apparently more extensive and less fragmented than the current coverage. The map indicates that the river was closely wooded on both banks from Nethanfoot south to Auchenheath, though the alluvial haugh- or holm-land at Holmhead (NS815456) is shown as arable. Further south towards Lesmahagow village (and outside the current designated SAC woods), the river continues to be flanked by woods. Rather than extending to the riverside, these tend to shelter small fields on the more extensive holm-land.

This picture closely corresponds to the description given in the Old Statistical Account for the parish (OSAS, 423):

"This [the Nethan] is a beautiful pastoral stream; the banks of which are finely diversified with hanging woods sloping pastures and cornfields".



It was also said that much of the land by the sides of the parish's different rivers was "clothed with coppices" (OSAS, 429) and that:

"towards the foot of the Nethan, and all along the Clyde below the falls, apple, pear, and plum trees, particularly the plum trees, generally produce a considerable quantity of good fruit".

A later survey by Charles Ross (1770s) also indicates the persistence of narrow wooded areas along the sides of the Nethan with more extensive woodland around Craignethan Castle (see figure 5).

A more accurate map of 1816 (see figure 6) suggests some fragmentation of the woodland cover, with associated loss of semi-natural woodland in the Nethan Gorge since the time of the Roy map. Coppiced woodland now seems to be generally restricted to the riversides south of the bridge at Holmhead (NS814456). The Lower Nethan Gorge appears unwooded. This may be because of the narrowness of the gorge and the dark hachuring used to depict Nethan Craigs, but elsewhere, in similarly steeply incised valleys the cartographer, William Forrest, has taken care to depict both crags and trees (e.g. Craignethan Water). It is noted in the current management plan for the site (Scottish Wildlife Trust 2003) that the Atlas of Scotland of 1832 does not show the Upper Nethan woods. However, Forrest's larger scale map from which the Atlas map was derived does show woodland extending on the west side of the river as far south as the burn near Southfield (NS800447).

It is not clear what precipitated this apparent woodland fragmentation during the last half of the 18th century, but it does coincide with an increase of coal mining operations and other industrial activities in the district. Gas coal extraction at places such as Blair (NS821465) and Auchenheath (NS808441) was already underway by the turn of the century (OSAS) but the expansion of extractive industries in the Victorian era was enormous; between 1832 and 1857 coal tonnage won in the parish's mines per annum rose from 8,000 to 60,000 tonnes (Clelland 1990).

New collieries continued to open throughout the 19th century, such as the one less than half a mile from the Nethan at Fence (NS807459) in 1870. As well as the numerous coal pits, the valley served a saw mill and corn mill (visible on the OS 1st edition). Work on the Nethan viaduct began in 1853 and this allowed still greater expansion of coal mining around the Nethan (Clelland 1990). Thomson's *Atlas of Scotland* (1832) indicates that there were at least 25 sites of extractive industries in Lesmahagow parish, as early as 1808 (East 1937).

The complex patterning within the wooded area can be more clearly seen on the first edition Ordnance Survey (OS), surveyed in 1858 (see figures 8 and 9). In the Lower Nethan, scattered bushes or open land and some enclosed orchards (around Nethanfoot and Braehead) prevail east of the river, whereas Nethan Craigs are shown as deciduous woodland. Similarly, narrow sections of the Upper Nethan Gorge remain wooded but the overall impression is of small individual woods heavily interspersed with clearings (usually located on the holms or less narrowly incised portions of the valley) rather than a continuous riverine strip.

Planting of belts of trees on the upper valley slopes is also evident on both Forrest's map and the 1st edition. In the 1890s McMichael (n.d., 153) described the scene in the Lower Nethan Gorge thus:

"The view downwards [from Craignethan] is of a grand woodland character, but the level ground and gentle slopes near the river form cultivated



fields of an irregular shape, interspersed with hedgerow trees and copses, the enclosures seeming to have been individually cleared out of the forest which surrounds them, and which occupies in unbroken masses the steeper declivities and unbroken banks."

So while some of the apparent fragmentation is probably an artefact of the high quality and large scale of the 1st edition map relative to the Roy map, the development of the area since the 18th century and accompanying population expansion² undoubtedly drove inroads into the woods and encouraged the development of this pattern.

In view of this, it is perhaps surprising that the loss of woodland was not greater by 1858. Clearly the distribution of surviving woods was controlled at least in part by topography and in 1834 it was still possible for the minister of the parish to write in the second or New Statistical Account of Scotland (NSAS, 31): "The banks of the Nethan are generally clothed with coppice..." In the same account, it was estimated that 450 acres of the parish (covering 34,000 acres Scotch³) were under coppice wood and that cutting of these yielded £250 per year.

Planting had been carried on to a considerable extent since the first Statistical Account was written in 1793, usually with Scots pine (*Pinus sylvestris*), and 1,200 acres of the parish were then under plantation. Thinnings from these plantations brought £400 - considerably more than the price obtained for the coppice produce. Only 50 acres of the parish were in gardens or orchards; this figure had more than doubled by 1926 (NAS: AF40/15/28).

It is noteworthy that the woods of the Nethan do not appear to have been affected by planting of conifers before 1858, with the exception of the enclosure between the railway and the river, west of the Nethan viaduct (NS802445). Extensive plantations in 1858 are visible at Threepwood (NS815475 and 805470) and Blackwood House (NS773433).

A considerable amount of late 19th and early 20th century material relating to contracts (usually long leases of 16 or more years) between mining companies and landowners to work coal and other mineral substances (e.g. blackband, clayband and clayball ironstones, shales and fireclay) on the lands bordering the Nethan is available in the National Archives of Scotland (CB16/3 sheet 104, CB17/362, CB16/3 sheet 125/126. GD314/410. CB17/387). For example, James Nimmo and Company worked coal under the lands and farms of Craignethan, Fence, Holmhead, Nethanfoot and Thriepwood (see figure 1) from 1914 by agreement with the Earl of Home, Baron Douglas of Douglas. A clause in the contract stated that the tenants were obliged to:

"carry on all operations hereby authorised so as to do as little injury to the ground within which the minerals hereby let are situated, and to the houses, ponds, watercourses, roads, fences, woods and crops thereon."

