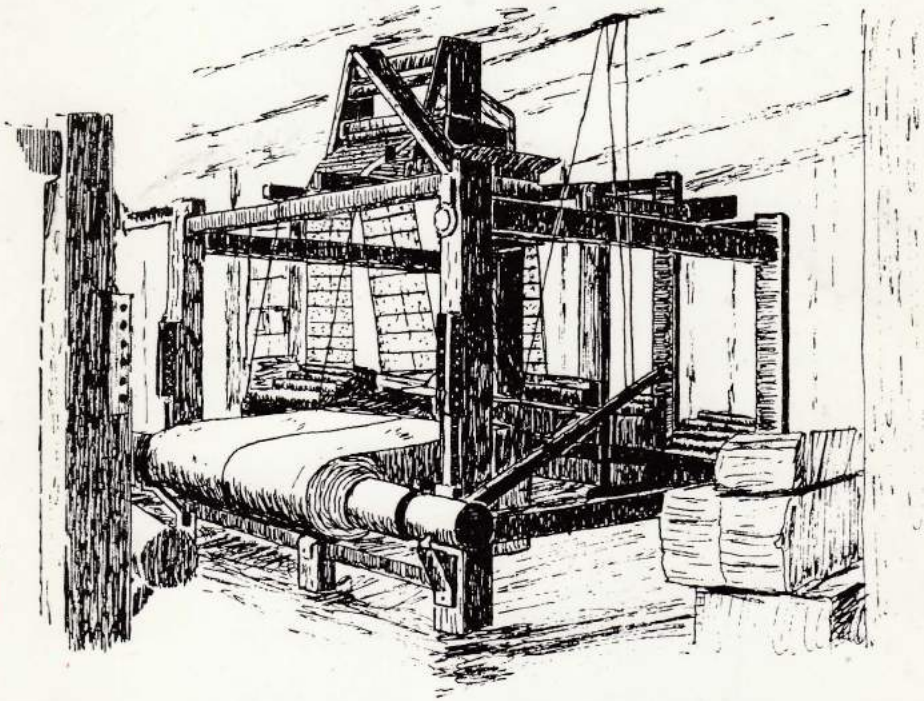
SCOTTISH INDUSTRIAL HISTORY



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The front cover illustration is of a power hand loom, drawn by D Ashman. The back cover illustration is a membership certificate for the West of Scotland Power Loom Weavers Society. (National Trust for Scotland).

SCOTTISH INDUSTRIAL HISTORY

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Contents

THE GROWTH AND DECLINE OF THE BLEACHING, PRINTING AND DYEING INDUSTRY IN THE VALE OF LEVEN

by

Charles G Doherty

Locational Factors and the Establishment of Industry

The cloth bleaching, printing and dyeing industry had begun to take root in the Vale of Leven as early as 1729 when the Board of Trustees for Improving Fisheries and Manufactures in Scotland provided a grant to purchase land needed for the laying out of bleachfields at Dalquhurn near present day Renton.(1) The bleaching process was carried out in the open air where cloth was spread out between rows of hedges to be bleached by the action of the sun. Sour milk was also used in the bleaching operation and water was channelled into the field to be sprinkled onto the cloth.(2)

The gentle slopes of the Leven valley were ideal for such purposes, but the major locational factor was the availability of an inexhaustible supply of pure, soft water flowing into the Leven from Loch Lomond. Consequently, as the industry increased its scale and speed of production it was unfettered by water supply problems which bedevilled other industries.(3) Wallworth has estimated that a large printworks used 400 million gallons of water per annum.(4) It was used to wash the cloth, to dilute chemicals, to flush and rinse the cloth after each stage of the printing process, to dispose of effluent and was of course important as a source of power either directly or for steam raising. The meanders of the river were used to good effect in supplying water as Figure 1 shows. Water, initially used to turn water wheels, was channelled into small canals or lakes, which flowed through the works and emerged with a discharge of effluent.

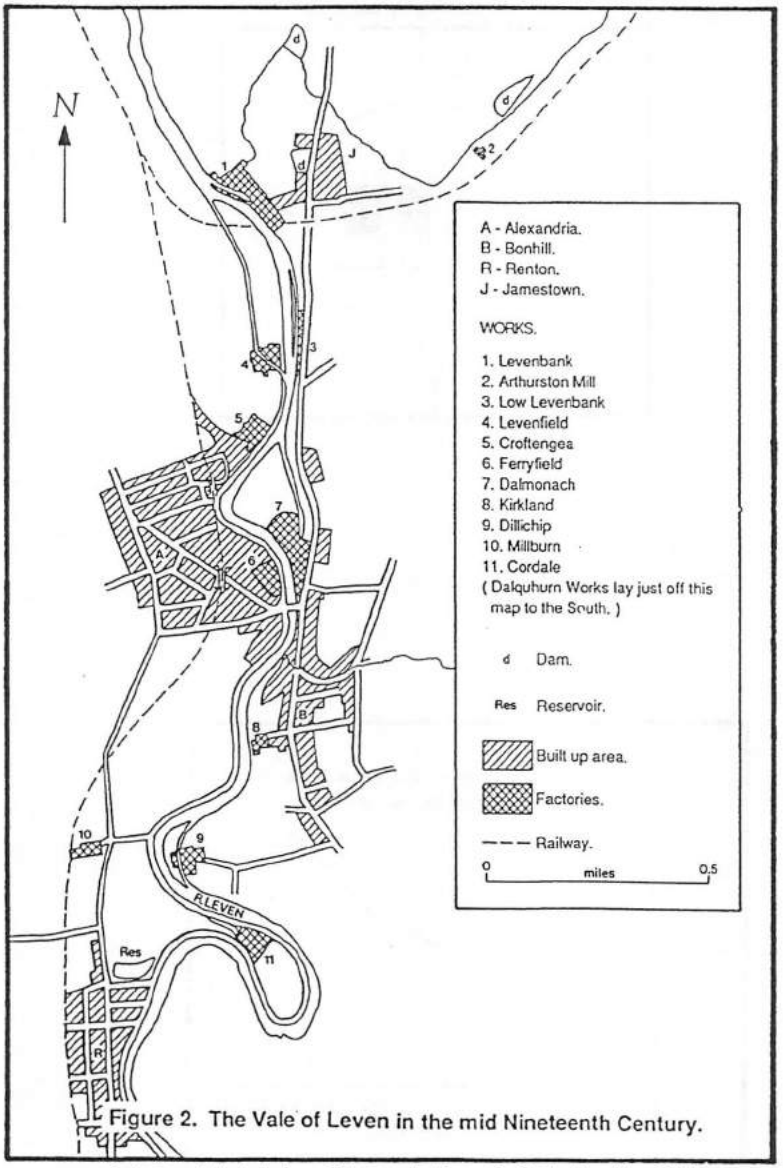


Figure 2. The Vale of Leven in the mid Nineteenth Century.

Source: Adapted from Thomson's Map of Dumbartonshire 1841.

Fig 1. A Schematic Diagram to show the use of meanders by the works.

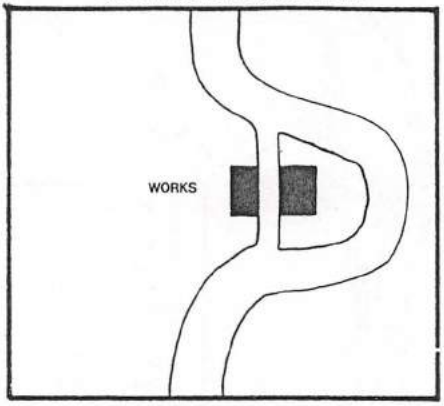
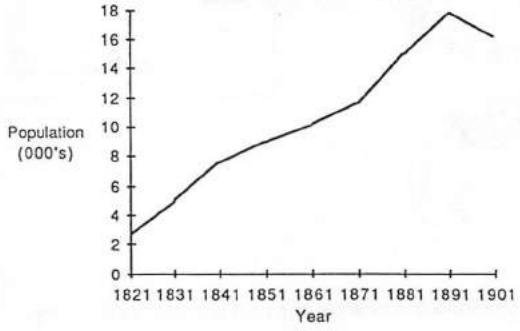


Fig 3. The Population of the Settlements of the Vale of Leven. 1821-1901.



Industrial Growth

By the 1790s there were five printfields and four bleachfields along the River Leven. The first printfield had been established in 1768. All work at this time was carried out using the block printing method. However, in under thirty years, copper press printing had been established and improved upon as manual press printing soon became water power assisted.(5) Of the technical improvements developed around this time, perhaps the most important was the introduction of sulphuric acid souring, which reduced this stage of the bleaching process from months to days.(6)

Turkey Red dyeing which was to become the hallmark of the Vale's industrial success was introduced to the Croftengea Works (Alexandria) in 1827. Factories expanded as the bleaching, printing and dyeing stages were integrated(7) and subsidiary chemical works were established to provide dyestuffs. By 1841 there were ten works in the vicinity of the Leven involved in this industry from Levenbank to the north of Bonhill village to Dalquhurn on the west bank of the river south of Renton (see Fig 2). Indeed, Dalquhurn's location was crucial as southward expansion was impossible due to the tidal nature and consequently increasing brackishness of the water. It was at this point that the coal boats had to break the bulk of their cargo and transfer it to lighters for the journey upstream (cloth was brought to the works by cart). There were two abortive plans to canalize the Leven in 1824 and 1841.(8) The coming of the railway in the 1850s not only put paid to such schemes but provided the works with a considerable boost as turnaround times were significantly reduced.

Industrial Difficulties and Decline

As early as the 1850s there were ominous signs for the industry. The

failure of the Western Bank in 1857 which had provided the cotton industrialists with substantial support emphasized, according to Campbell,[9] the inherently unstable nature of the industry. The American Civil War underlined the danger of over-dependence on a narrow range of foreign sources for raw materials, a danger which was to contribute to the ultimate demise of bleaching, printing and dyeing as overseas production increased towards the end of the century. Over the period of the Civil War the supplies of cotton to Scotland dropped from 172,055 cwts in 1861 to 7,216 cwts in 1864.[10] Had cotton been a valuable commodity the effects on the industry would not have been so dire; but exports to India, for example, one of the major markets for the Vale's produce[11] which had been in excess of demand for several years, were merely sustained by very low prices. The resulting depression in wages and shedding of labour concurs with Rodger's contention that 'the trade cycle was no more than an employment cycle by another name',[12] with the bulk of any hardship being passed on to the worker.

