

Growth of Vocational and Social Education to 1914

Introduction

Universal education developed only slowly in the Victorian era with the Forster Education Act of 1870 but not until 1880 was education to the age of 10 made compulsory. This increased to 11 years of age in 1893 and 13 in 1899, heralding the 1902 Act which established secondary education. That was it, other than for the wayward and destitute in need of occupation and control to keep them off the streets. No system of training and skills development existed, other than that introduced by guilds, artisan groups, indenture systems, philanthropic groups and so on. The government did not see it had a role which was one reason why Germany and the USA leapt ahead in innovation and productivity.

Vocational education, specific to a trade or job, was one facet of skills for life. Important too was imbuing the desire to learn beyond school, not necessarily job related, to expand horizons into subjects hitherto untouched, and inculcate a spirit of social camaraderie. Apprenticeships, "Lit and Phil" Societies, Working Men's College, Mechanics Institutes and WEA all contributed hugely to vocational and social education. For that we thank enlightened thinkers, pioneers, educationalists and philanthropists, each of whom contributed immensely to a rich tapestry of learning and the huge benefits of social interaction. At last, adult education for the masses was purposeful and enjoyable - if they chose to take advantage.

Certified Industrial Schools

Industrial schools aimed to remove children from bad influences, provide education and give them a trade. This was in response to the reformatory system, set up under the Act of 1854 thanks largely to Mary Carpenter, daughter of a Unitarian minister. In 1846 she founded a ragged school in Bristol, appalled that poverty-stricken youngsters in need of control and care became immersed in criminal activities. She opened a reformatory school in Kingsmead in 1852 for boys and girls and a separate reform school for girls at Red Lodge a couple of miles away.

Under the 1857 Industrial Schools Act, magistrates had powers to sentence vagrant (homeless) children between the ages of 7 and 14 to attend such a school. In 1861 a further Act included children under 14 found begging, receiving charity, wandering, homeless or in the company of thieves or who had committed an offence, punishable by imprisonment or beyond the control of their parents. It was a repressive regime as a Times report of 25 October 1895 showed. "In the case of boys some provision should be made for punishment with the birch as well as with the cane."

The first school opened in a Palladian style building at Feltham, Middlesex, complete with two punishment cells. Other schools appeared in Euston and Chelsea and as far apart as Bristol, Newcastle, Manchester and York. Other ragged schools gained certification to operate as an Industrial School such as at Kirkwood, Liverpool where there was also an Industrial School attached to the workhouse. The ragged school was certified for use as an Industrial School in 1861. A report five years later noted there 450 children. Industrial training included: tailoring, shoemaking, garden-net making, printing and needlework and knitting. In 1868 the School

produced 570 pairs of clogs with another 80 pairs repaired. The tailor's room produced 200 jackets, vests and pairs of trousers. Girls in the Upper School produced 437 assorted pieces: mainly shirts, bonnets, frocks, petticoats, chemises, pinafores, stockings and quilts. The total value of all items in that year was £221.

Responsibility was transferred to the prison service in 1866 before coming under the wing of the Education Department in 1870. Reformatories and industrial schools were renamed approved schools by the Children's Acts of 1932 and 1933. In 1876, Day Industrial Schools were established for "for those children whose education is neglected by parents, or who are found wandering or in bad company." A day Industrial School opened on 27 August 1878 at Major Street in Liverpool. The deprived and the depraved attended school from 08:00 to 18:00. Bristol, Gateshead, Yarmouth and Oxford were early adopters. Short-term Industrial Schools were also set up for truanting children such as Highbury Grove. Apart from technical training, many Industrial Schools often had a military band. Not only did this give boys music training but a passport to a career in the military.

Apprenticeships

The history of apprenticeships can be traced from medieval times, the guild system and artisan trades. The Statute of Artificers of 1563 unified legislation. Apprentices were to serve a legally binding fixed term of at least seven years, ending aged 24; reduced to 21 in the 18th century. The Act was repealed in 1814. Advocates argued that apprenticeships provided training and a skilled workforce. Of great concern were exploitative forms of child labour and 'blind-alley' jobs, such as messenger boys and unskilled factory work. The 1909 Royal Commission into the Poor Law laid bare the fragility of employment as those aged 16 to 20 drifted "into the low-skilled labour market, or the arms of unemployables."