Leases granted to the coal masters "all such rights of working, winning and carrying away the coal and other mineral substances" but the precise details of wood use beyond this are not documented. However, it is known that a crop of alder and birch was harvested at 25 years of age from somewhere on the banks of the Nethan in the mid 19th century (see the General historical overview above). This was said to be for gunpowder production, presumably a key material for mineral working.

³ A Scotch acre was approximately 1¹/4 times as big as the statute Imperial acre: 1 Scotch acre ~0.5088 ha, 1 Imperial acre ~ 0.4047 ha.



² The population of Lesmahagow parish more than doubled between 1801 and 1831 (NSAS).

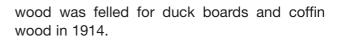
Location of Forest Research transects

These transects are in an area of woodland, which in 1858 was depicted as orchard. The boundary line crossing the slope, mentioned in the current management plan (Scottish Wildlife Trust 2003), does not appear to have divided woodland from orchard; orchard therefore seems to have occupied the whole slope. On revisions to the OS County Series maps in 1898 and 1913, however, the site is shown as mixed woodland. The current management plan for the site tells us that this compartment of the

Jock's Gill

Jock's Gill, in the words of the Ordnance Survey officers who surveyed the area in the 1850s, is a "romantic and sometimes precipitous glen, the greater part of it thickly wooded" (NAS: RH4/23 Ordnance Survey name book). This site lies in the parish of Carluke. The parish church was once known as Forest Kirk because of its situation in, or at the margins of, Maldisley (Mauldslie) Forest, a royal forest by the late 13th century, which embraced the parish and according to Innes (1854) was probably much more extensive. How well wooded the area was at this time is not known but the Bishop of Glasgow petitioned King Edward I to grant him timber in his forests of Maddisley (Mauldslie) and Carlug (Carluke) in 1304 (CDS ii, 1626). The parish was later granted to the Abbey of Kelso (1321) in the reign of Robert I (1306-1329) (Cowan 1967).

The barony of Mauldslie was gradually broken up so that historically Jock's Gill falls on three estates: Mauldslie, centred on Mauldslie Castle north of Jock's burn, near its confluence with the Clyde (NS809504); Hallcraig (NS828500) to the east of Mauldslie and divided from it by the Whorley Burn (NS824502); and Milton or Milton Lockhart on the southern side of Jock's Burn



In the Upper Nethan (NS803451) the transects are at the edge or just outside (on formerly unwooded ground) of an area which appears to have been affected by early 19th century planting (see above). The earthwork, which is partially traversed by a transect, is a coal bing on the 1st edition OS map.

(NS812493). Historical landownership of the site is thus complicated but the most significant families in recent times were the Carmichaels, later Earls of Hyndford and Carmichael-Anstruthers, who held Mauldslie from 1649 (previously Maxwell from 1402) until the 20th century; the Lockharts, who owned Milton from some time in the 19th century; and the Hamiltons of Hallcraig (Hamilton 1831, Timperley 1970).

The wood does not appear on Pont's map (see figures 2 and 3). Nevertheless the description of the area quoted on p.6 and probably contemporary with the map (see Lower and Upper Nethan section, Hamilton 1831, 50) confirms that "In this parish [Carluke] there are plenty of woods, fruitful gardens and coall, many of the smaller fewars having orchards". Milton was said to have "plentiful fruit-gardens, a good salmond fishing, and the largest and best wood in that neighbourhood".

The earliest map to show the woodland at Jock's Gill is the Roy map (1747-55). The steep slopes north and south of Jock's Burn are shown to carry continuous but narrow stretches of woodland from the junction with the Clyde



east to Kirkton near Carluke, with more extensive woods around Whorley (Horley) Burn and Milton (see figure 10).

The estates around Jock's Burn had clearly engaged in planting, with shelter-belts and avenues of trees visible on both sides of the river. At Hallcraig, what appears to be a small orchard (shown by a neat grid like pattern of trees) is depicted on the north bank of the burn. The intermixed pattern of woods, orchards, gardens and small fields is illuminated by a large scale 1766 Plan of the lands of Hallcraig (NAS: RHP 384). Two small woods, Bog Wood and Little Wood, of 8 acres 3 roods and 32 perches and 1 acre 3 roods and 37 perches respectively, lay adjacent to Jock's Burn east of Whorley Burn, surrounded by orchards (amounting to 5 acres), fields and parks divided by narrow strips of planting.

On Ross's county map of 1773 no semi-natural woodland is depicted on the burnsides but the orderly plantings on the Mauldslie and Milton estates near the confluence of Jock's Burn and the Clyde are clearly marked (see figure 11). It is likely that the slope woodland seen on the Roy

map was simply considered insignificant as a feature at this scale of cartography. Forrest's larger scale map, completed in 1816, suggests diversification and division of the woodland, as for the Nethan Gorge (see figure 7). Coppice woods apparently survive on the burnsides east of Mauldslie and west of Carluke. but elsewhere the designed landscapes of Mauldslie Castle policies and Hallcraig are seen to impinge heavily on the riverside vegetation which has become part of a network of avenues, parks, gardens, and clumps of planted trees (though these parks themselves may have long antecedents in the medieval royal park of Maldisley⁵). Woodland on the Milton side of the burn had apparently become very sparse.

Some plans of Mauldslie estate (NAS: RHP43231, RHP43232°) are held at West Register house in Edinburgh. These are not dated but belong after 1817 and, by comparison with later maps, must predate 1858. These show in detail the intricacy of landscape design and the extent of its effect on the riverside vegetation first suggested on the Roy map. All the woods on the estate appear to be enclosed by this time.

Orchards were a particular feature of the land-use history of Carluke parish. According to East (1937) the area of orchard land in the county increased from 200 to 340 Scotch acres between 1794 and 1806 and in 1789 there were 80 acres in Carluke (OSAS, pg.126). This figure had increased to 110 acres by 1839 (NSAS, pg. 589) and 139 (Imperial) by 1926 (NAS: AF40/15/28). The orchards were generally located on the well-drained deep soils of south and south west facing holms. Small fruits such as gooseberries, currants and raspberries and sometimes even potatoes, oats, beans, barley and rye, were often produced as 'undergrowth' within orchards. This could account for 40% of an orchard's revenue. The shelter afforded by coppices on the slopes surrounding orchards has been said to have contributed to the success of fruit growing in the district (East 1937, OSAS: Cambusnethan). The composition of the orchards changed after the mid 19th century, with plums becoming increasingly important relative to apples (Snodgrass 1937). The produce was sold in Glasgow and to local jam factories.