Tangible evidence for the slump lay in the closure of Bonhill's Ferryfield works in 1864. It was re-opened, after extensive renovation, in 1871,[13] as the industry moved into a steadier phase. Confidence was never fully restored and block printing in particular 'remained dull'.[14] As mechanical cylinder printing became more prevalent it might have been expected that block printing would suffer: but this may hide an ultimately more serious sign of malaise. Block printers, at this late date, were employed in adding fine detail and infill to machine printed patterns. The contraction of such specialist tasks underlines the 'generalist' nature of the Vale's products. It was, as Campbell has shown, the 'generalist' producer rather than the 'specialist' who suffered as export markets contracted with the concomitant growth in foreign industry.[15]

Nonetheless, Bremner wrote optimistically about the bleaching, printing and dyeing industries of the Vale of Leven in his study of 1868 which focussed on the Dalquhurn factory and its sister works, Cordale.(16) He relates that Dalquhurn was purely a dyeworks with all the yarn and half of the cloth exported in a plain red state, the remainder was taken 'next door' to Cordale for printing. Dalquhurn covered about seventy acres, ten of which were built upon. It had fourteen boilers and twenty-six steam engines with an aggregate force of 180 horse power nominal. It consumed 25,000-30,000 tons of coal per annum in which it processed 18,450,000 yards of cloth and 600,000-800,000 lbs of yarn. Two-thirds of the 1,000 strong workforce were women, a 'considerable proportion' of these being Irish. Cordale, in contrast, was a much smaller concern covering five acres of ground. Its power was derived from two water wheels and a 50 horse power engine. It employed 500 men, women and children. Both works were a strange amalgam of old and new: extensions were taking place at the time of Bremner's writing, but water wheels still existed alongside new boilers and engines; chemical bleaching was carried out but the cloth was still laid out in the open air afterwards; chemicals were used to print and dye but so was bulls' blood.

In the short term Bremner was most probably correct in his optimism, as the difficulties of the 1850s and early 1860s were put aside. The period after the Civil War until 1890 was relatively tranquil with no dramatic slumps, although the chronic dependence on a very narrow industrial base worried one writer in the local newspaper who, in 1891, appealed for new industry to set up in the Vale. He wrote of the dyeworks' fluctuating production and the 'uncertainty' surrounding the works.(17) It was not until six or seven years later that his worst fears were realised.

In the 1890s the basic instability of the industry was exposed as it began to struggle increasingly against foreign competition and technical advances which were being pioneered elsewhere. Low wages were not enough to sustain profitability using machinery which had been improved only in piecemeal fashion throughout the second half of the nineteenth century. Around the end of the century, the firms of the Vale joined one of two groups. Dalmonach and later Ferryfield, were to come under the control of the Manchester based Calico Printers Association Ltd, the remaining works were absorbed in the United Turkey Red Company Ltd in 1897. This latter rationalisation was probably an attempt to resist a take-over by the former group's parent company. Both amalgamations were essentially attempts to offset decline, but neither was to prove successful and the population dropped by over 1,000 in the 1891 to 1901 period as a result of the shedding of labour and lack of alternative opportunities.

The industry was given a small boost by the Great War only to wind down thereafter with a greatly reduced workforce. The factories closed one by one up to the 1960s. One company not associated with the older works was the British Silk Dyeing Company Ltd, a twentieth century concern based at Balloch, which carried on the tradition of dye working in the area until 1980, when it too, closed.

Population Growth, Migration and Occupation Structure

The initial site advantages in the Leven Valley were so persuasive that the comparative scarcity of labour was not regarded as an overwhelming obstacle to progress. Webster's estimate of the Vale's population in 1755 was just 901, but by the time the Old Statistical Account was published in the 1790s, Bonhill Parish had 2,310 people of whom 993 worked in the printfields. The village of Renton in Cardross Parish had 1,200 and was overwhelmingly a factory colony, having been built in 1782 by the famous

Smollett family to accommodate the printworkers. The Account also makes mention of cottars evicted from Loch Lomondside coming to the Vale to work in its industry. Seasonal labourers became, or were replaced by, permanent residents as improvements to the chemical processes were effected. The Leven Valley, as one natural routeway from Highland to Lowland Scotland, was in an excellent position to attract labour. While there had been nothing akin to a village in the Valley in 1777, by 1824 the emerging hamlets of Renton, Alexandria and Bonhill were firmly established.(18) Fig 3 shows population growth in the villages.

An initial sample of households taken from the unpublished Census Enumerators' Books(19) highlights some interesting characteristics, the most striking feature being the tremendous mobility of the population which mirrored the trend for Dumbartonshire as a whole.(20) Movement occurred at different levels. There was migration from Ireland, the Highlands and nearby Lowland counties. There was migration from within Dumbartonshire and there was considerable movement within the Vale of Leven itself. Once in the Vale of Leven, if employment and accommodation were secured there was less of an impulse to move; but where employment was uncertain, and the housing market, based on casual renting of rooms, was very fluid, movement was frequent and commonplace. Given this fluidity in housing, the lack of alternative job opportunities, nearby and the lack of financial support for the unemployed, it is no surprise that migration trends responded quickly to trade fluctuations.

The Census data cannot be used to gauge the effect of minor or short term trade fluctuations, but it does support the view that people did respond, at least, to trade cycles operating over a longer time scale. In 1851 the percentage of the population which was immigrant (in the sense that they

were from outside the Vale of Leven) was about 52 per cent. By 1871, after the crises alluded to in the previous section had passed, the percentage of immigrants was 43 per cent. Given that a rise in population of around 3,000 has taken place this actually represents a growth in the migrant population of about 500 in twenty years. The net rate of immigration had slowed in response to industrial difficulties. If the sex of migrants is taken into account, the number of male migrants was approximately the same as twenty years before, ie there was a balance in numbers between those who had moved into the area since 1851 and those immigrants who had died or moved away since 1851. The net gain was all on the female side, suggesting perhaps that this differential migration rate was due to the increase in job opportunities for females. This contention is supported by the employment figures for those living and working in the Vale over this period.(21) The sample implies a growth of some 800 female jobs compared to 200 male jobs since 1851. The reason for the differential are probably two-fold, in that women could be hired for lower wages than men, and that increasing mechanization had allowed this shift in opportunities.

By 1891, there had been a resurgence in immigration. The population was around one and a half times its 1871 total and yet the percentage of migrants had risen from about 43 per cent to about 49 per cent over the period. These net figures mask the complexity of the situation. By examining the persistance of natives in the 1871 to 1891 period, it was found that fewer natives in the mobile age groups(22) remained as a proportion of the total population than those in the same group over the 1851 to 1871 period. Therefore, it appears as if migratory activity increased in the later period, with larger inflows and outflows of population, than in the earlier period when migration seems to be less volatile.

Over the period 1851 to 1891 the population movements from the nearby Scottish counties[23] dictated the overall trends in migration. In 1871, when the proportion of migrants had dropped with respect to the 1851 figure, the pronounced shortfall occurred among these counties' migrants. Despite a growth in population their numbers were roughly the same in 1871 as they had been in 1851. The inflow of migrants from the nearby counties increased in the 1871 to 1891 period, taking their percentage contribution from 24 per cent to about 32 per cent of the total population, and their real numbers from around 2,800 to 5,600 in a response to a perceived improvement in the economic state of the dye works.

The percentage of Irish immigrants declined from 10 per cent to 8 per cent over the 1851 to 1891 span, but as the population of the Vale had grown by about 10,300 in this time, their numbers had increased by about 620. There were marked concentrations of Irish families in Renton, although they appeared in all four villages. The experience of the Irish in the Vale of Leven contrasts sharply with that of their countrymen, south of the border, where their proportion of the population in cities, such as Bradford and Liverpool, declined greatly after 1851.[24] Highland migration was less significant in the second half of the nineteenth century. By 1851 only about 5.5 per cent of the population came from the adjacent Highland county of Argyll. There were no important concentrations from other Highland counties, suggesting that the high water mark of that migration stream had long since passed.

The census sample demonstrates the very real and direct dependence of these factory villages upon the printworks. Over the forty year period for which samples were drawn, 80 per cent to 90 per cent of employed

females, and 50 per cent to 55 per cent of employed males worked there. Unfortunately there were few alternative sources of factory employment.(25) Other employment groupings such as transport, building and retailing, individually, never contained more than 10 per cent of the male workforce, and were not sustainable without the driving force of such an industry.

The chronically narrow industrial base ensured that the problems encountered by the printworks in the 1890s would prove disastrous for the Vale of Leven. As the population dropped by about 1,000 over the 1891 to 1901 period, the influence of the printworks and their owners(26) was weakened fatally. They could no longer be looked upon to support the population with confidence. The villages were embarking on a slow and painful metamorphosis from their larval, factory 'colony' state,(27) towards communities with a broader range of functions and alternative employment opportunities. Their fortunes in the twentieth century have fluctuated through a series of peaks, represented by the introduction of replacement industries such as the Argyll Motor Works and later Westclox and Polaroid, and troughs represented by the Great Depression of the 1930s and their present economic stagnation.

FOOTNOTES

1 H Hamilton, The Industrial Revolution in Scotland, (London, 1966), 102-103

2 ibid

3 W H K Turner, 'The Significance of Water Power in Industrial Location: Some Perthshire Examples', Scottish Geographical Magazine, 74, (1958), 98-115

4 K J Wallworth, 'The Calico Industry of Lancastria in the 1840s',

Transactions of the Institute of British Geographers, 45, (1968), 143-157

5 Sir John Sinclair, Statistical Account of Scotland (Edinburgh), 447-453, Bonhill Parish.

6 A Slaven, The Development of the West of Scotland 1750-1960, (London, 1975), 82

7 New Statistical Account of Scotland

8 D Murray, 'Collections for a History of Dunbartonshire', (unpublished manuscript, nd, Dumbarton Public Library)

9 R H Campbell, The Rise and Fall of Scottish Industry (Edinburgh, 1980), 58

10 D Bremner, The Industries of Scotland Their Rise, Progress and Present Condition (1869, reprinted Newton Abbot, 1969), 288

11 Glasgow University Archives, UGD13/1/4, A O H Ewing & Co, Journal, 1887-1888

12 R Rodger, 'Employment Poverty and Wages in the Scottish Cities 1841-1914', in G Gordon (ed), Perspectives of the Scottish City, (Aberdeen, 1985), 45

13 Lennox Herald, 24 Jun 1871

14 ibid, 10 Sep 1871

15 R H Campbell, op cit, 68-72

16 D Bremner, op cit, 270-294

17 Lennox Herald, 15 Aug 1891

18 Jamestown was not established until the 1860s

19 A ten per cent sample of the households from the unpublished Census Enumerators Books for 1851, 1871, and 1891

20 A Slaven, op cit, 141

21 Some printworkers lived in Dumbarton and Balloch and commuted daily

22 15 to 44 year olds

23 The rest of Dumbartonshire, Stirling, Argyll, Lanark, Ayr and Renfrew

24 R Dennis and H Clouts, A Social Geography of England and Wales, (London, 1981), chapter 5

25 There was a small iron foundry in Alexandria, but alternative factory employment was mainly to be had in Dumbarton

26 These included famous names such as Stirling and Orr-Ewing. Biographies of some of these can be found in S G Checkland and A Slaven (eds), The Dictionary of Scottish Business Biography, 1, (Aberdeen, 1986). Contemporary accounts of prominent Leven industrialists are in Donald McLeod, Historic Families, Notable People and Memorabilia of Lennox, (Dumbarton, 1891)

27 J D Marshall, 'Colonisation as a Factor in the Planting of Towns in N W England' in H J Dyos (ed), The Study of Urban History, (Leicester, 1968)

SILK WEAVING IN LOCHWINNOCH

by

Christopher C Lee

At the end of January 1985 the silk weaving factory in the Renfrewshire village of Lochwinnoch finally ceased production after eighty-five years. This closure marked the end of the village's trading connection with the orient and with one of the world's most exclusive shops. Lochwinnoch was one of the last producers of Macclesfield silk in Scotland.