Philanthropic societies sought a formal system as did the Jewish Board of Guardians, working mainly in London's East End, and the Women's Industrial Council. The Central Bureau for the Employment of Women placed 400 girls in London in 1904 and the Apprenticeship and Skilled Employment Association 100 boys and 159 girls in 1906, but such schemes were sporadic.

By then most apprentices lived at home, though living-in continued in some trades such as horse collar, harness and saddle making and coach-building but these were becoming rare. Apprentices started on a low wage that was increased annually as an apprentice became more skilled, whereas previously 'indoor' labour was repaid in the form of board and lodging. The growing independence of 'labour' drew complaints in the fishing port of Grimsby. An 1894 inquiry stated, "they spend their money and their time at theatres and music halls connected with the public houses." In order to combat this some employers arranged lodging houses for younger and orphaned apprentices, acting in a form of loco parentis to keep a watchful eye.

The length of apprenticeships varied greatly by the early 20th century. A survey by Richard H. Tawney, Professor of Economic History at the London School of Economics, was published in the Economic Journal of 1909. It revealed that in Glasgow the trades of painting, plumbing, printing and iron-moulding still insisted on seven years instead of the more usual five years.

A survey into apprenticeships carried out just prior to World War 1 stated that the usual period for the boot and shoe trade was four years, but a quarter of employers stipulated six years. Typically, the first year involved menial tasks such as running errands and cleaning tools. For a court-dressmaker, insisting on two years, girls acted as runners between the workshop and stockroom and were not given a seat at a workshop table until the end of the first year. They then did a variety of tasks in specific sequence: bodices, skirts and finally sleeves. Instruction was given by an experienced worker or foreman/overseer.

Some trades required a premium to be paid such as special clothing whilst others expected an apprentice to provide their own tools. A report on boy labour by Cyril Jackson in 1908 stated the average premium was £17 7s 8d, whilst in 1912 for a London apprenticeship in carpentry or gun-making it was £20. A novel system existed in the leather-glove trade, centred in Yeovil, Worcester, Barnstable and Woodstock. Premiums were deducted as wages increased.

A variety of indenture systems operated, both written and verbal. A London handbook, issued in 1908 by the Apprenticeship and Skilled Employment Association, unsurprisingly suggested written agreements, setting out clearly a commitment to teach, the length of apprenticeship, wages and the hours of work. Indenture documents were to be "stamped with an impressed Inland Revenue stamp of 2s 6p" payable by the employer within thirty days of signature.

Pre-world War 1 there were 18 broadly defined areas of trade, from building to leather trades with hairdressing and the brewing industry common too but indentures were in decline. Views varied. A Bolton bootmaker felt, "both apprentice and master take a greater interest in their work, and so produce a better craftsman." This conflicted with another Bolton firm with "the boy being able to leave if dissatisfied, or dismissed if incompetent." Work performance was of concern to employers in fixing pay terms in advance, "irrespective of progress of the boy."

The law was a last resort for employers. "Idle" apprentices occasionally appeared before the Chamberlain's Court in London. A maximum punishment of three years in the Bridewell could be imposed but this was extreme. Lateness was a problem. So was bad behaviour and taking a 'sickie' to bunk off and watch a soccer match. Such behaviour verged on the "mutinous." In the case of Gilbert Hallam, an apprentice builder from Sparkbrook, his hours were from 6.30 am to 5.30 pm. Hallam decided to start at 8.00 am and leave at 5.00 pm on the pretext he was studying. The magistrate was unimpressed and threatened a custodial sentence if Hallam did not honour the terms of his indenture.

Literary and Philosophical Societies

On 24th January 1793, Unitarian minister, Rev. William Turner, convened a meeting in the Old Assembly Rooms, Newcastle. The purpose was to found a library. He referred to the Royal Society and the Manchester Literary and Philosophical Society. In a paper he submitted, Rev. Williams emphasised two important natural resources: coal and lead, and need to investigate minerals, agriculture and antiquities. He wished to promote mathematical sciences and to establish a centre for "library intelligence." In accepting the paper, the forming group wished to focus on science and on new scientific discoveries, whilst embracing many other subjects

with the exclusion of religion and politics! The first catalogue, containing over 500 works, was presented to the annual meeting (of men!) in 1796. Women were admitted in 1804.

In 1822 the membership decided to build a prestigious permanent home in the gardens of Bolbec Hall at 23 Westgate Road, and the new Lit & Phil opened in 1825. Accommodating over 8,000 books, it was always populated with leading thinkers of the day who met to talk and exchange ideas. Early presidents of the society included Robert Stephenson, innovator and engineering magnate William Armstrong, Joseph Swan, inventor of the electric light bulb, and Charles Parsons who invented the turbine steam engine.