⁶ Not reproduced in this report



⁴ Not reproduced in this report because of poor reproduction quality.

⁵ It was claimed in NSAS (1839) that a 300 year old pear tree stood in the park of Milton-Lockhart.

In 1858, when the Ordnance Survey first mapped the area, the most extensive compartment of the modern wood, on the northern side of the burn between Mauldslie and Whorley burn, is depicted as interplanted with conifers (see figure 12). This wood was again portrayed as a mixed stand on revisions in 1898 and 1914. When the Mauldslie Castle estate was put up for sale in 1933, it was said to be magnificently timbered and included "large commercial quantities of fine oak, ash, beech. larch. spruce, etc." (NAS: GD1/1138/10).

The large scale mapping of the 1858 survey emphasises the connectedness of the different types of woodland on the estate, including avenues and formal belts running into the slope woodlands of Jock's Gill. It is worth noting that neighbouring gorge woodland SSSIs such as Garrion Gill (NS804521) and Townhead Burn (NS825490) were historically connected to Jock's Gill Wood through this semi-artificial woodland network over land which was formerly a medieval royal forest.

There are few published references to these particular woods to shed light on their past management.A brickworks, with various associated clay pits, opened in 1880 at Hallcraig near the present golf course (Martin 1999). This may have had impacts locally on the woodland for there appears to have been some scrub colonisation in close proximity to the works site between OS revisions of 1898

Location of Forest Research transects

The *Forest Research* transects at NS823502 lie in an area which was depicted as mixed woodland (i.e. containing planted conifers as well as broadleaves of either planted or selfsown origin) on the OS 1st edition 6 inch map and on revisions made in 1898 and 1914. This and 1914. Coal, ironstone and fireclay were mined below Mauldslie Law and beneath the Milton Estate from the 1830s or 1840s (NSAS, NAS: GD344/1/23) by the Shotts and Coltness Iron Companies and the Thornton Coal Company but whether their timber demands were locally sourced is not evident from leases (NAS: CB16/3 sheets 36, 79, 151, CB17/412, CB17/562).

The New Statistical Account written by John Wylie, the local minister, in the 1830s provides some information about the wildlife of the parish. He wrote:

"Roe deer are still found, though few in number, in the Gills opening to the Clyde, and especially in the woods of Milton-Lockhart. Pheasants have increased much of late. The badger is now extinct, and the otter nearly so. The cross-bill, after an absence of eleven years, has again paid us a visit, in considerable numbers".

The minister goes on to describe the flora of the district as:

"rich, as might be expected, from the variety of soil and exposure, including sheltered glens, marshes, open meadows, and moorland. We possess, however, no rare plants, unless *Carduus nutans*, musk thistle; *Epipactis latifolia* [*E. helleborine*], broad leaved helleborine, found at Mauldslie, and *Doronicum pardalianches*, great leopard's-bane, found in abundance at Hallcraig, be considered such." (NSAS, 576).

area appears from the available map evidence to have been continuously wooded since the mid 18th century, however, and may therefore be somewhat less disturbed than sites to the west and east.



Discussion

Woodland history studies can be useful in different wavs. Thev can reconstruct management events in a wood and relate these to the past and present condition of that wood. We know, for example, that from around the late 18th century, the fashion to 'enrich' semi-natural woods with introduced trees and shrubs such as beech and larch, has left many of our most important semi-natural woods, like those of the Clyde valley, with formidable issues. management linked to the invasiveness of some of these trees and shrubs and debates about what is naturally appropriate to a given site.

Woodland history can also provide descriptions of how people used and related to woods in the past. Today, many of us are fascinated to hear how important they were to our ancestors, who depended on them for every aspect of daily life from ploughs to roofing, from fences to fuel, even providing shoes for their feet and harnesses for their horses. As the Forest Research report points out, this type of information can be a valuable tool in raising awareness about a wildlife habitat that is not as relevant to people today as it used to be in the past (Thompson 2005). Through interpretation and active involvement, woodland history can be used to re-connect people (especially children) to woodland in a new and positive context.

The aim of this woodland history study was to help inform current and future management decisions by uncovering past events and management of these woods. As the Forest Research report indicates, the current structure of the woods of the Clyde valley, which have been the subject of this research, largely reflects 20th century management and use, with only a few hints of pre-20th century management remaining. That is not to say, however, that the history that has been uncovered so far for these woods should be disregarded when addressing future management.

The history study has shown that they have evolved and changed over time as a result of active human intervention over many centuries, indeed millennia, contributing to the form that the woods and their wider environment take today, however invisibly. It is a complex story, involving many different types of past management which did not necessarily take place successively, but often overlapped or even occurred at the same time.

The earliest written records point to the importance of these woods as a hunting ground, but at the same they were used as pasture for livestock and cultivation on the holms must have also developed quite early. They would have been indispensable as a source for building timber and other wood produce for local people. It is likely that some form of coppicing was being carried out in these woods during the medieval period and it is not beyond the realms of possibility that planting was undertaken - there is a strong suggestion that orchards were also created in the Clyde valley at this time.

All these uses and forms of management continued to be important through the ages, but with changes in emphasis and intensity, particularly from the late 18th century onwards and will have impacted in different ways on woodland ecology. The phase of 'enrichment' planting of the late 18th and early 19th century, for example, has had a profound affect on woodland composition. The spread of Dutch elm disease during the late 20th century, however, has probably had a more significant impact.

Given this complex history, it could be argued that current and future managers have a range of management choices to consider from the



past. Grazing, for example, was an important use of most woods in Scotland, which has considerably affected the structure and ground flora of this habitat. This is borne out by the Forest Research study, which assessed the impact of wild herbivores, but also suggested that some areas were affected by recent cattle grazing. Should grazing therefore be a part of future management? The re-introduction of coppice management might also be considered.

Other elements of past management might not be acceptable to current managers, who have embarked on a minimum intervention phase, given the current high ecological value of these woods. Thus it is unlikely that exotics will be planted or overgrown carriage tracks reinstated in an attempt to re-create designed elements of the past; nevertheless, both these aspects are as much a part of the history of these woods as more 'natural' elements.