For most of the period of operation silk was woven by Caldwell, Young and Company but the enterprise in Lochwinnoch was originally undertaken by J B Oliver, a Glasgow accountant who was possibly associated with Caldwell and Young. Originally from Wisbech in Cambridgeshire, the Olivers arrived in Lochwinnoch in 1900 and took up residence in Hillsyde House on the edge of the village.(1) Oliver began business on 28 September 1900 at the 'New Mill' or Calderhaugh Mill as it became known. This mill was built in 1789 and was the cotton mill established by Fulton and Buchanan on the banks of the River Calder. Since 1866 the mill had been owned by Hugh and James Crawford, thread manufacturers from Beith.(2) Silk would not have been a new product to the village. The introduction of silk manufacture into Paisley in the mid-eighteenth century resulted in 'the elegant gauze trade' being the chief manufacture in Renfrewshire.(3) The register of sasines for Renfrew records in 1871 an Andrew Gibson in Lochwinnoch described as 'the foreman of a silk manufactory there'.(4) By 1800, he was described as the foreman of the Old Cotton Mill. This possibly reflected the change from silk gauze to cotton muslins.

Oliver carried on business from 1900 until 1915 when the business, possibly experiencing financial difficulty, was leased to Caldwell, Young

and Company for fifteen years. The manufacturing house of Caldwell, Young and Company had its origins in the business of James McAulay and Company which was founded in Glasgow in 1850. In 1883 it became Caldwell, Young and Company. By 1888 the business had offices in Buchanan Street, Glasgow with 'a commodious suite of rooms on the first floor and constituting offices, sales rooms, and warerooms with a large and valuable stock'.(5) Little is known about the partners although J R Caldwell and George Young had been associated with James McAulay from the 1850s. In 1888 they were described as, 'two gentlemen of high standing and recognised ability in connection with the important industrial branch to which their attention is so vigorously and successfully directed'.(6)

In the early years the firm had cloth woven for them by others on a commission basis and at one stage were said to be 'employing 2000 looms'.(7) Eventually they started their own factory in Larkhall, Lanarkshire where they were the 'only Scottish silk manufacturers who have a factory of their own'.(8) There they wove and printed silk handerkerchiefs and other classes of silks for the markets of the world.(9) Their products ranged from the most exclusive silks down to the cheapest. A considerable trade was built up with the African Gold Coast where they sent highly coloured jacquard cloth. The design and pattern books of the company demonstrate that considerable thought was put into adapting cloth for these markets, a fact which questions the traditional criticism of the marketing techniques of British entrepreneurs in the late 19th and early 20th centuries.(10)

The business was clearly expanding by the late 1880s as a 'metropolitan depot' had been established at 2 Angel Court, Friday Street, London and branches were set up at 10 Lever Street, Manchester, at 6 Faubourg

Poissonniere, Paris, and in Rangoon, Burma.[11] Caldwell and Young's ascendency began to diminish when Lever Brothers, the Merseyside soap manufacturers, bought up the Gold Coast estates for copra. Lever Brothers established their own trading posts from which the natives had to buy. As a consequence Caldwell and Young's trade fell away. Gold Coast disappointments were weathered evidently and even during the First World War they were looking for additional weaving capacity. It may have been a connection with the Olivers which eventually brought Caldwell and Young to Lochwinnoch and certainly it is interesting to note that all three were strong Brethren men. Following the expiry of the lease in 1930, Caldwell and Young bought Calderhaugh Mill for £2,000. The Lochwinnoch side of the business became more successful than the Larkhall factory which in 1941 was sold to the firm of Simpson/Dak.

Before the Second World War the company wove silk for ladies dresses and gents shirts, pyjamas and ties. During the war silk was in short supply and the mill was taken over by the Royal Air Force to produce parachute cloth. From the end of the war they produced the new rayon and nylon fabrics. By the early 1950s silk had become gradually available again and the company went back to the exclusive production of woven silk cloth. In 1955 an attempt was made to diversify using wool to produce scarves and mohair stoles. These were designed to be produced quickly and to boost outlets. This attempt was never really successful as the looms were not suitable for the work and the trade was seasonal which created the additional problems of carrying stocks and delayed revenues. Nevertheless mohair was exported from Lochwinnoch all over the world.

In the early 1970s the business was taken over by the well known shirt making firm of Turnbull and Asser, now a member of the House of Fraser Group. Its retail outlet in Jermyn Street is one of London's most

exclusive shops. Caldwell and Young's fast boiling spun crepe silk with its lively finish was ideal for Turnbull and Asser's business, but despite cash injections by the parent company, the Lochwinnoch factory could not compete with cheaper foreign products and the high cost of the silk dyeing process.

About a third of Calderhaugh Mill (NS350588) remains. This four storey and attic, eleven bay rubble building is likely to be re-developed as flats. At present, to the rear of the building is a two storey engine and boiler house with part of a square section brick chimney. The engine house was added in 1825. Lochwinnoch Community Museum retains some archival material concerning the silk weaving factory in addition to a number of artefacts.

Lochwinnoch Community Museum

FOOTNOTES

1 I am grateful to Mr M P Love for this information

2 Lochwinnoch Community Museum, LW/A/1. Notes of Property Writs relating to Calderhaugh Mill

3 New Statistical Account., (1856), 101, Parish of Lochwinnoch

4 Register of Sasines, County of Renfrew

5 Industries of Glasgow, (Glasgow, 1888), 183

6 ibid, 138

7 I am grateful to Mr A Vallance, former Managing Director of Caldwell Young for this and much of the subsequent information

8 Industries of Glasgow, op cit, 138

9 ibid, 138

10 Lochwinnoch Community Museum, LW/248/1985, pattern book, 1915 and LW/249/1985, design book, 1918

11 Industries of Glasgow, op cit, 138

EDINBURGH PRINTFIELDS

by

Venessa Habib

In 1760 a manufacturer near Edinburgh wrote to the Board of Trustees to upbraid them for their lack of encouragement for the manufacture of cotton cloth. She made linen and cotton calico which was sent to England to be printed. She declared that if the cotton manufacture was to be encouraged it would make a shining figure among the improvements of the country.(1) She was later proved right. Although grants to printfields and to those connected with the cotton manufacture were relatively few, the Board's work to improve bleaching facilitated developments in dyeing and printing. It was at bleachfields that many of the early print works were established and some of these were situated in and around Edinburgh.

In 1723 Gilbert Stewart set up a printfield at Bonnington on the Water of Leith, near Edinburgh, to stamp Scottish linen.(2) He died in 1743 and in the following year the Caledonian Mercury advertised the sale of fifty-five pieces of blue and white printed linen, varying in length from 10 to 25 yards, which had belonged to him. Stewart Carmichael then took over the business which he had already been running for several years. A sample of printed linen, not indigo style, connected with him, survives in the manuscript of the 'Lyon in Mourning'. It is a one colour print described as 'stamped linen wt a purple sprig'. Stewart Carmichael was an active Jacobite and it appears that he was sent this pattern from which to print copies as it was supposedly from the gown worn by Prince Charles Edward Stewart when he was disguised as the Irish maid servant, Betty Burke.(3) According to a contemporary authority, two-thirds of the male citizens of Edinburgh in 1745 were government supporters but two-thirds of the ladies were Jacobite sympathisers and a modern writer maintains that Carmichael

could not supply enough of the pattern because the demand for it was so great among the ladies.[4]

A second printfield at Gorgie on the Water of Leith was also flourishing at this time. It seems to have started out as a six acre bleachfield run by three partners, Capt John Lind, bleacher, Alexander Lind of Gorgie, and John Keir, baxter in Edinburgh with a premium of £300 from the Board of Trustees. An indication that printing was being carried out at Gorgie is shown by the following notice in the Caledonian Mercury of November 1736:

> 'Stolen off a hedge at Gorgie, a piece of printed linen 20 yards long, of a small running figure red and blue spots and powder'd, unglaz'd belonging to George Lind Merchant. If any such is offered to sale in whole or in part, by persons not likely to deal in such affairs or given to calendar, glaze or be made in gown to any mantua-maker or Taylor; they're desir'd to stop it, secure the person and acquaint said George Lind .... Two women are suspected to have stole it, one of which has a large flesh mark on her brow; and wore then the one a white gown and red plaid, the other a green gown and tartan plaid.'

Early eighteenth century Scottish inventories include, amongst merchant goods, printed linens, usually red and white or blue and white, which may have been printed locally. These printed linens are sometimes described as stamped, although this form is usually applied to an embossing process which gave, for example, a ribbed cloth the appearance of damask. A dyer's goods advertised for sale in Edinburgh in 1751 included a brass stamp with rollers called an 'Elephants Stamp' for stamping curtains which gave the effect of a damask flower. Sometimes the same cloths were

described as both stamped and printed. Merchants advertised 'Stamped Camblets', 'Printed Camblets', 'Imbos'd Camblets for Furniture', 'Imbos'd Serges for Petticoats', 'Stamped Serges' and 'Printed Serges'. By the 1740s the terminology becomes less confusing with many clear references to printing. Merchant goods include 'printed Cambrick for handkerchiefs', 'printed Linseys', 'Sperfine printed cotton', 'fine chints', 'common printed cotton' and linen of all kinds. Many of these fabrics came from India and many were wood block prints from England, but by 1748 two printfields in Edinburgh, at Gorgie and Bonnington, were advertising their prints in detail in the Caledonian Mercury:

> 'At Bonnyhaugh printing-field near Leith linen and cotton cloths are printed after the newest fashions by Stewart Carmichael'.

At the printfield,

> 'may be had ready for printing at reasonable rates, fine white linen cloth shut with cotton, full yard broad, proper for Furniture by which persons have the advantage not only of chusing patterns and borders to their own taste but can make their curtains of what lengths they please, which cannot be so exact by having the cloth lying ready printed. After chusing the pattern, Furniture may be finished in a few weeks...'

Whilst at Gorgie,

> 'Merchants may be furnished with choice of printed cottons or linens and have considerable discount upon printing quantities. Furniture is printed with Bords in the handsomest manner ...'(5)

For many years James Reid and Co were associated with this field. A letter from James Reid to the wife of Lord Milton, Margaret Carnegie,

about, printing dated September 9, 1747, survives:

> 'Madam, Mr Lind showed me a letter from your Ladyship wherein you desire to know if I can print a blue sprig. The season is far advanced but if the pattern has black lines round the blue I shall do my best to finish it. The sooner I have it the better.
>
> PS Unless the pattern be one of mine I can't do it.'(6)

This suggests the use of pencilled blue, the first direct method of printing indigo, achieved according to Peter Floud(7), by adding orpiment to the ferrous sulphate vat to delay the oxidation of the indigo and by adding a thickner, usually gum Senegal. This enabled small areas of blue to be brushed on to the cloth. It was most effective within a block printed outline.