In 1815 George Stephenson demonstrated a miner's lamp and in 1880 the society's lecture theatre was the first public room in the world to be lit by electric light. The occasion was one of Joseph Swan's many lectures at the Lit and Phil. More than a library, this was a forum for leading thinkers of the day, especially on scientific and industrial matters, rivalling the Royal Society in London.

In the imposing and inspiring Lit & Phil building, members and visitors enjoy the peaceful atmosphere and use the library to read the papers, meet friends, work and study. The vast collection grows by over 1,000 books each year and currently stands at around 170,000 plus 7,000 CDs, and over 10,000 LPs. The music is mainly classical and represents a significant collection that also includes scores, sheet music and reference works.

Mechanics Institutes

The first Institute was founded in Edinburgh in 1821, followed two years later by Glasgow due to the efforts of George Birkbeck, Professor of Natural Philosophy at Anderson University in Glasgow. A physician and pioneer of education, his great interest was the study of nature and the physical world - a forerunner of modern science. In experiments, Birkbeck began working with skilled craftsmen & tradesmen referred to as "mechanics" who installed, operated and maintained machinery, essential for the booming industrial age. Birkbeck found mechanics to be surprisingly inquisitive and was so impressed by their thirst for knowledge that he lobbied the University Trustees for the establishment of a "mechanics' class."

The result was a series of lectures for working men with the title: "Mechanical affectations of solid and fluid bodies." His first lecture attracted some 75 attendees. By the time he delivered his fourth lecture, about 500 men attended. In 1804 Birkbeck relocated to London and was succeeded by Dr Ure but in 1823 there was a falling out with the University authorities. The independent Glasgow Mechanics Institution was formed in the same year, the first in Britain.

Birkbeck continued to educate working men and received support from influential "radicals" of the day. The London Mechanics Institution opened in December 1823. Liverpool pipped it by six months. The first London meeting was held at the Crown and Anchor Tavern in the Strand, attracting over 2,000 people, but the concept was not universally popular with Birkbeck accused of "scattering the seeds of evil."

The small independent Manchester Mechanics' Institute was founded in 1824, the same year as Leeds that merged with the Literary Institute in 1842 to create The Leeds School of Art. The inaugural meeting in Manchester, held in the Bridgewater Arms on 7th April, included: banker

Sir Benjamin Heywood (Chairman); William Henry, pioneer scientist; mill owner Robert Hyde Gregg; Richard Roberts machine tool inventor; William Fairburn who worked with George and Robert Stephenson; and John Dalton, famed scientist, who became vice-president in 1840.

The aim was to teach artisans basic principles of science (mechanics and chemistry) through part-time study. The Mechanics Institute building is grade II listed and is best known as the birthplace of the TUC founded in 1868 and also the Co-operative Insurance Society and UMIST (University of Manchester Institute of Science & Technology).

The industrial revolution had given Britain a head start in world trade and the government saw scant reason for state involvement in industrial training and apprenticeships that were left to the efforts of trade bodies, enlightened employers and philanthropists. By 1850 there were 610 Mechanics Institutes in England and 12 in Wales, serving a total membership of over 600,000. The number of institutes continued to grow and so did total attendance.

An imaginative variation on the ethos and purpose was the Swindon Mechanics Institute that opened on 1st May 1855. This was at the initiative of railway engineer Daniel Gooch and GWR Work's Manager Minard Rea who set up the 'New Swindon Improvement Company' to fund the building and a covered market, built by the people of Swindon. Contrary to popular belief, it was for the education and social benefit of Swindon, and not the training of GWR workers.

The library, founded by ordinary workers, pre-dated England's first public library and the entire building served as a self-sustaining community centre. The Mechanics Institute was the basis for forming a campaign to form a sister organisation, the GWR Medical Fund, that financed a cottage hospital. The 'Mechanics' also filled an urgent need for a marketplace in the 'Railway Village', ensuring that workers could obtain a supply of fresh produce at reasonable prices. It provided a forum for worker grievances too. A social and educational ethos were intertwined which typified many Mechanics Institutes - centres for learning and social interaction.