It is not the role of woodland history studies to prescribe future management strategies. Nevertheless woodland history can certainly inform and stimulate debate about future management directions and perhaps even challenge current assumptions through a proper understanding of how our woods have evolved and what they have meant to people in the past.



Recommendations for future research

A future study seeking to delve deeper into the medieval or early modern use of these woods and to establish the antiquity, historical continuity and nature of historical woodland use at site level may wish to access privately held papers of the Hamilton Estate (NRA 10979 Hamilton (NRAS 2177)). Some Hamilton papers are held publicly at NAS but these are mostly State papers (NAS: GD406). Some estate papers are also held at South Lanarkshire Council Archives (NRA 36701 Hamilton).

Research to uncover detailed information about the relationships between local industries' wood demands and local woodland management would considerably assist our understanding of woodland history, not only of Lanarkshire, but also at a national level. To this end, combing the accounts of coal companies formerly operating in the vicinity of the woods might yield data on the purchase of mining timber and whether its source was local. However, a cursory examination of the 1927-35 General Ledger of James Nimmo and Co., former tenants of mines in the Lower Nethan area did not provide any useful information of this type (NAS: CB23/1).

The estate papers of Douglas of Douglas, held privately (NRA 10169 Douglas-Home (NRAS 859)), are likely to be a more worthwhile source of information on specifics of early 20th century woodland management in the Nethan Gorge. For Jock's Gill the estate papers of the Carmichael-Anstruther family who held the Mauldslie estate during the period of greatest mining activity are of potential interest. These are also privately held (NRA 10125 Carmichael (NRAS 0032)). An inspection of the catalogue of the papers of Lockhart of Lee and Carnwath (NLS: MS.27501-27611 & Plans: MS.27638-27847) suggests they may contain information relevant to some sites within the Clyde Valley SAC. The location of any documents pertaining specifically to the Milton-Lockhart estate (hence to woodland on the south side of Jock's Burn) has not been established.

Some work has been done in examining aerial photos and 19th century 6 inch and 20th century 1 inch editions of the Ordnance Survey, in order to discern approximate dates and locations of clearances and regeneration/ replanting phases (e.g. Scottish Wildlife Trust 2003). This line of investigation, if pursued further by comparing in detail successive editions of OS large scale plans, could yield information of value for the period before aerial photographs became available (1946). Until 1963, a considerably finer definition of vegetation classification was used in OS surveys (Harley 1975), so that, for example, a colonising birch stand might be distinguished from worked coppice on an early 20th century 1:2,500 scale plan.

This study indicated some of the historical differences between sites in the SAC. For instance, in the 19th century Jock's Gill wood was of a considerably different character to the Nethan Gorge woods, probably as a consequence of not only ecological variation, but also different landownership, treatment and proximity to big houses. Further documentary research, ideally linked with ecological data and field observations, would be profitable in shedding more light on the distinguishing features of individual woods as well as developing understanding of the history of the Clyde Valley woods in general.



Acknowledgements

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Abbreviations

CDS Calendar of Documents Relating to Scotland, ed J. Bain Edinburgh 1881-8, vol ii NAS National Archives of Scotland NLS National Library of Scotland NRAS National Register of Archives of Scotland NSAS Gordon, J. (ed) 1845. *The new statistical account of Scotland.* Edinburgh, William Blackwood & Sons. OSAS Sinclair, J. (ed) 1791-1799. *The statistical account of Scotland, 1791-1799.* Edinburgh, Wm. Creech.

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Annex 1 – Maps

Figure 2: Detail from Pont 34: Glasgow and the county of Lanark (1596 - manuscript), showing parts of the parishes of Carluke (rhs) and Lesmahagow and Dalserf.

(Reproduced with the permission of the trustees of the National Library of Scotland.)

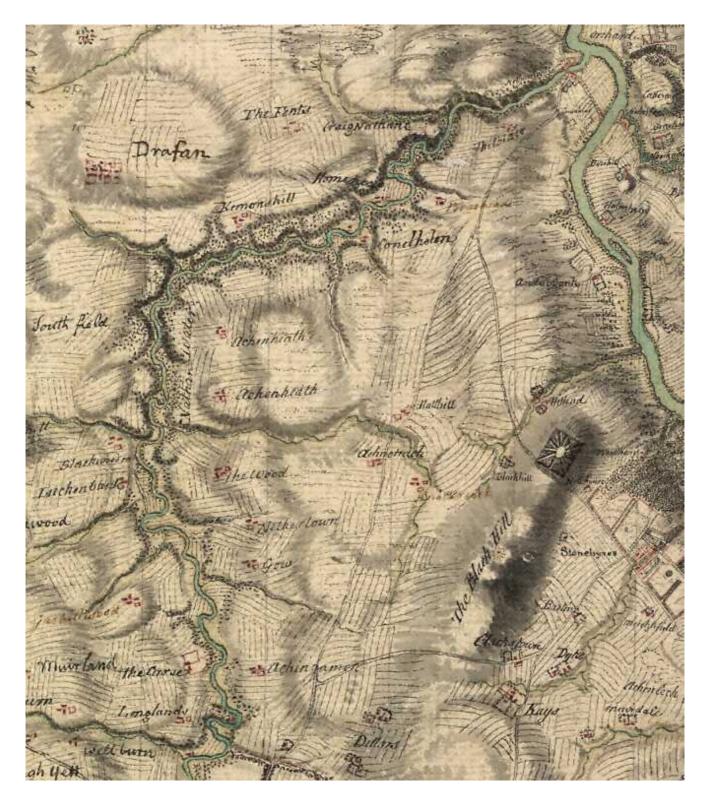


Figure 3: Detail from: Glottiana Præfectvra Inferior – the Nether ward of Clyds-dail and Glasco from Joan Blaeu's Atlas Novus (1654) showing parts of the parishes of Carluke (rhs) and Lesmahagow and Dalserf. (Reproduced with the permission of the trustees of the National Library of Scotland.)





Figure 4: River Nethan: Detail from the Military Survey of Scotland 1747 – 1755 (Roy map) original at c.1:36000 scale. (British Library, copyright reserved.)