James Reid is also mentioned in a letter from Dr John Roebuck to the bleacher, Samuel Hart, at Ford in 1752, in connection with the effectiveness of oil of vitriol in the bleaching process:

> 'If you could see Mr Reid of Gorgie he would with pleasure inform you of several observations which have occurred to him in the use of Oyl of Vitreol in preparing the cloth for printing and some of his remarks could undoubtedly be of service ...'(8)

He may have already been experimenting with China Blues where a fast blue could be obtained by printing finely ground indigo in an undissolved state and then dissolving and reducing it on the cloth after printing. By 1756 he was advertising China Blues, 'both single and shaded of beautiful lasting colours which can be done equally well upon Linen as on Cotton Cloth and at any time in the year'. He must also have been familiar with the mordant techniques of madder dyeing as he was awarded premiums for

chintz during the 1750s by the Edinburgh Society for Arts and Manufactures. In 1757, for example, he gained a premium for three pieces of printed linen or cotton, one in two colours, one common pencilled three or four colours, and one in chintz colours.

In 1759 James Reid formed a partnership, with Andrew Tough and Archibald MacIntosh, to print calicoes and linens at Gorgie. He was to sell to them, 'the whole utensils, looms, tools and vessels he presently uses in his trade of Linen printing' and to reveal all the secrets of the trade known to him, whilst retaining a financial interest in the company.(9) When MacIntosh died in April 1785 the company advertised for a printer 'who can bring sufficient certificates of his character and abilities; and if he can cut at the same time his encouragement will be accordingly.' Amongst his effects were some pieces of printed cloth, 52 yards of printed cotton valued at £6, a printed bed quilt 10 shillings and 34 yards of printed cotton valued at £3. Although not involved in the day to day running of the business after 1764, James Reid was consulted by the Board of Trustees when the company applied for a grant to extend the printing of 'Linen China Blues' in 1775.

In 1778 Reid bought the manor house at Gorgie from James Lind, the son of Alexander Lind and the company took over the printfield at Bonnington on the death of the printer, James Wilson. During the 1780s the company began to print muslin shawls, in common with other printfields, on imported Indian muslin. On the death of James Reid in May 1787, two of his sons-in-law, Major George Hay of Musselburgh and William Campbell of Duneaves, became partners.(10) Hay wrote to the Board of Trustees in 1791 to ask if the company might borrow the design for printed calico, drawn that year for the manufacturers by David Allan, Master of the Trustees Drawing Academy, in order that they might engrave it on copper.

It also appears that about this time Thomas Bell, inventor of the 'Small Plate Press', the style of printing called 'the Paste', and the roller printing machine, was residing at Gorgie, after working unsuccessfully for William Stirling and Sons.(11) He had tried to obtain a grant from the Trustees for machinery being made at the Carron works.

In 1792 Hay and Campbell sold the Gorgie printfield to James Williamson of Leith, the step-son of William Campbell. At this time a calico printer named Henry Wright was working there. Four years later the printfield was advertised for let as part of the Gorgie Mills. In 1797 it was re-advertised:

> 'The whole houses at Gorgie lately occupied as printing-houses and dwelling-houses for the servants employed at the printing-field. They have all been erected within these five years; and the tenant may also get possession of from five to ten acres of land, three of which are laid out as a bleachfield. These buildings are very extensive, and may answer well for many other branches of manufacture besides callico printing, for which last they are admirably adapted, there being a great command of fine soft water, independent of that passing in the mill-dam ....'

This suggests that James Williamson expanded the print works in the early 1790s. In 1799 his estate was sequestrated to the skinner, Robert Cox.

Bonnington printfield seems to have stopped operating when it was leased in 1783 by James Reid and Co to the buckram manufacturer, Charles Fraser.(12) The lease specifically forbade the use of the property for printing and describes the buildings of the existing print works, as follows:

'the dwelling house at Bonnyhaugh lying on the south side of the closs with the cellars thereto belonging, also the boiling house adjoining thereto, the printing house, pincelling room, and place fitted up with shelves for holding prints, lying upon the north side of the said closs also the glazing room, cutting room and writting room above the same, the bleaching green bounded the road leading to the copper or boiling house upon the east ....'

Stewart Carmichael had purchased Bonnyhaugh or Bonnington House in 1752 from the heirs of Gilbert Stewart. When he died, his wife advertised in the Edinburgh Evening Courant of March 1760 that she would continue the business under the direction of one who had been constantly employed in printing for 27 years. This was a reference to Thomas Stewart and Co who petitioned the Board of Trustees at the end of 1760, for a grant to improve the facilities at the printfields.(13) They described themselves as 'Linen Printers from London', but 'taught that art in all its parts first at Glasgow'. They intended to print 'Blues' and 'Whites', which would enable them to dye linen yarn at very competitive rates. Mrs Carmichael's advertisement mentions the new patterns which would be available at the printfield, 'dark, white, and dropped grounded chints' and 'sprigs in the sewed taste'.

Another printer named James Wilson was also working at Bonnington in the 1760s. He petitioned the Board of Trustees in 1766 to send his son to the Drawing Academy. On his death James Reid bought the printfield, but we learn from the Trustees' minutes that in 1774 a printer from London called John Wickward was also working there. He had asked the Board for aid to extent his field, housing and machinery, submitting some blue handkerchiefs as samples of his work. These were apparently printed with

a different pattern on each side, a style claimed by Wickward to be his own but also commonly used by printers on the Water of Leven who, at this time, would have included William Stirling and Sons and Miller, Todd and Co. The Board could not ascertain whether the technique had been copied from Wickward or brought independently from England, but eventually he was credited with its introdution into Scotland.(14)

Edinburgh thus possessed two printfields in the eighteenth century the businesses of which lasted fifty years. In addition, in the 1770s there was a small printfield at Inglis Green, two miles outside the city, run by Joseph Read and Allen Turner who, 'has been regularly bred to the printing business and has had great experience in carrying on all the different branches'. In 1779 Turner went to Silver Mills, also on the Water of Leith and carried on printing there. Later, Inglis Green reverted to being a bleachfield run by Hugh McWhirter but in 1787 Mrs McWhirter, 'continues to dye and dress linen or cotton cloth for Furniture, in the neatest manner viz an exceeding fine new gold colour, straw lemon, yellow pale and high orange, upon unbleached cloth at 5d per yard and upon bleached cloth at $3^1/_2$d per yard; chocolate, light or dark, lead and silver grey at $2^1/_2$d per yard.'

Outside Edinburgh at Ormiston in East Lothian, there was a weaving manufactory, bleachfield and printfield run by Andrew Wight. As at Gorgie, a Dutch master weaver had been employed there in the 1730s. In 1768 Wight was given a small grant for a 'Cylinder and Washing Mill' by the Board of Trustees. His business served the needs of the local people - 'Great attention shall be given to the printing and the preservation of old cloth or gowns'. In his business books there is a note of some of the utensils at the printfield which were sold and an account of the cost of

printing a muslin shawl for Mrs Wight in 1786.[15]

A printfield which also seems to have printed muslin was established by John Black and Co on the River Avon, near Linlithgow. Black had apparently been involved with the printfields on the Leven, and his name is mentioned in the Glasgow trade directories. The Linlithgow field was set up in 1786. Various thefts from the field show the kind of work he did, for example, five pieces of fine black and purple muslin shawls were stolen in 1797 and in 1800 five pieces of muslin light chintz shawls 9/8 wide each piece 21 yards long were stolen for which a reward of 20 guineas was offered.

In the 1770s and 1780s important developments took place in the West of Scotland in the spinning and weaving of cotton cloth for printing. William Stirling and Sons experimented with the spinning of muslin yarns and tried tentatively to raise and prepare madder. David Dale began the large-scale spinning and weaving of calico and with George MacIntosh started the Turkey Red works at Barrowfield. Parallel developments in bleaching and the chemistry of dying enabled the various processes involved in making and printing cotton to be sited near each other.

The history of printing and dyeing in Scotland is largely unexplored. Further research might reveal more pattern books, which like the Levenfield books were so common during the eighteenth century, and also examples of printed furnishings or clothing made in Scotland, both for the home market and for export.

Edinburgh

FOOTNOTES

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2 F Irwin, 'Scottish 18th Century Chintz and its Design', Burlington Magazine, (Sep 1965), 452-458, (Oct 1965), 510-514

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8 NLS, Salton MSS 17562, f 190

9 Edinburgh City Archives, Moses Bundle 170, 6688, 27 Feb 1759

10 James Reid had four daughters: Isobell who married Major George Hay; Jean who married William Campbell; Margaret who married John Hay of Hopes; and Katherine who married Alexander Hamilton MD, who later became Professor of Midwifery at the Royal Infirmary in Edinburgh

11 Scottish Record Office (hereinafter cited as SRO), Board of Trustees for Fisheries Manufactures and Improvements, (hereinafter cited as BOT), minute books, NG1/111/27, 16 December 1789

12 Edinburgh City Archives, Moses Bundle 169, 6625, with a letter from James Reid to Charles Fraser reiterating the terms of the lease, 6 October 1783

13 NLS, Salton MSS 17564, f 197

14 BOT, minute books NG1/1/20, 27 July 1774 and NG1/1/21, 13 March 1776

15 SRO CS96 1738, Business Books of Archibald Wight, farmer and starch maker at Ormiston

'CONTRARY TO THE APPROVED PRACTICE OF COLLIERIES': THE DRAINAGE OF FIFE PITS BY HAND

by

George Wilson

Drainage was a never-ending problem for early mining engineers but one solution which found some success, and of which the Fife coalfield is a good example, was the application of human muscle-power to drive simple drainage machinery. What follows is an attempt to look at this method, as employed in Fife pits and to assess how much it can tell us about the factors affecting technological change in this important coalfield. First, we will consider the progression from the 'Dam and Lave' method, through the winding of water-barrels and the use of the windlass, to the employment of hand-driven pumps. We will then look at three specific examples to show how it was that this laborious drainage technique could persist well into the mid-nineteenth century. Finally, we will try to set the available evidence in its context of economic and technological development.