Camden Working Men's College

The first College of its type was founded in 1854 at 31 Red Lion Square, Holborn, later moving to Great Ormond Street. An imposing new home was found at 44 Crowndale Road, King's Cross, in the Borough of Camden. This Grade II listed building, opened by the Prince of Wales on 16th July 1904, admitted its first students in 1905.

Known as the Camden Working's Men College, it was established by Christian Socialists to provide a liberal education for Victorian skilled artisans. The aim was to counter perceived failings in practice of the social theory of Associationism which was based on causal history and connectivity. The founding of the College was also partially a response to concerns about the revolutionary potential of the Chartist Movement.

Early supporters were closely associated with the Co-operative Movement and the emergent labour organisations. Founders included Frederick Denison Maurice, (the first principal) and Thomas Hughes (author of *Tom Brown's Schooldays*). Major promoters and supporters were Dante Gabriel Rossetti, John Ruskin, John Stuart Mill, Ford Madox Brown, Walter de la Mare and Octavia Hill.

In January 1860, Frederic Harrison gave a lecture at the College on '*The History of Industrial Progress in England from 1800 – 1860.*' The opening remarks claimed, "The last one hundred years have witnessed in Europe the greatest era of change which has ever occurred in history.' Harrison urged his students to look around. "Is there a sphere of society or a department of thought which does not wear broad traces of convulsion and change? Philosophy, science, religion, politics, art, every institution, every class of society, every form of life and thought, is visibly heaving with some irresistible force and struggling amidst uncertainty to a surer ground. In the midst of such a universal movement, can we ever forget that we are witnessing a real revolution in history."

Harrison noted the great inventions of Crompton, Arkwright, Watt and Stephenson, the vast increase in manufacturing production, the growth of transport and social problems of a rapidly increasing population, fuelling a massive shift to urban living. Of the first College students: 45% were handicraftsmen, 20% clerks and 11% shopkeepers and warehousemen, reflecting the need for a social and more liberal education for adults, starved of a rounded secondary education.

In the 1870s, the new college declined an offer to merge with the Working Women's College, founded by Elizabeth Malleon. Her intention was a co-educational college but this caused a furore. As a result, Frederick Denison Maurice and Frances Martin helped set up the College for Working Women in Fitzroy Street in 1874. This was later to be called The Frances Martin College

Workers' Educational Association

In 1902 Albert Mansbridge published the article, *Co-operation, Trade Unionism and University Extension*. He argued that he was concerned about the "lack of thinking power in the rank and file" of the labour movement. Mansbridge insisted that higher education for future working-class leaders would result in "right and sound action" in public affairs. At that time most trade unions were debarred by their own rules from spending money on education.

Mansbridge decided to form the Association to Promote the Higher Education of Working Men. The group was joined by trade unionists and by those in the co-operative movement. The inaugural conference was held in Oxford on 22nd August 1903, part funded by 2/6p from the housekeeping budget of Albert and his wife Frances, both 26 years old. In 1905 the name was changed to the 'Workers Educational Association' to reflect female and male membership.

A 'self-starter,' and largely self-educated, Mansbridge became an Anglican lay reader and was a copyist in the Board of Education, before becoming a clerk with the Co-operative Wholesale Society in Whitechapel in 1896. He attended evening lectures at the Battersea Polytechnic and university extension classes at King's College, London. By 1905 the WEA had a thousand members, a hundred affiliated bodies and eight Branches.

He taught evening classes in industrial history and economics but became distressed that the university extension system, created in 1873, appealed almost exclusively to upper and middle classes. The WEA was his antidote to discrimination. The WEA was quickly recognised by most British universities, and in 1905 Mansbridge abandoned clerical work to become its full-time

general secretary. Under his guidance the WEA created a tutorial system and scholarly library (National Central Library) for working people unaffiliated with an academic institution.

WEA branches were established in Australia, New Zealand and Canada and, after recovering from spinal meningitis, he set up other adult-education groups: the World Association for Adult Education (1918), the Seafarers' Educational Service (1919), and the British Institute of Adult Education (1921). He delivered the Lowell Lectures in Boston in 1922 and the Earle Lectures for the Pacific School of Religion (in cooperation with the University of California) in 1926. His books include *An Adventure in Working-Class Education* (1920), *The Making of an Educationist* (1929), *Brick upon Brick* (1934), and autobiography, *The Trodden Road* (1940). A selection of his essays and addresses appeared in 1944 as *The Kingdom of the Mind*.