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Figure 5: Nethan Water: 1773 - Charles Ross - A map of the shire of Lanark. Original produced at 1 inch to 1 mile (1:63330). (Reproduced with the permission of the trustees of the National Library of Scotland.)

PARISH Rie Munhead Cande ONEHUISE Udolon Longrig North Caming hall Southfields PARISH adjone pel Regerhill Jochan bank Kirk ! muichill canen Neatherton Dormiston Birkneve Blackwood Dollars ame Woodhead Midton uchtig amble Townbead Gaire keheau Capehall Fardill Walburn Gaingener Monachdiki Bogend Crofthead Millon Dunkrax Drumpark



Figure 6: River Nethan: 1816 - William Forrest - The county of Lanark from actual survey. Original produced at 1 ¹/₂ inches to 1 mile (1:42240). (Reproduced with the permission of the trustees of the National Library of Scotland.)

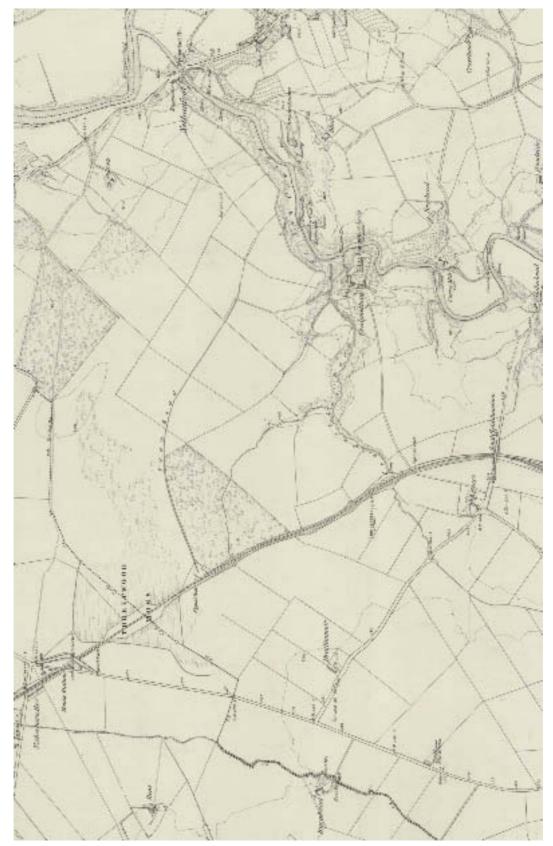


Figure 7: Jock's Gill: 1816 - William Forrest - The county of Lanark from actual survey. Original produced at 1 $\frac{1}{2}$ inches to 1 mile (1:42240). (Reproduced with the permission of the trustees of the National Library of Scotland.)





Figure 8: 1858 Lower Nethan: 1858 Ordnance Survey 1st Edition 6 inch to 1 mile (1:10560). Lanarkshire XXIV. (Reproduced with the permission of the trustees of the National Library of Scotland.)





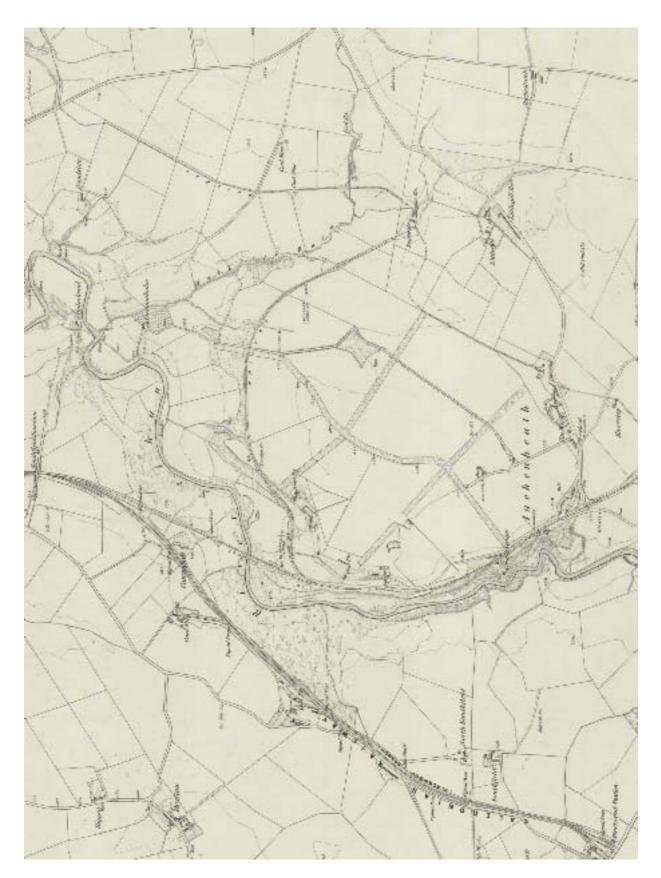


Figure 9: Upper Nethan: 1858 Ordnance Survey 1st Edition 6 inch to 1 mile (1:10560). Lanarkshire XXIV. (Reproduced with the permission of the trustees of the National Library of Scotland.)



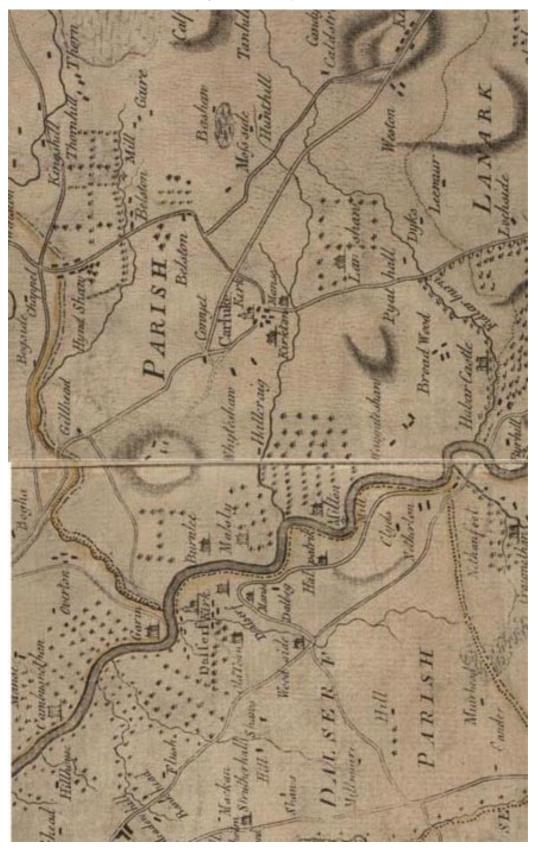
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Figure 10: Jock's Gill: Detail from the Military Survey of Scotland 1747 – 1755 (Roy map) original at c.1:36000 scale. (British Library, copyright reserved.)