Although human labour was arguably the least sophisticated power source for drainage machinery, there is evidence of its use in Fife over about two centuries. The earliest recorded application of manpower to this task did not actually involve machinery at all, but consisted of the 'Dam and Lave' method. From the pit bottom a mine was run down in the coal and dams were placed across this 'downset' at regular distances, each dam being 30 to 40 cms deep. The water was scooped or bailed ('laved') from one dam to the next until it reached the pit bottom or day-level, this last feature being a drainage tunnel with an outlet at the surface of lower ground, possibly some distance away from the workings.(1) Although such a laborious method was suitable only for small-scale, comparatively

dry workings, Robert Bald, the well-known mining engineer, thought that it had been fairly common in what he refers to as 'the early periods of coal-mining'.[2] For example, it seems to have been employed at Wemyss some time before 1657, when old flooded workings were discovered down to two fathoms (3.7 metres) under sea level. This accidental discovery resulted in the death by drowning of a miner called Patrick Mathisone and is a good illustration of the dangers inherent in hand-drained downsets.[3]

The long-term survival of hand drainage was partly due to attempts to avoid the problems associated with sinking pits and running day-levels, sinking expenses being cited by Bald as the occasion for coal being worked, 'far under the dip of the engine-pits .... affected by either damming and laving or by sloping pumps'.[4] Once the 'level-free' (naturally drained) coal in a winning had been exhausted, new areas could be gained quite cheaply by driving a short downset to follow the dip of the strata from the pit bottom. Water raised from this downset had only to be brought by hand as far as the engine level, whence major pumping machinery could carry it off to the surface. In this kind of situation, 'Dam and Lave' was sometimes superceded by a method only a fraction less primitive. This involved the underground transport of water barrels and was to be found in use at Wemyss not long before 1821:

> 'The growth of water was at first very moderate: and it was drawn up the Inclined Plane by the underground engine every day by means of barrels placed on carriages, and the water poured into the engine level.'[5]

Despite the engine haulage, a great deal of manhandling must have been involved in the filling and emptying of barrels. Even as late as 1845, a small cistern set on a tram was being used to drain a small downset working in the Barncraig seam at Wemyss. It appears that there was

little water and about thirty fills was enough to clear the working for twenty-four hours.(6) At Wellwood, Dunfermline, the same year we find water being drawn in buckets by the same engine as was used for winding the coals - an arrangement described as being 'very troublesome'.(7) Up to the mid-eighteenth century, the water was commonly hauled all the way to the surface by hand, with the hand windlass being very popular as a drainage engine. For an example, we may cite the case of Coalden in October 1739, where directions for working the 30 inch coal include the recommendation that:

> 'During the winter season the winlass men that draw the water begin about three in the morning, that the coal-hewers may enter at four or thereabouts'.(8)

If an overnight accumulation of water could be cleared in only one hour by the laborious process of winding it by the bucketful, then the pit could not have been particularly wet. However, the hand windlass was also used for winding coal, so found a ready application even when drainage was by other means. The ubiquity of the hand windlass is emphasised by Thomson who found it to be the one appliance in use at nearly every pit in the mid-eighteenth century Rothes colliery. For example, at Cluny in 1742 an inventory records that two complete hand windlasses were kept in store, together with additional ropes and windlass parts.(9) The fact that these items were stored away suggests that by about 1740 the windlass had been superceded by its derivative, the versatile horse-gin.

A much more effective application of human muscle power to pit drainage was in the use of hand-driven pumps, and these were employed underground well into the nineteenth century. At first, these pumps were used simply to shift water from one dam to another, affecting a considerable

improvement on the 'Dam and Lave' method, but they later came to supercede it altogether, being laid all along the downset mine. In this way water could be raised a considerable distance. The mechanism is succinctly described by Robert Bald:

> '.... forcing pumps wrought by one or two men with a fly wheel and pinion, the shaft having two cranks which work two small reciprocating iron beams connected with the pump barrels. These machines have a spherical air vessel attached, in order to keep the water in constant flow, which is a great relief to the workmen, as they have not the "vis inertiae" to overcome every stroke or revolution of the fly-wheel.'(10)

At the nineteenth century Beveridge pit, near Baldridge Row, Dunfermline, old workings which had been long flooded were drained to reveal two wooden pumps embedded in two or three feet of ochre. These pumps were thought to be at least 120 years old, which puts their working period back into the 1730s.(11) At the Moss pit, Fordel, a report of 1817 records that sloping pumps drained a downset some 20 fathoms (36.6 metres) below the day-level, the pumps being wrought continuously by three shifts of people.(12) At nearby Lochgelly in 1825, water not drained by day-level was lifted by 'hand leverage' to the engine level.(13) References to hand pumps are almost certain to be sloping pumps of this kind, and we find small downsets drained in this fashion as late as the 1830s at Baldridge, 1840 at Wemyss, and even 1850 at Lumphinnans. To find human labour still employed on drainage machinery in the burgeoning Fife coalfield of the mid-nineteenth century is, to say the least, surprising, and in looking for an explanation we can start by taking a closer look at these three examples.

First, at Lord Elgin's West Baldridge colliery, a summons of damages dated

May 1840 claims that a hand pump had been used to pump water from neighbouring East Baldridge into the workings of the former.(14) In a memorandum written in reply, we are told that since the pump in question was only 4 inches (10 cms) in diameter and was driven by a boy, the amount of water transferred daily would only require forty-five minutes pumping by Elgin's engine. The engine referred to is not known but even a low-powered steam engine would pump a considerable quantity of water in forty-five minutes, which suggests that even a small hand pump worked by a boy could shift a lot of water. The effectiveness of hand pumping is perhaps not as limited as we might at first sight expect. Despite what Lord Elgin claims in his summons, the hand pump was installed primarily to drain a small area of coal thrown down some 4 fathoms (7.3 metres) by a dyke. This water, having been pumped up to the west level, found its way eventually into Elgin's wastes.

In the Wemyss example, a ground of downset workings in the Barnscraig coal were worked by hand pumps up to 1840.(15) However, it was then pointed out that a new winning of any extent would require steam power for both winding and pumping. Clearly, manual pumping could not be justifiably retained after 1840 in a seam like the Barncraig, where the high quality of coal encouraged the introduction of a more capital-intensive and significantly more effective method. It is nevertheless interesting that it could have been justifiable as late as 1840.

In the third case, that of Lumphinnans in 1850, we find hand pumps employed in a downset working where the water was lifted some 9 metres to the engine level.(16) Workings above the levels had been exhausted and with the lease of the colliery soon to expire, a new sinking was out of the question. Nevertheless, it was recognised that the expensive hand

pumping would have to be replaced, and in 1850 it was intended that the gig (winding engine) should drain the downset.

These three cases illustrate some characteristics of hand pumping in the nineteenth century. The method was used to drain comparatively small, downset workings by raising water a few fathoms to a level where other, more powerful, engines or else day levels were available. It was phased out altogether by mid-century apparently because of the fact that it could not operate effectively at any real depth and also because other methods were cheaper.

The height to which water was pumped is found not to vary a great deal. For example, the early seventeenth century workings found at Wemyss extended only some 2 fathoms (3.7 metres) below sea level, giving a pumping height of perhaps 3 or 4 fathoms (5.5 - 7.3 metres). At Baldridge, the pumping height was 4 fathoms (7.3 metres), while at Lumphinnans 5 fathoms (9.1 metres) was the height attained. We find a good example of hand pumping from limestone at Forthar lime quarry before 1814, where in the east wing of the quarry the rock had been wrought under-dip by means of hand pumps to a perpendicular drainage depth of some 2.5 fathoms (4.6 metres).(17) The greatest lift recorded for hand drainage in Fife pits is that in a Fordel report of 1817, when a downset of 20 fathoms (36.6 metres) was drained by the sloping pumps to which reference has already been made. This maximum figure must throw some doubt on Boyd's assumption that a document of 1570 refers to hand pumps when it tells of shafts up to 60 fathoms (109.7 metres) deep.(18) It may be, however, that there was an arrangement by which water was lifted in a series of steps, and such a possibility is referred to by Bald.(19)

In even shallow downsets, drainage by hand could be an expensive business

and this was clearly a major stimulus to the introduction of more cost-effective methods. At Pitfirrane in 1777, for instance, Charles Beaumont complained that:

> 'We are forced to work at the heavy expence of pumps, as the number of dykes renders an engine of little service ....'(20)

and we have already seen that the Lumphinnans downset was to have hand pumps replaced by the gig about 1850. In this case, the replacement was due to the expense of hand pumping, but its limited effectiveness is also shown by the fact that the opportunity was to be taken to run the downset a few feet deeper and so win a greater amount of coal.

The fact that hand pumping lasted as late at 1850 may be partly explained by the relatively low post-war wages of the early nineteenth century, but costs were also kept down by the employment of women and children prior to the legislation of 1842. This is illustrated by the following extract from the Report of the Children's Employment Commission, which identifies one group of workers as:

> 'PUMPERS - Girls and boys whose business it is to descend into the deepest part of the mines to pump rising water to the level of the engine-pump, in order to keep the men's rooms of work dry; they are not unfrequently work up to their waists in water, or in such cramped situations as to be nearly covered; it is a severe and continuous process; they are relieved every six hours and rest twelve.' (21)

However, Bald was firmly against the sort of small downset workings which were typically drained by this kind of labour, and there are a number of instances in which he refers to the technique in disapproving terms. In a report on Fordel Moss pit in 1817, for example, he considers:

> 'The mode of working under-dip of the day level by means of

pumps wrought by hand is most injurious to the Dip workings of Fordel coal. Nothing can be worse, and it ought to be given up the instant places (in other workings) can be got for the men.' (22)

At the West March pit, referred to in the same report, two sets of pumps had been wrought by hand, but the old workings were by now flooded and were seen by Bald as 'very dangerous' to the security of more recent, deeper operations. At Townhill in 1818, where water was raised to the engine level by means of hand pumps, Bald thought the under-dip workings 'irregular and contrary to the approved practice of collieries', (23) while at Lochgelly in 1825 he refers to underdip workings drained by hand pumps as 'very irregular and ought at all times to be avoided.' (24) To a large extent, Bald's antipathy is not so much to hand drainage as such, but to the inevitable flooding which followed the abandonment of the downset workings which were drained by this method, especially since many early downsets were unmarked on any plan. In addition, the presence of wasted areas could upset subsequent drainage schemes, perhaps by allowing water to accumulate in the dip workings instead of flowing out by a day-level.

Despite Bald's disapproval, hand-powered drainage in Fife appears to have been viable and to some extent cost-effective over a very long period. From the 'Dam and Lave' technique of at least the early seventeenth century, through the water-barrels and windlass to the sloping pumps used in nineteenth-century downset workings, we find hand drainage making its contribution to the development of mining in Fife. For larger scale operations, however, more powerful sources of energy were required, with the result that the drainage of pits by hand was bound to disappear.

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FOOTNOTES

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3 J Gemmel, 'The Wemyss Coalfield', Transactions of the Institution of Mining Engineers, 36, (1909), 558

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15 ibid, Report upon Projected Dip Winning .... at Wemyss, by Henry Cadell, 3 Nov, 1840

16 ibid, Case for the Heirs of the late Mr Adam Begg..., 6 May 1850, 3

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22 SRO, CB27/2, Report .... Fordell Colliery, 12 Dec 1817

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THE LAW AND OUR HERITAGE

by

Andrew Wood

At present there are over 12,000 ancient monuments and over a quarter of a million listed buildings in the UK. These are protected to varying degrees by central and local government as a result of a number of Acts of Parliament dating back to 1882.

This first Act of 1882, the Ancient Monuments Protection Act, dealt solely with ancient monuments and it was not until 1932 that procedures for giving protection to buildings were introduced which led to our present day listed buildings legislation. Broadly speaking the difference between the two is that an ancient monument will be a structure which has no practical function today, such as a Devon colliery engine house, or Stonehenge. A listed building on the other hand will probably still be in everyday use, such as the Stude Mill at Alva, which is being converted into flats. Indeed it is a criterion for being classed as a monument that the structure in question is not being used as a dwelling house other than by its caretaker. There are however exceptions to both rules and a grey area between them which allows some structures to be both a listed building and an ancient monument. A good example of this is the glass cone at Alloa Glassworks.