Historian, Bernard Jennings, pointed out: "He demonstrated for the first time what became a remarkable ability to select the arguments best calculated to sway his readers or hearers. He coupled a warning about the social dangers of ignorance in trade unions and other worker organizations with a declaration of the infallibility of the truly educated mind which university men found convincing. He showed also the quality which turns ideas into movements."

The autonomy of branches was reflected in the wide variety of activities which they promoted. This included lectures and classes in the arts and social sciences, reading groups and nature-study rambles. The Conservative Party government, under Arthur Balfour, gave its full support to the WEA. So did Winston Churchill who wrote, "it ought to be perfectly possible in this country for a man of high, if not necessarily and extraordinary, intellectual capacity to obtain with industry and perseverance the best education in the world, irrespective of his standing in life."

At a conference organized by the WEA, held in Oxford on 10th August 1907, it became clear that delegates present had different opinions about the direction of the WEA. Robert Morant, permanent secretary to the Board of Education, argued it would be possible to obtain financial support if the type of education provided was acceptable to the government: "In particular we believe that it is to small classes and solid earnest work that we can give increasingly of the golden stream."

However, John Mactavish, a Portsmouth shipwright and a Labour Party activist, took a more militant view. He wanted a socialist rather than a liberal education. "I claim for my class all the best that Oxford has to give. I claim it as a right, wrongfully withheld." Mactavish believed the WEA should train "missionaries - for the great task of lifting their class" with more relevant and practical interpretations of history and economics. "You cannot expect the people to enthuse over a science which promises no more than a life of precarious toil."

Philip Snowden, Labour MP for Blackburn, agreed. "I would rather have better education given to the masses of the working classes than the best for a few. O God, make no more saints; elevate the race." A WEA report published the next year made a similar point: "In obtaining a university education... it must not be necessary for working people to leave the class in which they were born... What they desire is not that men should escape from their class, but that they should remain in it and raise its whole level."

Helped by Charles Gore, the bishop of Worcester, Albert Mansbridge formed an alliance with a group of young academics from the University of Oxford, including Richard H. Tawney, William Temple and Alfred Eckhard Zimmern, who wanted to reform their university to make it more open to working-class men. In August 1907 a committee of fourteen men, half nominated by the university and half by the WEA, was appointed with the remit to devise a new strategy for workers' education. The report, published in November 1908, was ratified by the university and WEA. It was decided that tutorial classes over a period of three years (seventy-two meetings), with not more than thirty students, were to be provided at a low fee. It was hoped promising worker-students would proceed from the classes to full-time study at the university.

The next step was to arouse local interest. Rochdale, home of the Co-operative Movement, was the first to respond. Mansbridge told them that if they would pledge to systematic study he would find them 'the best tutor in England'. Almost immediately Longton in the Potteries made a similar demand, and under the sponsorship of Oxford, Mansbridge produced the by now famous Richard H. Tawney.

Tawney's message was clear: "Here we find representatives of the more predictable groups, such as teachers, clerks and librarians, rubbing shoulders with an odd assortment of artisans and tradesmen, which included a gardener, a plumber, a potter's thrower, a basket maker, a miner, a mechanic, a baker, a grocer and a clothier; all with an average age of 30."

Comments historian W. H. Hosford, "Each Friday morning, during the winter of 1907, Tawney travelled from Glasgow, where he taught at the University, to Longton for his evening class. Next day he left for Rochdale, where forty members of the WEA gave up Saturday afternoons to study." The following year Tawney and Zimmern compiled 'Oxford and the Working Class Movement.' Published by Oxford University it recorded the occupations of students.

"These first tutorial classes have become a legend in the history of education, although R. H. Tawney used to say that too much fuss had been made of them, and that no one could have failed with the kind of students who crowded into them. He acknowledged his debt to those students in the preface to *The Agrarian Problem in the Sixteenth Century*, when he wrote, 'The friendly smittings of weavers, potters, miners and engineers have taught me much about the problems of political and economic science, which cannot easily be read from books.'"

W. H. Hosford worked closely with Mansbridge. "Tall, good-looking, full of vitality, the West Country burr in his voice was undoubtedly an asset. His personality was remarkable; it seemed to fill the office and his entry was like a battery being recharged. The effect he had on people was indeed striking. I have seen visitors leave his room with heads up, eyes shining, stepping as if they were walking on air... it was a phenomenon that had to be seen to be believed"

"His energy was amazing; he was constantly dashing about the country, starting new centres, converting the doubters, inspiring the faithful, stimulating the beginning-to-get-tireds into fresh activities. Mrs Mansbridge always kept his bag packed with duplicate night things, shaving kit and the like, so he had only to grab his case and rush off, knowing that everything needed would be there. All this expenditure of energy seemed to spring from an inner compulsion that would not let him rest."