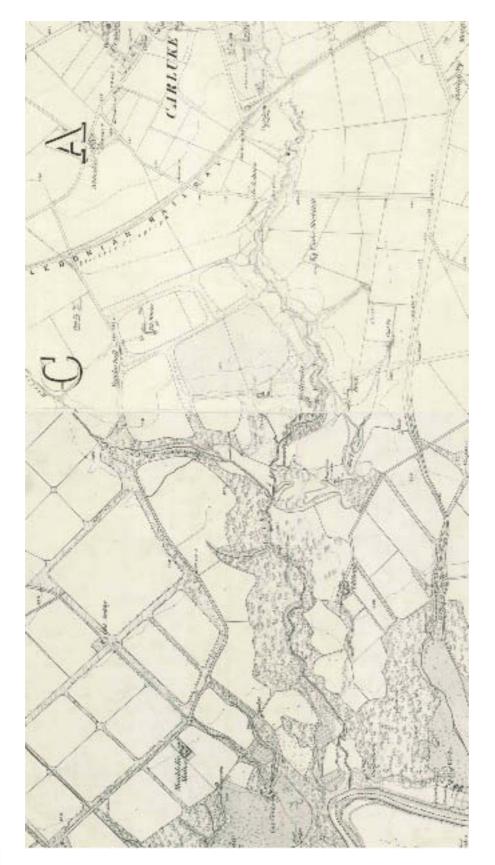
Figure 11: Jock's Gill: 1773 - Charles Ross - A map of the shire of Lanark. Original produced at 1 inch to 1 mile (1:63330). (Reproduced with the permission of the trustees of the National Library of Scotland.)





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Figure 12: Jock's Gill: 1858 Ordnance Survey 1st Edition 6 inch to 1 mile (1:10560). Lanarkshire XVIII and XIX. (Note that the engraving of sheet XIX (r.h.s) seems to be incomplete, wood enclosures are seen adjacent to the burn and planting belts around parks but the contents are faint relative to sheet XVIII). (Reproduced with the permission of the trustees of the National Library of Scotland.)





Annex 2 – Extracts from published works

Page numbers are given in brackets before each extract. Where supplementary information from works is presented not exactly as originally printed, this is shown in italics.

Naismith (1813)

Extracts from Chapter 7 of:

Naismith, J. 1813. (2nd Edition) *General view of the agriculture of Clydesdale with observations on the means of its improvement*. London, Sherwood, Neely and Jones.

(136) CHAPTER VII Woods and Plantations

There are scarcely any instances of spontaneous coppices above the uppermost fall of the river. But some of the principal landholders, of late, have done much to adorn the country with planting. In the early part of the last century [18th], except a few trees about some of the houses, this part of the country was quite naked. There are now about 1,800 acres planted, three-fourths of which, at least has been done in the last 20 years. The trees are of various kinds, but the scots pine and the larix are most prevalent. From the top of the falls downward, coppices arise every where, near the sides of the river and the streams which fall into it. These consist of oak, ash, birch, elm, alder, holly, gean, or wild cherry, sallow of different kinds, &c. intermixed with hazel or other shrubs. Of these are 760 acres in the lower part of the upper ward, besides 580 acres of planted wood, making the whole in this tract 3,140 acres. In the middle ward there are 1,350 acres of coppice, and 2,850 acres of planted wood. There are few coppices in the under ward, perhaps not 40 altogether; nor is the planted wood of great extent. Hedge rows and narrow stripes surround the small enclosures, and give the country a clothed appearance, but probably the square contents do not exceed 700 acres. This makes the whole of the woods in the county 7,990 acres; but there is now reason to believe there are considerably above 8,000 acres. For these three years preceding, as well as the present year 1805, large additions have been making to the plantations of the country; but they have been so generally diffused, that it would be impossible to make any tolerable computation of their extent.

(139) Scots pine had been until shortly before the time of writing (1805) the only tree planted routinely. It was used as a nurse for deciduous species and in pure plantation sown at 6,000 to the acre.

The copse woods are sometimes cut once in 25 or 26 years, but are more frequently allowed to grow to 30 years; and an acre is sold at from 20 / to 30 l., and now from 60 l. to 70 l. Woods that are extensive are divided into separate lots, called hags, one of which is appointed to be cut annually. These hags are from three to seven acres, according to the extent of the wood, and the sale in the neighbourhood. It has long been the custom to leave 20 or 25 select trees, called *reserves* or *witters*, in an acre at each cutting. The intention of this seems to have been to furnish purchasers with an assortment of wood of different sizes. The practice is still continued, but appears to be an injudicious one. When those trees, drawn up long and slender, by the shelter of the surrounding wood, stand in an exposed situation, they are unable to bear the blast after they are left single; and if they are not quite stunted, make little acquisition of size.



(139) The abundance of coal and peat in this country renders the first profits of planting. In the thinly inhabited parts of the upper ward, where there is little demand for small wood to make fences, &c. the first weeding of plantations is a heavy expense. Even wood farther advanced had little sale till the erection of the iron works around, that occasioned a great demand for small trees, for supports in the mines, and for wood of every kind for different purposes. In the lower and more populous country every kind of wood finds some market; and valuable timber of late has sold very high. The Scots pine⁷ planted on very poor land, 25 years old, has sold for 25*l*. now 40*l*. per acre; the same when properly thinned, and standing at 50 or 60 years, for 80*l*. now 160*l*. and upwards.

Statistical Accounts

Page number references are to those in the relevant volume of the original publications:

OSAS Sinclair, J. (ed) 1791-1799. The statistical account of Scotland, 1791-1799.
Edinburgh, Wm. Creech.
NSAS Gordon, J. (ed) 1845. The new statistical account of Scotland.
Edinburgh, William Blackwood & Sons.