The 1882 Act provided limited protection to fifty monuments listed in an appendix or schedule to it which it became illegal to demolish. These monuments were almost entirely of the standing stone and megalithic tomb variety. Later Acts set up Ancient Monuments Boards for England, Wales, and Scotland and gave them power to add to the 1882 schedule and to protect such monuments through acquisition and guardianship. These early

Acts were recently consolidated into the 1979 Ancient Momuments and Archaeological Areas Act which came into force in Scotland on 30 November 1981. This Act now provides the current law on the subject. Before anything can be afforded the protection of the Act it must be a 'monument' and the Act gives us the following definition of a monument:

(a) any building, structure or work, whether above or below the surface of the land, and any cave or excavation;

(b) any site comprising the remains of any such building, structure or work or of any cave or excavation; and

(c) any site comprising, or comprising the remains of, any vehicle, vessel, aircraft or other movable structure or part thereof which neither constitutes nor forms part of any work which is a monument within paragraph (a) above;

and any machinery attached to a monument shall be regarded as part of the monument if it could not be detached without being dismantled.

Virtually anything may thus be a monument, but before qualifying for protection it must be important to our historical, architectural, cultural or technological past. The degree of importance decides the level of protection given. A monument that is deemed by the Secretary of State to be of national importance will be added to the schedule of monuments created by the previous Acts. The monuments already on the schedule are also those of national importance and all monuments on the schedule are known as scheduled monuments or scheduled ancient monuments. The two terms are interchangeable.

The Act makes it an offence for the owner of a scheduled monument to cary out works on it, or to authorise such works, which result in its demolition, destruction or damage or to remove or repair it without

authorisation. This authorisation is known as Scheduled Monument Consent (SMC) and must be sought from the Secretary of State before such works commence. The Secretary of State also has powers under the Act to enter scheduled monuments for the following purposes:-

- to carry out works urgently needed to protect a scheduled monument
- to inspect the condition of a scheduled monument
- to inspect a scheduled monument in the course of an application for SMC and to inspect works connected with such an application.

It is an offence to obstruct the entry of any person authorised by the Secretary of State as above, provided twenty-four hours' notice of the intended entry is given. It is also an offence to use a metal detector on the site of a scheduled monument without permission from the Secretary.

The second class of monument created by the Act is that of the Ancient Monument. This class contains all scheduled monuments (hence scheduled monument and scheduled ancient monument being the same thing) together with, 'any other monument which in the opinion of the Secretary of State is of public interest by reason of the historical, architectural, traditional, artistic or archaeological interest attaching to it.' The Act gives various powers to both the Secretary of State and Local Authorities in relation to ancient monuments:-

1. Either may acquire an ancient monument by gift or agreement (sale, in lieu of taxes etc) and the Secretary of State only may acquire an ancient monument through a Compulsory Purchase Order.
2. Either may enter into a guardianship agreement with the owner of an ancient monument. The result of this is that the owner retains legal title to the ancient monument but the Secretary of State or Local Authority, whichever becomes the guardian, is responsible for all aspects of its care and maintenance. The guardian is also obliged

to make arrangements for public access to the monument.

3. Either may enter into an agreement with the occupier of an ancient monument to allow for public access to the monument and the provision of facilities and information for the public.

There is no automatic public right of access to an ancient monument, scheduled or unscheduled, other than those in the ownership or guardianship of the Secretary of State or a Local Authority. A third class also exists, that of the 'Protected Monument', purely to define those monuments in respect of which an offence may occur by damaging them. These are again any scheduled monuments and any monument under the ownership or guardianship of the Secretary of State or a Local Authority. The Act makes it an offence for anybody to damage or destroy such a monument, with a fine of up to £1,000 or a 2 year prison sentence as a deterrent. Administration of the ancient monuments legislation is carried out on behalf of the Secretary of State by the Historic Buildings and Monuments Directorate of the Scottish Development Department in Edinburgh.

Proposals for scheduling can be submitted by anybody and will be reviewed by the Directorate inspectors who will assess whether the monument is of national importance. If they think it is the proposal will then be passed to the Principal Inspector for review. It will then be passed to the administrative section for policy acceptability before the process of notifying the owners begins. The proposal, together with any adverse reaction from the monument's owners, will then be passed to the Ancient Monuments Board (AMB) for Scotland for their consideration and recommendation.

The AMB is a statutory body set up in 1913 to assist the Secretary of

State and consists of members representing the following bodies:-

The Royal Commission on the Ancient & Historical Monuments of Scotland

The Royal Incorporation of Architects in Scotland

The Society of Antiquaries of Scotland and any other members the Secretary of State shall appoint.

Assuming the AMB approves, the monument will then be added to the Schedule and the owner notified. In England and Wales a similar procedure is followed.

As already mentioned Ancient Monuments tend to be unoccupied structures such as castles and tombs. As a result of this, and the fact that it was not until 1953 that an industrial structure could be considered a monument at all, barely 2% of the 12,000 ancient monuments in the UK are of an industrial nature.

The concept of providing protection for an occupied building did not emerge until 1932. The Town and Country Planning (Scotland) Act of that year gave Local Authorities power to make preservation orders for buildings of special architectural or historic interest. Each order had to be referred to the then Department of Health for Scotland. The Department would then consider whether to approve the order taking into account representations of all those involved.

In 1945 the Secretary of State for Scotland was given powers to compile a list of buildings of special architectural and historic interest for the guidance of Local Authorities. These powers were strengthened in 1947 when the Secretary was placed under a duty to compile such lists and the owners of such a building were merely to be informed of its inclusion. There was, and still is, no formal appeals procedure against listing. At that time listing in itself gave no protection to the building other than

to force its owner to inform the Local Authority at least two months before he planned to demolish it or carry out major works on it. During this two month period the Local Authority could put a preservation order on the building to protect it, but the order still had to be approved by the Secretary of State.

In 1969 the statutory list compiled under the earlier Acts became a building preservation order with respect to buildings on it. Various other changes were made and in 1972 a new Town and Country Planning (Scotland) Act was introduced which consolidated the previous legislation and now provides the basis for the current listed buildings law. Similar provisions were enacted for England and Wales and these now form part of the Town and Country Planning Act 1971.

The 1972 Act places a duty on the Secretary of State for Scotland to compile a list, or to approve a list made by other person or bodies, of buildings of special architectural or historic importance. For the purposes of the Act a building includes 'any structure or erection and any object or structure fixed to a building or forming part of the land and comprised within the curtilage [1] of the building'. This wide definition has led to the listing of a tremendous variety of objects including viaducts, lamp posts, war memorials, bird baths, and a giraffe house.

Certain buildings are deemed to be on the list. These buildings are ones which are subject to a building preservation order under the earlier Acts or which are on the list compiled under the previous Acts. Responsibility for the revision and amendment of the list lies with the Historic Buildings and Monuments Directorate of the Scottish Development Department. Previously Historic Buildings and Ancient monuments were dealt

with by separate Divisions of the SDD but in 1984 they merged to form the Directorate.

Additions to the list occur by one of two methods:- firstly, as a result of the methodical re-survey of the country carried out by the staff of the Directorate; secondly, as a result of 'spot listing'. The latter procedure is used for buildings which appear to be in imminent danger of demolition. The result of 'spot listing' is that such a building can be listed within twenty-four hours of the Directorate's staff being informed of its imminent demolition. It is also possible for a Local Authority to serve a building preservation notice on the owner of an unlisted building which it thinks is worth saving. This has the effect of giving it the same protection as a listed building for a period of six months. During this six month period a decision will be taken by the Directorate as to whether the building should be placed permanently on the list. As with spot listing, a building preservation notice will only be used where a building appears to be in imminent danger of demolition.

In 1976 the Secretary of State issued the following statement regarding the list as part of a circular [(2)] to local authorities.

> 'All buildings built before 1700 which survive in anything like their original condition are listed. Most buildings of 1700 to 1840 are listed, though selection is necessary. Between 1840 and 1914 buildings must be of definite quality and character to qualify, except where they form part of a group, and the selection is designed to include, among other buildings, the principal works of the better known architects. A start is now being made on listing selected buildings of 1914 to 1945, and works by living architects are admissible if the buildings are more than thirty years old.

In choosing buildings particular attention is paid to:-

(a) special value within certain types of buildings either for architectural or planning reasons or as illustrating social and economic history (for instance: industrial buildings, railway stations, schools, hospitals, theatres, town halls, markets, exchanges, charitable institutions, prisons and mills);

(b) technological innovations or virtuosity (for instance: cast iron, prefabrication or the early use of concrete);

(c) association with well known persons and events; and

(d) group value, especially as examples of town planning (for instance: squares, terraces or model villages).'

Once a building has been selected for listing it will be placed in one of three categories as follows:

Category A Buildings of national or more than local importance, either architectural or historic, or fine, little altered examples of some particular date or style.

Category B Buildings of primarily local importance, or good examples of some period or style, which may have been altered in a minor way.

Category C Good buildings which may be considerably altered and other buildings which are fair examples of their period or in some cases buildings of no particular merit which happen to group well with others in categories A and B.

These categories have no statutory basis and are merely an indication of the degree of merit and importance which is attached to the building. However it is inevitable that the Local Authority will take the category of a building into account when deciding whether to give permission to demolish or alter a listed building or give a grant for its maintenance or restoration.

When a building is placed on the list the Directorate will inform the relevant Local Authority and, informally, the owner of the building. The Local Authority will then formally inform the owner, occupier and leaseholder of the building. There is, however, no obligation on either to inform subsequent owners and they may be unaware that the building is listed.

Once a building is listed it becomes an offence for any person to execute, or to cause to be executed, any works for its demolition or for its alteration or extension in any manner which affects its character as a building of historic or architectural importance. It is possible to apply for authorisation to carry out such works and this takes the form of listed building consent which may be obtained from the Local Authority or the Secretary of State. Where demolition is proposed the Royal Commission on the Ancient and Historical Monuments of Scotland must be informed and a period of three months must elapse between the granting of listed building consent and the commencement of works. During this three month period the Commission's officers must be allowed reasonable access to the building for the purpose of recording it should they wish to.

In deciding whether to give listed building consent the Local Authority or the Secretary of State 'shall have special regard to the desirability of preserving the building or any features of special architectural or historic interest which it possesses'. In addition to the statutory requirement mentioned above there are a number of other factors which should be taken into account. These are given in the same circular from the Secretary of State mentioned above and include such factors as:

- light thrown by the design, plan, materials, or location of a

building on the character of a past age, or on the development of a particular skill or technology.

- the condition of the building and the cost of maintaining and repairing it in relation to its importance.
- the contribution made by a building to the local scene.

Local Authorities are also reminded in the same circular that the number of buildings of special architectural and historical importance is limited and that a presumption should be made in favour of preservation except where a strong case is made out for granting permission to demolish. Failure to obtain listed building consent before beginning work can lead to a twelve month prison sentence or a fine. The only defence to a charge of failing to obtain listed building-consent is that the works were urgently necessary in the interests of safety or health, or for the preservation of the building, and that notice in writing of the need for the works was given to the local planning authority as soon as reasonably practicable.

Where a Local Authority is of the opinion that works are being undertaken in contravention of the Act, it has the power to serve a listed building enforcement notice on the person carrying out the works. This will specify the alleged contravention and give details of the steps needed to restore the building to its former state or the state it would be in if a listed building consent, which may impose certain conditions, had been complied with. If an enforcement notice is served and not complied with, within the time limit specified in the notice, an offence will have been committed. A further offence is committed if after conviction for failure to comply, the person does not, as soon as practicable, do everything in their power to secure compliance with the enforcement notice.