Hosford comments further, "Mansbridge relied to a great extent on his personality to achieve his results and where personal contacts were possible he was nearly always successful. He was a very good speaker; considerable natural eloquence, charged with passionate and obvious sincerity. Other qualities that impressed me were his kindness, his cheerfulness and self-confidence. There must have been many times when the financial position of the Association gave rise to considerable anxiety, but his worries were never noticeable to ordinary members of the staff, and I have never known anyone who had fewer hesitations or doubts about matters of policy - his policy was the right one, and it was achieving results."

Bernard Jennings claims that Mansbridge continued to argue for radical educational policies. "He demanded (better) secondary education for all, with maintenance allowances for needy families; a school-leaving age of sixteen; access to universities for all who could benefit; a national system of creches; and paid holidays for all workers, so that they would be refreshed to enjoy opportunities for learning. To most people who met him, Mansbridge's educational radicalism and burning zeal gave the lie to the accusation that his purpose was to draw the teeth of the workers and preserve the existing structure of class privilege."

The WEA continued to grow at a fast pace. By 1914 there were 145 tutorial classes, with 3,234 students. It also had 179 branches, over 2,500 affiliated societies and nearly 11,500 individual members. Mansbridge was disappointed that the WEA wasn't always popular with the labour movement. The trade unions amounted for 953 affiliations in 1914, but that was only a small proportion of the possible number. The 388 Co-operative affiliations represented a far larger number of people. The third main element consisted of religious groups attached to churches and chapels.

Finally, we take a glimpse into the founding meeting of the Bradford Branch of the Workers' Educational Association (WEA) held in 1909 at the Church Institute. Isaac Holmes became first Secretary of the Bradford Branch of the WEA (1909-13) and also Chairman of the Bradford Co-operative Society's Education Committee (1913-14). A pamphlet entitled *From Hand Industry to Factory System*, written for the Oxford University Delegacy Examination 1913, is now held by Bradford Central Library. With this he won the Michael Sadler Scholarship in Economics and so was able to attend the Extension Summer Meeting held in Oxford.

The Bradford Branch developed a series of classes; in 1909 -10 on Industrial History, 1910-11 Economics, and 1911-12 History of Political Institutions, all with W.H. Pringle, MA, as tutor. In 1912-13 Arthur Greenwood, a very influential figure in West Yorkshire Adult Education, taught a class in Social History. So ends a remarkable opening chapter in the life of the WEA.

As War loomed in 1914, the progress made in vocational and social education was immense through the combined efforts of liberal thinkers, industrial pioneers and innovators. We can thank those such as Birkbeck, Mansbridge and Tawney, dedicated to adult learning in a social setting, and Mary Carpenter for helping to give disadvantaged children a trade skill.

References

Cockbill, T. (1988), *Finest Thing Out*. Swindon: Quill Press.

Cowman, C (2014) *Apprenticeships in Britain c.1890 – 1920*.

(an overview based on contemporary evidence by Professor Krista Cowman, Professor of History and Director of Research, University of Lincoln) – reproduced as a pdf Nov 2014).

J F C Harrison (1954) *A History of The Working Men's College (1854 – 1954)*. London: Routledge, Keegan Paul.

Manton, J (1976) *Mary Carpenter and the Children of the Streets*, London: Heinemann Educational.

Mahood, Linda (1995) *Policing Gender, Class and Family Britain 1850 – 1940*, Edmonton: University of Alberta Press.

Parish, C (1987, *The Literary and Philosophical Society of Newcastle Upon Tyne: The building and development of its Library 1793-1986* (privately published).

Prahms, Wendy, 2006, *Newcastle Ragged and Industrial School*: Stroud: The History Press.

Roberts, S, A (2003) *Ministry of Enthusiasm: Centenary Essays on the Workers' Educational Association*. London: Pluto Press.

Snowden, H M, (1987) *Founders of the Workers' Educational Association in Bradford*.

(vol 3, pp. 21-26, third series of *The Bradford Antiquary*, the journal of the Bradford Historical and Antiquarian Society.)

Wikipedia: Mechanics Institutes and numerous other web references.