LESMAHAGOW OSAS

(423) This is a beautiful pastoral stream [The Nethan]; the banks of which are finely diversified with hanging woods sloping pastures and cornfields.

(426) 7000 sheep, 1600 cows, c. 520 horses in parish

(429) There are no considerable orchards in this parish; but towards the foot of the Nethan, and all along the Clyde below the falls, apple, pear, and plum trees, particularly the plum trees, generally produce a considerable quantity of good fruit.

Besides annual productions a considerable quantity of wood grows in the parish, much of the hanging ground by the sides of the different rivers being clothed with coppices. Some of these are very extensive, particularly Stonebyres woods, which are arranged into such a number of lots, that one of them is always ready to cut annually, for the sale of such small timber as is commonly used in the country. Only the banks of the Logan and Kype are naked, they having their courses through high moorish ground, the bottom of which is whin rock, for the most part adverse to the growth of timber. The juniper tree, a plant not to be found in the neighbouring country, abounds on the sides of the hills in the eastern part of this parish.



LESMAHAGOW NSAS

(31) The banks of the Nethan are generally clothed with coppice, and adorned with gentlemen's houses, or neat farm-steadings.

(35) Extent of parish – 34,000 Scotch acres of which:
11,000 'never have been under cultivation'
1,000 'may yet be brought to carry grain occasionally'
1,200 acres planted
450 are in coppice wood
50 in gardens or village orchards

(35) Planting in general has been carried on within these forty years to a considerable extent in Lesmahago, which before that period was naked and bare. Now, however, it has a very different appearance, and almost everywhere the eye of the traveller may rest on useful stripes or clumps. In these the Scotch fir predominates, though that plant seems very much degenerated; wherever it is mixed with the larch, the latter takes the lead; and in damp soils it is also far behind the spruce. Were we to hazard an opinion on the cause of this degeneracy of Scotch fir, we would say it might be found in the careless way in which the nurserymen procure the seed, which, when collected from the nearest young and stunted trees, produces feeble plants. Another circumstance tending much to prevent the proper growth, is the want of thinning in proper time. Few people who plant, like the idea of cutting.

(37) 'Produce' :

 $\pounds400$ – Thinnings of Wood

£250 – Cutting of coppice

compared to £25,000 for 20,000 quarters of grain, £9,100 for 600 acres of potatoes and 50 of turnips etc...

(37) It may be regretted that we still want those hedge-rows of timber which in many parts of the island give the appearance of a closed wooded country.

CARLUKE OSAS

(121) From the opposite side of the river Clyde, this parish is seen to the greatest advantage; and the numerous orchards, natural woods, and modern inclosures, which enrich its banks, afford a pleasant prospect of cultivation.

... the name of this parish was Kirk Forest or the Kirk of the Forest. Accordingly, in the lower part of this parish, there is still a large district much interspersed with natural woods, called the *Braidwood*; and the sirname [*sic*] *Forest* abounds more among the people here, than in any other parish perhaps in Scotland.

(122) ...on the banks rising behind the holms, the ground is steep, and the soil a fine mellow clay, many yards deep; and is therefore, covered with woods and orchards.

(126) 80 acres of orchards on the S and SW facing holms, on the deep clay soil, claimed more than any other parish on the Clyde or perhaps in Scotland.



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(138) In the year 1789, the orchards in this parish produced such a plentiful crop, as to yield in all, for fruit, above 500 *I*, Sterling, besides about 200 *I*. for the undergrowth.

The undergrowth referred to may have consisted of gooseberries or even potatoes, oats, beans, barley, rye (see also Hamilton NSAS (280): "Rye thrives well below trees, and might be profitably introduced into orchards"). A description of the system can be found in the Dalserf NSAS (745).

(138) This being a clayey country in some places, during the drought of summer, the cattle are at a loss for want of water, and are thereby liable to certain diseases, well known to the farmer, which, in the woody part of the country, are particularly prevalent.

CARLUKE NSAS

(576) *Zoology* – Roe deer are still found, though few in number, in the Gills opening to the Clyde, and especially in the woods of Milton-Lockhart. Pheasants have increases much of late. The badger is now extinct, and the otter nearly so. The cross-bill, after an absence of eleven years, has again paid us a visit, in considerable numbers (August 1838).

Botany – The flora of the district is rich, as might be expected, from the variety of soil and exposure, including sheltered glens, marshes, open meadows, and moorland. We possess, however, no rare plants, unless *Carduus nutans*, musk thistle; *Epipactis latifolia*, broad leaved helleborine, found at Mauldslie, and *Doronicum pardalianches*, great leopard's-bane, found in abundance at Hallcraig, be considered such.

CAMBUSNETHAN OSAS

(569) On the bank which rises over the haugh grounds, there are extensive orchards; behind these, coppice woods, or regular plantations, afford a complete shelter from the easterly winds.

DALSERF OSAS

(379) The natural coppice woods consist chiefly of oaks, ash, elm, birch and elder, and are cut down once in 30 years. The trees that are suffered to stand, near the river Clyde, particularly planes, oak and ash, grow to a great size. On the upper parts of the parish, are large plantations of Scots fir, which thrive very well; but the larix succeeds still better.

HAMILTON OSAS

(197) Tanning of skins from Glasgow and Ireland in parish is mentioned.

LANARK OSAS

(29) Included among list of handicraftsmen: 1 tanner.

The houses formerly were almost all of them covered with turf and straw, and the rooms without ceilings. Since the erection of the Cotton works [new Lanark], many houses have been covered with slate, and ceilings are now



pretty generally in use.

(36) Included in the numbers then employed in New Lanark: 19 Joiners; 10 Turners.

Anderson (1967)

References to mining timber and pitwood in:

Anderson, M. L. 1967. A history of Scottish forestry. Vol. 2. London, Nelson.

(147) C. Mackenzie of Kilcoy [Black Isle] (1837) observes that pine thinnings prepared for the coal-mines must always be in demand-our props are most usefully exchanged with our southern neighbours for coal and lime.

(368) The railway and canal traffic act of 1888 was expected to stimulate the growing of pitwood at a distance from the mines.