Where such a notice has not been complied with, the Local Authority and the Secretary of State have the power to enter the building and carry out the steps laid out in the notice. They may also enter an unoccupied listed building, even where no enforcement notice has been served, and carry out urgent works for its preservation. In both cases any reasonable expenses may be recoverd from the owner.

Without the measures outlined above, it is likely that many important buildings and monuments would have been lost to the nation. These measures have certainly gone a long way towards preserving our heritage and we should be grateful to the government of 1892 which first realised the importance of providing the protection of the law for that heritage.

FOOTNOTES

1 'Curtilage' - broadly speaking this is the area of ground surrounding and associated with a building or structure. In the case of a dwelling-house this would be the garden

2 SDD Planning Circular 4/1976 as amended by Circular 29/1982

Useful addresses: Historic Buildings and Monuments Directorate
Scottish Development Department
Perth Street
EDINBURGH EH3 5D

Royal Commission on the Ancient and Historic Monuments of Scotland
54 Melville Street
EDINBURGH EH3 7HF

Archive Report No 1: The Scottish Film Archive

The Scottish Film Archive was established by the Scottish Film Council in 1976 with the aid of the Government's Job Creation Scheme and became a permanent feature of the Council's activities in 1978. With its remit to locate and preserve film of relevance to Scotland, the Archive effectively complements the work of the UK's National Film Archive in London, preserving footage of local interest to those within Scotland as well as material relating to wider national concerns.

Within this collection of primarily non-fiction film, a significant proportion relates to industrial life in Scotland. Not simply a record of production processes per se, but a visual illustration of conditions in the workplace across a wide range of industries, of the impact that these industries had on the community from which their labour force was drawn and on the environment which they inhabit. Above all, the older film illustrates an attitude to work that has now largely disappeared and helps to chart the changes in expectations and the perception of work that has characterised the last fifty years.

The only common denominator to films relating to industrial life is indeed its physical nature - celluloid. That in itself is a medium most vulnerable to damage and decay brought about by mishandling and age. Perserving film as an historical record is a fight against time, to locate an original and to copy it onto modern acetate film stock prior to the irreversible effects of age attacking the image itself.

If the physical nature of industrial footage is standard, the origins and motivation are conversely disparate and wide ranging. There is film in the Scottish Film Archive which illustrates almost every aspect of working

life, personal and corporate, practical and political, routine and exceptional.

One of the most obvious sources is that of the industrial concerns themselves - the employers. From about the 1930s, the significance of film as a method of promotion had begun to be recognised. For many of the major manufacturing concerns, the catalyst was the 1938 Empire Exhibition in Glasgow. Within the arena was the specially constructed Empire Cinema and for the six months of the exhibition, film programmes were regularly screened to visitors. The Government had sponsored a group of seven documentaries about Scottish life, three of which concentrated specifically on agriculture, fisheries and industry. Other manufacturers took the opportunity, many for the first time, to commission films about their own products, eg Colville's 'World of Steel', Beardmore's 'Romance of Engineering', and Allied Hotel's 'Highland Hospitality', and these were screened alongside films about Heriot Watt University and sporting facilities for young Scots.

In the thirties the art of advertising or promotional film was still in its infancy. There were, however, several examples of the use of film for a specific purpose prior to this. In 1913 Peter Scott and Company of Hawick commissioned a film about the manufacture of gentlemen's hosiery. From 'Wool to Wearer - The Romance of Pesco Underwear' was then sent to the international Ghent Exhibition and the following year screened at the Royal Highland Show held in Hawick itself. In 1911, D C Thomson proudly screened 'The Making of a Great Daily Newspaper' in Dundee cinemas to commemorate the fiftieth anniversary of the Courier as a daily paper.

The retail trade and service industries were also alive to the value of

film. In 'Is Washday Worthwhile' (1931) Castlebank Laundry extolled the virtue of sending your wash to a cleaner. Isaac Benzie's department store in Aberdeen portrayed the delights of a day out shopping in their film 'Out for Value' in the late 1920s and George Guthrie, a Glasgow butcher, commissioned a series of films in the early thirties to show how pigs were fattened for bacon and how link sausages were made. These he ran to great effect on a back projection in his shop windows until the police asked him to desist as the crowds gathered outside on the pavement were causing an obstruction to traffic! Films like these and many more have been found on the premises of the company or in the personal possession of retired family businessmen. A high proportion have come to light with the growth in organised and professionally run company archives where it is recognised that film requires the specialist conservation and storage facilities such as the Scottish Film Archive can provide.

Not all these early advertising films were professionally shot. Some were utilised for promotion almost as a second thought, once their value was recognised. For example, Jack Macfarlane of McFarlane Lang Biscuits tested his new 16mm film camera by shooting the production line in his Shettleston biscuit works in 1928. The resultant film became a useful promotional tool. The 'Dundas' of Melville, Dundas and Whitson, for his own interest filmed the various stages, not always competently, of his company's construction of the George V bridge across the Clyde in Glasgow between 1924 and 1927. One notable industrialist in Dundee, J R L Halley of William Halley and Son, used the family jute mill as a focus for his penchant for amateur cinematography and shot a number of films, at least one winning a prize at the 1949 Scottish Amateur Film Festival.

Cinematography, an expensive hobby in the thirties, seems to have been a popular pastime with quite a number of industrial families in Scotland, eg

Jack Mavor of Mavor and Coulson, George Scott of Peter Scott and Company, and Stein of the family's Castlecary brickworks all shot 'home movies' in the decade prior to the war. Often these included shots of the family business along with domestic scenes of the household on holiday, family at school, etc. These collections help to illustrate the lifestyle of the employer in marked contrast to that of the employee, who in most cases would not have been able to afford a camera. It was left to the professional documentary makers of the 1930s and 1940s to record the living conditions of the labour force.

There was, however, one other group of film-makers who did help redress the balance, albeit unconsciously and in a small way. It was the habit of some of the independent, family-owned cinema exhibitors to make their own, occasional, local versions of the popular cinema newsreels recording an event of some interest to the local community. It is thanks to these advertising gimmicks, designed to draw locals into the picture house to see themselves on the screen, that we have unique records of activities surrounding the workplace. The works outing for example with the annual Sma' Shot Saturday when Paisley textile workers embarked on bus or charabanc for a day's outing. The Nobel explosives factory trip to Rothesay in 1925 and the ambitious excursion for staff organised by Pullars of Perth to the Wembley Exhibition of 1924 are further examples. Then there were sports days and social events and local customs that had originated from the presence of a specific industry, for example the annual Bo'ness Miners Gala days were always good topics for local cinema newsreels.

One specific collection of films illustrates the extent to which one large employee could affect the community around the workplace. In the 1950s

Babcock and Wilcox produced a series of house magazine films for their Renfrew and English plants running these films in local cinemas as well as social clubs and at meetings. Each issue of 'Home and Away' contained not only news of new developments in production processes and jobs in hand, but carried a high social and welfare profile with reports of factory outings, of successes in sporting and leisure activities centred on company clubs and with chatty stories on a golfers' tea party at Turnberry and boys' camping holidays. One story that perhaps encapsulates the impact upon the community was the coverage of the 'holiday special', a train-load of Babcock staff and families bound for Blackpool and their annual fortnight at the seaside.

There are many more films which reflect industrial life in Scotland than I can hope to describe in this article. Major collections on shipbuilding and the heavy industries, the SCWS collection of staff-training films and the various government sponsored promotional films about Scottish industry certainly provide a rich source.

In the 1970s and 1980s, the financial institutions and the oil companies have taken over where once the traditional industries had hegemony and have been generous with the deposit of copies of their films. There will, however, be more materials, some possibly at risk from decay, and the Scottish Film Archive will always be interested in information about these. It is only with the co-operation of the companies themselves that we can hope to record the fullest possible visual illustration of Scotland at work in the twentieth century.

Janet McBain, Curator
Scottish Film Archive, 47 Victoria Crescent Road, Glasgow G12 9JN
Tel.041-334-9314

1 **National Register of Archives (Scotland)**

Full details of the surveys are available from the National Register of Archives (Scotland). All enquiries and requests for access should be addressed to the Secretary, The National Register of Archives (Scotland), Scottish Record Office, HM General Register House, Edinburgh, EH1 3YY.

Agriculture, Estates, Forestry and Fishing

2711 **Royal Highland and Agricultural Society of Scotland, Ingliston** Correspondence and papers relating to the St Kilda fund, 1851-1931, including: subscriptions and bank books, 1859-1931, photographs of the village and harbour, 1910; minutes of meeting of relief fund, 1860-61; letters from J M Macleod of St Kilda to J H Maxwell concerning conditions on St Kilda, 1859-66.

Papers relating to Royal Highland and Agricultural Society of Scotland, 1784-1980, including: accounting records, 1843-1967 minutes, 1784-1967; abstract of premiums offered, 1784-1925; reports and premium certificates, 1785-1890; essays on Highland music, fisheries and other subjects, 1793-1809; plans of show yards, 1837-42; papers concerning publication of Gaelic dictionary, 1809-38. Replaces Survey 392

2713 **National Library of Scotland** Skene of Pitlour manuscripts. Papers relating to heritable office of Macer, 1693-1760; correspondence and accounting records concerning Pitlour estate, Fife, 1810-1914; lists of farm equipment, c1884. Partly replaces Survey 190

2720 **Hay of Dune Castle** Titles of lands of Drumelzier, Duns and other lands in Berwickshire, c1312-1823. Papers relating to Duns estate

c1601-1908, including: papers anent patronage of kirk of Duns, 1744-50; note of seeds and garden utensils purchased, 1707; accounts for bottles purchased from Leith and Morrison's Haven, 1700-02; correspondence and accounts concerning James Gillespie Graham's work at Duns Castle, 1818-24; correspondence, circulars, and accounts relating to the Berwickshire Volunteer Infantry, and Berwickshire Yeomanry Cavalry 1803-31

2721 **Mrs N M Roberton of Lauchope, Lockerbie** Titles to lands and estate of Lauchope, 1710-66; leases and other legal papers relating to the trust of James Roberton of Lauchope, 1845-1940. (Deposited in Strathclyde Regional Archives)

2722 **Mr T Binnerts, York** Titles and legal papers relating to Braidwood, Carluke, Wicketshaw, and other Lanarkshire lands, 1563-1831; letter concerning appointment to mines in Columbia, Canada, 1831; legal papers relating to deed of settlement by John Mure, formerly of Quebec in Lower Canada, 1822-33

2614 **Sir William Macpherson of Cluny and Blairgowrie, Newton Castle** Family correspondence and papers 1765-1930, including: letters from Sir John Macgregor Murray and John Macintyre to Col Allan Macpherson in India referring to activities of Warren Hastings, 1779-81; letters from William Macpherson of Blairgowrie to Allan Macpherson describing life in Australia, 1840-52; school exercise books of William Macpherson, 1791-1800; correspondence concerning Sir John Macpherson, governor general of India and Indian affairs, 1785-86; measurements of feus of the Blairgowrie estate, 1874-95; printed catalogue of Bisly's circulating library, Doncaster, 1799; printed advertisement for the Royal Wax-Work, near Catharine Street in the Strand, 1794

2739 **Royal Commission on Ancient and Historical Monuments of Scotland** Copies of archaeological notes and papers of J M Corrie, FSA Scot, including: catalogue of private collection of artefacts, 1892-1925; notebooks with draft papers, drawings and photographs concerning prehistory, history and customs of Dumfries and Galloway, prehistoric and medieval urn-types, representations of fish in Pictish and early Christian art, the Shetland Isles, and brochs, 19-20 cents; published papers by Corrie on Scottish archaeology, 1912-34; notice of sale of William G Gibson's antiquarian museum, 1869.