(390) Owing to the low rates at which Scandinavian timber could be imported, British pit props were being rapidly superseded (in *The period of inaction and a policy of* laissez-faire *1854-1915*). McCorquodale complained that foreign competition was the ruination of the home-grown timber trade. In 1890, Williamson referred to the preferential rates on the railways for imported goods, representing in effect a tariff on the home produce, making it impossible for it to compete in the home market. The railway and Canal act of 1888 was expected to remedy this, as it would restrict or eliminate these preferential rates. Williamson expected mining timber to benefit most and production of pit props in Scotland to be encouraged even at a distance from the mines. The imported timber was subject to railway carriage charges from the port to the mine, but was specially favoured by preferential rates. Abuses continued or at least contraventions of both the railway act of 1845 and the act of 1888, and in 1904 a committee was set up to collect information on railway rates. It was found that preferential rates on imported timber were still in existence because it was easier to handle, bought in large quantities and there was often competition amongst the various companies to secure well-prepared goods. For carriage of the rougher home-grown timber prices above the legal prices were sometimes asked. In one case a rate of 2s. 1d. per ton was quoted as against 1s. 6d. for foreign timber. In another where the legal rate was 17s. 4¹/₂ d. the rate asked was 16s. Differences of from 7s. 6d to 8s. per ton were not unusual.

The position seems to have remained unchanged in 1910. Timber rates from Russia to Aberdeen in that year were 7s. to 7s. 6d. per ton, the same as for the forty-four miles from Ballater. Rates were higher for round than for sawn timber. It was cheaper for buyers to buy abroad where railway companies had Continental connexions and the reciprocal trade in coal was important. On the continent, however the reverse policy operated. Rebates of from 25 to 50 % were granted on timber being exported or against imports. The Timber Trade Conference agreed to press for a uniform mileage rate. So the position seems to have remained until the outbreak of war stopped timber imports in August 1914 and brought matters to a head.

It is of interest to note that A. Gilchrist, writing in 1871, said that the effect of railway extension between 1857 and 1871 had been rather to equalise prices of home-grown timber over the country as a whole than to cause any marked rise or fall. If that was so then it was in the best interests of timber growers at a distance from the main markets.

By 1884, however, the position had altered. That was certainly due to the policy of free trade, to the rapid technical development in the Scandinavian countries, to the expansion there of wood-converting industries and to the fact that their timber resources were natural and of high quality. How could the home timber growers hope through artificial reforestation to compete against all that plus the additional burden imposed on his produce by his industrial compatriots?



It is perhaps, important to notice the use at meetings in 1914 of the motor car as a conveyance. The internal combustion engine with all its implications had arrived.

(397) Another, and possibly the most important, adverse factor was the development of the timber trade, especially of pitwood, with the Baltic countries. This had its beginning in the 1860's and rapidly increased from 1865 to 1875 to the detriment of home-grown material. Material of prime quality could be landed at 6d. per cubic foot and favoured by preferential railway rates, could be moved cheaply inland to oust the home-grown pitwood. By 1875 good props scarcely paid the cost of cutting and transport from Aberdeenshire to the mines. By the time many growers had found that capital invested in afforestation did not yield an early return and planting for profit had thus declined."

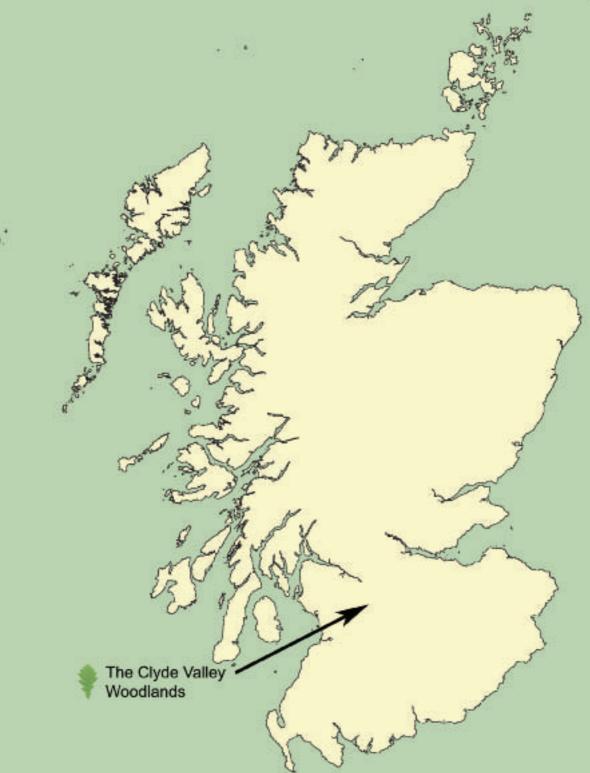
(446) After the outbreak of World War I the mines decided that they could take unpeeled props of all species except beech, and it was thought that the home trade could supply 25 to 30 per cent of the pitwood required by Scottish pits. By 1915 there was a demand from England for Scottish pitwood. In 1933 it was claimed that Scotland could supply all her own pitwood for the next ten to twelve years. By 1960 under the changed conditions with nationalised mines, a better organised timber trade and the large quantities of small material available, the mines in Scotland were using up to 95 per cent of home timber.

(457) MINING TIMBER

The mining timber market continued to be of the utmost importance, in spite of an increasing use of substitute latterly. According to Milne-Home (1915) the annual consumption in Scottish mines was 280 million lineal feet or about 23 million cubic feet, of which 90 % was imported from abroad. World War I placed the coal owners in a difficult position at once and they were prepared to take unpeeled wood of any species except beech. It was suggested that old oak coppice should be used in 1917 and again in 1933 it was said to make very good mining props (Stratton 1933). In 1920, Sutherland was declaring that the so-called 'prejudice' of the mine-owners of August 1914 against home-grown props had been disposed of, which was only wishful thinking. Tests carried out by Professor Hudson Beare (1922) were claimed by him to have demonstrated the suitability of home-grown Scottish props in mining, which was certainly true of many. Stratton stressed the suitability of clean spruce and that larch props were safest. By 1934, however, a report of an investigation of the Department of Scientific and Industrial Research had resulted in greater use of iron and steel in the mines.

(See also Annex 1 of Peterken, G. F. 1999. *Clyde Valley Forest Habitat Network*. Scottish Natural Heritage Commissioned Report F99LI09: HISTORICAL EXTRACTS RELATING TO THE CLYDE VALLEY FROM ANDERSON (1967).)





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Forest Research