Building Trade and Engineering

1645 **Messrs Steven & Struthers Ltd, brassfounders, Glasgow** Plans of valves, 1904-16

2731 **Barr, Thomson & Company Ltd, manufacturers of engineering products, Kilmarnock** Wages book, 1897-1900; minute book, 1897-1905; ledger, 1951-69; accounts book, 1978-80; machinery registers, 1899-1979

2740 **Royal Commission on Ancient and Historical Monuments of Scotland** Papers of Reginald Fairlie, architect, 1899-1956, including: correspondence, 1899-1906, including copy letter of Robert Lorimer describing terms of training in his office, 1899; certificates of election as associate and as academician of Royal Scottish Academy, with related medals, 1923, 1934; photographs of works and of drawings, with original drawings, including: Fort Augustus Abbey, war memorials, Dominican Convent, Hawick; and Memorial Chapel, Falkland Palace, 1903-21

2742 **Mr C C Johnston, Edinburgh** Correspondence and other papers relating to construction of house at St Andrews, 1894-96;

miscellaneous legal and financial papers concerning the Swan and McCall families, 1884-1965

Personal and Family

2718 **Mrs C C A Stewart, Edinburgh** Family papers of H M Williamson, insurance clerk, 18-20 cents, including: personal reminiscences, 1858-1947, including life in Glenshee, 1870s; genealogies and printed works relating to families of Williamson, Paul, and Robertson of Cray, Stedman of Baldridge and others, 17th-20 cents; photographs, nd

2725 **Miss M D Fraser, Glasgow** Personal correspondence from James Cunningham, soldier in the 69th regiment, to his mother while on service in England and the West Indies, 1776-83; list of English line of battle under command of Sir George Rodney at the Battle of the Saints in 1782, with poem regarding battle composed by James Cunningham, 1783

Publishing, Printing and Painting

1859 **Orkney Library** Papers of Stanley Cursiter, CBE, RSA, HM Painter and Limner in Scotland, 17-20 cents. Misc legal and other papers, c1630-1828, including: fragment of court book, 1630-1; titles of unidentified lands, c1675-80; transcript of poem on salvage of two vessels stranded on Sanday, Orkney, c1775. Notes on art and architecture, 1905. Lectures, printed items and articles mainly relating to Scottish painting and painters, 1907-48 & nd, including obituaries and catalogues. Short stories 1936-48 & nd. Correspondence and other papers relating to Cursiter's

artistic work, his keepership and directorship of the National Galleries of Scotland, and personal affairs, 1916-70. Printed articles, pamphlets and press cuttings concerning his work and interests, c1893-1954. Watercolours, pencil sketches and commercial designs and illustrations, nd. Plans, drawings and other papers relating to designs for St Rognvald's chapel, St Magnus Cathedral, Kirkwall, 1966. Photographs of Cursiter's portrait, landscape and abstract painting, nd. Misc photographs, c1860-20 cent, including: Cursiter family; Lord Robertson and William Etty, RA, by Hill and Adamson; buildings in Orkney

2694 **National Library of Scotland** W & R Chambers, publishers, Edinburgh. Letter books, 1848-1945; accounting records, 1842-1949; plans and photographs of premises in Edinburgh and London, 1851-1924; legal papers relating to Cardney estate, 1717-1904; press cuttings, 1820-1928; Chambers trade catalogues, 1851-75; manuscripts sent to Chambers for publication, 1832-74. Notebooks and literary manuscripts of Robert Chambers, 1823-69, including: geological notes on areas in Norway, Germany and Scotland, 1847-54; unpublished poems, 1827-50. Replaces Survey, 0360

Religion

2714 **The United Church of Canada** Notes and commentaries by Rev E V Forbes (1890-1970) on sermons and lectures heard in Edinburgh with comments on Scottish Presbyterian churches and social problems, 1922-23.

2732 **King's Park Baptist Church, Glasgow** Croftfoot Forward Movement minutes and church minutes, 1933-4; church minutes, 1934-58, 1972-date; Deacons' minutes, 1934-date; 'King's Park Baptist Church:

A History' (includes membership statistics and roll of Deacons), 1934-84

2733 **Queen's Park Baptist Church, Glasgow** Church minutes, 1878-97, 1913-75; Deacons' minutes, 1883-1966; Sunday School minutes, 1879-89; general and sub-committee minutes, 1885-90; Young People's Fellowship minutes, 1940-50; Youth Forum minutes, 1917-54; cash books and accounts, 1878-1950; roll of members, 1878-date; visitors books, 1928-78

2734 **Kilmarnock Baptist Church, Kilmarnock** Church and Trustee minutes, 1884-1917, 1939-66; Deacons' minutes, 1889-1977; Sabbath School teachers' minutes, 1890-3; executive minutes, 1940-51; evangelistic committee minutes, 1969-70; roll of members, 1865-1964; ledgers, 1876-9, 1918-64; accounts, 1877-1907, 1917-78; notice books, 1961-5; book of origin c1869

2735 **Vale of Leven Baptist Church, Alexandria** Church minutes, 1905-date; Deacons' minutes, 1910-date

2736 **Peebles Baptist Church, Peebles** Church minutes, 1922-80.

2744 **Unitarian (Williamson Memorial) Church, Dundee** Minutes, 1875-1969; membership lists, 1866-1957; accounting records, 1870-1962; register of baptisms, 1836-1913; scrap books, 1876-99; SUA reports, 1868-1967; church magazines, 1884-1979.

Societies

2716 **Mr J A Murray, Edinburgh** Misc papers relating to 50th anniversary of Women's Suffrage, 1967-76. Papers of Scottish Female Domestic Servant's Benevolent Fund, 1893-1972, including: reports, 1893-1969, minutes, 1954-70 (Deposited in National Library of Scotland). Transcript of private account book of Hugh

Somerville, WS, 1716-38; related article, 20 cent (Deposited in Edinburgh City Archives)

Textiles

2747 **Dundee University Archives** James F Low & Co Ltd, textile machinery manufacturers and construction engineers, Monifieth Minutes, 1920-70; accounting records, 1902-73; shareholders' registers, 1902-71; patents 1924-60; machinery: specifications and order books, 1850-1976, photographs, 1928-50, drawings and plans, 1857-1968; advertisements, 1924-84

2748 **Galashiels Manufacturers' Corporation, Galashiels** Records of corporation, including: minutes and accounts, 1854-1956; correspondence, 1882-1966, including letters and papers relating to drainage and discharges from factories, 1906-15; memorandum and articles of association, 1897. Young Dyers' Corporation minutes, 1816-1911. Galashiels Technical School and Classes, membership rolls and accounts, 1887-99. Weaving School, accounts, 1884-87. Scottish Tweed Manufacturers' Association, accounts, 1891-96. Replaces Survey, 321

Whisky Industry

2644 **Whyte & Mackay Distillers Ltd** Mackenzie Bros Ltd, Dalmore Distillery, Ross-shire: accounting records, 1896-1959; bond books, 1878-1956; draff books, 1885-1951; export order books, 1900-23; letterbooks, 1876-1925; insurance books, 1900-36; production expenses and returns, 1868-1917; papers: excess profits tax, 1913-31, war compensation, 1920-6, distillery reinstatement, 1923-24. Particulars of whisky sold to Central Control Board,

1897-1917; notes on customers, 1931-33; pamphlets on Scotch whisky, deputation to Chancellor of Exchequer, and minute of meeting of distillers, 1873-85; two daguerrotype portraits, 1860. Duncan MacBeth & Co Ltd: balance sheets, 1934-73; correspondence, 1927-38. Addition to survey 2644

2750 **Glasgow University Archives** Highland Distillers Co Plc, Glasgow Minutes, 1882-1976; correspondence and legal papers, including agreements relating to supply, 1882-1965; misc legal and technical papers relating to property and running of distilleries, 1885-1981; photographs of distilleries, 1890-1970. Glenglassaauch Distillery, Portsoy Accounting records, 1900-71; production records, 1891-1962. Glenrothes Glenlivet Distillery, Rothes Accounting records, 1887-1982; production records, 1894-1971; financial and legal papers relating to lands and property, including tacks and rents of Ardecanny farm, 1885-1979; drawings of distilling plant and buildings, 1959-74; photographs of distilleries and staff, c 1896-1905. Tamdhu-Glenlivet Distillery, Accounts, 1896-1972; production and stock records, 1897-1967; correspondence, 1897-1967; plans and specifications for buildings and plant, including a water wheel, 1896-1934; photographs of distillery, c1900. Partly replaces Survey, 2119

2. Scottish Film Archive

Applications for access should be made to the Curator, Scottish Film Archive, 74 Victoria Crescent Road, Glasgow, G12 9JN

Acquisitions to September 1986

PROGRESS OF A DUNDEE JUTE MILL
History of William Halley & Sons, Dundee (1950)

JUTE MACHINERY - TECHNICAL RECORDS
Machinery in use at Urquhart, Lindsay, Robertson and Orchar's Blackness Foundry, Dundee 10 reels (c1935-1956)

BERTRAM'S LIMITED
Papermaking machinery engineers, Edinburgh (c1960)

THE STEEL WORKS
A GB instructional film for primary pupils (c1960)

THE LOTHIANS
Industries and towns Educational film (c1955)

MAKING SWEETS
Burrell's Glasgow factory (c1952)

CRAWFORD'S BISCUITS
Amateur film highlighting the company's promotional activities (1935)

PORT HEALTH AUTHORITY
A survey of Glasgow's authority and its services (c1928-1930)

LACE MAKING
The jacquard mechanism of lace production (c1927)

THE RIVER IS SPANNED
Film reconstruction of the building of the Forth rail bridge (1950)

SCOTTISH GAS BOARD - WESTFIELD WORKS
Royal visit to the plant (1961)

SALMON FISHING BY RING NET
Educational film (1952)

BANK FOR SCOTLAND (c1974)
BUSINESSWISE (c1976)
MONEYWISE (c1973)
Bank of Scotland promotional films

LET GLASGOW FLOURISH
Socialist film-makers, Dawn Cine Group, response to proposals to sell off Council housing and their portrayal of existing conditions in the inner city (1952-1956)

602 CITY OF GLASGOW SQUADRON
Amateur film of activities (1936)

3. University of Glasgow Archives

Papers received from Mr H H R Mole (Upminster)

DC 100/127/1 Typed translation of 19 letters written by Bernhard Gatow to Hermann Blohm concerning work at Blohm & Voss, shipbuilders of Hamburg, West Germany, 1934. Photocopies of the original letters are also included as is a pamphlet 'Blohm & Voss: Ships and Machinery for the World'.

The Bearer

Christian McFae

Has been admitted a Member of the

WEST OF SCOTLAND

Power Loom Female Weavers Society

Due

[illegible] President

[illegible] Treasurer

[illegible] Secretary

Glasgow 14 Mar 1833 No. 188